

Zone Checksums

By MATENO

BAR

COOLING COIL PEAK					CLG SPACE PEAK			HEATING COIL PEAK				TEMPERATURES			
Peaked at Time:		Mo/Hr: 7 / 14			Mo/Hr: 7 / 14			Mo/Hr: Heating Design				Cooling			Heating
Outside Air:		OADB/WB/HR: 109 / 90 / 188			OADB: 109			OADB: 46				SADB	53.6	72.3	
Space Sens.	Plenum Sens.	Net Total	Percent Of Total	Space Sensible	Percent Of Total	Space Peak Space Sens	Coil Peak Tot Sens	Percent Of Total	Space Sens	Coil Peak Tot Sens	Percent Of Total	Plenum	86.0	65.4	
Btu/h	Btu/h	Btu/h	(%)	Btu/h	(%)	Btu/h	Btu/h	(%)	Btu/h	Btu/h	(%)	Return	86.0	65.4	
Envelope Loads															
Skylite Solar	0	0	0	0	0	0	0	0	0	0	0	Fn MtrTD	0.0	0.0	
Skylite Cond	0	0	0	0	0	0	0	0	0	0	0	Fn BldTD	0.0	0.0	
Roof Cond	0	11,525	11,525	28	0	0	0	0	0	-2,990	39	Fn Frict	0.0	0.0	
Glass Solar	5,967	0	5,967	15	5,967	25	0	0	0	0	0				
Glass Cond	4,495	0	4,495	11	4,495	19	0	0	-2,991	-2,991	39				
Wall Cond	1,410	643	2,053	5	1,410	6	0	0	-711	-1,093	14				
Partition	0	0	0	0	0	0	0	0	0	0	0				
Exposed Floor	0	0	0	0	0	0	0	0	0	0	0				
Infiltration	367	0	367	1	114	0	0	0	-488	-488	6				
Sub Total ==>	12,239	12,168	24,407	60	11,986	51	Sub Total ==>	-4,190	-7,562	99					
Internal Loads															
Lights	1,229	307	1,536	4	1,229	5	Lights	0	0	0	0				
People	13,311	0	13,311	33	6,320	27	People	0	0	0	0				
Misc	1,195	0	1,195	3	1,195	5	Misc	0	0	0	0				
Sub Total ==>	15,734	307	16,041	39	8,743	37	Sub Total ==>	0	0	0	0				
Ceiling Load															
Ventilation Load	2,511	-2,511	0	0	2,511	11	Ceiling Load	-595	0	0	0				
Dehumid. Ov Sizing	0	0	0	0	0	0	Ventilation Load	0	0	0	0				
Ov/Undr Sizing	446	0	446	1	446	2	Ov/Undr Sizing	0	0	0	0				
Exhaust Heat	0	-37	-37	0	0	0	Exhaust Heat	0	58	-1	0				
Sup. Fan Heat	0	0	0	0	0	0	OA Preheat Diff.	0	0	0	0				
Ret. Fan Heat	0	0	0	0	0	0	RA Preheat Diff.	0	0	0	0				
Duct Heat Pkup	0	0	0	0	0	0	Additional Reheat	0	0	0	0				
Reheat at Design	0	0	0	0	0	0	System Plenum Heat	0	-162	2	0				
Grand Total ==>	30,929	9,928	40,858	100.00	23,685	100.00	Grand Total ==>	-4,784	-7,666	100.00					

AIRFLOWS		
	Cooling	Heating
Vent	0	0
Infil	3	20
Supply	1,023	1,023
MinStop/Rh	0	0
Return	1,026	1,043
Exhaust	3	20
Rm Exh	0	0
Auxil	0	0

ENGINEERING CKS		
	Cooling	Heating
% OA	0.0	0.0
cfm/ft2	1.42	1.42
cfm/ton	300.33	
ft2/ton	211.99	
Btu/hr-ft2	56.61	-10.62
No. People	47	

COOLING COIL SELECTION										
	Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR		
	ton	MBh			F	F	gr/lb	F	F	gr/lb
Main Clg	3.4	40.9	33.6	1,023	86.0	66.1	66.8	53.6	52.7	59.6
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	3.4	40.9								

AREAS			
	Gross Total	Glass	
		ft2	(%)
Floor	722		
Part	0		
ExFlr	0		
Roof	722	0	0
Wall	667	267	40

