

RIGHT-J LOAD AND EQUIPMENT SUMMARY

For: TEAKWOOD I MODEL
EAST SIDE VILLAGE
LAKE CITY

FL

By: FIRST STREET DESIGNS, INC.
1386 S. FIRST STREET
LAKE CITY
(904) 758-8856

FL 32055

ASSUMED EAST ORIENTATION

Job #:

Wthr : Gainesville_AP_(S)

FL

Zone : Entire House

WINTER DESIGN CONDITIONS

Outside db: 31 Deg F
Inside db: 70 Deg F
Design TD: 39 Deg F

SUMMER DESIGN CONDITIONS

Outside db: 90 Deg F
Inside db: 75 Deg F
Design TD: 15 Deg F
Daily Range M
Rel. Hum. : 55 %
Grains Water 45 gr

HEATING SUMMARY

Bldg. Heat Loss 19387 Btuh
Ventilation Air 0 CFM
Vent Air Loss 0 Btuh
Design Heat Load 19387 Btuh

SENSIBLE COOLING EQUIP LOAD SIZING

Structure 11395 Btuh
Ventilation 0 Btuh
Design Temp. Swing 3.0 Deg F
Use Mfg. Data Y
Rate/Swing Mult. 1.00
Total Sens Equip Load 11395 Btuh

INFILTRATION

Const Qual a # Fireplaces 0

	HEATING	COOLING
Area (sq.ft.)	936	936
Volume (cu.ft.) ¹	7485	7485
Air Changes/Hour	1.0	0.5
Equivalent CFM	125	63

LATENT COOLING EQUIP LOAD SIZING

Internal Gains 920 Btuh
Ventilation 0 Btuh
Infiltration 1913 Btuh
Tot Latent Equip Load 2833 Btuh
Total Equip Load 14227 Btuh

HEATING EQUIPMENT SUMMARY

Make
Model
Type

Efficiency / HSPF 7.4
Heating Input 0 Btuh
Heating Output 0 Btuh
Heating Temp Rise 0 Deg F
Actual Heating Fan 545 CFM
Htg Air Flow Factor 0.028 CFM/Btuh

Space Thermostat Heat/Cool

COOLING EQUIPMENT SUMMARY

Make
Model
Type

COP/EER/SEER 10.0
Sensible Cooling 0 Btuh
Latent Cooling 0 Btuh
Total Cooling 0 Btuh
Actual Cooling Fan 545 CFM
Clg Air Flow Factor 0.048 CFM/Btuh

Load Sens Heat Ratio 80

MANUAL J: 7th Ed.

RIGHT-J: V1.74

S/N 4149

Printout certified by ACCA to meet all requirements of Manual Form J

RIGHT-J CALCULATION PROCEDURES A,B,C,D

Job #:

Procedure A - Winter Infiltration HTM Calculation*

1. Winter Infiltration CFM
1.0 AC/HR x 7485 Cu.Ft. x 0.0167 = 125 CFM
2. Winter Infiltration Btuh
1.1 x 125 CFM x 39 Winter TD = 5363 Btuh
3. Winter Infiltration HTM
5363 Btuh / 144 Total Window & Door Area = 37.2 HTM

Procedure B - Summer Infiltration HTM Calculation*

1. Summer Infiltration CFM
0.5 AC/HR x 7485 Cu.Ft. x 0.0167 = 63 CFM
2. Summer Infiltration Btuh
1.1 x 63 CFM x 15 Summer TD = 1031 Btuh
3. Summer Infiltration HTM
1031 Btuh / 144 Total Window & Door Area = 7.2 HTM

Procedure C - Latent Infiltration Gain

$$0.68 \times 45 \text{ gr.diff.} \times 63 \text{ CFM} = 1913 \text{ Btuh}$$

Procedure D - Equipment Sizing Loads

1. Sensible Sizing Load

Sensible Ventilation Load			
1.1 x	0 Vent.CFM x	15 Summer TD	= 0 Btuh
	Sensible Load for Structure (Line 19)		+ 11395 Btuh
	Sum of Ventilation and Structure Loads		= 11395 Btuh
	Rating and Temperature Swing Multiplier	x 1.00	RSM
	Equipment Sizing Load - Sensible		+ 11395 Btuh

