

**PLUMBING ABBREVIATIONS**

A/E ARCHITECT / ENGINEER  
 AD AREA DRAIN  
 AFF ABOVE FINISH FLOOR  
 AFG ABOVE FINISH GRADE  
 AG AIR GAP  
 AP ACCESS PANEL  
 ASHRAE AMERICAN SOCIETY HEATING, REFRIGERATION, AIR CONDITIONING ENGINEERS  
 ASME AMERICAN SOCIETY MECHANICAL ENGINEERS  
 ASPE AMERICAN SOCIETY PLUMBING ENGINEERS  
 BFP REDUCED PRESSURE BACKFLOW PREVENTER  
 BHP BREAK HORSEPOWER  
 BTU BRITISH THERMAL UNIT  
 BTUH BRITISH THERMAL UNIT PER HOUR  
 C CELSIUS  
 CGA COMPRESSED GAS ASSOCIATION  
 CI CAST IRON  
 CO CLEANOUT  
 CW DOMESTIC COLD WATER  
 HW DOMESTIC HOT WATER  
 DN DOWN  
 DOE DEPARTMENT OF ENERGY  
 DS DOWNSPOUT  
 DWG DRAWING  
 EL ELEVATION  
 ESC ESCUTCHEON  
 ET EXPANSION TANK  
 EWC ELECTRIC WATER COOLER  
 EWH ELECTRIC WATER HEATER  
 EWS EYE WASH STATION  
 F FAHRENHEIT  
 FCO FLOOR CLEANOUT  
 FD FLOOR DRAIN  
 FS FLOOR SINK  
 FU FIXTURE UNITS  
 GAL GALLON  
 GPM GALLONS PER MINUTE  
 HB HOSE BIBB  
 HD HUB DRAIN  
 HP HORSEPOWER  
 INV INVERT  
 IPC INTERNATIONAL PLUMBING CODE  
 IRW IRRIGATION WATER  
 IW INDIRECT WASTE  
 IWH INSTANTANEOUS WATER HEATER  
 KW KILOWATT  
 KWHR KILOWATT-HOUR  
 LAV LAVATORY  
 LBS/HR POUNDS PER HOUR  
 M METER  
 MBH 1000 BTUH  
 MH MANHOLE  
 MB MOP BASIN  
 NC NORMALLY CLOSED  
 NO NORMALLY OPEN  
 NOM NOMINAL  
 NTC NOT TO SCALE  
 PD PRESSURE DROP OR DIFFERENCE  
 PDI PLUMBING AND DRAINAGE INSTITUTE  
 PG PRESSURE GAGE  
 PRV PRESSURE REDUCING VALVE  
 PSI POUNDS PER SQUARE INCH  
 PSIG POUNDS PER SQUARE INCH GAUGE  
 SAN SANITARY SEWER  
 SMACNA SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION  
 SCFM STANDARD CUBIC FOOT/MINUTE  
 SQFT SQUARE FEET  
 SK SINK  
 TD TEMPERATURE DIFFERENCE  
 TEMP TEMPERATURE  
 TSTAT THERMOSTAT  
 TYP TYPICAL  
 UPC UNIFORM PLUMBING CODE  
 V VENT  
 VTR VENT THROUGH ROOF  
 WC WATER CLOSET  
 WCO WALL CLEANOUT  
 WH WATER HEATER  
 WHA WATER HAMMER ARRESTER  
 WM WATER METER  
 WPD WATER PRESSURE DROP  
 YCO YARD CLEANOUT  
 YH YARD HYDRANT

