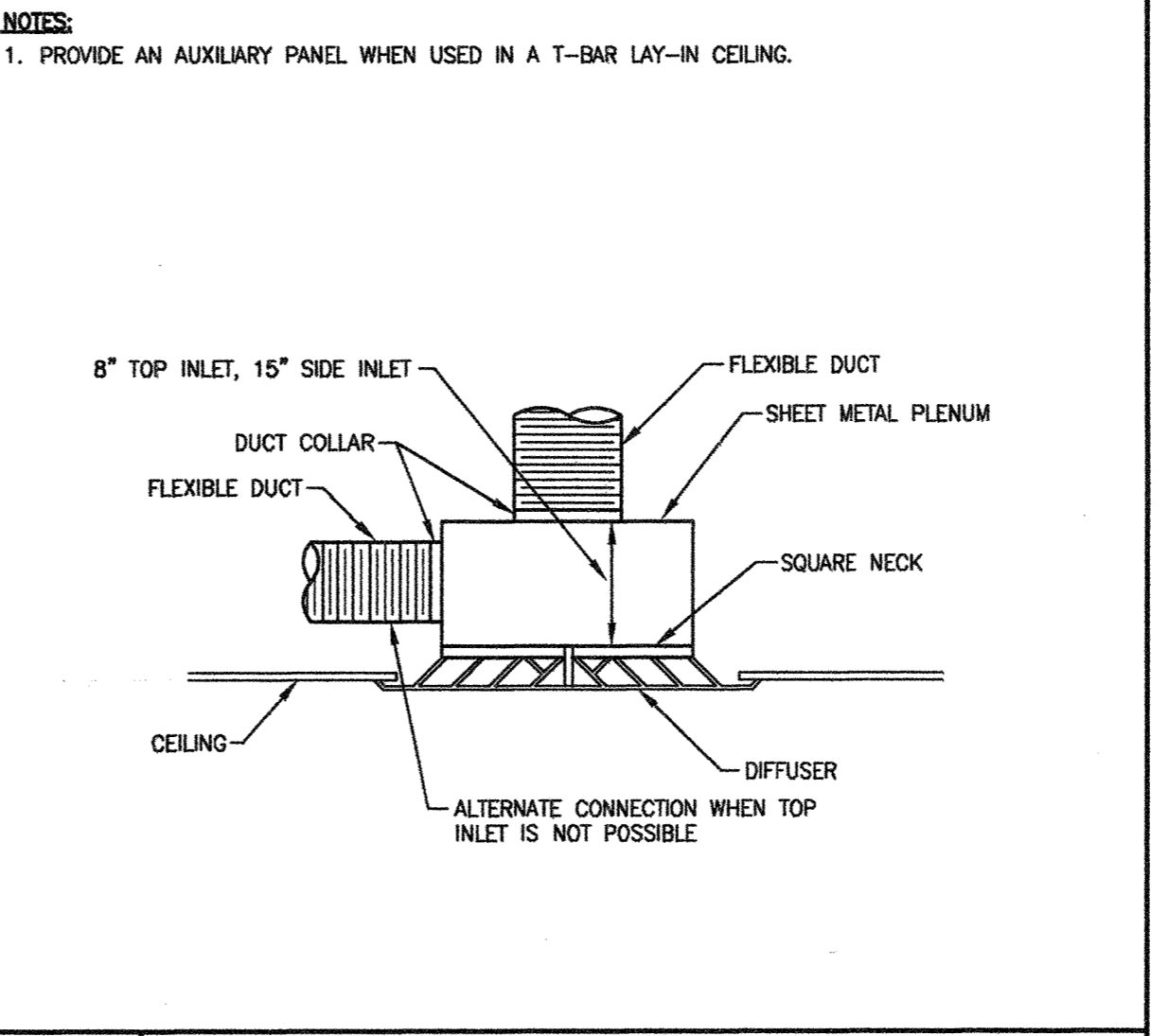
