

Project Information

For: PLUMB LEVEL/CARC REMODEL
Columbia County, FL

		Htg	Clg			Htg	Clg
Outside db	(°F)	33	92	Inside db	(°F)	70	68
Outside RH	(%)	-	48	Inside RH	(%)	-	50
Outside wb	(°F)	-	76	Inside wb	(°F)	-	57
Daily range	(°F)	-	18	Design TD	(°F)	37	24
Moisture diff.	(gr/lb)	-	58				

Heating Equipment

Make	Trane		
Model	4TWR4060G1		
Type	Split ASHP		
Efficiency	8.2 HSPF		
Heating Input			
Heating Output	53.5	MBtuh @ 47°F	
Humidifier	17.6	gpd	
Leaving Air Temp	96.4	°F	
Actual Heating Fan	1850	cfm	

Cooling Equipment

Make	Trane		
Model	4TWR4060G1		
Type	Split ASHP		
COP / EER / SEER	14.0		
Sensible Cooling	42.0	MBtuh	
Latent Cooling	18.0	MBtuh	
Total Cooling	60.0	MBtuh	
Leaving Air Temp	55.0	°F	
Actual Cooling Fan	1850	cfm	

Equipment Location	AH 1
System Type	PEAKCV
Fan Motor Heat Type	PACKAGE
Fan & Motor Combined Efficiency	0 %
Static Pressure Across Fan	0 in H2O

NAME	Area ft²	Heat Loss	Sensible Gain	Latent Gain	Htg cfm	Clg cfm	Time
CLASS RM	533	8833	9305	3361	445	417	Jul 1700 LDT
DRESS AREA	113	2434	2730	709	143	129	Jul 1700 LDT
PWD	56	1038	948	355	56	43	Jul 1700 LDT
STRG	88	1333	1352	552	63	60	Jul 1700 LDT
OPEN AREA	440	5936	6447	2775	249	280	Jul 1700 LDT
KITCHEN	330	4790	5108	2081	216	228	Jul 1700 LDT
SENS	109	1552	1578	684	69	68	Jul 1700 LDT
MECH	116	1625	1725	728	71	76	Jul 1700 LDT
CLASS RM 3	421	6067	6464	2653	272	287	Jul 1700 LDT
CLASS RM 2	395	5801	5954	2492	265	260	Jul 1700 LDT
AH 1	2599	39409	41611	16391	1850	1850	Jul 1700 LDT

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Equipment Location	AH 2
System Type	PEAKCV
Fan Motor Heat Type	PACKAGE
Fan & Motor Combined Efficiency	0 %
Static Pressure Across Fan	0 in H2O

NAME	Area ft²	Heat Loss	Sensible Gain	Latent Gain	Htg cfm	Clg cfm	Time
PWD 3	55	1088	961	348	66	48	Jul 1700 LDT
MENS	76	1666	1345	479	107	66	Jul 1700 LDT
MECH 2	63	1018	999	397	55	48	Jul 1700 LDT
PWD 2	59	1001	952	369	56	46	Jul 1700 LDT
LAV	26	512	452	164	31	22	Jul 1700 LDT
WOMENS	79	1185	1212	498	60	58	Jul 1700 LDT
AH	21	219	280	132	7	13	Jul 1700 LDT
FLEX SPACE	457	6054	6744	2879	271	317	Jul 1700 LDT
RECORDS	53	547	700	331	17	32	Jul 1700 LDT
ADT SUP	84	875	1120	530	27	51	Jul 1700 LDT
MELISSA	166	3049	2780	1045	178	134	Jul 1700 LDT
CONF RM	210	4466	4099	1324	283	206	Jul 1700 LDT
CLASS RM 4	388	5690	5841	2444	282	276	Jul 1700 LDT
CLASS RM 5	413	5951	6340	2601	290	304	Jul 1700 LDT
CORRIDOR	374	3894	4985	2357	121	228	Jul 1700 LDT

AH 2	2521	37213	38809	15899	1850	1850	Jul 1700 LDT
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Project Information

