

GENERAL PROJECT NOTES

GENERAL:

- 1. INSTALL THE H.V.A.C. SYSTEM AS INDICATED IN ACCORDANCE WITH ALL STATE AND LOCAL CODES.
2. COORDINATE ALL WORK WITH OTHER TRADES. REWORK OF PIPING, DUCTWORK, EQUIPMENT LOCATION, CONDUIT, ETC. AS A RESULT OF POOR PLANNING, COORDINATION OR SCHEDULING SHALL BE THE RESPONSIBILITY OF THE INVOLVED CONTRACTORS. NOTIFY THE ARCHITECT/ENGINEER OF ANY CONFLICTS PRIOR TO START OF WORK.
3. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ANY FRAMING REVISIONS, EQUIPMENT LOCATIONS, ADDITION OF CONTROLS, ELECTRICAL CIRCUITING REVISIONS, ETC. THAT RESULT FROM USING EQUIPMENT OTHER THAN THOSE INDICATED ON THE DRAWINGS. APPROVAL OF THE SHOP DRAWINGS BY THE ARCHITECT/ENGINEER WILL NOT WAIVE THE CONTRACTOR OF THIS RESPONSIBILITY.
4. THE MECHANICAL CONTRACTOR SHALL HAVE THE FINAL RESPONSIBILITY FOR SYSTEM START UP, TRAINING, WARRANTY AND TURN OVER TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTRUCTING THE OWNER ON ANY ROUTINE MAINTENANCE REQUIRED DURING THE WARRANTY PERIOD.
5. ALL ITEMS INCLUDED ON THESE DRAWINGS AND THE SPECIFICATIONS SHALL BE INCLUDED IN THE CONTRACTORS BID. ANY ITEMS THAT ARE UNCLEAR OR FOUND TO BE INCORRECT BY THE CONTRACTOR SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER PRIOR TO THE BID DUE DATE. EXCLUSIONS OF WORK FROM THE BID ARE NOT ACCEPTABLE.
6. ALL WORK INDICATED ON THE MECHANICAL DRAWINGS SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE.
7. THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL FIRESTOPPING FOR DUCT AND PIPE PENETRATIONS THAT PENETRATE FIRE RATED ASSEMBLIES. SEE ARCHITECTURAL DRAWINGS OR REFER TO THE OWNERS RECORD DRAWINGS FOR LOCATIONS OF FIRE RATED ASSEMBLIES. ALL FLOOR PENETRATIONS SHALL BE FIRESTOPPED AND SEALED WATER TIGHT WITH A FLEXIBLE SEALANT.
8. THE MECHANICAL CONTRACTOR SHALL PATCH ALL WALLS, CEILINGS OR FLOORS WHERE EQUIPMENT, CONDUIT, DUCTWORK OR PIPING HAS BEEN REMOVED, RELOCATED OR INSTALLED NEW. PATCHING SHALL MATCH EXISTING SURFACES WITH RESPECT TO MATERIALS, COLOR AND TEXTURE.
9. THE MECHANICAL CONTRACTOR SHALL PROVIDE ROOF PATCHING FOR ANY ROOF PENETRATIONS NOT SPECIFICALLY IDENTIFIED ON THE ARCHITECTURAL DRAWINGS. ALL PATCHING SHALL BE PERFORMED IN A MANNER CONSISTENT WITH THE ROOF SYSTEMS CURRENT WARRANTY REQUIREMENTS AND MANUFACTURERS RECOMMENDATIONS.
10. THE MECHANICAL CONTRACTOR SHALL NOT PERFORM ANY WELDING OR TORCH CUTTING OPERATIONS WITHIN THE OCCUPIED BUILDING WITHOUT OBTAINING PERMISSION OR A BURN PERMIT FROM THE OWNER.
11. VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATION, TRENCHING OR DRILLING.

PIPING NOTES:

- 1. PITCH ALL CONDENSATE PIPING NO LESS THAN 1/8" PER 10' TOWARD THE FLOOR DRAINS, ROOF DRAINS OR GUTTER DOWNSPOUT.
2. PROVIDE P-TRAPS WITH CLEANOUT ON ALL DX AHU COIL CONDENSATE DRAIN CONNECTIONS. PIPE PER MANUFACTURER'S RECOMMENDATIONS.

