

Project Information

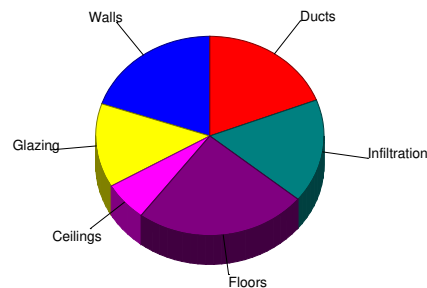
For: Adams Preserve lot 97-1820, Adams Homes
 lot 97, Columbia, FL

Design Conditions

Location:				Indoor:	Heating	Cooling
Gainesville Regional, FL, US				Indoor temperature (°F)	68	75
Elevation: 123 ft				Design TD (°F)	35	17
Latitude: 30°N				Relative humidity (%)	30	50
				Moisture difference (gr/lb)	8.2	43.8
Outdoor:	Heating	Cooling		Infiltration:		
Drybulb (°F)	33	92		Method	Simplified	
Daily range (°F)	-	18 (M)		Construction quality	Average	
Wet bulb (°F)	-	76		Fireplaces	0	
Wind speed (mph)	15.0	7.5				

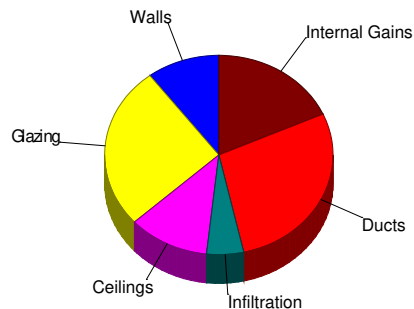
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	3.2	5146	19.8
Glazing	16.5	3546	13.6
Doors	0	0	0
Ceilings	0.9	1641	6.3
Floors	3.5	6330	24.3
Infiltration	2.4	4378	16.8
Ducts		4979	19.1
Piping		0	0
Humidification		0	0
Ventilation		0	0
Adjustments		0	0
Total		26021	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.4	2248	10.3
Glazing	26.8	5758	26.4
Doors	0	0	0
Ceilings	1.4	2509	11.5
Floors	0	0	0
Infiltration	0.6	1139	5.2
Ducts		6149	28.2
Ventilation		0	0
Internal gains		3980	18.3
Blower		0	0
Adjustments		0	0
Total		21783	100.0



Latent Cooling Load = 4180 Btuh
 Overall U-value = 0.088 Btuh/ft²·°F, Window / Floor Area = 11.9 %

Data entries checked.

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
 lot 97, Columbia, FL

Design Information

	Htg	Clg	Method	Infiltration	Simplified Average
Outside db (°F)	33	92			
Inside db (°F)	68	75	Construction quality		
Design TD (°F)	35	17	Fireplaces		0
Daily range	-	M			
Inside humidity (%)	30	50			
Moisture difference (gr/lb)	8	44			

HEATING EQUIPMENT

Make Trane
 Trade TRANE
 Model 4TWR5030H1
 AHRI ref 9033590

Efficiency 8.1 HSPF2
 Heating input
 Heating output 27800 Btuh @ 47°F
 Temperature rise 29 °F
 Actual air flow 875 cfm
 Air flow factor 0.034 cfm/Btuh
 Static pressure 0.50 in H2O
 Space thermostat
 Capacity balance point = 32 °F

COOLING EQUIPMENT

Make Trane
 Trade TRANE
 Cond 4TWR5030H1
 Coil TEM6A0B30H21++TDR
 AHRI ref 9033590

Efficiency 12.5 EER2, 15.25 SEER2
 Sensible cooling 20300 Btuh
 Latent cooling 8700 Btuh
 Total cooling 29000 Btuh
 Actual air flow 875 cfm
 Air flow factor 0.040 cfm/Btuh
 Static pressure 0.50 in H2O
 Load sensible heat ratio 0.84

Backup:
 Input = 8 kW, Output = 26399 Btuh, 100 AFUE

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
kitchen	230	1565	3110	53	125
laundry	36	40	708	1	28
owner bath	124	1664	1129	56	45
wic	44	50	79	2	3
den/br4	169	4137	2385	139	96
owner bed	218	5353	2598	180	104
dining	143	1774	1688	60	68
br3	169	1835	1072	62	43
bath	45	613	221	21	9
br2	148	4038	1711	136	69
living	336	2583	4934	87	198
hall	28	0	0	0	0
nook	54	923	851	31	34
foyer	70	1445	1297	49	52

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Entire House	1814	26021	21783	875	875
Other equip loads		0	0		
Equip. @ 0.97 RSM			21173		
Latent cooling			4180		
TOTALS	1814	26021	25353	875	875

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
lot 97, Columbia, FL

Design Conditions

Location: Gainesville Regional, FL, US Elevation: 123 ft Latitude: 30°N			Indoor: Indoor temperature (°F) 68 Design TD (°F) 35 Relative humidity (%) 30 Moisture difference (gr/lb) 8.2	Heating 68 35 30 8.2	Cooling 75 17 50 43.8
Outdoor: Drybulb (°F) 33 Daily range (°F) - Wet bulb (°F) - Wind speed (mph) 15.0	Heating 33 - - 15.0	Cooling 92 18 (M) 76 7.5	Infiltration: Method Simplified Construction quality Average Fireplaces 0		

Construction descriptions

Construction descriptions	Or	Area ft ²	U-value Btuh/ft ² -°F	Insul R ft ² -°F/Btuh	Htg HTM Btuh/ft ²	Loss Btuh	Clg HTM Btuh/ft ²	Gain Btuh
Walls								
12C-0bw: Frm wall, brk 4" ext, 3/8" wood shth, r-13 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	ne	584	0.091	13.0	3.17	1849	1.38	808
	se	161	0.091	13.0	3.17	510	1.38	223
	sw	529	0.091	13.0	3.17	1675	1.38	732
	nw	351	0.091	13.0	3.17	1112	1.38	486
	all	1625	0.091	13.0	3.17	5146	1.38	2248
Partitions (none)								
Windows								
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	ne	36	0.470	0	16.4	589	29.0	1043
	se	21	0.490	0	17.1	358	21.7	456
	se	31	0.470	0	16.4	507	30.0	930
	sw	36	0.470	0	16.4	589	30.0	1080
	nw	48	0.470	0	16.4	785	29.0	1390
	all	172	0.470	0	16.4	2828	28.5	4898
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/8" thk; 5 ft overhang (7 ft window ht, 2 ft sep.); 6.67 ft head ht	se	7	0.470	0	16.4	114	16.4	115
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/8" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 2 ft overhang (5 ft window ht, 2 ft sep.); 6.67 ft head ht	sw	15	0.470	0	16.4	245	20.3	304
10D-v: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/8" thk; NFRC rated (SHGC=0.32); 8 ft overhang (7 ft window ht, 2 ft sep.); 6.67 ft head ht	nw	21	0.490	0	17.1	358	21.0	441
Doors (none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		1814	0.026	38.0	0.90	1641	1.38	2509

