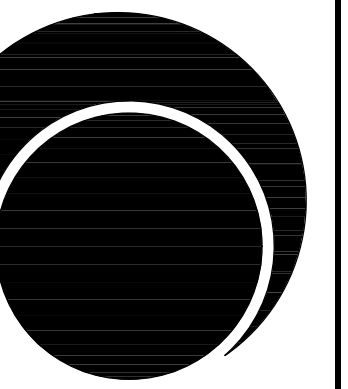


114 EAST FRONT STREET  
YOUNGSTOWN, OHIO  
(330) 744-8981

OLSAVSKY JAMINET • ARCHITECTS

OHIO UTILITIES PROTECTION SERVICE - NEW OFFICE BUILDING  
12467 MAHONING AVENUE  
NORTH JACKSON, OHIO 44451  
- BID PACKAGE B

PROJECT NO.  
15-008  
ISSUED  
9-6-16  
DRAWN  
TBA

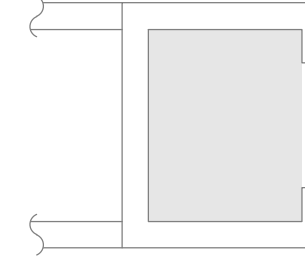


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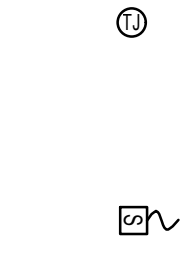
MECHANICAL LEGEND

Table with 2 columns: Symbol and Description. Includes items like AUTOMATIC CONTROL VALVE, BALANCE VALVE, BOILER BLOWDOWN, BOILER FEEDWATER, CHECK VALVE, CONDENSATE DRAIN PIPING, CONDENSATE PUMP DISCHARGE, DIRECTION OF DOWNWARD PITCH, DIRECTION OF FLOW, DOMESTIC COLD WATER PIPING, DOMESTIC HOT WATER PIPING, DOMESTIC RECIRCULATING HOT WATER PIPING, DRAIN LINE, EXISTING PIPING TO BE REMOVED, EXISTING PIPING TO REMAIN, GAS PIPING, GAS PIPING # PSIG, HOT WATER HEATING RETURN, HOT WATER HEATING SUPPLY.

Table with 2 columns: Symbol and Description. Includes items like MODULATING VALVE, OVERFLOW RAIN CONDUCTOR, PIPE UNION, PIPING ABOVE GRADE/FLOOR, PIPING BELOW GRADE/FLOOR, PRESSURE GAUGE W/COCK, PRESSURE REGULATING / REDUCING VALVE, PUMP DISCHARGE PIPING, RAIN CONDUCTOR, REHEAT HOT WATER RETURN, REHEAT HOT WATER SUPPLY, RELIEF VALVE, RELIEF VALVE DISCHARGE, SANITARY SEWER PIPING, SHUTOFF VALVE, STORM PIPING, STRAINER, TEMPERED WATER PIPING, THERMOMETER, UTILITY METER, VENT PIPING, 2-WAY MODULATING VALVE, 3-WAY MODULATING VALVE.



ROOMS OR AREAS SHOWN SHADED ON THIS PLAN, WITH THE FOLLOWING SHADING TYPE [ ] ARE DEDICATED FOR A SPECIFIC USE. EXAMPLES INCLUDE ELECTRICAL ROOMS, TECHNOLOGY/DATA CLOSETS, EXIT STAIRWELLS, AND ELEVATOR EQUIPMENT ROOMS. UNDER NO CIRCUMSTANCES SHALL PIPING, DUCTWORK, OR EQUIPMENT BE INSTALLED IN OR ROUTED THROUGH THESE ROOMS OR AREAS EXCEPT FOR BRANCH PIPING OR DUCTWORK SPECIFICALLY SERVING THE ROOM OR AREA. DEDICATED SPACE SHALL EXTEND VERTICALLY FROM FLOOR TO STRUCTURAL CEILING.



TEMPERATURE CONTROL 120V JUNCTION BOX FOR LOW VOLTAGE CONTROL, TRANSFORMER, POWER WIRING, BOX, AND 120V POWER BY ELECTRICAL CONTRACTOR. TEMPERATURE CONTROL CONTRACTOR SHALL PROVIDE TRANSFORMER AND LOW VOLTAGE POWER AND WIRING.



DUCT-TYPE SMOKE DETECTOR WITH REMOTE TEST STATION AND AUXILIARY RELAY FURNISHED AND WIRED BY ELECTRICAL CONTRACTOR. INSTALLED IN DUCTWORK BY MECHANICAL CONTRACTOR PER CODE. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR AND MANUFACTURER. PROVIDE CONDUIT AND WIRING NECESSARY TO SHUT DOWN HVAC UNIT UPON ACTIVATION OF SMOKE DETECTOR.



