

REPORT- SV-A System Design Parameters for PlB (B.N11) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	464.0	1.	0.101	9.164	0.742	-8.247	0.266	0.271	-10.001

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	306.	1.00	0.092	0.93	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
PlB North Perim Zn (B.N11P	306.	0.	0.000	0.740	31.	0.00	0.00	7.23	0.00	-8.62	1.

REPORT- SV-A System Design Parameters for PlB (B.N13) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2465.0	3.	0.107	46.138	0.742	-41.524	0.266	0.271	-50.356

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1539.	1.00	0.461	0.93	1.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
PlB North Perim Zn (B.N13P	1539.	0.	0.000	0.733	165.	0.00	0.00	39.58	0.00	-42.97	1.

REPORT- SV-A System Design Parameters for P1B (B.NE14) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	705.0	1.	0.102	13.893	0.742	-12.503	0.266	0.271	-15.162

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	463.	1.00	0.139	0.93	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
P1B NE Perim Zn (B.NE14) 1	463.	0.	0.000	0.740	47.	0.00	0.00	9.99	0.00	-13.08

1.

REPORT- SV-A System Design Parameters for L1A (G.E19) APT2 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	1033.8	1.	0.131	15.814	0.742	-14.232	0.266	0.271	-17.259

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	528.	1.00	0.158	0.93	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1A East Perim Zn (G.E19)T	528.	0.	0.000	0.700	69.	0.00	0.00	9.93	0.00	-14.06	1.

REPORT- SV-A System Design Parameters for L1A (G.NNE24) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	749.2	1.	0.161	9.287	0.742	-8.358	0.266	0.271	-10.136

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN	FAN	MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	PLACEMENT	CONTROL	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)			(FRAC)	(FRAC)
SUPPLY	310.	1.00	0.093	0.93	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST	FAN	MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	ZONE	
NAME	FLOW	FLOW		FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	MULT
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	
L1A NNE Perim Zn (G.NNE24P	310.	0.	0.000	0.658	50.	0.00	0.00	8.03	0.00	-7.76	1.

REPORT- SV-A System Design Parameters for L1A (G.WNW27) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	493.5	1.	0.095	10.381	0.742	-9.343	0.266	0.271	-7.089

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	346.	1.00	0.104	0.94	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1A WNW Perim Zn (G.WNW27P	346.	0.	0.000	0.419	33.	0.00	0.00	10.35	0.00	-5.51	1.

REPORT- SV-A System Design Parameters for L1A (G.N28) APT3 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	1326.0	2.	0.107	24.680	0.742	-22.212	0.266	0.271	-14.826
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH		MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)
SUPPLY	823.	1.00	0.247	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L1A North Perim Zn (G.N28P	823.	0.	0.000	0.336	89.	0.00	0.00	24.52	0.00	-10.51

1.

REPORT- SV-A System Design Parameters for L1B (G.N5) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2580.0	3.	0.114	45.098	0.742	-40.588	0.266	0.271	-21.283

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1504.	1.00	0.451	0.94	1.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1B North Perim Zn (G.N5)T	1504.	0.	0.000	0.224	172.	0.00	0.00	44.46	0.00	-12.77	1.

REPORT- SV-A System Design Parameters for L1B (G.E6) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	668.0	1.	0.113	11.819	0.742	-10.637	0.266	0.271	-8.179

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	394.	1.00	0.118	0.94	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1B East Perim Zn (G.E6) 1	394.	0.	0.000	0.402	45.	0.00	0.00	11.53	0.00	-6.02	1.

REPORT- SV-A System Design Parameters for L1B (G.W7) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	765.0	1.	0.114	13.401	0.742	-12.061	0.266	0.271	-14.626

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	447.	1.00	0.134	0.93	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L1B West Perim Zn (G.W7) 1	447.	0.	0.000	0.722	51.	0.00	0.00	13.69	0.00	-12.29

1.

REPORT- SV-A System Design Parameters for L1B (G.E9) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	713.5	1.	0.113	12.583	0.742	-11.325	0.266	0.271	-13.734

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	420.	1.00	0.126	0.93	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1B East Perim Zn (G.E9) 1	420.	0.	0.000	0.724	48.	0.00	0.00	7.36	0.00	-11.56	1.

REPORT- SV-A System Design Parameters for L1B (G.E10) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	519.0	1.	0.083	12.438	0.742	-11.194	0.266	0.271	-13.575

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	415.	1.00	0.124	0.93	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1B East Perim Zn (G.E10)T	415.	0.	0.000	0.764	35.	0.00	0.00 7.62	0.00	-12.06	1.

REPORT- SV-A System Design Parameters for L1B (G.S11) APT5 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	1978.0	3.	0.101	39.176	0.742	-35.258	0.266	0.271	-42.757

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1307.	1.00	0.392	0.93	1.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1B South Perim Zn (G.S11P	1307.	0.	0.000	0.740	132.	0.00	0.00	27.91	0.00	-36.76	1.

REPORT- SV-A System Design Parameters for L1B (G.E29) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	429.5	1.	0.096	8.978	0.742	-8.080	0.266	0.271	-6.447

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	300.	1.00	0.090	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1B East Perim Zn (G.E29)T	300.	0.	0.000	0.446	29.	0.00	0.00	8.97	0.00	-5.08	1.

REPORT- SV-A System Design Parameters for L2A (G.E14) APT3 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	1947.8	2.	0.248	15.695	0.742	-14.126	0.266	0.271	-13.573

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	524.	1.00	0.157	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2A East Perim Zn (G.E14)T	524.	0.	0.000	0.358	130.	0.00	0.00 12.95	0.00	-7.13	1.

REPORT- SV-A System Design Parameters for L2A (G.WNW18) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	1270.5	2.	0.109	23.298	0.742	-20.968	0.266	0.271	-14.660

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	777.	1.00	0.233	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2A WNW Perim Zn (G.WNW18P	777.	0.	0.000	0.357	85.	0.00	0.00	22.60	0.00	-10.53	1.

REPORT- SV-A System Design Parameters for L2A (G.N19) APT2 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	1039.0	1.	0.122	17.058	0.742	-15.353	0.266	0.271	-8.948

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	569.	1.00	0.171	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2A North Perim Zn (G.N19P	569.	0.	0.000	0.256	69.	0.00	0.00	16.87	0.00	-5.53	1.