For: PLUMB LEVEL/CARC REMODEL
Columbia County, FL

Zone: AH 1

COOLING LOAD

1. DESIGN CONDITIONS		at Jul 1700 LDT	Peak load at Jul 1700 LDT		
Inside:	68 °F	Outside:	92 °F	TD:	24 °F
OutRH:	48 %	MoistDiff:	57.8 gr/lb	Mult:	1.0
				Ins.wb	57 °F
				Sensible	Latent
2. SOLAR RADIATION THROUGH GLASS				1763	-
3. TRANSMISSION GAINS		Sensible		16367	-
Walls:		4214		-	-
Glass:		821		-	-
Doors:		147		-	-
Partitions:		0		-	-
Floors:		0		-	-
Ceilings:		11185		-	-
4. INTERNAL HEAT GAIN		Sensible		Latent	
Occupants:		6498		5199	15903
Lights:		3197		-	5199
Motors:		0		-	-
Appliances:		6208		0	-
5. INFILTRATION:		Outside air cfm:		0	0
6. SUBTOTAL:	Space load	Sensible		Latent	
Envelope		34033		5199	34033
Less external		0		-	-
Redistribution		0		0	-
7. SUPPLY DUCT					0
8. SUBTOTAL:	Space load + supply duct				34033
Actual cfm:		1850	at supply TD:	13	-
9. VENTILATION:		Make-up air cfm:		286	7577
10. RETURN AIR LOAD:		Lighting + plenum (net)			11192
11. RETURN DUCT					0
12. TOTAL LOADS ON EQUIPMENT					41611
					16391

HEATING LOAD

13. DESIGN CONDITIONS			Mult:	1.0	
Inside:	70 °F	Outside:	33 °F	TD:	37 °F
14. TRANSMISSION LOSSES					17105
Walls:		4010		-	-
Glass:		1360		-	-
Doors:		244		-	-
Partitions:		0		-	-
Floors:		6715		-	-
Ceilings:		4775		-	-
15. INFILTRATION:		Outside air cfm:		104	4190
16. SUBTOTAL:	Space load				21295
Envelope		21295		-	-
Less external		0		-	-
Less transfer		0		-	-
Redistribution		0		-	-
17. SUPPLY DUCT:					0
18. VENTILATION:		Make-up air cfm:		286	11523
19. HUMIDIFICATION					6591
Piping					0
20. RETURN DUCT					0
21. TOTAL HEATING LOAD ON EQUIPMENT					39409

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Zone: AH 2

COOLING LOAD

1. DESIGN CONDITIONS		at Jul 1700 LDT	Peak load at Jul 1600 LDT		
Inside:	68 °F	Outside:	92 °F	TD:	24 °F
OutRH:	48 %	MoistDiff:	57.8 gr/lb	Mult:	1.0
				Ins.wb	57 °F
				Sensible	Latent
2. SOLAR RADIATION THROUGH GLASS				929	-
3. TRANSMISSION GAINS		Sensible		15105	-
Walls:		3140		-	-
Glass:		821		-	-
Doors:		295		-	-
Partitions:		0		-	-
Floors:		0		-	-
Ceilings:		10849		-	-
4. INTERNAL HEAT GAIN		Sensible	Latent	15426	5042
Occupants:		6303	5042	-	-
Lights:		3101	-	-	-
Motors:		0	-	-	-
Appliances:		6022	0	-	-
5. INFILTRATION:	Outside air cfm:		0	0	0
6. SUBTOTAL:	Space load	Sensible	Latent	31459	5042
Envelope		31459	5042	-	-
Less external		0	-	-	-
Redistribution		0	0	-	-
7. SUPPLY DUCT				0	-
8. SUBTOTAL:	Space load + supply duct			31459	-
Actual cfm:	1850	at supply TD:	13	-	-
9. VENTILATION:	Make-up air cfm:		277	7350	10857
10. RETURN AIR LOAD:	Lighting + plenum (net)			0	-
11. RETURN DUCT				0	-
12. TOTAL LOADS ON EQUIPMENT				38809	15899

HEATING LOAD

13. DESIGN CONDITIONS			Mult:	1.0	
Inside:	70 °F	Outside:	33 °F	TD:	37 °F
14. TRANSMISSION LOSSES					15579
Walls:		3330		-	-
Glass:		1360		-	-
Doors:		489		-	-
Partitions:		0		-	-
Floors:		5769		-	-
Ceilings:		4632		-	-
15. INFILTRATION:	Outside air cfm:		101	4064	
16. SUBTOTAL:	Space load			19643	
Envelope		19643		-	-
Less external		0		-	-
Less transfer		0		-	-
Redistribution		0		-	-
17. SUPPLY DUCT:				0	
18. VENTILATION:	Make-up air cfm:		277	11177	
19. HUMIDIFICATION				6394	
Piping				0	
20. RETURN DUCT				0	
21. TOTAL HEATING LOAD ON EQUIPMENT				37213	