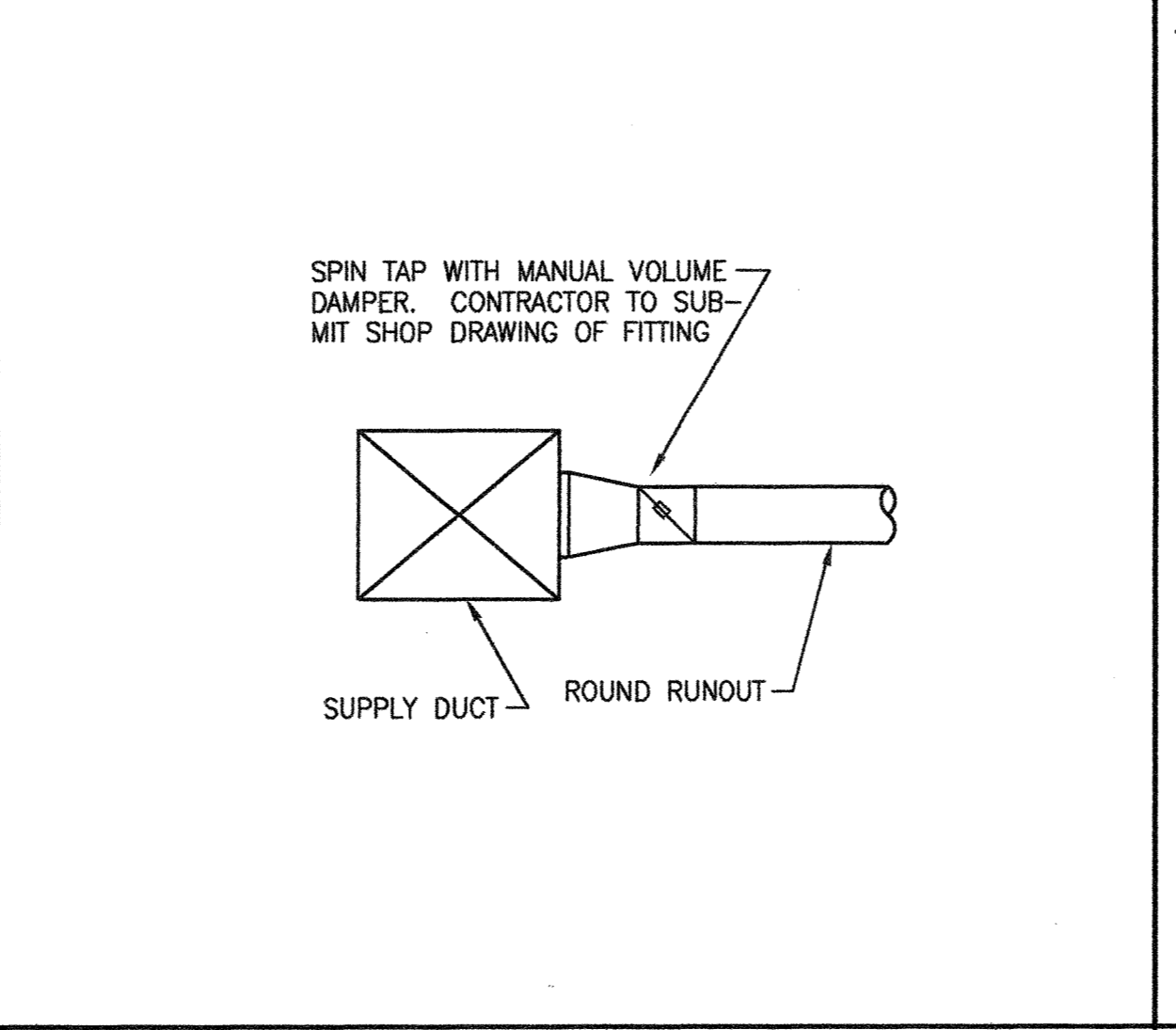