REPORT- SV-A System Design Parameters for L2B (G.N4) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	2928.0	4.	0.129	45.329	0.742	-40.796	0.266	0.271	-22.210

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	1512.	1.00	0.453	0.94	1.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2B North Perim Zn (G.N4)T	1512.	0.	0.000	0.218	195.	0.00	0.00 44.38	0.00	-12.52	1.

REPORT- SV-A System Design Parameters for L2B (G.W6) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	765.0	1.	0.138	11.129	0.742	-10.016	0.266	0.271	-8.498

DESIGN DATA										MAX FAN	MIN FAN
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH				
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	371.	1.00	0.111	0.94	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2B West Perim Zn (G.W6) 1	371.	0.	0.000	0.426	51.	0.00	0.00 10.86	0.00	-6.01	1.

REPORT- SV-A System Design Parameters for L2B (G.W7) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	654.5	1.	0.226	5.803	0.742	-5.223	0.266	0.271	-3.345

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	194.	1.00	0.058	0.94	0.8	0.30	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION		
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2B West Perim Zn (G.W7) 1	194.	0.	0.000	0.226	44.	0.00	0.00	4.69	0.00	-1.17	1.

REPORT- SV-A System Design Parameters for L2B (G.E8) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	628.5	1.	0.222	5.660	0.742	-5.094	0.266	0.271	-3.124

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	189.	1.00	0.057	0.94	0.8	0.30	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2B East Perim Zn (G.E8) 1	189.	0.	0.000	0.222	42.	0.00	0.00	4.64	0.00	-1.04	1.

REPORT- SV-A System Design Parameters for L2B (G.E9) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	558.0	1.	0.150	7.437	0.742	-6.693	0.266	0.271	-7.717

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	248.	1.00	0.074	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2B East Perim Zn (G.E9) 1	248.	0.	0.000	0.629	37.	0.00	0.00	6.34	0.00	-5.94	1.

REPORT- SV-A System Design Parameters for L2B (G.S10) APT6 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	2721.0	3.	0.151	36.021	0.742	-32.419	0.266	0.271	-21.296

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1202.	1.00	0.360	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION		HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2B South Perim Zn (G.S10P	1202.	0.	0.000	0.270	182.	0.00	0.00	36.20	0.00	-12.30	1.

REPORT- SV-A System Design Parameters for L2B (G.E23) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	714.0	1.	0.118	12.123	0.742	-10.911	0.266	0.271	-10.072

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	404.	1.00	0.121	0.94	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2B East Perim Zn (G.E23)T	404.	0.	0.000	0.507	48.	0.00	0.00	11.85	0.00	-7.79	1.

REPORT- SV-A System Design Parameters for L3A (G.E13) APT4 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2229.8	3.	0.248	17.987	0.742	-16.189	0.266	0.271	-11.800

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	600.	1.00	0.180	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3A East Perim Zn (G.E13)T	600.	0.	0.000	0.248	149.	0.00	0.00	14.52	0.00	-4.39	1.

REPORT- SV-A System Design Parameters for L3A (G.NW17) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	915.5	1.	0.117	15.702	0.742	-14.132	0.266	0.271	-8.981

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	524.	1.00	0.157	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING RATE	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT
L3A NW Perim Zn (G.NW17) 1	524.	0.	0.000	0.301	61.	0.00	0.00	14.18	0.00	-5.98 1.

WEATHER FILE- SEATTLE BOEING FI WA

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	798.	1.00	0.239	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3A North Perim Zn (G.N18P	798.	0.	0.000	0.214	105.	0.00	0.00 22.85	0.00	-6.47	1.

WEATHER FILE- SEATTLE BOEING FI WA

		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	962.	1.00	0.288	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE	
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT	
L3A West Perim Zn (G.W21)T	962.	0.	0.000	0.258	165.	0.00	0.00	25.70	0.00	-9.40	1.

REPORT- SV-A System Design Parameters for L3A (G.SW22) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	944.2	1.	0.129	14.626	0.742	-13.163	0.266	0.271	-8.607

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	488.	1.00	0.146	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3A SW Perim Zn (G.SW22) 1	488.	0.	0.000	0.297	63.	0.00	0.00 14.42	0.00	-5.50	1.

REPORT- SV-A System Design Parameters for L3A (G.S24) APT3 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	1832.5	2.	0.144	25.380	0.742	-22.842	0.266	0.271	-13.031

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	847.	1.00	0.254	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	EXTRACTION RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3A South Perim Zn (G.S24P	847.	0.	0.000	0.217	122.	0.00	0.00	26.65	0.00	-6.95	1.

REPORT- SV-A System Design Parameters for L3B (G.N4) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2928.0	4.	0.136	43.003	0.742	-38.703	0.266	0.271	-20.644

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1435.	1.00	0.430	0.94	1.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3B North Perim Zn (G.N4)T	1435.	0.	0.000	0.201	195.	0.00	0.00	40.78	0.00	-10.93	1.

REPORT- SV-A System Design Parameters for L3B (G.E5) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	984.0	1.	0.129	15.289	0.742	-13.760	0.266	0.271	-10.096

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	510.	1.00	0.153	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3B East Perim Zn (G.E5) 1	510.	0.	0.000	0.356	66.	0.00	0.00	14.50	0.00	-6.88	1.

REPORT- SV-A System Design Parameters for L3B (G.W6) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	765.0	1.	0.136	11.289	0.742	-10.160	0.266	0.271	-7.680

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	377.	1.00	0.113	0.94	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3B West Perim Zn (G.W6) 1	377.	0.	0.000	0.362	51.	0.00	0.00	10.52	0.00	-5.18	1.

REPORT- SV-A System Design Parameters for L3B (G.E8) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	628.5	1.	0.219	5.746	0.742	-5.172	0.266	0.271	-3.380

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	192.	1.00	0.057	0.94	0.8	0.30	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION		
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3B East Perim Zn (G.E8) 1	192.	0.	0.000	0.219	42.	0.00	0.00	4.62	0.00	-1.29	1.

REPORT- SV-A System Design Parameters for L3B (G.E9) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	789.0	1.	0.158	10.006	0.742	-9.006	0.266	0.271	-9.058

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN	FAN	MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	PLACEMENT	CONTROL	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)			(FRAC)	(FRAC)
SUPPLY	334.	1.00	0.100	0.94	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST	FAN	MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	ZONE	
NAME	FLOW	FLOW		FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	MULT
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	
L3B East Perim Zn (G.E9) 1	334.	0.	0.000	0.513	53.	0.00	0.00	9.59	0.00	-6.50	1.