2. Latent Sizing Load

Latent Ventilation Load			
0.68 x	0 Vent.CFM x	45 gr.diff.	= 0 Btuh
	Internal Loads = 230 x	4 No. People	+ 920 Btuh
	Infiltration Load From Procedure C		+ 1913 Btuh
	Equipment Sizing Load - Latent		= 2833 Btuh

*Construction Quality is: a No. of Fireplaces is: 0
MANUAL J: 7th Ed. RIGHT-J: V1.74 S/N 4149

Printout certified by ACCA to meet all requirements of Manual Form J

Job #:

Zone: Entire House

MANUAL J: 7th Ed. ---- RIGHT-J: V1.74 ---- S/N 4149 --- Page 1 ----

1	Name of Room				Entire House			BEDROOM #2			
2	Running Ft. Exposed Wall				124.0 Ft.			23.5 Ft.			
3	Room Dimensions, Ft.							10.5 x 13.0 Ft.			
4	Ceilings, Ft Condit. Option				8.0			8.0 heat/cool			
TYPE OF EXPOSURE		CST NO.	HTM Htg	HTM Clg	Area Length	Btuh Htg	Btuh Clg	Area Length	Btuh Htg	Btuh Clg	
5	Gross Exposed Walls and Partitions	a	12C	3.5	1.7	784	****	****	188	****	****
		b	13C	1.8	0.9	208	****	****	0	****	****
		c		0.0	0.0	0	****	****	0	****	****
		d		0.0	0.0	0	****	****	0	****	****
		e		0.0	0.0	0	****	****	0	****	****
		f		0.0	0.0	0	****	****	0	****	****
6	Windows & Glass Doors Htg.	a	3C	28.3	**	84	2375	****	15	424	****
		b	9I	29.4	**	0	0	****	0	0	****
		c	8O	28.3	**	0	0	****	0	0	****
		d		0.0	**	0	0	****	0	0	****
		e		0.0	**	0	0	****	0	0	****
		f		0.0	**	0	0	****	0	0	****
7	Windows & Glass Doors Clg.	North		14.0	23	****	321	15	****	210	
		NE&NW		0.0	0	****	0	0	****	0	
		E&W		44.0	61	****	2686	0	****	0	
		SE&SW		0.0	0	****	0	0	****	0	
		South		0.0	0	****	0	0	****	0	
		Horz		0.0	0	****	0	0	****	0	
8	Othr doors	a	11A	23.0	11.0	40	920	439	0	0	0
		b	11A	23.0	11.0	20	460	219	0	0	0
9	Net Exposed Walls and Partitions	a	12C	3.5	1.7	660	2317	1105	173	607	290
		b	13C	1.8	0.9	188	338	169	0	0	0
		c		0.0	0.0	0	0	0	0	0	0
		d		0.0	0.0	0	0	0	0	0	0
		e		0.0	0.0	0	0	0	0	0	0
		f		0.0	0.0	0	0	0	0	0	0
10	Ceilings	a	16D	2.1	1.6	936	1934	1537	137	282	224
		b		0.0	0.0	0	0	0	0	0	0
		c		0.0	0.0	0	0	0	0	0	0
11	Floors	a	22A	31.6	0.0	124	3917	0	24	742	0
		b		0.0	0.0	0	0	0	0	0	0
		c		0.0	0.0	0	0	0	0	0	0
12	Infiltration	a	37.2	7.2	144	5363	1031	15	559	107	
13	Subtot Btuh Loss=6+8..+11+12				****	17625	****	****	2614	****	
14	Duct Btuh Loss				10%	1762	****	10%	261	****	
15	Total Btuh Loss = 13+14				****	19387	****	****	2876	****	
16	Int. Gains: People @	300	4	****	1200	2	****	600			
		Appl. @ 1200	1	****	1200	0	****	0			
17	Subtot RSH Gain=7+8..+12+16				****	****	9909	****	****	1431	
18	Duct Btuh Gain				15%	****	1486	15%	****	215	
19	Total RSH Gain = 17+18				****	****	11395	****	****	1646	
20	CFM Air Required				****	545	545	****	81	79	

--- Printout certified by ACCA to meet all requirements of Manual Form J ---

Job #:

Zone: Entire House

MANUAL J: 7th Ed. ---- RIGHT-J: V1.74 ---- S/N 4149 --- Page 2 ----

1	Name of Room								BATH		MASTER BEDROOM	
2	Running Ft. Exposed Wall								5.5 Ft.		27.5 Ft.	
3	Room Dimensions, Ft.								5.5 x 9.5 Ft.		14.5 x 13.0 Ft.	
4	Ceilngs,Ft	Condit. Option							8.0	heat/cool	8.0	heat/cool
TYPE OF EXPOSURE		CST NO.	HTM Htg	HTM Clg	Area Length	Btuh Htg	Btuh Clg	Area Length	Btuh Htg	Btuh Clg		
5	Gross Exposed Walls and Partitions	a 12C	3.5	1.7	44	****	****	220	****	****		
		b 13C	1.8	0.9	0	****	****	0	****	****		
		c	0.0	0.0	0	****	****	0	****	****		
		d	0.0	0.0	0	****	****	0	****	****		
		e	0.0	0.0	0	****	****	0	****	****		
		f	0.0	0.0	0	****	****	0	****	****		
6	Windows & Glass Doors Htg.	a 3C	28.3	**	0	0	****	15	424	****		
		b 9I	29.4	**	0	0	****	0	0	****		
		c 8O	28.3	**	0	0	****	0	0	****		
		d	0.0	**	0	0	****	0	0	****		
		e	0.0	**	0	0	****	0	0	****		
		f	0.0	**	0	0	****	0	0	****		
7	Windows & Glass Doors Clg.	North	14.0		0	****	0	2	****	22		
		NE&NW	0.0		0	****	0	0	****	0		
		E&W	44.0		0	****	0	13	****	590		
		SE&SW	0.0		0	****	0	0	****	0		
		South	0.0		0	****	0	0	****	0		
		Horz	0.0		0	****	0	0	****	0		
8	Othr doors	a 11A	23.0	11.0	0	0	0	0	0	0		
		b 11A	23.0	11.0	0	0	0	0	0	0		
9	Net Exposed Walls and Partitions	a 12C	3.5	1.7	44	154	74	205	720	343		
		b 13C	1.8	0.9	0	0	0	0	0	0		
		c	0.0	0.0	0	0	0	0	0	0		
		d	0.0	0.0	0	0	0	0	0	0		
		e	0.0	0.0	0	0	0	0	0	0		
		f	0.0	0.0	0	0	0	0	0	0		
10	Ceilings	a 16D	2.1	1.6	52	108	86	189	390	310		
		b	0.0	0.0	0	0	0	0	0	0		
		c	0.0	0.0	0	0	0	0	0	0		
11	Floors	a 22A	31.6	0.0	6	174	0	28	869	0		
		b	0.0	0.0	0	0	0	0	0	0		
		c	0.0	0.0	0	0	0	0	0	0		
12	Infiltration	a	37.2	7.2	0	0	0	15	559	107		
13	Subtot Btuh Loss=6+8...+11+12				****	436	****	****	2961	****		
14	Duct Btuh Loss				10%	44	****	10%	296	****		
15	Total Btuh Loss = 13+14				****	480	****	****	3257	****		
16	Int. Gains: People @			300	0	****	0	2	****	600		
	Appl. @			1200	0	****	0	0	****	0		
17	Subtot RSH Gain=7+8...+12+16				****	****	160	****	****	1973		
18	Duct Btuh Gain				15%	****	24	15%	****	296		
19	Total RSH Gain = 17+18				****	****	183	****	****	2268		
20	CFM Air Required				****	13	9	****	92	109		

--- Printout certified by ACCA to meet all requirements of Manual Form J ---

Job #:

Zone: Entire House

----- MANUAL J: 7th Ed. ----- RIGHT-J: V1.74 ----- S/N 4149 ----- Page 3 -----

1	Name of Room	MASTER BATH						LIVING ROOM		
2	Running Ft. Exposed Wall	5.5 Ft.						29.0 Ft.		
3	Room Dimensions, Ft.	5.5 x 13.0 Ft.						16.0 x 13.0 Ft.		
4	Ceilings, Ft Condit. Option	8.0 heat/cool						8.0 heat/cool		
TYPE OF EXPOSURE		CST NO.	HTM Htg	HTM Clg	Area Length	Btuh Htg	Btuh Clg	Area Length	Btuh Htg	Btuh Clg
5	Gross Exposed Walls and Partitions	a 12C	3.5	1.7	44	****	****	128	****	****
		b 13C	1.8	0.9	0	****	****	104	****	****
		c	0.0	0.0	0	****	****	0	****	****
		d	0.0	0.0	0	****	****	0	****	****
		e	0.0	0.0	0	****	****	0	****	****
		f	0.0	0.0	0	****	****	0	****	****
6	Windows & Glass Doors Htg.	a 3C	28.3	**	0	0	****	30	848	****
		b 9I	29.4	**	0	0	****	0	0	****
		c 8O	28.3	**	0	0	****	0	0	****
		d	0.0	**	0	0	****	0	0	****
		e	0.0	**	0	0	****	0	0	****
		f	0.0	**	0	0	****	0	0	****
7	Windows & Glass Doors Clg.	North	14.0		0	****	0	3	****	45
		NE&NW	0.0		0	****	0	0	****	0
		E&W	44.0		0	****	0	27	****	1180
		SE&SW	0.0		0	****	0	0	****	0
		South	0.0		0	****	0	0	****	0
		Horz	0.0		0	****	0	0	****	0
8	Othr doors	a 11A	23.0	11.0	0	0	0	20	460	219
		b 11A	23.0	11.0	0	0	0	20	460	219
9	Net Exposed Walls and Partitions	a 12C	3.5	1.7	44	154	74	78	274	131
		b 13C	1.8	0.9	0	0	0	84	151	76
		c	0.0	0.0	0	0	0	0	0	0
		d	0.0	0.0	0	0	0	0	0	0
		e	0.0	0.0	0	0	0	0	0	0
		f	0.0	0.0	0	0	0	0	0	0
10	Ceilings	a 16D	2.1	1.6	72	148	117	208	430	342
		b	0.0	0.0	0	0	0	0	0	0
		c	0.0	0.0	0	0	0	0	0	0
11	Floors	a 22A	31.6	0.0	6	174	0	29	916	0
		b	0.0	0.0	0	0	0	0	0	0
		c	0.0	0.0	0	0	0	0	0	0
12	Infiltration	a	37.2	7.2	0	0	0	70	2607	501
13	Subtot Btuh Loss=6+8..+11+12	**** 476 ****						**** 6147 ****		
14	Duct Btuh Loss	10% 48 ****						10% 615 ****		
15	Total Btuh Loss = 13+14	**** 524 ****						**** 6761 ****		
16	Int. Gains: People @ 300 Appl. @ 1200	0 **** 0						0 **** 0		
17	Subtot RSH Gain=7+8..+12+16	**** **** 191						**** **** 2713		
18	Duct Btuh Gain	15% **** 29						15% **** 407		
19	Total RSH Gain = 17+18	**** **** 220						**** **** 3120		
20	CFM Air Required	**** 15 11						**** 190 149		

