

HEAT RECOVERY UNIT SCHEDULE

TAG	AREA SERVED	WINTER EXHAUST AIR	WINTER O. A.	SUPPLY AIR TO SPACES	WHEEL MOTOR	MIN. CKT AMPS*	MAX. FUSE AMPS*	BOOSTER COIL KW	ELECTRIC	WEIGHT	REMARKS													
		CFM	TEMP.	RH	EXT. SP.	HP	GRAINS	CFM	TEMP.	GRAINS	EXT. SP.	HP												
HRI-1	BUILDING 1	2,350	72	30%	150	3	-10	2.1	2,250	40.2	25.6	150	3	11 AMP	25	35.6	0.00	208V-60-3Ø	1000	ROOFTOP DOWNFLOW				
HRI-2	BUILDING 2	3,325	72	30%	150	3	-10	0.5	3,325	44.6	26.3	150	3	11 AMP	25	35.6	0.00	208V-60-3Ø	1150	ROOFTOP DOWNFLOW				

* DOES NOT INCLUDE ELECTRIC BOOSTER COIL

UNIT VENTILATOR SCHEDULE

TAG	AREA SERVED	%A. MIN.	CFM	HOT WATER HEATING CAPACITIES	DX COOLING CAPACITIES	REMARKS											
				MBH	EAT	LAT	EMT	GPM	WPD	EDB	EMB	TOT. MBH	SST	HP	RPM	ELECTRIC	REMARKS
UV-1	HBOI COMMUNITY	113	10	36330	55	104.7	180	1.00	0.091	180.0	67.0	24.0	45	1/6	10580	120V-60-1Ø	VERTICAL W/6" DEEP FALL-SE BACK PROVIDE UNDER ALTERNATE #2

UNIT HEATER SCHEDULE

TAG	TYPE	AREA SERVED	E.W.T.	E.A.T.	MBH	GPM	W.P.D.	CFM	MOTOR HP	FAN RPM	ELECTRIC	REMARKS
UH-1	HORIZONTAL	B02 MECHANICAL	180	60	1138	150	0.5	400	1/30	1550	120V-60-1Ø	DOUBLE DEFLECTION LOWER
UH-2	HORIZONTAL	B01 TENANT STORAGE	180	60	1138	150	0.5	400	1/30	1550	120V-60-1Ø	DOUBLE DEFLECTION LOWER
UH-3	HORIZONTAL	B08 MAINT. STORAGE	180	60	1138	150	0.5	400	1/30	1550	120V-60-1Ø	DOUBLE DEFLECTION LOWER
CUH-1	VERT. CABINET	B04 VEGETABLE	180	60	1366	1.00	0.1	275	1/40	1290	120V-60-1Ø	SURFACE MTD W/RA T'STAT
CUH-2	VERT. CABINET	BLD'G 1 - STAIR 1	180	60	2151	2.00	0.4	550	1/25	1290	120V-60-1Ø	SURFACE MTD W/REMOTE T'STAT
CUH-3	VERT. CABINET	BLD'G 1 - STAIR 2	180	60	2151	2.00	0.4	550	1/25	1290	120V-60-1Ø	SURFACE MTD W/REMOTE T'STAT
CUH-4	VERT. CABINET	BLD'G 2 - STAIR 1	180	60	3544	3.00	0.1	100	1/15	1180	120V-60-1Ø	SURFACE MTD W/REMOTE T'STAT
CUH-5	VERT. CABINET	BLD'G 2 - STAIR 2	180	60	3544	3.00	0.1	100	1/15	1180	120V-60-1Ø	SURFACE MTD W/REMOTE T'STAT

