

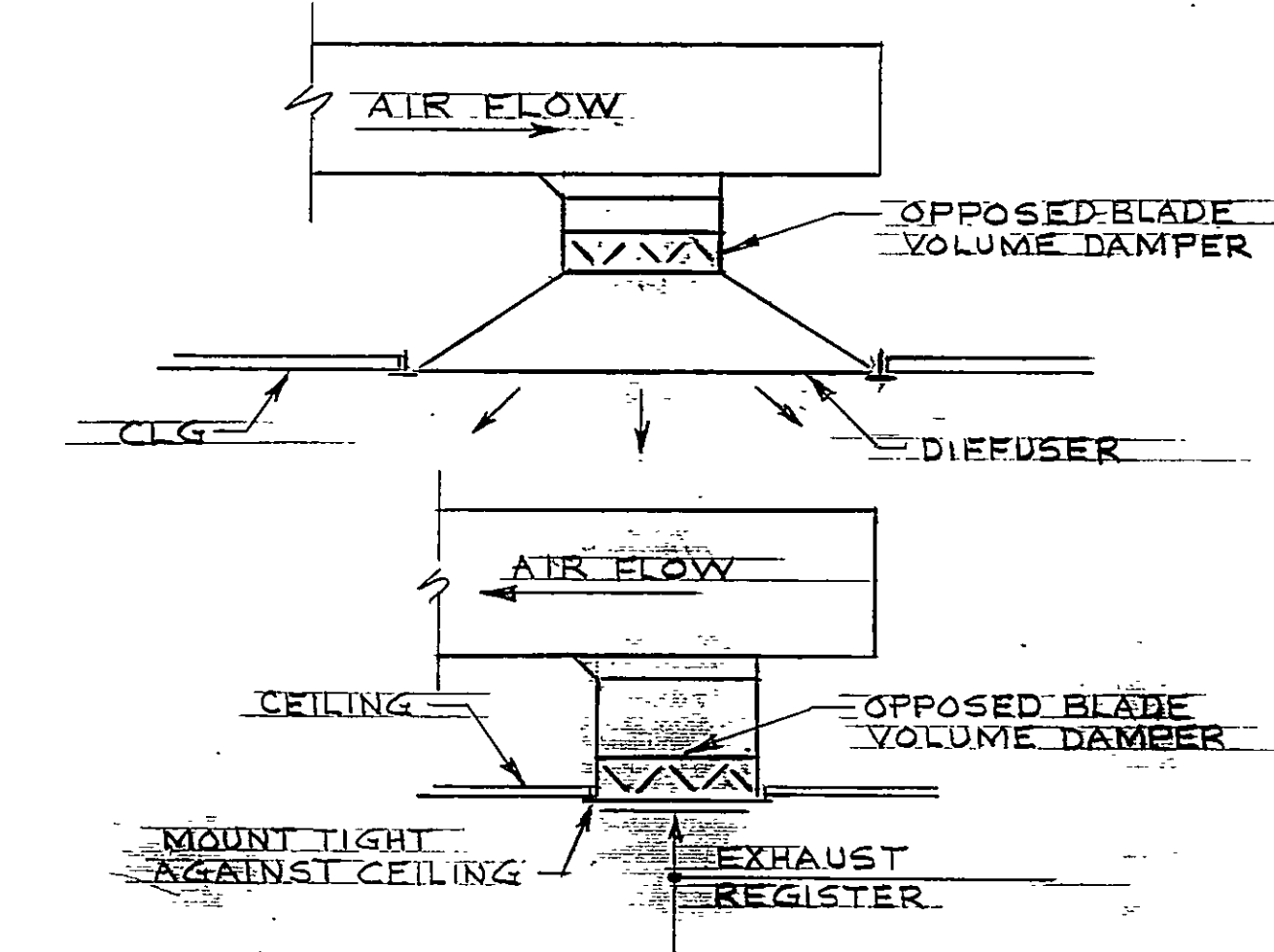
LEGEND

RECTANGULAR DUCTWORK (1ST FIG. SIDE SHOWN. 2ND FIG. IS FOR SIDE NOT SHOWN.)

