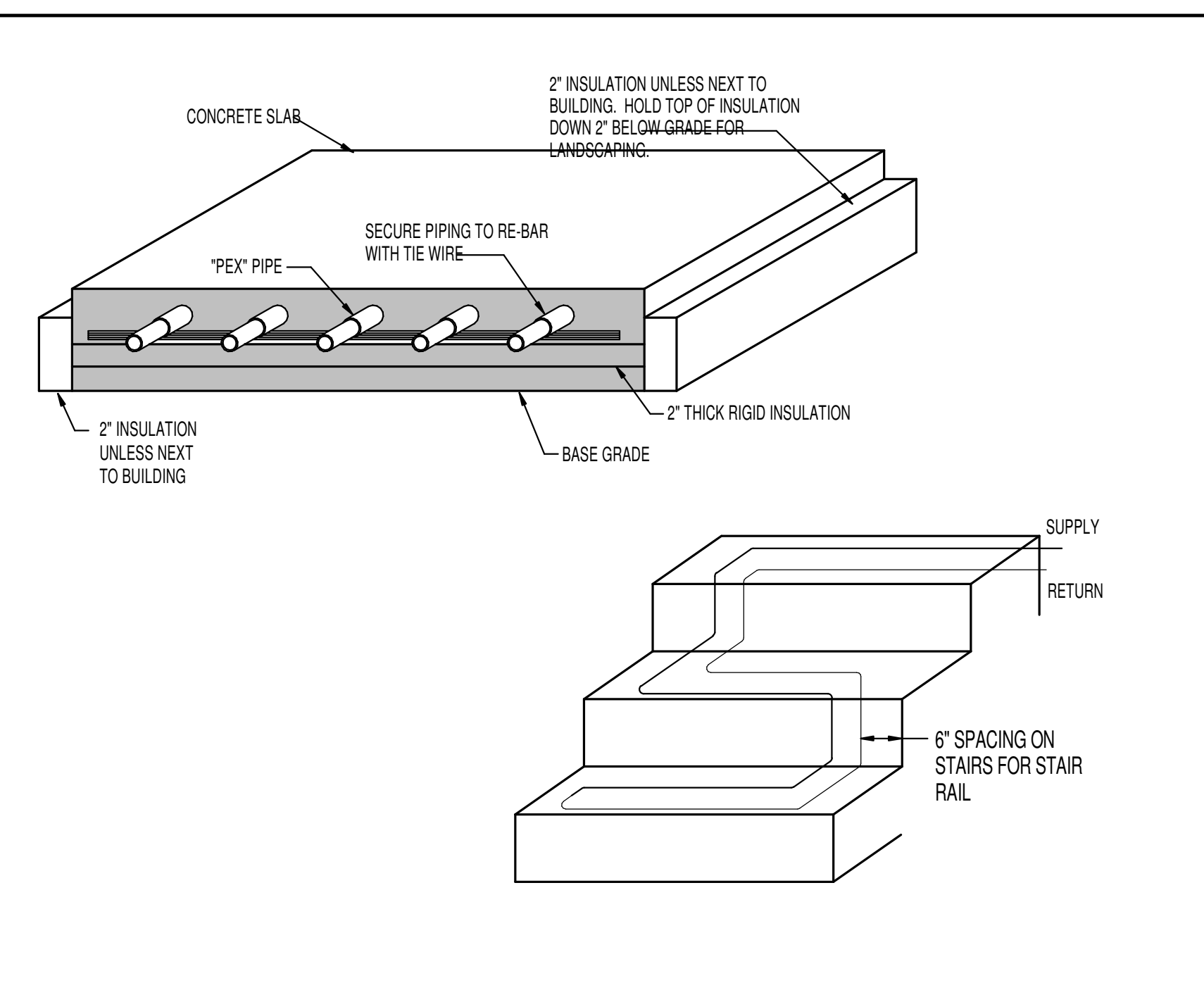
