

**HEATING PLAN**  
SCALE: 1/4" = 1'-0"

# EQUIPMENT SCHEDULE

PLAN SYMBOL	DESCRIPTION	MANUF. & MODEL	CHARACTERISTICS	ELECTRIC	NOTES
HX	FURNACE	CENTRAL BOILER CLASSIC CLEAR85B	500,000 MAX. 400 GALLON, 1145F Heat Transfer Area	120V/1/60 15.0 A	Add corrosion inhibitor & propylene glycol to 35% according to mfr. instructions.
XT-1	HEAT EXCHANGER	FLATPLATE FP 10x20-35 (1 1/2"MF)	Fluid A 35% propylene glycol 185 in 185 out 48.4 gpm 6.9 psi ΔP Fluid B water 155 in 175 out 44.2 gpm 5.8 psi ΔP		
UH	EXP. TANK	AUTROL SX-30V	14 GALLON TANK, 11.5 GALLON ACCEPTANCE		
UH	UNIT HEATER	VULCAN HW-60	39,200 BTU, 4.4gpm 170 AMT 20Δ	120V/1/60 1.3 Amp 1/30HP	Provide speed controller, set @ 900 RPM
CUH	CABINET UNIT HEATER	VULCAN MINI CABINET CONSOLE	10,700 BTU, 19pm 170 AMT 20Δ	120V/1/60 4 Amp	
	FIN Tube RADIATOR	VULCAN DS 412	1090 BTU/LR, 1.0 170 AMT 20Δ		Mount @ 1375F. Footage called in plan is active elemental length

# PUMP SCHEDULE

PLAN SYMBOL	SYSTEM	MANUF. & MODEL	G.P.M.	FEET HEAD	H.P.	ELECTRICAL	R.P.M.	NOTES
P-1	MAIN	TACO 1819/1919	46.4	47	1.5	230V 10 60Hz	1750	
P-2	GARAGE ZONE	TACO 1815/1915	44.2	25	3/4	115/230V 10 60Hz	1750	

# PLUMBING SPECS

- Plumbing shall be installed in accordance with Local, State, and BOCA plumbing codes.
- Fittings between piping of dissimilar metals shall be made with insulated, dielectric fittings.
- All supply piping shall be Type-M hard drawn copper tubing with wrought copper or bronze fittings. Solder shall be 100 solder.
- Submittals:
  - Boilers
  - UH
  - CUH
  - Radiation
  - Circulators
- Insulation
 

Provide thermal and anti-sweat insulation for all piping as specified herein and/or indicated on the Drawings.

Insulation shall be in, hazard classifications, flame spread 25, smoke developed 50.

Fiberglass insulation shall be one piece fiberglass 25 ASI, all service jacket, UL rated non-combustible insulation jacketed with an embossed vapor barrier laminate. Jacket to have a pressure sealing lap adhesive to eliminate the use of staples, adhesives or bonds. Insulation shall be Owens-Corning Fiberglass Corp. or approved equal.

