



PLUMBING ABBREVIATIONS

Table of plumbing abbreviations with columns for symbol, description, and unit. Includes entries like A/E ARCHITECT / ENGINEER, A/D AREA DRAIN, and various pipe and equipment symbols.

NOTE: ALL SYMBOLS AND ABBREVIATIONS MAY NOT BE INDICATED ON THE DRAWINGS.

PLUMBING PIPING SYMBOLS

Table of plumbing piping symbols showing line styles and their corresponding descriptions, such as EXISTING TO REMAIN, DOMESTIC COLD WATER, and LABORATORY WASTE.

PLUMBING VALVE SYMBOLS

Table of plumbing valve symbols showing valve symbols and their descriptions, including BALANCING VALVE, GATE VALVE, CHECK VALVE, and PRESSURE REGULATING VALVE.

GENERAL PLUMBING SYMBOLS

Table of general plumbing symbols showing symbols for pipe direction, connection types, and equipment like strainers and pressure gauges.

DRAWING SYMBOLS

Table of drawing symbols showing symbols for key notes, detail numbers, section letters, and equipment abbreviations.

GENERAL NOTES

- GENERAL
1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, INVERTS, PIPE SIZES AND MATERIALS...
2. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES...
3. THIS INSTALLATION WILL CONFORM TO ALL CODES AND THE REQUIREMENTS OF FEDERAL, STATE, AND LOCAL REGULATORY AGENCIES...

PLUMBING NOTES

- 1. ALL PIPING MATERIALS AND COMPONENTS INCLUDING FITTINGS, PIPE, FLANGES, VALVES, ETC. SHALL BE DESIGNATED, FABRICATED AND INSTALLED IN ACCORDANCE WITH THE LATEST CODES...
2. ALL SANITARY SEWERS 3" AND SMALLER SHALL SLOPE 1/4" PER FOOT (MIN)...
3. ALL HORIZONTALLY ROUTED WASTE VENTS SHALL BE INSTALLED WITH A SLOPE TO FACILITATE GRAVITY DRAINAGE...

CONSULTANTS:

MILLER-REMICK CORPORATION PROFESSIONAL ENGINEER

ARCHITECT/ENGINEERS:



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Drawing Title
PLUMBING SYMBOLS, ABBREVIATIONS AND GENERAL NOTES

