

UNIT VENTILATOR SCHEDULE																									BASIS OF DESIGN: CARRIER		
SYMBOL	CFM		E.S.P.	FAN DATA			COIL DATA - 4 PIPE 2 COIL															MODEL	PIPING CONN. SIZES		WALL BOX SIZE	MOUNTING	REMARKS
							COOLING COIL DATA (30% PROPYLENE GLYCOL)					REHEAT COIL DATA											COOLING	HEATING			
	TOTAL	MIN		OA	H.P.	RPM	ELEC.	EADB	EAWB	LADB	LAWB	TOTAL MBH	SENS. MBH	GPM	EWI	WPD	EAT	LAT	EWI	MBH	GPM		WPD				
UV-1	750	0	.10	1/3	—	120V - 1ø	76.5	63.5	54.5	53.5	22.5	18.2	6.0	42.0	8.9"	60.0	95.0	150	28.5	2.3	0.5"	40U075	1"	3/4"	—	HORIZONTAL	MAX. UNIT HEIGHT NOT TO EXCEED 16.6"

NOTES:

1. MODEL NUMBERS ARE INDICATED FOR REFERENCE ONLY. THE DUTIES AND CAPACITIES ARE TO BE USED FOR FINAL UNIT SELECTION BY THE MANUFACTURER.	3. PROVIDE EACH UNIT WITH AN EXTRUDED ALUMINUM RETURN BAR GRILLE, BOTTOM DISCHARGE CURVED BLADE SUPPLY DIFFUSER, RIGHT AND LEFT SIDE EN CAPS AND A NON-FUSED DISCONNECT SWITCH.	4. PROVIDE EACH UNIT WITH A CONDENSATE DRAIN PAN HIGH WATER LEVEL SENSOR.
2. REFER TO PLANS FOR UNIT CONFIGURATIONS. UNITS WITH THE SAME SYMBOL NUMBER MAY HAVE LEFT OR RIGHT HAND CONNECTIONS AND/OR REQUIRE DIFFERENT CONFIGURATIONS.	5. FURNISH UNIT WITH HEATING COIL INSTALLED IN REHEAT POSITION.	5. PROVIDE ALL UNITS WITH BIPOLAR IONIZATION AIR PURIFICATION SYSTEM. PLASMA AIR MODEL P4850, OR EQUIVALENT.

BOILER SCHEDULE									
SYMBOL	TYPE	INPUT MBH	OUTPUT MBH	RELIEF VALVE	MAXIMUM WORKING PRESSURE	ELECTRICAL		MANUFACTURER/MODEL	REMARKS
						VOLTAGE	FLA		
B-1	FORCED DRAFT CONDENSING	3000	2904	50 LBS.	160 LBS.	460-3-60	9.2	RBI FLEXCORE	
B-2	FORCED DRAFT CONDENSING	3000	2904	50 LBS.	160 LBS.	460-3-60	9.2	RBI FLEXCORE	
B-3	FORCED DRAFT CONDENSING	3000	2904	50 LBS.	160 LBS.	460-3-60	9.2	RBI FLEXCORE	

NOTES:

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2. PROVIDE INTERCONNECTING CONTROL WIRING BETWEEN BOILERS IN ACCORDANCE TO THE BOILER MANUFACTURER'S RECOMMENDATIONS.
3. PROVIDE WITH CSD-1 COMPLAINT GAS TRAIN AND MANUFACTURER'S CONDENSATE NEUTRALIZATION KIT.