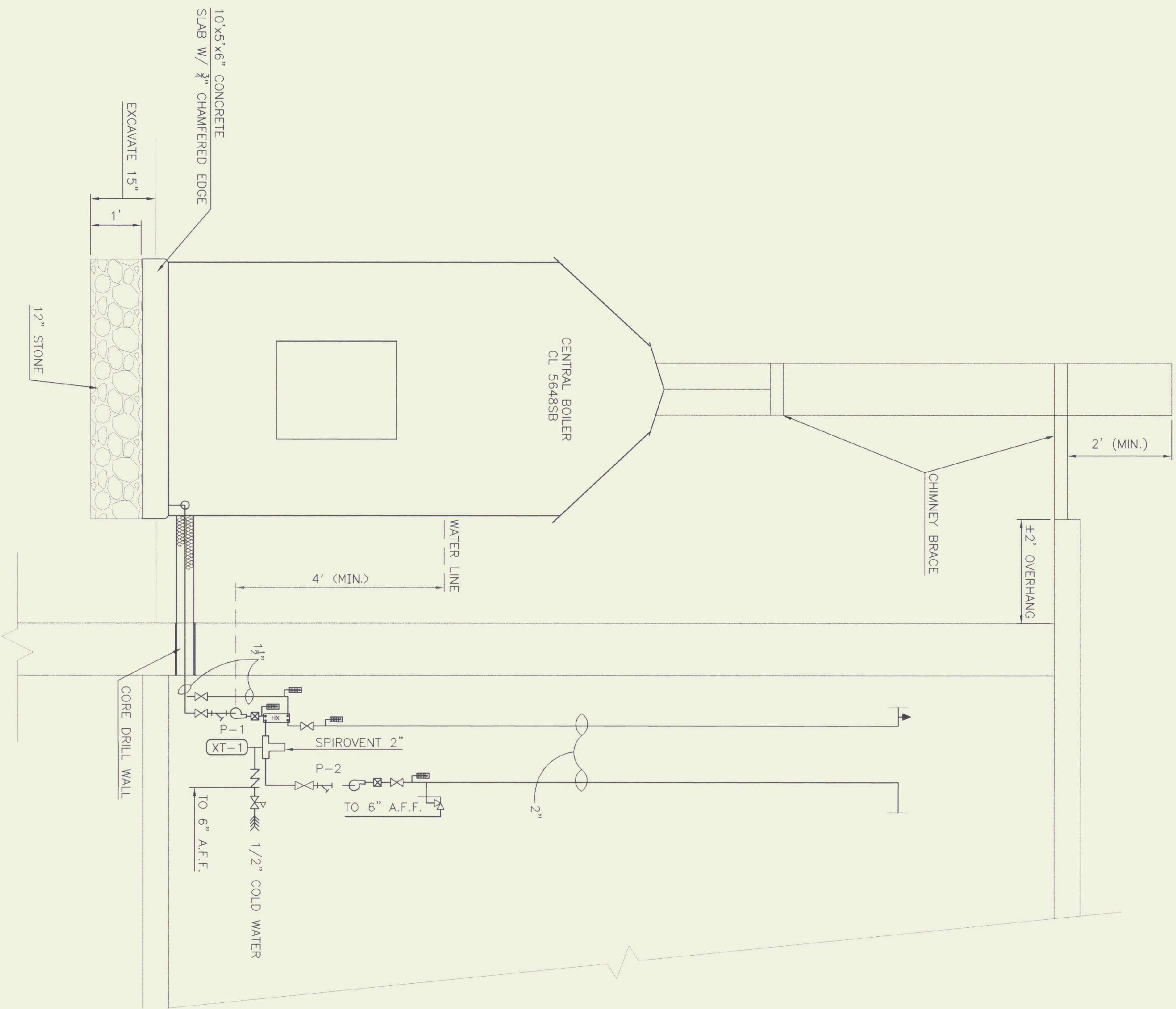
For pipe sizes up to 1-1/4" insulation shall be 1/2" thick; for pipe size 1-1/4" and larger insulation shall be 1" thick.

All elbows, tees and valves shall be covered with zip jackets as manufactured by "Speed Line".

Exterior piping to be insulated with 2" Armaflex insulation and aluminum jacket.