EQUIPMENT - GENERAL:

- 1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE SERVICE ACCESS SPACE FOR ALL EQUIPMENT WITH OTHER TRADES TO MAINTAIN PROPER CLEARANCES FOR EQUIPMENT MAINTENANCE AND OPERATION.
2. VARIATIONS IN THE EQUIPMENT ORDERED AND THAT SHOWN ON THE DRAWINGS SHALL BE COORDINATED BEFORE THE INSTALLATION OF ANY PIPING, DUCTWORK, EQUIPMENT PADS, CONDUIT ETC.
3. THE H.V.A.C. EQUIPMENT AND SYSTEM SHALL NOT BE USED TO TEMPORARILY HEAT, COOL OR DEHUMIDIFY THE SPACE DURING CONSTRUCTION (PRIOR TO SUBSTANTIAL COMPLETION) WITHOUT APPROVAL BY THE OWNER. THE WARRANTY PERIOD SHALL NOT BEGIN UNTIL SUBSTANTIAL COMPLETION. THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY ADDITIONAL CHARGES TO EXTEND THE EQUIPMENT WARRANTY PERIOD AS NECESSARY.

EQUIPMENT SUPPORTS:

- 1. COORDINATE THE EXACT SUPPORT PAD SIZE AND EQUIPMENT MOUNTING REQUIREMENTS WITH ALL INVOLVED CONTRACTORS PRIOR TO CONSTRUCTION. REFER TO FINAL EQUIPMENT SHOP DRAWINGS PROVIDED BY THE MANUFACTURER FOR EQUIPMENT SIZES AND MOUNTING REQUIREMENTS. PROVIDE SEISMIC RESTRAINTS AND SNUBBERS WHERE INDICATED.
2. PROVIDE A 6" THICK STRUCTURAL SUPPORT PAD UNDER EACH GRADE MOUNTED AIR-COOLED HEAT PUMP UNIT. PAD SHALL BE 6" LARGER THAN EQUIPMENT IN EACH DIRECTION. USE 3000 PSIG, 28 DAY COMPRESSIVE STRENGTH CONCRETE. INSTALL 6X6X2.9XW2.9 WWF. SET PAD ON 4" OF CLEAN 3/4" MINUS. PROVIDE FABRIC BARRIER BETWEEN SOIL AND ROCK.

PAINTING:

- 1. MECHANICAL SUPPORTS, INTERIOR, FINISHED SPACE: EXPOSED UNPAINTED, PRIMED OR NON-PLATED STEEL SUPPORTS, HANGERS, BRACKETS, ETC., LOCATED WITHIN INTERIOR FINISHED SPACES VIEWABLE BY THE GENERAL BUILDING POPULATION SHALL BE PAINTED WITH ONE COAT OF RUST INHIBITIVE PRIMER AND TWO COATS OF ENAMEL OR ACRYLIC PAINT. COLOR AND FINISH TO BE SELECTED BY THE ARCHITECT.
2. MECHANICAL SUPPORTS, MECHANICAL ROOMS: UNPAINTED, PRIMED OR NON-PLATED STEEL SUPPORTS, HANGERS, BRACKETS, ETC., LOCATED WITHIN MECHANICAL OR UTILITY ROOMS SHALL BE PAINTED WITH ONE COAT OF RUST INHIBITIVE PRIMER AND TWO COATS OF ENAMEL OR ACRYLIC PAINT. PAINT GLOSS GRAY OR BLACK.
3. MECHANICAL SUPPORTS, EXTERIOR: UNPAINTED, PRIMED OR NON-PLATED STEEL SUPPORTS, HANGERS, BRACKETS, ETC. LOCATED ON THE EXTERIOR OF THE BUILDING, SHALL BE PAINTED WITH ONE COAT OF RUST INHIBITIVE PRIMER AND TWO COATS OF ENAMEL OR ACRYLIC PAINT. WHERE VIEWABLE BY THE GENERAL PUBLIC, COLOR AND FINISH TO BE SELECTED BY THE ARCHITECT OTHERWISE PAINT WITH SEMI-GLOSS PAINT TO MATCH THE COLOR OF THE SURFACE ON WHICH THE SUPPORT IS MOUNTED OR ADJACENT TO.
4. NON-INSULATED PIPING, NON-INSULATED DUCTWORK, AND CONDUIT, INTERIOR, FINISHED SPACE: EXPOSED, UNPAINTED, PRIMED OR NON-PLATED STEEL PIPING, NON-INSULATED DUCTWORK, AND CONDUIT LOCATED WITHIN INTERIOR FINISHED SPACES, VIEWABLE BY THE GENERAL BUILDING POPULATION, SHALL BE PAINTED WITH ONE COAT OF RUST INHIBITIVE PRIMER AND TWO COATS OF ENAMEL OR ACRYLIC PAINT. COLOR AND FINISH TO BE SELECTED BY THE ARCHITECT.
5. INSULATED PIPING AND DUCTWORK, INTERIOR, FINISHED SPACE: EXPOSED, UNPAINTED, PRIMED OR NON-PLATED STEEL PIPING AND DUCTWORK, LOCATED WITHIN INTERIOR FINISHED SPACES, VIEWABLE BY THE GENERAL BUILDING POPULATION, SHALL BE PAINTED WITH TWO COATS OF LATEX PAINT. COLOR AND FINISH TO BE SELECTED BY THE ARCHITECT.
6. NON-INSULATED PIPING, NON-INSULATED DUCTWORK, AND CONDUIT, MECHANICAL ROOMS: NON-INSULATED PIPING, NON-INSULATED DUCTWORK, AND CONDUIT LOCATED WITHIN MECHANICAL OR UTILITY ROOMS SHALL BE PAINTED WITH ONE COAT OF RUST INHIBITIVE PRIMER AND TWO COATS OF GLOSS ENAMEL OR ACRYLIC PAINT PER THE COLOR CODE LOCATED ON THE PIPE SCHEDULE.
7. INSULATED PIPING AND DUCTWORK, MECHANICAL ROOMS: WHERE PVC OR FOIL FACED JACKETS HAVE NOT BEEN SPECIFIED PER THE PIPE AND DUCT SCHEDULES ON EXPOSED, INSULATED PIPING AND DUCTWORK LOCATED WITHIN MECHANICAL ROOMS, THE PIPE AND DUCT SHALL BE PAINTED WITH TWO COATS OF GLOSS LATEX PAINT. PAINT PIPE PER THE COLOR CODE LOCATED ON THE PIPE SCHEDULE. DUCTWORK WHITE.
8. NON-INSULATED PIPING, NON-INSULATED DUCTWORK, AND CONDUIT, EXTERIOR, NON-INSULATED PIPING, NON-INSULATED DUCTWORK, AND CONDUIT LOCATED OUTSIDE OR AROUND THE BUILDING EXTERIOR, SHALL BE PAINTED WITH ONE COAT OF RUST INHIBITIVE PRIMER AND TWO COATS OF GLOSS ENAMEL OR ACRYLIC PAINT. WHERE PIPING DUCTWORK AND CONDUIT IS VIEWABLE BY THE GENERAL PUBLIC, COLOR AND FINISH TO BE SELECTED BY THE ARCHITECT, OTHERWISE PAINT WITH SEMI-GLOSS PAINT TO MATCH THE COLOR OF THE SURFACE ON WHICH THE SUPPORT IS MOUNTED OR ADJACENT TO.
9. INSULATED PIPING AND DUCTWORK, EXTERIOR: EXPOSED, INSULATED PIPING AND DUCTWORK, THAT INCLUDE A METAL PVC OR LAMINATED MULTILAYER WRAP WITH BUILT-IN FINISH SHALL NOT BE PAINTED. FLEXIBLE UNICELLULAR PIPE OR DUCT PIPING SHALL PAINTED WITH A COATING SPECIFICALLY RECOMMENDED BY THE INSULATION MANUFACTURER WHERE PIPING DUCTWORK AND CONDUIT IS VIEWABLE BY THE GENERAL PUBLIC, COLOR AND FINISH TO BE SELECTED BY THE ARCHITECT, OTHERWISE PAINT WITH SEMI-GLOSS PAINT TO MATCH THE COLOR OF THE SURFACE ON WHICH THE SUPPORT IS MOUNTED OR ADJACENT TO.
10. WHERE GALVANIZED DUCTWORK REQUIRES PAINTING PROVIDE A PAINT GRIP FINISH OR CHEMICALLY CLEAN AND PREPARE THE DUCT SURFACE PRIOR TO PAINTING.
11. DO NOT PAINT OVER NAME PLATES, WARNING SIGNS, IDENTIFICATION LABELS, ETC.