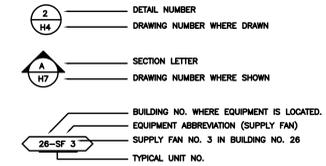
**HVAC ABBREVIATIONS**

A/E ARCHITECT / ENGINEER  
 AB AIR BLENDER  
 AAV AUTOMATIC AIR VENT  
 ACC AIR COOLED CONDENSER  
 ADD ACCESS DOOR  
 AF AFTER FILTER  
 AFF ABOVE FINISH FLOOR  
 AHU AIR-HANDLING UNIT  
 AP ACCESS PANEL  
 APD AIR PRESSURE DROP  
 BDD BACKDRAFT DAMPER  
 BFP BACKFLOW PREVENTER  
 BHP BREAK HORSEPOWER  
 BTU BRITISH THERMAL UNIT  
 BTUH BRITISH THERMAL UNIT PER HOUR  
 CC COOLING COIL  
 CFM CUBIC FEET PER MINUTE  
 CI CAST IRON  
 CO CLEAN OUT  
 COMP COMPRESSOR UNIT  
 COP COEFFICIENT OF PERFORMANCE  
 CR CEILING REGISTER  
 CU CONDENSING UNIT  
 CUH CABINET UNIT HEATER  
 CW COLD WATER (POTABLE)  
 D DAMPER - AUTOMATIC  
 DB DECIBELS  
 Db DRY-BULB TEMPERATURE  
 DEG DEGREE  
 DIA DIAMETER  
 DP DEW POINT TEMPERATURE  
 DX DIRECT EXPANSION  
 EA EXHAUST AIR  
 EAT ENTERING AIR TEMPERATURE  
 ECU EVAPORATIVE CONDENSER UNIT  
 EDH ELECTRIC DUCT HEATER  
 EER ENERGY EFFICIENCY RATIO  
 EF EXHAUST FAN  
 EG EXHAUST GRILLE  
 EH EXHAUST HOOD  
 ERC ELECTRIC REHEAT COIL  
 ESP EXTERNAL STATIC PRESSURE  
 ET EXPANSION TANK  
 EUH ELECTRIC UNIT HEATER  
 EWC EVAPORATIVE WATER COOLER  
 EWT ENTERING WATER TEMPERATURE  
 F FAHRENHEIT  
 F/SDPR COMBINATION FIRE SMOKE DAMPER  
 FA FREE AREA  
 FC FLEXIBLE CONNECTION  
 FD FLOOR DRAIN  
 FD FIRE DAMPER  
 FPM FEET PER MINUTE  
 FPS FEET PER SECOND  
 FPTU FAN POWERED TERMINAL UNIT  
 FS FLOW SWITCH  
 FSTAT FREEZESTAT  
 FT FEET  
 FT-LB FOOT-POUND  
 FV FACE VELOCITY  
 GA GAUGE  
 GH GRAVITY HOOD  
 GPD GALLONS PER DAY  
 GPM GALLONS PER MINUTE  
 HW HOT WATER  
 HAC HOUSEKEEPING AID CLOSET  
 HB HOSE BIBB  
 HC HEATING COIL  
 HOA HAND/OFF/AUTOMATIC  
 HP HEAT PUMP  
 HP HORSEPOWER  
 HPS HIGH PRESSURE SUPPLY (STEAM)  
 HW HOT WATER  
 HX HEAT EXCHANGER  
 HZ HERTZ  
 I/O INPUT/OUTPUT  
 IAQ INDOOR AIR QUALITY  
 IN WC INCH WATER COLUMN  
 KW KILOWATT  
 LAT LEAVING AIR TEMPERATURE  
 LB/HR POUNDS PER HOUR  
 LSD LINEAR SLOT DIFFUSER  
 LVR LOUVER  
 LWT LEAVING WATER TEMPERATURE  
 M METER  
 MA MIXED AIR  
 MAT MIXED AIR TEMPERATURE  
 MAU MAKE-UP AIR UNIT  
 MBH 1000 BTUH  
 MERV MINIMUM EFFICIENCY REPORTING VALUE  
 MHP MOTOR HORSEPOWER  
 MIN MINIMUM  
 MYD MANUAL VOLUME DAMPER  
 NA NOT APPLICABLE  
 NC NOISE CRITERIA  
 NC NORMALLY CLOSED  
 NO NORMALLY OPEN  
 NOM NOMINAL  
 NTS NOT TO SCALE  
 OA OUTSIDE AIR  
 PD PRESSURE DROP  
 PF PRE-FILTER  
 PG PRESSURE GAGE  
 PHC PREHEAT COIL  
 PSI POUNDS PER SQUARE INCH  
 RA RETURN AIR  
 RG RETURN GRILLE  
 RH RELATIVE HUMIDITY  
 SA SUPPLY AIR  
 SAT SUPPLY AIR TEMPERATURE  
 SD SUPPLY AIR DIFFUSER  
 SEN SENSIBLE HEAT  
 SF SUPPLY FAN  
 SG SUPPLY AIR GRILLE  
 SI SQUARE INCHES  
 SP STATIC PRESSURE  
 TAB TESTING, ADJUSTING, BALANCE  
 TD TEMPERATURE DIFFERENCE  
 TSP TOTAL STATIC PRESSURE  
 TSTAT THERMOSTAT