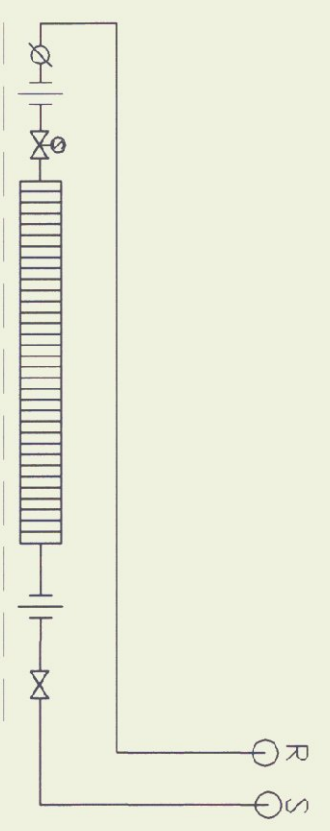
- UH and CUH: On fail in temperature-thermostat to energize fan, through aquostat (set at 120F adj.)
- Pumps to be turned on with manual switch.

LEGEND	
	BALL VALVE W/SS BALL & STEM
	UNION
	TOUR ANDERSON STD BALANCING VALVE
	MANUAL AIR VENT
	STRAINER & BALL VALVE BLOW DOWN
	SPRING ISOLATOR
	PRESSURE REDUCING VALVE
	BELL & GOSSETT F88
	SELF CONTAINED RADIATOR VALVE
	MACON NT w/ MB 2400
	PRESSURE RELIEF VALVE, PIPE TO 6" A.F.F.
	CHECK VALVE
	WATTS 90, PIPE DOWN TO 6" A.F.F.
	THERMOSTAT MOUNT @ 54" A.F.F.
	THERMOMETER
	BELL & GOSSETT F10 CONTROL VALVE
	PUMP RANGE 1/4" YOKE W/ 2 BALL VALVES & PRESSURE GAUGE