TEMPERATURE CONTROL NOTES:

- 1. PROVIDE PROJECT SPECIFIC TEMPERATURE CONTROL SYSTEM MANUAL FOR THE BUILDING. THE MANUAL SHALL CONTAIN A DIAGRAM OF THE CONTROL SYSTEM ARCHITECTURE, WIRING DIAGRAMS AND A SEQUENCE OF OPERATION. THE MANUAL SHALL ALSO INCLUDE AN 11 X 17 FLOOR PLAN INDICATING THE MAJOR EQUIPMENT AND PANEL LOCATIONS. THE MANUAL SHALL BE BOUND IN A HARD BACK 3 RING BINDER WITH DIVIDERS. BINDER SHALL BE LABELED "H.V.A.C. TEMPERATURE CONTROL MANUAL" AND INCLUDE THE PROJECT NAME AS WELL AS THE BUILDING NAME, NUMBER AND ADDRESS.
2. LABEL ALL CONTROL PANELS, ACTUATORS, SENSORS, ETC WITH 1/8" THICK PLASTIC LAMINATE SIGNS. SEE DRAWINGS FOR LABEL AND LETTERING REQUIREMENTS. LABEL DESIGNATIONS SHALL BE CONSISTENT WITH THE DRAWINGS, TEMPERATURE CONTROL SYSTEM MANUAL AND DIAGRAMS.
3. MOUNT THERMOSTATS AND SENSORS 5'-0" ABOVE FINISH FLOOR. DO NOT MOUNT IN DIRECT SUNLIGHT OR NEAR HEAT PRODUCING EQUIPMENT.
4. ALL COVERS AND TRIM ON SENSORS LOCATED IN OCCUPIED SPACES TO BE WHITE.
5. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL MOTOR STARTERS AND DISCONNECT SWITCHES FOR H.V.A.C. EQUIPMENT UNLESS THEY ARE INCLUDED WITH THE EQUIPMENT AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS. COORDINATE STARTER REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING.
6. WHERE AUXILIARY CONTACTS ARE REQUIRED IN STARTERS PROVIDED BY THE ELECTRICAL CONTRACTOR, THE MECHANICAL CONTRACTOR SHALL COORDINATE THE QUANTITY AND TYPE OF CONTACTS WITH THE ELECTRICAL CONTRACTOR PRIOR TO PURCHASE.
7. THE MECHANICAL CONTRACTOR SHALL PROVIDE ALL TEMPERATURE CONTROL SYSTEM WIRING AND CONDUIT REGARDLESS OF VOLTAGE AS REQUIRED TO PROVIDE THE SPECIFIED SEQUENCE OF OPERATION OR SATISFY ANY MANUFACTURER REQUIREMENTS. POWER AND CONTROL WIRING AND CONDUIT FOR VALVE ACTUATORS, DAMPER ACTUATORS, RELAYS, INDICATOR LIGHTS, REMOTE CONTROL PANELS, AND OTHER SIMILAR DEVICES THAT ARE PART OF THE H.V.A.C. SYSTEM SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS FOR THE LOCATION OF CIRCUIT BREAKERS SPECIFICALLY DEDICATED FOR TEMPERATURE CONTROL SYSTEM COMPONENTS.
8. ALL CONDUIT SHALL BE CONCEALED WITHIN THE WALL OR CEILING CAVITY WITH THE EXCEPTION OF MECHANICAL ROOMS, ELECTRICAL ROOMS, OR WHERE NOTED OTHERWISE. CONDUIT MAY BE EXPOSED AT THE CEILING LEVEL OF AREAS WITHOUT CEILINGS (EXPOSED STRUCTURE). COORDINATE THE ROUGH-IN OF CONDUIT AND JUNCTION BOXES IN MASONRY WALLS WITH THE GENERAL CONTRACTOR. SURFACE MOUNTED RACEWAYS OR EXPOSED CABLE ARE NOT ACCEPTABLE UNLESS SPECIFICALLY NOTED OTHERWISE.
9. IT SHALL BE THE MECHANICAL CONTRACTORS RESPONSIBILITY TO COORDINATE ALL TEMPERATURE CONTROL SYSTEM REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR PRIOR TO THE PURCHASE OR INSTALLATION OF ANY OF THE ELECTRICAL POWER OR TEMPERATURE CONTROL SYSTEM COMPONENT.
10. ALL DAMPER ACTUATORS FOR DUCT SYSTEMS OR EQUIPMENT THAT COMMUNICATES DIRECTLY WITH THE OUTDOORS SHALL BE SPRING RETURN TYPE TO CLOSE IN THE EVENT OF A POWER FAILURE.
11. ALL DAMPERS ON THE INLET OR OUTLET OF THE FAN SHALL BE OPEN PRIOR TO STARTING THE FAN. PROVIDE ANY TIME DELAYS OR END SWITCHES AS REQUIRED.