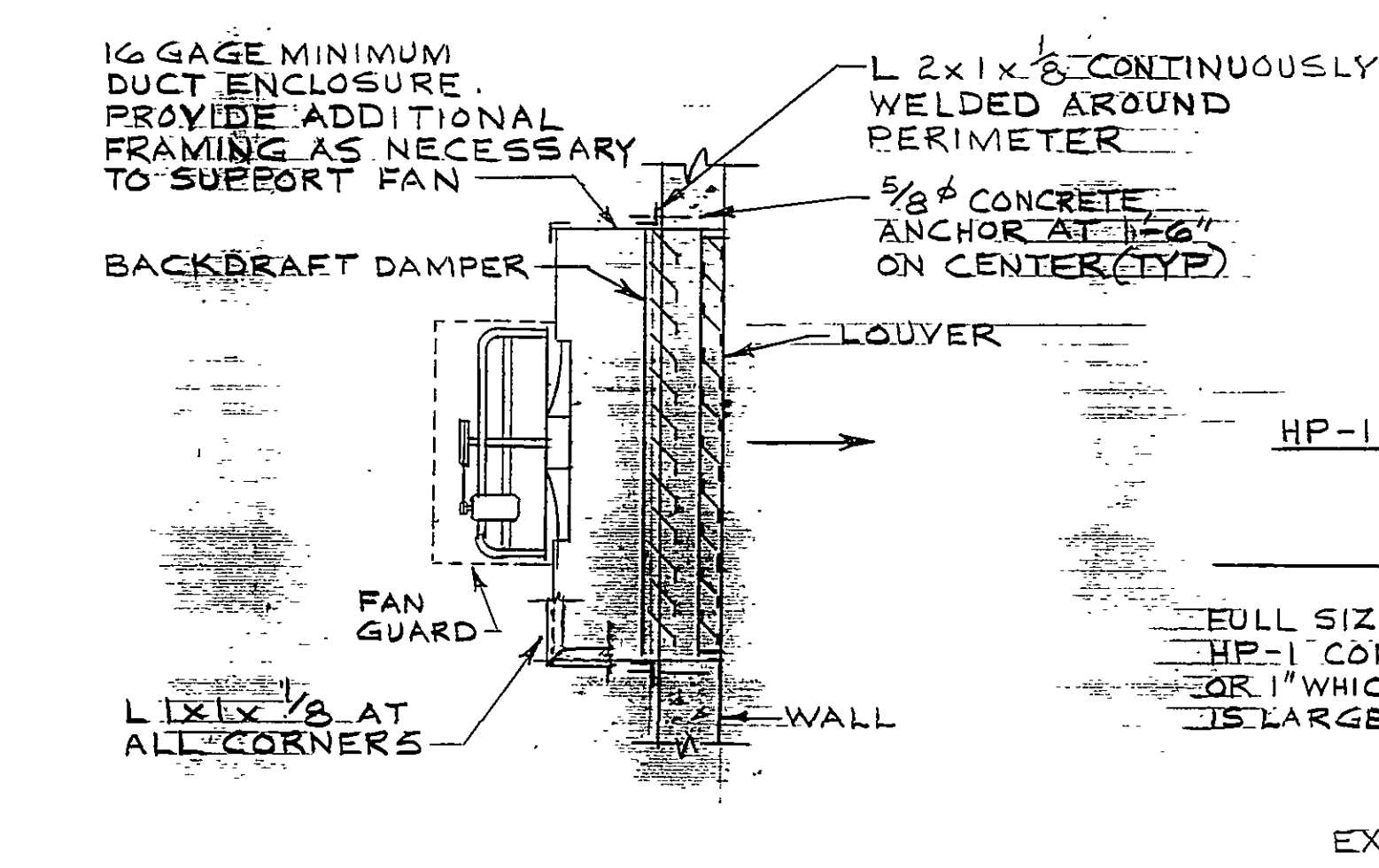
- NOTES THIS SHEET:
1. FULL SIZE OF LOUVER OPENING.
 2. MOUNT BOTTOM OF UNIT 8'-0" AFF.
 3. FOR EXACT LOCATION AND SIZE OF LOUVER SEE SHEETS A-1 AND A-2.
 4. PIPING SHALL BE SIZED IN ACCORDANCE WITH HEAT PUMP MANUFACTURER.
 5. MANUAL ON/OFF SWITCH FOR F-4.
 6. MOUNT BOTTOM OF UNIT 7'-6" AFF.
 7. PROVIDE ELECTRIC HEAT TRACING ON THIS PIPING FROM THE INSIDE WALL TO 3 FT. BELOW GRADE.
 8. PROVIDE BACKDRAFT DAMPER IN DUCT AT FLOOR.

