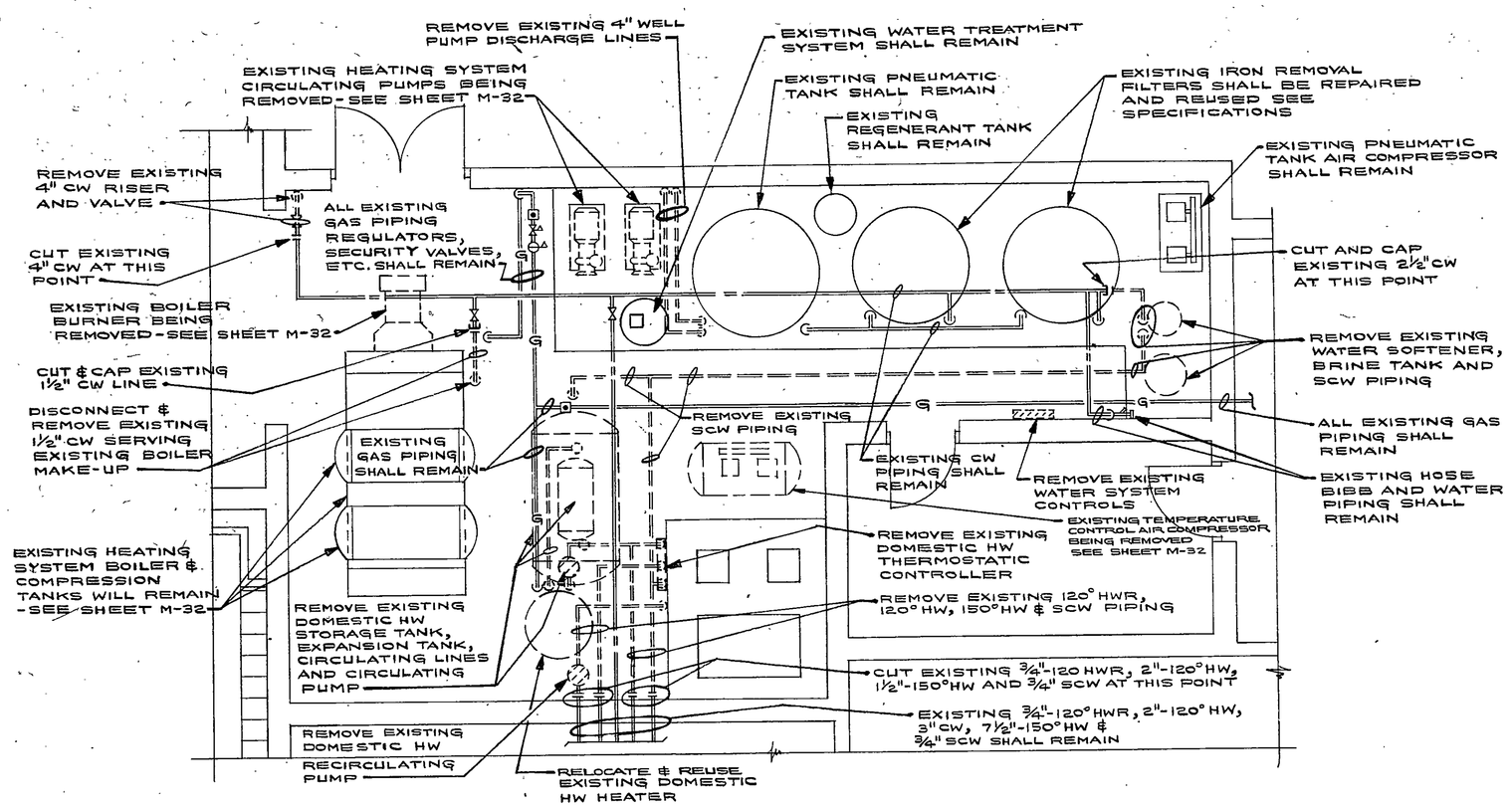



## PLUMBING BOILER ROOM DEMOLITION PLAN

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

| CIRCULATING PUMP SCHEDULE | | | | | | | |
|---|---|---|---|---|---|---|---|
| NO. | SYSTEM SERVED | MODEL NUMBER | SIZE OR MODEL | G.P.M. | FEET HEAD | H.P. | SEE NOTE |
| 1 | HEATING SYSTEM CIRCULATING | 1531 | 3E | 225 | 90 | 15 | 1 |
| 2 | HEATING SYSTEM CIRCULATING | 1531 | 3E | 225 | 90 | 15 | 1 |
| 3 | DOMESTIC HW CIRCULATING | BOOSTER | B-2" | 40 | 8 | 1/6 | 2, 3 |
| 4 | DOMESTIC HW RECIRCULATING | BOOSTER | B-1" HV | 10 | 12 | 1/6 | 2, 4 |
| 5 | DOMESTIC HW RECIRCULATING | BOOSTER | B-1" HV | 10 | 12 | 1/6 | 2, 4 |
| 6 | DOMESTIC HW RECIRCULATING | BOOSTER | B-1" HV | 10 | 12 | 1/6 | 2, 4 |