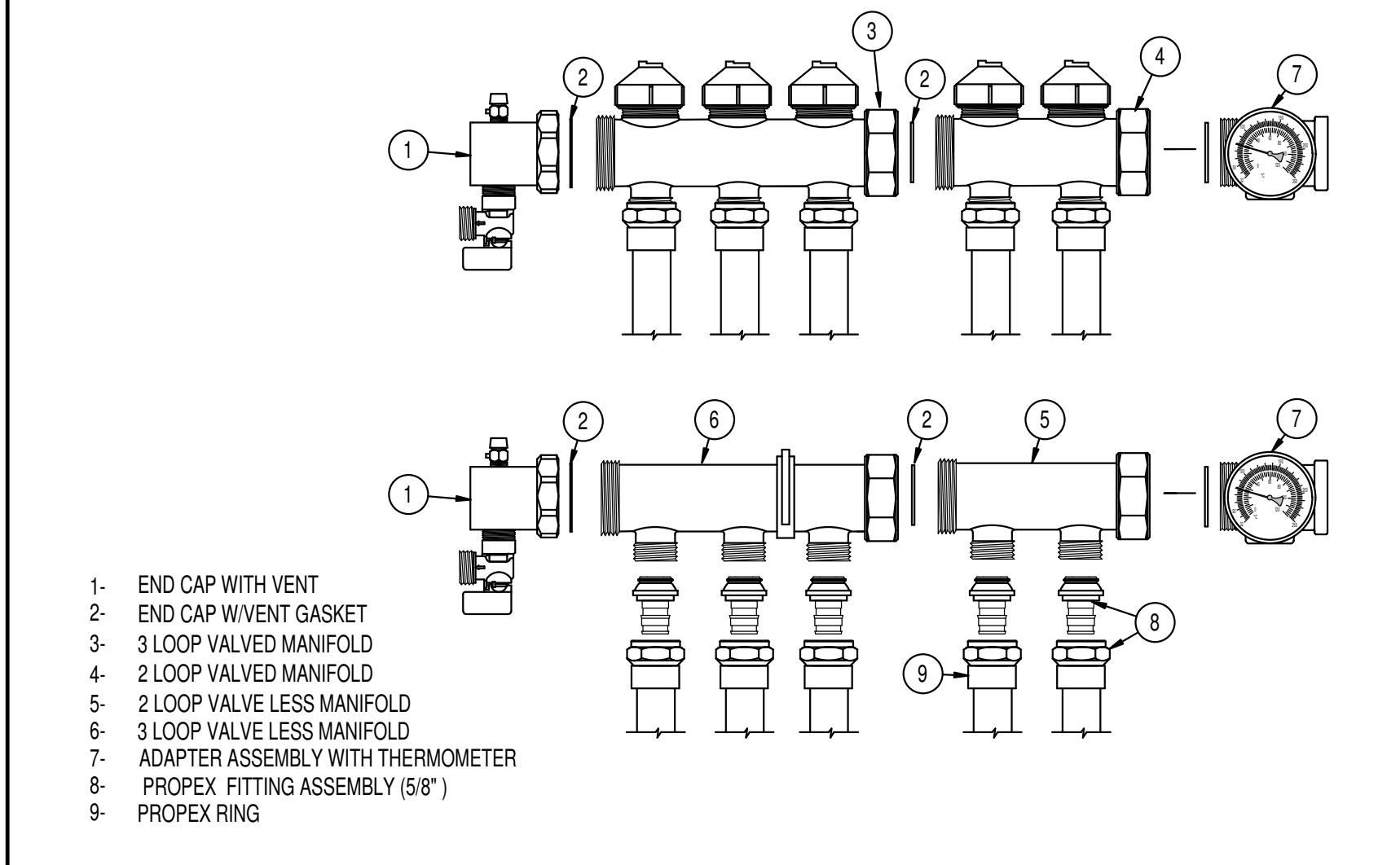