Floors

22A-tp1: Bg floor, light dry soil, on grade depth, carp 80% flr frsh

184

0.989

0

34.4

6330

0

0





Component Constructions
kitchen

DL Williams Heating & Cooling L.L.C.

Job: 1
Date: 02/24/2025
By: DL Williams Heating & C...
Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
lot 97, Columbia, FL

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional, FL, US		Indoor temperature (°F)		68	75
Elevation: 123 ft		Design TD (°F)		35	17
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		8.2	43.8
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method	Simplified	
Daily range (°F)	-	18 (M)	Construction quality	Average	
Wet bulb (°F)	-	76	Fireplaces	0	
Wind speed (mph)	15.0	7.5			

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12C-0bw: Frm wall, brk 4" ext, 3/8" wood shth, r-13 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	sw	88	0.091	13.0	3.17	279	1.38	122
Partitions (none)								
Windows								
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	sw	12	0.470	0	16.4	196	30.0	360
Doors (none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		230	0.026	38.0	0.90	208	1.38	318
Floors								
22A-tp1: Bg floor, light dry soil, on grade depth, carp 80% flr fnsh		10	0.989	0	34.4	344	0	0



Component Constructions
laundry

DL Williams Heating & Cooling L.L.C.

Job: 1
Date: 02/24/2025
By: DL Williams Heating & C...
Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
lot 97, Columbia, FL

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional, FL, US		Indoor temperature (°F)		68	75
Elevation:	123 ft	Design TD (°F)		35	17
Latitude:	30°N	Relative humidity (%)		30	50
Outdoor:		Moisture difference (gr/lb)		8.2	43.8
	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method		
Daily range (°F)	-	18 (M)	Construction quality		
Wet bulb (°F)	-	76	Fireplaces		
Wind speed (mph)	15.0	7.5	Simplified		
			Average		
			0		

Construction descriptions

	Or	Area	U-value	Insul R	Htg HTM	Loss	Clg HTM	Gain
		ft²	Btuh/ft²-°F	ft²-°F/Btuh	Btuh/ft²	Btuh	Btuh/ft²	Btuh
Walls (none)								
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		36	0.026	38.0	0.90	33	1.38	50
Floors (none)								



Component Constructions

owner bath

DL Williams Heating & Cooling L.L.C.

Job: 1
Date: 02/24/2025
By: DL Williams Heating & C...
Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
lot 97, Columbia, FL

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional, FL, US		Indoor temperature (°F)		68	75
Elevation: 123 ft		Design TD (°F)		35	17
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		8.2	43.8
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method	Simplified	
Daily range (°F)	-	18 (M)	Construction quality	Average	
Wet bulb (°F)	-	76	Fireplaces	0	
Wind speed (mph)	15.0	7.5			

Construction descriptions

	Or	Area ft ²	U-value Btuh/ft ² -°F	Insul R ft ² -°F/Btuh	Htg HTM Btuh/ft ²	Loss Btuh	Clg HTM Btuh/ft ²	Gain Btuh
Walls								
12C-0bw: Frm wall, brk 4" ext, 3/8" wood shth, r-13 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	sw	108	0.091	13.0	3.17	342	1.38	149
Partitions (none)								
Windows								
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	sw	12	0.470	0	16.4	196	30.0	360
Doors (none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		124	0.026	38.0	0.90	112	1.38	171
Floors								
22A-tp: Bg floor, light dry soil, on grade depth, carp 80% flr fnsh		12	0.989	0	34.4	410	0	0



Component Constructions

wic

DL Williams Heating & Cooling L.L.C.

Job: 1
Date: 02/24/2025
By: DL Williams Heating & C...
Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
lot 97, Columbia, FL

Design Conditions

Location:

Gainesville Regional, FL, US
Elevation: 123 ft
Latitude: 30°N

Outdoor:

Drybulb (°F)
Daily range (°F)
Wet bulb (°F)
Wind speed (mph)

Heating

33
-
-
15.0

Cooling

92
18 (M)
76
7.5

Indoor:

Indoor temperature (°F)
Design TD (°F)
Relative humidity (%)
Moisture difference (gr/lb)

Heating

68
35
30
8.2

Cooling

75
17
50
43.8

Infiltration:

Method
Construction quality
Fireplaces

Simplified
Average
0

Construction descriptions

Or	Area ft ²	U-value Btuh/ft ² -°F	Insul R ft ² -°F/Btuh	Htg HTM Btuh/ft ²	Loss Btuh	Clg HTM Btuh/ft ²	Gain Btuh
----	-------------------------	-------------------------------------	-------------------------------------	---------------------------------	--------------	---------------------------------	--------------

Walls
(none)

Partitions
(none)

Windows
(none)

Doors
(none)

Ceilings
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2"
gypsum board int fnsh

44 0.026 38.0 0.90 40 1.38 62

Floors
(none)



Component Constructions

den/br4

DL Williams Heating & Cooling L.L.C.