NOTES:

1. PUMP MOTOR: 460 VOLTS, 3 PHASE, 60 HERTZ, 1750 RPM.
2. PUMP MOTOR: 115 VOLTS, 1 PHASE, 60 HERTZ, 1750 RPM.
3. PUMP SHALL START AND STOP ON 5° TEMPERATURE VARIATION IN THE HOT WATER STORAGE TANK.
4. PUMP SHALL START AND STOP ON 10° TEMPERATURE VARIATION IN THE RETURN MAINS.

### PLUMBING BOILER ROOM NOTES

1. ALL SIGHT GLASSES, THERMOMETERS AND GUAGES SHALL BE INSTALLED AT 30° FROM VERTICAL AND SHALL BE EASILY READABLE FROM THE FLOOR (SEE SPECIFICATIONS).
2. ALL PRESSURE RELIEF VALVES, TEMPERATURE RELIEF VALVES, DRAIN VALVES, ETC., SHALL HAVE A DRAIN LINE FULL SIZE OF OUTLET, RUN TO NEAREST FLOOR DRAIN OR TRENCH DRAIN.
3. ALL HORIZONTAL PIPING WITHIN THE BOILER ROOM SHALL BE SUSPENDED ON RUBBER-IN-SHEAR HANGERS (SEE SPECIFICATIONS).
4. ALL 3-WAY MIXING VALVES, SHALL BE PROVIDED BY THE TEMPERATURE CONTROL CONTRACTOR.
5. SEE SHEET M-32 FOR ADDITIONAL BOILER ROOM DIAGRAMS AND DETAILS.
6. GAS SECURITY VALVE AND GAS PRESSURE REGULATOR SHALL BE THE SIZE AND TYPE AS RECOMMENDED BY THE NORTHERN INDIANA PUBLIC SERVICE COMPANY.
7. RUN NEW 1-1/2" CW DOWN AND CONNECT TO EXISTING 1-1/2" CW BOILER MAKE-UP LINE.
8. RECONNECT EXISTING AQUADENE INJECTION LINE TO NEW 4" WELL PUMP DISCHARGE LINE.
9. CONNECT NEW 3/4" 120° HW, 1-1/2" 150° HW AND 3/4" SCW TO EXISTING 3/4" 120° HW, 1-1/2" 150° HW AND 3/4" SCW.
10. CONNECT NEW 4" CW TO EXISTING 4" CW.

### PLUMBING BOILER ROOM EQUIPMENT SCHEDULE

1. DOMESTIC HOT WATER SYSTEM EXPANSION TANK:
HORIZONTAL, 24" DIAMETER X 5'-0" LONG (OVERHEADS). A.S.M.E. CONSTRUCTION FOR 125 PSI WORKING PRESSURE, 118 GALLONS ACTUAL CAPACITY. PROVIDE 3/4" DIAMETER THREADED "U" BAR HANGERS, SUSPENSION ANGLES, ETC., AS REQUIRED.

2. WATER SOFTENING EQUIPMENT:
BRUNER MOD. #210HBR-P-1/2 OR AN APPROVED EQUAL WITH 24" DIAMETER X 60" HIGH BRINE TANK, 115 GPM SERVICE FLOW RATE ANDD 13.5 GPM BACKWASH RATE. MECHANICAL CONTRACTOR SHALL PROVIDE A 3" VALVED RAW WATER BY-PASS AS SHOWN ON THE DRAWINGS - SEE SPECIFICATIONS.

3. SHOP AREA AIR COMPRESSOR:
INGERSOLL-RAND MODEL #5 TM, OR AN APPROVED EQUAL, WITH 20.5 CFM DISPLACEMENT AT 100 PSI. MOTOR DATA: 5 H.P., 460 VOLT, 3 PHASE, 60 HERTZ. UNIT SHALL BE MOUNTED ON A 60 GALLON HORIZONTAL RECEIVER. A.S.M.E. CONSTRUCTED FOR 200 PSI WORKING PRESSURE. - SEE SPECIFICATIONS.