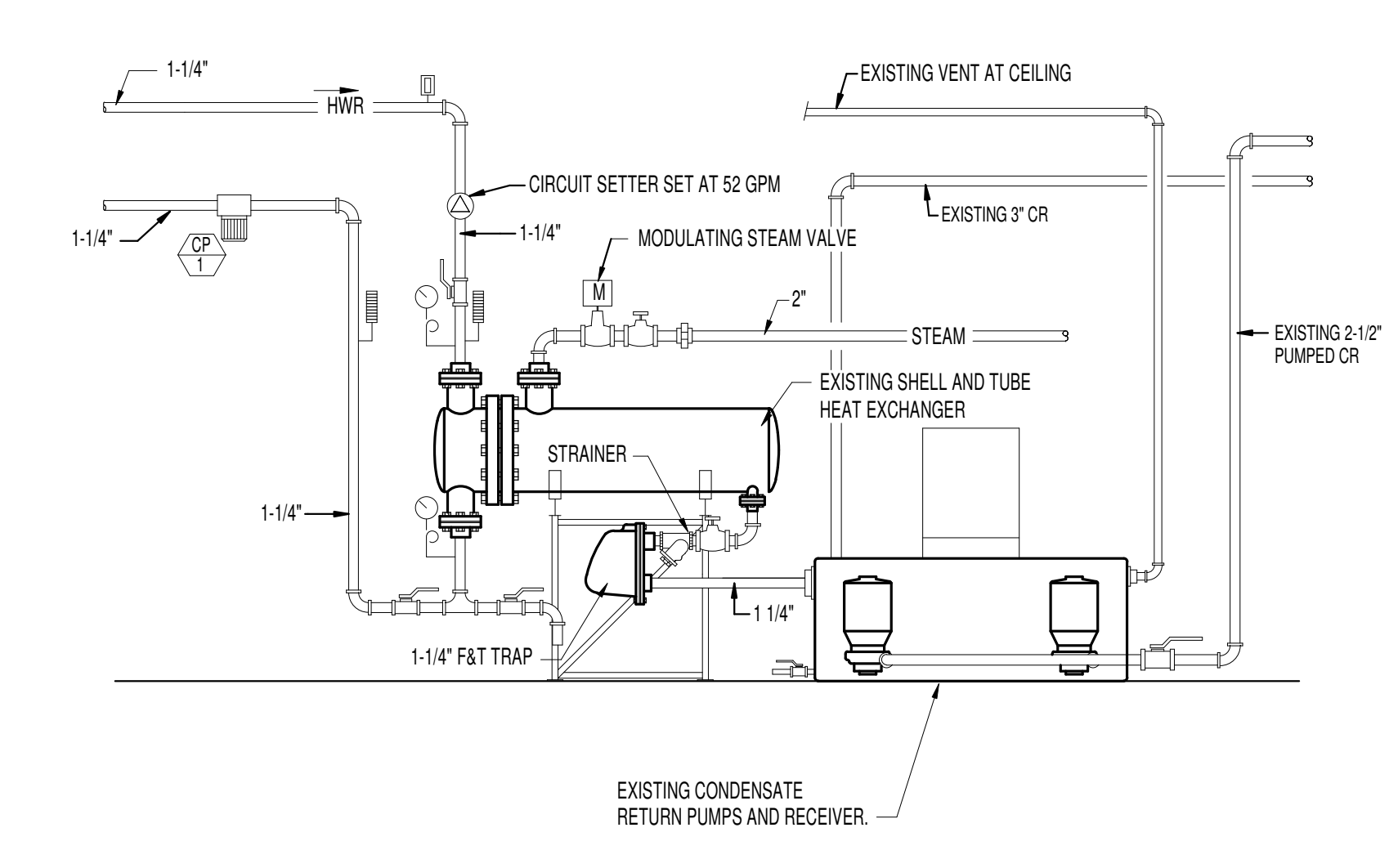
A | TYPICAL SNOW MELT PIPING LAY-OUT NO SCALE



