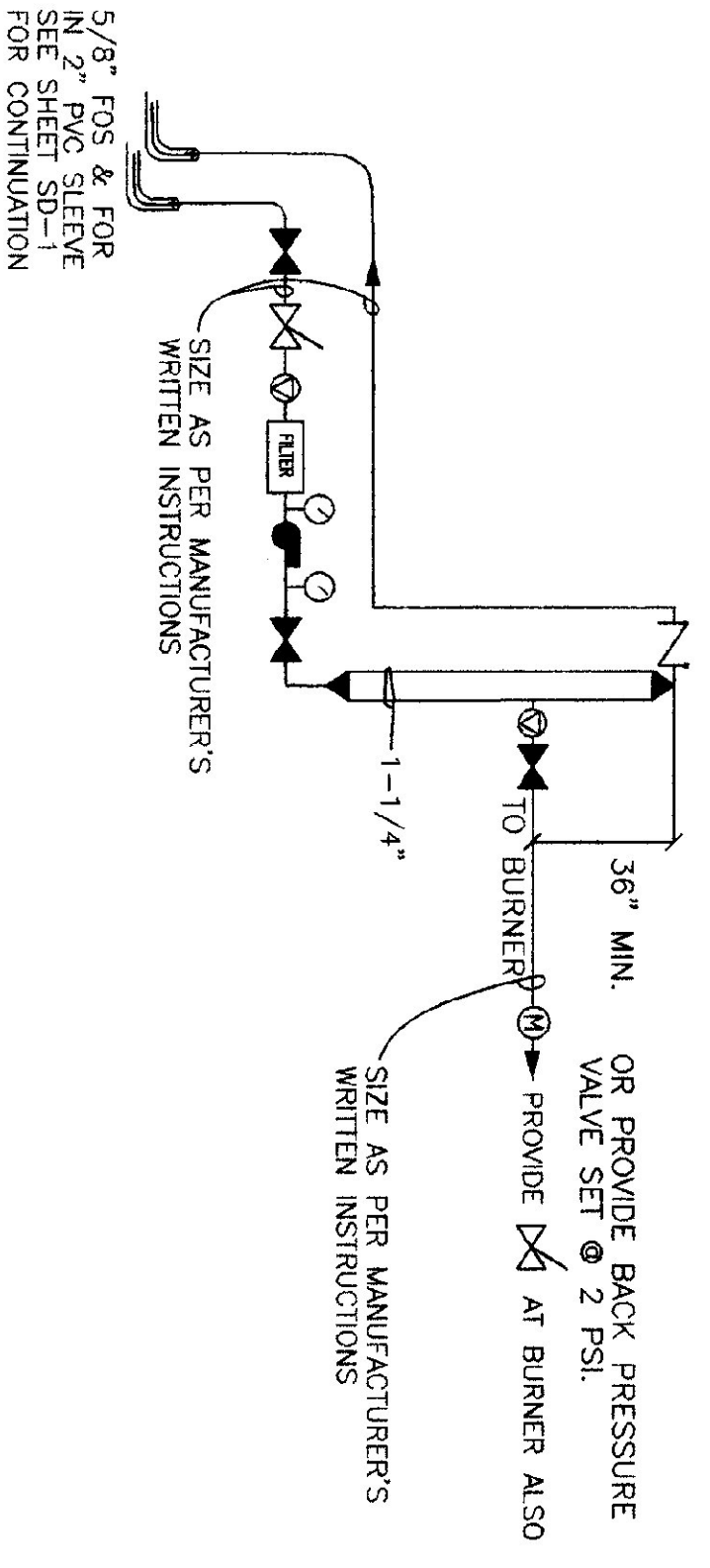
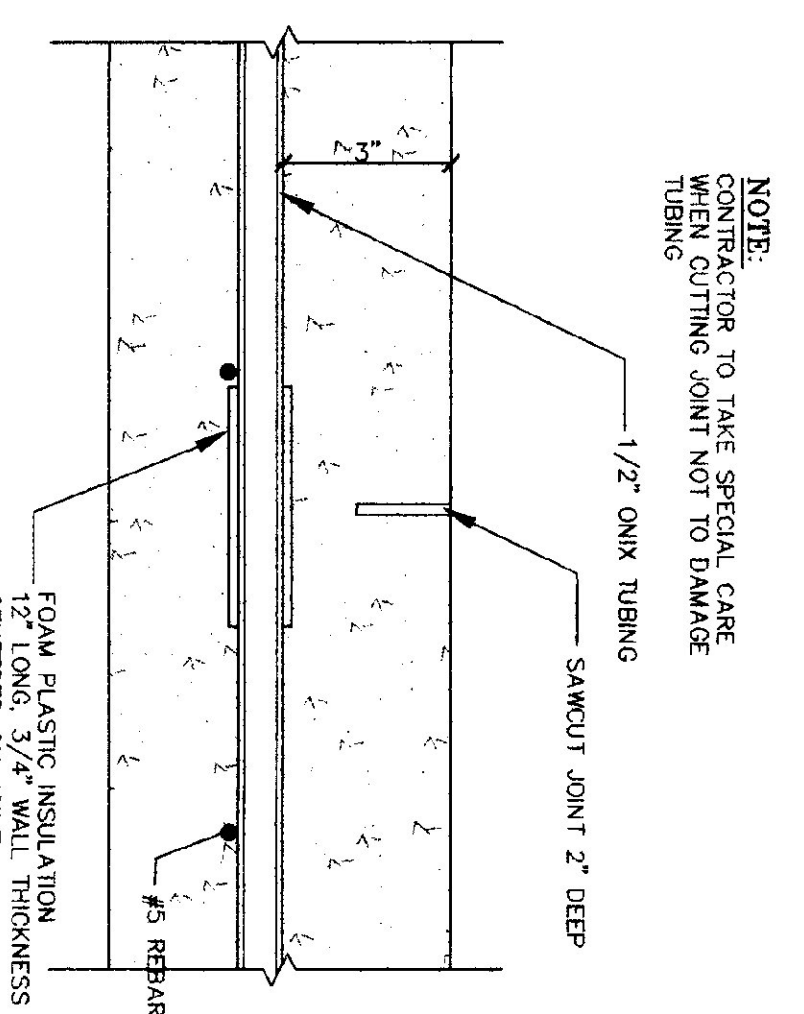