Job: 1
Date: 02/24/2025
By: DL Williams Heating & C...
Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
lot 97, Columbia, FL

Design Conditions

Location:	Gainesville Regional, FL, US		Indoor:	Indoor temperature (°F)	68	75
Elevation:	123 ft		Design TD (°F)	35	17	
Latitude:	30°N		Relative humidity (%)	30	50	
Outdoor:	Heating	Cooling	Moisture difference (gr/lb)	8.2	43.8	
Drybulb (°F)	33	92	Infiltration:			
Daily range (°F)	-	18 (M)	Method	Simplified		
Wet bulb (°F)	-	76	Construction quality	Average		
Wind speed (mph)	15.0	7.5	Fireplaces	0		

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12C-0bw: Frm wall, brk 4" ext, 3/8" wood shth, r-13 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	ne	130	0.091	13.0	3.17	412	1.38	180
	se	106	0.091	13.0	3.17	336	1.38	147
	sw	60	0.091	13.0	3.17	190	1.38	83
	all	296	0.091	13.0	3.17	937	1.38	409
Partitions (none)								
Windows								
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	se	24	0.470	0	16.4	393	30.0	720
Doors (none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		169	0.026	38.0	0.90	153	1.38	234
Floors								
22A-tp1: Bg floor, light dry soil, on grade depth, carp 80% flr fnsh		32	0.989	0	34.4	1101	0	0



Component Constructions

owner bed

DL Williams Heating & Cooling L.L.C.

Job: 1
Date: 02/24/2025
By: DL Williams Heating & C...
Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
lot 97, Columbia, FL

Design Conditions

Location: Gainesville Regional, FL, US Elevation: 123 ft Latitude: 30°N			Indoor: Indoor temperature (°F) 68 Design TD (°F) 35 Relative humidity (%) 30 Moisture difference (gr/lb) 8.2	Heating 75 17 50 43.8	Cooling 75 17 50 43.8
Outdoor: Drybulb (°F) Daily range (°F) Wet bulb (°F) Wind speed (mph)	Heating 33 - - 15.0	Cooling 92 18 (M) 76 7.5	Infiltration: Method Construction quality Fireplaces	Simplified Average 0	

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12C-0bw: Frm wall, brk 4" ext, 3/8" wood shth, r-13 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	ne	80	0.091	13.0	3.17	253	1.38	111
	se	20	0.091	13.0	3.17	63	1.38	28
	sw	145	0.091	13.0	3.17	459	1.38	201
	nw	148	0.091	13.0	3.17	469	1.38	205
	all	393	0.091	13.0	3.17	1245	1.38	544
Partitions (none)								
Windows								
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	nw	12	0.470	0	16.4	196	29.0	348
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/8" thk; NFRC rated (SHGC=0.31); 50% blinds 45°, light; 50% outdoor insect screen; 2 ft overhang (5 ft window ht, 2 ft sep.); 6.67 ft head ht	sw	15	0.470	0	16.4	245	20.3	304
Doors (none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		218	0.026	38.0	0.90	197	1.38	302
Floors								
22A-tpl: Bg floor, light dry soil, on grade depth, carp 80% flr fnsh		42	0.989	0	34.4	1446	0	0



Component Constructions

dining

DL Williams Heating & Cooling L.L.C.

Job: 1
Date: 02/24/2025
By: DL Williams Heating & C...
Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
lot 97, Columbia, FL

Design Conditions

Location: Gainesville Regional, FL, US Elevation: 123 ft Latitude: 30°N			Indoor: Indoor temperature (°F) 68 Design TD (°F) 35 Relative humidity (%) 30 Moisture difference (gr/lb) 8.2	Heating 68 35 30 8.2	Cooling 75 17 50 43.8
Outdoor: Drybulb (°F) Daily range (°F) Wet bulb (°F) Wind speed (mph)	Heating 33 - - 15.0	Cooling 92 18 (M) 76 7.5	Infiltration: Method Construction quality Fireplaces	Simplified Average 0	

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls 12C-0bw: Frm wall, brk 4" ext, 3/8" wood shth, r-13 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	ne	86	0.091	13.0	3.17	272	1.38	119
Partitions (none)								
Windows 4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	ne	24	0.470	0	16.4	393	29.0	695
Doors (none)								
Ceilings 16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		143	0.026	38.0	0.90	129	1.38	198
Floors 22A-tp1: Bg floor, light dry soil, on grade depth, carp 80% flr fnsh		11	0.989	0	34.4	379	0	0



Component Constructions

br3

DL Williams Heating & Cooling L.L.C.

Job: 1
Date: 02/24/2025
By: DL Williams Heating & C...
Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
lot 97, Columbia, FL

Design Conditions

Location: Gainesville Regional, FL, US Elevation: 123 ft Latitude: 30°N			Indoor: Indoor temperature (°F) 68 Design TD (°F) 35 Relative humidity (%) 30 Moisture difference (gr/lb) 8.2	Heating 68 35 30 8.2	Cooling 75 17 50 43.8
Outdoor: Drybulb (°F) Daily range (°F) Wet bulb (°F) Wind speed (mph)	Heating 33 - - 15.0	Cooling 92 18 (M) 76 7.5	Infiltration: Method Construction quality Fireplaces	Simplified Average 0	

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls 12C-0bw: Frm wall, brk 4" ext, 3/8" wood shth, r-13 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	ne	118	0.091	13.0	3.17	374	1.38	163
Partitions (none)								
Windows 4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	ne	12	0.470	0	16.4	196	29.0	348
Doors (none)								
Ceilings 16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		169	0.026	38.0	0.90	153	1.38	234
Floors 22A-tp1: Bg floor, light dry soil, on grade depth, carp 80% flr fnsh		13	0.989	0	34.4	447	0	0



Component Constructions

bath

DL Williams Heating & Cooling L.L.C.

Job: 1
Date: 02/24/2025
By: DL Williams Heating & C...
Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
lot 97, Columbia, FL

Design Conditions

Location: Gainesville Regional, FL, US Elevation: 123 ft Latitude: 30°N			Indoor: Indoor temperature (°F) 68 Design TD (°F) 35 Relative humidity (%) 30 Moisture difference (gr/lb) 8.2	Heating 68 35 30 8.2	Cooling 75 17 50 43.8
Outdoor: Drybulb (°F) Daily range (°F) Wet bulb (°F) Wind speed (mph)	Heating 33 - - 15.0	Cooling 92 18 (M) 76 7.5	Infiltration: Method Construction quality Fireplaces	Simplified Average 0	

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls 12C-0bw: Frm wall, brk 4" ext, 3/8" wood shth, r-13 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	ne	50	0.091	13.0	3.17	158	1.38	69
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		45	0.026	38.0	0.90	41	1.38	62
Floors 22A-tp1: Bg floor, light dry soil, on grade depth, carp 80% flr fnsh		5	0.989	0	34.4	172	0	0



Component Constructions

br2

DL Williams Heating & Cooling L.L.C.