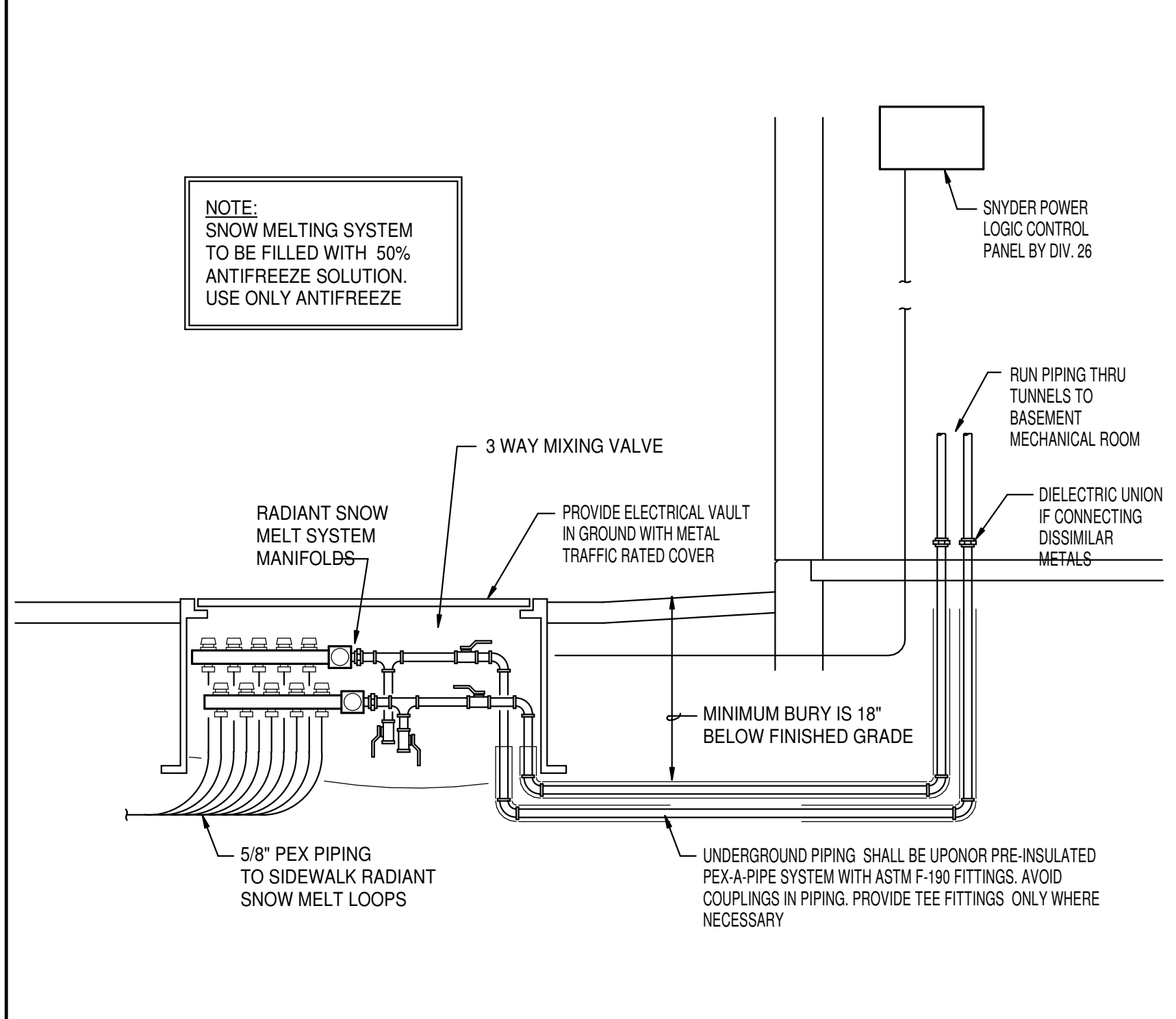
B | SNOW MELT PIPING DETAILS NO SCALE



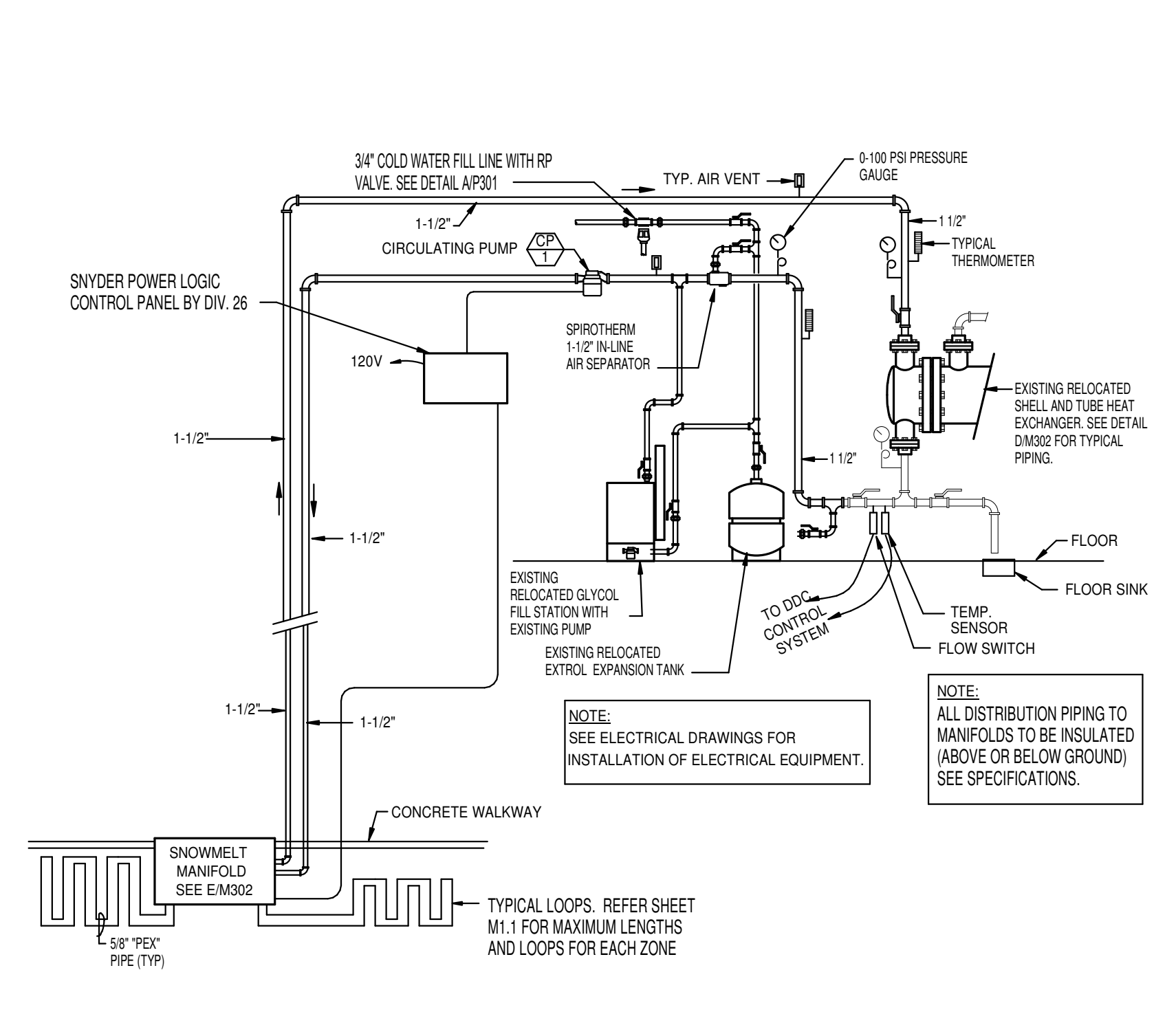