DUCTWORK - GENERAL:

- 1. ALL DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED PER THE LATEST VERSION OF THE S.M.A.C.S. H.V.A.C. DUCT CONSTRUCTION STANDARDS. UNLESS SPECIFIED MORE STRINGENTLY ELSEWHERE IN THESE CONSTRUCTION DOCUMENTS.
2. ALL 90° RECTANGULAR ELBOWS, 2" PRESSURE CLASS AND BELOW, SHALL BE EQUIPPED WITH SINKERS, TURNING VANES MOUNTED TO A PREFABRICATED VANE RAIL, UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
3. ALL RECTANGULAR RADIUS ELBOWS TO BE FABRICATED WITH AN INSIDE RADIUS NO LESS THAN 1/2 OF THE WIDTH OF THE DUCT. THE WIDTH IS DEFINED AS THE DIMENSION OF THE DUCT IN THE PLANE WHICH THE DUCT IS TURNING.
4. RECTANGULAR DUCTWORK SHALL BE SUPPORTED PER THE S.M.A.C.S. STANDARDS AT EACH CHANGE IN DIRECTION.
5. "BULL HEAD" RECTANGULAR TEES WITH OR WITHOUT TURNING VANES AND SQUARE DUCT TEES ARE NOT ACCEPTABLE.
6. PROVIDE MANUAL, SINGLE BLADE, BALANCING DAMPERS WITH LOCKING QUADRANT AND INTEGRAL POSITION INDICATOR ON ALL RUNOUTS TO SUPPLY AND EXHAUST AIR DEVICES.
7. PROVIDE MANUAL OPPOSED BLADE, BALANCING DAMPERS WITH LOCKING QUADRANT AND INTEGRAL POSITION INDICATOR ON ALL RECTANGULAR BRANCH DUCTS, AIR DEVICE RUNOUTS THAT EXCEED 12" IN HEIGHT.
8. MANUAL SPLITTER DAMPERS ARE NOT ACCEPTABLE.
9. PROVIDE ACCESS DOORS ON ALL DUCT SYSTEMS OR PLENUMS WHERE REQUIRED TO ACCESS AND MAINTAIN MOTORIZED OR AUTOMATIC DAMPER BLADES AND LINKAGES. (NOT REQUIRED FOR FIXED POSITION BALANCING DAMPERS.)
10. ALL DUCTWORK LOCATED WITHIN ATTIC SPACES SHALL BE SEALED EXTERNALLY AT EACH JOINT REGARDLESS OF PRESSURE CLASS.
11. ALL DUCTWORK SHALL BE SUPPORTED FROM ROOF OR FLOOR STRUCTURE ABOVE. DUCTWORK SHALL NOT LAY ON TOP OF CEILING OR LIGHT FIXTURES.
12. FLEXIBLE DUCT RUNOUTS TO AIR DEVICES SHALL NOT EXCEED 5'-0" IN LENGTH. FLEXIBLE RUNOUTS SHALL BE TRIMMED TO A MINIMUM LENGTH NECESSARY TO MAKE THE CONNECTION.
13. WHERE DAMPER ACTUATORS ARE MOUNTED TO DUCTWORK OR PLENUMS PROVIDE A HEAVY GAGE BASE PLATE, ANGLE SPLITTERS OR MOUNTING AS REQUIRED TO ELIMINATE DEFLECTION OF DUCTWORK DURING ACTUATOR OPERATION.
14. COORDINATION OF DUCT SYSTEM INSTALLATION WITH OTHER TRADES SHALL BE PERFORMED PRIOR TO THE FABRICATION OF ANY DUCTWORK. VERIFY DUCT CLEARANCES PRIOR TO FABRICATION. NOTIFY THE ARCHITECT/ENGINEER OF ANY CONFLICTS THAT REQUIRE DIMENSIONAL CHANGES OR REQUIRE MAJOR RELOCATION OF DUCTWORK.
15. PROVIDE STANDARD FLEXIBLE DUCT CONNECTIONS ON ALL DX AIR HANDLING UNITS AND EXHAUST FANS.
16. PROVIDE 45° FLARED TAKEOFFS FOR ALL RECTANGULAR BRANCH DUCT CONNECTIONS TO THE MAIN DUCT.
17. ALL DUCTWORK SIZES SHOWN ARE EXTERNAL DIMENSIONS. ALLOWANCE HAS BEEN MADE FOR 1" DUCTLINE WHERE AND IF REQUIRED. SEE DUCTWORK SCHEDULE ON DRAWINGS.
18. TAPES AND MASTICS USED TO SEAL METALLIC AND FLEXIBLE AIR DUCTS AND FLEXIBLE AIR CONNECTORS SHALL COMPLY WITH UL 181B AND SHALL BE MARKED "181 B-FX" FOR PRESSURE-SENSITIVE TAPE OR "181 B-M" FOR MASTIC.
19. DUCT CONNECTIONS TO FLANGES OF AIR DISTRIBUTION SYSTEM EQUIPMENT SHALL BE SEALED AND MECHANICALLY FASTENED. MECHANICAL FASTENERS FOR USE WITH FLEXIBLE NONMETALLIC AIR DUCTS SHALL COMPLY WITH UL 181B AND SHALL BE MARKED "181 B-C."
20. CLOSURE SYSTEMS USED TO SEAL ALL DUCTWORK SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