HEATING COIL SELECTION				
	Capacity	Coil Airflow	Ent	
			MBh	Lvg
	MBh	cfm	F	F
Main Htg	-7.7	1,023	65.4	72.3
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-7.7			

Zone Checksums

By MATENO

BATHROOM

COOLING COIL PEAK					CLG SPACE PEAK			HEATING COIL PEAK				TEMPERATURES			
Peaked at Time:		Mo/Hr: 7 / 17			Mo/Hr: 6 / 17		Mo/Hr: Heating Design				Cooling			Heating	
Outside Air:		OADB/WB/HR: 108 / 89 / 187			OADB: 107		OADB: 46				SADB			72.1	
Space Sens.	Plenum Sens.	Net Total	Percent Of Total	Space Sensible	Percent Of Total	Space Peak	Coil Peak Tot	Percent Of Total	Space Sens	Coil Peak Tot	Percent Of Total	Plenum			65.4
Btu/h	Btu/h	Btu/h	(%)	Btu/h	(%)	Btu/h	Btu/h	(%)	Btu/h	Btu/h	(%)	Return			65.4
Envelope Loads															
Skylite Solar	0	0	0	0	0	0	0	0	0	0	0	Fn MtrTD			0.0
Skylite Cond	0	0	0	0	0	0	0	0	0	0	0	Fn BldTD			0.0
Roof Cond	0	9,083	9,083	46	0	0	0	0	0	-1,982	67	Fn Frict			0.0
Glass Solar	0	0	0	0	0	0	0	0	0	0	0				
Glass Cond	0	0	0	0	0	0	0	0	0	0	0				
Wall Cond	2,764	827	3,591	18	2,836	32	-1,250	-1,689	57	0	0				
Partition	0	0	0	0	0	0	0	0	0	0	0				
Exposed Floor	0	0	0	0	0	0	0	0	0	0	0				
Infiltration	738	0	738	4	215	2	-150	-150	5	0	0				
<i>Sub Total ==></i>	<i>3,502</i>	<i>9,910</i>	<i>13,412</i>	<i>69</i>	<i>3,050</i>	<i>35</i>	<i>-1,400</i>	<i>-3,821</i>	<i>130</i>						
Internal Loads															
Lights	1,365	341	1,707	9	1,365	16	0	0	0	0	0				
People	4,500	0	4,500	23	2,500	29	0	0	0	0	0				
Misc	0	0	0	0	0	0	0	0	0	0	0				
<i>Sub Total ==></i>	<i>5,865</i>	<i>341</i>	<i>6,207</i>	<i>32</i>	<i>3,865</i>	<i>44</i>	<i>0</i>	<i>0</i>	<i>0</i>						
Ceiling Load															
Ventilation Load	1,825	-1,825	0	0	1,819	21	-394	0	0	0	0				
Dehumid. Ov Sizing	0	0	0	0	0	0	0	0	0	0	0				
Ov/Undr Sizing	0	0	0	0	0	0	0	0	0	0	0				
Exhaust Heat	0	-82	-82	0	0	0	0	18	-1	0	0				
Sup. Fan Heat	0	0	0	0	0	0	0	0	0	0	0				
Ret. Fan Heat	0	0	0	0	0	0	0	0	0	0	0				
Duct Heat Pkup	0	0	0	0	0	0	0	0	0	0	0				
Reheat at Design	0	0	0	0	0	0	0	0	0	859	-29				
<i>Grand Total ==></i>	<i>11,192</i>	<i>8,344</i>	<i>19,536</i>	<i>100.00</i>	<i>8,734</i>	<i>100.00</i>	<i>-1,794</i>	<i>-2,944</i>	<i>100.00</i>						

AIRFLOWS		
	Cooling	Heating
Vent	0	0
Infil	6	6
Supply	408	408
MinStop/Rh	0	0
Return	414	414
Exhaust	6	6
Rm Exh	0	0
Auxil	0	0

ENGINEERING CKS		
	Cooling	Heating
% OA	0.0	0.0
cfm/ft2	0.85	0.85
cfm/ton	250.51	
ft2/ton	293.91	
Btu/hr-ft2	40.83	-6.15
No. People	10	