RADIANT TUBE LAYOUT
SCALE 3/16" = 1'-0"



FUEL SUPPLY SCHEMATIC
NOT TO SCALE



SAWCUT JOINT DETAIL
NOT TO SCALE

LEGEND

- ⊠ BALL VALVE FULL PORT, SS W/VE STRAINER & BALL W/VE BLOW DOWN TACO 335
- ⊠ PRESSURE REDUCING VALVE TACO 500-CL
- ⊠ MINOR VALVE SET @ 102°F TACO 500-CL
- ⊠ PRESSURE RELIEF VALVE, PIPE TO 6" A.F.F.
- ⊠ WATS 90, PIPE DOWN TO 6" A.F.F.
- ⊠ THERMOSTAT, MOUNT @ 54" A.F.F.
- ⊠ THERMOMETER
- ⊠ TACO FLO CHECK
- ⊠ CIRCULATOR
- ⊠ TACO 1 WATERMATIC MICRO BUBBLE AIR PURGATION
- ⊠ PRESSURE GAUGE
- ⊠ FOUR-ARMOR SHAD BALANCING VALVE
- ⊠ KEAT OIL WATER
- ⊠ FILL OIL TRANSFER PUMP
- ⊠ FILL OIL BATED, FULL PORT, SS BALL VALVE
- ⊠ WASTER OUY
- ⊠ FRESHWATER VALVE
- ⊠ CHECK VALVE