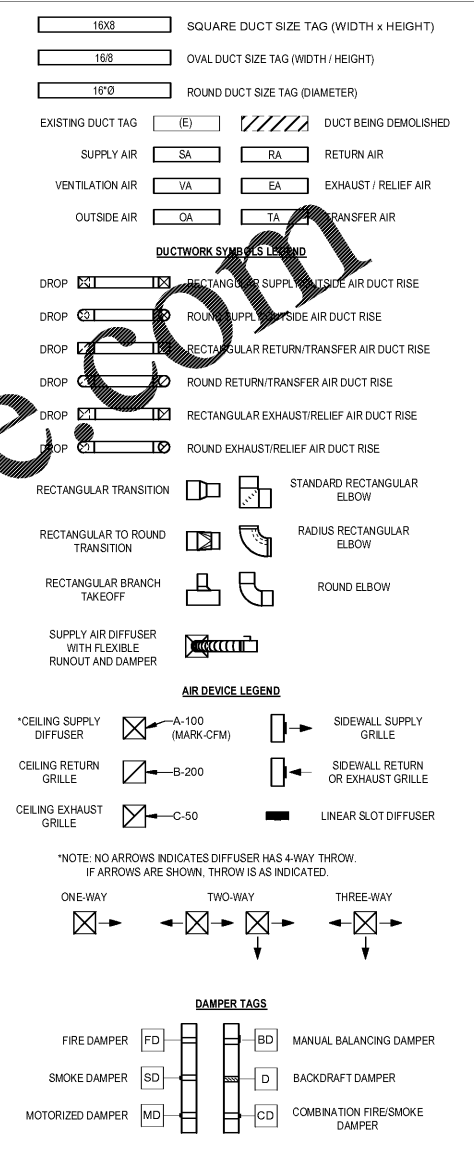
MECHANICAL ABBREVIATIONS

Table with 2 columns: Abbreviation and Description. Includes items like ROUND, AMP, AIR CONDITIONING, ACRO COPPER REFRIG. PIPE, AIR DRAIN, ADDITION, ABOVE FINISHED FLOOR, ANNUAL FUEL UTILIZATION EFFICIENCY, ALTERNATE, ALUMINUM, ACCESS PANEL, AIR PRESSURE DROP, ARCHITECT/ARCHITECTURAL, ALL SERVICE INSULATION JACKET, BUILDING AUTOMATION SYSTEM, BACKDRAFT DAMPER, BELOW FINISHED FLOOR, BRAZED, BRAKE HORSEPOWER, BELOW, BOTTOM OF DUCT, BOTTOM OF PIPE, BRITISH THERMAL UNITS, BRITISH THERMAL UNITS PER HOUR, CORRUGATED ALUMINUM, CALCIUM SILICATE INSULATION, CAPACITY, CALCIUM CARBONATE POWDER, CUBIC FEET, CUBIC FEET PER MINUTE, CHILLED WATER, CAST IRON, CENTERLINE, CEILING, CENTERLINE OF PIPE, CEILING MOUNTED CENTRIFUGAL FAN, CLEAN OUT, CONCRETE, CHLORINATED PVC, CARBON STEEL, COPPER, COLD WATER, CONDENSATE WATER, DEGREE, DEGREE FAHRENHEIT, DRY BULB, DOMESTIC HOT WATER, DIRECT DUCT CONTROL, DOMESTIC HOT WATER DIAMETER, DUCT SILENCER (SOUND ATTENUATOR), DUCT TEMPERATURE, EXHAUST ALUMINUM, EXHAUST AIR, ENTERING AIR TEMPERATURE, ELECTRICAL CONTRACTOR, ENTERING DRY BULB TEMPERATURE, ELECTRICAL EQUIPMENT, ENTERING WET BULB TEMPERATURE, ENTERING WATER TEMPERATURE, EXHAUST EXISTING, DEGREES FAHRENHEIT, FLOOR DRAIN, FIRE DAMPER, FOIL FACED JACKET, FIBERGLASS, FIBERGLASS BOARD INSULATION, FIBERGLASS WRAP, FLOOR, FULL LOAD AMPS, FLANGE, FLANGED, FOAM GLASS, FUEL OIL, FUEL OIL VENT, FUEL OIL RETURN, FUEL OIL SUPPLY, FEET PER MINUTE, FAN POWERED PARALLEL VAV, FAN POWERED SERIES VAV, FLOOR SWITCH, FOOT/FEET, FM TUBE RADIATION, FEED WATER, GAGE (GAUGE), GALLON, GALVANIZED, GENERAL CONTRACTOR, GALLONS PER HOUR, GALLONS PER MINUTE, GROOVED PIPE, GALVANIZED STEEL, HUMIDIFIER (HUMIDITY), HEATING CONTRACTOR, HEAT FUSION, HORSE POWER, HIGH PRESSURE STEAM, HUMIDITY