PACKAGED OUTDOOR DX AIR HANDLING UNIT SCHEDULE																																											BASIS OF DESIGN: A/CN			
SYMBOL	AIR FLOW DATA					SUPPLY FAN DATA			EXHAUST FAN DATA			ELECTRICAL DATA					DX COOLING COIL										REHEAT COIL							GAS HEATING					MODEL	NOMINAL SIZE W" x L' x H"	MAXIMUM OPERATING WEIGHT	PIPE CONN. SIZES HEATING	AREA SERVED	REMARKS		
	MAX. SUPPLY	RETURN	MIN OA	MAX OA	EXHAUST	E.S.P.	H.P.	RPM	E.S.P.	H.P.	RPM	VOLTAGE	MCA	MOP	EADB	EAWB	COIL LABD	COIL LABW	UNIT LABD	UNIT LABW	ROWS	TOTAL MBH	SENSIBLE MBH	FA	APD	EAT	LAT	MBH	GPM	EWT	ROWS	FA	APD	WPD	EAT	LAT	NO. OF STAGES	INPUT MBH							OUTPUT MBH	
RTU-1	16,000	10,755	5,245	16,000	12,000	3.36"	(2)Ø15	1679	1.22"	(2)Ø5	1403	208-3-60	404	450	80.2	66.3	49.8	49.7	54.1	51.6	6	762.7	520.6	43.8'	0.41"	—	—	—	—	—	—	—	—	—	—	—	50.4	91.6	FULLY MODULATING	900	720	RNA-070	101 x 240 x 102	10000 LBS.	2"	AUDITORIUM
RTU-2	1,800	1,030	770	1,800	—	1.75"	3	1843	—	—	—	460-3-60	24	35	82.1	67.9	51.4	50.8	53.8	51.8	3	89.3	58.8	8.5'	0.13"	43.8	95.0	105.3	8.7	150	2	3.7'	0.22"	1.4'	—	—	—	—	—	RN-008	79 x 100 x 44	1500 LBS.	1-1/4"	CHORAL		
RTU-3	2,800	1,575	1,225	2,800	—	1.62"	5	1532	—	—	—	460-3-60	32	40	82.5	68.1	50.0	49.8	53.8	51.4	4	148.1	96.9	14.6'	0.14"	42.4	95.0	168.5	12.5	150	2	5.8'	0.20"	3.3'	—	—	—	—	—	—	RN-013	96 x 111 x 51	2250 LBS.	1-1/2"	BAND	

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2. PROVIDE RTU-1 WITH A VFD ON THE SUPPLY AND EXHAUST FAN, FACTORY PRE-WIRED FOR A SINGLE POINT POWER CONNECTION WITH A 120V GFI CONVENIENCE OUTLET AND NON-FUSED DISCONNECT SWITCH AND AN OUTSIDE AIR INTAKE AIRFLOW MONITORING STATION.

3. PROVIDE AN AIR PURIFICATION SYSTEM IN EACH AIR HANDLER, PLASMA AIR 7000 SERIES.

4. FURNISH RTU-1 WITH A DOWNFLOW SUPPLY AND RETURN AIR CONNECTIONS, 48" HIGH UN-INSULATED SLOTTED BOTTOM PLENUM ROOF CURB WITH SPRING ISOLATION RAILS WITH 2" STATIC DEFLECTION, POWERED EXHAUST AND LOW NOISE CONDENSER FANS.

5. FURNISH RTU-2 AND RTU-3 WITH DOWNFLOW SUPPLY AND RETURN AIR CONNECTIONS AND A FULLY INSULATED, 24" HIGH ROOF CURB WITH SPRING ISOLATION RAILS WITH 2" STATIC DEFLECTION, BAROMETRIC RELIEF AND LOW NOISE CONDENSER FANS.

6. ALL HYDRONIC COIL PIPING MUST ROUTED UP WITHIN ROOF CURB AND THE INSULATED UNIT ENCLOSURE, NO EXPOSED PIPING WILL BE PERMITTED.

PACKAGED OUTDOOR CHILLED WATER AIR HANDLING UNIT SCHEDULE																																								BASIS OF DESIGN: A/CN					
SYMBOL	AIR FLOW DATA					SUPPLY FAN DATA			EXHAUST FAN DATA			ELECTRICAL DATA			PRE-HEAT COIL										COOLING COIL (30% PROPYLENE GLYCOL)														MODEL	NOMINAL SIZE W" x L" x H"	MAXIMUM OPERATING WEIGHT	PIPING CONN. SIZES		AREA SERVED	REMARKS
	MAX. SUPPLY	RETURN	MIN OA	MAX OA	EXHAUST	E.S.P.	H.P.	RPM	E.S.P.	H.P.	RPM	VOLTAGE	MCA	MOP	PRE-HEAT COIL										COOLING COIL (30% PROPYLENE GLYCOL)																	HEATING	COOLING		
															EAT	LAT	MBH	GPM	EWT	ROWS	FA	APD	WPD	EADB	EAWB	COIL LABD	COIL LABW	COIL LABD	COIL LABW	GPM	EWT	ROWS	TOTAL MBH	SENSIBLE MBH	FA	APD	WPD								
RTU-4	3,950	2,775	1,175	3,950	2,775	2.22"	5	1733	.72"	2	893	460-3-60	13	20	52.4	77.5	111.4	9.2	150	1	13.1'	0.04"	0.6'	79.7	66.1	54.6	54.5	56.9	55.4	28.0	42	6	135.4	106.2	13.1'	0.44"	16.1'	RN-009	73 x 111 x 51	1925 LBS.	1-1/4"	2"	ADMIN. OFFICES		
RTU-5	3,800	2,575	1,225	3,800	-	1.89"	5	1663	-	-	-	460-3-60	10	15	50.7	98.4	204.3	13.9	150	2	13.1'	0.08"	0.8'	80.1	66.2	55.8	55.7	57.8	56.5	21.7	42	6	122.2	99.1	13.1'	0.41"	11.6'	RN-009	73 x 111 x 51	1925 LBS.	1-1/2"	2"	LIBRARY		

