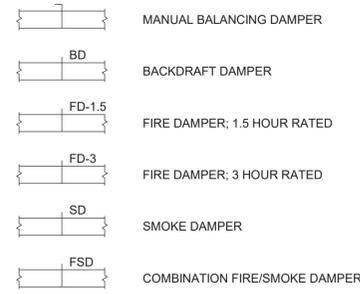
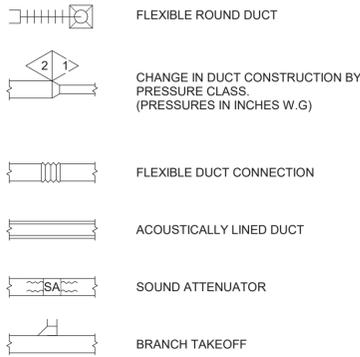


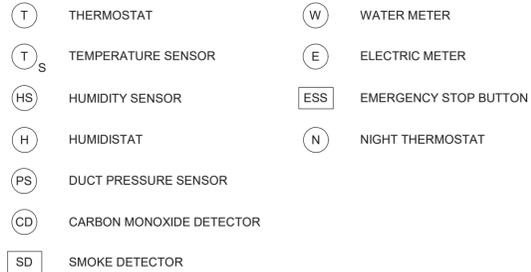
DAMPERS



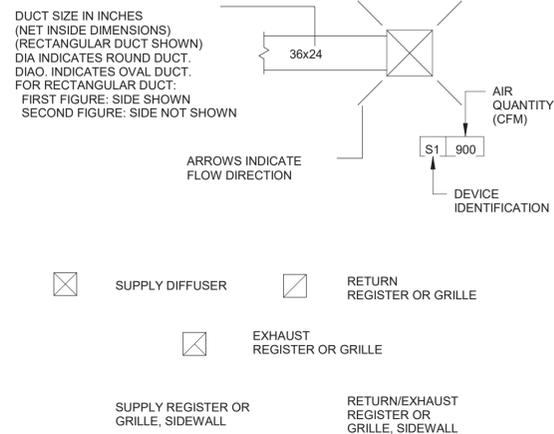
DUCTWORK



GENERAL CONTROL SYMBOLOGY



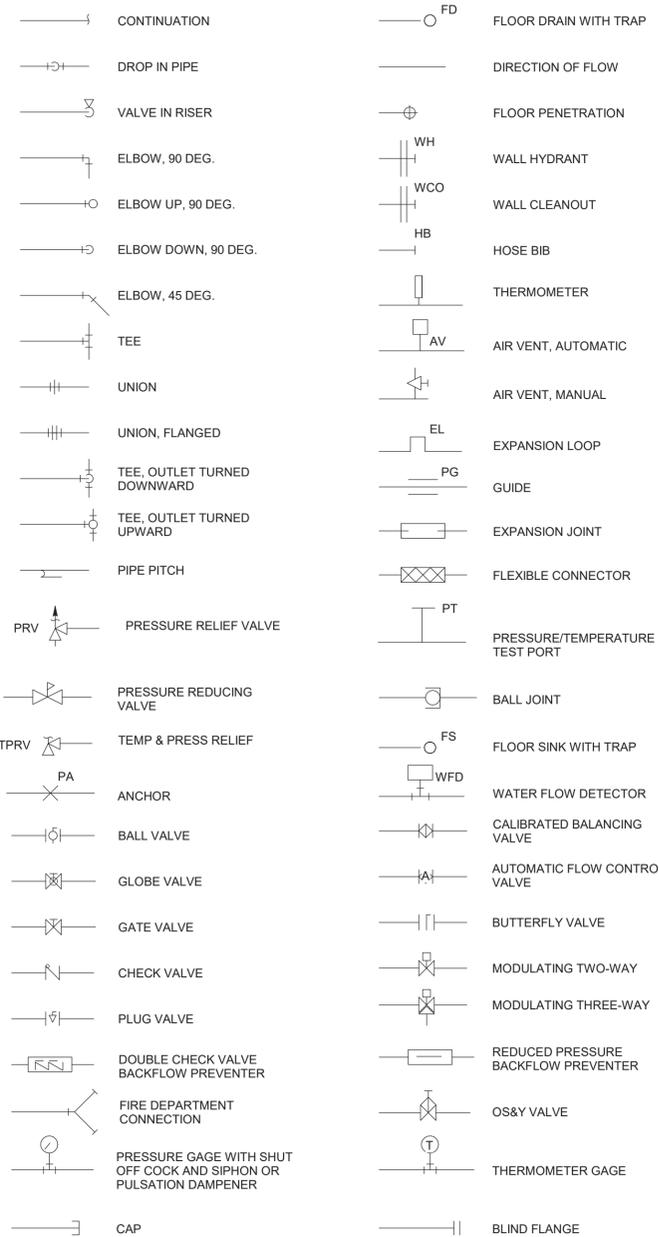
DIFFUSER, REGISTER AND GRILLE NOTATION



PIPING SYSTEMS



PIPING SYMBOLS



GENERAL ABBREVIATIONS

- AFF - ABOVE FINISHED FLOOR
BOD - BOTTOM OF DUCT ELEV.
BOP - BOTTOM OF PIPE ELEV.
CFM - CUBIC FEET PER MINUTE
CL - CENTERLINE
CLG - CEILING
COND - CONDENSATE/CONDENSER
CONN - CONNECTION/CONNECT
DB - DRY BULB TEMPERATURE
DDC - DIRECT DIGITAL CONTROL
DX - DIRECT EXPANSION
EA - EXHAUST AIR
EAT - ENTERING AIR TEMP.
ELEV - ELEVATION
EMCS - ENERGY MONITORING AND CONTROL SYSTEM
ESP - EXTERNAL STATIC PRESSURE
EWT - ENTERING WATER TEMP.
FC - FAIL CLOSED
FD - FLOOR DRAIN
FLA - FULL LOAD AMPS
FO - FAIL OPEN
GA - GAUGE
HD - HUB DRAIN
IE - INVERT ELEVATION
LAT - LEAVING AIR TEMP.
LWT - LEAVING WATER TEMP.
NC - NORMALLY CLOSED
NO - NORMALLY OPEN
NPS - NOMINAL PIPE SIZE
NPT - NATIONAL PIPE THREAD
NTS - NOT TO SCALE
OA - OUTSIDE AIR
OBD - OPPOSED BLADE DAMPER
OS&Y - OUTSIDE STEM AND YORK
Pa - PASCAL
PD - PRESSURE DROP
RA - RETURN AIR
RPM - REVOLUTIONS PER MINUTE
SA - SUPPLY AIR
SOG - SLAB ON GRADE
SP - STATIC PRESSURE
TOD - TOP OF DUCT ELEVATION
