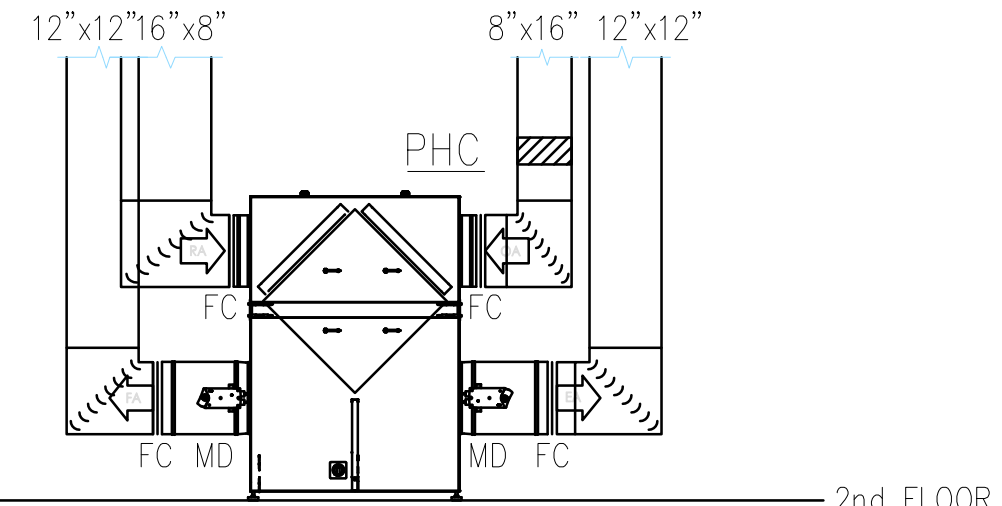


LOW PRESSURE DUCT CONSTRUCTION DETAILS – TYPICAL
NTS



PLUMBING FIXTURE CONNECTION SCHEDULE

TAG	DESCRIPTION	SAN	VENT	CW	HW
P-1	ADA SINGLE BOWL SS KITCHEN SINK	1-1/2"	1-1/2"	1/2"	1/2"

AIR DEVICE PERFORMANCE SCHEDULE

TAG	PANEL SIZE (IN)	NECK SIZE (IN)	AIRFLOW (CFM)	SP. LOSS (IN.WG.)	THROW (L)	THROW (S)	Nc	BASIS OF DESIGN = SEIHO		
								DUCT CONN. (IN)	PATTERN	MODEL
A	6"	4"	25-50	0.05	-	-	15	SEE DWGS	ROUND	TT-4

LOUVER PERFORMANCE SCHEDULE

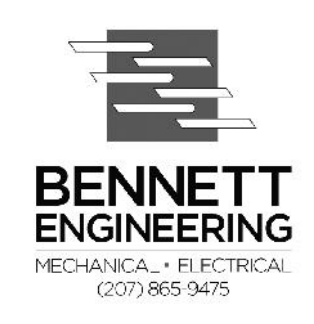
TAG	AIR FLOW (CFM)	SP LOSS (IN.WG.)	AIR VEL. (FPM)	SIZE (INCHES) (W x H)	FREE AREA (SQ.FT)	DRAINABLE (Y) OR (N)	BLADE ANGLE & FRAME DEPTH	BASIS OF DESIGN = RUSKIN	
								SERVICE	MODEL
L-1A	725	0.05	300	30x24	2.4	Y	35°, 6"	ERV-1 INTAKE/EXHAUST	ELF6375DX

APPROXIMATE SIZE SCHEDULED, FIELD VERIFY PRIOR TO ORDERING.