4. REFRIGERATED AIR DRYER:
INGERSOLL-RAND MODEL #EA-520, OR AN APPROVED EQUAL, HAVING 70 CFM CAPACITY AT 100 PSI WITH 95 F INLET AND 85 F AMBIENT TEMPERATURES. MOTOR DATA: 1/5 H.P., 115 VOLT, 1 PHASE, 60 HERTZ.

5. DOMESTIC HOT WATER STORAGE TANK:
54" DIAMETER X 8'-0" LONG, A.S.M.E. CONSTRUCTED FOR 125 PSI WORKING PRESSURE AND 952 GALLON STORAGE CAPACITY. THE TANK SHALL HAVE ALL NECESSARY TAPPINGS, AQUASTAT, MANHOLES, INSULATION, ETC. AS REQUIRED - SEE SPECIFICATIONS.

6. WATER SYSTEM CONTROLS:
WARRICK "PACKTROL" OR AN APPROVED EQUAL. PROVIDE NEMA-1 ENCLOSURE CONTAINING A 3-1/2" DIAL PRESSURE GAUGE REGISTERING FROM 0 TO 100 PSI, ALLEN-BRADLEY BULLETIN 712 (FORM 2P) COMBINATION DISCONNECT SWITCH ACROSS THE LINE MAGNETIC STARTERS, SIZE 2, 460 VOLT, 3 PHASE, 3 OVERLOADS FOR THE PUMP, SIZE 0, 460 VOLT, 3 PHASE, 3 OVERLOADS FOR THE EXISTING AIR COMPRESSOR, AND CONTROL TRANSFORMERS, OIL TIGHT H-O-A SWITCHES, AND RUNNING LIGHTS IN THE CABINET DOOR FOR THE PUMP AS WELL AS THE EXISTING AIR COMPRESSOR - SEE SPECIFICATIONS.

7. DEEP WELL:
WELL SHALL BE 8" DIAMETER AND DRILLED TO A DEPTH OF 65 FEET. THE WELL SHALL BE CAPABLE OF SUPPLYING 150 GPM BASED ON CONTINUOUS OPERATION - SEE SPECIFICATIONS.

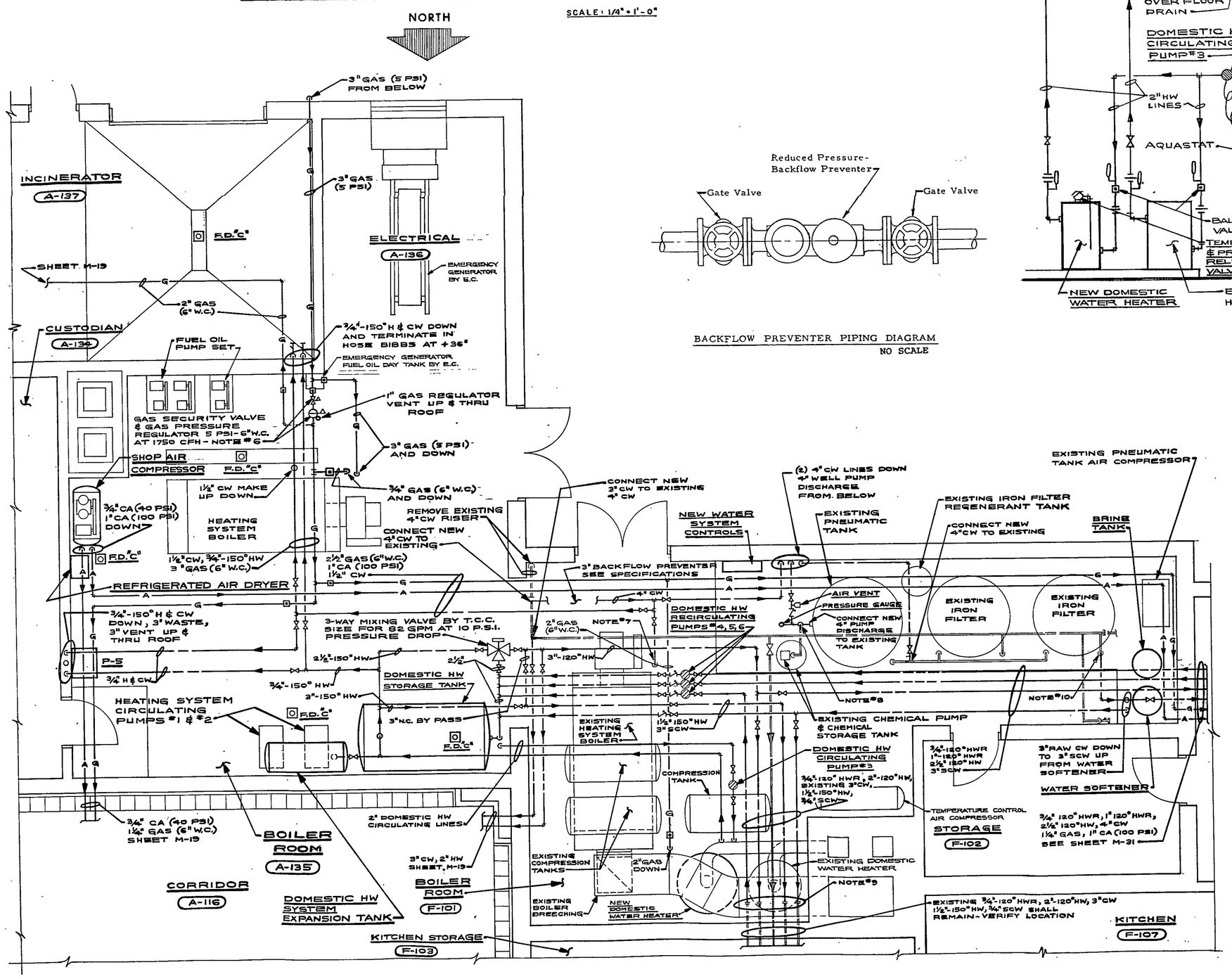
8. DEEP WELL SUBMERSIBLE PUMP:
FLOWAY MODEL #6 JOLL, OR AN APPROVED EQUAL, WITH THE CAPACITY TO PUMP 150 GPM AT 200 FEET OF TOTAL DYNAMIC HEAD. MOTOR DATA: 15 H.P., 460 VOLT, 3 PHASE, 60 HERTZ, 3500 RPM. THE ELECTRICAL CABLE TO PUMP MOTOR SHALL BE NOT LESS THAN #8 AWG AND SHALL BE COMPRISED OF THREE OR MORE SEPARATE CONDUCTORS. PROVIDE A SUFFICIENT COLUMN ASSEMBLY FOR A 50 FOOT PUMP SETTING IN THE WELL - SEE SPECIFICATIONS.