C | SNOW MELT MANIFOLD DETAIL NO SCALE



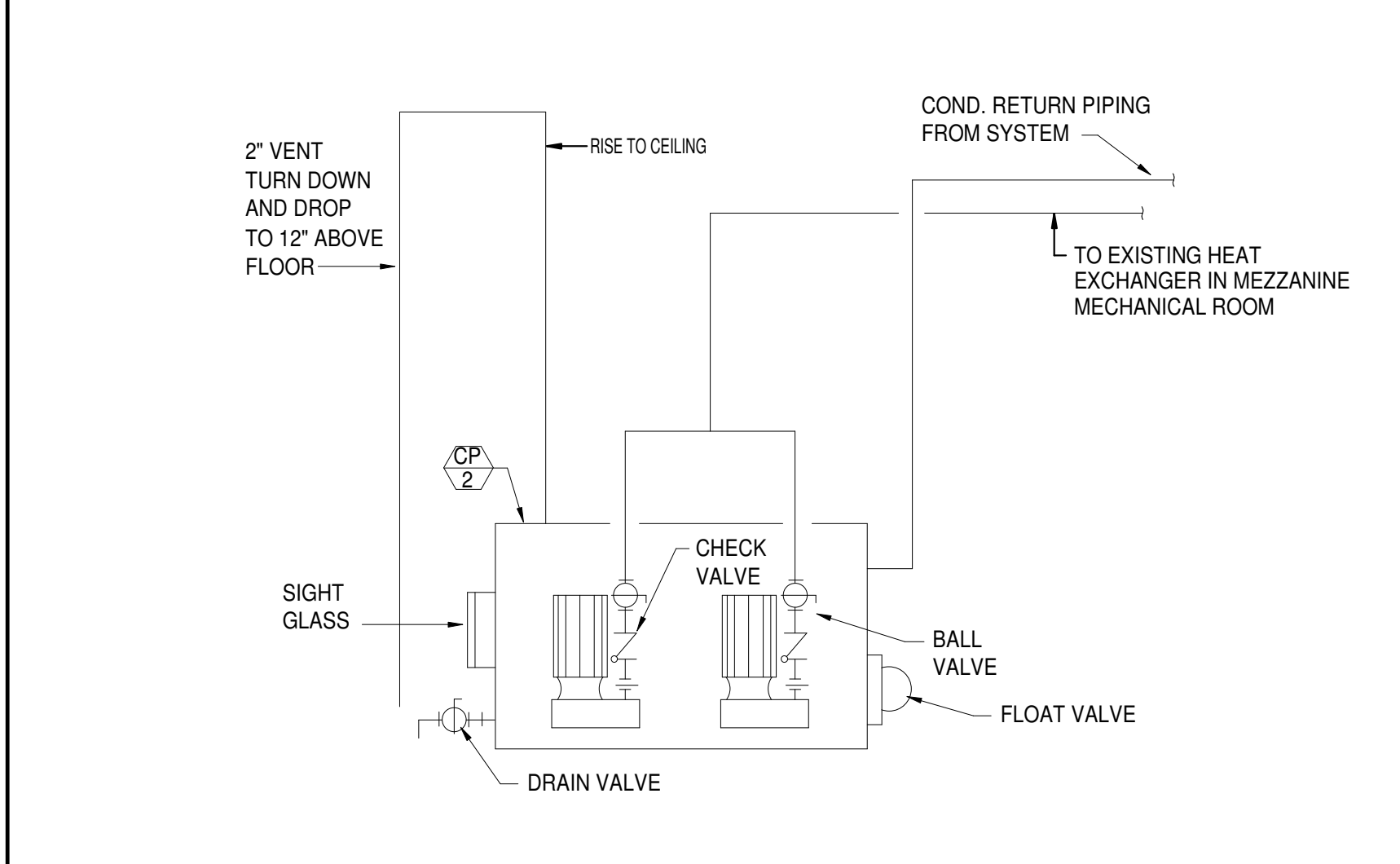
D | STEAM HEAT EXCHANGER & CONDENSATE PUMP NO SCALE