FAN SCHEDULE

TAG	AREA SERVED	TYPE	CFM	SP.	SONES	RPM	HP	ELECTRIC	WEIGHT	REMARKS
BF-1	BUILDING #1 LAUNDRY	GENT. IN-LINE	175	0.30"	N/A	N/A	0.52 AMPS	120V-60-1Ø	N/A	OPERATES FROM INTEGRAL PRESSURE SWITCH
BF-2	BUILDING #1 LAUNDRY	GENT. IN-LINE	175	0.30"	N/A	N/A	0.52 AMPS	120V-60-1Ø	N/A	OPERATES FROM INTEGRAL PRESSURE SWITCH
BF-3	BUILDING #1 LAUNDRY	GENT. IN-LINE	175	0.30"	N/A	N/A	0.52 AMPS	120V-60-1Ø	N/A	OPERATES FROM INTEGRAL PRESSURE SWITCH
EF-1	HBOI TOILET	CEILING	100	1/4"	1.6	847	1Ø WATTS	120V-60-1Ø	14	INTERLOCK W/ROOM LIGHT SWITCH BY DIV. 16
EF-2	HBOI COMMUNITY	CEILING	100	1/4"	1.6	847	1Ø WATTS	120V-60-1Ø	14	OPERATE FROM SWITCH BY DIV. 16
EF-3	HBO5 ELEVATOR MACHINE	CEILING	100	1/4"	1.6	847	1Ø WATTS	120V-60-1Ø	14	OPERATE FROM COOLING T'STAT BY A.T.C.
EF-4	BUILDING #1 CORR. EXHAUST	ROOF CENT.	540	1/2"	10.5	1950	1Ø	120V-60-1Ø	62	OPERATE FROM A.T.C. SYSTEM
EF-5	2-101 MECHANICAL	CEILING	210	1/4"	2.0	751	1Ø WATTS	120V-60-1Ø	40	INTERLOCK W/ROOM LIGHT SWITCH BY DIV. 16
EF-6	2-104 ELEVATOR MACHINE	CEILING	100	1/4"	1.6	847	1Ø WATTS	120V-60-1Ø	14	OPERATE FROM COOLING T'STAT BY A.T.C.
EF-7	BUILDING #2 CORR. EXHAUST	ROOF CENT.	640	1/2"	6.7	840	1Ø	120V-60-1Ø	105	OPERATE FROM A.T.C. SYSTEM
EF-8	BUILDING #1 PARKING AREA	GENT. IN-LINE	4000	1/2"	23.0	1012	1	208V-60-3Ø	250	OPERATE FROM A.T.C. SYSTEM
BH	KITCHENS	RANGE HOOD	220	0"	5.0	N/A	1.8 AMPS	120V-60-1Ø	N/A	OPERATE FROM INTEGRAL SWITCH
SF-1	HBO2 MECHANICAL	PROPELLER	1076	1/4"	14.3	1615	1/8	120V-60-1Ø	61	OPERATE FROM COOLING T'STAT BY A.T.C.

NOTE: OMIT EF-2 UNDER ALTERNATE #1

BOILER SCHEDULE

TAG	GROSS MBH	NET MBH	HP	FUEL	PRESSURE	WATER	ELECTRIC	AMPS	REMARKS
B-1	1944.0	1760.0	53	N.G.	40 psig	26 GAL.	208V-60-1Ø	11	LOW MASS CAST IRON CONDENSING BOILER
B-2	1000.0	880.0	26	N.G.	40 psig	14 GAL.	120V-60-1Ø	Ø	LOW MASS CAST IRON CONDENSING BOILER

COMPRESSOR/CONDENSER UNIT SCHEDULE

TAG	EQUIPMENT SERVED	NOMINAL BTU	AMBIENT TEMP.	SST	SYSTEM POWER	MIN CKT AMPS	MAX FUSE	COMPRESSOR FLA	URA	FAN HP	COND.	SEER	WEIGHT (LBS)	REMARKS
CC-1	UV-1	24,000	45	45.0	208V-60-1Ø	12	20	Ø.7	57.Ø	1/Ø	13.00	115	115	ALTERNATE #2

PUMP SCHEDULE

TAG	TYPE	AREA SERVED	GPM	HEAD	HP	RPM	ELECTRIC	REMARKS
P-1	VERT. IN-LINE	BUILDING 1 HEATING SYSTEM	75	40'	1/2	1750	208V-60-3Ø	PRIMARY PUMP
P-2	VERT. IN-LINE	BUILDING 1 HEATING SYSTEM	75	40'	1/2	1750	208V-60-3Ø	STAND-BY FOR P-1
P-3	VERT. IN-LINE	BUILDING 2 HEATING SYSTEM	100	50'	3	1750	208V-60-3Ø	PRIMARY PUMP
P-4	VERT. IN-LINE	BUILDING 2 HEATING SYSTEM	100	50'	3	1750	208V-60-3Ø	STAND-BY FOR P-3
P-5	VERT. IN-LINE	BOILER BLEND PUMP	200	20'	3	1750	208V-60-3Ø	-----
P-6	HORIZ. IN-LINE	DOMESTIC HOT WATER	10	25'	1/3	1750	120V-60-1Ø	-----
P-7	HORIZ. IN-LINE	DOMESTIC HOT WATER	10	25'	1/3	1750	120V-60-1Ø	-----
P-8	HORIZ. IN-LINE	DOMESTIC HOT WATER	10	25'	1/3	1750	120V-60-1Ø	-----