SENSOR, HEATING, HEATER, HEATING HOT WATER, HYDRANT, INDIRECT, INLINE CENTRIFUGAL FAN, INCH, INVERT, LEAVING AIR TEMPERATURE, POUND, POUNDS PER HOUR, LEAVING DRY BULB TEMPERATURE, LIQUID PRODUCE, LOW PRESSURE, LOW PRESSURE STEAM, LEAVING WET BULB TEMPERATURE, LEAVING WATER TEMPERATURE, MOTORIZED, MIXED AIR, MATERIAL, MAXIMUM, ONE THOUSAND BTU PER HOUR, MECHANICAL CONTRACTOR, MINIMUM CIRCUIT AMPS, ONE THOUSAND CUBIC FEET, MANUAL DAMPER, MECHANICAL, MATT FACED FIBERGLASS, MANUFACTURER, MALLEABLE IRON, MINIMUM, MISCELLANEOUS, MOTOR, MAKE-UP AIR, NOISE CRITERIA, NORMALLY CLOSED, NOT TO CONTRACT, NORMALLY OPEN, NOT TO START, OXYGEN, OUTSIDE AIR, OUTSIDE AIR DAMPER, ON CENTER, PLUMBING CONTRACTOR, PRESSURE, PAINT, GALVANIZED STEEL, POLYPROPYLENE, PARTS PER MILLION, PRESSURE, PRESSURE REGULATING VALVE, PRESSURE SENSOR, POUNDS PER SQUARE INCH, POUNDS PER SQUARE INCH GAUGE, POLYVINYL CHLORIDE, PVC COATED GALVANIZED STEEL, POWER, RETURN AIR, ROOM CRITERIA LEVEL, RADIANT CEILING PANEL, ROOF DRAIN, RECESS, RECTANGULAR, REDUCER, REFRIGERANT, RELATIVE HUMIDITY, RELIEF AIR, ROOM, ROOM MOUNTED CENTRIFUGAL FAN, ROOM MOUNTED PROPELLER FAN, REVOLUTIONS PER MINUTE, RELIEF VALVE, SWITCH, SUPPLY AIR, SENSIBLE CAPACITY, SCHEDULE, SCREWED (THREADED), SMOKE DAMPER, SQUARE FOOT, SURFACE MOUNT, SHUT OFF VALVE TERMINAL, STATIC PRESSURE, SQUARE, STAINLESS STEEL, STEAM, SWEAT CONNECTION, SOLVENT WELD, THERMOSTAT, TOTAL CAPACITY, TEMPERATURE DROP, TEMPERATURE, THICKNESS, THROTTLE, TOP OF DUCT, TOP OF JOIST, TOP OF STEEL, TEMPERATURE SENSOR, PIPE TYPE OR SCHEDULE, TYPICAL, UNBLAST CENTRIFUGAL FAN, FLEXIBLE UNICELLULAR, VOLTS, VARIABLE AIR VOLUME, VENTILATING CONTRACTOR, VENTILATION, WET BULB, WROUGHT CARBON STEEL, WROUGHT COPPER, WELDED CONNECTION, WALL MOUNTED PROPELLER FAN, WATER PRESSURE DROP, WEIGHT (OR DENSITY)

