

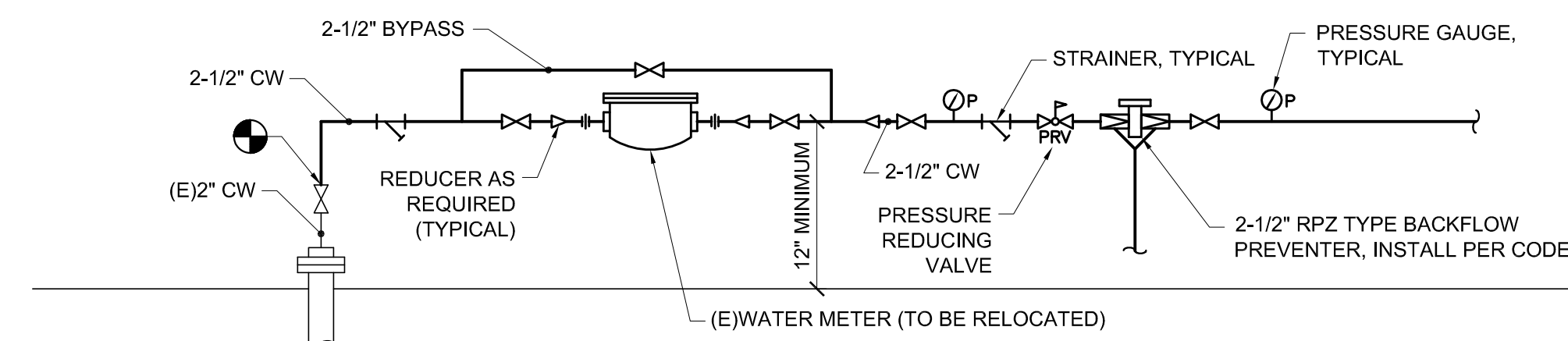
AIR CONTROL SCHEDULE	
BOILER B-1 & B-2 HEATING LOOP	
PIPE MAIN SIZE	3"
AIR SEPARATOR	AS-1
MFR-MODEL	Sprovent VDT 300
INLET/OUTLET	3"
STRAINER	YES
BLADDER-TYPE EXPANSION TANK	ET-1
MFR-MODEL	John Wood Model JAER-23-109
TANK PRE-CHARGE PRESSURE	15.0
TANK DIAMETER	24
TANK HEIGHT	68
ACCEPTANCE VOLUME	120
WEIGHT (LBS.)	285
ASME PRESSURE RATING	150

BOILER SCHEDULE		
TAG	B-1	B-2
TYPE	CONDENSING	CONDENSING
MANUFACTURER	LOGIN/VAR	LOGIN/VAR
BOILER MODEL	KBN-500	KBN-500
GROSS INPUT (MBH)	500	500
GROSS OUTPUT (MBH)	467	467
THERMAL EFFICIENCY (%)	0.934	93.4%
DELTA TEMP., DEG F	20	20
FLOW, GPM	47	47
HEAD (FT)	26	26
FLUID	WATER	WATER
SHIPPING WEIGHT (LBS)	310	310
OVERALL LENGTH (IN)	32"	32"
WIDTH (IN)	16"	16"
HEIGHT (IN)	43"	43"
VENT CONN. DIA (IN)	4"	4"
VENT MATERIAL	SS	SS
VENT CATEGORY	IV	IV
AIR INLET CONN. (IN)	4"	4"
WATER CONN. (IN)	2"	2"
GAS SUPPLIED	NAT	NAT
GAS CONN. (IN)	1"	1"
FULL MOD.	5:1 MOD	5:1 MOD
MIN / MAX GAS PRS. IN. WG	4" TO 10.5"	4" TO 10.5"
ELECTRICAL	120-140	120-140
TOTAL AMPS	1.7	1.7