SEQUENCE OF CONTROL

WHEN OUTDOOR AIR FALLS BELOW 60° (A.O.) BOILER IS ENABLED. BOILER TO MAINTAIN 160-180° FROM OPERATING CONTROLLER. PUMPS P-1 & P-2 ARE ENERGIZED. CONTROLLER OPERATES INJECTION PUMP P-3 TO MAINTAIN SUPPLY WATER SETPOINT AS CALCULATED BASED ON OUTDOOR AIR TEMPERATURE. SETPOINT OFFSET AND RATIO TO BE ADJUSTABLE. PUMP P-4 TO BE CONTROLLED BY THERMOSTAT IN OFFICE. PUMP P-5 TO BE CONTROLLED BY THERMOSTAT IN BATHROOM. DOMESTIC WATER TANK ADJUSTABLE TO CONTROL PUMP P-6 TO MAINTAIN SETPOINT.

TRANSFER PUMP TO OPERATE WHENEVER BOILER OPERATES. MOD-1 TO OPEN WHEN P-2 OPERATES.

F-1 TO COME ON WITH LIGHT SWITCH, TIME DELAY OFF 5 MINUTES AFTER LIGHT SWITCH IS SWITCHED OFF.

NOTES:

- TUBING BENDS TO BE RADIUS.
- LAYOUT IS DIAGNOSTIC ONLY. ACTUAL LAYOUT TO BE SUBMITTED FROM TUBING MANUFACTURERS AUTHORIZED REPRESENTATIVE.
- TUBING INSTALLATION SHALL BE BY MANUFACTURERS AUTHORIZED REPRESENTATIVE.

