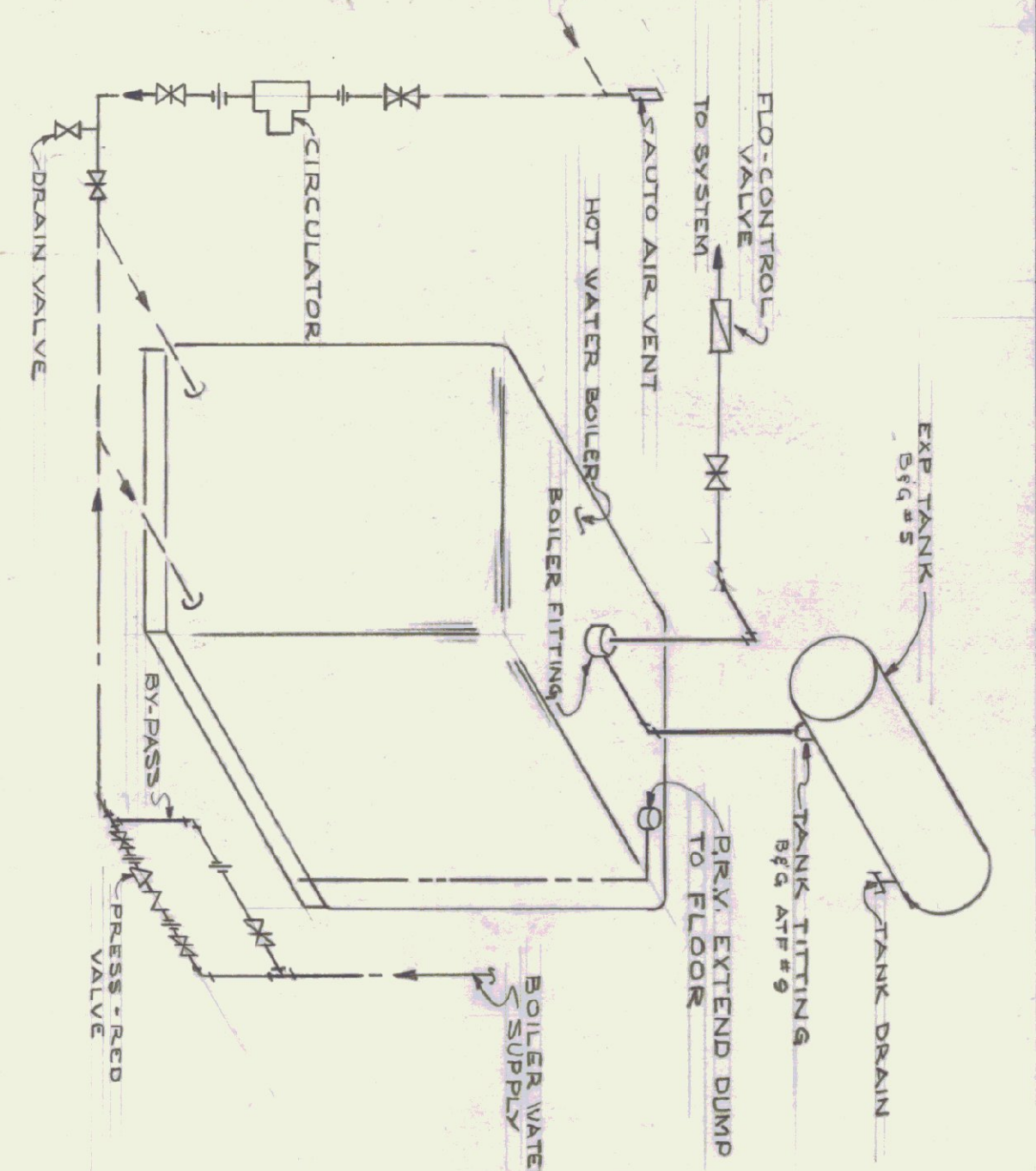


HEATING - PLUMBING SPECIFICATIONS

- BOILER-BREACHING & EQUIPMENT:**
 - 1. Furnish and install H.P. Smith boiler burner unit Model 1000A, net IBR 400 bhp, 130° F. hot water, 3 G.P.H. #2 fuel oil boiler. Boiler shall have operating constant to maintain constant boiler water temperature, temperature-altitude gage, A.S.M.E. relief valve and low water cut-off. Provide steel breaching with barometric damper and connect from boiler to chimney.
- OIL TANK:**
 - 2. Furnish and install 1000 gallon fuel oil storage tank. Engineered for 1000 gallon oil tank. Tank shall have necessary piping for fill and vent suction and return piping. Tank shall be 1/2" thick steel, 110° F. vent line to terminate 10 ft. above grade with Preferred Utilities "Life-Time" junior vent protector. Heating contractor to apply two coats of black asphaltum paint to tank and underground steel piping.
- HOT WATER SPECIALTIES:**
 - 3. Expansion Tank Standard Construction Bell & Gossett with air tank fitting, air eliminator, air control valve, air vents set at all high points and drains at all low points.
- PIPING:**
 - 4. All water piping to be ASTM Government type I hard drawn copper tubing ASTM B-88. Water Service Main to be Government type "K" hard drawn copper tubing ASTM B-88. Sanitary waste and vent piping above grade to be copper DWV. Sanitary drainage piping below grade to 5 ft. outside building to be 1/2" cast iron bell and spigot, cold lead joints to provide 3/8" leader, except DWV piping 3/4" solder for through walls, floors and partitions and provide split chrome escutcheon plates where exposed to view.
- INSULATION:**
 - 5. Provide thermal and anti-sweat insulation for all plumbing cold and hot water piping, to be Owens Corning fiberglass, standard thickness, universal vapor barrier jacket sealed joints and applied in accordance with manufacturers recommendations.
- PLUMBING FIXTURES:**
 - 6. Water Closet: American Standard "New Cadet" No. 72122 Hi-rise China 3/8" wall stop B-3502 White open front seat with cover. Lavatory: American Standard "Hexagon" No. P-3867 and Nema combination supply and pop-up drain. 1 1/2" C.P. P-trap, R-2600, 3/8" wall supply-wheel handle control stop with escutcheon, 22" x 19" enameled cast iron, white. Corner Shower: Flat "Cadet" model 28-36" x 36" x 81" Steel Cabinet baked on enamel, floor pre-cast terrazzo and to include mixing valve S-3600 and shower head. Provide shower curtain, rod and hold back tie.
- HOT WATER HEATER:**