AIR COOLED CONDENSING UNIT SCHEDULE	
TAG	CU1
LOCATION	AT GRADE
SERVICE	HP-1 THRU HP-3
MFR-MODEL	DAIKIN - Multi Split
MODEL	3MXS24VJU
TONS	2
V-PH-HZ	208-140
REFRIGERANT	410A
COOLING CAPACITY	24,000 BTU/HR
HEATING CAPACITY	18,000 BTU/HR
MIN O.A. TEMP COOL / HEAT	-4 F / 0 F
COMP QTY	1 INV
FAN QTY	2
UNIT MCA	17.8
UNIT MCF	20
MAX FUSE	25
COMPRESSOR R.L.A.	---
COMPRESSOR L.R.A.	---
MIN. COOLING STAGES	7% - 100%
COOLING EFF	10.7
HEATING COP	3.2
OPERATING WEIGHT, lbs.	1200
DEPTH	15"
WIDTH	36"
HEIGHT	31"
NOTES:	
	1. PROVIDE UNIT-MOUNTED FACTORY DISCONNECT SWITCH.

DUCT HEATING COIL SCHEDULE														
TAG	SERVES	AIRFLOW	LENGTH	HEIGHT	FACE VEL	EDB	LDB	MBH	MAX APD	GPM	EWT	LWT	MAX WPD	RUNOUT SIZE
HC-1	ERU-1	850	22	14	460	40	80	36.7	0.2"	2.5	170	140	5'	3/4"
HC-2	AHU-1	3,250	36	24	542	100	130	103.7	0.2"	7.0	170	145	7'	1 1/4"
NOTES:														

PLUMBING FIXTURE SCHEDULE						
TAG	DESCRIPTION	BRANCH SIZES			NOTES	
		CW	HW	VENT	WASTE	
P-1	WATER CLOSET- FLUSH VALVE, WALL HUNG	1"	---	1-1/2"	3"	BATTERY SENSOR
P-1A	WATER CLOSET- FLUSH VALVE, FLOOR MOUNT	1"	---	1-1/2"	3"	BATTERY SENSOR
P-2	URINAL- FLUSH VALVE, 1/8 GAL/FLUSH	3/4"	---	1-1/2"	2"	BATTERY SENSOR
P-3	LAVATORY, WALL HUNG	1/2"	1/2"	1-1/2"	2"	BATTERY SENSOR
P-4	BREAK ROOM KITCHEN SINK	1/2"	1/2"	1-1/2"	1-1/2"	
P-5	MOP/SERVICE BASIN	3/4"	3/4"	1-1/2"	3"	PROVIDE CHECK VALVES AT WATER INLETS
WHYD	WALL HYDRANT	3/4"	---	---	---	
HB	HOSE BIBB	1/2"	---	---	---	
DF	DRINKING FOUNTAIN	1/2"	---	1-1/2"	2"	
KITCHEN AND BAR FIXTURES: SEE FOOD SERVICE PLANS						



RADIANT FLOOR CIRCUIT SCHEDULE											
AREA SERVED / MANIFOLD NO.	CIRCUIT NO.	FLOOR AREA (s f)	UNIT HEAT (s f)	LENGTH (ft) (Circuit + Tail)	FLOW RATE (gal/min)	HEAD LOSS (ft) (of water)	SUPPLY TEMP (° F)	SURFACE TEMP (° F)	DESIGN TEMP DRGP (° F)	TUBE SPACING (in)	TUBE SIZE
WAITING / MANIFOLD #1	1	270	20	280	1.30	6.20	96	75	10	12	5/8"
	2	270	20	280	1.30	6.20	96	75	10	12	5/8"
	3	270	20	280	1.30	6.20	96	75	10	12	5/8"
	4	270	20	280	1.30	6.20	96	75	10	12	5/8"
	5	270	20	280	1.30	6.20	96	75	10	12	5/8"
	6	270	20	280	1.30	6.20	96	75	10	12	5/8"
							6.2 Total @ loops				
NOTE: Circuit lengths, tubing and manifold are based on UPONOR (Urel Inc. is Sales Rep).											