Approved: Project Director

Project Title
ALTOONA BOILER REPLACEMENT

Location
VA MEDICAL CENTER ALTOONA, PA

Date
06-03-2014

Checked
JUM

Drawn
PD

100% BID DOCUMENTS

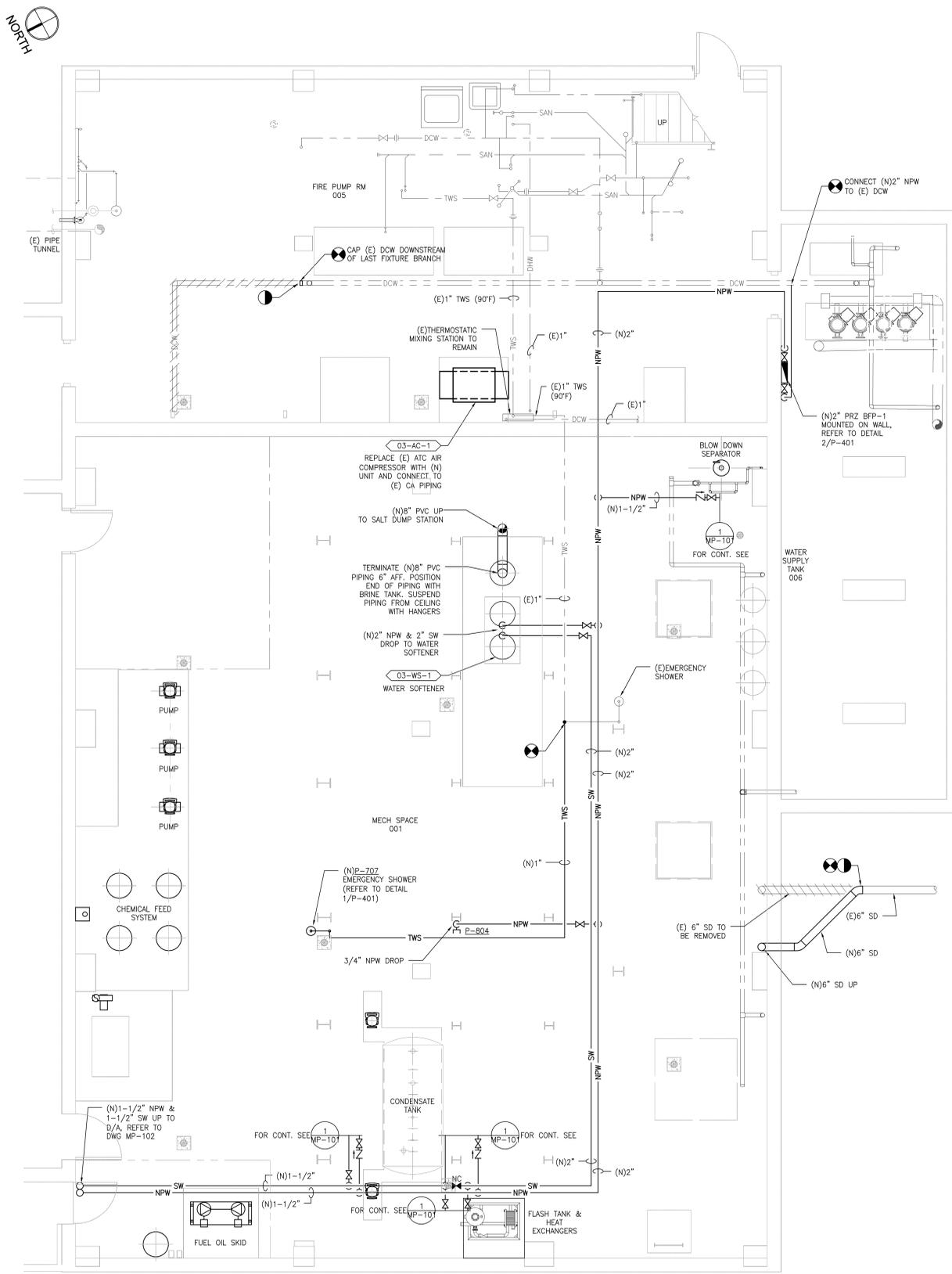
Project Number
503-13-120
Building Number
BLDG. 03