REPORT- SV-A System Design Parameters for L3B (G.S10) APT7 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	3981.5	5.	0.159	50.120	0.742	-45.108	0.266	0.271	-27.900

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1672.	1.00	0.501	0.94	1.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION		HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3B South Perim Zn (G.S10P	1672.	0.	0.000	0.232	266.	0.00	0.00	47.57	0.00	-14.69	1.

REPORT- SV-A System Design Parameters for L3B (G.E19) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	714.0	1.	0.127	11.280	0.742	-10.152	0.266	0.271	-8.565

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	376.	1.00	0.113	0.94	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L3B East Perim Zn (G.E19)T	376.	0.	0.000	0.438	48.	0.00	0.00 10.69	0.00	-6.25	1.

REPORT- SV-A System Design Parameters for L4A (G.E13) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	2229.8	3.	0.246	18.099	0.742	-16.289	0.266	0.271	-11.413

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN	MIN FAN
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF			RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)			(FRAC)	(FRAC)
SUPPLY	604.	1.00	0.181	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	EXTRACTION RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4A East Perim Zn (G.E13)T	604.	0.	0.000	0.246	149.	0.00	0.00	14.64	0.00	-4.00	1.

REPORT- SV-A System Design Parameters for L4A (G.NW17) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	915.5	1.	0.115	15.864	0.742	-14.278	0.266	0.271	-8.395

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	529.	1.00	0.159	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4A NW Perim Zn (G.NW17) 1	529.	0.	0.000	0.268	61.	0.00	0.00	14.58	0.00	-5.38	1.

REPORT- SV-A System Design Parameters for L4A (G.N18) APT3 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	1566.5	2.	0.130	24.176	0.742	-21.758	0.266	0.271	-11.246

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	806.	1.00	0.242	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4A North Perim Zn (G.N18P	806.	0.	0.000	0.198	105.	0.00	0.00	23.13	0.00	-6.05	1.

REPORT- SV-A System Design Parameters for L4A (G.W21) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2478.2	3.	0.173	28.661	0.742	-25.795	0.266	0.271	-15.678

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	956.	1.00	0.287	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4A West Perim Zn (G.W21)T	956.	0.	0.000	0.205	165.	0.00	0.00	24.46	0.00	-7.43	1.

REPORT- SV-A System Design Parameters for L4A (G.SW22) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	944.2	1.	0.128	14.787	0.742	-13.308	0.266	0.271	-8.213
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH		MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)
SUPPLY	493.	1.00	0.148	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L4A SW Perim Zn (G.SW22) 1	493.	0.	0.000	0.273	63.	0.00	0.00	14.99	0.00	-5.10

1.

REPORT- SV-A System Design Parameters for L4A (G.S24) APT3 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	1832.5	2.	0.148	24.848	0.742	-22.363	0.266	0.271	-11.694

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	829.	1.00	0.248	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING CAPACITY	ADDITION		
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4A South Perim Zn (G.S24P	829.	0.	0.000	0.178	122.	0.00	0.00	23.98	0.00	-5.60	1.

REPORT- SV-A System Design Parameters for L4B (G.N4) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2928.0	4.	0.135	43.384	0.742	-39.045	0.266	0.271	-19.969

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1447.	1.00	0.434	0.94	1.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4B North Perim Zn (G.N4)T	1447.	0.	0.000	0.187	195.	0.00	0.00	41.23	0.00	-10.24	1.

REPORT- SV-A System Design Parameters for L4B (G.E5) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	984.0	1.	0.127	15.525	0.742	-13.973	0.266	0.271	-9.668

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	518.	1.00	0.155	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4B East Perim Zn (G.E5) 1	518.	0.	0.000	0.328	66.	0.00	0.00 14.76	0.00	-6.44	1.

REPORT- SV-A System Design Parameters for L4B (G.W6) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	765.0	1.	0.126	12.113	0.742	-10.901	0.266	0.271	-7.332

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	404.	1.00	0.121	0.94	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4B West Perim Zn (G.W6) 1	404.	0.	0.000	0.315	51.	0.00	0.00	11.14	0.00	-4.82	1.

REPORT- SV-A System Design Parameters for L4B (G.W7) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	654.5	1.	0.219	5.979	0.742	-5.381	0.266	0.271	-3.629

DESIGN DATA										DESIGN DATA							
FAN		DIVERSITY		POWER		FAN		STATIC		TOTAL		MECH		MAX FAN		MIN FAN	
CAPACITY		FACTOR		DEMAND		DELTA-T		PRESSURE		EFF		EFF		FAN		FAN	
(CFM)		(FRAC)		(KW)		(F)		(IN-WATER)		(FRAC)		(FRAC)		PLACEMENT		CONTROL	
TYPE																(FRAC)	
SUPPLY		199.	1.00	0.060	0.94	0.8	0.30	0.62	DRAW-THRU	CONSTANT	1.00	0.30					

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4B West Perim Zn (G.W7) 1	199.	0.	0.000	0.219	44.	0.00	0.00 (4.69)	0.00	-1.45	1.

REPORT- SV-A System Design Parameters for L4B (G.E8) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	628.5	1.	0.217	5.798	0.742	-5.218	0.266	0.271	-3.263

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	193.	1.00	0.058	0.94	0.8	0.30	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4B East Perim Zn (G.E8) 1	193.	0.	0.000	0.217	42.	0.00	0.00 4.68	0.00	-1.17	1.

REPORT- SV-A System Design Parameters for L4B (G.E9) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	789.0	1.	0.157	10.047	0.742	-9.042	0.266	0.271	-8.296

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	335.	1.00	0.100	0.94	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L4B East Perim Zn (G.E9) 1	335.	0.	0.000	0.450	53.	0.00	0.00	10.40	0.00	-5.72

1.

REPORT- SV-A System Design Parameters for L4B (G.S10) APT7 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	3981.5	5.	0.162	49.279	0.742	-44.351	0.266	0.271	-25.591

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1644.	1.00	0.493	0.94	1.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION		HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4B South Perim Zn (G.S10P	1644.	0.	0.000	0.198	266.	0.00	0.00	47.04	0.00	-12.35	1.