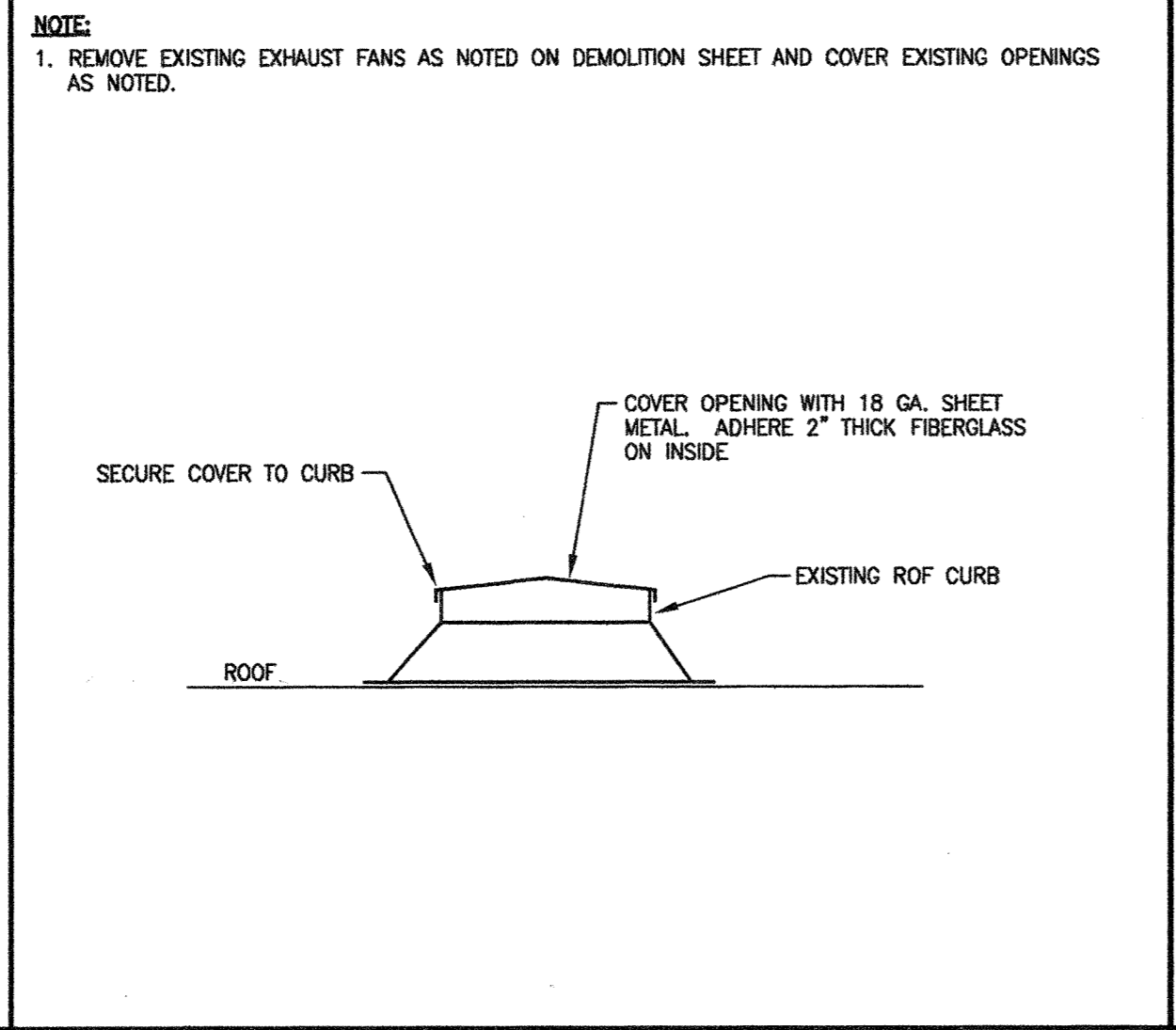
