

# Zone Checksums

By MATENO

## RETAIL

COOLING COIL PEAK					CLG SPACE PEAK			HEATING COIL PEAK				TEMPERATURES			
Peaked at Time:		Mo/Hr: 7 / 14			Mo/Hr: 8 / 14			Mo/Hr: Heating Design				Cooling			Heating
Outside Air:		OADB/WB/HR: 109 / 90 / 188			OADB: 106			OADB: 46				SADB	47.9	76.0	
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	
<b>Envelope Loads</b>					<b>Envelope Loads</b>										
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	0.0	0.0	0.0	
Roof Cond	0	47,463	47,463	48	0	0	0	0	0	-11,083	52	0.0	0.0	0.0	
Glass Solar	5,177	0	5,177	5	6,832	14	0	0	0	0	0	0.0	0.0	0.0	
Glass Cond	2,855	0	2,855	3	2,594	5	-1,824	9	-1,824	-1,824	9	0.0	0.0	0.0	
Wall Cond	6,850	2,124	8,974	9	7,077	15	-2,862	18	-3,932	-3,932	18	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	27,449	0	27,449	28	7,755	16	-5,475	26	-5,475	-5,475	26	0.0	0.0	0.0	
<b>Sub Total ==&gt;</b>	<b>42,331</b>	<b>49,587</b>	<b>91,918</b>	<b>93</b>	<b>24,257</b>	<b>51</b>	<b>-10,160</b>	<b>104</b>	<b>-10,160</b>	<b>-22,314</b>	<b>104</b>				
<b>Internal Loads</b>					<b>Internal Loads</b>										
Lights	1,365	341	1,707	2	1,365	3	0	0	0	0	0	0	0	0	
People	5,000	0	5,000	5	2,500	5	0	0	0	0	0	0	0	0	
Misc	4,500	0	4,500	5	4,500	9	0	0	0	0	0	0	0	0	
<b>Sub Total ==&gt;</b>	<b>10,865</b>	<b>341</b>	<b>11,207</b>	<b>11</b>	<b>8,365</b>	<b>17</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>				
<b>Ceiling Load</b>	<b>16,020</b>	<b>-16,020</b>	<b>0</b>	<b>0</b>	<b>15,185</b>	<b>32</b>	<b>-3,881</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>				
<b>Ventilation Load</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>				
<b>Dehumid. Ov Sizing</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>				
<b>Ov/Undr Sizing</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,045</b>	<b>-5</b>	<b>0</b>	<b>0</b>	<b>0</b>				
<b>Exhaust Heat</b>	<b>0</b>	<b>-4,315</b>	<b>-4,315</b>	<b>-4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>				
<b>Sup. Fan Heat</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>				
<b>Ret. Fan Heat</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>				
<b>Duct Heat Pkup</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>				
<b>Reheat at Design</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-184</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>				
<b>Grand Total ==&gt;</b>	<b>69,217</b>	<b>29,593</b>	<b>98,810</b>	<b>100.00</b>	<b>47,808</b>	<b>100.00</b>	<b>-14,041</b>	<b>100.00</b>	<b>-14,041</b>	<b>-21,453</b>	<b>100.00</b>				

AIRFLOWS		
	Cooling	Heating
Vent	0	0
Infil	229	229
Supply	1,627	1,627
MinStop/Rh	0	0
Return	1,857	1,857
Exhaust	229	229
Rm Exh	0	0
Auxil	0	0

ENGINEERING CKS		
	Cooling	Heating
% OA	0.0	0.0
cfm/ft2	0.56	0.56
cfm/ton	197.63	
ft2/ton	354.13	
Btu/hr-ft2	33.89	-7.36
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	8.2	98.8	77.4	1,627	92.3	68.0	66.8	47.9	47.2	48.4
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
<b>Total</b>	<b>8.2</b>	<b>98.8</b>								

AREAS			
	Gross Total	Glass	
		ft2	(%)
Floor	2,916		
Part	0		
ExFlr	0		
Roof	2,916	0	0
Wall	1,626	163	10

