

AIR DISTRIBUTION SYMBOLS

RECTANGULAR DUCT (FIRST NUMBER IS SIDE SHOWN)
DIMENSIONS IN INCHES

12x16
12" x 16"
DMD
FLEXIBLE DUCT
DUCT FLEXIBLE CONNECTOR (FC)
DUCT DROPS AND RISES IN DIRECTION OF AIR FLOW
RETURN DUCT TURNED UP OR DOWN (DASHED)
SUPPLY DUCT TURNED UP OR DOWN (DASHED)
EXHAUST DUCT TURNED UP OR DOWN (DASHED)
NET FREE AREA

ROUND DUCT ELBOW DOWN
ROUND DUCT ELBOW UP
SQUARE TO ROUND TRANSITION
CAP (DUCT AND/OR PIPE)
INDICATES DUCT, PIPING, EQUIPMENT TO BE REMOVED.
EXHAUST AIR
RETURN AIR
SUPPLY AIR

VOLUME DAMPER
FIRE DAMPER
SMOKE DAMPER
TAG NO.
COMBINATION SMOKE/FIRE DAMPER
TAG NO.

RECTANGULAR ELBOW W/TURNING VANES

DIRECTION OF AIR FLOW (IN)
DIRECTION OF AIR FLOW (OUT)
HUMIDISTAT OR HUMIDITY SENSOR
THERMOSTAT (T/STAT) OR TEMP. SENSOR
SMOKE DETECTOR
DIFFUSER, REGISTER OR GRILLE TAG
CFM AIR FLOW
QUANTITY

FINNED TUBE TAG
LENGTH OF FINNED ELEMENT
DETAIL NO. WHERE DETAIL IS LOCATED
EQUIPMENT TAG
EQUIPMENT NO.

PIPING SYMBOLS

UNION
FLANGE
PIPE ANCHOR
PIPE GUIDE OR SLEEVES
PIPE ELBOW TURNED DOWN
PIPE ELBOW TURNED UP
PIPING TEE-DOWN
PIPING TEE-UP
PIPE RISER
PIPE PITCHES DOWN
GENERIC VALVE SEE SPECIFICATIONS FOR TYPE
GATE VALVE
BALL VALVE
BUTTERFLY VALVE (MANUAL)
2-WAY CONTROL VALVE
3-WAY CONTROL VALVE
BALANCING VALVE (CIRCUIT SETTER)
CHECK VALVE
PLUG VALVE
GLOBE VALVE
NEEDLE VALVE
BACK FLOW PREVENTER
SOLENOID VALVE
PRESSURE REDUCING OR REGULATING VALVE
PRESSURE RELIEF VALVE
STRAINER
STRAINER W/BLowDOWN
MANUAL AIR VENT
AUTOMATIC AIR VENT
PRESSURE SWITCH
FLOW SWITCH
PRESSURE GAUGE AND COCK
THERMOMETER AND WELL
HOSE END DRAIN VALVE WITH CAP

ORIFICE FLOWMETER
FLEXIBLE PIPE CONNECTOR
EXPANSION JOINT
STEAM TRAP (FLOAT AND THERMOSTATIC)
TRAPPED THERMOSTATIC TRAP BUCKET
CONCENTRIC REDUCER/INCREASER
ECCENTRIC REDUCER/INCREASER
DIRECTION OF FLOW
PUMP
FINNED TUBE BASEBOARD
DIFFERENTIAL PRESSURE TRANSMITTER

ABBREVIATIONS

AW AUTOMATIC AIR VENT
ACC AIR COOLED CONDENSER
ACU AIR CONDITIONING UNIT
AD ACCESS DOOR
AE ACID EXHAUST
AFF ABOVE FINISHED FLOOR
AFMS AIR FLOW MEASURING STATION
AHU AIR HANDLING UNIT
ATC AUTOMATIC TEMPERATURE CONTROL
AV AIR VENT
BB BASEBOARD
BDD BACKDRIFT DAMPER
BG BLAST GATE
BLDG BUILDING
BDD BOTTOM OF DUCT
BPP BOTTOM OF PIPE
BTU BRITISH THERMAL UNIT
CBD COUNTER BALANCED DAMPER
CD CEILING DIFFUSER
CFF CAPPED FOR FUTURE
CFM CUBIC FEET PER MINUTE
CLG CEILING
CONT CONTINUATION
COORD COORDINATE
CP CONDENSATE PUMP & RECEIVER
CT COOLING TOWER
CTE CONNECT TO EXISTING
CU COPPER
CUH CABINET UNIT HEATER
CV CONTROL VALVE
CW COLD WATER
DC DOUBLE CONTAINED
DDC DIRECT DIGITAL CONTROL
DIA DIAMETER
DIC DOWN IN CHASE
DIM DOWN IN WALL
DN DOWN
DT DROP AND TRANSITION
DWG DRAWING
DWH DOMESTIC WATER HEATER
EA EXHAUST AIR
EF EXHAUST FAN