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2. FURNISH EACH UNIT WITH A VFD ON THE SUPPLY AND EXHAUST FAN, FACTORY PRE-WIRED FOR A SINGLE POINT POWER CONNECTION WITH A 120V GFI CONVENIENCE OUTLET AND NON-FUSED DISCONNECT SWITCH AND AN OUTSIDE AIR INTAKE AIRFLOW MONITORING STATION.

3. FURNISH EACH UNIT WITH DOWNFLOW SUPPLY AND RETURN AIR CONNECTIONS AND A FULLY INSULATED, 24" HIGH ROOF CURB AND POWERED EXHAUST (WHERE INDICATED).

4. ALL HYDRONIC COIL PIPING MUST ROUTED UP WITHIN ROOF CURB AND THE INSULATED UNIT ENCLOSURE, NO EXPOSED PIPING WILL BE PERMITTED.

5. PROVIDE AN AIR PURIFICATION SYSTEM IN EACH AIR HANDLER, PLASMA AIR 7000 SERIES.

PUMP SCHEDULE										BASIS OF DESIGN: BELL & GOSSETT
SYMBOL	SYSTEM	GPM	HEAD	MOTOR DATA			EFFICIENCY	SERIES	MODEL	REMARKS
				H.P.	RPM	ELECTRICAL				
P-1A	HEATING	650	140'	40	1750	460-3-60	79%	e1510	4GC	
P-1B	HEATING	650	140'	40	1750	460-3-60	79%	e1510	4GC	
P-2A	COOLING	580	125'	40	1750	460-3-60	78%	e1510	4GC	SELECT USING 30% PROPYLENE GLYCOL
P-2B	COOLING	580	125'	40	1750	460-3-60	78%	e1510	4GC	SELECT USING 30% PROPYLENE GLYCOL
P-3A	COOLING	475	80'	20	1750	460-3-60	78%	e1510	4EB	SELECT USING 30% PROPYLENE GLYCOL
P-3B	COOLING	475	80'	20	1750	460-3-60	78%	e1510	4EB	SELECT USING 30% PROPYLENE GLYCOL
P-4A	COOLING	135	45'	5	1750	460-3-60	59%	80	2.5x2.5x9.5C	SELECT USING 30% PROPYLENE GLYCOL
P-4B	COOLING	135	45'	5	1750	460-3-60	59%	80	2.5x2.5x9.5C	SELECT USING 30% PROPYLENE GLYCOL

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2. PUMPS ARE TO BE OPERATING AND STANDBY OPERATION.
3. PROVIDE A NON-OVERLOADING MOTOR AND VARIABLE FREQUENCY DRIVE FOR EACH PUMP.

EXPANSION TANK SCHEDULE					BASIS OF DESIGN: BELL & GOSSETT	
SYMBOL	TANK VOLUME (GALLONS)	ACCEPTANCE VOLUME (GALLONS)	SIZE		MODEL	REMARKS
			DIA. (IN.)	LENGTH (IN.)		
EX-1	80	80	24	55	B-300	CHILLED WATER SYSTEM
EX-2	211	211	32	76	B-800	HEATING WATER SYSTEM

