

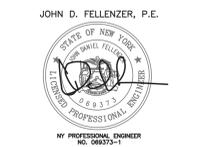


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NORTH SALEM
WORLD LANGUAGES
UV REPLACEMENT

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Table with 3 columns: No., Description, Date. Includes a grid for tracking revisions.

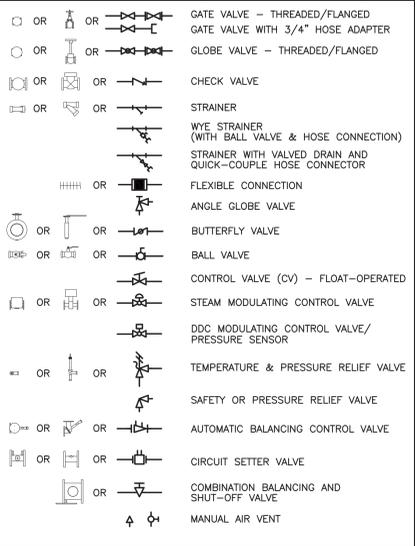
ISSUED: BID ISSUANCE
DATE: February 23, 2022
SCALE: AS SHOWN
SHEET NAME:
HVAC: SYMBOLS, NOTES, ABBREVIATIONS, & SCHEDULES
SHEET NUMBER:

H001

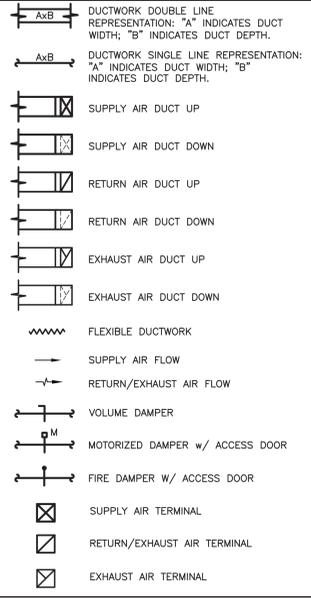
ABBREVIATIONS

Table of abbreviations for HVAC and mechanical systems, including terms like AC, ACCU, AD, AF, AFF, AFM, AHU, A.L.D., AP, BDD, BG, BR, BTUH, CC, CD, CFM, CG, CLG, CO, CP, CR, CUH, CW, D, Db, dB, DCV, DN, DP, Dp, DX, EA, EAT, E.C., ECC, EER, EF, EGW, EMD, ERC, ERP, ET, EUH, EXIST, F.A.I., FC, FCU, FD, FLR, FPC, F/SD, FTR, G.C., GH, GPM, H.C., HF, HP, HRP, HV, LCD, LFD, LF, LBS/HR, MB, MD, MER, MAX, MBH, MIN, NOM, OA, P, P.C., PD, PF, PGW, PH, PRV, PSI, RA, RF, RHC, Rh, RPZ, SA, SD, Sp, Sp. Gr., SH, SP, SPD, SPS, S.S., TG, TR, TWU, UH, U.A.O., UV, UVH, V, VD, VE, VI, VIF, Wb, WFM, WMS.

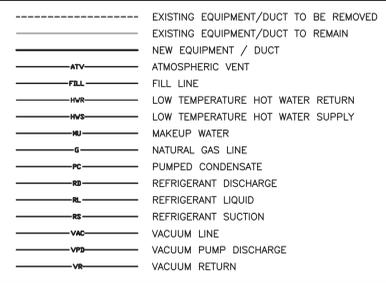
VALVE SYMBOLS



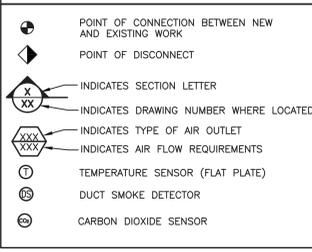
DUCTWORK SYMBOLS



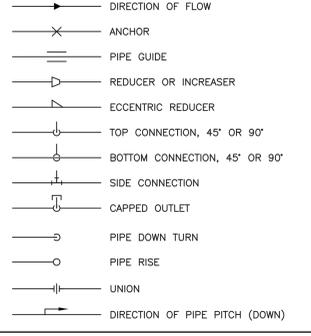
HVAC LINE TYPES



GENERAL SYMBOLS



PIPING SYMBOLS



OWNER SUPPLIED EQUIPMENT: DAIKIN - UNIT VENTILATOR SCHEDULE

Table with columns for Unit Symbol, Supply CFM, Number of Rows, Cooling Data (Sensible, Total, EWT/LWT, GPM), Heating Data (EWT/LWT, GPM, W.P.D., Pipe Size), Electrical Data (MCA, MOC, VOLT/PH), Model, and Style.