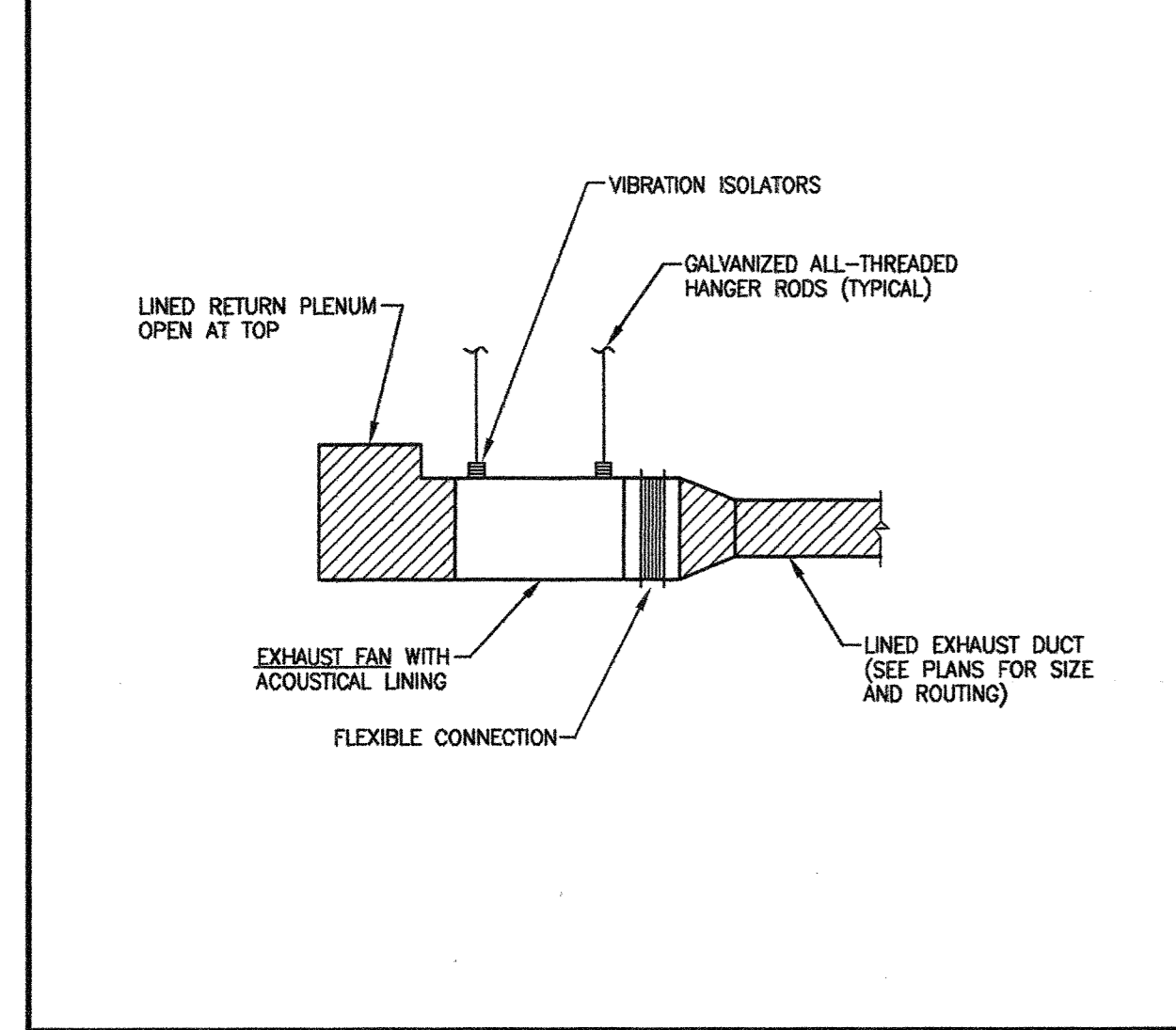