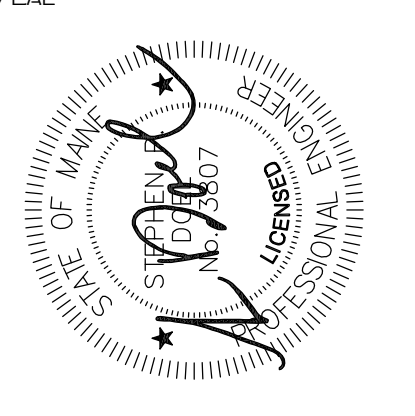
MECHANICAL AND PLUMBING SYMBOLS AND ABBREVIATIONS LEGEND

NOTE – USE SYMBOLS AND ABBREVIATIONS AS APPLICABLE FOR THIS MECHANICAL DRAWING SET. SOME SYMBOLS AND ABBREVIATIONS IN THIS LEGEND MAY NOT APPLY.

<p>—CA— COMPRESSED AIR PIPING (CA)</p> <p>—C— CONDENSATE DRAIN PIPING (C)</p> <p>—CTR— COOLING TOWER RETURN PIPING (CTR)</p> <p>—CTS— COOLING TOWER SUPPLY PIPING (CTS)</p> <p>—CWR— CHILLED WATER RETURN PIPING (CWR)</p> <p>—CWS— CHILLED WATER SUPPLY PIPING (CWS)</p> <p>—FOR— FUEL OIL RETURN PIPING (FOR)</p> <p>—FOS— FUEL OIL SUPPLY PIPING (FOS)</p> <p>—G— GAS PIPING (G)</p> <p>—HWR— HOT WATER RETURN PIPING (HWR)</p> <p>—HWS— HOT WATER SUPPLY PIPING (HWS)</p> <p>—RL— REFRIGERANT LIQUID PIPING (RL)</p> <p>—RG— REFRIGERANT GAS PIPING (RG)</p> <p>—SAN— SANITARY PIPING BELOW FLOOR (SAN)</p> <p>—SAN— SANITARY PIPING ABOVE FLOOR (SAN)</p> <p>—SAN— SANITARY VENT PIPING</p> <p>—RWL— RAINWATER LEADER ABOVE SLAB (RWL)</p> <p>—CWP— COLD WATER PIPING (CW)</p> <p>—HW— HOT WATER PIPING (HW)</p> <p>—RHW— RECIRCULATED HOT WATER PIPING (RHW)</p> <p>—PC— PIPE CAP</p> <p>—DF— DIRECTION OF FLUID FLOW</p> <p>—EB— ELBOW UP</p> <p>—ED— ELBOW DOWN</p> <p>—TU— PIPE TEE UP</p> <p>—TD— PIPE TEE DOWN</p> <p>—PR— PIPE REDUCER</p> <p>—WG— PIPE WITH GUIDE</p> <p>—WA— PIPE WITH ANCHOR</p> <p>—BV— BUTTERFLY VALVE</p> <p>—G&Y— OS & Y GATE VALVE</p> <p>—BFP— BACKFLOW PREVENTER (BFP)</p> <p>—CV— CHECK VALVE</p> <p>—AV— BALANCING VALVE (ADJUSTABLE)</p> <p>—AFCV— AUTOMATIC FLOW CONTROL VALVE</p> <p>—RV— RELIEF VALVE (RV)</p>	<p>—BV— BALL VALVE</p> <p>—BV— BALL VALVE</p> <p>—3/4"— 3/4" BALL VALVE WITH 3/4" HOSE END</p> <p>—GV— GATE VALVE</p> <p>—PRV— PRESSURE REDUCING VALVE</p> <p>—FV— FUSIBLE VALVE</p> <p>—SFBV— STRAINER W/BLOWDOWN BALL VALVE</p> <p>—2WCV— 2-WAY CONTROL VALVE</p> <p>—SOLV— SOLENOID VALVE</p> <p>—3WCV— 3-WAY CONTROL VALVE</p> <p>—3WCV— 3-WAY CONTROL VALVE (TOP VIEW)</p> <p>—4WCV— 4-WAY CONTROL VALVE (TOP VIEW)</p> <p>—2BV— 2 BUTTERFLY VALVES W/SINGLE ACTUATOR</p> <p>—BV— BUTTERFLY VALVE W/ACTUATOR</p> <p>—TDV— TRIPLE-DUTY VALVE</p> <p>—UN— UNION</p> <p>—PF— PIPE