TOP - TOP OF PIPE ELEVATION
TOS - TOP OF SLAB/ TOP OF STEEL
TSP - TOTAL STATIC PRESSURE
VAV - VARIABLE AIR VOLUME
VP - VELOCITY PRESSURE
VTR - VENT THRU ROOF
W - WATTS
WB - WET BULB
WC - WATER COLUMN
WG - WATER GAUGE

GENERAL NOTES

- A. MECHANICAL LAYOUTS ARE SCHEMATIC. PROVIDE ANY ADDITIONAL DROPS, RISES, OR OFFSETS REQUIRED FOR A COMPLETE INSTALLATION.
B. UNLESS OTHERWISE INDICATED ROUTED, ROUTE ALL DUCTWORK AND PIPING ABOVE CEILINGS.
C. DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS.
D. UNLESS OTHERWISE INDICATED, PROVIDE DUCT RUNOUTS TO TERMINAL UNITS SAME SIZE AS TERMINAL UNIT INLET.
E. FLEXIBLE DUCT RUNOUTS TO TERMINAL AIR DEVICES SHALL BE SAME SIZE AS DIFFUSER CONNECTION.
F. INSTALL CALIBRATED BALANCING VALVES AND VENTURIS WITH A MINIMUM UNRESTRICTED STRAIGHT RUN OF 5 PIPE DIAMETERS UPSTREAM AND 3 PIPE DIAMETERS DOWNSTREAM.
G. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF DIFFUSERS, PLENUM SLOT DIFFUSERS, REGISTERS, AND GRILLS.
H. ALL WORK INDICATED IS NEW.
I. SOME SYMBOLS INDICATED ON THIS LEGEND SHEET MAY NOT APPEAR OF THE DRAWINGS.
K. MOUNT CO2 SENSORS AND TEMPERATURE SENSORS 48 INCHES AFF.
L. ALL PIPING LOW POINTS SHALL HAVE DRAIN VALVES WITH HOSE CONNECTION AND CAP.
M. ALL PIPING HIGH POINTS SHALL HAVE VALVED AIR VENTS.
N. PROVIDE 1-INCH DUCT LINER ON ALL TRANSFER DUCT.