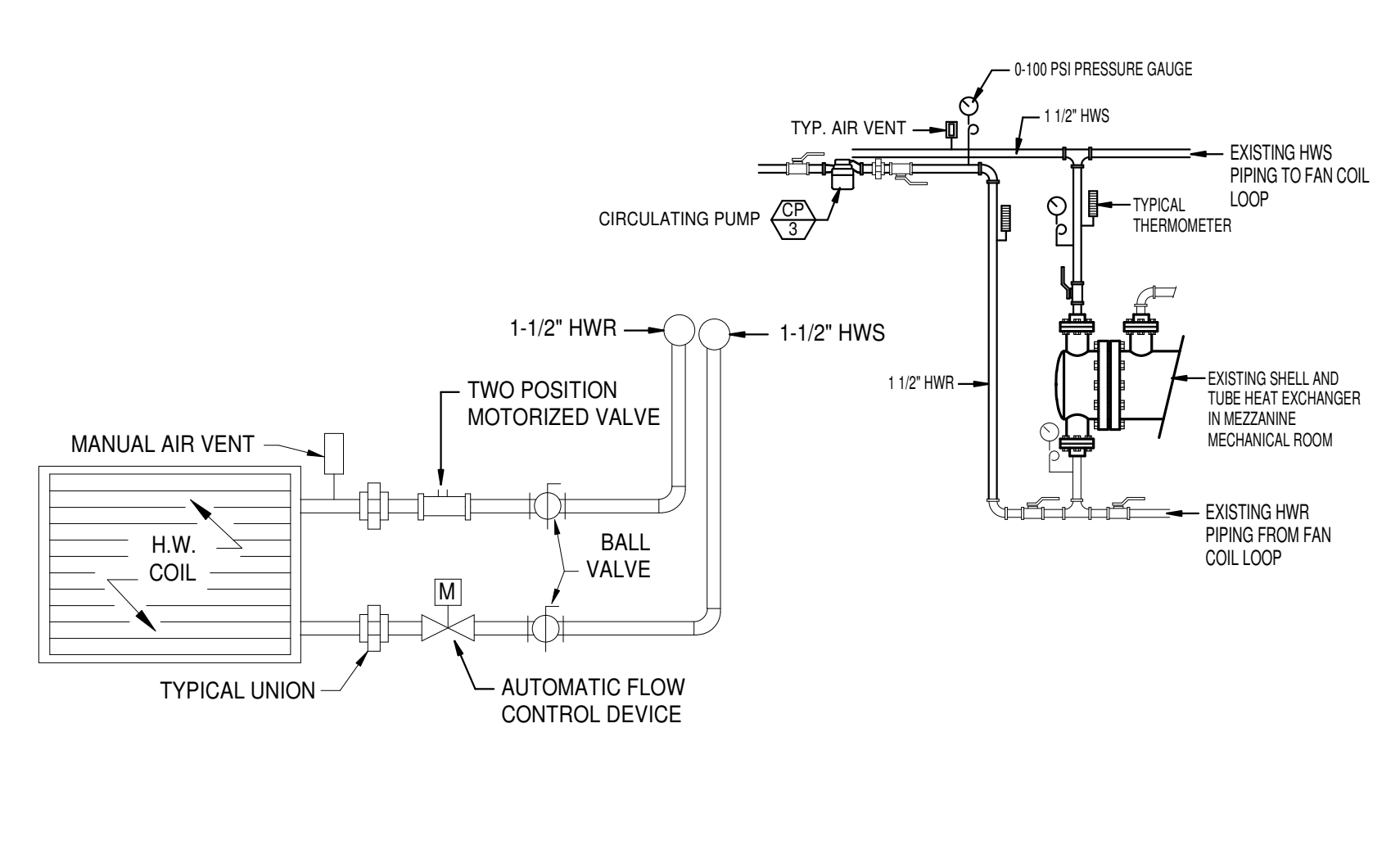
E | SNOW MELT MANIFOLD BOX DETAIL NO SCALE



F | SNOW MELT SYSTEM PIPING DIAGRAM NO SCALE



G | CONDENSATE RETURN PUMP PIPING DIAGRAM NO SCALE



H | HOT WATER COIL PIPING CONNECTIONS NO SCALE

ROOF TOP HEATING & AIR CONDITIONING UNIT SCHEDULE

SYM.	CFM	SP.	BLOWER H.P.	CHAR.	MCA	WEIGHT	GAS CONN.	HEATING				COOLING				REMARKS
								BTU IN	EAT	LAT	MBH	BTU IN	EAT	LAT	MBH	
RT 1	1940	---	---	EXISTING	28.0	800#	---	---	---	---	60	75°F	55°F	---	---	EXISTING COOLING ONLY ROOF TOP UNIT TO REMAIN.
RT 2	1940	---	---	EXISTING	28.0	800#	---	---	---	---	60	75°F	55°F	---	---	EXISTING COOLING ONLY ROOF TOP UNIT TO REMAIN.
RT 3	1940	---	---	EXISTING	28.0	800#	---	---	---	---	60	75°F	55°F	---	---	EXISTING COOLING ONLY ROOF TOP UNIT TO REMAIN.
RT 4	1940	---	---	EXISTING	28.0	800#	---	---	---	---	60	75°F	55°F	---	---	EXISTING COOLING ONLY ROOF TOP UNIT TO REMAIN.
RT 5	1940	---	---	EXISTING	28.0	800#	---	---	---	---	60	75°F	55°F	---	---	EXISTING COOLING ONLY ROOF TOP UNIT TO REMAIN.
RT 6	1940	---	---	EXISTING	28.0	800#	---	---	---	---	60	75°F	55°F	---	---	EXISTING COOLING ONLY ROOF TOP UNIT TO REMAIN.
RT 7	1200	---	---	EXISTING	20.0	500#	---	---	---	---	36	75°F	55°F	---	---	EXISTING COOLING ONLY ROOF TOP UNIT TO REMAIN.
RT 8	7200	---	---	EXISTING	99.0	2200#	---	---	---	---	210	75°F	55°F	---	---	EXISTING COOLING ONLY ROOF TOP UNIT TO REMAIN.
RT 9	1200	40"	1/2	208/60/3	23.0 MCA	500#	---	---	---	---	36	75°F	55°F	---	---	CARRIER MODEL 48FC-404 MOUNT ON ROOF CURB. NO HEAT REQUIRED. (14.0 SEER)