Drawing Number
P-001

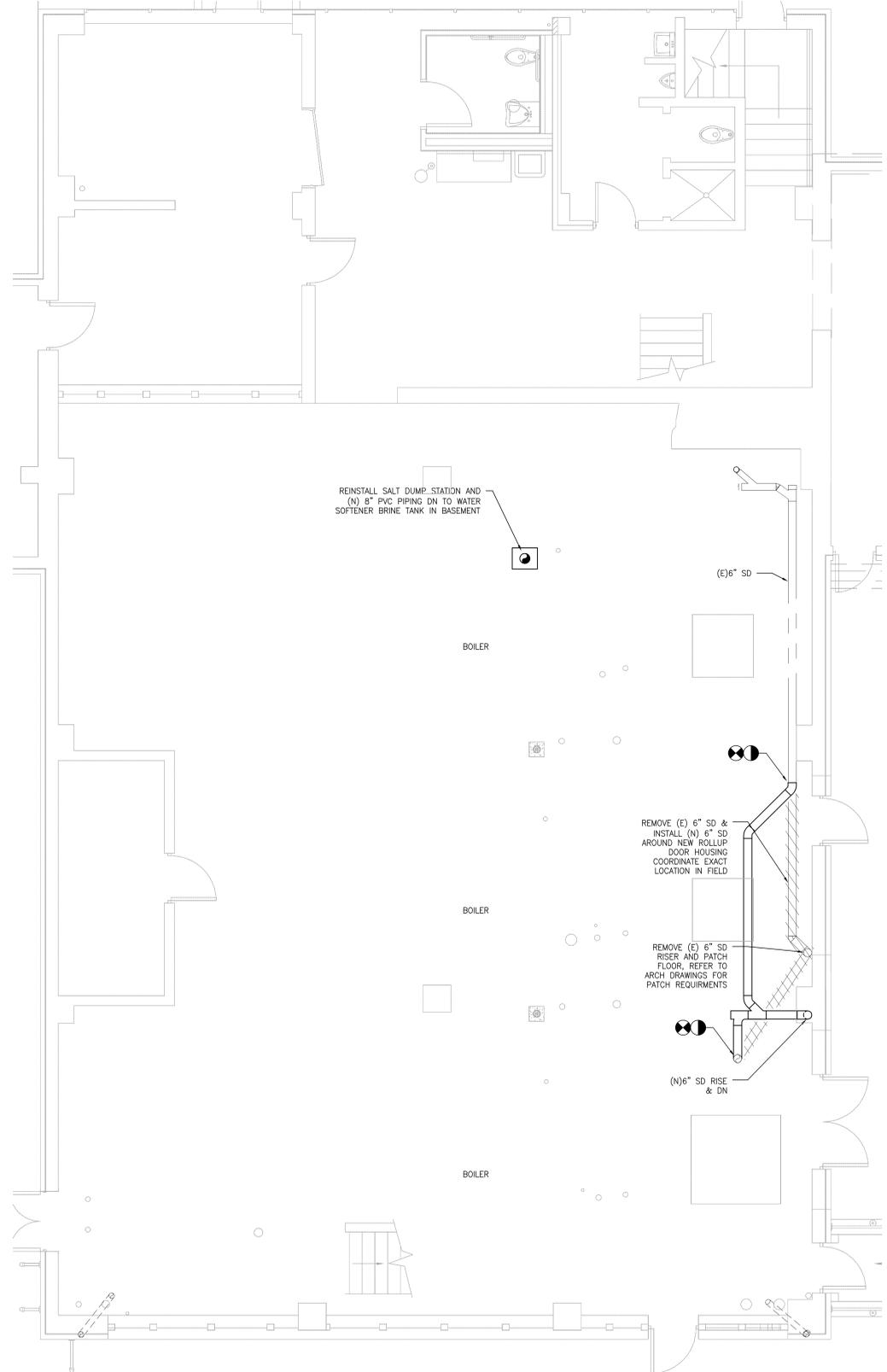
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Office of Construction and Facilities Management





1 BOILER PLANT PLAN - BASEMENT FLOOR
1/4" = 1'-0"



2 BOILER PLANT PLAN - FIRST FLOOR
1/4" = 1'-0"

GENERAL SHEET NOTES:

1. REFER TO DRAWING P-001 FOR PLUMBING SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
2. REFER TO DRAWING P-401 FOR PLUMBING DETAILS AND SCHEDULES.
3. REFER TO DRAWING P-601 FOR SOFTENED WATER SYSTEM FLOW DIAGRAM.
4. CONTRACTOR TO PROVIDE PLASTIC PLACARD AT ALL INDOOR HOSE BIBBS LOCATIONS.
 - PLACARD TO BE 1/8" THICK MULTILAYER PLASTIC WITH 0.25" TALL BLACK LETTERS AND YELLOW FACE.
 - PLACARD TO HAVE THE FOLLOWING NOTE ENGRAVED:
NON-POTABLE WATER
ONLY TO BE USED FOR PROCESS APPLICATIONS

three inches = one foot
 one and one half inches = one foot
 one inch = one foot
 three quarters inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot
 one eighth inch = one foot
 P:\0499_DWA\3-0499-0034_Alcoba Boiler Replacement\2_Drawings\1_Cad\1_Current_Submittal\Phase 3_Plumbing\PL-101_PLUMBING PLANS.dwg 6-02-14 07:49:59 AM vrizzo