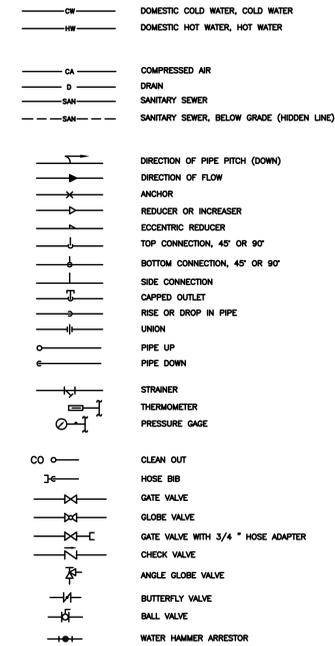
**GENERAL NOTES**

- ALL PIPING AND DUCTS IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED IN A FURRED CHASE OR ABOVE THE HARD SUSPENDED CEILING.
- THE FIRST FIGURE OF DUCT SIZE INDICATES DIMENSION OF FACE SHOWN OR INDICATED. DUCT SIZES ARE NET INSIDE DIMENSIONS.
- ACCESS PANELS IN HARD SUSPENDED CEILINGS ARE REQUIRED FOR ALL VALVES, TRAPS, DAMPERS, CLEANOUTS, CONTROLS, ETC. ACCESS PANELS SHALL BE FURNISHED AND INSTALLED UNDER THE ARCHITECTURAL SPECIFICATIONS.
- EXTERNAL STATIC PRESSURE NOTED IN THE SCHEDULES INCLUDES DUCT SYSTEM, AND FILTER LOADING. IT DOES NOT INCLUDE INTERNAL EQUIPMENT COMPONENTS, TERMINAL.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF CEILING DIFFUSERS, REGISTERS, AND GRILLES.

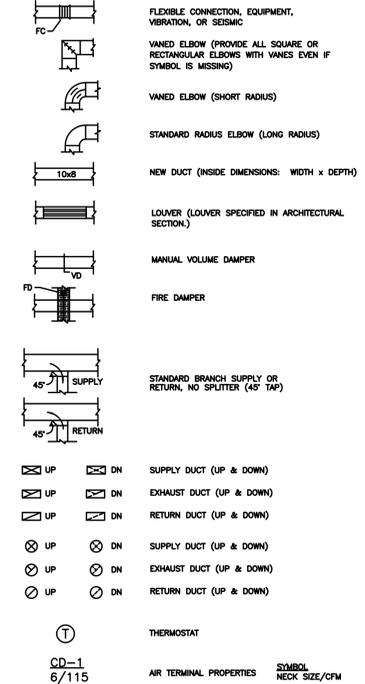
**DRAWING SYMBOLS**



**PIPING SYMBOLS**



**DUCTWORK SYMBOLS**



**BID DOCUMENTS 7/1/2011**

Revisions	Date

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**STRUCTURAL / MECHANICAL / ELECTRICAL / TECHNOLOGY / MEDICAL EQUIPMENT SOLUTIONS**

I hereby certify that this Plan, Specification, or Report was prepared by me, or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Oregon.  
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**NATIONAL CEMETERY ADMINISTRATION**

**MECHANICAL GENERAL NOTES - VEHICLE STORAGE**

Approved: Director, Office of Construction Management  
 Approved: Director, Project Management Service

**REPLACE ADMINISTRATION AND MAINTENANCE BUILDING AND SITE IMPROVEMENTS**

Date: 7-1-2011  
 Project No: 906CM3009  
 Building Number: 3003  
 Checked: DavBod  
 Drawn: JamTho  
 Location: EAGLE POINT NATIONAL CEMETERY  
 2763 RILEY ROAD  
 EAGLE POINT, OR 97524  
 DRAWING NO.: H-3003-01  
 Dwg. 167 OF 181