NOTES:

- 1. ALL CONTROLS BY TBS. UNIT VENTILATORS SHALL NOT BE PROVIDED WITH INTEGRAL MANUFACTURER STAND ALONE DDC CONTROLS OPTION.
2. TEMPERATURE SENSORS TIED TO BMS.
3. PROVIDE TWO-WAY MODULATING CONTROL VALVE.
4. PROVIDE 1" MERV 8 FILTER.
5. PROVIDE ALL UV's WITH TWO (2) ADDITIONAL SETS OF MERV 8 FILTERS TO BE USED AS ATTIC STOCK.
6. UNIT VENTILATORS SHALL BE SWITCHED TO OCCUPIED MODE BY THE BMS SCHEDULING.
7. COLOR BY ARCHITECT.
8. SEE "UNIT VENTILATOR SIZING SCHEDULE" FOR DIMENSIONAL INFORMATION.
9. PROVIDE WITH FACTORY ECM, 3-SPEED MOTORS.
10. PROVIDE WITH FACE & BYPASS DAMPERS.
11. PROVIDE UV-1 WITH BOTTOM RETURN GRILLE, TOP MOUNT OA CONNECTION AND FRONT MOUNT DUCT COLLAR.
12. PROVIDE UV WITH REAR PIPING ENCLOSURE WHERE REQUIRED FOR EXISTING BASEBOARD.
13. PROVIDE WITH FACTORY 6" DEEP END PANELS TO MATCH EXISTING UV INSTALLATION.

Table titled 'North Salem MS/HS School Ventilation Table' with columns for Unit No., Occupancy Classification, Square Footage, Occupancy Density, # of Occupants, OA (CFM/person), OA (CFM/ft²), Uncorrected OA (CFM), Air Distribution Effectiveness, Zone Outdoor Airflow (CFM), and Unit Designation.

NOTE:

- 1. BALANCE EACH UV AND GRAVITY RELIEF WITH CORRESPONDING ROOMS OUTDOOR AIR REQUIREMENTS.

UNIT VENTILATOR SIZING SCHEDULE "DAIKIN" AS STANDARD

Table with columns for Unit No., CFM, Length (ft), OA Opening (in), and Weight (lbs).

2020 ENERGY CONSERVATION CONSTRUCTION CODE OF NYS TABLE C403.11.3 MINIMUM PIPE INSULATION THICKNESS (IN INCHES) a,c

Table with columns for Fluid Operating Temperature Range and Usage (°F), Insulation Conductivity (BTUxIN)/(Hxft²x°F)ᵇ, Mean Rating Temperature °F, and Nominal Pipe or Tube Size (INCHES) with categories <1", 1 to <1 1/2", 1 1/2" to <4".

FOR S1: 1" = 25.4mm, °C = [(°)-32]/1.8
a. FOR PIPING SMALLER THAN 1/2" AND LOCATED IN PARTITIONS WITHIN CONDITIONED SPACES, REDUCTION OF THESE THICKNESSES BY 1" SHALL BE PERMITTED (BEFORE THICKNESS ADJUSTMENT REQUIRED IN FOOTNOTE B) BUT NOT TO A THICKNESS LESS THAN 1".
b. FOR INSULATION OUTSIDE THE STATED CONDUCTIVITY RANGE, THE MINIMUM THICKNESS (T) SHALL BE DETERMINED AS FOLLOWS: T=r[(1+t/R)ᵏ-1]
WHERE:
T = MINIMUM INSULATION THICKNESS
r = ACTUAL OUTSIDE RADIUS OF PIPE
t = INSULATION THICKNESS LISTED IN THE TABLE APPLICABLE FLUID TEMPERATURE AND PIPE SIZE
k = CONDUCTIVITY OF ALTERNATE MATERIAL AT MEAN RATING TEMPERATURE INDICATED FOR THE APPLICABLE FLUID TEMPERATURE [(BTUxIN)/(Hxft²x°F)]
c. FOR DIRECT-BURIED HEATING AND HOT WATER SYSTEM PIPING, REDUCTION OF THESE THICKNESSES BY 1/2" (38mm) SHALL BE PERMITTED (BEFORE THICKNESS ADJUSTMENT REQUIRED IN FOOTNOTE B BUT NOT TO THICKNESSES LESS THAN 1").