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Approved: Project Director

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Dwg. 61 of 63

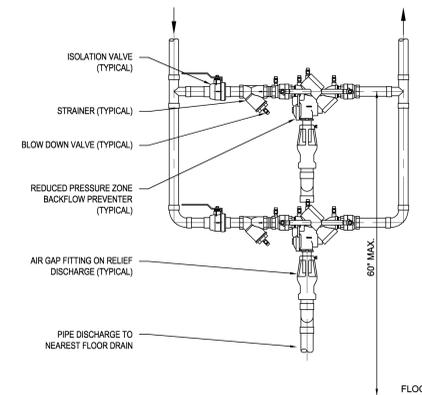
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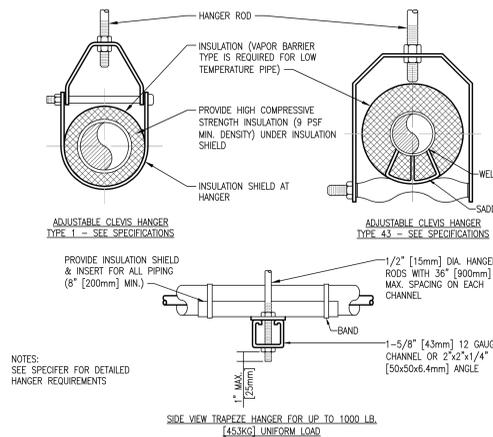
| WATER SOFTENER SCHEDULE | | | | | | | | | | | | | | | | | | |
|-------------------------|----------------|-------------------------|-----------------------|--------------|-------------------------|----------------------|----------------|----------------|---------------------|-----------------------|----------------------------|----------|------------------|-----------------------------|----------------|-------|-------------|---------|
| MARK | LOCATION | AREA AND/OR BLDG SERVED | SYSTEM AND/OR SERVICE | TYPE | INCOMING WATER HARDNESS | CONTINUOUS FLOW RATE | PEAK FLOW RATE | INLET PRESSURE | BACK WASH FLOW RATE | CAPACITY/ SALT DOSAGE | | | TANK SIZE (DIAM) | SALT CAPACITY OF BRINE TANK | POWER REQUIRED | | | REMARKS |
| | | | | | | | | | | SALT DOSAGE | MIN. BED (SUBFILL OF SAND) | MAX. BED | | | AMP | PHASE | VOLT | |
| 03-WS-1 | MECH SPACE 001 | BOILER BLDG | HEATING WATER | ION EXCHANGE | 200 | 28 | 48 | 100 | 7 | 15 | LB | 60 | 17 | EXIST | 1 | 120 | DUPLEX UNIT | |

| AIR COMPRESSOR SCHEDULE | | | | | | | | | | | | | | | | | | | | |
|-------------------------|------------------|-------------------------|-----------------------|--------------|---------------|-------|--------------------|-------|---------------|-------|-----------------------------------|------|------------------------|-----|------|-------|-------------|-----------------------------------|------|----------------------------------|
| MARK | LOCATION | AREA AND/OR BLDG SERVED | SYSTEM AND/OR SERVICE | TYPE | INLET AIRFLOW | | DISCHARGE PRESSURE | | RECEIVER SIZE | | RECEIVER DIMENSIONS, DIA X LENGTH | | ELECTRIC POWER [60 Hz] | | | | OPER WEIGHT | BASIS OF DESIGN OR APPROVED EQUAL | | |
| | | | | | CFM | [L/s] | PSIG | [kPa] | GAL | [L] | IN | [mm] | NO. MOTORS | HP | [kW] | PHASE | | | VOLT | RPM |
| 03-AC-1 | FIRE PUMP RM 005 | BOILER BLDG | PLANT AIR EQUIPMENT | ROTARY SCREW | 28 | [13] | 120 | [830] | 120 | [450] | - | - | 1 | 7.5 | [6] | 3 | 480 | 1750 | 3550 | INGERSOLL-RAND MODEL UP-7TAS-125 |