REPORT- SV-A System Design Parameters for L4B (G.E19) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	714.0	1.	0.123	11.643	0.742	-10.479	0.266	0.271	-8.179

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	388.	1.00	0.116	0.94	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L4B East Perim Zn (G.E19)T	388.	0.	0.000	0.398	48.	0.00	0.00	11.06	0.00	-5.86	1.

REPORT- SV-A System Design Parameters for L5A (G.E13) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	2229.8	3.	0.244	18.273	0.742	-16.445	0.266	0.271	-11.417

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	610.	1.00	0.183	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5A East Perim Zn (G.E13)T	610.	0.	0.000	0.244	149.	0.00	0.00 14.88	0.00	-4.01	1.

REPORT- SV-A System Design Parameters for L5A (G.NW17) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	915.5	1.	0.111	16.480	0.742	-14.832	0.266	0.271	-8.778
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH		MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)
SUPPLY	550.	1.00	0.165	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L5A NW Perim Zn (G.NW17) 1	550.	0.	0.000	0.277	61.	0.00	0.00	15.13	0.00	-5.77

1.

REPORT- SV-A System Design Parameters for L5A (G.N18) APT3 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	1566.5	2.	0.126	24.842	0.742	-22.358	0.266	0.271	-11.596

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	829.	1.00	0.248	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING CAPACITY	ADDITION	
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L5A North Perim Zn (G.N18P	829.	0.	0.000	0.204	105.	0.00	0.00	23.80	0.00	-6.40

REPORT- SV-A System Design Parameters for L5A (G.W21) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2478.2	3.	0.173	28.697	0.742	-25.827	0.266	0.271	-15.679

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	957.	1.00	0.287	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5A West Perim Zn (G.W21)T	957.	0.	0.000	0.205	165.	0.00	0.00	24.50	0.00	-7.43	1.

REPORT- SV-A System Design Parameters for L5A (G.SW22) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	944.2	1.	0.127	14.906	0.742	-13.416	0.266	0.271	-8.213

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	497.	1.00	0.149	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5A SW Perim Zn (G.SW22) 1	497.	0.	0.000	0.271	63.	0.00	0.00 15.43	0.00	-5.10	1.

REPORT- SV-A System Design Parameters for L5A (G.S24) APT3 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	1832.5	2.	0.147	24.865	0.742	-22.378	0.266	0.271	-11.694

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	829.	1.00	0.249	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5A South Perim Zn (G.S24P	829.	0.	0.000	0.178	122.	0.00	0.00 24.00	0.00	-5.59	1.

REPORT- SV-A System Design Parameters for L5B (G.N4) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	2928.0	4.	0.135	43.520	0.742	-39.168	0.266	0.271	-19.970

DESIGN DATA										MAX FAN	MIN FAN
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH				
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1452.	1.00	0.435	0.94	1.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING RATE	ADDITION RATE	ZONE	
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT	
L5B North Perim Zn (G.N4)T	1452.	0.	0.000	0.186	195.	0.00	0.00	41.36	0.00	-10.24	1.

REPORT- SV-A System Design Parameters for L5B (G.W7) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	654.5	1.	0.216	6.069	0.742	-5.462	0.266	0.271	-3.629

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	202.	1.00	0.061	0.94	0.8	0.30	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5B West Perim Zn (G.W7) 1	202.	0.	0.000	0.216	44.	0.00	0.00	4.75	0.00	-1.45	1.

REPORT- SV-A System Design Parameters for L5B (G.E8) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	628.5	1.	0.216	5.824	0.742	-5.241	0.266	0.271	-3.263

DESIGN DATA										DESIGN DATA	
FAN		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN		RATIO	RATIO
(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL		(FRAC)	(FRAC)
SUPPLY	194.	1.00	0.058	0.94	0.8	0.30	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING CAPACITY	ADDITION	
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) MULT
L5B East Perim Zn (G.E8) 1	194.	0.	0.000	0.216	42.	0.00	0.00	4.70	0.00	-1.17 1.

REPORT- SV-A System Design Parameters for L5B (G.E9) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	789.0	1.	0.149	10.604	0.742	-9.543	0.266	0.271	-8.296

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	354.	1.00	0.106	0.94	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING RATE	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT
L5B East Perim Zn (G.E9) 1	354.	0.	0.000	0.426	53.	0.00	0.00	11.54	0.00	-5.72 1.

REPORT- SV-A System Design Parameters for L5B (G.S10) APT7 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	3981.5	5.	0.162	49.300	0.742	-44.370	0.266	0.271	-25.591

		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
FAN	CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
TYPE	(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1645.	1.00	0.493	0.94	1.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION		HEATING	ADDITION	
ZONE	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULTIPLIER
L5B South Perim Zn (G.S10P	1645.	0.	0.000	0.198	266.	0.00	0.00	47.06	0.00	-12.35	1.

REPORT- SV-A System Design Parameters for L5B (G.E19) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	714.0	1.	0.119	12.049	0.742	-10.844	0.266	0.271	-8.301

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	402.	1.00	0.120	0.94	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L5B East Perim Zn (G.E19)T	402.	0.	0.000	0.392	48.	0.00	0.00 11.45	0.00	-5.98	1.

REPORT- SV-A System Design Parameters for L6A (G.E13) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	2229.8	3.	0.230	19.389	0.742	-17.450	0.266	0.271	-12.200

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	647.	1.00	0.194	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING RATE	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT
L6A East Perim Zn (G.E13)T	647.	0.	0.000	0.230	149.	0.00	0.00	16.08	0.00	-4.78 1.

REPORT- SV-A System Design Parameters for L6A (G.NW17) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	731.2	1.	0.095	15.330	0.742	-13.797	0.266	0.271	-8.225

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	511.	1.00	0.153	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING RATE	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT
L6A NW Perim Zn (G.NW17) 1	511.	0.	0.000	0.301	49.	0.00	0.00	14.33	0.00	-5.84 1.

REPORT- SV-A System Design Parameters for L6A (G.N18) APT3 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	1404.0	2.	0.104	26.928	0.742	-24.235	0.266	0.271	-12.118

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	898.	1.00	0.269	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6A North Perim Zn (G.N18P	898.	0.	0.000	0.213	94.	0.00	0.00 26.51	0.00	-7.26	1.