MECHANICAL DEMOLITION NOTES:

- 1. COORDINATE WITH EXISTING CONDITIONS PLANS FOR EXACT AREAS TO BE DEMOLISHED.
2. REMOVE ALL EQUIPMENT, DUCTWORK AND PIPING AS INDICATED ON PLAN. REMOVALS SHALL INCLUDE ALL SUPPORTS AND HANGERS, HOUSEKEEPING PADS, DAMPERS, VALVES, FITTINGS, CONTROLS AND ASSOCIATED LOW VOLTAGE WIRING, AND ANY OTHER ASSOCIATED ACCESSORIES WHICH PERTAIN TO THE EQUIPMENT TO BE REMOVED.
3. REMOVAL OF ALL POWER CONNECTIONS TO DEMOLITION ITEMS SHALL BE BY THE E.C.
4. ANY DISCREPANCIES BETWEEN THE DEMOLITION PLANS AND ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER. ANY DEMOLITION WORK WHICH MAY BE QUESTIONABLE DUE TO UNFORESEEN FIELD CONDITIONS SHALL NOT BE REMOVED UNTIL REVIEWED BY THE ARCHITECT, ENGINEER OR BUILDING FACILITIES MANAGER.
5. DEMOLITION WORK SHALL INCLUDE THE PREPARATION OF EXISTING EQUIPMENT FOR CONNECTION TO NEW EQUIPMENT. COORDINATE DEMOLITION WORK WITH THE CONSTRUCTION PLANS.
6. ALL EQUIPMENT REMOVALS SHALL BECOME THE PROPERTY OF THIS CONTRACTOR. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER REMOVAL AND DISPOSAL OF DEMOLITION ITEMS OFF-SITE, UNLESS OTHERWISE NOTED.
7. ALL CUTTING AND PATCHING NECESSARY FOR THE DEMOLITION WORK SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR.
8. IT SHALL BE THE OWNER'S RESPONSIBILITY TO REMOVE ANY LOOSE EQUIPMENT, FURNITURE, SUPPLIES, ETC. THAT MAY BE LOCATED IN THE AREA OF WORK.
9. THE PLANS ARE INTENDED TO CONVEY THE EXTENT AND SCOPE OF THE DEMOLITION WORK. EVERY ITEM INTENDED FOR REMOVAL MAY NOT BE SHOWN. THE CONTRACTOR IS ADVISED TO SURVEY THE PROJECT SITE BEFORE SUBMITTING A BID FOR DEMOLITION WORK.

GENERAL NOTES:

- 1. THE DRAWINGS ON THESE PLANS ARE DIAGRAMMATIC. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL HVAC WORK WITH OTHER TRADES AND THE BUILDING STRUCTURE. NO EXTRA PAYMENTS WILL BE AUTHORIZED FOR REROUTING OR REMOVAL OF INSTALLED WORK DUE TO LACK OF COORDINATION WITH OTHER SYSTEMS.
2. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING OF WALLS, FLOORS AND CEILINGS AS REQUIRED FOR INSTALLATION OF HIS WORK.
3. ACCESS PANELS SHALL BE PROVIDED IN CEILINGS, WALLS, FLOORS, ETC., AS REQUIRED TO MAINTAIN ACCESSIBILITY TO VALVES, DAMPERS, TRAPS, COILS, ETC.
4. ALL PENETRATIONS THROUGH FIRE RATED PARTITIONS SHALL BE SEALED FIRE AND SMOKE TIGHT WITH AN APPROPRIATE U.L. LISTED FIRESTOPPING MATERIAL AND OR SYSTEM.
5. PROVIDE SHUT-OFF VALVES AT ALL PIPING BRANCH TAKE-OFFS AND AT ALL CONNECTIONS TO EQUIPMENT.
6. PROVIDE DRAINS WITH HOSE ADAPTERS AND CAPS ON PIPING AT ALL LOW POINTS. PROVIDE AUTOMATIC AIR VENTS ON PIPING AT ALL HIGH POINTS.
7. COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL SUB CONTRACTOR.
8. ALL MOTOR STARTERS SHALL BE FURNISHED BY THE HVAC CONTRACTOR AND INSTALLED BY THE ELECTRICAL SUB CONTRACTOR.
9. ALL REQUIRED CONTROL EQUIPMENT AND WIRING SHALL BE FURNISHED & INSTALLED BY THE HVAC CONTRACTOR.
10. IN THIS PLAN SET, M.C. AND H.C. REFER TO MECHANICAL CONTRACTOR.
11. THE TERMS "PROVIDE" OR "FURNISH", AS USED ON THESE PLANS, INDICATE THAT THE CONTRACTOR IS TO FURNISH AND INSTALL THE REFERENCED EQUIPMENT OR SYSTEMS IN THEIR ENTIRETY AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.
12. CONTRACTOR SHALL PROVIDE AND INSTALL ALL COMPONENTS INDICATED ON DETAIL SHEETS, PLANS, SPECIFICATIONS AND ALL PERTINENT EQUIPMENT REQUIRED FOR A COMPLETE AND WORKABLE SYSTEM.
13. CONTRACT CLOSE OUT: IN THE PRESENCE OF THE OWNER, ENGINEER OR ARCHITECT; DEMONSTRATING OPERATION OF SYSTEMS AND THAT ALL SPECIFICATIONS HAVE BEEN MET TO THE SATISFACTION OF ALL PARTIES.
14. IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS TO PROVIDE ALTERATIONS AND/OR NEW CONSTRUCTION AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS TO PROVIDE COMPLETE NEW SYSTEMS IN EVERY RESPECT, CAPABLE OF OPERATING AS DESIGNED. IT IS NOT INTENDED THAT EVERY FITTING, MINOR DETAIL OR FEATURE BE SHOWN ON DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DETAIL NECESSARY FOR COMPLETION OF THESE SYSTEMS IN ACCORDANCE WITH GOOD PRACTICE.

MECHANICAL CONTRACTOR SCOPE ITEMS:

- 1. REMOVE & REPLACE SPECIFIED UNIT VENTILATORS.
2. INSTALLATION OF NEW HYDRONIC PIPING.
3. CONNECTION TO EXISTING CONDENSATE DRAIN PIPING.
4. ALL CEILINGS TO BE REMOVED AND REINSTALLED BY M.C. TO COMPLETE MECHANICAL SCOPE. ANY ADDITIONAL COST FOR ELECTRICAL REMOVAL AND REINSTALLATION BORNE BY M.C.
5. CUTTING, PATCHING, AND PAINTING: UNLESS OTHERWISE NOTED, ALL CUTTING, PATCHING, AND PAINTING IS THE RESPONSIBILITY OF THIS CONTRACTOR FOR ALL HIS WORK INCLUDING:
-NEW OPENINGS FOR NEW WORK.
-REPAIR ALL EXISTING OPENINGS FOR REMOVAL OR ABANDON WORK.
-FILLING ALL OPENINGS, INCLUDING FUR PAINT.
-PAINTING OF ALL SURFACES AFTER REMOVAL OF UNIT VENTILATORS, BASEBOARD ELEMENTS AND ENCLOSURES, UNIT HEATERS, CABINET HEATERS, ETC.
6. SUBMIT PIPING LAYOUT SHOP DRAWINGS PRIOR TO SUBMITTALS. PROVIDE COMPETENT PERSON FOR FIELD INVESTIGATION.
7. ALL WORK INDICATED AS MECHANICAL, HVAC, PLUMBING, AND CONTROLS SHALL BE PERFORMED BY M.C.
8. PROVIDE CONSTRUCTION BARRIERS AT EACH END OF CORRIDOR THROUGH THE DURATION OF THE PROJECT.
9. PROVIDE CONSTRUCTION BARRIERS IN FIRST FLOOR CORRIDOR AND CLASS ROOM TO SEPARATE AREA OF WORK FROM OCCUPANTS. PERFORM TIE-IN TO DUAL-TEMP LINES AFTER HOURS TO MINIMIZE SHUT-DOWN OF OTHER HVAC EQUIPMENT. PROVIDE NEW ISOLATION VALVES TO CONTINUE NEW PIPING & INSTALLATION IN SECOND FLOOR WHILE LEAVING ALL OTHER SYSTEMS FULLY OPERATIONAL.