FLANGE</p> <p>—PWF— PUMP WITH FLANGES</p> <p>—MP— BASE MOUNTED PUMP</p> <p>—CIP— CARTRIDGE TYPE INLINE PUMP</p> <p>—VIP— VERTICAL INLINE PUMP</p> <p>—FCV— FLEXIBLE PIPE CONNECTION (FC)</p> <p>—PD— PITCH DOWN</p> <p>—PCOCK— PETCOCK</p> <p>—FM— FLOW METER</p> <p>—PG— PRESSURE GAGE WITH GAGE COCK</p> <p>—T— THERMOMETER IN WELL</p> <p>—WFS— WATER FLOW SWITCH</p> <p>—PSS— PRESSURE SWITCH OR SENSOR</p> <p>—ITS— IMMERSION TEMPERATURE SENSOR</p> <p>—DMST— DUCT MOUNTED SMOKE DETECTOR</p> <p>—RTS— ROOM TEMPERATURE SENSOR</p> <p>—TOSW— THERMOSTAT OR SENSOR ON WALL</p>	<p>—TSG— TSTAT OR SENSOR W/ TAMPERPROOF GUARD</p> <p>—MAV— MANUAL AIR VENT</p> <p>—NTAG— NOTE TAG (NUMBER)</p> <p>—AD— AIR DEVICE TAG (LETTER) WITH CFM</p> <p>—R— ROOM NUMBER</p> <p>—TV— TURNING VANES</p> <p>—DM— DUCT W/MANUAL DAMPER</p> <p>—FCV— DUCT W/FLEXIBLE CONNECTION (FC)</p> <p>—L— LAGGED DUCT</p> <p>—CAL— DUCT W/ACOUSTIC LINING</p> <p>—TS— DUCT W/SQUARE-TO-ROUND TRANSITION</p> <p>—FD— FLEXIBLE DUCT</p> <p>—MOD— MOTOR OPERATED DAMPER</p> <p>—AO— AIRFLOW OUT</p> <p>—AI— AIRFLOW IN</p> <p>—DO— DIAMETER OR FLAT OVAL</p> <p>—FD— FIRE DAMPER</p> <p>—RO— ROUND OR FLAT OVAL DUCT DOWN</p> <p>—RO— ROUND OR FLAT OVAL DUCT UP</p> <p>—SD— SUPPLY DIFFUSER</p> <p>—RG— RETURN GRILLE</p> <p>—ST— STEAM TRAP</p> <p>—WA— WATER HAMMER ARRESTOR</p> <p>—AAV— AUTOMATIC AIR VENT</p> <p>—AD— ACCESS DOOR</p> <p>—AFF— ABOVE FINISHED FLOOR</p> <p>—AHU— AIR HANDLING UNIT TAG</p> <p>—AMS— AIRFLOW MONITORING STATION</p> <p>—AMPS— AMPERES</p> <p>—AP— ACCESS PANEL</p> <p>—APD— AIR PRESSURE DROP</p> <p>—AS— AIR SEPARATOR TAG</p> <p>—ATC— AUTOMATIC TEMPERATURE CONTROL</p> <p>—B— BOILER TAG</p> <p>—BD— BYPASS DAMPER TAG</p> <p>—BFP— BACKFLOW PREVENTER TAG</p> <p>—BHP— BRAKE HORSEPOWER</p> <p>—BTUH— BRITISH THERMAL UNITS PER HOUR</p> <p>—CBD— COUNTER BALANCED DAMPER</p> <p>—CC— COOLING COIL TAG</p> <p>—CFM— CUBIC FEET PER MINUTE</p> <p>—CHLR— CHILLER TAG</p> <p>—CO— CLEANOUT</p> <p>—CONV— CONVECTOR TAG</p> <p>—CUH— CABINET UNIT HEATER TAG</p> <p>—CP— CIRCULATING PUMP TAG</p> <p>—CT— COOLING TOWER TAG</p> <p>—Cv— VALVE