REPORT- SV-A System Design Parameters for L6A (G.W21) APT4 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2478.2	3.	0.158	31.314	0.742	-28.182	0.266	0.271	-17.255

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1045.	1.00	0.313	0.94	1.2	0.47	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6A West Perim Zn (G.W21)T	1045.	0.	0.000	0.228	165.	0.00	0.00	27.45	0.00	-9.03	1.

REPORT- SV-A System Design Parameters for L6A (G.SW22) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	944.2	1.	0.125	15.071	0.742	-13.564	0.266	0.271	-8.326

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN	MIN FAN
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF			RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)			(FRAC)	(FRAC)
SUPPLY	503.	1.00	0.151	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING RATE	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT
L6A SW Perim Zn (G.SW22) 1	503.	0.	0.000	0.274	63.	0.00	0.00	15.83	0.00	-5.22 1.

REPORT- SV-A System Design Parameters for L6A (G.S24) APT3 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR AREA (SQFT)	MAX PEOPLE	OUTSIDE AIR RATIO	COOLING CAPACITY (KBTU/HR)	SENSIBLE (SHR)	HEATING CAPACITY (KBTU/HR)	COOLING EIR (BTU/BTU)	HEATING EIR (BTU/BTU)	HEAT PUMP SUPP-HEAT (KBTU/HR)
PVVT	1.001	1832.5	2.	0.145	25.352	0.742	-22.817	0.266	0.271	-12.869

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	846.	1.00	0.254	0.94	1.0	0.41	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING RATE	ADDITION RATE	ZONE	
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT	
L6A South Perim Zn (G.S24P	846.	0.	0.000	0.212	122.	0.00	0.00	24.55	0.00	-6.79	1.

REPORT- SV-A System Design Parameters for L6B (G.N4) APT4 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	2928.0	4.	0.131	44.629	0.742	-40.166	0.266	0.271	-20.535

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	1489.	1.00	0.446	0.94	1.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6B North Perim Zn (G.N4)T	1489.	0.	0.000	0.192	195.	0.00	0.00	42.50	0.00	-10.81	1.

REPORT- SV-A System Design Parameters for L6B (G.E5) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	984.0	1.	0.123	16.066	0.742	-14.460	0.266	0.271	-9.812

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	536.	1.00	0.161	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6B East Perim Zn (G.E5) 1	536.	0.	0.000	0.324	66.	0.00	0.00 15.29	0.00	-6.59	1.

REPORT- SV-A System Design Parameters for L6B (G.W6) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	765.0	1.	0.123	12.484	0.742	-11.236	0.266	0.271	-7.343

DESIGN DATA										MAX FAN		MIN FAN	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH						
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO		
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)		
SUPPLY	416.	1.00	0.125	0.94	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30		

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING RATE	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT
L6B West Perim Zn (G.W6) 1	416.	0.	0.000	0.306	51.	0.00	0.00	11.48	0.00	-4.83 1.

REPORT- SV-A System Design Parameters for L6B (G.W7) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	654.5	1.	0.206	6.351	0.742	-5.716	0.266	0.271	-3.631

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	212.	1.00	0.064	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6B West Perim Zn (G.W7) 1	212.	0.	0.000	0.206	44.	0.00	0.00	5.08	0.00	-1.45	1.

REPORT- SV-A System Design Parameters for L6B (G.E8) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	628.5	1.	0.214	5.883	0.742	-5.295	0.266	0.271	-3.265

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	196.	1.00	0.059	0.94	0.8	0.30	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6B East Perim Zn (G.E8) 1	196.	0.	0.000	0.214	42.	0.00	0.00	4.76	0.00	-1.18	1.

REPORT- SV-A System Design Parameters for L6B (G.S10) APT7 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	3981.5	5.	0.161	49.354	0.742	-44.419	0.266	0.271	-25.593

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN	FAN	MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	PLACEMENT	CONTROL	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)			(FRAC)	(FRAC)
SUPPLY	1646.	1.00	0.494	0.94	1.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST	FAN	MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	ZONE	
NAME	FLOW	FLOW		FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	MULT
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	
L6B South Perim Zn (G.S10P	1646.	0.	0.000	0.198	266.	0.00	0.00	47.12	0.00	-12.35	1.

REPORT- SV-A System Design Parameters for L6B (G.E19) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	659.0	1.	0.100	13.170	0.742	-11.853	0.266	0.271	-8.815

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	439.	1.00	0.132	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L6B East Perim Zn (G.E19)T	439.	0.	0.000	0.401	44.	0.00	0.00 12.76	0.00	-6.69	1.

REPORT- SV-A System Design Parameters for L7A (G.E13) APT2 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	956.8	1.	0.225	8.508	0.742	-7.657	0.266	0.271	-5.771

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	284.	1.00	0.085	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L7A East Perim Zn (G.E13)T	284.	0.	0.000	0.241	64.	0.00	0.00 7.31	0.00	-2.58	1.

REPORT- SV-A System Design Parameters for L7A (G.W18) APT2 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	999.0	1.	0.164	12.155	0.742	-10.940	0.266	0.271	-7.086

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	405.	1.00	0.122	0.94	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING CAPACITY	ADDITION	
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR) MULT
L7A West Perim Zn (G.W18)T	405.	0.	0.000	0.246	67.	0.00	0.00	11.15	0.00	-3.77 1.

REPORT- SV-A System Design Parameters for L7A (G.SW19) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	891.8	1.	0.122	14.608	0.742	-13.147	0.266	0.271	-8.062

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	487.	1.00	0.146	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L7A SW Perim Zn (G.SW19) 1	487.	0.	0.000	0.278	60.	0.00	0.00 14.19	0.00	-5.13	1.

REPORT- SV-A System Design Parameters for L7A (G.SSE23) APT2 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	1282.5	2.	0.142	18.011	0.742	-16.210	0.266	0.271	-10.459

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	601.	1.00	0.180	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L7A SSE Perim Zn (G.SSE23P	601.	0.	0.000	0.273	86.	0.00	0.00 17.54	0.00	-6.22	1.

REPORT- SV-A System Design Parameters for L7B (G.E5) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	919.0	1.	0.100	18.380	0.742	-16.542	0.266	0.271	-11.039

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	613.	1.00	0.184	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L7B East Perim Zn (G.E5) 1	613.	0.	0.000	0.346	61.	0.00	0.00	17.92	0.00	-8.05	1.