Job: 1
Date: 02/24/2025
By: DL Williams Heating & C...
Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
lot 97, Columbia, FL

Design Conditions

Location: Gainesville Regional, FL, US Elevation: 123 ft Latitude: 30°N			Indoor: Indoor temperature (°F) 68 Design TD (°F) 35 Relative humidity (%) 30 Moisture difference (gr/lb) 8.2	Heating 68 35 30 8.2	Cooling 75 17 50 43.8
Outdoor: Drybulb (°F) Daily range (°F) Wet bulb (°F) Wind speed (mph)	Heating 33 - - 15.0	Cooling 92 18 (M) 76 7.5	Infiltration: Method Construction quality Fireplaces	Simplified Average 0	

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12C-0bw: Frm wall, brk 4" ext, 3/8" wood shth, r-13 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	ne	120	0.091	13.0	3.17	380	1.38	166
	sw	80	0.091	13.0	3.17	253	1.38	111
	nw	118	0.091	13.0	3.17	374	1.38	163
	all	318	0.091	13.0	3.17	1007	1.38	440
Partitions (none)								
Windows								
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	nw	12	0.470	0	16.4	196	29.0	348
Doors (none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		148	0.026	38.0	0.90	134	1.38	205
Floors								
22A-tp1: Bg floor, light dry soil, on grade depth, carp 80% flr fnsh		33	0.989	0	34.4	1136	0	0



Component Constructions

living

DL Williams Heating & Cooling L.L.C.

Job: 1
 Date: 02/24/2025
 By: DL Williams Heating & C...
 Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
 lot 97, Columbia, FL

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional, FL, US		Indoor temperature (°F)		68	75
Elevation: 123 ft		Design TD (°F)		35	17
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		8.2	43.8
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method	Simplified	
Daily range (°F)	-	18 (M)	Construction quality	Average	
Wet bulb (°F)	-	76	Fireplaces	0	
Wind speed (mph)	15.0	7.5			

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12C-0bw: Frm wall, brk 4" ext, 3/8" wood shth, r-13 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	nw	85	0.091	13.0	3.17	269	1.38	118
Partitions								
(none)								
Windows								
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	nw	24	0.470	0	16.4	393	29.0	695
10D-v: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/8" thk; NFRC rated (SHGC=0.32); 8 ft overhang (7 ft window ht, 2 ft sep.); 6.67 ft head ht	nw	21	0.490	0	17.1	358	21.0	441
Doors								
(none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		336	0.026	38.0	0.90	304	1.38	465
Floors								
22A-tp1: Bg floor, light dry soil, on grade depth, carp 80% flr fnsh		13	0.989	0	34.4	447	0	0



Component Constructions hall

DL Williams Heating & Cooling L.L.C.

Job: 1
Date: 02/24/2025
By: DL Williams Heating & C...
Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
lot 97, Columbia, FL

Design Conditions

Location:

Gainesville Regional, FL, US
Elevation: 123 ft
Latitude: 30°N

Outdoor:

Drybulb (°F)
Daily range (°F)
Wet bulb (°F)
Wind speed (mph)

Heating

33
-
-
15.0

Cooling

92
18 (M)
76
7.5

Indoor:

Indoor temperature (°F)
Design TD (°F)
Relative humidity (%)
Moisture difference (gr/lb)

Heating

68
35
30
8.2

Cooling

75
17
50
43.8

Infiltration:

Method
Construction quality
Fireplaces

Simplified
Average
0

Construction descriptions

Or	Area ft ²	U-value Btuh/ft ² -°F	Insul R ft ² -°F/Btuh	Htg HTM Btuh/ft ²	Loss Btuh	Clg HTM Btuh/ft ²	Gain Btuh
----	-------------------------	-------------------------------------	-------------------------------------	---------------------------------	--------------	---------------------------------	--------------

Walls
(none)

Partitions
(none)

Windows
(none)

Doors
(none)

Ceilings
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2"
gypsum board int fnsh

28 0.026 38.0 0.90 25 1.38 39

Floors
(none)



Component Constructions

nook

DL Williams Heating & Cooling L.L.C.

Job: 1
Date: 02/24/2025
By: DL Williams Heating & C...
Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
lot 97, Columbia, FL

Design Conditions

Location: Gainesville Regional, FL, US Elevation: 123 ft Latitude: 30°N			Indoor: Indoor temperature (°F) 68 Design TD (°F) 35 Relative humidity (%) 30 Moisture difference (gr/lb) 8.2	Heating 68 35 30 8.2	Cooling 75 17 50 43.8
Outdoor: Drybulb (°F) Daily range (°F) Wet bulb (°F) Wind speed (mph)	Heating 33 - - 15.0	Cooling 92 18 (M) 76 7.5	Infiltration: Method Construction quality Fireplaces	Simplified Average 0	

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls 12C-0bw: Frm wall, brk 4" ext, 3/8" wood shth, r-13 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	sw	48	0.091	13.0	3.17	152	1.38	66
Partitions (none)								
Windows 4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	sw	12	0.470	0	16.4	196	30.0	360
Doors (none)								
Ceilings 16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		54	0.026	38.0	0.90	49	1.38	75
Floors 22A-tp1: Bg floor, light dry soil, on grade depth, carp 80% flr fnsh		6	0.989	0	34.4	207	0	0



Component Constructions

foyer

DL Williams Heating & Cooling L.L.C.