 - 7. Furnish and install American Standard #E-522-DOR "Arceolan Deluxe 52 gallon hot water heater, completely automatic with standard primary 5000 watt and secondary 5000 watt input, elements for 240V. 1Ø.
- RADIATION:**
 - 8. Radiation to be Sterling "Hi-Pak" as manufactured by Sterling Radiator Co. 3/4" radiator, aluminum fins 2 1/2" x 4 1/2" x 90 rated at 840 Btu per foot with 180° F. A.W.T. and 120° F. water temperature. Radiators to be installed and provide dampers in covers where element occurs.
- Unit Heater:**
 - 9. Trane Company Model 60 WF, 755 GPM 1550 RPM 1/20 HP 120V, 35.6 mbh, 180° F. E.W.T. @ 3.67 G.P.M. & .54 P.D. 20° F. T.D. Provide gate valves, air vent and balancing fitting at unit heater.
- Circulator:**
 - 10. Bell & Gossett "125", 1 1/2" flanged 1/12 HP 120V, 1Ø rated 10 GPM at 6 to head.
- Automatic Controls:**
 - 11. Furnish and install all automatic controls, valves, wiring and thermostats to perform the following:
 - A. Boiler: Inertion aquastat to cycle burner to maintain constant (adjustable) boiler discharge water temperature.
 - B. Room Thermostats first floor to modulate control valves on each loop to maintain space temperature of T setting.
 - C. Unit Heater in Basement: Room thermostat to cycle fan motor to maintain space temp. of T setting. T to have "auto, on, off" feature.
- CODES, PERMITS, WORKMANSHIP, TESTING AND GUARANTEES:**
 - 12. All work shall comply with latest editions of National Plumbing Code, Underwriters Laboratories Regulations, National Bureau of Fire Underwriters, ASHRAE Guide and all local, state and other public authorities having jurisdiction.

LEGEND

SOIL PIPE	---
VENT PIPE	---
COLD WATER SUPPLY PIPING	---
HOT WATER SUPPLY PIPING	---
RADIATION HOT WATER SUPPLY	---
RADIATION HOT WATER RETURN	---
GATE VALVE	⊠
BALANCING VALVE	⊠
CHECK VALVE	⊠
MODULATING VALVE	⊠
WATER METER	⊠
VENT THRU ROOF	⊠
CLEAN OUT	⊠
UNION	⊠



HEATING & PLUMBING LAYOUT

OFFICE BUILDING
NO. 2
DEPT. OF HIGHWAYS - DISTRICT 5
DISTRICT HEADQUARTERS (ESSER UNIT)
STATE BUILDINGS DIVISION
DEPT. OF ADMINISTRATION
MONTPELIER, VERMONT
JENNISON ENGINEERING INC.
CONSULTING ENGINEERS
102 MAIN ST. BURLINGTON VT.

STATE OF VERMONT
JAMES W. BROWN
No. 715
Professional Engineer

DEPT. OF HIGHWAYS - DISTRICT 5
DISTRICT HEADQUARTERS (ESSER UNIT)
STATE BUILDINGS DIVISION
DEPT. OF ADMINISTRATION
MONTPELIER, VERMONT
JENNISON ENGINEERING INC.
CONSULTING ENGINEERS
102 MAIN ST. BURLINGTON VT.

DATE: OCT. 13, 1964
CHECKED BY: J.S.Z.
DESIGNED BY: MONTPELIER
DRAWN BY: JENNISON ENGINEERING INC.
DATE: OCT. 23, 1964
SCALE: AS SHOWN