REPORT- SV-A System Design Parameters for L7B (G.W7) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	654.5	1.	0.149	8.779	0.742	-7.901	0.266	0.271	-5.819

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	293.	1.00	0.088	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING RATE	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT
L7B West Perim Zn (G.W7) 1	293.	0.	0.000	0.330	44.	0.00	0.00	7.62	0.00	-3.67 1.

REPORT- SV-A System Design Parameters for L7B (G.E8) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	628.5	1.	0.159	7.912	0.742	-7.120	0.266	0.271	-5.388

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	264.	1.00	0.079	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L7B East Perim Zn (G.E8) 1	264.	0.	0.000	0.332	42.	0.00	0.00	6.85	0.00	-3.32	1.

REPORT- SV-A System Design Parameters for L7B (G.E9) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	789.0	1.	0.098	16.114	0.742	-14.502	0.266	0.271	-10.144

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	538.	1.00	0.161	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L7B East Perim Zn (G.E9) 1	538.	0.	0.000	0.372	53.	0.00	0.00 15.68	0.00	-7.59	1.

REPORT- SV-A System Design Parameters for L7B (G.SSW10) APT7 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	3981.5	5.	0.140	57.042	0.742	-51.337	0.266	0.271	-37.305

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN	FAN	MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	PLACEMENT	CONTROL	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)			(FRAC)	(FRAC)
SUPPLY	1903.	1.00	0.570	0.94	1.2	0.48	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST	FAN	MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	ZONE	
NAME	FLOW	FLOW		FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	MULT
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	
L7B SSW Perim Zn (G.SSW10P	1903.	0.	0.000	0.336	266.	0.00	0.00	57.58	0.00	-24.24	1.

REPORT- SV-A System Design Parameters for L8A (G.E3) APT2 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	956.8	1.	0.173	11.052	0.742	-9.947	0.266	0.271	-7.759

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	369.	1.00	0.111	0.94	1.0	0.37	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING CAPACITY	ADDITION	
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L8A East Perim Zn (G.E3) 2	369.	0.	0.000	0.329	64.	0.00	0.00	9.62	0.00	-4.60

REPORT- SV-A System Design Parameters for L8A (G.W8) APT2 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	891.0	1.	0.131	13.558	0.742	-12.202	0.266	0.271	-8.171

DESIGN DATA										DESIGN DATA	
FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN PLACEMENT	FAN CONTROL	MAX FAN RATIO (FRAC)	MIN FAN RATIO (FRAC)
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF				
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)				
SUPPLY	452.	1.00	0.136	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING CAPACITY	ADDITION	
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L8A West Perim Zn (G.W8) 2	452.	0.	0.000	0.306	59.	0.00	0.00	13.07	0.00	-5.24

REPORT- SV-A System Design Parameters for L8A (G.SW9) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR		OUTSIDE	COOLING		HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	MAX	AIR	CAPACITY	SENSIBLE	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)	PEOPLE	RATIO	(KBTU/HR)	(SHR)	(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	688.5	1.	0.105	13.062	0.742	-11.756	0.266	0.271	-7.779

FAN TYPE	CAPACITY (CFM)	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
		FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	436.	1.00	0.131	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L8A SW Perim Zn (G.SW9) A	436.	0.	0.000	0.335	46.	0.00	0.00 12.20	0.00	-5.54	1.

REPORT- SV-A System Design Parameters for L8A (G.NW11) APT1 PTHP WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	776.5	1.	0.083	18.821	0.742	-16.939	0.266	0.271	-9.454
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH		MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)
SUPPLY	628.	1.00	0.188	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L8A NW Perim Zn (G.NW11) 1	628.	0.	0.000	0.291	52.	0.00	0.00	18.32	0.00	-6.93

1.

REPORT- SV-A System Design Parameters for L8A (G.NE12) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	948.8	1.	0.102	18.653	0.742	-16.788	0.266	0.271	-9.789

DESIGN DATA										DESIGN DATA	
FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	622.	1.00	0.187	0.94	1.0	0.40	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE	HEATING RATE	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	MULT
L8A NE Perim Zn (G.NE12) 1	622.	0.	0.000	0.283	63.	0.00	0.00	18.37	0.00	-6.68 1.

REPORT- SV-A System Design Parameters for L8A (G.S13) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA (SQFT)		AIR RATIO	CAPACITY (KBTU/HR)		CAPACITY (KBTU/HR)	EIR (BTU/BTU)	EIR (BTU/BTU)	SUPP-HEAT (KBTU/HR)
PVVT	1.001	540.0	1.	0.125	8.613	0.742	-7.752	0.266	0.271	-4.938

DESIGN DATA										DESIGN DATA	
FAN		DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
CAPACITY	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN		RATIO	RATIO
(CFM)	(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL		(FRAC)	(FRAC)
SUPPLY	287.	1.00	0.086	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY FLOW	EXHAUST FLOW	FAN FLOW	MINIMUM FLOW	OUTSIDE AIR FLOW	COOLING CAPACITY	EXTRACTION SENSIBLE RATE	HEATING CAPACITY	ADDITION RATE	ZONE
NAME	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC) (KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L8A South Perim Zn (G.S13P	287.	0.	0.000	0.290	36.	0.00	0.00 (8.49)	0.00	-3.16	1.

REPORT- SV-A System Design Parameters for L8A (G.SE14) APT1 PTHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PVVT	1.001	540.0	1.	0.122	8.884	0.742	-7.996	0.266	0.271	-6.356

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	296.	1.00	0.089	0.94	0.9	0.34	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L8A SE Perim Zn (G.SE14) 1	296.	0.	0.000	0.409	36.	0.00	0.00	8.86	0.00	-4.60	1.