Job: 1
 Date: 02/24/2025
 By: DL Williams Heating & C...
 Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
 lot 97, Columbia, FL

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional, FL, US		Indoor temperature (°F)		68	75
Elevation:	123 ft	Design TD (°F)		35	17
Latitude:	30°N	Relative humidity (%)		30	50
Outdoor:		Moisture difference (gr/lb)		8.2	43.8
	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92	Method		
Daily range (°F)	-	18 (M)	Construction quality		
Wet bulb (°F)	-	76	Fireplaces		
Wind speed (mph)	15.0	7.5	Simplified		
			Average		
			0		

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12C-0bw: Frm wall, brk 4" ext, 3/8" wood shth, r-13 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	se	35	0.091	13.0	3.17	111	1.38	48
Partitions								
(none)								
Windows								
10D-v: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/8" thk; 6.67 ft head ht	se	21	0.490	0	17.1	358	21.7	456
	se	7	0.470	0	16.4	114	30.0	210
	all	28	0.470	0	16.9	473	23.8	666
4A5-2ov: 2 glazing, clr low-e outr, air gas, insulated vinyl frm mat, clr innr, 1/4" gap, 1/8" thk; 5 ft overhang (7 ft window ht, 2 ft sep.); 6.67 ft head ht	se	7	0.470	0	16.4	114	16.4	115
Doors								
(none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 1/2" gypsum board int fnsh		70	0.026	38.0	0.90	63	1.38	97
Floors								
22A-tpl: Bg floor, light dry soil, on grade depth, carp 80% flr fnsh		7	0.989	0	34.4	241	0	0

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
 lot 97, Columbia, FL

Notes:

Design Information

Weather: Gainesville Regional, FL, US

Winter Design Conditions

Outside db 33 °F
 Inside db 68 °F
 Design TD 35 °F

Ventilation Method MJ8

Summer Design Conditions

Outside db 92 °F
 Inside db 75 °F
 Design TD 17 °F
 Daily range M
 Relative humidity 50 %
 Moisture difference 44 gr/lb

Heating Summary

Structure 21041 Btuh
 Ducts (R-6.0) 4979 Btuh
 Central vent (0 cfm) 0 Btuh
 Humidification 0 Btuh
 Piping 0 Btuh
 Equipment load 26021 Btuh

Infiltration

Method Simplified
 Construction quality Average
 Fireplaces 0

	Heating	Cooling
Area (ft ²)	1814	1814
Volume (ft ³)	18140	18140
Air changes/hour	0.38	0.20
Equiv. AVF (cfm)	115	60

Heating Equipment Summary

Make Trane
 Trade TRANE
 Model 4TWR5030H1
 AHRI ref 9033590
 Efficiency 8.1 HSPF2
 Heating input
 Heating output 27800 Btuh @ 47°F
 Temperature rise 29 °F
 Actual air flow 875 cfm
 Air flow factor 0.034 cfm/Btuh
 Static pressure 0.50 in H2O
 Space thermostat
 Capacity balance point = 32 °F

Backup:
 Input = 8 kW, Output = 26399 Btuh, 100 AFUE

Sensible Cooling Equipment Load Sizing

Structure 15634 Btuh
 Ducts (R-6.0) 6149 Btuh
 Central vent (0 cfm) 0 Btuh
 Blower 0 Btuh
 Use manufacturer's data n
 Rate/swing multiplier 0.97
 Equipment sensible load 21173 Btuh

Latent Cooling Equipment Load Sizing

Structure 2993 Btuh
 Ducts 1188 Btuh
 Central vent (0 cfm) 0 Btuh
 Equipment latent load 4180 Btuh
Equipment Total Load (Sen+Lat) 25353 Btuh
 Req. total capacity at 0.70 SHR 2.5 ton

Cooling Equipment Summary

Make Trane
 Trade TRANE
 Cond 4TWR5030H1
 Coil TEM6A0B30H21++TDR
 AHRI ref 9033590
 Efficiency 12.5 EER2, 15.25 SEER2
 Sensible cooling 20300 Btuh
 Latent cooling 8700 Btuh
 Total cooling 29000 Btuh
 Actual air flow 875 cfm
 Air flow factor 0.040 cfm/Btuh
 Static pressure 0.50 in H2O
 Load sensible heat ratio 0.84

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

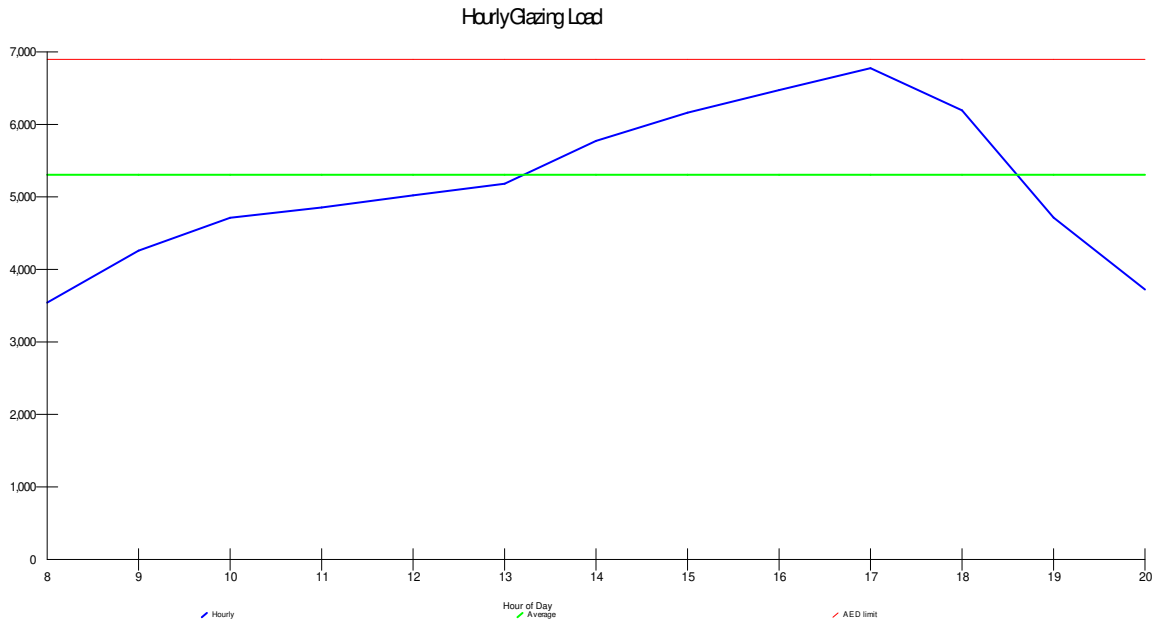
Project Information

For: Adams Preserve lot 97-1820, Adams Homes
 lot 97, Columbia, FL

Design Conditions

Location:		Indoor:		Heating	Cooling
Gainesville Regional, FL, US		Indoor temperature (°F)		68	75
Elevation: 123 ft		Design TD (°F)		35	17
Latitude: 30°N		Relative humidity (%)		30	50
		Moisture difference (gr/lb)		8.2	43.8
Outdoor:	Heating	Cooling	Infiltration:		
Drybulb (°F)	33	92			
Daily range (°F)	-	18 (M)			
Wet bulb (°F)	-	76			
Wind speed (mph)	15.0	7.5			

Test for Adequate Exposure Diversity



Maximum hourly glazing load exceeds average by 27.7%.