EXHAUST FAN SCHEDULE

SYM.	TYPE	CFM	S.P.E.	WATTS	CHAR.	R.P.M.	CONTROL	REMARKS
EF 1	CEILING MOUNTED	100	.25"	87	120/60/1	640	WALL SWITCH	TWIN CITY MODEL T100 WITH BACK-DRAFT DAMPER AND 6" ROUND DUCT TO ROOF CAP
EF 2	ROOF MOUNTED	800	.25"	1/4 HP	120/60/1	900	TIME CLOCK	TWIN CITY MODEL 100C BORD WITH BACK-DRAFT DAMPER MOUNT ON ROOF CURB
EF 3	ROOF MOUNTED	800	.25"	1/4 HP	120/60/1	900	WALL SWITCH	TWIN CITY MODEL 100C BORD WITH BACK-DRAFT DAMPER MOUNT ON ROOF CURB
EF 4	VENT SET	2100	4.0"	3 HP	208/60/3	1725	WALL SWITCH	MONOXIVENT 135-BI WITH BACK-DRAFT DAMPER. PROVIDE FAN WITH VFD. MOUNT ON ROOF CURB. INTERLOCK WITH PH-1.
EF 5	VENT SET	2100	4.0"	3 HP	208/60/3	1725	WALL SWITCH	MONOXIVENT 135-BI WITH BACK-DRAFT DAMPER. PROVIDE FAN WITH VFD. MOUNT ON ROOF CURB. INTERLOCK WITH PH-1.
EF 6	VENT SET	1800	4.0"	2 HP	208/60/3	3450	WALL SWITCH	MONOXIVENT 120-BI WITH BACK-DRAFT DAMPER. PROVIDE FAN WITH VFD. MOUNT ON ROOF CURB. INTERLOCK WITH PH-1.
EF 7	VENT SET	1800	4.0"	2 HP	208/60/3	3450	WALL SWITCH	MONOXIVENT 120-BI WITH BACK-DRAFT DAMPER. PROVIDE FAN WITH VFD. MOUNT ON ROOF CURB. INTERLOCK WITH PH-1.
EF 8	ROOF MOUNTED UP-BLAST	1000	.50"	1/4 HP	120/60/1	1375	SWITCH ON HOOD	TWIN CITY MODEL 118-807B WITH BACK-DRAFT DAMPER MOUNT ON ROOF CURB
EF 9	ROOF MOUNTED	800	.25"	1/4 HP	120/60/1	900	WALL SWITCH	TWIN CITY MODEL 100C BORD WITH BACK-DRAFT DAMPER MOUNT ON ROOF CURB
EF 10	ROOF MOUNTED	800	.25"	1/4 HP	120/60/1	900	WALL SWITCH	TWIN CITY MODEL 100C BORD WITH BACK-DRAFT DAMPER MOUNT ON ROOF CURB

GRILLE AND REGISTER SCHEDULE

SYM.	SIZE	THROW	CFM	CONSTR.	FINISH	BRANCH DUCT	F.D.	O.B.	REMARKS
GR-1	12 x 12	---	200-400	STEEL	WHITE	10" Dia.	NO	NO	PRICE MODEL SMD IN 24x24 LAY-IN MODULE
GR-2	9 x 9	---	50-199	STEEL	WHITE	8" Dia.	NO	NO	PRICE MODEL SMD IN 24x24 LAY-IN MODULE
GR-3	12 x 12	---	200-400	STEEL	WHITE	10" Dia.	NO	NO	PRICE MODEL SMD IN 24x24 LAY-IN MODULE
GR-4	9 x 9	---	50-199	STEEL	WHITE	8" Dia.	NO	NO	PRICE MODEL SMD WITH BEVELED FRAME
SR-1	12 x 10	---	200-300	STEEL	WHITE	IN 18" Dia. DUCT	NO	NO	PRICE MODEL SDGE IN 10" ROUND DUCT WITH EXTRACTION DAMPER
SR-2	10 x 8	---	200-300	STEEL	WHITE	IN 10" Dia. DUCT	NO	NO	PRICE MODEL SDGE IN 10" ROUND DUCT WITH EXTRACTION DAMPER
RG-1	12 x 6	---	50-150	STEEL	WHITE	12 x 3	NO	NO	PRICE MODEL 55SL - MOUNT AT 6" ABOVE FLOOR
RG-2	18 x 20	---	800	STEEL	WHITE	18 x 20	NO	NO	PRICE MODEL 55SS - MOUNT AT 12" ABOVE FLOOR
RG-3	18 x 16	---	1200-1800	STEEL	WHITE	18 x 16	NO	NO	PRICE MODEL 55SS - MOUNT AT 11" ABOVE FLOOR
RG-4	14 x 8	---	100-200	STEEL	WHITE	14 x 8	NO	NO	PRICE MODEL 55SL
FG-1	12 x 6	---	50-200	ALUM	ANODIZED	12 x 6 BOOT	NO	NO	PRICE MODEL LBP425C WITH 750 FLANGED BORDER
FG-2	18 x 6	---	201-300	ALUM	ANODIZED	18 x 6 BOOT	NO	NO	PRICE MODEL LBP425C WITH 750 FLANGED BORDER
ER-1	12 x 12	---	50-400	STEEL	WHITE	12 x 8	NO	NO	PRICE MODEL 55S
ER-2	18 x 18	---	400-800	STEEL	WHITE	14 x 14	NO	NO	PRICE MODEL LG100-A-STL-B12
PH-1	36W-60L-30 1/2H	---	5000-7800	ALUM	ANODIZED	36 x 60	NO	NO	PENBERRY MODEL PH WITH MOTORIZED DAMPER. INTERLOCK WITH EF-4, EF-5, EF-6 AND EF-7.