DUCT TEMPERATURE SENSOR



MOTORIZED FIRE/SMOKE DAMPER



FIRE DAMPER



SMOKE DAMPER



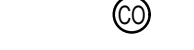
MOTOR OPERATED DAMPER



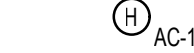
BACKDRAFT DAMPER



CARBON DIOXIDE DETECTOR



CARBON MONOXIDE DETECTOR



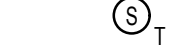
HUMIDISTAT



THERMOSTAT



SENSOR



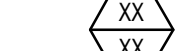
TEMPERATURE SENSOR



HUMIDITY SENSOR



POINT OF CONNECTION



EQUIPMENT TAG



UNIT HEATER DESIGNATION



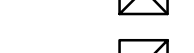
DRAWING



DOMESTIC WATER HEATER



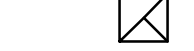
EXHAUST AIR



ELECTRIC BASEBOARD



ELECTRICAL CONTRACTOR



EXHAUST FAN



ELECTRIC HEATER



EXPANSION JOINT



ELEVATION



ELECTRICAL



ELEVATOR



EMERGENCY



EQUIPMENT



EXHAUST REGISTER

ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS ARE USED ON DRAWINGS

Table with 2 columns: Abbreviation and Full Name. Includes items like ACU (AIR CONDITIONING UNIT), ADD (ADDITIONAL), AFC (ABOVE FINISH COUNTER), AFF (ABOVE FINISH FLOOR), AFG (ABOVE FINISH GRADE), AHU (AIR HANDLING UNIT), AP (ACCESS PANEL), ARCH (ARCHITECTURAL), B (BOILER), BLDG (BUILDING), BOT (BOTTOM), C (CONDENSER), CA (CLEAN-AGENT FIRE SYSTEM), CB (CATCH BASIN), CC (COOLING COIL), CD (CEILING DIFFUSER), CFH (CUBIC FEET PER HOUR), CFM (CUBIC FEET PER MINUTE), CI (CAST IRON), CJ (CONTROL JOINT), CL (C) (CENTERLINE), CLG (CEILING), GND (GROUND), GRE (GRAVITY ROOF EXHAUSTER), H (HUMIDIFIER), HB (HOSE BIBB), HC (HEATING COIL), HE (HOOD EXHAUST), HOA (HAND-OFF-AUTOMATIC), HORIZ (HORIZONTAL), HP (HORSEPOWER), HVAC (HEATING, VENTILATION, AIR CONDITIONING), HX (HEAT EXCHANGER), IE (INVERT ELEVATION), JB (JUNCTION BOX), KEC (KITCHEN EQUIPMENT CONTRACTOR), KVA (KILOVOLT AMPERE), KW (KILOWATT), L (LOUVER), LAV / L (LAVATORY), LT (LAUNDRY TUB), LTO (LIGHTING), MAU (MAKE-UP AIR UNIT), MAX (MAXIMUM), MB (MOP BASIN), MBH (1,000 BTUH), MC (MECHANICAL CONTRACTOR), MECH (MECHANICAL), MFR (MANUFACTURER), MH (MANHOLE), MIN (MINIMUM), MTD (MOUNTED), MXB (MIXING BOX), N (NEW), NEC (NATIONAL ELECTRIC CODE), NF (NON FUSED), NFPA (NATIONAL FIRE PROTECTION ASSOCIATION), NIC (NOT IN CONTRACT), NTS (NOT TO SCALE), OA (OUTSIDE AIR), OAI (OUTSIDE AIR INTAKE), ETR (EXISTING TO REMAIN), EUH (ELECTRIC UNIT HEATER), EWC (ELECTRIC WATER COOLER), EWH (ELECTRIC WATER HEATER), EXIST (E) (EXISTING), EXP (EXPANSION), F (FURNACE), FA (FIRE ALARM), FBD (FACE & BYPASS DAMPER), FC (FORWARD CURVE BLADE FAN), FCO (FLOOR CLEAN-OUT), FCU (FAN COIL UNIT), FD (FLOOR DRAIN / FIRE DAMPER), FFE (FINISH FLOOR ELEVATION), FPB (FAN POWER BOX), FPC (FIRE PROTECTION CONTRACTOR), FS (FLOW SWITCH), FT (FIN TUBE RADIATION / FT), G (GRILLE (EXHAUST, RETURN, OR TRANSFER)), GA (GAUGE), GALV (GALVANIZED), GC (GENERAL CONTRACTOR), GE (GENERAL EXHAUST), GE (GROUND), GRE (GRAVITY ROOF EXHAUSTER), H (HUMIDIFIER), HB (HOSE