1 SUPPLY FAN w/ ELECTRIC DUCT COIL
M-3 NO SCALE

2 DUCTWORK HANGER DETAILS
M-3 NO SCALE

3 FLEXIBLE CONNECTION DETAIL
M-3 NO SCALE

4 EXHAUST FAN DETAIL
M-3 NO SCALE

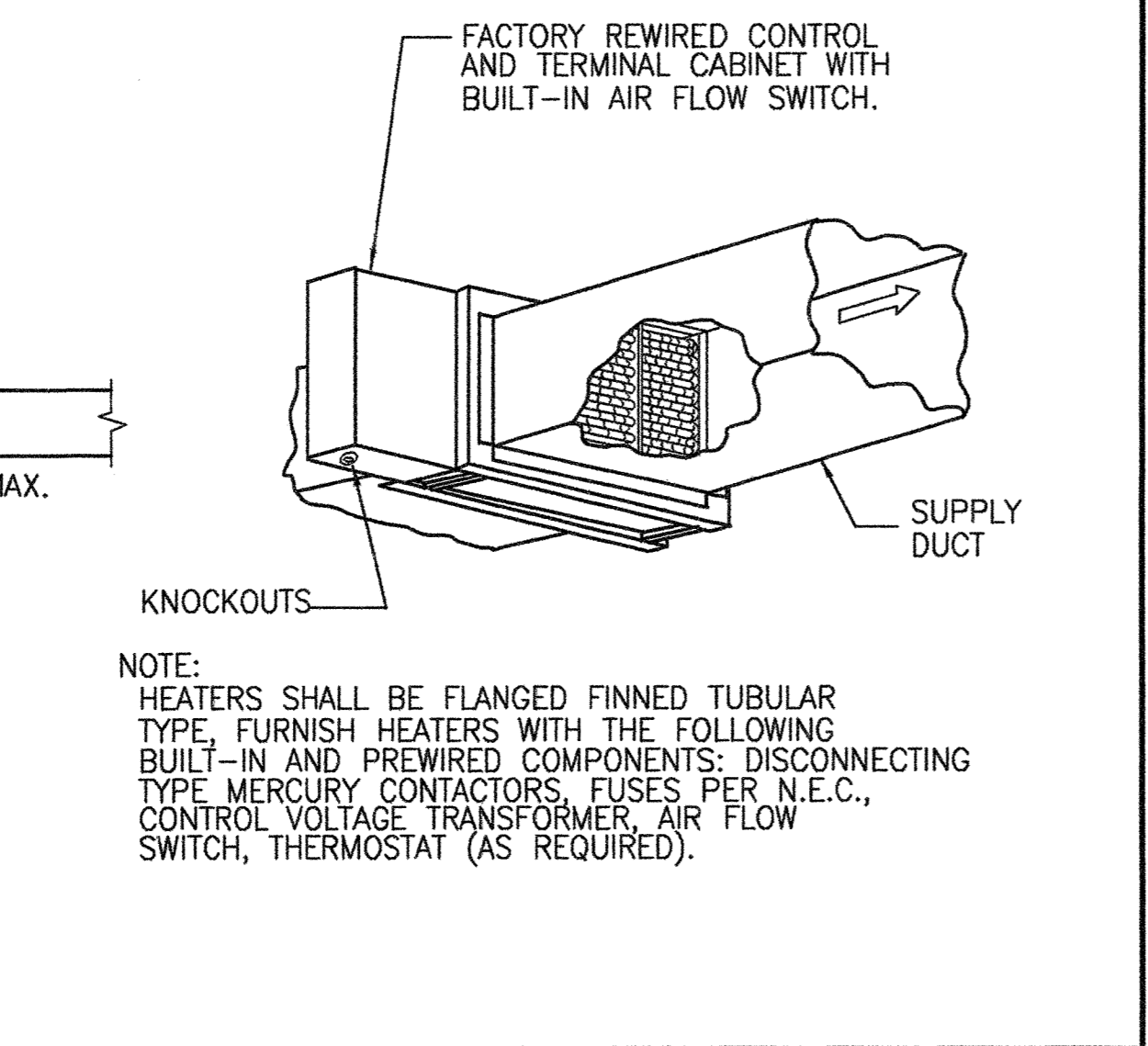
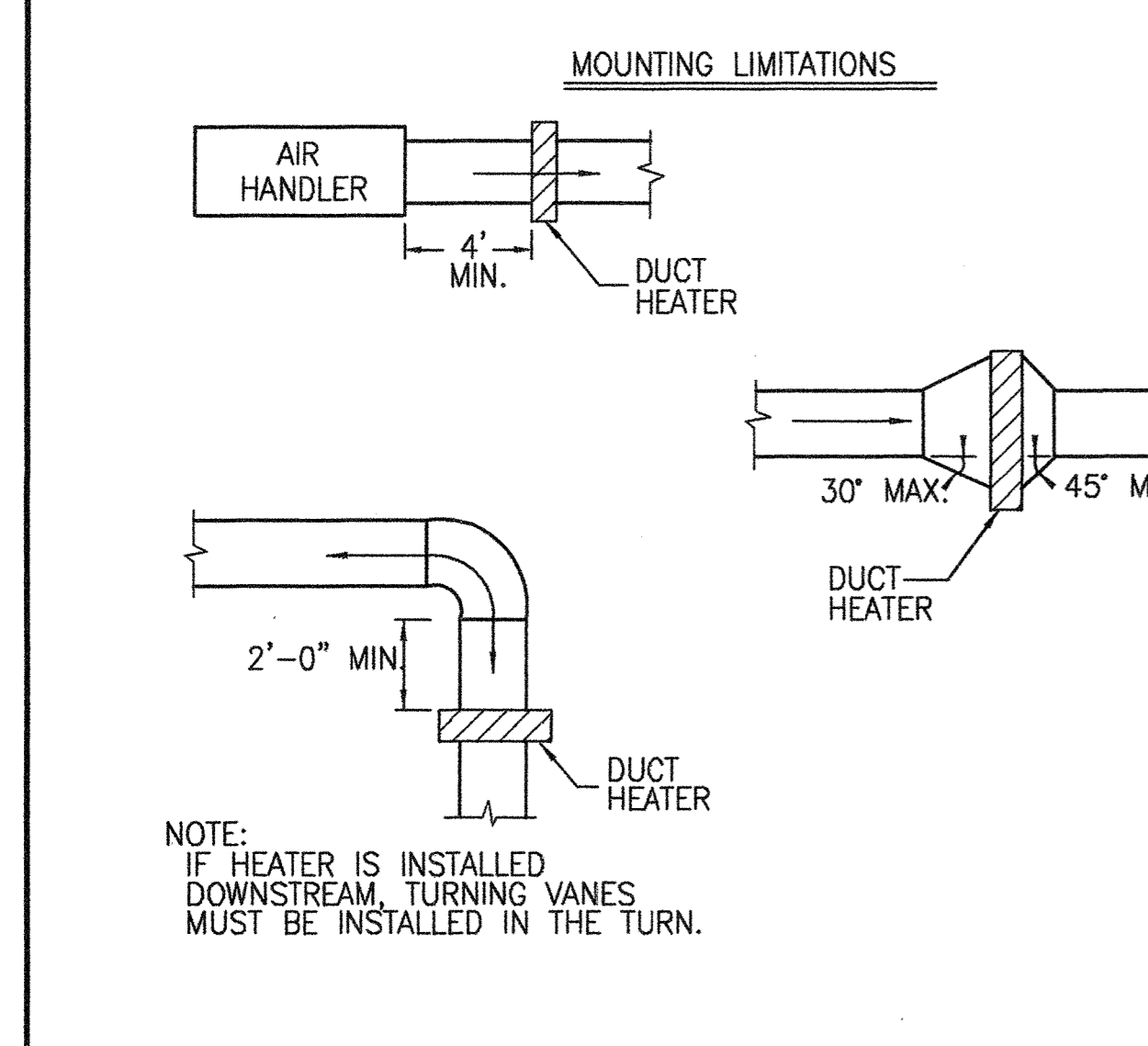


