VARIABLE AIR VOLUME BOX SCHEDULE

SYMBOL	LOCATION	MFGR & MODEL	INLET DUCT SIZE (IN.)	CFM MAX.	CFM MIN.	HOT WATER COIL MBH	ROWS	AIR ENT	AIR LVG	AIR ΔSP IN.	WATER GPM	WATER ΔP FT	WATER ENT	WATER LVG	CONTROL VALVE	BRANCH PIPE SIZE(IN.)	OPER. WT. LBS.	REMARKS
VAV 2-1	BLDG 1 OFFICES 1-114, 115	CARRIER 35E-09	9	600	240	13.2	1	50	100	0.16	1.4	1.4	180	160	3-WAY	¾"	48	DDC CONTROLLER TO BE COMPATIBLE WITH TEMPERATURE CONTROL SYSTEM. PROVIDE 120V AC /24V DC TANSFORMER, DAMPER ACTUATOR, DISCONNECT SWITCH
VAV 2-2	BLDG 1 OFFICES 1-116, 117	CARRIER 35E-09	9	700	280	15.4	1	50	100	0.12	0.6	0.6	180	160	3-WAY	¾"	48	
VAV 2-3	BLDG 1 MULTI-PURPOSE ROOM, CONF.	CARRIER 35E-12	12	1340	540	29.7	2	50	100	0.32	3.0	1.8	180	160	3-WAY	¾"	60	
VAV 2-4	BLDG 1 CLASSROOM 1	CARRIER 35E-12	12	960	390	21.5	2	50	100	0.32	2.2	0.9	180	160	3-WAY	¾"	60	
VAV 2-5	BLDG 1 CLASSROOM 2	CARRIER 35E-12	12	960	390	21.5	2	50	100	0.32	2.2	0.9	180	160	3-WAY	¾"	60	
VAV 2-6	BLDG 1 CLASSROOM 3	CARRIER 35E-12	12	960	390	21.5	2	50	100	0.32	2.2	0.9	180	160	3-WAY	¾"	60	
VAV 2-7	BLDG 1 CLASSROOM 4	CARRIER 35E-12	12	960	390	21.5	2	50	100	0.32	2.2	0.9	180	160	3-WAY	¾"	60	
VAV 2-8	BLDG 1 COMPUTER LAB	CARRIER 35E-12	12	1200	480	26.4	2	50	100	0.27	2.6	1.2	180	160	3-WAY	¾"	60	
VAV 2-9	BLDG 1 MEN'S, WOMEN'S RESTROOMS	CARRIER 35E-06	6	320	160	8.8	1	50	100	0.12	0.9	0.6	180	160	3-WAY	½"	38	
VAV 3-1	BLDG 2 LIVING ROOM, ACTIVITY ROOM	CARRIER 35E-16	16	2120	850	46.8	2	50	100	0.28	4.7	2.3	180	160	3-WAY	1"	78	
VAV 3-2	BLDG 2 EXERCISE ROOM	CARRIER 35E-09	9	720	290	16.0	1	50	100	0.13	1.6	0.5	180	160	3-WAY	¾"	48	
VAV 3-3	BLDG 2 GROUP ROOM 1	CARRIER 35E-07	7	440	180	9.9	1	50	100	0.15	1.0	0.7	180	160	3-WAY	½"	40	
VAV 3-4	BLDG 2 GROUP ROOM 2	CARRIER 35E-07	7	460	180	9.9	1	50	100	0.16	1.0	0.7	180	160	3-WAY	½"	40	
VAV 3-5	BLDG 2 MEDITATION, COMPUTER LAB	CARRIER 35E-12	12	1150	460	25.3	2	50	100	0.20	2.6	1.2	180	160	3-WAY	¾"	60	
VAV 3-6	BLDG 2 ARTS/CRAFTS, GAME ROOM	CARRIER 35E-16	16	1780	710	39.1	2	50	100	0.20	3.9	1.7	180	160	3-WAY	1"	78	
VAV 3-7	BLDG 2 KITCHEN, STORAGE	CARRIER 35E-10	10	800	320	17.6	1	50	100	0.24	1.8	0.6	180	160	3-WAY	¾"	51	
VAV 3-8	BLDG 2 ROOMS 2-104, 105, 106	CARRIER 35E-08	8	530	210	11.6	1	50	100	0.20	1.2	1.1	180	160	3-WAY	½"	40	
VAV 5-1	BLDG 3, 1ST FLR LIVING ROOM	CARRIER 35E-12	12	1180	470	25.9	2	50	100	0.20	2.6	1.2	180	160	3-WAY	¾"	60	
VAV 5-2	BLDG 3, 1ST FLR ROOMS 3-102, 103	CARRIER 35E-06	6	260	100	5.5	1	50	100	0.09	0.6	0.3	180	160	3-WAY	½"	38	
VAV 5-3	BLDG 3, 1ST FLR ROOMS 3-104, 105	CARRIER 35E-07	7	340	140	7.7	1	50	100	0.17	0.8	0.4	180	160	3-WAY	½"	40	
VAV 5-4	BLDG 3, 1ST FLR ROOMS 3-110, 112	CARRIER 35E-07	7	400	160	8.8	1	50	100	0.12	0.9	0.6	180	160	3-WAY	½"	40	
VAV 5-5	BLDG 3, 1ST FLR ROOMS 3-113, 115	CARRIER 35E-09	9	640	260	14.3	1	50	100	0.18	1.5	1.6	180	160	3-WAY	¾"	48	
VAV 5-6	BLDG 3, 1ST FLR SUN ROOM	CARRIER 35E-09	9	640	260	14.3	1	50	100	0.18	1.5	1.6	180	160	3-WAY	¾"	48	
VAV 5-7	BLDG 3, 1ST FLR DINING, KITCHEN,	CARRIER 35E-14	14	1620	650	35.8	2	50	100	0.27	3.6	1.5	180	160	3-WAY	1"	63	
VAV 5-8	BLDG 3, 1ST FLR FOYER	CARRIER 35E-09	9	720	290	16.0	1	50	100	0.13	1.6	0.5	180	160	3-WAY	¾"	48	
VAV 6-1	BLDG 3, 2ND FLR LIVING ROOM	CARRIER 35E-16	16	1830	730	40.2	2	50	100	0.31	4.1	1.7	180	160	3-WAY	1"	63	
VAV 6-2	BLDG 3, 2ND FLR HALL 3	CARRIER 35E-14	14	1440	580	31.9	2	50	100	0.21	3.2	1.2	180	160	3-WAY	¾"	63	
VAV 6-3	BLDG 3, 2ND FLR PROGRAM DIRECTOR	CARRIER 35E-06	6	320	130	7.2	1	50	100	0.15	0.8	0.4	180	160	3-WAY	½"	38	
VAV 6-4	BLDG 3, 2ND FLR PSYCH, CLINICIANS	CARRIER 35E-07	7	340	140	7.7	1	50	100	0.17	0.8	0.4	180	160	3-WAY	½"	40	
VAV 6-5	BLDG 3, 2ND FLR BED 9, BED 10/11	CARRIER 35E-07	7	410	160	8.8	1	50	100	0.12	0.9	0.6	180	160	3-WAY	½"	40	
VAV 6-6	BLDG 3, 2ND FLR BED 12/13, BED 14/15	CARRIER 35E-09	9	660	260	14.3	1	50	100	0.18	1.5	1.6	180	160	3-WAY	¾"	48	
VAV 6-7	BLDG 3, 2ND FLR SUN ROOM	CARRIER 35E-12	12	1000	400	22.0	2	50	100	0.20	2.2	0.9	180	160	3-WAY	¾"	60	