PACKAGED AIR HANDLING UNIT SCHEDULE																														BASIS OF DESIGN: CARRIER		
SYMBOL	CFM		E.S.P.	FAN DATA				MODEL	COOLING COIL (30% PROPYLENE GLYCOL)										HEATING COIL (REHEAT POSITION)								PIPING CONN. SIZES		OPTIONS	UNIT CONFIGURATION	MAXIMUM OPERATING WEIGHT	REMARKS
	TOTAL	MIN QA		H.P.	RPM	FLA	ELEC		EADB	EAWB	LAOB	LAWB	GPM	EWI	ROWS	TOTAL MBH	SENSIBLE MBH	WPD	EAT	LAT	MBH	GPM	EWI	ROWS	WPD	COOLING	HEATING	2" FLAT FILTER FRAME				
PAH-1	1250	0	.50"	1	1342	1.8	460-3-60	42HDA12	76.0	63.4	54.5	53.2	6.6	42.0	6	37.2	29.5	7.0'	60.0	97.0	51.0	2.6	150	2	3.0'	1"	3/4"	YES	HORIZONTAL	300 LBS		
PAH-2	1000	0	.50"	1/2	1161	1.0	460-3-60	42DHA10	76.0	63.4	54.2	52.8	5.4	42.0	6	30.8	24.0	5.2'	60.0	99.9	44.0	2.2	150	2	2.4'	1"	3/4"	YES	HORIZONTAL	300 LBS		
PAH-3	1600	0	.50"	1	1134	1.8	460-3-60	42DHA16	76.0	63.4	55.2	53.8	8.5	42.0	6	45.1	36.6	4.4'	60.0	97.2	65.5	3.3	150	2	1.9'	1-1/4"	1"	YES	HORIZONTAL	350 LBS		
PAH-4	1150	0	.50"	1	1270	1.8	460-3-60	42DHA12	76.0	63.4	54.4	53.1	6.1	42.0	6	34.7	27.3	5.8'	60.0	98.1	48.3	2.4	150	2	2.8'	1-1/4"	3/4"	YES	HORIZONTAL	300 LBS		
PAH-5	450	0	.50"	1/2	-	3.4	277-1-60	42DEA06	76.0	63.4	57.6	56.0	2.5	42.0	4	11.2	10.0	1.1'	60.0	95.9	19.5	1.0	150	2	0.5'	3/4"	3/4"	YES	HORIZONTAL	200 LBS	PROVIDE WITH FACTORY SUPPLIED 1" FILTER RACK WITH BOTTOM ACCESS, H.C. TO FIELD MODIFY FILTER RACK FOR 2" FILTERS	
PAH-6	700	0	.50"	1/2	1183	1.0	460-3-60	42DHA06	76.0	63.4	54.0	53.1	3.7	42.0	6	21.1	17.0	2.8'	60.0	97.8	29.2	1.5	150	2	1.0'	1"	3/4"	YES	HORIZONTAL	250 LBS		
PAH-7	800	0	.50"	1/2	1268	1.0	460-3-60	42DHA06	76.0	63.4	54.2	53.3	4.2	42.0	6	23.6	19.1	3.2'	60.0	96.1	31.8	1.6	150	2	1.2'	1"	3/4"	YES	HORIZONTAL	250 LBS		
PAH-8	1500	0	.50"	1	1091	1.8	460-3-60	42DHA16	76.0	63.4	55.3	54.0	7.3	42.0	6	41.7	34.1	3.8'	60.0	98.0	62.8	3.2	150	2	1.8'	1-1/4"	1"	YES	HORIZONTAL	350 LBS		
PAH-9	2200	855	.81"	1-1/2	1129	2.2	460-3-60	42DHA22	81.4	67.1	56.5	55.2	14.3	42.0	6	81.2	60.4	12.6'	47.5	94.6	113.3	8.2	150	2	4.5'	1-1/2"	1-1/4"	YES	HORIZONTAL	450 LBS	FURNISH UNIT WITH HEATING COIL IN PREHEAT POSITION	
PAH-10	3000	1065	.78"	3	931	4.4	460-3-60	42DHA30	80.7	66.6	54.9	54.3	18.0	42.0	6	113.3	85.2	5.9'	48.6	95.0	149.1	9.0	150	2	1.9'	2"	1-1/4"	YES	HORIZONTAL	550 LBS	FURNISH UNIT WITH HEATING COIL IN PREHEAT POSITION	
PAH-11	990	0	.50"	1/2	1711	6.4	120-1-60	42DWA10	76.0	63.4	56.7	54.5	4.6	42.0	6	26.0	21.0	4.4'	60.0	97.8	41.3	1.8	150	2	1.8'	1"	3/4"	YES	VERTICAL	340 LBS		
PAH-12	840	0	.50"	1/2	1198	6.4	120-1-60	42DWA10	76.0	63.4	56.5	54.3	4.0	42.0	6	22.5	18.0	3.8'	60.0	99.9	37.0	1.7	150	2	1.7'	1"	3/4"	YES	VERTICAL	340 LBS		
PAH-13	450	0	.50"	1/2	-	6.8	120-1-60	42DHA06	76.0	63.4	57.5	55.8	2.4	42.0	4	10.9	9.8	1.1'	60.0	96.4	19.3	1.0	150	2	0.5'	3/4"	3/4"	YES	VERTICAL	200 LBS	PROVIDE WITH FACTORY SUPPLIED 1" FILTER RACK WITH FRONT RETURN, H.C. TO FIELD MODIFY FILTER RACK FOR 2" FILTERS	
PAH-14	1600	575	.78"	1	1169	1.8	460-3-60	42DHA16	80.8	66.7	57.3	55.8	9.6	42.0	6	54.5	41.5	5.0'	49.4	94.9	79.7	4.5	150	2	3.1'	1-1/4"	1"	YES	HORIZONTAL	350 LBS	FURNISH UNIT WITH HEATING COIL IN PREHEAT POSITION	