House has adequate exposure diversity (AED), based on AED limit of 30%.

AED excursion: 0 Btuh

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

1 Room name				Entire House				kitchen						
2 Exposed wall				10.0 ft				10.0 ft						
3 Room height				183.9 ft				1.0 x 230.0 ft						
4 Room dimensions				1814.0 ft²				230.0 ft²						
5 Room area														
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0bw	0.091	ne	3.17	1.38	620	584	1849	808	0	0	0	0
	G	4A5-2ov	0.470	ne	16.36	28.96	36	0	589	1043	0	0	0	0
	W	12C-0bw	0.091	se	3.17	1.38	220	161	510	223	0	0	0	0
	G	10D-v	0.490	se	17.05	21.73	21	0	358	456	0	0	0	0
11	G	4A5-2ov	0.470	se	16.36	29.99	31	0	507	930	0	0	0	0
	G	4A5-2ov	0.470	se	16.36	16.41	7	6	114	115	0	0	0	0
	W	12C-0bw	0.091	sw	3.17	1.38	580	529	1675	732	100	88	279	122
	G	4A5-2ov	0.470	sw	16.36	29.99	36	0	589	1080	12	0	196	360
	G	4A5-2ov	0.470	sw	16.36	20.29	15	4	245	304	0	0	0	0
	W	12C-0bw	0.091	nw	3.17	1.38	420	351	1112	486	0	0	0	0
	G	10D-v	0.490	nw	17.05	20.98	21	0	358	441	0	0	0	0
	G	4A5-2ov	0.470	nw	16.36	28.96	48	0	785	1390	0	0	0	0
	C	16B-38ad	0.026	-	0.90	1.38	1814	1814	1641	2509	230	230	208	318
	F	22A-tpl	0.989	-	34.42	0.00	1814	184	6330	0	230	10	344	0
6	c) AED excursion									0				-59
	Envelope loss/gain								16663	10515			1027	740
12	a) Infiltration								4378	1139			238	62
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230			6			1380	1			230
			Appliances/other							2600				1200
	Subtotal (lines 6 to 13)								21041	15634			1265	2232
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								21041	15634			1265	2232
15	Duct loads							24%	4979	6149	24%	39%	299	878
	Total room load								26021	21783			1565	3110
	Air required (cfm)								875	875			53	125

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

1 Room name				laundry				owner bath						
2 Exposed wall				0 ft				11.9 ft						
3 Room height				10.0 ft				10.0 ft						
4 Room dimensions				6.0 x 6.0 ft				1.0 x 123.5 ft						
5 Room area				36.0 ft²				123.5 ft²						
	Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0bw	0.091	ne	3.17	1.38	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	ne	16.36	28.96	0	0	0	0	0	0	0	0
	W	12C-0bw	0.091	se	3.17	1.38	0	0	0	0	0	0	0	0
	G	10D-v	0.490	se	17.05	21.73	0	0	0	0	0	0	0	0
11	G	4A5-2ov	0.470	se	16.36	29.99	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	se	16.36	16.41	0	0	0	0	0	0	0	0
	W	12C-0bw	0.091	sw	3.17	1.38	0	0	0	0	120	108	342	149
	G	4A5-2ov	0.470	sw	16.36	29.99	0	0	0	0	12	0	196	360
	G	4A5-2ov	0.470	sw	16.36	20.29	0	0	0	0	0	0	0	0
	W	12C-0bw	0.091	nw	3.17	1.38	0	0	0	0	0	0	0	0
	G	10D-v	0.490	nw	17.05	20.98	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	nw	16.36	28.96	0	0	0	0	0	0	0	0
	C	16B-38ad	0.026	-	0.90	1.38	36	36	33	50	124	124	112	171
	F	22A-tdl	0.989	-	34.42	0.00	36	0	0	0	124	12	410	0
6	c) AED excursion													56
	Envelope loss/gain								33	8			1060	736
12	a) Infiltration								0	0			286	74
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @		230		0			0	0			0
			Appliances/other							500				0
	Subtotal (lines 6 to 13)								33	508			1346	810
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								33	508			1346	810
15	Duct loads						24%	39%	8	200	24%	39%	318	319
	Total room load								40	708			1664	1129
	Air required (cfm)								1	28			56	45

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

1 Room name				wic		den/br4								
2 Exposed wall				0 ft		32.0 ft								
3 Room height				10.0 ft		10.0 ft								
4 Room dimensions				1.0 x 44.5 ft		13.0 x 13.0 ft								
5 Room area				44.5 ft²		169.0 ft²								
	Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0bw	0.091	ne	3.17	1.38	0	0	0	0	130	130	412	180
	G	4A5-2ov	0.470	ne	16.36	28.96	0	0	0	0	0	0	0	0
	W	12C-0bw	0.091	se	3.17	1.38	0	0	0	0	130	106	336	147
	G	10D-v	0.490	se	17.05	21.73	0	0	0	0	0	0	0	0
11	G	4A5-2ov	0.470	se	16.36	29.99	0	0	0	0	24	0	393	720
	G	4A5-2ov	0.470	se	16.36	16.41	0	0	0	0	0	0	0	0
	W	12C-0bw	0.091	sw	3.17	1.38	0	0	0	0	60	60	190	83
	G	4A5-2ov	0.470	sw	16.36	29.99	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	sw	16.36	20.29	0	0	0	0	0	0	0	0
	W	12C-0bw	0.091	nw	3.17	1.38	0	0	0	0	0	0	0	0
	G	10D-v	0.490	nw	17.05	20.98	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	nw	16.36	28.96	0	0	0	0	0	0	0	0
	C	16B-38ad	0.026	-	0.90	1.38	44	44	40	62	169	169	153	234
	F	22A-tpl	0.989	-	34.42	0.00	44	0	0	0	169	32	1101	0
6	c) AED excursion													-79
	Envelope loss/gain								40	57			2584	1284
12	a) Infiltration								0	0			761	198
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @		230		0			0	1			230
			Appliances/other							0				0
	Subtotal (lines 6 to 13)								40	57			3346	1712
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								40	57			3346	1712
15	Duct loads						24%	39%	10	22	24%	39%	792	673
	Total room load								50	79			4137	2385
	Air required (cfm)								2	3			139	96