BIBB), HC (HEATING COIL), HE (HOOD EXHAUST), HOA (HAND-OFF-AUTOMATIC), HORIZ (HORIZONTAL), HP (HORSEPOWER), HVAC (HEATING, VENTILATION, AIR CONDITIONING), HX (HEAT EXCHANGER), IE (INVERT ELEVATION), JB (JUNCTION BOX), KEC (KITCHEN EQUIPMENT CONTRACTOR), KVA (KILOVOLT AMPERE), KW (KILOWATT), L (LOUVER), LAV / L (LAVATORY), LT (LAUNDRY TUB), LTO (LIGHTING), MAU (MAKE-UP AIR UNIT), MAX (MAXIMUM), MB (MOP BASIN), MBH (1,000 BTUH), MC (MECHANICAL CONTRACTOR), MECH (MECHANICAL), MFR (MANUFACTURER), MH (MANHOLE), MIN (MINIMUM), MTD (MOUNTED), MXB (MIXING BOX), N (NEW), NEC (NATIONAL ELECTRIC CODE), NF (NON FUSED), NFPA (NATIONAL FIRE PROTECTION ASSOCIATION), NIC (NOT IN CONTRACT), NTS (NOT TO SCALE), OA (OUTSIDE AIR), OAI (OUTSIDE AIR INTAKE), OC (ON CENTER), OD (OVERFLOW DRAIN), P (PUMP), PC (PLUMBING CONTRACTOR), PH (s) (PHASE), PNL (PANEL), PRE (POWER ROOF EXHAUSTER), PRV (PRESSURE REDUCING VALVE), PSF (POUNDS/SQUARE FOOT), PSI (POUNDS/SQUARE INCH), PVC (POLYVINYL CHLORIDE), R (REGISTER), RA (RETURN AIR), RAD (RADIUS), RD (ROOF DRAIN), RE (RETURN EXHAUST), REF (RETURN EXHAUST FAN), REQD (REQUIRED), RF (RETURN FAN), RG (RETURN GRILLE), RHC (REHEAT COIL), RPP (REDUCED PRESSURE BACKFLOW PREVENTER), RTU (ROOF TOP UNIT), SA (SUPPLY AIR), SECT (SECTION), SF (SUPPLY FAN), SH (SHOWER), SK (SINK), SOVB (SHUT-OFF VALVE BOX), SQ (SQUARE), SR (SUPPLY REGISTER), SS (SERVICE SINK), STL (STEEL), STRUCT (STRUCTURAL), SW (SAFE WASTE), SWSI (SINGLE WIDTH SINGLE INLET FAN), SYM (SYMMETRICAL), TA (TRANSFER AIR), TD (TRENCH DRAIN), TG (TRANSFER GRILLE), TPV (TRAP PRIMER VALVE), TS (TAMPER SWITCH), TYP OR TI (TYPICAL), UH (UNIT HEATER), UL (UNDERWRITER'S LABORATORY), UNO (UNLESS NOTED OTHERWISE), UR (URINAL), UV (UNIT VENTILATOR), V (VOLTS), VAV (VARIABLE AIR VOLUME BOX), VD (VOLUME DAMPER), VERT (VERTICAL), VT (VITRIFIED TILE), VTR (VENT THRU ROOF), W (WATTS), WI (WITH), WC (WATER CLOSET), WCO (WALL CLEANOUT), WH (WALL HYDRANT), WP (WEATHERPROOF), YH (YARD HYDRANT), XFMR (TRANSFORMER).

GENERAL NOTES:

- 1. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL EXTENT OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION AND PROPER INSTALLATION OF ALL PLUMBING SYSTEMS.
2. THE CONTRACTOR SHALL PROVIDE ALL MISCELLANEOUS SUPPORTING STEEL ETC. FOR THE PROPER INSTALLATION OF ALL PLUMBING SYSTEMS.
3. THE CONTRACTOR SHALL COORDINATE FLOOR, WALL AND ROOF PENETRATIONS WITH THE GENERAL CONTRACTOR.
4. PIPING SHALL NOT BE LOCATED IN ELECTRICAL ROOMS OR OVER THE TOP OF ANY ELECTRICAL PANELS OR EQUIPMENT.
5. CONTRACTOR SHALL FIELD VERIFY SLAB ON GRADE FLOOR CONSTRUCTION TYPE PRIOR TO CUTTING. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR CUT A STRUCTURAL FLOOR SLAB THICKER THAN FOUR (4") INCHES WITHOUT PRIOR WRITTEN APPROVAL FROM ENGINEER OF RECORD. NOTIFY ENGINEER OF RECORD OF ANY SLAB THICKNESS GREATER THAN FOUR (4") INCHES PRIOR TO PROCEEDING WITH ANY SAW CUTTING.