ENC ENCLOSURE
ER EXHAUST REGISTER
(E) EXISTING
EXST. EXISTING
FBO FURNISHED BY OWNER
FBP FACE AND BYPASS
FC FLEXIBLE CONNECTION
FD FIRE DAMPER
FG FIBERGLASS
F & T FLOAT AND THERMOSTATIC
FO FLAT OVAL
FR FINNED TUBE RADIATION
FS FLOW SWITCH
GC GENERAL CONTRACTOR
GPM GALLONS PER MINUTE
H HUMIDIFIER
HRU HEAT RECOVERY UNIT
HTR HEATER
H & V HEATING AND VENTILATION
HVAC HEATING, VENTILATING AND AIR CONDITIONING
HW HOT WATER
HX HEAT EXCHANGER
IN WG INCHES WATER GAUGE
LD LINED DUCT
MAU MAKE UP AIR UNIT
MAX MAXIMUM
MBH 1000 BTU/HR
ME MECHANICAL ENGINEER
MFR MANUFACTURER
MN MINIMUM
MD MOTOR OPERATED DAMPER
MPV MULTI-PURPOSE VALVE
MUA MAKE UP AIR
NPW NON-POTABLE WATER
NTS NOT TO SCALE
OA OUTSIDE AIR
OBD OPPOSED BLADE DAMPER
OED OPEN ENDED DUCT
PAE PROCESS ACID EXHAUST
PHE PROCESS HEAT EXHAUST

PSE PROCESS SOLVENT EXHAUST
PP POLY-PROPYLENE
PPE PRE PURCHASED EQUIPMENT
PRS PRESSURE REDUCING STATION
PRV PRESSURE REDUCING VALVE
PVD PNEUMATIC VOLUME DAMPER
(R) REMOVE
RA RETURN AIR
(REL) RELOCATED
RF RETURN FAN
RG RETURN GRILLE
RHC REHEAT COIL
RM ROOM
RR RETURN REGISTER
RV RELIEF VALVE
SA SUPPLY AIR
SCV SELF CONTAINED VALVE
SD SMOKE DETECTOR
SF SUPPLY FAN
SG SUPPLY GRILLE
SR SUPPLY REGISTER
SS STAINLESS STEEL
TE TEMPERATURED ELEMENT (SENSOR)
TG TRANSFER GRILLE
TOD TOP OF DUCT
TOP TOP OF PIPE
TTS TIGHT TO STEEL
TV TURNING VANES(S)
TV TYPICAL
UH UNIT HEATER
UIC UP IN CHASE
UIW UP IN WALL
UV UNIT VENTILATOR
VAV VARIABLE AIR VOLUME BOX
VB VACUUM BREAKER
VTR VENT THRU ROOF
VD MANUAL VOLUME DAMPER
VCOFF VALVED AND CAPPED FOR FUTURE
VFD VARIABLE FREQUENCY DRIVE
VOC VOLATILE ORGANIC COMPOUNDS
W/ WITH

GENERAL NOTE

1. ALL GENERAL NOTES, SYMBOL LISTS, AND DETAILS ARE TO BE CONSIDERED AS APPLICABLE TO ALL HVAC AND PLUMBING DRAWINGS FOR THIS PROJECT. SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY AND DO NOT INDICATE THEIR INCORPORATION INTO THE DESIGN.

PIPING SYSTEMS

CONDENSATE DRAIN
CHILLED WATER SUPPLY
CHILLED WATER RETURN
CONDENSER WATER SUPPLY
CONDENSER WATER RETURN
DISTRIBUTION VALVE BOX
FREE COOLING SUPPLY
FREE COOLING RETURN
FUEL OIL SUPPLY
FUEL OIL RETURN
FUEL OIL VENT
GRAVITY STEAM CONDENSATE RETURN
GLYCOL
HOT/ CHILLED WATER RETURN
HOT/ CHILLED WATER SUPPLY

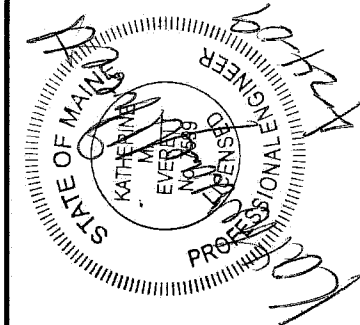
HG HOT GAS
HPS HIGH PRESSURE STEAM
HPR HIGH PRESSURE CONDENSATE RETURN
HWS HOT WATER SUPPLY
HWR HOT WATER RETURN
LPS LOW PRESSURE STEAM
LPR LOW PRESSURE RETURN
MPS MEDIUM PRESSURE STEAM
MPR MEDIUM PRESSURE RETURN
NPW NON POTABLE COLD WATER
PCWR PROCESS COOLING WATER RETURN
PD PUMPED DISCHARGE
PW POTABLE WATER
R RELIEF LINE

RL REFRIGERANT LIQUID
RS REFRIGERANT SUCTION
TWS TEMPERED CHILLED WATER SUPPLY
TWR TEMPERED CHILLED WATER RETURN
ZB ZONE VALVE BOX

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PORTLAND, MAINE

LEGEND AND ABBREVIATIONS

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