| PLUMBING FIXTURE SCHEDULE | | | | | | | | | | | | | | |
|---------------------------|------------------|------------|------|-----------|------|------------|------|-----------|------|---------------------|---------------------|---------------------|-----------------|---------------------|
| MARK | DESCRIPTION | WASTE PIPE | | VENT PIPE | | COLD WATER | | HOT WATER | | WASTE FIXTURE UNITS | WATER FIXTURE UNITS | WRIST BLADE HANDLES | ELECTRIC SENSOR | REMARKS |
| | | IN | [mm] | IN | [mm] | IN | [mm] | IN | [mm] | | | | | |
| P-707 | EMERGENCY SHOWER | - | | - | | 1 | [25] | - | | - | - | NA | NA | WITH EYE WASH |
| P-804 | HOSE BIBB | - | | - | | .75 | [19] | - | | - | - | NO | NA | WITH VACUUM BREAKER |



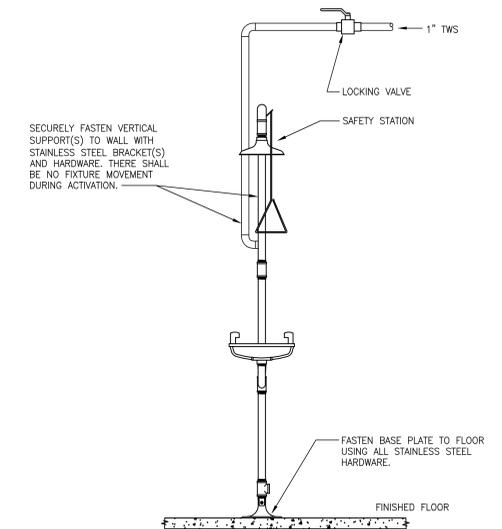
2 BACKFLOW PREVENTER DETAIL
NTS



| MAXIMUM PIPE/TUBING SUPPORT SPACING | | | | | | | | | | | | | |
|-------------------------------------|------|---|---|---|---|---|---|---|---|---|----------------------------|------|------|
| NOM. SIZE | IN. | THRU 3/4 | 1 | 1 1/4 | 1 1/2 | 2 | 2 1/2 | 3 | 4 | 5 | 6 | 8 | 10 |
| PIPE | FT. | 2100 | 2100 | 2100 | 2700 | 3000 | 3400 | 3700 | 4100 | 4900 | 5200 | 5800 | 6700 |
| TUBING | 5 FT | 1800 <td>2100 <td>2400 <td>2400 <td>2700 <td>3000 <td>3700 <td>4000 <td>4100 <td>4900 <td>-</td> <td>-</td> </td></td></td></td></td></td></td></td></td> | 2100 <td>2400 <td>2400 <td>2700 <td>3000 <td>3700 <td>4000 <td>4100 <td>4900 <td>-</td> <td>-</td> </td></td></td></td></td></td></td></td> | 2400 <td>2400 <td>2700 <td>3000 <td>3700 <td>4000 <td>4100 <td>4900 <td>-</td> <td>-</td> </td></td></td></td></td></td></td> | 2400 <td>2700 <td>3000 <td>3700 <td>4000 <td>4100 <td>4900 <td>-</td> <td>-</td> </td></td></td></td></td></td> | 2700 <td>3000 <td>3700 <td>4000 <td>4100 <td>4900 <td>-</td> <td>-</td> </td></td></td></td></td> | 3000 <td>3700 <td>4000 <td>4100 <td>4900 <td>-</td> <td>-</td> </td></td></td></td> | 3700 <td>4000 <td>4100 <td>4900 <td>-</td> <td>-</td> </td></td></td> | 4000 <td>4100 <td>4900 <td>-</td> <td>-</td> </td></td> | 4100 <td>4900 <td>-</td> <td>-</td> </td> | 4900 <td>-</td> <td>-</td> | - | - |

NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.

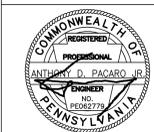
3 PIPE HANGER DETAIL
NTS



1 EMERGENCY SHOWER DETAIL
NTS

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