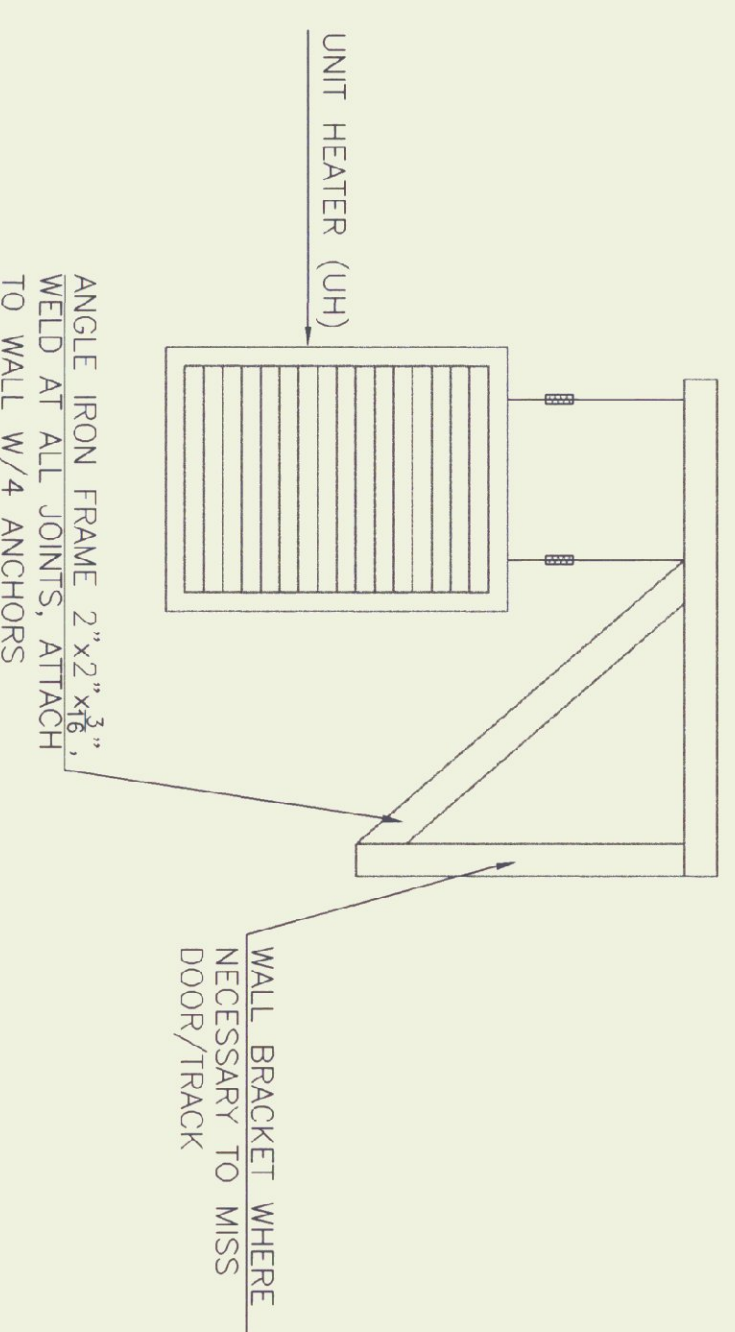
# BOILER ELEVATION

SCALE: 3/4" = 1'-0"