PUMPS P-1, P-2, P-3 & P-4 TO BE PROVIDED WITH VFD'S BY DIV. 16

FINNED PIPE SCHEDULE

TAG	TYPE	ELEMENT	FINS/LF	LENGTH	BTU/LF	GPM	REMARKS
FP-A	10M" x 3/8"	DEEP RESIDENTIAL STYLE	55	SEE PLANS	620	SEE PLANS	11" AFF TO TOP SINGLE TIER ELEMENT
FP-B	10M" x 3/8"	DEEP RESIDENTIAL STYLE	55	SEE PLANS	595	SEE PLANS	Ø" AFF TO TOP SINGLE TIER ELEMENT

CAPACITIES BASED ON 180 DEG. EXT & 2.0 GPM MIN FLOW

CONVECTOR SCHEDULE

TAG	TYPE	MBH	GPM	LENGTH	HEIGHT	DEPTH	REMARKS
C-1	FLAT TOP-WALL MTD	6.20	1.00	44"	24"	6"	FRONT OUTLET GRILLE & BOTTOM INLET
C-2	FLAT TOP-WALL MTD	3.30	1.00	36"	18"	6"	FRONT OUTLET GRILLE & BOTTOM INLET

CAPACITIES BASED ON 180 DEG. EXT

GENERAL NOTES

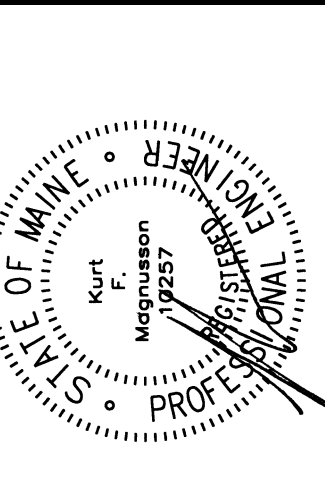
- HVAC Contractor shall coordinate work with all other trades.
- All piping and ductwork shall be run concealed and on warm side of building insulation unless noted otherwise.
- Piping and ductwork is shown diagrammatically. Exact locations to be adjusted as required to suit field conditions.
- All duct sizes indicated are outside (sheet metal) dimensions.
- All cutting and patching shall be provided by General Contractor.
- All square elbows in ductwork shall have turning vanes.
- All fire dampers and motor operated dampers shall have duct access doors as large as possible up to 12 X12
- All dimensions are approximate and are to be verified in the field.
- Heating systems designed for 180°F. water leaving the boilers with a 20°F. temperature drop throughout the system.
- All branch water piping to individual terminal heating units to be not less than 3/4" unless noted otherwise.
- All reductions in water pipe sizes in the direction of flow shall be accomplished with inverted eccentric reducers. Reducing tee fittings are not acceptable.
- Provide automatic air vents at all locations where water piping drops in the direction of flow, at all high points and elsewhere as indicated on drawings.
- Provide drains at all low points in the water piping system.
- It is the intent of the drawings and specifications to provide for the installation of a heating system which is safe, quiet, and economical in operation and complete in all respects. As required by Maine State Housing Authority guidelines, the heating system shall provide a uniform temperature of not less than 70°F. in all living spaces as may be noted on the drawings, when the outside temperature is -2°F. (as specified in accordance with the ASHRAE 49% scale)

DUCT HEATING COIL SCHEDULE

TAG	TYPE	SIZE	CFM	APD	EMT	EAT	LAT	MBH	GPM	WPD	REMARKS
DHC-1	HOT WATER SERPENTINE	16"X15"	1275	0.23"	180	45	71.2	44.46	2.5	1.40'	SLIP-IN HOISTING
DHC-2	HOT WATER SERPENTINE	16"X15"	1275	0.23"	180	45	71.2	44.46	2.5	1.40'	SLIP-IN HOISTING
DHC-3	HOT WATER SERPENTINE	26"X15"	2125	0.24"	180	45	71.2	74.18	3.5	3.41'	SLIP-IN HOISTING
DHC-4	HOT WATER SERPENTINE	20"X15"	1700	0.26"	180	45	71.5	54.88	3.5	2.88'	SLIP-IN HOISTING