CONVECTOR SCHEDULE									
TAG	STERLING MODEL	STYLE	LENGTH	HEIGHT	DEPTH	MBH	GPM	MAX WPD	PIPE RUNOUT SIZE
CONV-1	PWG-A 420	PARTIALLY RECESSED	20"	20"	4 1/4"	1.2	0.5	0.2	1/2"
NOTES:									
BASE SIZING ON: 170F EWT, 35F TEMP DROP.									

REGISTERS - GRILLES - DIFFUSERS (RGD) SCHEDULE										
TAG	PRICE MODEL	TYPE	NECK SIZE (W X H)	FACE SIZE	CFM RANGE	MAX TOTAL P.D. (IN. W.C.)	MAX NC LEVEL	BORDER TYPE	BLOW	NOTES
S-1	ASPD	SQ. CEILING SUPPLY DIFFUSER	6" DIA	24" X 24"	0-150	0.07"	16	LAY-IN	4-WAY	
S-2	ASPD	SQ. CEILING SUPPLY DIFFUSER	8" DIA	24" X 24"	151-300	0.07"	19	LAY-IN	4-WAY	
S-3	LV1	LINEAR VANE 1 WAY BLOW	60" X 6 5/8"	62" X 6 5/8"	130-FT	0.04"	32	SURFACE MT.		1
S-4	LV1	LINEAR VANE 1 WAY BLOW	---	96" X 6 5/8"	---	---	---	SURFACE MT.		2
R-1	630	ALUM. RETURN GRILLE, 3/4" SPACING, 35 DEG VANES	8" X 8"	10" X 10"	0-200	0.05"	23	SURFACE MT.		
R-2	630	ALUM. RETURN GRILLE, 3/4" SPACING, 35 DEG VANES	12" X 12"	12" X 12"	171-440	0.05"	27	SURFACE MT.		
R-3	80FF	1/2" X 1/2" X 1/2" ALUM. EGGCRATE FILTER RETURN	24" X 8"	26" X 10"	300	0.04"	34	SURFACE MT.		
R-4	LV1	LINEAR VANE 1 WAY RETURN	60" X 6 5/8"	62" X 6 5/8"	130-FT	---	35	SURFACE MT.		
1. PROVIDE FACTORY OBD.										
2. LV1 SHALL BE A BLANK WITH BACKING PLATE										

ELECTRIC DOMESTIC WATER HEATER SCHEDULE												
TAG	SERVES	TYPE	MANUFACTURER	MODEL	VOLTS	PHASE	HEAT INPUT (KW)	FLOW /REC (GPM)	TEMP RISE (DEG-F)	WATER STORAGE (GAL)	HEIGHT (INCHES)	WIDTH (INCHES)
DWH-1	EXISTING TOILETS	FLOOR	STATE COMMERCIAL	PCE 40 20LSA	208	3	4.5	23 GPH	80	40	33"	24" DIA
DWH-2	WAITING AREA TOILETS	FLOOR	STATE COMMERCIAL	PCE 40 20LSA	208	3	4.5	23 GPH	80	40	33"	24" DIA