9. PNEUMATIC TANK AIR COMPRESSOR:
EXISTING 2 H.P., 460 VOLT, 3 PHASE, 60 HERTZ PNEUMATIC TANK AIR COMPRESSOR SHALL BE REUSED. DISCONNECT COMPRESSOR FROM EXISTING WATER SYSTEM CONTROLS AND CONNECT TO NEW WATER SYSTEM CONTROLS AS REQUIRED.

10. PNEUMATIC TANK:
EXISTING 2115 GALLON PNEUMATIC TANK SHALL BE REUSED. DISCONNECT EXISTING WELL PUMP DISCHARGE LINES FROM THE EXISTING PNEUMATIC TANK AND CONNECT NEW 4" WELL PUMP DISCHARGE LINE AS SHOWN ON THE DRAWINGS. DISCONNECT EXISTING WELL PUMP CONTROL FROM TANK AND INSTALL NEW WATER SYSTEM CONTROLS AS REQUIRED.

11. IRON REMOVAL EQUIPMENT:
EXISTING IRON REMOVAL EQUIPMENT SHALL BE REPAIRED AND REUSED - SEE SPECIFICATIONS.

12. DOMESTIC HOT WATER HEATERS:
EXISTING DOMESTIC WATER HEATER SHALL BE REUSED IN CONJUNCTION WITH A NEW DOMESTIC WATER HEATER. DISCONNECT PIPING FROM EXISTING WATER HEATER AND CONNECT NEW PIPING AND LOCATE WATER HEATER AS SHOWN ON THE DRAWINGS. NEW WATER HEATER SHALL BE A.O. SMITH MODEL #BTP-200-800 GAS FIRED WITH 767 GPH RECOVERY AT 100° F. TEMPERATURE RISE AND 220 GALLONS STORAGE CAPACITY, A.S.M.E. CONSTRUCTED FOR 160 PSI WORKING PRESSURE AND ENCASED IN AN INSULATED ENAMELED STEEL JACKET. PROVIDE BAROMETRIC DAMPER, THERMOSTATIC CONTROLS, SAFETY SHUT-OFF CONTROLS, POWER BURNER FOR MINIMUM 800 MBH NATURAL GAS INPUT AND HAND HOLE CLEANOUTS (SEE SPECIFICATIONS).