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

1 Room name				owner bed 42.0 ft 10.0 ft x 218.0 ft heat/cool 218.0 ft²				dining 11.0 ft 10.0 ft x 11.0 ft heat/cool 143.0 ft²									
2 Exposed wall	3 Room height	4 Room dimensions	5 Room area	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
								Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0bw	0.091	ne	3.17	1.38		80	80	253	111	110	86	272	119		
	G	4A5-2ov	0.470	ne	16.36	28.96		0	0	0	0	24	0	393	695		
	W	12C-0bw	0.091	se	3.17	1.38		20	20	63	28	0	0	0	0		
	G	10D-v	0.490	se	17.05	21.73		0	0	0	0	0	0	0	0		
11	G	4A5-2ov	0.470	se	16.36	29.99		0	0	0	0	0	0	0	0		
	G	4A5-2ov	0.470	se	16.36	16.41		0	0	0	0	0	0	0	0		
	W	12C-0bw	0.091	sw	3.17	1.38		160	145	459	201	0	0	0	0		
	G	4A5-2ov	0.470	sw	16.36	29.99		0	0	0	0	0	0	0	0		
	G	4A5-2ov	0.470	sw	16.36	20.29		15	4	245	304	0	0	0	0		
	W	12C-0bw	0.091	nw	3.17	1.38		160	148	469	205	0	0	0	0		
	G	10D-v	0.490	nw	17.05	20.98		0	0	0	0	0	0	0	0		
	G	4A5-2ov	0.470	nw	16.36	28.96		12	0	196	348	0	0	0	0		
	C	16B-38ad	0.026	-	0.90	1.38		218	218	197	302	143	143	129	198		
	F	22A-tdl	0.989	-	34.42	0.00		218	42	1446	0	143	11	379	0		
6	c) AED excursion										107				-98		
	Envelope loss/gain									3329	1604			1173	913		
12	a) Infiltration									999	260			262	68		
	b) Room ventilation									0	0			0	0		
13	Internal gains:		Occupants @	230			0			0	0	1			230		
			Appliances/other							0	0				0		
	Subtotal (lines 6 to 13)									4328	1864			1435	1211		
	Less external load									0	0			0	0		
	Less transfer									0	0			0	0		
	Redistribution									0	0			0	0		
14	Subtotal									4328	1864			1435	1211		
15	Duct loads						24%	39%		1024	733	24%	39%	339	476		
	Total room load									5353	2598			1774	1688		
	Air required (cfm)									180	104			60	68		

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

1 Room name				br3				bath						
2 Exposed wall				10.0 ft 13.0 ft heat/cool				10.0 ft 5.0 ft heat/cool						
3 Room height				13.0 x 13.0 ft				9.0 x 5.0 ft						
4 Room dimensions				169.0 ft²				45.0 ft²						
5 Room area														
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0bw	0.091	ne	3.17	1.38	130	118	374	163	50	50	158	69
	G	4A5-2ov	0.470	ne	16.36	28.96	12	0	196	348	0	0	0	0
	W	12C-0bw	0.091	se	3.17	1.38	0	0	0	0	0	0	0	0
	G	10D-v	0.490	se	17.05	21.73	0	0	0	0	0	0	0	0
11	G	4A5-2ov	0.470	se	16.36	29.99	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	se	16.36	16.41	0	0	0	0	0	0	0	0
	W	12C-0bw	0.091	sw	3.17	1.38	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	sw	16.36	29.99	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	sw	16.36	20.29	0	0	0	0	0	0	0	0
	W	12C-0bw	0.091	nw	3.17	1.38	0	0	0	0	0	0	0	0
	G	10D-v	0.490	nw	17.05	20.98	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	nw	16.36	28.96	0	0	0	0	0	0	0	0
	C	16B-38ad	0.026	-	0.90	1.38	169	169	153	234	45	45	41	62
	F	22A-tdl	0.989	-	34.42	0.00	169	13	447	0	45	5	172	0
6	c) AED excursion									-62				-12
	Envelope loss/gain								1170	683			371	119
12	a) Infiltration								309	80			119	31
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230			0			0	0			0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)								1480	763			490	150
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								5	7			6	8
14	Subtotal								1484	769			496	158
15	Duct loads						24%	39%	351	303	24%	39%	117	62
	Total room load								1835	1072			613	221
	Air required (cfm)								62	43			21	9

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

1 Room name				br2		living								
2 Exposed wall				33.0 ft		13.0 ft								
3 Room height				10.0 ft		10.0 ft								
4 Room dimensions				1.0 x 148.0 ft		1.0 x 336.0 ft								
5 Room area				148.0 ft²		336.0 ft²								
Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
				Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12C-0bw	0.091	ne	3.17	1.38	120	120	380	166	0	0	0	0
	G	4A5-2ov	0.470	ne	16.36	28.96	0	0	0	0	0	0	0	0
	W	12C-0bw	0.091	se	3.17	1.38	0	0	0	0	0	0	0	0
	G	10D-v	0.490	se	17.05	21.73	0	0	0	0	0	0	0	0
11	G	4A5-2ov	0.470	se	16.36	29.99	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	se	16.36	16.41	0	0	0	0	0	0	0	0
	W	12C-0bw	0.091	sw	3.17	1.38	80	80	253	111	0	0	0	0
	G	4A5-2ov	0.470	sw	16.36	29.99	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	sw	16.36	20.29	0	0	0	0	0	0	0	0
	W	12C-0bw	0.091	nw	3.17	1.38	130	118	374	163	130	85	269	118
	G	10D-v	0.490	nw	17.05	20.98	0	0	0	0	21	0	358	441
	G	4A5-2ov	0.470	nw	16.36	28.96	12	0	196	348	24	0	393	695
	C	16B-38ad	0.026	-	0.90	1.38	148	148	134	205	336	336	304	465
	F	22A-tdl	0.989	-	34.42	0.00	148	33	1136	0	336	13	447	0
6	c) AED excursion									22				142
	Envelope loss/gain								2473	1014			1771	1860
12	a) Infiltration								785	204			309	80
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230			0			0	3			690
			Appliances/other							0				900
	Subtotal (lines 6 to 13)								3258	1218			2081	3530
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								7	10			8	11
14	Subtotal								3265	1228			2089	3542
15	Duct loads						24%	39%	773	483	24%	39%	494	1393
	Total room load								4038	1711			2583	4934
	Air required (cfm)								136	69			87	198