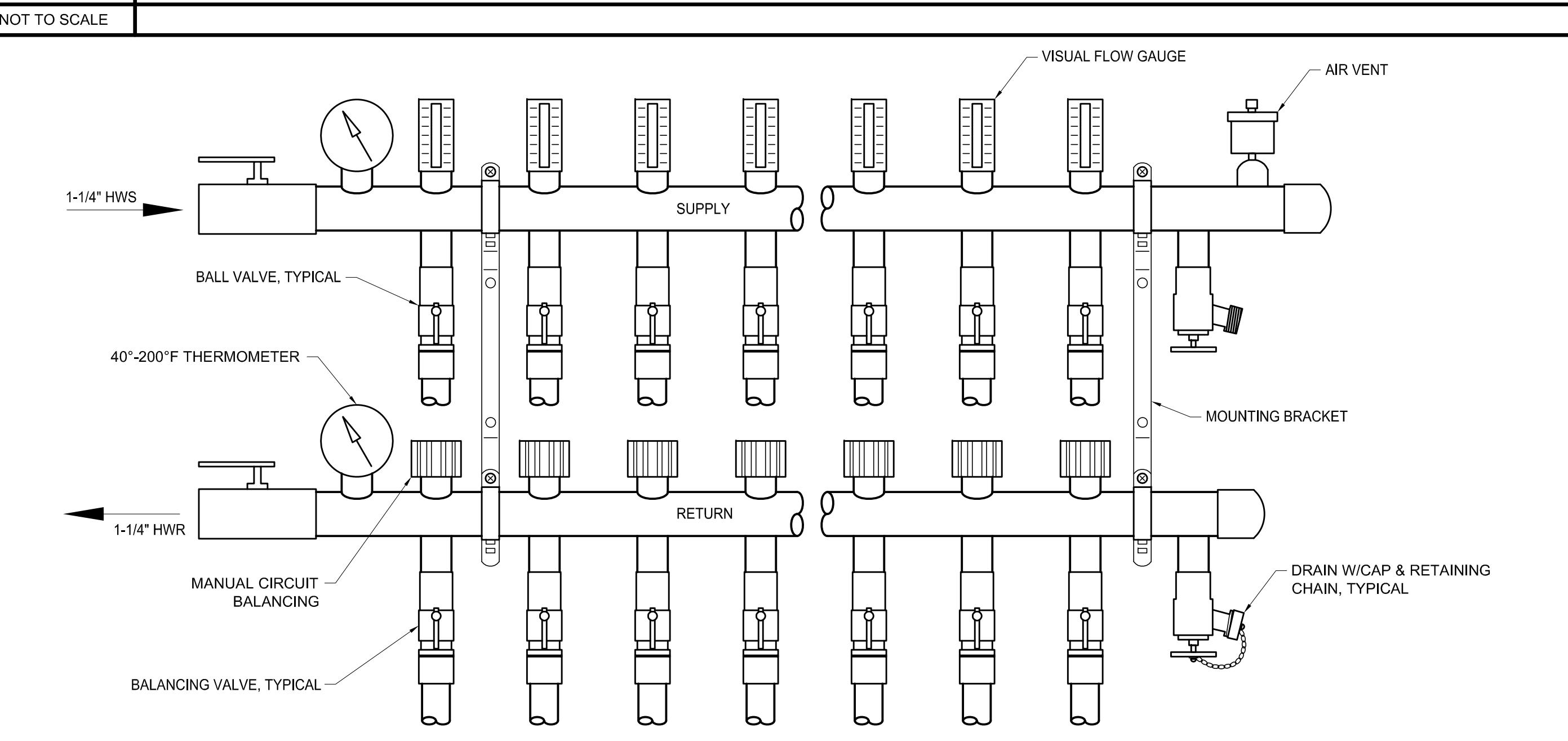
AIR HANDLING UNIT SCHEDULE																					
TAG	SERVES	TRANE MODEL	CABINET TYPE	CABINET DIMENSIONS (IN) L' X W' X H'	SUPPLY CFM	ESP	FRESH AIR CFM	HOT WATER HEATING COIL				ELECTRICAL		WEIGHT							
								ROWS	EAT deg-F	LAT deg-F	TMBH	EWT deg-F	GPM @ 20 F ΔT	APD-in	FLUID PD - R	MCA	MAX Fuse	MOTOR HP	V-HZ-PH	LBs	
AHU-1	WAITING AREA	BCHC90	HORIZ. CONCEAL	49" x 48" x 22"	3,250	1.0"	VIA ERU	2	60.0	102.0	190.0	170.0	20.0	0.2	7.0	10.8	15	2	208-60-3	350	
NOTE: BLOWER COIL UNIT SHALL HAVE FAN SECTION, HOT WATER COIL SECTION, AND FILTER SECTION.																					