COEFFICIENT</p> <p>—CW— COLD WATER</p> <p>—CHWS/R— CHILLED WATER SUPPLY AND RETURN</p> <p>—DB— DRY BULB</p> <p>—dB RE— DECIBELS RELATIVE TO</p> <p>—DCA— DOUBLE CHECK</p> <p>—DCA— DOUBLE CHECK ATMOSPHERIC</p> <p>—DEG F— DEGREES FAHRENHEIT</p> <p>—DIA— DIAMETER</p> <p>—DIW— DOWN IN WALL</p> <p>—DN— DOWN</p> <p>—EA— EXHAUST AIR</p> <p>—EAT— ENTERING AIR TEMPERATURE</p> <p>—EDB— ENTERING DRY BULB</p> <p>—EDC— ELECTRIC DUCT COIL TAG</p> <p>—EER— ENERGY EFFICIENCY RATIO</p> <p>—EF— EXHAUST FAN TAG</p> <p>—EFF— EFFICIENCY</p> <p>—EG— EXHAUST GRILLE TAG</p> <p>—ER— EXHAUST REGISTER TAG</p> <p>—ESP— EXTERNAL STATIC PRESSURE</p> <p>—ET— EXPANSION TANK TAG</p> <p>—EWB— ENTERING WET BULB</p> <p>—EWH— ELECTRIC WATER HEATER TAG</p> <p>—EWT— ENTERING WATER TEMPERATURE</p> <p>—EXG— EXISTING</p> <p>—EXH— EXHAUST</p> <p>—FC— FLEXIBLE CONNECTION</p> <p>—FCO— FLOOR CLEANOUT</p> <p>—FD— FIRE DAMPER</p> <p>—FD— FLOOR DRAIN TAG</p> <p>—FLA— FULL LOAD AMPS</p> <p>—FOR— FUEL OIL RETURN</p> <p>—FOS— FUEL OIL SUPPLY</p> <p>—FPHB— FROST PROOF HOSE BIBB</p> <p>—FPM— FEET PER MINUTE</p> <p>—FS— FLOOR SINK TAG</p> <p>—FT— FEET</p> <p>—FTR— FINITUBE RADIATION TAG</p> <p>—GA— GAGE</p> <p>—GAL— GALLONS</p> <p>—GFWH— GAS FIRED WATER HEATER TAG</p> <p>—GPH— GALLONS PER HOUR</p> <p>—GPM— GALLONS PER MINUTE</p> <p>—GUH— GAS UNIT HEATER TAG</p> <p>—HC— HEATING COIL TAG</p> <p>—HP— HORSEPOWER</p> <p>—HRV— HEAT RECOVERY VENTILATOR TAG</p> <p>—HW— HOT WATER</p> <p>—HWS/R— HOT WATER SUPPLY AND RETURN</p> <p>—I=B=R— INSTITUTE OF BOILER AND RADIATOR MANUFACTURERS</p> <p>—IFWH— INDIRECT FIRED WATER HEATER TAG</p> <p>—IN— INCHES</p> <p>—IV— INTAKE VENT TAG</p> <p>—I.W.— INDIRECT WASTE (AIR GAP)</p> <p>—L— LOUVER TAG</p> <p>—LAT— LEAVING AIR TEMPERATURE</p> <p>—LB— POUNDS</p> <p>—LD— LINEAR DIFFUSER TAG</p> <p>—LTHWS/R— LOW TEMPERATURE HOT WATER</p> <p>—LRA— LOCKED ROTOR AMPS</p> <p>—LWCO— LOW WATER CUTOUT</p> <p>—LWT— LEAVING WATER TEMPERATURE</p> <p>—MAX— MAXIMUM</p> <p>—MBH— THOUSANDS OF BTU PER HOUR</p> <p>—MCA— MINIMUM CIRCUIT AMPACITY</p> <p>—MIN— MINIMUM</p> <p>—NC— NOISE CRITERION</p> <p>—NIC— NOT IN CONTRACT</p> <p>—NTS— NOT TO SCALE</p> <p>—OA— OUTSIDE AIR</p> <p>—OBD— OPPOSED BLADE DAMPER</p> <p>—O.D.