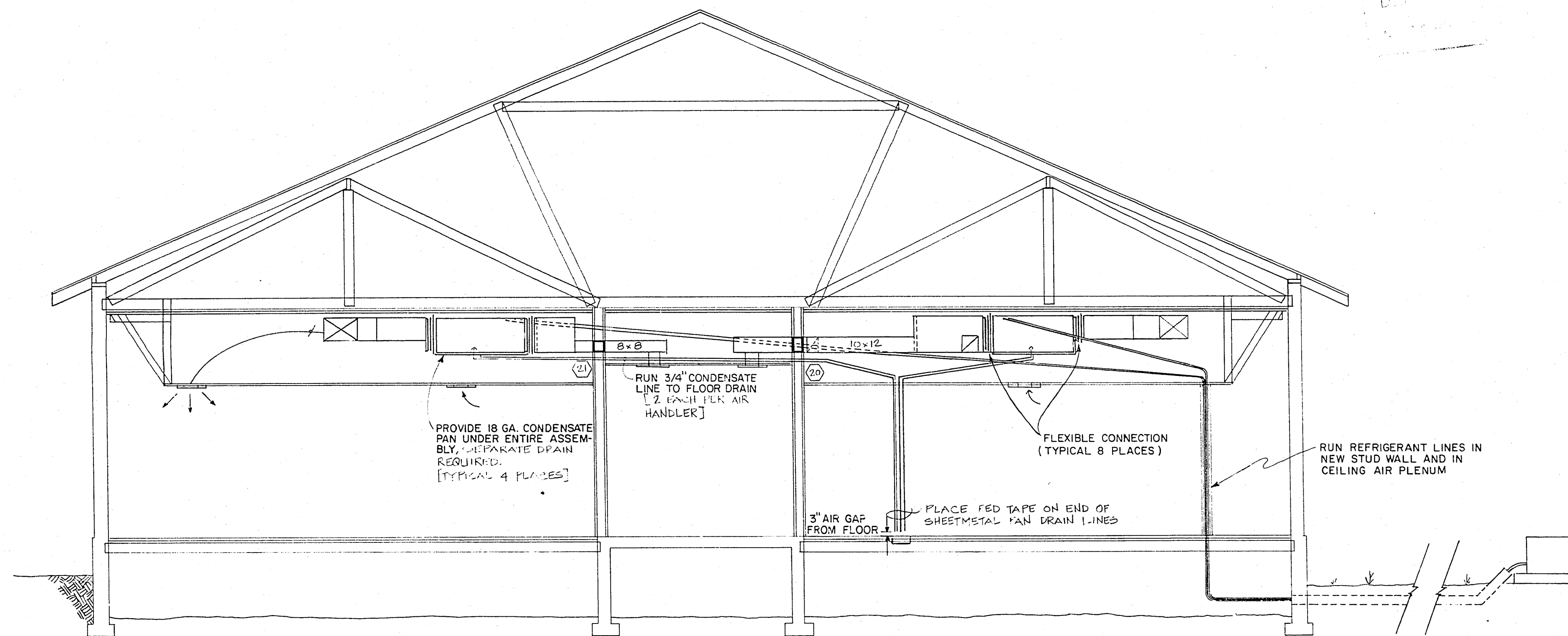
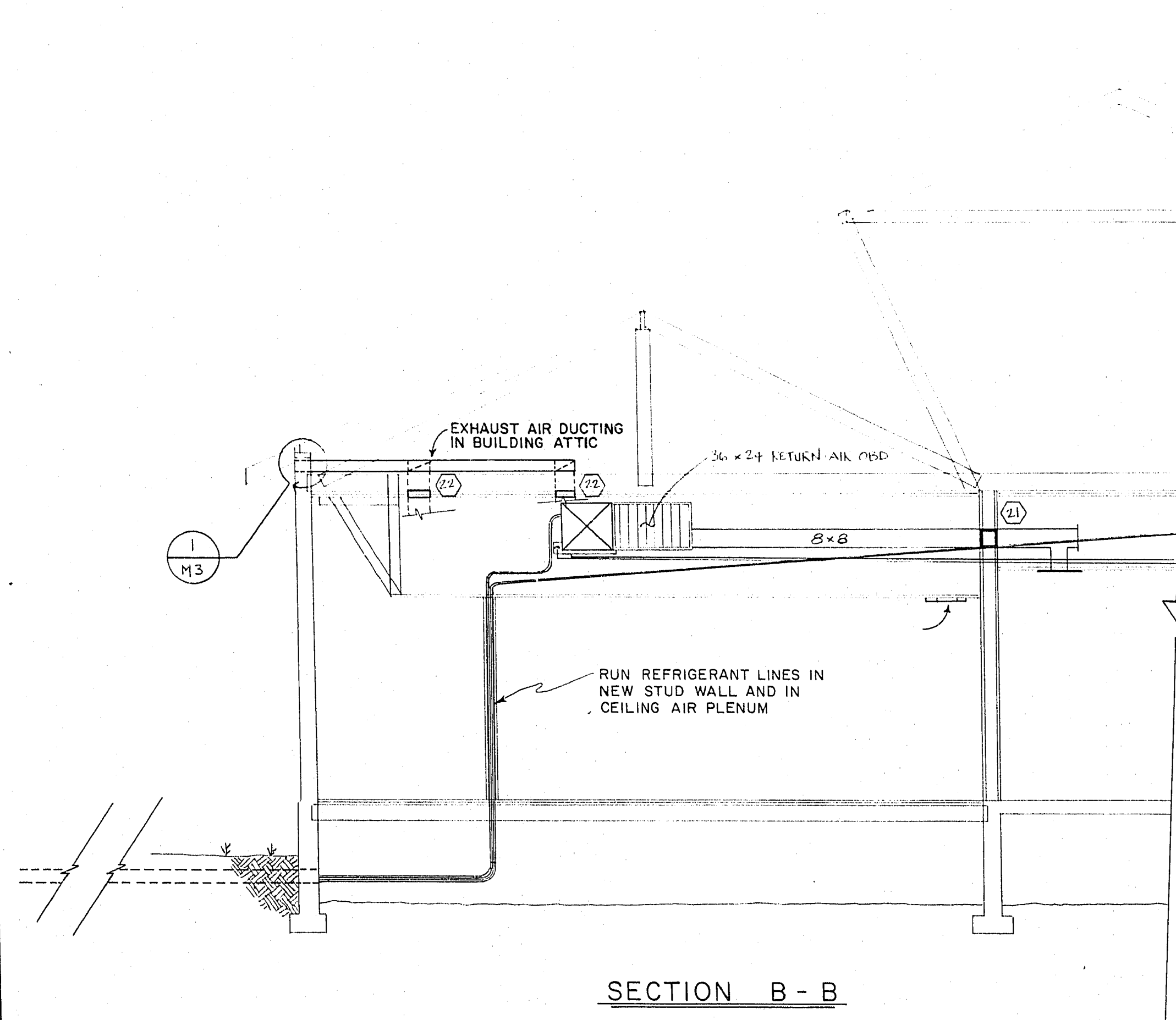