UNIT HEATER SCHEDULE

SYM.	TYPE	CFM	H.P.	CHAR.	BTU	EAT	STEAM PRESS.	SUP.	RET.	VALVE	TRAP	WEIGHT	REMARKS
UH 1	PROPELLER	1400	1/20	120/60/1	96,000	65°F	15 psi	1-1/2"	1"	AUTO 2 POSITION	1" F&T	100#	TRANE UHS8096 HORIZONTAL UNIT
UH 2	PROPELLER	1400	1/20	120/60/1	96,000	65°F	15 psi	1-1/2"	1"	AUTO 2 POSITION	1" F&T	100#	TRANE UHS8096 HORIZONTAL UNIT
UH 3	PROPELLER	4800	1/20	120/60/1	36,000	65°F	15 psi	1-1/4"	3/4"	AUTO 2 POSITION	3/4" F&T	100#	TRANE UHS8036 HORIZONTAL UNIT

CIRCULATING PUMP SCHEDULE

SYM.	TYPE	G.P.M.	HEAD	H.P.	CHAR.	RPM	REMARKS	MANUFACTURER & MODEL NO.
CP 1	IN-LINE	8	15'	1/4	120/60/1	1750	SNOW MELT SYSTEM	GRUNDFOS MAGNA3 32-60 F
CP 2	COND. RETURN PUMP	18	20'	(2) 1/2	120/60/1	3500	CONDENSATE RETURN PUMP	SHPOD 150 LPD-30 WITH 21 GALLON RECEIVING TANK AND DUPLEX CONTROL PANEL
CP 3	IN-LINE	4	15'	1/4	120/60/1	1750	AIR HANDLER HOT WATER COIL	GRUNDFOS MAGNA3 32-60 F

SPLIT SYSTEM A/C UNIT SCHEDULE

INDOOR UNIT				OUTDOOR UNIT				REFRIG. LINES			
SYM.	CFM	BTU	CHAR.	MCA	SYM.	BTU	MCA	SEER	CHAR.	LIQUID	SUCTION
FE 1A	600-700	30,000	208/60/1	1	FE 1B	30,000	25	16	208/60/1	3/8"	5/8"
FE 2A	600-700	30,000	208/60/1	1	FE 2B	30,000	25	16	208/60/1	3/8"	5/8"
FE 3A	600-700	30,000	208/60/1	1	FE 3B	30,000	25	16	208/60/1	3/8"	5/8"

AIR HANDLING UNIT SCHEDULE

SYM.	CFM	RPM	S.P.E.	H.P.	CHAR.	HEATING				COOLING				REMARKS		
						MBH	EWT	TD	GPM	MBH	EAT	LAT	SUC			
AH 1	1950	2180	1.0"	1-1/2	208/60/3	65	180°F	20°F	4	65°F	110°F	36	75°F	55°F	3/8" 7/8"	TRANE MODEL LCC4566 WITH HOT WATER HEATING COIL, DX COOLING COIL, AND MIXING BOX WITH ANGLE FILTERS. PROVIDE VFD WITH UNIT.

CONDENSING UNIT SCHEDULE

SYM.	BTU	EAT	CHAR.	MCA	MCOOP	SEER	WEIGHT	REFRIGERANT PIPING LIQUID	SUCTION	REMARKS
CU 1	56,000	95°F	208/60/1	31.0	50	14.0	250#	3/8"	7/8"	TRANE 4TR4060A1 WITH LOW AMBIENT 'HARD-START' KIT. MOUNT ON ROOF WITH PRAMID TYPE SUPPORTS.

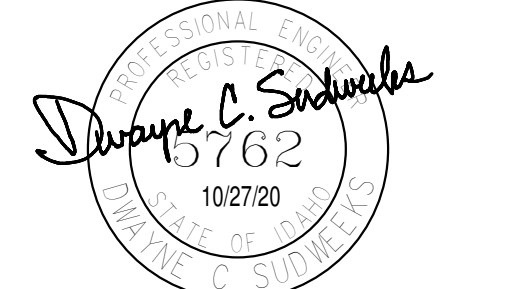
HUMIDIFIER SCHEDULE

SYM.	LBS/HR	KW	CHAR.	DESIGN RH	DESIGN TEMP	CONTROL	STEAM PIPING		REMARKS
							STEAM	CR	
H 1	30	10	208/60/3	95%	70°F - 78°F	WALL MTD HUMIDISTAT	1-1/4"	3/4"	DRI STEAM MODEL XTP-10 WITH SDU017E STEAM BLOWER. MOUNT ON WALL AS HIGH AS POSSIBLE.



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ESA JOB NUMBER 20048

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