VVT SYSTEM ZONE/BYPASS BOX SCHEDULE

SYMBOL	LOCATION	MFGR & MODEL	INLET DUCT SIZE (IN.)	CFM MAX.	CFM MIN.	HOT WATER COIL MBH	ROWS	AIR ENT	AIR LVG	AIR ΔSP IN.	WATER GPM	WATER ΔP FT	WATER ENT	WATER LVG	CONTROL VALVE	BRANCH PIPE SIZE(IN.)	OPER. WT. LBS.	TYPE	REMARKS
ZD 1-1	BLDG 1 GROUP OFFICE, WAITING	CARRIER 35EV12	12	580	230	12.7	1	50	100	0.15	1.3	1.3	180	160	3-WAY	½"	60	ZONE DAMPER	DDC CONTROLLER TO BE COMPATIBLE WITH TEMP. CONTROL SYSTEM. PROVIDE 120V AC/24V DC TANSFORMER, DAMPER ACTUATOR, DISCONNECT SWITCH
ZD 1-2	BLDG 1 WORK ROOM, BREAK ROOM	CARRIER 35EV12	12	720	290	16.0	1	50	100	0.13	1.6	0.6	180	160	3-WAY	½"	60	ZONE DAMPER	
ZD 1-3	BLDG 1 OFFICES 1-106, 107, 108	CARRIER 35EV12	12	660	260	14.3	1	50	100	0.18	1.5	1.5	180	160	3-WAY	¾"	60	ZONE DAMPER	
ZD 1-4	BLDG 1 CONF. ROOM, STORAGE	CARRIER 35EV12	12	660	260	14.3	1	50	100	0.19	1.5	1.5	180	160	3-WAY	¾"	60	ZONE DAMPER	
ZD 1-5	BLDG 1 SUPPORT STAFF 2, WORK ROOM 2	CARRIER 35EV10	10	380	150	11.0	1	50	100	0.20	1.1	0.6	180	160	3-WAY	½"	60	ZONE DAMPER	
BD 1	AC-1	CARRIER 35PSA-14-028	29x10	3000	0	–	–	–	–	–	–	–	–	–	–	–	40	BYPASS DAMPER	