Mechanical Sheet Numbering Prefixes

M- All or any portion of subjects in the following

With Level 2 Designators (no dash)

- MD Mechanical Demolition Protection, termination, and removal
MH HVAC Ductwork, air devices, and equipment
MI Instrumentation and controls
MP Hydronic Piping - Chilled and heating water, steam

REFERENCE SYMBOLOGY

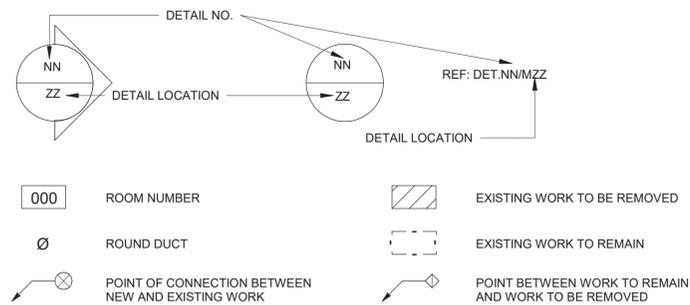
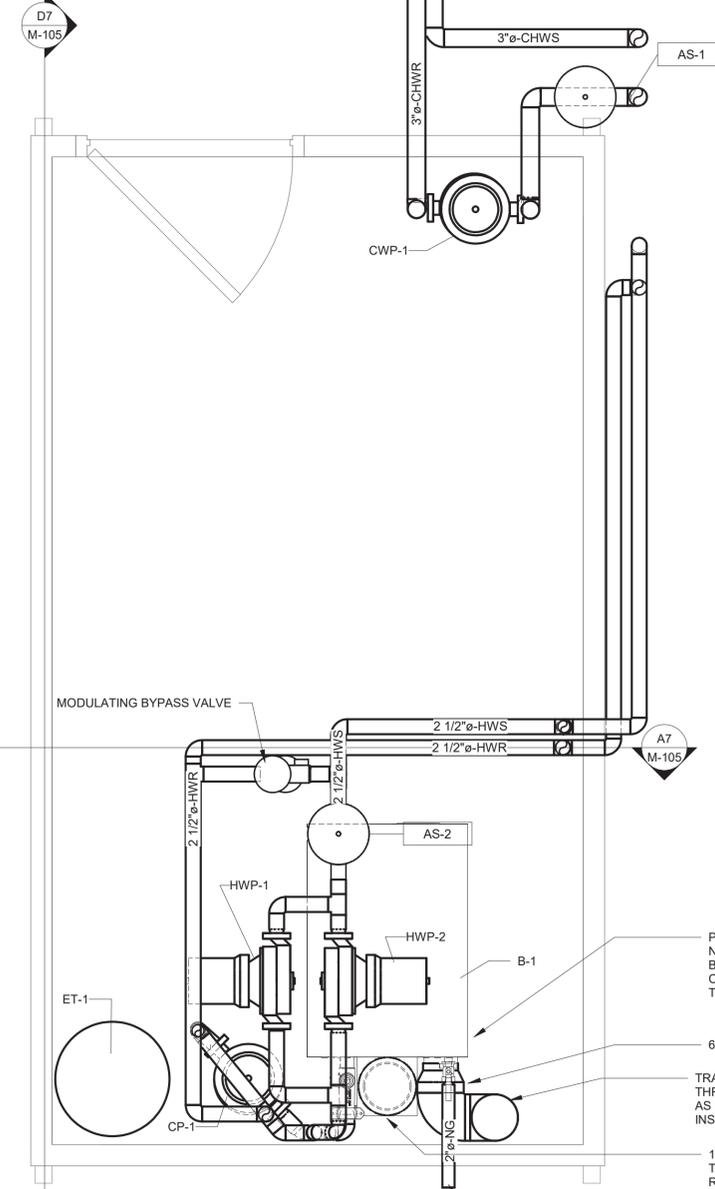
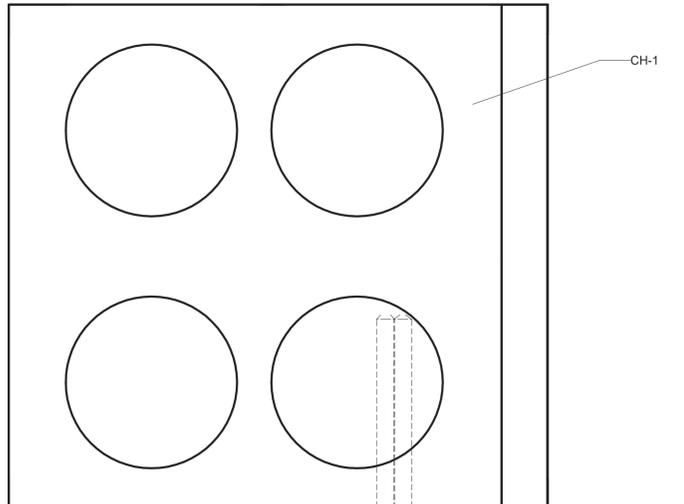