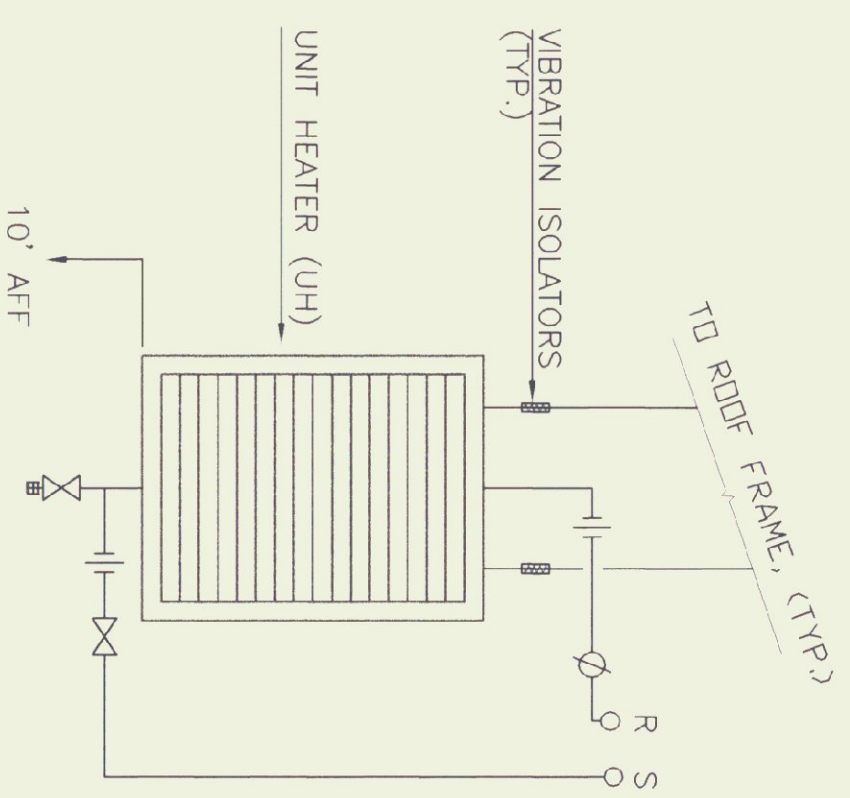
# RAD DETAIL

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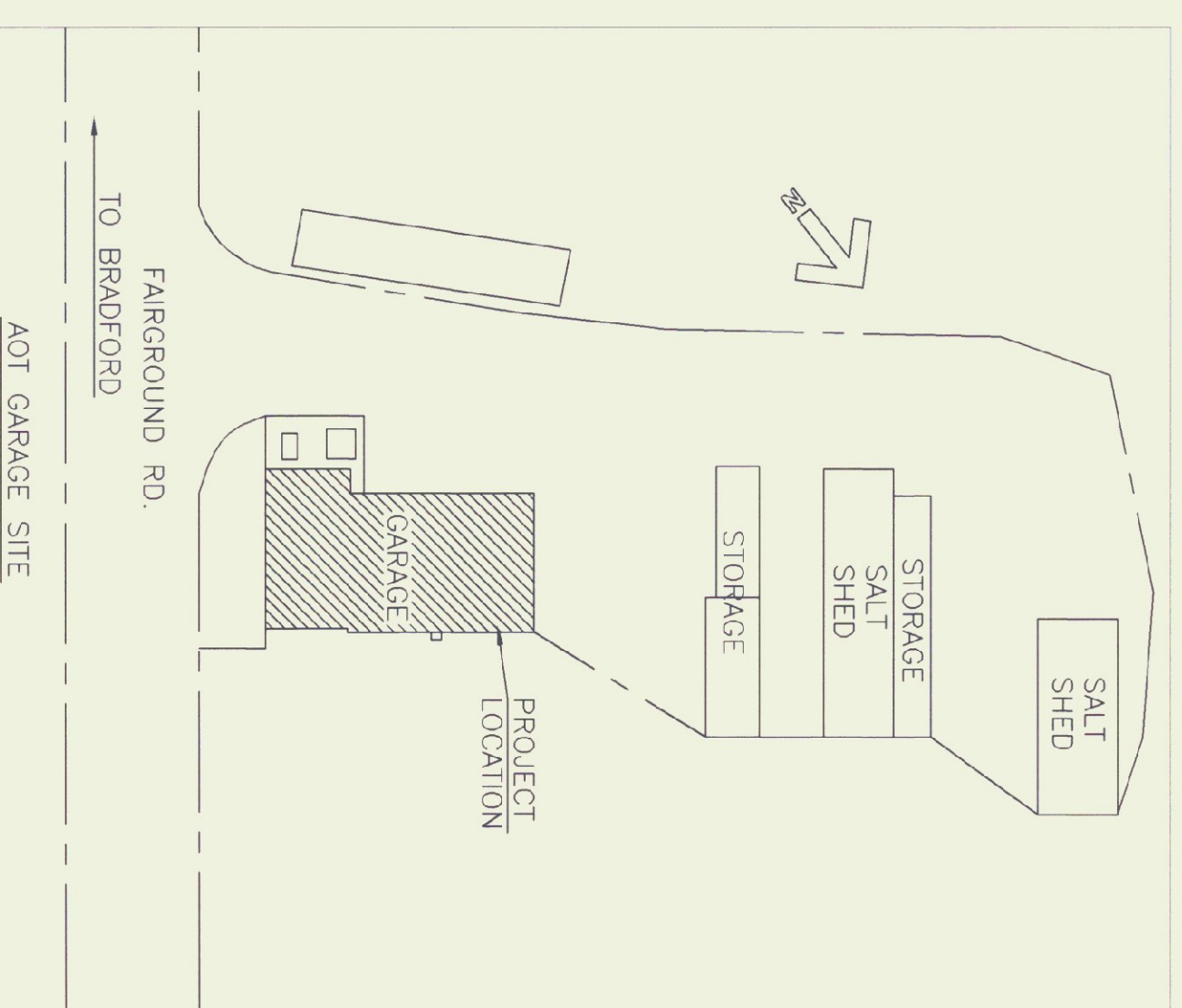
# UNIT HEATER: WALL MOUNT

NOT TO SCALE



# UNIT HEATER: CEILING MOUNT

NOT TO SCALE



STATE OF VERMONT  
Department of Buildings  
and General Services  
Agency of Administration  
Montpelier, Vermont



BRADFORD AOT GARAGE  
NEW HEATING  
DETAILS & SCHEDULE

VERMONT

BRADFORD

# REVISIONS

SCALE: AS NOTED
DATE: AUGUST, 2001
DRAWN BY: K.CHISHOLM
APPR. BY: SOUTHWORTH

AOT GARAGE  
NEW HEATING  
HEATING PLAN

M-2

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