COOLING COIL SELECTION										
	Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR		
	ton	MBh			F	F	gr/lb	F	F	gr/lb
Main Clg	1.6	19.5	17.0	408	87.0	66.4	66.8	55.3	50.1	47.2
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	1.6	19.5								

AREAS			
	Gross Total	Glass	
		ft2	(%)
Floor	479		
Part	0		
ExFlr	0		
Roof	479	0	0
Wall	182	0	0

HEATING COIL SELECTION				
	Capacity	Coil Airflow	Ent	
			MBh	Lvg
		cfm	F	F
Main Htg	-2.9	408	65.4	72.1
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-2.9			

Zone Checksums

By MATENO

KITCHEN

COOLING COIL PEAK					CLG SPACE PEAK			HEATING COIL PEAK				TEMPERATURES			
Peaked at Time:		Mo/Hr: 7 / 17			Mo/Hr: 6 / 17			Mo/Hr: Heating Design				Cooling			Heating
Outside Air:		OADB/WB/HR: 108 / 89 / 187			OADB: 107			OADB: 46				SADB	67.7	72.0	
Space Sens.	Plenum Sens.	Net Total	Percent Of Total	Space Sensible	Percent Of Total	Space Peak	Coil Peak	Percent	Space Sens	Tot Sens	Of Total	Plenum	Return	Ret/OA	
Btu/h	Btu/h	Btu/h	(%)	Btu/h	(%)	Btu/h	Btu/h	(%)	Btu/h	Btu/h	(%)	Fn MtrTD	Fn BldTD	Fn Frict	
Envelope Loads															
Skylite Solar	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	
Skylite Cond	0	0	0	0	0	0	0	0	0	0	0	87.0	65.4	65.4	
Roof Cond	0	16,025	16,025	44	0	0	0	0	0	-3,497	58	87.0	65.4	63.3	
Glass Solar	0	0	0	0	0	0	0	0	0	0	0	89.3	63.3		
Glass Cond	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	
Wall Cond	3,566	1,344	4,910	13	3,683	31	-2,031	46	-2,031	-2,743	46	0.0	0.0	0.0	
Partition	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	
Exposed Floor	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	
Infiltration	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	
Sub Total ==>	3,566	17,368	20,934	57	3,683	31	-2,031	104	-2,031	-6,240	104				
Internal Loads															
Lights	1,365	341	1,707	5	1,365	11	0	0	0	0	0	635	635	635	
People	2,750	0	2,750	8	1,375	11	0	0	0	0	0	0	0	0	
Misc	5,000	0	5,000	14	5,000	42	0	0	0	0	0	635	635	635	
Sub Total ==>	9,115	341	9,457	26	7,740	65	0	0	0	0	0	0	70	70	
Ceiling Load															
Ventilation Load	545	-545	0	0	534	4	-695	0	-695	0	0	0	0	0	
Dehumid. Ov Sizing	0	0	6,211	17	0	0	0	0	0	-1,670	28	0	0	0	
Ov/Undr Sizing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exhaust Heat	0	-155	-155	0	0	0	197	-3	197	0	-3	0	0	0	
Sup. Fan Heat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ret. Fan Heat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Duct Heat Pkup	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Reheat at Design	0	0	0	0	0	0	1,723	-29	1,723	0	-29	0	0	0	
Grand Total ==>	13,227	17,010	36,447	100.00	11,957	100.00	-2,726	-5,990	-2,726	-5,990	100.00				

AIRFLOWS		
	Cooling	Heating
Vent	70	70
Infil	0	0
Supply	635	635
MinStop/Rh	0	0
Return	635	635
Exhaust	70	70
Rm Exh	0	0
Auxil	0	0

ENGINEERING CKS		
	Cooling	Heating
% OA	11.0	11.0
cfm/ft2	0.75	0.75
cfm/ton	209.21	
ft2/ton	277.95	
Btu/hr-ft2	43.17	-7.10
No. People	5	

COOLING COIL SELECTION										
	Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR		
	ton	MBh			F	F	gr/lb	F	F	gr/lb
Main Clg	3.0	36.5	30.6	635	89.3	73.6	103.5	67.7	57.1	54.8
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	3.0	36.5								

AREAS			
	Gross Total	Glass	
		ft2	(%)
Floor	844		
Part	0		
ExFlr	0		
Roof	844	0	0
Wall	295	0	0