SECTION A-A



SECTION B-B

GENERAL NOTES

1. All Ductwork shall be fabricated and installed per "SMACNA" low velocity duct construction manual. All duct sizes shown are net clear inside dimensions.
2. Ductwork to be fabricated from galvanized sheet metal. Install Certain-teed Ultraliner 1-inch-thick liner in all ductwork except exhaust air ducting.
3. Field verify dimensions of all purchased equipment prior to fabrication of mating parts.
4. Flash and seal around ductwork at all wall and ceiling penetrations.
5. All ductwork to be supported by structural members. Minimize cutting of structural members. Notify Field Engineer for structural check prior to cutting of structural members.
6. Balance all air flows to values shown. Provide two (2) copies of air balance report for approval before final inspection.
7. Flexible duct connections shall be fabricated from "Ventfab" as manufactured by Vent Fabrics, Inc., Chicago, ILL., or approved equal.
8. Install double thickness turning vanes in all rectangular elbows. If curved elbows are used, they shall have a centerline radius equal to 1-1/2 times the width of the duct.
9. Volume control dampers shall be of 16 gauge galvanized metal sized to the round duct dimension as manufactured by Air Balance, Inc., Model MDR or approved equal.
10. Color of diffusers, registers, grilles and louvers to match adjoining panels. Color to be approved by Owner before painting.