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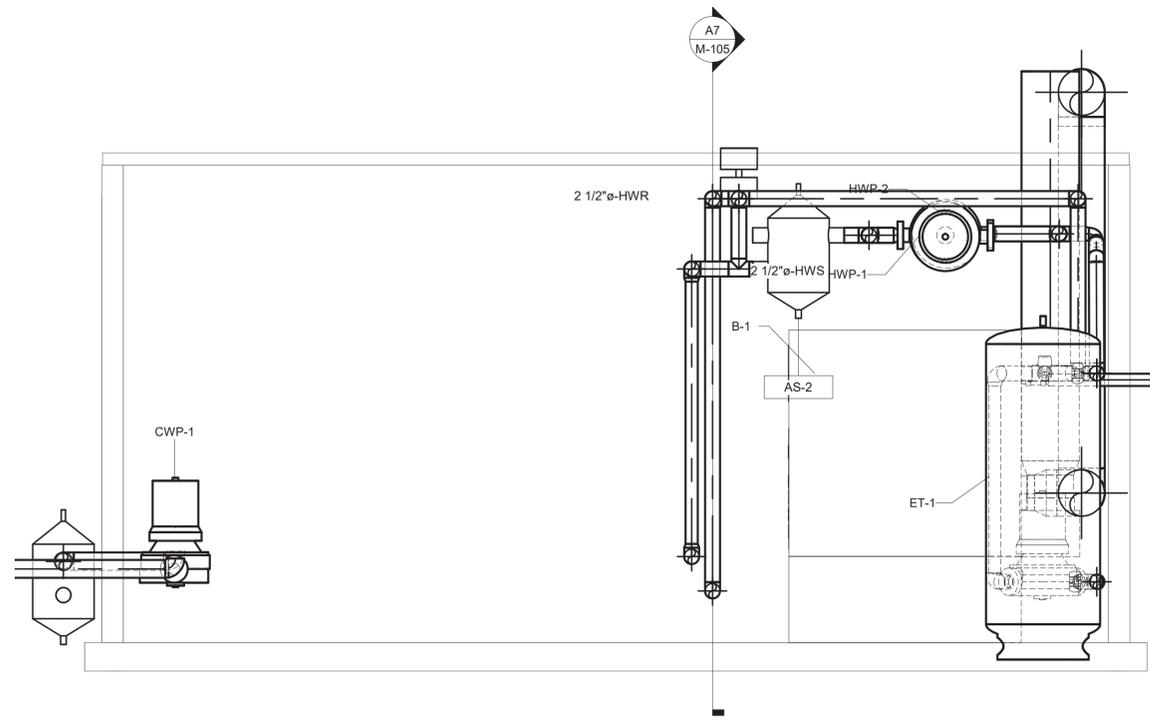
Table with columns for DESIGNED BY, DRAWN BY, CHECKED BY, SUBMITTED BY, ISSUE DATE, SOLICITATION NO., and CONTRACT NO.