HEATING COIL SELECTION				
	Capacity	Coil Airflow	Ent	
			MBh	Lvg
	MBh	cfm	F	F
Main Htg	-6.0	635	63.3	72.0
Aux Htg	0.0	0	0.0	0.0
Preheat	-3.0	635	63.3	67.7
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-6.0			

Zone Checksums

By MATENO

MAIN AREA

COOLING COIL PEAK					CLG SPACE PEAK			HEATING COIL PEAK			TEMPERATURES			
Peaked at Time:		Mo/Hr: 7 / 14			Mo/Hr: 7 / 14		Mo/Hr: Heating Design			Cooling			Heating	
Outside Air:		OADB/WB/HR: 109 / 90 / 188			OADB: 109		OADB: 46			SADB			72.6	
Space Sens.	Plenum Sens.	Net Total	Percent Of Total	Space Sensible	Percent Of Total	Space Peak	Coil Peak	Percent	Space Sens	Tot Sens	Of Total	Plenum	Return	Ret/OA
Btu/h	Btu/h	Btu/h	(%)	Btu/h	(%)	Btu/h	Btu/h	(%)	Btu/h	Btu/h	(%)	86.0	86.0	86.0
Envelope Loads														
Skylite Solar	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Skylite Cond	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Roof Cond	0	62,300	62,300	33	0	0	0	0	0	-14,635	33	0	0	0
Glass Solar	36,524	0	36,524	20	36,524	33	0	0	0	0	0	86.0	86.0	86.0
Glass Cond	29,485	0	29,485	16	29,485	27	0	0	-18,834	-18,834	42	0	0	0
Wall Cond	9,293	4,305	13,599	7	9,293	8	0	0	-4,475	-6,881	15	0	0	0
Partition	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposed Floor	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Infiltration	1,796	0	1,796	1	557	1	0	0	-2,388	-2,388	5	0	0	0
Sub Total ==>	77,099	66,605	143,704	77	75,860	68	0	0	-25,697	-42,739	95	0.0	0.0	0.0
Internal Loads														
Lights	2,457	614	3,072	2	2,457	2	0	0	0	0	0	0	0	0
People	38,760	0	38,760	21	19,380	17	0	0	0	0	0	0	0	0
Misc	1,195	0	1,195	1	1,195	1	0	0	0	0	0	0	0	0
Sub Total ==>	42,412	614	43,026	23	23,032	21	0	0	0	0	0	0	0	0
Ceiling Load														
Ventilation Load	12,289	-12,289	0	0	12,289	11	0	0	-2,910	0	0	0	0	0
Dehumid. Ov Sizing	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ov/Undr Sizing	1	0	0	0	1	0	0	0	0	0	0	0	0	0
Exhaust Heat	0	-179	-179	0	0	0	0	0	282	-1	0	0	0	0
Sup. Fan Heat	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ret. Fan Heat	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Duct Heat Pkup	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reheat at Design	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total ==>	131,801	54,751	186,552	100.00	111,182	100.00	0	0	-28,607	-44,876	100.00	0.0	0.0	0.0

AIRFLOWS		
	Cooling	Heating
Vent	0	0
Infil	15	100
Supply	5,772	5,772
MinStop/Rh	0	0
Return	5,787	5,872
Exhaust	15	100
Rm Exh	0	0
Auxil	0	0

ENGINEERING CKS		
	Cooling	Heating
% OA	0.0	0.0
cfm/ft2	1.63	1.63
cfm/ton	371.26	
ft2/ton	227.25	
Btu/hr-ft2	52.81	-12.70
No. People	114	

COOLING COIL SELECTION										
	Total Capacity		Sens Cap.	Coil Airflow	Enter DB/WB/HR			Leave DB/WB/HR		
	ton	MBh			F	F	gr/lb	F	F	gr/lb
Main Clg	15.6	186.6	165.9	5,772	86.0	66.1	66.8	57.2	55.5	65.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	15.6	186.6								

AREAS			
	Gross Total	Glass	
		ft2	(%)
Floor	3,533		
Part	0		
ExFlr	0		
Roof	3,533	0	0
Wall	4,198	1,679	40

HEATING COIL SELECTION				
	Capacity	Coil Airflow	Ent	
			MBh	Lvg
	MBh	cfm	F	F
Main Htg	-44.9	5,772	65.4	72.6
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-44.9			