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AIR SEPARATOR SCHEDULE						BASIS OF DESIGN: BELL & GOSSETT
SYMBOL	GPM	WPD	INLET/OUTLET SIZE	MANUFACTURER	MODEL	REMARKS
AS-1	650	3.5'	6"	BELL & GOSSETT	CRS-6G-HV MAG	PROVIDE WITH NEODYMIUM 45H MAGNET
AS-2	580	2.8'	6"	BELL & GOSSETT	CRS-6G-HV MAG	PROVIDE WITH NEODYMIUM 45H MAGNET
AS-3	475	-	6"	ARMSTRONG	AAP-624	
AS-4	135	-	4"	ARMSTRONG	AAP-412	
AS-5	135	-	4"	ARMSTRONG	AAP-412	

PACKAGED OUTDOOR AIR HANDLING UNIT SOUND DATA SCHEDULE																											
SYMBOL	DUCT DISCHARGE SOUND POWER (dB)								CASING RADIATED SOUND POWER (dB)								DUCT INLET SOUND POWER (dB)										
	63	125	250	500	1000	2000	4000	8000	63	125	250	500	1000	2000	4000	8000	63	125	250	500	1000	2000	4000	8000			
RTU-1	97	96	96	99	96	93	95	91	—	—	—	—	—	—	—	—	96	95	89	87	89	88	85	82			
RTU-2	85	83	86	82	75	72	69	64	—	—	—	—	—	—	—	—	80	78	75	69	66	61	49	40			
RTU-3	89	86	93	83	76	74	71	65	—	—	—	—	—	—	—	—	82	78	83	70	67	62	51	41			
RTU-4	93	91	98	87	81	78	76	70	—	—	—	—	—	—	—	—	87	83	87	74	71	66	59	49			
RTU-5	92	89	97	87	80	77	74	69	—	—	—	—	—	—	—	—	84	80	87	73	70	65	57	47			

DUCT SILENCER SCHEDULE																BASIS OF DESIGN: PRICE									
SYMBOL	DUCT SIZE W x H	DUCT SILENCER BANK W x H	LENGTH	MODEL	AIR DIRECTION	AIRFLOW	VELOCITY	PRESSURE DROP (in. w.g.)	PRESSURE DROP W/ SE (in. w.g.)	DYNAMIC INSERTION LOSS (dB)								GENERATED SOUND POWER (dB)							
										63	125	250	500	1000	2000	4000	8000	63	125	250	500	1000	2000	4000	8000
DS-1	50" x 32"	62" x 32"	120"	RMX120/UB	REVERSE	16,000	1,440	0.09"	0.20"	10	16	29	43	30	19	13	10	41	20	22	37	42	40	38	29
DS-2	50" x 32"	50" x 32"	60"	RH60/7B	FORWARD	16,000	1,440	0.08"	0.13"	4	6	12	21	16	11	8	7	45	30	25	25	36	34	32	29
DS-3	28" x 14"	28" x 14"	36"	RL36/8A	REVERSE	1,680	675	0.03"	0.03"	5	5	9	15	10	8	7	7	25	20	23	30	26	22	10	10

NOTE: SILENCERS TO BE CONSTRUCTED USING THE FOLLOWING MATERIALS:
GALVANIZED STEEL, CL1 (22GA.), 22 GA. PERFORATED LINER,
FIBERGLASS, INLET 2" SLIP, OUTLET 2" SLIP.

[illegible]

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