GENERAL NOTES

- 4.1. SEE SH. C-2 FOR ABBREVIATIONS.
- 4.2. MECHANICAL LAYOUTS ARE SCHEMATIC. PROVIDE ANY ADDITIONAL DROPS, RISES, OR OFFSETS REQUIRED FOR A COMPLETE INSTALLATION. COORDINATE EXACT ROUTING OF WORK WITH ALL OTHER TRADES AND OBSTRUCTIONS. COORDINATE EXACT LOCATIONS OF CEILING MOUNTED WORK WITH LIGHTS, CEILING GRID, AND OTHER OBSTRUCTIONS.
- 4.3. UNLESS OTHERWISE INDICATED, ALL DUCTWORK AND PIPING SHALL BE RUN ABOVE CEILING AND SHALL BE RUN EXPOSED AS HIGH AS POSSIBLE IN AREAS WITHOUT CEILINGS.

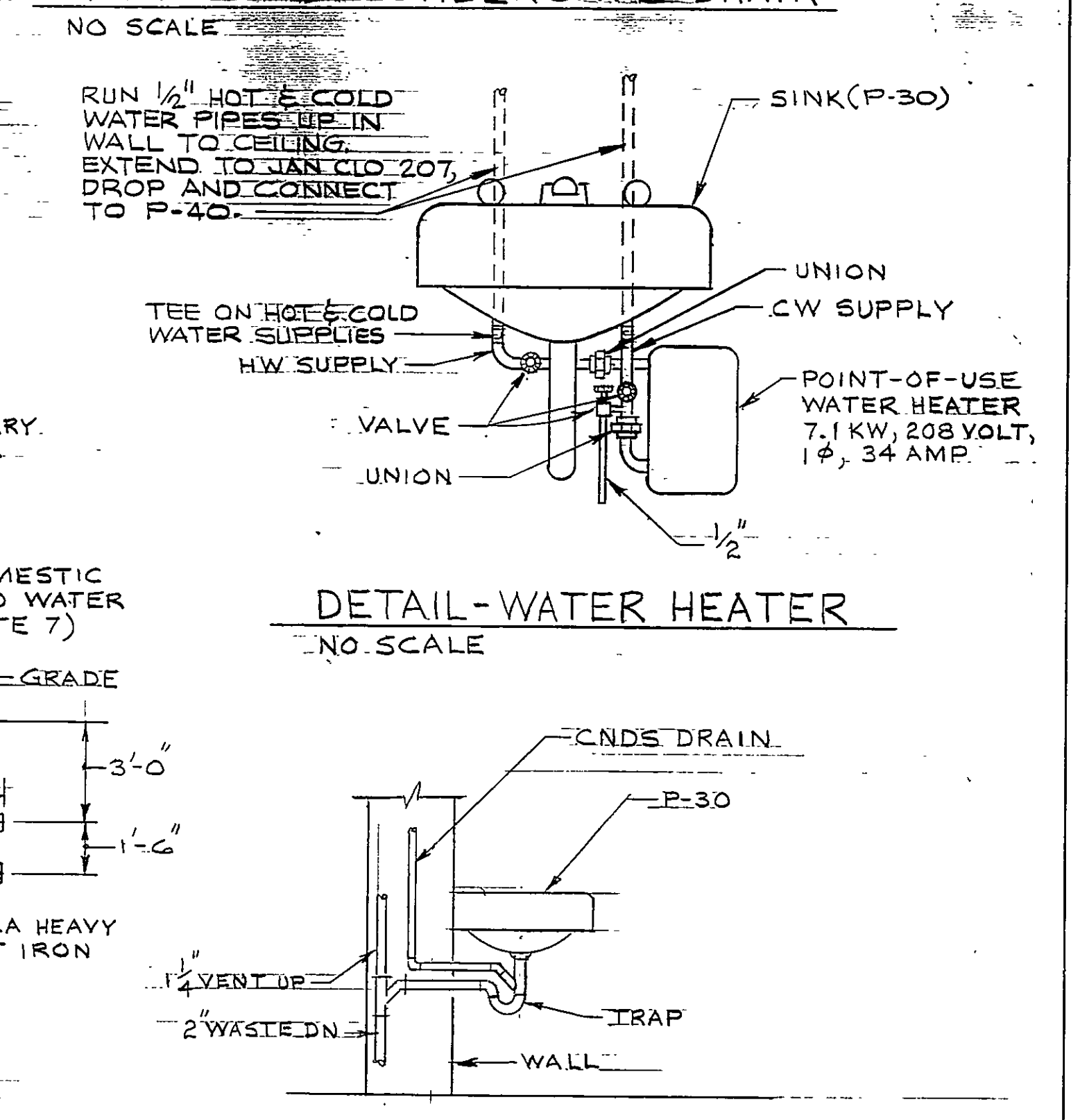


TYPICAL DUCT CONNECTION DETAILS
NO SCALE

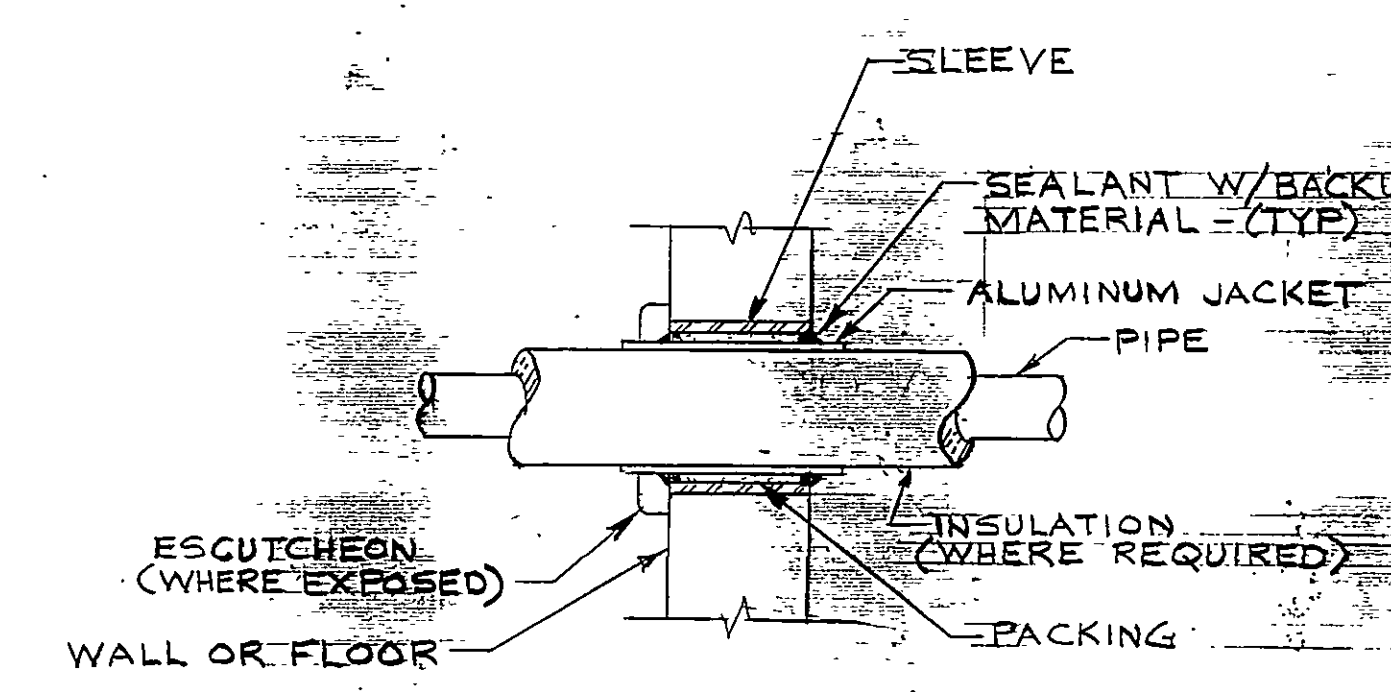


EXHAUST FAN MOUNTING DETAIL
NO SCALE

HEAT PUMP CONDENSATE DRAIN



DETAIL-HEAT PUMP CONDENSATE DRAIN
NO SCALE



TYPICAL PIPE PENETRATION THRU WALLS AND FLOORS
NO SCALE

MOTOR/CONTROL ROOM LEVEL PLAN
SCALE: 1/8"=1'-0"

PIPING LEVEL PLAN
SCALE: 1/8"=1'-0"