— OUTSIDE DIAMETER</p> <p>—OED— OPEN ENDED DUCT</p> <p>—OFRWL— OVERFLOW RAINWATER LEADER</p> <p>—OFWH— OIL FIRED WATER HEATER TAG</p> <p>—OFRD— OVERFLOW ROOF DRAIN</p> <p>—OPD— OVERCURRENT PROTECTIVE DEVICE</p> <p>—P— PLUMBING FIXTURE TAG</p> <p>—PENETN— PENETRATION</p> <p>—PF— PADDLE FAN TAG</p> <p>—PSIA— POUNDS PER SQUARE INCH ABSOLUTE</p> <p>—PSIG— POUNDS PER SQUARE INCH GAGE</p> <p>—PVC— POLYVINYL CHLORIDE (PIPE)</p> <p>—RA— RETURN AIR</p> <p>—RD— ROOF DRAIN</p> <p>—RDE— RECOMMENDED DUAL ELEMENT FUSE AMPS</p> <p>—RFM— RADIANT FLOOR MANIFOLD TAG</p> <p>—RG— RETURN GRILLE TAG</p> <p>—RHW— RECIRCULATED HOT WATER</p> <p>—RLA— RUNNING LOAD AMPS</p> <p>—RPM— REVOLUTIONS PER MINUTE</p> <p>—RPS— REVOLUTIONS PER SECOND</p> <p>—RPZ— REDUCED PRESSURE ZONE</p> <p>—RR— RETURN REGISTER TAG</p> <p>—RTU— ROOM TEMPERATURE SENSOR</p> <p>—RV— RELIEF VALVE</p> <p>—RWL— RAINWATER LEADER</p> <p>—SA— SUPPLY AIR</p> <p>—SAN— SANITARY (DRAIN & WASTE)</p> <p>—SD— SMOKE DAMPER</p> <p>—SEER— SEASONAL ENERGY EFFICIENCY RATIO</p> <p>—SF— SUPPLY FAN</p> <p>—SG— SUPPLY GRILLE TAG</p> <p>—SP— STATIC PRESSURE</p> <p>—SP— SUMP PUMP TAG</p> <p>—SR— SUPPLY REGISTER TAG</p> <p>—SQ.FT— SQUARE FEET</p> <p>—ΔT— TEMPERATURE DIFFERENTIAL</p> <p>—TEMP.— TEMPERATURE</p> <p>—TCP— TEMPERATURE CONTROL PANEL</p> <p>—TMV— THERMOSTATIC MIXING VALVE TAG</p> <p>—TSP— TOTAL STATIC PRESSURE</p> <p>—TYP— TYPICAL</p> <p>—UH— UNIT HEATER TAG</p> <p>—U.N.O.— UNLESS NOTED OTHERWISE</p> <p>—VAV— VARIABLE AIR VOLUME BOX TAG</p> <p>—VB— VACUUM BREAKER</p> <p>—VFD— VARIABLE FREQUENCY INVERTER DRIVE</p> <p>—VTR— VENT THRU ROOF</p> <p>—V/PH/Hz— VOLTS/PHASES/HERTZ</p> <p>—WB— WET BULB</p> <p>—WCO— WALL CLEANOUT</p> <p>—WG— WATER GAGE</p> <p>—WPD— WATER PRESSURE DROP</p> <p>—WSA— WIRE SIZING AMPS</p> <p>—WTD— WATER TEMPERATURE DROP</p> <p>—W/— WITH</p> <p>—ZD— ZONE DAMPER TAG</p>
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DETAILS
&
SCHEDULES

DATE
26 MAY 2017

SCALE
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