MULTI SPLIT INDOOR HEAT PUMP SCHEDULE																					
TAG	DAIKIN VRV MODEL NUMBER	AREA SERVED	UNIT CONFIGURATION	TONS	FAN CFM H/M/L	ESP H/L	COOLING		HEATING	REFRIGERANT			ELECTRICAL		PHYSICAL						
							TOTAL COOLING BTUH	SENSIBLE BTUH	HEATING BTUH	TYPE	LIQUID PIPE SIZE	GAS PIPE SIZE	COND PIPE SIZE	CONTROL	V-PH-HZ	MCA	MAX FUSE SIZE	HEIGHT	WIDTH	DEPTH	NET WEIGHT (LBS)
HP-1	FDXS09LVJU	OFFICE 115	DUCTED CONCEALED	0.71	305/280/260	0.40 / 0.12	8,500	7,130	10,000	410A	1/4"	3/8"	1-1/32"	EXPAN VLV	208-160	0.9	15A	8"	28"	25"	50
HP-2	FDXS09LVJU	OFFICE 114	DUCTED CONCEALED	0.71	305/280/260	0.40 / 0.12	8,500	7,130	10,000	410A	1/4"	3/8"	1-1/32"	EXPAN VLV	208-160	0.9	15A	8"	28"	25"	50
HP-3	FDXS12LVJU	TICKET 111	DUCTED CONCEALED	1	305/280/260	0.40 / 0.12	11,500	8,280	11,500	410A	1/4"	3/8"	1-1/32"	EXPAN VLV	208-160	0.9	15A	11-13/16"	28"	25"	50
Cooling based on 80/67 EAT																					
Heating based on 70 EAT																					

UNIT HEATER SCHEDULE																					
TAG	MFR-MODEL	SIZE	LOCATION	TYPE	EXPOSED FACE WIDTH	EXPOSED FACE HEIGHT	DEPTH	WEIGHT	MBH	CFM	EAT (DEG-F)	LAT (DEG-F)	GPM	FLUID	EWT	LWT	MOTOR HP	ELECT	MAX WPD	PIPE RUNOUT SIZE	NOTES
CUH-1	TRANE FFE	200	MENS TOIL	RECESSED CEILING W/LOUVERS	2'-11 1/2"	2'-4"	10 3/8"	75 lbs	19.0	314	60	94.0	1.3	WATER	170.0	140.0	84W	120-160	7	3/4"	
CUH-2	TRANE FFE	200	WOMANS TOIL	RECESSED CEILING W/LOUVERS	2'-11 1/2"	2'-4"	10 3/8"	75 lbs	19.0	314	60	94.0	1.3	WATER	170.0	140.0	84W	120-160	7	3/4"	
UH-1	TRANE S	S-A18	MEZZANINE	HORIZONTAL UH	1'-4"	1'-6"	9.5"	30 lbs	13.5	210	60	90.0	1.9	WATER	170.0	140.0	16 W	120-160	3'	3/4"	
NOTES:																					
1. POWER WIRING TO UNIT HEATER BY DIV 26. ALL LOW VOLTAGE CONTROL WIRING, THERMOSTAT, RELAYS, AND TRANSFORMERS BY DIV. 23.																					