HEATING COIL SELECTION				
	Capacity	Coil Airflow	Ent	
			MBh	Lvg
	MBh	cfm	F	F
Main Htg	-21.5	1,627	63.8	76.0
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
<b>Total</b>	<b>-21.5</b>			

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## RETAIL TOILETS

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					
Outside Air:		OADB/WB/HR: 109 / 90 / 188			OADB: 109				OADB: 46					
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	SADB	Cooling	Heating
+ Lat.	+ Lat	Btu/h	(%)	Btu/h	(%)	Space Sens	Tot Sens	Of Total	Btu/h	Btu/h	(%)	Plenum		
Btu/h	Btu/h	Btu/h	(%)	Btu/h	(%)	Btu/h	Btu/h	(%)	Btu/h	Btu/h	(%)	Return		
<b>Envelope Loads</b>														
Skylite Solar	0	0	0	0	0	0	0	0	0	0	0	0	42.7	76.3
Skylite Cond	0	0	0	0	0	0	0	0	0	0	0	92.3	63.8	
Roof Cond	0	9,532	9,532	47	0	0	0	0	0	-2,226	61	92.3	63.8	
Glass Solar	0	0	0	0	0	0	0	0	0	0	0	92.3	63.8	
Glass Cond	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	
Wall Cond	1,139	282	1,421	7	1,139	12	-545	20	-720	0	0	0.0	0.0	
Partition	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	
Infiltration	5,513	0	5,513	27	1,710	18	-1,100	30	-1,100	0	0	0.0	0.0	
<i>Sub Total ==&gt;</i>	6,652	9,814	16,466	81	2,849	30	-1,644	111	-4,046					
<b>Internal Loads</b>														
Lights	1,365	341	1,707	8	1,365	14	0	0	0	0	0	0	0	
People	2,000	0	2,000	10	1,000	11	0	0	0	0	0	0	0	
Misc	1,000	0	1,000	5	1,000	11	0	0	0	0	0	0	0	
<i>Sub Total ==&gt;</i>	4,365	341	4,707	23	3,365	36	0	0	0	0	0	0	0	
<b>Ceiling Load</b>														
Ceiling Load	3,217	-3,217	0	0	3,217	34	-779	0	0	0	0	0	0	
Ventilation Load	0	0	0	0	0	0	0	0	0	0	0	0	0	
Dehumid. Ov Sizing	0	0	0	0	0	0	0	0	0	0	0	0	0	
Ov/Undr Sizing	0	0	0	0	0	0	0	0	210	-6	-6	0	0	
Exhaust Heat	0	-867	-867	-4	0	0	0	0	0	0	0	0	0	
Sup. Fan Heat	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	
Duct Heat Pkup	0	0	0	0	0	0	0	0	0	0	0	0	0	
Reheat at Design	0	0	0	0	0	0	0	0	184	-5	-5	0	0	
<i>Grand Total ==&gt;</i>	14,234	6,072	20,306	100.00	9,432	100.00	-2,424	100.00	-3,651					

AIRFLOWS		
	Cooling	Heating
Vent	0	0
Infil	46	46
Supply	270	270
MinStop/Rh	0	0
Return	316	316
Exhaust	46	46
Rm Exh	0	0
Auxil	0	0

ENGINEERING CKS		
	Cooling	Heating
% OA	0.0	0.0
cfm/ft2	0.46	0.46
cfm/ton	159.27	
ft2/ton	346.09	
Btu/hr-ft2	34.67	-6.23
No. People	4	

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	1.7	20.3	15.5	270	92.3	68.0	66.8	42.7	40.7	35.2
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
<b>Total</b>	1.7	20.3								

AREAS			
	Gross Total	Glass	
		ft2	(%)
Floor	586		
Part	0		
ExFlr	0		
Roof	586	0	0
Wall	266	0	0

HEATING COIL SELECTION				
	Capacity	Coil Airflow	Ent	Lvg
Main Htg	-3.7	270	63.8	76.3
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
<b>Total</b>	-3.7			