Professional Engineer seal for David Guy Spencer, License No. 100871, State of New York.

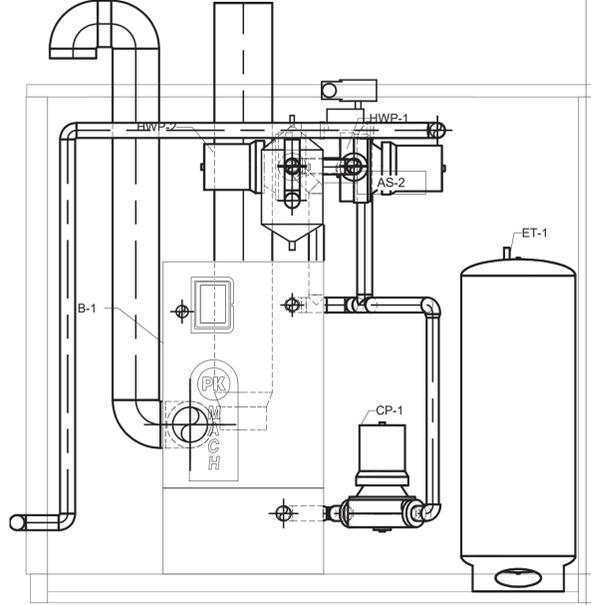
MECHANICAL GENERAL NOTES, ABBREVIATIONS
140 BUCKNER LOOP, WEST POINT, NY
LEE CHILD DEVELOPMENT CENTER BLDG, 140 HVAC SYSTEM & DRAINAGE DESIGN
10324688



A2 BOILER HOUSE PLAN
3/4" = 1'-0"



D7 BOILER HOUSE LONG SECTION
3/4" = 1'-0"



A7 BOILER HOUSE SHORT SECTION
3/4" = 1'-0"

- PROVIDE FACTORY ACID NEUTRALIZATION TANK. PIPE BOTH BOILER CONDENSATE AND VENT PIPE CONDENSATE TO NEUTRALIZATION TANK AND DRAIN TO DAYLIGHT.
- 6" COMBUSTION AIR INLET TO BOILER.
- TRANSITION TO 8" CPVC. ROUTE UP THROUGH ROOF TO A GOOSENECK AS PER MANUFACTURER'S INSTRUCTIONS.
- 10" X 8" VENT ADAPTER WITH CONDENSATE DRAIN TAP. PROVIDE 10" TYPE L VENT UP THROUGH ROOF WITH MANUFACTURER APPROVED TERMINATION. VERIFY FINAL ROUTING AND SIZES WITH MANUFACTURER.

GENERAL NOTES:
 1. ALL FLOOR MOUNTED EQUIPMENT SHALL BE INSTALLED ON 4" HOUSEKEEPING PAD. PAD SHALL BE ANCHORED AND GROUTED.
 2. CONTRACTOR SHALL VERIFY EXISTING MEANS OF BOILER MAKEUP WATER AND CONNECT TO NEW BOILER PIPING. IF NONE PRESENT, PROVIDE A NEW 1/2" CW MAKEUP AT 4' BELOW GRADE FROM INSIDE THE BUILDING WITH NEW BACKFLOW PREVENTOR INSTALLED INSIDE BOILER HOUSE.



ISSUE DATE: 07/07/2022		CONTRACT NO.: W911SD21D0006	MARK	DESCRIPTION	DATE
DESIGNED BY: D. SPENCER	DRAWN BY: M. WHALEN				
SUBMITTED BY: ANS/D		HRR Henningson, Durham & Richardson Architecture and Engineering, P.C. 1032 4688 White Plains, NY 10604-3550			
140 BUCKNER LOOP, WEST POINT, NY LEE CHILD DEVELOPMENT CENTER BLDG, 140 HVAC SYSTEM & DRAINAGE DESIGN 1032-4688 BOILER HOUSE					
SHEET					
M-105					