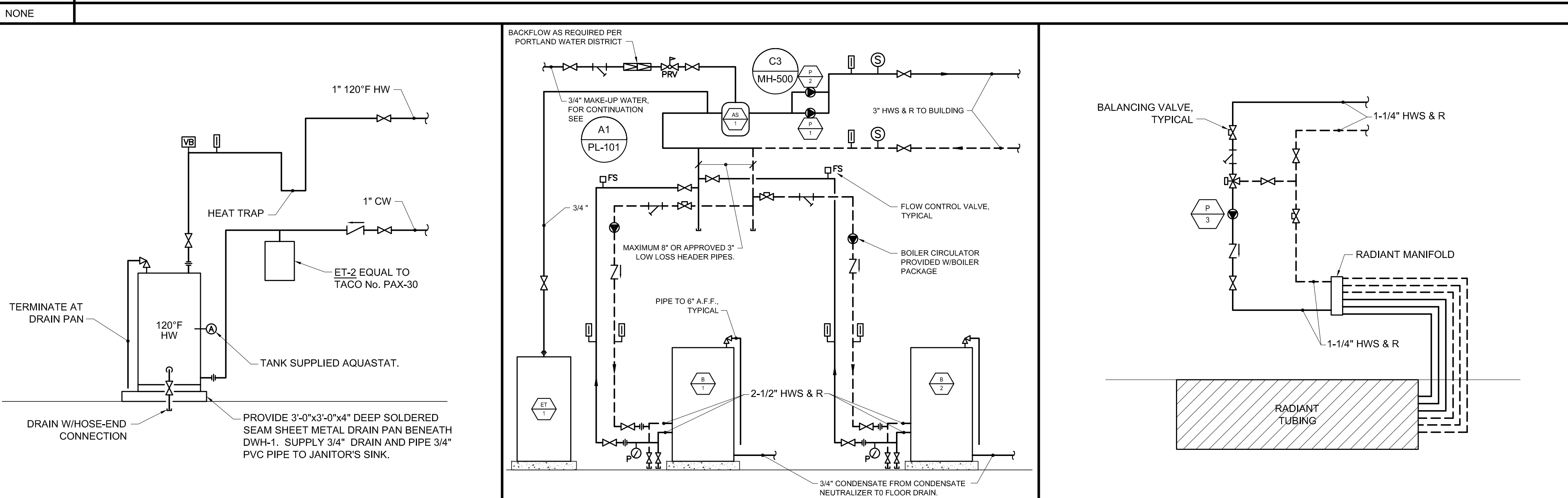
PUMP SCHEDULE																				
TAG	SYSTEM	LOCATION	MFR.	MODEL	SUCT X DISCH	TYPE	PUMPED FLUID	PERFORMANCE					ELECTRICAL		ELECTRICAL COORDINATION		NOTES			
								GPM	HEAD	RPM	NPSH	BHP	NOL HP	MOTOR HP	VOLTS/PH (60 Hz.)	VFD FURN BY	STARTER FURN BY	DISC SWITCH FURN BY		
P-1	HEATING BUILDING LOOP	MECHANICAL ROOM	GRUNDFOS	TP50-240/2-S-U-G-A-BUBE	2" x 2"	INLINE	WATER	90	50	3460	5.4	1.5	---	2	208/3/60	DIV 23	---	VFD	AUTO LEAD-LAG, 1	
P-2	HEATING BUILDING LOOP	MECHANICAL ROOM	GRUNDFOS	TP50-240/2-S-U-G-A-BUBE	2" x 2"	INLINE	WATER	90	50	3460	5.4	1.5	---	2	208/3/60	DIV 23	---	VFD	AUTO LEAD-LAG, 1	
P-3	RADIANT FLOOR LOOP	MEZZANINE	MAGNA	32-60 F	1-3/4" x 1-3/4"	INLINE	WATER	8	15	---	---	---	---	1/6	208/1/60	---	---	---	DIV 25	
P-4	BOILER #1 PUMP	MECHANICAL ROOM	GRUNDFOS	MAGNA 65-120 F	2-1/2" x 2-1/2"	INLINE	WATER	47	30	---	---	---	---	1	208/1/60	---	---	---	DIV 25	1
P-5	BOILER #2 PUMP	MECHANICAL ROOM	GRUNDFOS	MAGNA 65-120 F	2-1/2" x 2-1/2"	INLINE	WATER	47	30	---	---	---	---	1	208/1/60	---	---	---	DIV 25	1
NOTES:																				
1. Pump sized for future renovation phase.																				

C1 DETAIL ~ DOMESTIC WATER ENTRANCE



A1 DETAIL ~ RADIANT HEAT MANIFOLD

C5 MECHANICAL SCHEDULES



A5 DETAIL ~ DWH PIPING SCHEMATIC (ELECTRIC)

A7 DETAIL ~ BOILER PIPING SCHEMATIC

A9 DETAIL ~ RADIANT LOOP PIPING

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