--- Printout certified by ACCA to meet all requirements of Manual Form J ---

1	Name of Room	KITCHEN						DINING ROOM		
2	Running Ft. Exposed Wall	22.5 Ft.						10.5 Ft.		
3	Room Dimensions, Ft.	9.5 x 13.0 Ft.						10.5 x 13.0 Ft.		
4	Ceilings, Ft Condit. Option	8.0 heat/cool						8.0 heat/cool		
TYPE OF EXPOSURE		CST NO.	HTM Htg	HTM Clg	Area Length	Btuh Htg	Btuh Clg	Area Length	Btuh Htg	Btuh Clg
5	Gross Exposed Walls and Partitions	a 12C	3.5	1.7	76	****	****	84	****	****
		b 13C	1.8	0.9	104	****	****	0	****	****
		c	0.0	0.0	0	****	****	0	****	****
		d	0.0	0.0	0	****	****	0	****	****
		e	0.0	0.0	0	****	****	0	****	****
		f	0.0	0.0	0	****	****	0	****	****
6	Windows & Glass Doors Htg.	a 3C	28.3	**	9	254	****	15	424	****
		b 9I	29.4	**	0	0	****	0	0	****
		c 80	28.3	**	0	0	****	0	0	****
		d	0.0	**	0	0	****	0	0	****
		e	0.0	**	0	0	****	0	0	****
		f	0.0	**	0	0	****	0	0	****
7	Windows & Glass Doors Clg.	North	14.0		2	****	22	2	****	22
		NE&NW	0.0		0	****	0	0	****	0
		E&W	44.0		7	****	326	13	****	590
		SE&SW	0.0		0	****	0	0	****	0
		South	0.0		0	****	0	0	****	0
		Horz	0.0		0	****	0	0	****	0
8	Othr doors	a 11A	23.0	11.0	0	0	0	20	460	219
		b 11A	23.0	11.0	0	0	0	0	0	0
9	Net Exposed Walls and Partitions	a 12C	3.5	1.7	67	235	112	49	172	82
		b 13C	1.8	0.9	104	187	94	0	0	0
		c	0.0	0.0	0	0	0	0	0	0
		d	0.0	0.0	0	0	0	0	0	0
		e	0.0	0.0	0	0	0	0	0	0
		f	0.0	0.0	0	0	0	0	0	0
10	Ceilings	a 16D	2.1	1.6	124	255	203	137	282	224
		b	0.0	0.0	0	0	0	0	0	0
		c	0.0	0.0	0	0	0	0	0	0
11	Floors	a 22A	31.6	0.0	23	711	0	11	332	0
		b	0.0	0.0	0	0	0	0	0	0
		c	0.0	0.0	0	0	0	0	0	0
12	Infiltration	a	37.2	7.2	9	335	64	35	1303	251
13	Subtot Btuh Loss=6+8...+11+12	****			****	1978	****	****	2974	****
14	Duct Btuh Loss	10%			****	198	****	10%	297	****
15	Total Btuh Loss = 13+14	****			****	2176	****	****	3271	****
16	Int. Gains: People @ 300	0	****		0	****	0	0	****	0
	Appl. @ 1200	1	****		1200	****	1200	0	****	0
17	Subtot RSH Gain=7+8...+12+16	****			****	2021	****	****	1389	****
18	Duct Btuh Gain	15%			****	303	15%	****	208	****
19	Total RSH Gain = 17+18	****			****	2325	****	****	1597	****
20	CFM Air Required	****			****	61	111	****	92	76

Job #:

Zone: Entire House

MANUAL J: 7th Ed. ---- RIGHT-J: V1.74 ---- S/N 4149 ---- Page 5 ----

1	Name of Room	CORE								
2	Running Ft. Exposed Wall	0.0 Ft.						Ft.		
3	Room Dimensions, Ft.	4.4 x 4.4 Ft.						x Ft.		
4	Ceilings, Ft Condit. Option	8.0 heat/cool								
TYPE OF EXPOSURE		CST NO.	HTM Htg	HTM Clg	Area Length	Btuh Htg	Btuh Clg	Area Length	Btuh Htg	Btuh Clg
5	Gross Exposed Walls and Partitions	a 12C	3.5	1.7	0	****	****		****	****
		b 13C	1.8	0.9	0	****	****		****	****
		c	0.0	0.0	0	****	****		****	****
		d	0.0	0.0	0	****	****		****	****
		e	0.0	0.0	0	****	****		****	****
		f	0.0	0.0	0	****	****		****	****
6	Windows & Glass Doors Htg.	a 3C	28.3	**	0	0	****			****
		b 9I	29.4	**	0	0	****			****
		c 80	28.3	**	0	0	****			****
		d	0.0	**	0	0	****			****
		e	0.0	**	0	0	****			****
		f	0.0	**	0	0	****			****
7	Windows & Glass Doors Clg.	North		14.0	0	****	0		****	
		NE&NW		0.0	0	****	0		****	
		E&W		44.0	0	****	0		****	
		SE&SW		0.0	0	****	0		****	
		South		0.0	0	****	0		****	
		Horz		0.0	0	****	0		****	
8	Othr doors	a 11A	23.0	11.0	0	0	0			
		b 11A	23.0	11.0	0	0	0			
9	Net Exposed Walls and Partitions	a 12C	3.5	1.7	0	0	0			
		b 13C	1.8	0.9	0	0	0			
		c	0.0	0.0	0	0	0			
		d	0.0	0.0	0	0	0			
		e	0.0	0.0	0	0	0			
		f	0.0	0.0	0	0	0			
10	Ceilings	a 16D	2.1	1.6	19	39	31			
		b	0.0	0.0	0	0	0			
		c	0.0	0.0	0	0	0			
11	Floors	a 22A	31.6	0.0	0	0	0			
		b	0.0	0.0	0	0	0			
		c	0.0	0.0	0	0	0			
12	Infiltration	a	37.2	7.2	0	0	0			
13	Subtot Btuh Loss=6+8...+11+12	****			39	****	****	****		****
14	Duct Btuh Loss	10%			4	****	****	%		****
15	Total Btuh Loss = 13+14	****			43	****	****	****		****
16	Int. Gains: People @ 300	0			****	0	****	****		****
	Appl. @ 1200	0			****	0	****	****		****
17	Subtot RSH Gain=7+8...+12+16	****			****	31	****	****		****
18	Duct Btuh Gain	15%			****	5	****	%		****
19	Total RSH Gain = 17+18	****			****	36	****	****		****
20	CFM Air Required	****			1	2	****	****		****