FAN SCHEDULE

MARK	TYPE	DRIVE	DESCRIPTION	CFM	EXT. STATIC AT MAX. FLOW (IN. WG)	MIN. BLADE OR WHEEL DIAMETER (IN.)	MIN. MOTOR HP	RPM
F-1	IN-LINE	BELT	WET WELL VENTILATION	5100	.5	27	2	1110
F-2	PROPELLER	BELT	PIPING ROOM VENTILATION	5400	1/4	24	3/4	920
F-3	PROPELLER	BELT	MOTOR CONTROLLER ROOM VENTILATION	3500	1/4	24	1/2	800
F-4	IN-LINE	DIRECT	TOILET EXHAUST	100	1/4	6	1/40	1550

NOTES:
1. FANS F-1 AND F-4 SHALL BE SUSPENDED ON TYPE HSN VIBRATION ISOLATORS WITH A MINIMUM STATIC DEFLECTION OF 0.75 INCHES.

HEAT PUMP SCHEDULE

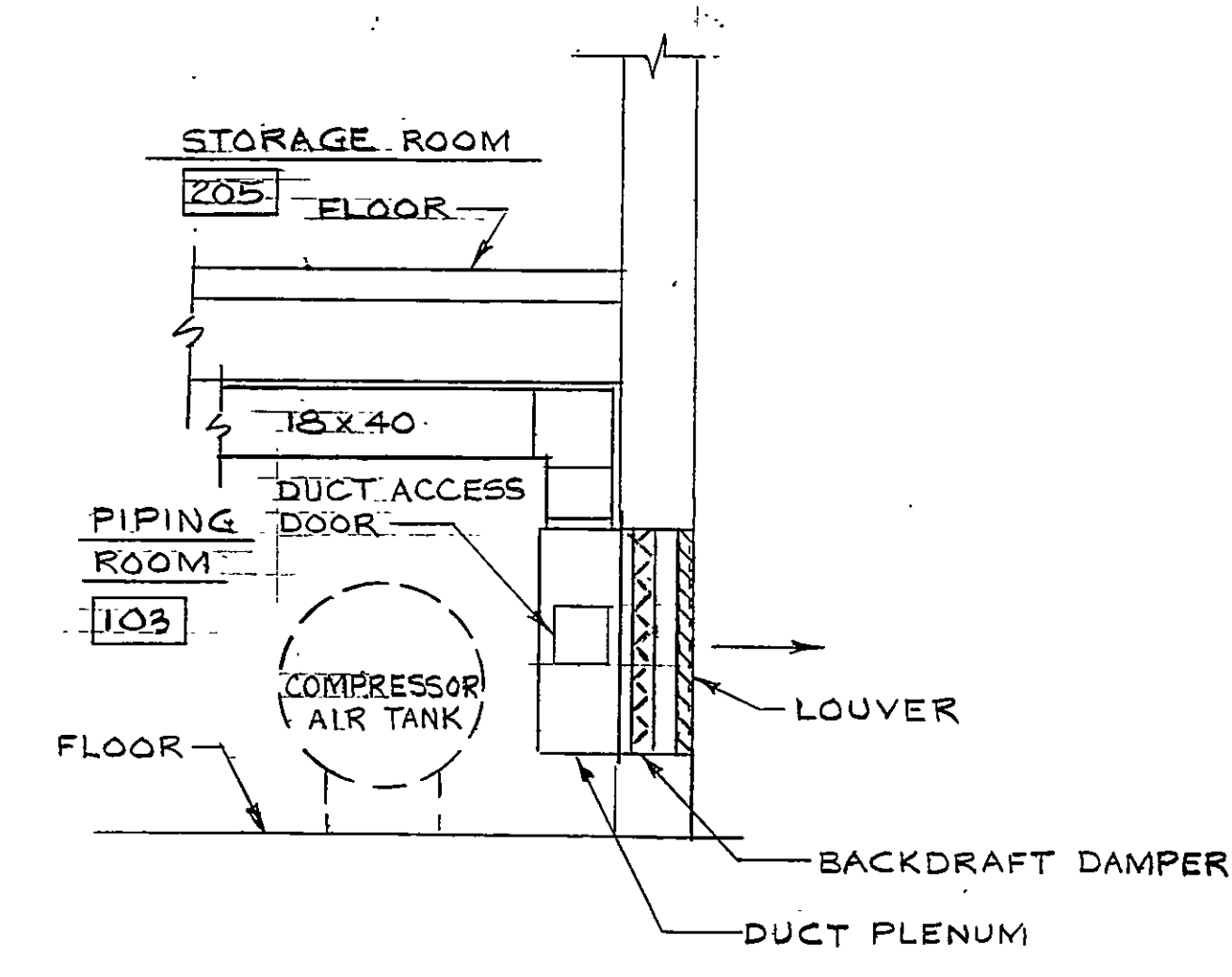
MARK	TYPE	INDOOR UNIT					CAPACITY			
		TOTAL CFM	MIN	EXTERNAL STATIC (N. WG)	NOM HP	NOM RPM	TOTAL COOLING MBH	HEATING		
			OUTDOOR AIR CFM					MBH	MIN COP	ELEC COIL KW
HP-1	HORIZONTAL	900	0	0.45	1/3	1075	29.8	29.2	3.0	7.7