HOT WATER BOILER SCHEDULE

SYMBOL	LOCATION	MANUFACTURER & MODEL NO.	HEATING CAPACITY INPUT MBTUH	HEATING CAPACITY OUTPUT MBTUH	EFF %	WATER FLOW @20° ΔT (GPM)	WATER P.D. FT.	WATER TEMPERATURE IN	WATER TEMPERATURE OUT	FUEL	CONTROL POWER VOLTS	PH	Hz	AMP.	UNIT SIZE (WxDxH) (IN)	OPERAT. WT. (LBS)	REMARKS
B 1	BLDG '1' ROOF	RAYPAK RAYTHERM H-331	334	274	82	27	3.4	160°F	180°F	NATURAL GAS	115	1	60	5	26x27x40	284	WITH GAS TRAIN, 2-STAGE GAS FIRING, LOW WATER CUT-OFF, DISCONNECT SWITCH, FOR OUTDOOR INSTALLATION,
B 2	BLDG '2' ROOF	RAYPAK RAYTHERM H-261	264	216	82	21	2.1	160°F	180°F	NATURAL GAS	115	1	60	5	23x27x40	264	
B 3	BLDG '3' ROOF	RAYPAK RAYTHERM H-331	334	274	82	27	3.4	160°F	180°F	NATURAL GAS	115	1	60	5	26x27x40	284	

PUMP SCHEDULE

SYMBOL	LOCATION	MANUFACTURER & MODEL NO.	SERVICE	TYPE	FLOW RATE (GPM)	HEAD (FT)	MINIMUM EFFICIENCY (%)	MOTOR HP	MOTOR PRM	ELECTRICAL VOLTS	PH	HZ	CONNECTION SIZE (SUCT.xDISCH.)	OPERAT. WT. (LBS)	REMARKS
P 1	BLDG '1' ROOF	BELL & GOSSET SERIES 1531 1¼ AC	HEATING HOT WATER SYSTEM	CLOSE-CLUPLED, CENTRIFUGAL	25	40	44	3/4	1750	208	3	60	1½" x 1¼"	100	WITH STEEL BASEPLATE, TEFC MOTOR. DISCONNECT SWITCH
P 2	BLDG '2' ROOF	BELL & GOSSET SERIES 1531 1¼ AC	HEATING HOT WATER SYSTEM	CLOSE-CLUPLED, CENTRIFUGAL	18	37	36	3/4	1750	208	3	60	1½" x 1¼"	100	
P 3	BLDG '3' ROOF	BELL & GOSSET SERIES 1531 1¼ AC	HEATING HOT WATER SYSTEM	CLOSE-CLUPLED, CENTRIFUGAL	27	34	45	3/4	1750	208	3	60	1½" x 1¼"	100	

EXPANSION TANK SCHEDULE

SYMBOL	LOCATION	SERVICE	MANUFACTURER & MODEL NO.	TYPE	PRE-FILL PRESSURE	MAX. OPER. PRESSURE	TANK VOLUME	ACCEPTANCE VOLUME	UNIT SIZE (IN)	OPERATING WEIGHT (LBS)	REMARKS
ET 1	BLDG '1' ROOF	HEATING HOT WATER SYSTEM	BELL & GOSSET B-50LA	VERTICAL BLADDER TYPE	12 PSIG	125 PSI	13 GAL	11 GAL	12"øx 37"L	164	WITH SEISMIC RESTRAINTS.
ET 2	BLDG '2' ROOF	HEATING HOT WATER SYSTEM	BELL & GOSSET B-50LA	VERTICAL BLADDER TYPE	12 PSIG	125 PSI	13 GAL	11 GAL	12"øx 37"L	164	
ET 3	BLDG '3' ROOF	HEATING HOT WATER SYSTEM	BELL & GOSSET B-50LA	VERTICAL BLADDER TYPE	12 PSIG	125 PSI	13 GAL	11 GAL	12"øx 37"L	164	

CHEMICAL FEEDER SCHEDULE

SYMBOL	MANUFACTURER & MODEL NO.	CAPACITY	LOCATION	SERVICE	OPER. WEIGHT LBS.	REMARKS
CF 1	WINGERT 2HD	2 GALLON POT FEEDER	ROOF	HEATING HOT WATER	65	WITH REQUIRED CHEMICALS FOR LOCAL WATER CONDITION. HEIGHT INCLUDES FEEDER TOP LID.
CF 2	WINGERT 2HD	2 GALLON POT FEEDER	ROOF	HEATING HOT WATER	65	
CF 3	WINGERT 2HD	2 GALLON POT FEEDER	ROOF	HEATING HOT WATER	65	

AIR SEPARATOR SCHEDULE

SYMBOL	MANUFACTURER & MODEL NO.	LOCATION	SERVICE	PIPE CONN. (IN.)	OPER. WEIGHT (LBS)	REMARKS
AS 1	BELL & GOSSETT EAS-2	ROOF	HOT WATER SYSTEM	2	16	WITH AIR VENT.
AS 2	BELL & GOSSETT EAS-2	ROOF	HOT WATER SYSTEM	2	16	
AS 3	BELL & GOSSETT EAS-2	ROOF	HOT WATER SYSTEM	2	16	

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401 SOUTH TUSTIN STREET
401 SOUTH TUSTIN STREET
ORANGE, CA 92866
PROJ. NO. 100-042-P210-4200

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