5 INLINE EXHAUST FAN DETAIL
M-3 NO SCALE

6 CURB COVER DETAIL
M-3 NO SCALE

7 SPIN TAP
M-3 NO SCALE

8 DIRECTIONAL DIFFUSER
M-3 NO SCALE



9 ELECTRIC DUCT HEATER DETAIL
M-3 NO SCALE

- ### MECHANICAL GENERAL NOTES
- DO NOT SCALE DRAWINGS. SEE ARCHITECTURAL DRAWINGS AND REFLECTED CEILING PLANS FOR EXACT LOCATION OF DOORS, WINDOWS, CEILING CONFIGURATION, etc.
 - ALL DUCTWORK SHALL BE SUPPORTED WITH AT LEAST ONE HANGER PER SECTION OF DUCT.
 - ALL RECTANGULAR AND ROUND DUCTWORK SHALL BE GALVANIZED SHEET METAL CONSTRUCTED IN ACCORDANCE WITH SMACNA STANDARDS. ALL SQUARE ELBOWS SHALL HAVE DOUBLE THICKNESS TURNING VANES.
 - MECHANICAL CONTRACTOR SHALL BALANCE SYSTEM TO CFM'S INDICATED ON PLANS AND PROVIDE ARCHITECT WITH COMPLETE BALANCE REPORT.
 - NEW FLEXIBLE DUCT SHALL BE INSULATED THERMAFLEX M-KE OR APPROVED EQUAL. MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL BE 8'-0" FLEXIBLE DUCT RUNOUTS TO DIFFUSERS SHALL BE ADEQUATELY SUPPORTED AND INSTALLED FREE OF KINKS AND SAGS. HANG WITH STRAPS EVERY 3 FEET.
 - LOCATE ALL THERMOSTATS AND SWITCHES 5'-4" ABOVE FINISHED FLOOR IN NON SALES AREA.
 - ALL CUTTING, PATCHING OF SLAB, ROOF OR OTHER BUILDING COMPONENTS TO BE BY THE GENERAL CONTRACTOR.
 - THERMOSTATS SHALL HAVE OPAQUE PLASTIC LOCKING GUARDS FURNISHED BY THERMOSTAT MANUFACTURER AS STANDARD ACCESSORY SIMILAR TO WHITE-RODGERS PLASTIC THERMOSTAT GUARDS.
 - PROVIDE A TRANSITION PIECE AT FAN BOXES AND VAV BOXES WHEN RUNOUT TO BOX IS NOT INLET SIZE OF BOX. PROVIDE A MINIMUM OF 2'-0" STRAIGHT DUCT (NO ELBOWS) WHEN CONNECTING FLEXIBLE DUCT TO BOXES.
 - ANY ITEM SHOWN ON DEMOLITION PLANS, DUCTWORK, FANS, ETC., SHALL BE REMOVED COMPLETELY FROM JOB SITE AND DISPOSED OF IN ACCORDANCE WITH LOCAL AND STATE CODES.
 - MECHANICAL CONTRACTOR SHALL CHANGE FILTERS ON ALL ROOFTOP UNITS SERVING CONSTRUCTION AREAS MONTHLY. BEFORE STORE OPENING INSTALL NEW FILTERS AND PROVIDE ONE EXTRA SET TO STORE.
 - SEA WITH SHEET METAL AND DUCTSEALER ANY OPENINGS IN MAIN DUCT RESULTING FROM THE REMOVAL OF DUCTWORK OR DIFFUSERS.
 - CONTRACTOR SHALL INSPECT EXISTING DUCTWORK AND COORDINATE RUNNING OF ALL NEW DUCTS WITH EXISTING CONDITIONS, NEW AND EXISTING SPRINKLER LINES, STRUCTURE AND CEILING.
 - ALL FLEXIBLE DUCT CONNECTIONS TO SHEET METAL SHALL BE SECURED WITH NYLON STRAP AND TWO SHEET METAL SCREWS (MIN.).
 - ALL DUCTWORK, CONTROLS, DAMPERS, DUCT HEATERS, ETC., IN PLENUM REQUIRING SERVICE SHALL BE LOCATED WITHIN 2'-0" ABOVE CEILING.
 - ROOF CURBS SHALL HAVE BASE THAT FITS SLOPE OF ROOF AS REQUIRED. TOP OF CURB SHALL BE LEVEL. SEE STRUCTURAL PLANS FOR SLOPE INFORMATION. NO SHIMMING WILL BE ALLOWED.
 - ALL RECTANGULAR DUCTWORK, SUPPLY AND RETURN SHALL BE INSULATED WITH 1-1/2" THICK INSULATION WITH VAPOR BARRIER. ALL ROUND DUCT SHALL BE WRAPPED WITH 1-1/2" THICK FIBERGLASS INSULATION WITH VAPOR BARRIER.
 - THE TOPS OF ALL SUPPLY AND RETURN AIR DISTRIBUTION ON A DUCTED RETURN SYSTEM SHALL BE INSULATED WITH 1-1/2" THICK BATT INSULATION WITH VAPOR BARRIER.
 - ALL DUCTWORK AND PIPING SHALL BE HUNG FROM THE STRUCTURAL STEEL, DUCT OR PIPE HUNG FROM BAR JOIST SHALL BE HUNG AT PANEL POINTS AND WITH THRU BOLTS OR BEAM CLAMPS. NO SIDE CLAMPS. NO JOIST ANGLES ALLOWED. NO WORK SHALL BE HUNG FROM BRIDGING BETWEEN JOIST.