NOTE: CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING GAS FURNACES

ITEM NO	QUANTITY	DESCRIPTION	VENDOR OR APPROVED EQUAL
①	2	SPLIT-SYSTEM HEAT PUMP UNIT INDOOR UNIT (HORIZONTAL INSTALLATION): 60,000 BTUH (NOMINAL) COOLING CAPACITY, 2000 CFM (NOMINAL) AT 1.4" ESP, CHECK-FLO-RATER METERING DEVICE, R-22 REFRIGERANT, 3/8" LIQUID TUBE CONNECTION, 3/4" VAPOR TUBE CONNECTION, 3/4" NPT CONDENSATE DRAIN CONNECTIONS 15 KW SUPPLEMENTAL HEATER, 208 VOLT, 1PH. OUTDOOR SECTION: 7.0 EER COOLING EFFICIENCY, 2.6 COP HEATING EFFICIENCY AT 47°F, HERMETICALLY SEALED COMPRESSOR, SUCTION-TUBE ACCUMULATOR, LOW-PRESSURE SWITCH, CRANK-CASE HEATER, AND RELIEF VALVE FOR HIGH-PRESSURE PROTECTION, TOTALLY ENCLOSED FAN COIL MOTOR, EXTERNAL SERVICE VALVES, HEAT-SAVING REVERSING VALVE, TIME/TEMPERATURE DEFROST CONTROL, 208 VOLT, 3 PH. UNIT FURNISHED WITH MANUAL CHANGEOVER ROOM THERMOSTAT, OUTDOOR THERMOSTAT, AND REFRIGERANT LINE: 2/8" O.D. LIQUID LINE, 1-5/8" O.D. VAPOR LINE WITH 1/2" THICK INSULATION WITH R-VALUE OF 2.0, 2-WAY FILTER-DRIER/LIQUID TUBE, AND MOUNTING BRACE.	DAY AND NIGHT E45A060 E19A000 MOC 520B000 BP P/N 301499-422 34427 DP 118 301550-703 301559-701 301592-702
②	2	SPLIT-SYSTEM HEAT PUMP UNIT, EQUAL TO ITEM 1 EXCEPT 1/2" O.D. LIQUID LINE, 1-5/8" O.D. VAPOR LINE	DAY AND NIGHT SAME AS ABOVE
③	16	12 x 12, 4 WAY PERFORATED CEILING DIFFUSER WITH OPPOSED BLADE DAMPER, STEEL CONSTRUCTION FOR TEE BAR CEILING INSTALLATION	ENVIRONMENTAL AIR PRODUCT MODEL 104 WITH OBD
④	10	EQUAL TO ITEM 3 EXCEPT 10 x 10	E.A.P. MODEL 104 WITH OBD
⑤	4	20 x 20 PERFORATED RETURN AIR GRILLE WITH OPPOSED BLADE DAMPER, STEEL CONSTRUCTION FOR TEE BAR CEILING INSTALLATION	E.A.P. MODEL 190 WITH OBD
⑥	2	EQUAL TO ITEM ⑤ EXCEPT 16 x 16	E.A.P. MODEL 190 WITH OBD
⑦	2	EQUAL TO ITEM ⑤ EXCEPT 12 x 12	E.A.P. MODEL 190 WITH OBD
⑧	7	EQUAL TO ITEM ⑤ EXCEPT 10 x 10	E.A.P. MODEL 190 WITH OBD
⑨	2	EQUAL TO ITEM ⑤ EXCEPT 12 x 12	E.A.P. MODEL 190 WITH OBD
⑩	1	10 x 6 DOUBLE DEFLECTION SUPPLY REGISTER WITH OPPOSED BLADE DAMPER, EXTENDED ALUMINUM CONSTRUCTION WITH LACQUERED FINISH	E.A.P. DDV-08
⑪	1	EQUAL TO ITEM ⑩ EXCEPT 8 x 6	E.A.P. DDV-08
⑫	1	12 x 12, 3 WAY PERFORATED CEILING DIFFUSER WITH OPPOSED BLADE DAMPER, STEEL CONSTRUCTION FOR TEE BAR CEILING INSTALLATION	E.A.P. MODEL 103 WITH OBD
⑬	2	8 x 8 4 WAY CEILING DIFFUSER WITH ADJUSTABLE CURVED BLADES AND OPPOSED BLADE DAMPER, ALUMINUM CONSTRUCTION WITH LACQUERED FINISH	E.A.P. MODEL CB-4 WITH OBD
⑭	1	SIDEWALL DIRECT DRIVE PROPELLER FAN, IN ATTIC 1/6 HP, 115 VOLT, 2,919 CFM @ 1/8" S.P.	GREENHECK SDP-24-3-10
⑮	1	LINE VOLTAGE THERMOSTAT, 70° TO 140° RANGE, SET POINT 110°F, MOUNT ON SOUTH WALL IN ATTIC.	HONEYWELL T631
⑯	2	CEILING EXHAUST FAN, 155 CFM AT 1/8" S.P., PHOSPHATIZED STEEL CONSTRUCTION WITH BAKED ENAMEL FINISH, INTERIOR HOUSING LINED WITH 1/2" THICK ACOUSTIC INSULATION, FORWARD CURVED CENTRIFUGAL FAN WHEEL WITH BACKDRAFT DAMPER AT THROAT OF DISCHARGE, 1/5 HP, 115 V.	GREENHECK SP-17
⑰	1	EQUAL TO ITEM ⑯ EXCEPT 90 CFM AT 1/8" S.P., 1/125 HP, 115 V.	GREENHECK SP-8
⑱	1	10 x 10 CLEAR OPENING, 1 1/2 HOUR RATED FIRE DAMPERS, GALVANIZED STEEL FRAME, 165°F REPLACEABLE FUSIBLE LINK, U.L. LISTED, VERTICAL MOUNT	AIR BALANCE INC. MODEL 119 AL
⑲	2	EQUAL TO ITEM ⑱ EXCEPT 8 x 6 CLEAR OPENING	AIR BALANCE INC. MODEL 119 AL
⑳	2	EQUAL TO ITEM ⑱ EXCEPT 12 x 10 CLEAR OPENING	AIR BALANCE INC. MODEL 119 AL
㉑	2	EQUAL TO ITEM ⑱ EXCEPT 8 x 8 CLEAR OPENING	AIR BALANCE INC. MODEL 119 AL
㉒	3	EQUAL TO ITEM ⑱ EXCEPT 10 x 4 CLEAR OPENING, HORIZONTAL MOUNT	AIR BALANCE INC. MODEL 119 AL

W.A. 2041		Scale (v)		Date 9-30-80		Drawn by NORMA GOMEZ	
Scale (h)		Fid. bk. no. N/A		Design by BERT ANZAI		APPROVED BY CITY ENGINEER	
Department of Public Services				Engineering Design Division			
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Drawing no. 513-53				M-2 57			