NOTES:
A. CAPACITY SHALL BE WITH THE OUTDOOR UNIT AND INDOOR UNIT OPERATING TOGETHER IN THE ARRANGEMENT INDICATED.
B. EXTERNAL STATIC DOES NOT INCLUDE CLEAN FILTER, WET COIL, AND CASING LOSSES.
C. COOLING CAPACITY SHALL BE BASED ON 80°F DB/67°F WB E.A.T. AND 95°F AMBIENT. HEATING MBH SHALL BE BASED ON HEAT PUMP OPERATION (WITHOUT ELECTRIC HEATING COIL), 70°F E.A.T., AND 47°F DB/43°F WB AMBIENT.
D. UNIT SHALL BE SUSPENDED ON TYPE HSN VIBRATION ISOLATORS WITH ONE INCH MINIMUM STATIC DEFLECTION.

UNIT HEATER AND WALL HEATER SCHEDULE

MARK	FAN			ELECTRIC COIL		VOLTAGE
	NOM CFM	MIN MOTOR HP	RPM	CAPACITY (MBH)	((KW)	
UH-1	1100	1/20	1550	43.3	12.7	480
UH-2	1100	1/20	1550	43.3	12.7	480
UH-3	1100	1/20	1550	43.3	12.7	480
UH-4	1100	1/20	1550	38.3	11.2	480
UH-5	1100	1/20	1550	38.3	11.2	480

NOTE:
1. UNIT HEATERS SHALL BE HORIZONTAL DISCHARGE TYPE.



SECTION
SCALE: 1/4"=1'-0"

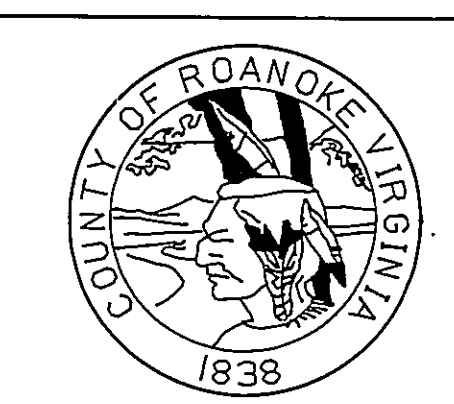
SECTION
SCALE: 1/4"=1'-0"

DESIGNED: RSB
DRAWN: BA JTB
CHECKED: CER
APPROVED: CER
ISSUED: fbb

DATE: 8-4-91
DATE: 8-4-91
DATE: 8-4-91
DATE: 8-4-91
DATE: 8-4-91

REVISIONS			
DATE	BY	DESCRIPTION	DATE
8-3-91	BA	PER CONTR RECORD DWG	
8-3-91	BA	ISSUED TO VA. PAM SAFETY	
8-3-91	RWF	RECORD DRAWING	

RECORD DRAWING
THESE DRAWINGS RECORDED ON THE BASIS OF INFORMATION FURNISHED BY THE CONTRACTOR OR SPECIFICALLY KNOWN TO HSM. NO OTHER REPRESENTATIONS ARE MADE OR IMPLIED.
Date: 8-3-91



SPRING HOLLOW RESERVOIR
ROANOKE COUNTY, VIRGINIA
HAYES, SEAY, MATTERN & MATTERN, INC.
ARCHITECTS - ENGINEERS - PLANNERS
ROANOKE, VIRGINIA

MECHANICAL INTAKE / PUMP STATION HVAC AND PLUMBING PLANS AND DETAILS				
SCALE	DATE	COMM	SHEET	DWG
AS NOTED	8/4/91	4194E	M-1	18