- ### CONROL NOTES
- THE MECHANICAL CONTRACTOR SHALL PROVIDE NEW ELECTRIC/ELECTRONIC CONTROLS FOR ALL NEW AND EXISTING EQUIPMENT INCLUDING THE FOLLOWING:
- EXISTING ROOFTOP UNITS:
 - PROVIDE A HEATING/COOLING THERMOSTAT WITH AUTO CHANGEOVER IN RETURN AIR, ADJACENT TO FILTER RACK AND BRACKETED TO FILTER RACK. NOTE: SPACE SENSORS SHOWN ON PLAN WILL BE INSTALLED BY BELK FOR LATER CONTROL OF UNITS BY BELK ENERGY MANAGEMENT DEPARTMENT.
 - INSTALL A SMOKE DETECTOR IN RETURN DUCT. WIRE DETECTOR TO SHUT DOWN ROOFTOP UNIT AS REQUIRED. DETECTOR TO HAVE 2 SETS OF AUXILIARY CONTACTS TO ALLOW THE FIRE ALARM AND/OR EMS TO MONITOR SMOKE DETECTOR. DETECTOR SHALL AUTO RESET WHEN POWER TO ROOFTOP UNIT IS SHUT DOWN.
 - CONTRACTOR TO REMOVE EXISTING SPACE THERMOSTATS.
 - REHEAT COILS:
 - PROVIDE HEATING COIL WITH A U.L. CONTROL PANEL, MERCURY CONTACTORS AND 24 VOLT CONTROL TRANSFORMER. INSTALL A 24 VOLT THERMOSTAT ON WALL WITH A PLASTIC OPAQUE LOCKING COVER.
 - ELECTRICAL ROOM/SWITCHGEAR ROOM:
 - PROVIDE LINE VOLTAGE THERMOSTAT ON WALL FOR EXHAUST FAN CONTROL.
 - SMALL CONFERENCE ROOM TO BE CONTROLLED BY A WALL SWITCH WITH ENGRAVED NAME PLATE.
 - ENTRANCE HEAT AND VENTILATION UNIT TO BE CONTROLLED BY A HEATING/COOLING THERMOSTAT WITH REMOTE WALL SENSOR. SEE PLANS.

PACKAGE ROOFTOP/HEAT PUMP/AIR CONDITIONING UNIT TEST REPORT

PROJECT _____ SYSTEM/UNIT _____
LOCATION _____

UNIT DATA			MOTOR DATA		
Make/Model Number			Make/Frame		
Type/Size			H.P./RPM		
Serial Number			Volts/Phase/Hz		
Type Filters/Size			F.L. Amps/S.F.		
Fan Sheave make			Make Sheave		
Fan Sheave Diam./Bore			Sheave Diam./Bore		
No. Belts/make/size			Sheave & Distance		
Type Heating Section*					

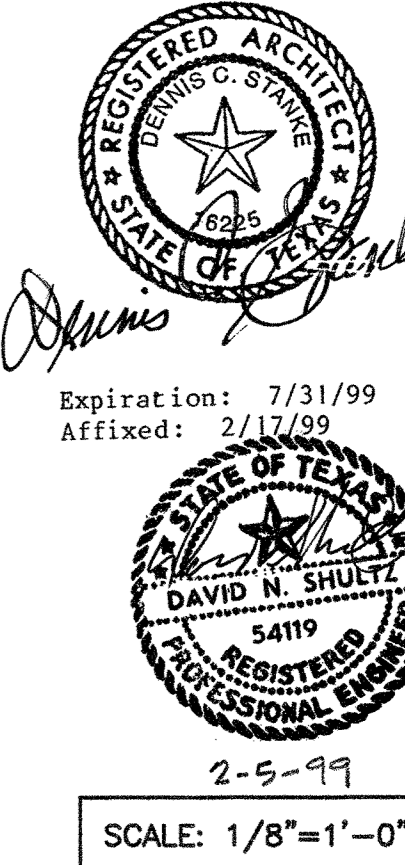
TEST DATA	DESIGN	ACTUAL	TEST DATA	DESIGN	ACTUAL
Total CFM			Refrigerant/Lbs		
Total S.P.			Compr. Mfr./No.		
Discharge S.P.			Compr. Model/Ser. No.		
Suction S.P.			Low Amb. Control		
Out. Air CFM			Suction Press./Temp.		
Out. Air DB/WB			Cond. Press./Temp.		
Rel. Air CFM			Crankcase Hbr. Amps.		
Ext. Air DB/WB			Compr. Volts $\frac{V}{\phi}$		
Lvg. Air DB/WB			L.P./H.P. Cutout Setting		
Fan RPM			No. of fans/fan RPM		
Voltage $\frac{V}{\phi}$			Cond. Fan HP/CFM		
Amperage T_1, T_2, T_3			Cond. Fan Volts/amps/e		

*Provide entering/leaving Temperature thru Heater.

Mechanical contractor shall survey existing Rooftop Units and provide a complete start-up report, (see above Form), with Manufacturer's recommended figures and actual figures of Amperes, Voltage, Head pressure, etc. To Belt Architect a maximum of 60 days after contract has been signed, provide a copy in Balance Report.

REMARKS: _____

TEST DATE _____ READINGS BY _____



Expiration: 7/31/99
Affixed: 2/17/99

NO.	DATE	BY	REVISION
1	1-4-99		
2			
3			
4			