SYMBOLS AND ABBREVIATIONS

ABV	AUTOMATIC BALANCING VALVE	HVAC	HEATING, VENTILATING AND AIR CONDITIONING	WATER SUPPLY PIPING
AC	AIR CONDITIONING	IER	INVERTED ECCENTRIC REDUCER	WATER RETURN PIPING
AD	ACCESS DOOR	L	LOUVER	COLD WATER PIPING
AP	ACCESS PANEL	LAT	LEAVING AIR TEMPERATURE	REFRIGERANT LIQUID PIPING
APD	AIR PRESSURE DROP	LDB	LEAVING DRY BULB	REFRIGERANT SUCTION PIPING
ATC	AUTOMATIC TEMP. CONTROL	LNB	LEAVING WET BULB	PIPE ANCHOR
AV	AUTOMATIC VENT	LNO	LOW WATER CUT-OFF	DRAIN PIPING
B	BOILER	MBH	THOUSAND BTU PER HOUR	UNION
BD	BACKDRIFT DAMPER	MD	MANUAL DAMPER	FLANGE
BF	BOOSTER FAN	MOD	MOTOR OPERATED DAMPER	GATE VALVE
BFV	BALANCING VALVE	MV	MANUAL VENT	GLOBE VALVE
C	CONNECTOR	NTS	NOT TO SCALE	CHECK VALVE
CCU	COMPRESSOR/CONDENSER UNIT	OA	OUTDOOR AIR	BALANCING VALVE
CFH	CUBIC FEET PER HOUR	OD	OUTSIDE DIMENSION	TRIPLE DUTY VALVE
CFM	CUBIC FEET PER MINUTE	OP	PUMP	CONTROL VALVE (TWO MAY)
CJH	CABINET UNIT HEATER	PC	PLUMBING CONTRACTOR	CONTROL VALVE (THREE MAY)
CV	CONTROL VALVE	P6	PRESSURE GAUGE	PRESSURE REDUCING VALVE
D	DRAIN	PRV	PRESSURE REDUCING VALVE	FLOW CONTROL VALVE
DHC	DUCT HEATING COIL	R	RETURN	BALL VALVE
DIC	DOWN IN CORNER/CHASE	RA	RETURN AIR	STRAINER
DIM	DRAIN-OFF	RIA	RETURN IN COVER	INVERTED ECCENTRIC REDUCER
DO	DUCT SMOKE DETECTOR	RIB	RUBBER-IN-SHEAR	THERMOSTAT WITH GUARD
DSD	ENTERING AIR TEMPERATURE	RIS	REFRIGERANT LIQUID	MANUAL DAMPER
EAT	ELECTRICAL CONTRACTOR	RL	REFRIGERANT LIQUID	SUPPLY AIR DUCT
EC	EXHAUST CEILING GRILLE	RS	REFRIGERANT SUCTION	RETURN / RELIEF AIR DUCT
EGG	EXHAUST GYLLIE	RR	RETURN REGISTER	
EDB	ENTERING DRY BULB	RV	RELIEF VALVE	
EG	EXHAUST GRILLE	RW	RESET WATER VALVE	
ER	EXHAUST REGISTER	S	SUPPLY	
ESP	EXTERNAL STATIC PRESSURE	SA	SITE CONTRACTOR	
ENB	ENTERING WET BULB	SC	SITE CONTRACTOR	
ENT	ENTERING WATER TEMPERATURE	SF	SUPPLY FAN	
FCV	FLEXIBLE CONNECTOR	S6	STATIC PRESSURE	
FD	FIRE DAMPER	SR	SUPPLY REGISTER	
FE	FAN	T	THERMOMETER	
FF	FACE VELOCITY	TC	TEMPERATURE CONTROL PANEL	
GFH	GALLONS PER HOUR	TCP	TEMPERATURE CONTROL PANEL	
GV	GATE VALVE	TDV	TRIPLE DUTY VALVE	
HC	HEATING CONTRACTOR	TSP	TOTAL STATIC PRESSURE	
HRI	HEAT RECOVERY UNIT	TV	TURNING VANE	
HRS	HOT WATER RETURN	UC	UNDERCUT	
H8V	HEATING & VENTILATING	UG	UNDERGROUND	
		UH	UNIT HEATER	
		UI	UNIT HEATER	
		UV	UNIT VENTILATOR	
		V	VENT	
		VI	VIBRATION ISOLATOR	
		WPD	WATER PRESSURE DROP	
		MTD	MATER TEMPERATURE DROP	



Pearl Place
Building 1 & 2
Portland Maine

Developer
Avesta Pearl Street One,
L.P.

Architect
Winton Scott Architects
Landscape Architect
Carroll Associates
Civil Engineer
Gorill - Palmer
Structural Engineer
Becker Engineering
Mechanical Engineer
Mechanical Systems Engineers
Lighting / Electrical Engineer
Bartlett Design

MECHANICAL
EQUIPMENT
SCHEDULES
M14

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