REPORT- SV-A System Design Parameters for Freeze Protect

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM TYPE	ALTITUDE FACTOR	FLOOR	MAX PEOPLE	OUTSIDE	COOLING	SENSIBLE (SHR)	HEATING	COOLING	HEATING	HEAT PUMP
		AREA		AIR	CAPACITY		CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
UHT	1.001	55590.5	0.	0.000	0.000	0.000	0.000	0.000	0.000	0.000

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION		
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L2B South Perim Zn (G.S27E	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
L6A Core Zn (G.C1) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (BASEBOARDS)	1.
P1A West Perim Zn (B.W7) H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (BASEBOARDS)	1.
L2A Core Zn (G.C16) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (BASEBOARDS)	1.
L3A Core Zn (G.C15) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (BASEBOARDS)	1.
L4A Core Zn (G.C15) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (BASEBOARDS)	1.
L5A Core Zn (G.C15) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (BASEBOARDS)	1.
L6A Core Zn (G.C15) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (BASEBOARDS)	1.
L7A Core Zn (G.C15) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (BASEBOARDS)	1.
L8A Core Zn (G.C5) TRSH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (BASEBOARDS)	1.
P2A NNW Perim Zn (B.NNW13K	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-15.62 BASEBOARDS)	1.
P2B NW Perim Zn (B.NW6) X	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-15.62 BASEBOARDS)	1.
P2B South Perim Zn (B.S10K	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-161.07 BASEBOARDS)	1.
P2B NNE Perim Zn (B.NNE12K	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-26.08 BASEBOARDS)	1.
P1B South Perim Zn (B.S6)G	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-55.54 BASEBOARDS)	1.
P1B NNE Perim Zn (B.NNE9)G	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-40.45 BASEBOARDS)	1.
L1A East Perim Zn (G.E18)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-0.80 BASEBOARDS)	1.
L1A Core Zn (G.C20) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-0.43 BASEBOARDS)	1.
L2A East Perim Zn (G.E13)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-0.70 BASEBOARDS)	1.
L2A Core Zn (G.C15) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-0.16 BASEBOARDS)	1.
L3A East Perim Zn (G.E12)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-0.76 BASEBOARDS)	1.
L3A Core Zn (G.C14) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-0.27 BASEBOARDS)	1.
L4A East Perim Zn (G.E12)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-0.74 BASEBOARDS)	1.
L4A Core Zn (G.C14) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-0.27 BASEBOARDS)	1.
L5A East Perim Zn (G.E12)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-0.74 BASEBOARDS)	1.
L5A Core Zn (G.C14) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-0.27 BASEBOARDS)	1.
L6A East Perim Zn (G.E12)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-0.74 BASEBOARDS)	1.
L6A Core Zn (G.C14) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-0.27 BASEBOARDS)	1.
L7A East Perim Zn (G.E12)H	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-0.77 BASEBOARDS)	1.
L7A Core Zn (G.C14) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-0.26 BASEBOARDS)	1.
L8A East Perim Zn (G.E2) F	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-0.83 BASEBOARDS)	1.
L8A Core Zn (G.C4) TSHF	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00 (-0.33 BASEBOARDS)	1.

P2A Core Zn (B.C1) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
P2A Core Zn (B.C2) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
P2B Core Zn (B.C4) MECH	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
P2B Core Zn (B.C5) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
P2B SE Perim Zn (B.SE8) M	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
P1A Core Zn (B.C1) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
P1A Core Zn (B.C2) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
P1A NNW Perim Zn (B.NNW8)C	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
P1B Core Zn (B.C4) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
P1B SE Perim Zn (B.SE5) M	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
P1B ENE Perim Zn (B.ENE10E	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
L1A Core Zn (G.C1) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	
L1A Core Zn (G.C2) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	1.
										0.00 (BASEBOARDS)	

REPORT- SV-A System Design Parameters for Freeze Protect

WEATHER FILE- SEATTLE BOEING FI WA

											(CONTINUED)		
L1B Core Zn (G.C3) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			
L2A Core Zn (G.C1) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L2A NNW Perim Zn (G.NNW24T	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L2B Core Zn (G.C2) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L3A Core Zn (G.C1) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L3A Core Zn (G.C20) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L3B Core Zn (G.C2) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L4A Core Zn (G.C1) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L4A Core Zn (G.C20) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L4B Core Zn (G.C2) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L5A Core Zn (G.C1) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L5A Core Zn (G.C20) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L5B Core Zn (G.C2) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L6A Core Zn (G.C20) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L6B Core Zn (G.C2) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L7A Core Zn (G.C1) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L7A Core Zn (G.C17) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L7B Core Zn (G.C2) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L8A Core Zn (G.C1) ELV	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L8A Core Zn (G.C7) STR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
P2B NNE Perim Zn (B.NNE11L	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L1A Core Zn (G.C23) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L1A SW Perim Zn (G.SW26) C	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
L1B Core Zn (G.C12) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			
L2A Core Zn (G.C17) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			
L2B Core Zn (G.C11) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			
L3A Core Zn (G.C16) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			
L3B Core Zn (G.C11) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			
L4A Core Zn (G.C16) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			
L4B Core Zn (G.C11) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			
L5A Core Zn (G.C16) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			
L5B Core Zn (G.C11) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			
L6A Core Zn (G.C16) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			
L6B Core Zn (G.C11) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			
L7A Core Zn (G.C16) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			
L7B Core Zn (G.C11) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			
L8A Core Zn (G.C6) ELEC	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			
P2A Core Zn (B.C7) STO	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			
P2B NE Perim Zn (B.NE9) S	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			
L1A Core Zn (G.C16) RR	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			
L1A WNW Perim Zn (G.WNW25T	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			
L2A West Perim Zn (G.W25)O	0.	0.	0.000	0.000	0.	0.00	0.00	0.00	0.00	0.00	0.00	1.	
										0.00 (BASEBOARDS)			

REPORT- SV-A System Design Parameters for L2A (G.SW20) RST PSZHP

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PSZ	1.001	2287.5	76.	0.045	380.197	0.742	-342.177	0.251	0.274	-414.952

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN	FAN	MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	PLACEMENT	CONTROL	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)			(FRAC)	(FRAC)
SUPPLY	12683.	1.00	9.619	2.36	3.5	0.55	0.62	DRAW-THRU	CONSTANT	1.00	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST	FAN	MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	ZONE	
NAME	FLOW	FLOW		FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	MULT
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	
L2A SW Perim Zn (G.SW20)	12683.	12683.	3.719	1.000	572.	0.00	0.00	70.74	0.00	-30.66	1.

REPORT- SV-A System Design Parameters for Sys 8 - VAV+PFP L1

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PIU	1.001	2105.5	17.	0.605	11.096	0.742	0.000	0.000	0.000	0.000

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH			MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	FAN	FAN	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)	PLACEMENT	CONTROL	(FRAC)	(FRAC)
SUPPLY	286.	1.00	0.324	3.53	5.3	0.55	0.72	DRAW-THRU	SPEED	1.10	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING		EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	ZONE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	MULT
L1B SSW Perim Zn (G.SSW130	303.	0.	0.080	0.699	73.	0.00	0.00	2.33	-12.82	-11.41	1.
L1B Core Zn (G.C14) OFF	170.	0.	0.052	0.212	22.	0.00	0.00	2.37	-8.27	-7.82	1.
L1A SSW Perim Zn (G.SSW15I	675.	0.	0.209	1.000	78.	0.00	0.00	1.28	-33.33	-31.65	1.