--- Printout certified by ACCA to meet all requirements of Manual Form J ---

RIGHT-J WINDOW DATA

ob #:

S K Y	D I R	W A L L	G L A Z	L O W E	S T R M	S H A D	O V H G	N G L Z	A N G L	S H C O	O V R X	O V R Y	W H G T	C H T M	W N A R	S H A R
-------------	-------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------

BEDROOM #2

n	s	a	c	n	n	b	y	2	90	1.0	1.0	0.3	5.0	23.0	15.0	15.0
---	---	---	---	---	---	---	---	---	----	-----	-----	-----	-----	------	------	------

BATH

MASTER BEDROOM

n	e	a	c	n	y	b	y	2	90	1.0	1.0	0.3	5.0	44.0	15.0	1.6
---	---	---	---	---	---	---	---	---	----	-----	-----	-----	-----	------	------	-----

MASTER BATH

LIVING ROOM

n	e	a	c	n	y	b	y	2	90	1.0	1.0	0.3	5.0	44.0	30.0	3.2
---	---	---	---	---	---	---	---	---	----	-----	-----	-----	-----	------	------	-----

KITCHEN

n	w	a	c	n	y	b	y	2	90	1.0	1.0	0.3	3.0	44.0	9.0	1.6
---	---	---	---	---	---	---	---	---	----	-----	-----	-----	-----	------	-----	-----

DINING ROOM

n	w	a	c	n	y	b	y	2	90	1.0	1.0	0.3	5.0	44.0	15.0	1.6
---	---	---	---	---	---	---	---	---	----	-----	-----	-----	-----	------	------	-----

CORE

RIGHT-J WINDOW DATA

ob #:

S K Y	D I R	W A L L	G L A Z	L O W E	S T R M	S H A D	O V H G	N G L Z	A N G L	S H C O	O V R X	O V R Y	W H G T	C H T M	W N A R	S H A R
-------------	-------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------

BEDROOM #2

n	s	a	c	n	n	b	y	2	90	1.0	1.0	0.3	5.0	23.0	15.0	15.0
---	---	---	---	---	---	---	---	---	----	-----	-----	-----	-----	------	------	------

BATH

MASTER BEDROOM

n	e	a	c	n	y	b	y	2	90	1.0	1.0	0.3	5.0	44.0	15.0	1.6
---	---	---	---	---	---	---	---	---	----	-----	-----	-----	-----	------	------	-----

MASTER BATH

LIVING ROOM

n	e	a	c	n	y	b	y	2	90	1.0	1.0	0.3	5.0	44.0	30.0	3.2
---	---	---	---	---	---	---	---	---	----	-----	-----	-----	-----	------	------	-----

KITCHEN

n	w	a	c	n	y	b	y	2	90	1.0	1.0	0.3	3.0	44.0	9.0	1.6
---	---	---	---	---	---	---	---	---	----	-----	-----	-----	-----	------	-----	-----

DINING ROOM

n	w	a	c	n	y	b	y	2	90	1.0	1.0	0.3	5.0	44.0	15.0	1.6
---	---	---	---	---	---	---	---	---	----	-----	-----	-----	-----	------	------	-----

CORE