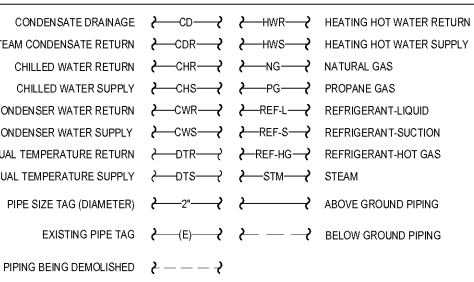
MECHANICAL EQUIPMENT ABBREVIATIONS

Table with 2 columns: Abbreviation and Description. Includes items like AIR CONDITIONING UNIT, AIR COOLED CONDENSER, AIR COOLING CONDENSING UNIT, AIR HANDLING UNIT, AIR SEPARATOR, STEAM BOILER, CHILLER, CHILLED WATER PUMP, CONDENSATE RETURN PUMP, COOLING TOWER, CABINET UNIT HEATER, CONDENSER WATER PUMP, DUAL TEMPERATURE PUMP, ELECTRIC DUCT COIL, EXHAUST FAN, ELECTRIC HEATER, EXPANSION TANK, FURNACE, FAN COIL UNIT, GRAVITY ROOF VENTILATOR, HEAT PUMP, HEAT RECOVERY UNIT, HEATING/VENTILATING UNIT, HOT WATER BOILER, HEATING WATER PUMP, HEAT EXCHANGER, OUTDOOR UNIT, RETURN/RELIEF FAN, ROOFTOP UNIT, SUPPLY FAN, UNIT HEATER, UNIT VENTILATOR, VAV TERMINAL UNIT

HVAC SYMBOLS



MECHANICAL PIPING SYMBOLS



HVAC DESIGN CRITERIA

Table with 2 columns: Design Criteria and Values. Includes General Design Information (Building Location: Heath Springs, SC; Elevation: 719'), Indoor Design Conditions (Summer Dry Bulb: 75°F, Summer Wet Bulb: 50%, Winter Dry Bulb: 70°F, Winter Wet Bulb: 45°F), and Outdoor Design Conditions (Summer Dry Bulb: 93.9°F, Summer Wet Bulb: 74.7°F, Winter Dry Bulb: 19°F, Winter Wet Bulb: 19°F).

NOTE: THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.



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11/20/20

Lancaster County, South Carolina Heath Springs Soccer Complex 200 Boydalle Road Heath Springs, SC 29068

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Sheet Name: MECHANICAL LEGENDS & NOTES

M-001