REPORT- SV-A System Design Parameters for Sys 8 - VAV+PFP Corr (L1-L8)

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PIU	1.001	20700.8	102.	0.693	81.831	0.742	0.000	0.000	0.000	0.000

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN	FAN	MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	PLACEMENT	CONTROL	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)			(FRAC)	(FRAC)
SUPPLY	2219.	0.98	2.507	3.53	6.0	0.62	0.72	DRAW-THRU	SPEED	1.10	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST		MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	
NAME	FLOW	FLOW	FAN	FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)
L8A Core Zn (G.C10) COR	56.	0.	0.004	1.000	45.	0.00	0.00	1.40	-0.61	-0.00
L1A Core Zn (G.C21) COR	5.	0.	0.001	1.000	3.	0.00	0.00	0.09	-0.12	-0.11
P1B Core Zn (B.C12) COR	72.	0.	0.016	1.000	28.	0.00	0.00	0.56	-2.49	-2.60
L1A Core Zn (G.C22) COR	36.	0.	0.007	1.000	15.	0.00	0.00	0.36	-1.16	-1.19
L1B Core Zn (G.C4) COR	65.	0.	0.005	1.000	52.	0.00	0.00	1.27	-0.70	-0.25
L2A Core Zn (G.C26) COR	77.	0.	0.005	1.000	61.	0.00	0.00	1.47	-0.83	0.00
L2B Core Zn (G.C3) COR	86.	0.	0.006	1.000	69.	0.00	0.00	1.77	-0.93	0.00
L3A Core Zn (G.C23) COR	51.	0.	0.004	1.000	41.	0.00	0.00	1.08	-0.55	0.00
L3B North Perim Zn (G.N3)R	131.	0.	0.009	1.000	105.	0.00	0.00	3.02	-1.42	0.00
L4A Core Zn (G.C23) COR	51.	0.	0.004	1.000	41.	0.00	0.00	1.08	-0.55	0.00
L4B North Perim Zn (G.N3)R	131.	0.	0.009	1.000	105.	0.00	0.00	3.05	-1.42	0.00
L5A Core Zn (G.C23) COR	51.	0.	0.004	1.000	41.	0.00	0.00	1.08	-0.55	0.00
L5B North Perim Zn (G.N3)R	131.	0.	0.009	1.000	105.	0.00	0.00	3.07	-1.42	0.00
L6A Core Zn (G.C23) COR	51.	0.	0.004	1.000	41.	0.00	0.00	1.11	-0.55	0.00
L6B North Perim Zn (G.N3)R	131.	0.	0.009	1.000	105.	0.00	0.00	3.13	-1.42	0.00
L7A Core Zn (G.C20) COR	54.	0.	0.005	0.691	37.	0.00	0.00	1.73	-0.73	-0.14
L7B North Perim Zn (G.N3)R	232.	0.	0.020	0.453	105.	0.00	0.00	7.55	-3.13	-2.43
P2A Core Zn (B.C3) COR	60.	0.	0.005	0.238	14.	0.00	0.00	0.78	-0.81	-0.81
P1A Core Zn (B.C3) COR	22.	0.	0.003	1.000	14.	0.00	0.00	0.41	-0.45	-0.38
L1A South Perim Zn (G.S170)	819.	0.	0.197	1.000	257.	0.00	0.00	5.37	-31.34	-24.87
L2B SSW Perim Zn (G.SSW120)	719.	0.	0.106	0.351	252.	0.00	0.00	17.02	-16.80	-10.97
L2A Core Zn (G.C21) MAIL	64.	0.	0.006	0.010	0.	0.00	0.00	1.33	-0.86	-0.81
L2A Core Zn (G.C22) MAIL	14.	0.	0.002	0.010	0.	0.00	0.00	0.31	-0.38	-0.37

REPORT- SV-A System Design Parameters for Sys 4 -PSZ-HP Amenities

WEATHER FILE- SEATTLE BOEING FI WA

SYSTEM	ALTITUDE	FLOOR	MAX	OUTSIDE	COOLING	SENSIBLE	HEATING	COOLING	HEATING	HEAT PUMP
TYPE	FACTOR	AREA	PEOPLE	AIR	CAPACITY	(SHR)	CAPACITY	EIR	EIR	SUPP-HEAT
		(SQFT)		RATIO	(KBTU/HR)		(KBTU/HR)	(BTU/BTU)	(BTU/BTU)	(KBTU/HR)
PIU	1.001	1607.5	0.	0.067	44.350	0.742	-39.915	0.360	0.370	-19.958

FAN	CAPACITY	DIVERSITY	POWER	FAN	STATIC	TOTAL	MECH	FAN	FAN	MAX FAN	MIN FAN
TYPE	(CFM)	FACTOR	DEMAND	DELTA-T	PRESSURE	EFF	EFF	PLACEMENT	CONTROL	RATIO	RATIO
		(FRAC)	(KW)	(F)	(IN-WATER)	(FRAC)	(FRAC)			(FRAC)	(FRAC)
SUPPLY	1445.	1.00	1.171	2.53	4.2	0.60	0.72	DRAW-THRU	CONSTANT	1.10	0.30

*** THE ABOVE CHARACTERISTICS ARE FOR EACH OF: 1 AIR HANDLERS

ZONE	SUPPLY	EXHAUST	FAN	MINIMUM	OUTSIDE	COOLING	EXTRACTION	HEATING	ADDITION	ZONE	
NAME	FLOW	FLOW		FLOW	AIR FLOW	CAPACITY	SENSIBLE	RATE	CAPACITY	RATE	MULT
	(CFM)	(CFM)	(KW)	(FRAC)	(CFM)	(KBTU/HR)	(FRAC)	(KBTU/HR)	(KBTU/HR)	(KBTU/HR)	
L7A NW Perim Zn (G.NW21)	1162.	0.	0.145	1.000	47.	0.00	0.00	16.55	-26.48	-11.01	1.
L7A NE Perim Zn (G.NE22)	1105.	0.	0.142	1.000	50.	0.00	0.00	15.13	-25.71	-11.24	1.