## PLUMBING BOILER ROOM LAYOUT

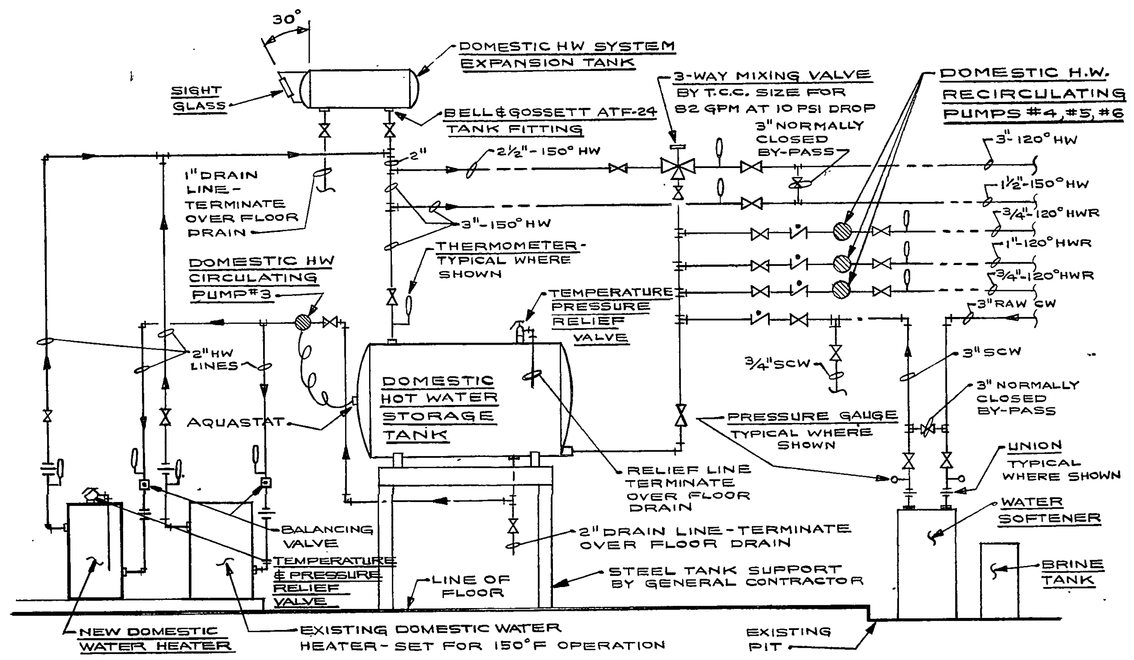
SCALE: 1/4" = 1'-0"

NORTH



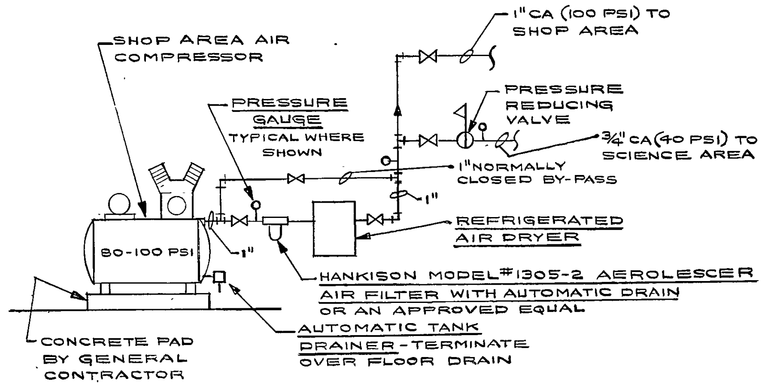

BACKFLOW PREVENTER PIPING DIAGRAM

NO SCALE




## DOMESTIC HOT WATER PIPING DIAGRAM

NO SCALE




## SHOP AREA AIR COMPRESSOR PIPING DIAGRAM

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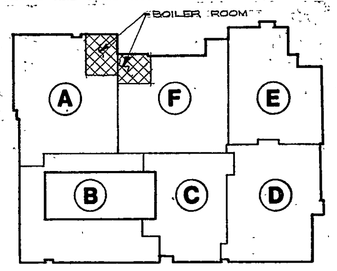


FIRST FLOOR
KEY PLAN
NO SCALE

NORTH

AS-BUILT
25 SEPT. 1984


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James A. Partridge

JAMES ALLEN PARTRIDGE REGISTERED 12545 STATE OF INDIANA PROFESSIONAL ENGINEER

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| 12579.00 | MAY 3, 1982 | |

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