EQUIPMENT SCHEDULE

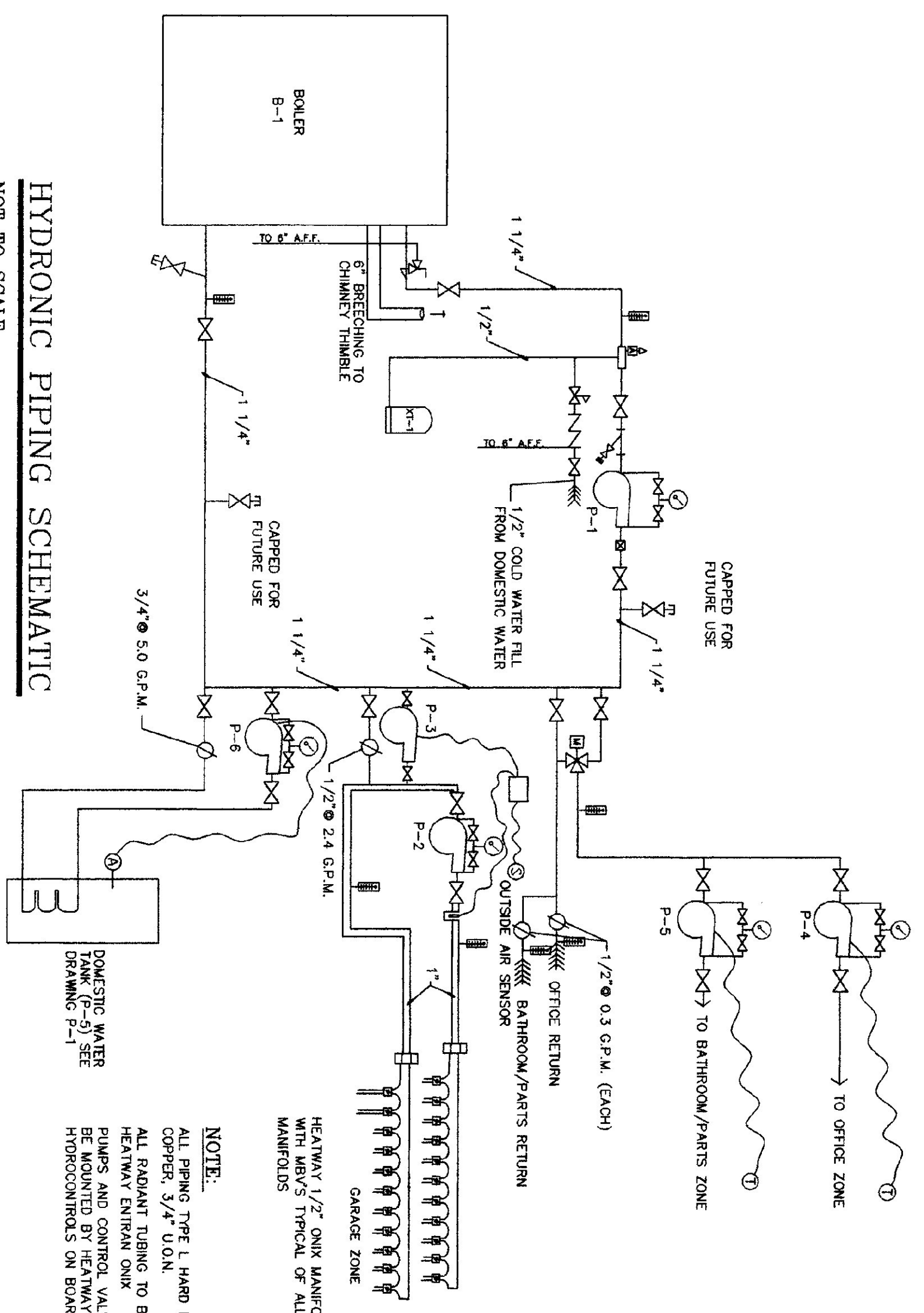
PLAN SYMBOL	DESCRIPTION	MANUF. & MODEL	CHARACTERISTICS	ELECTRIC	NOTES
B-1	BOILER	BUDERUS G205-42	144,000 Btu GROSS, 120,000 Btu NET 1812 INBLO F40-5 BURNER	120/1/60 1.46 AMP	
X1-1	EXP. TANK	AMTROL SX-30V	14 GALLON TANK 11.4 GALLON ACCEPTANCE	36"x36"	
L-1	RELIEF TANKER	VENTRODUCTS 2750		36"x36"	BELOW DIRECT COUPLED ACTUATOR
MOD-1	RELIEF DAMPER	VENTRODUCTS 5703		120/1/60	SPRING WOUND N.C.

PUMP SCHEDULE

PLAN SYMBOL	SYSTEM	MANUF. & MODEL	G.P.M.	BEET HEAD	H.P.	ELECTRICAL	NOTES
P-1	MAIN	TACO 0010	12.6	5.0	1/8	115/60/1 1.1 A	3250
P-2	GARAGE ZONE	TACO 007	7.5	4.5	1/25	115/60/1 .7 A	3250
P-3	GARAGE INJECTION	TACO 005	2.4	2.5	1/35	155/60/1 .53 A	3250
P-4	OFFICE ZONE	TACO 005	0.3	3.0	1/35	155/60/1 .53 A	3250
P-5	PARTS/BATHROOM ZONE	TACO 005	0.3	3.0	1/35	155/60/1 .53 A	3250
P-6	DOMESTIC HOT WATER	TACO 005	5.0	4.0	1/35	155/60/1 .53 A	3250

FAN SCHEDULE

PLAN SYMBOL	SYSTEM	MANUF. MODEL & TYPE	C.T.M.	S.P. IN.	SONES	FAN RPM	HP.	ELECTRICAL	NOTES
F-1	BATHROOM	GREENHECK SET-8-440-E	100	.125	2.2	1050	1/100	115/16/80	W/WEATHER HOOD, SCREEN & BUD
F-2	GARAGE VENT	GREENHECK SBS-1120-4	3000	.125	11.8	764	1/4	115/16/80	W/WEATHER HOOD, SCREEN & BUD



HYDRONIC PIPING SCHEMATIC
NOT TO SCALE