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

1 Room name				hall		nook								
2 Exposed wall				10.0 ft		10.0 ft								
3 Room height				0 ft		6.0 ft								
4 Room dimensions				4.0 x 7.0 ft		9.0 x 6.0 ft								
5 Room area				28.0 ft²		54.0 ft²								
Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
				Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12C-0bw	0.091	ne	3.17	1.38	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	ne	16.36	28.96	0	0	0	0	0	0	0	0
	W	12C-0bw	0.091	se	3.17	1.38	0	0	0	0	0	0	0	0
	G	10D-v	0.490	se	17.05	21.73	0	0	0	0	0	0	0	0
11	G	4A5-2ov	0.470	se	16.36	29.99	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	se	16.36	16.41	0	0	0	0	0	0	0	0
	W	12C-0bw	0.091	sw	3.17	1.38	0	0	0	0	60	48	152	66
	G	4A5-2ov	0.470	sw	16.36	29.99	0	0	0	0	12	0	196	360
	G	4A5-2ov	0.470	sw	16.36	20.29	0	0	0	0	0	0	0	0
	W	12C-0bw	0.091	nw	3.17	1.38	0	0	0	0	0	0	0	0
	G	10D-v	0.490	nw	17.05	20.98	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	nw	16.36	28.96	0	0	0	0	0	0	0	0
	C	16B-38ad	0.026	-	0.90	1.38	28	28	25	39	54	54	49	75
	F	22A-tdl	0.989	-	34.42	0.00	28	0	0	0	54	6	207	0
6	c) AED excursion													72
	Envelope loss/gain								25	36			604	573
12	a) Infiltration								0	0			143	37
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230			0			0	0			0
			Appliances/other							0				0
	Subtotal (lines 6 to 13)								25	36			746	610
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								-25	-36			0	0
14	Subtotal								0	0			746	610
15	Duct loads						24%	39%	0	0	24%	39%	177	240
	Total room load								0	0			923	851
	Air required (cfm)								0	0			31	34

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

1 Room name				foyer										
2 Exposed wall				7.0 ft										
3 Room height				10.0 ft				heat/cool						
4 Room dimensions				7.0 x 10.0 ft										
5 Room area				70.0 ft²										
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area or perimeter		Load	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12C-0bw	0.091	ne	3.17	1.38	0	0	0	0				
	G	4A5-2ov	0.470	ne	16.36	28.96	0	0	0	0				
	W	12C-0bw	0.091	se	3.17	1.38	70	35	111	48				
	G	10D-v	0.490	se	17.05	21.73	21	0	358	456				
11	G	4A5-2ov	0.470	se	16.36	29.99	7	0	114	210				
	G	4A5-2ov	0.470	se	16.36	16.41	7	6	114	115				
	W	12C-0bw	0.091	sw	3.17	1.38	0	0	0	0				
	G	4A5-2ov	0.470	sw	16.36	29.99	0	0	0	0				
	G	4A5-2ov	0.470	sw	16.36	20.29	0	0	0	0				
	W	12C-0bw	0.091	nw	3.17	1.38	0	0	0	0				
	G	10D-v	0.490	nw	17.05	20.98	0	0	0	0				
	G	4A5-2ov	0.470	nw	16.36	28.96	0	0	0	0				
	C	16B-38ad	0.026	-	0.90	1.38	70	70	63	97				
	F	22A-tp1	0.989	-	34.42	0.00	70	7	241	0				
6	c) AED excursion									-39				
	Envelope loss/gain								1002	887				
12	a) Infiltration								167	43				
	b) Room ventilation								0	0				
13	Internal gains:		Occupants @	230			0			0				
			Appliances/other							0				
	Subtotal (lines 6 to 13)								1169	931				
	Less external load								0	0				
	Less transfer								0	0				
	Redistribution								0	0				
14	Subtotal								1169	931				
15	Duct loads						24%	39%	277	366				
	Total room load								1445	1297				
	Air required (cfm)								49	52				

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

1 Name of Room			Entire House						kitchen			
2 Running Feet of Exposed Wall			183.9 ft						10.0 ft			
3 Ceiling Ht (Ft) and Gross Wall Area (SqFt)			10.0 ft		6424.0 ft²		10.0 ft		720.0 ft²			
4 Room Dimensions (Ft) and Floor Plan Area (SqFt)					1814.0 ft²		1.0 x 230.0 ft		230.0 ft²			
5 Ceiling Slope (Deg.) and Gross Ceiling Area (SqFt)			0 °		1814.0 ft²		0 °		230.0 ft²			
Type of Exposure	Const., Number	Panel Faces	HTM		Area or Length	Btuh			Area or Length	Btuh		
			Htg.	Clg.		Heating	S-Clg	L-Clg		Heating	S-Clg	L-Clg
6	Wall	12C-0bw	ne	3.17	1.38	620	1849	808		0	0	0
	Glaz	4A5-2ov	ne	16.36	28.96	36	589	1043		0	0	0
	Wall	12C-0bw	se	3.17	1.38	220	510	223		0	0	0
	Glaz	10D-v	se	17.05	21.73	21	358	456		0	0	0
11	Glaz	4A5-2ov	se	16.36	29.99	31	507	930		0	0	0
	Glaz	4A5-2ov	se	16.36	16.41	7	114	115		0	0	0
	Wall	12C-0bw	sw	3.17	1.38	580	1675	732	100	279	122	
	Glaz	4A5-2ov	sw	16.36	29.99	36	589	1080	12	196	360	
	Glaz	4A5-2ov	sw	16.36	20.29	15	245	304	0	0	0	
	Wall	12C-0bw	nw	3.17	1.38	420	1112	486	0	0	0	
	Glaz	10D-v	nw	17.05	20.98	21	358	441	0	0	0	
	Glaz	4A5-2ov	nw	16.36	28.96	48	785	1390	0	0	0	
	Ceiling	16B-38ad	-	0.90	1.38	1814	1641	2509	230	208	318	
	Floor	22A-tpl	-	34.42	0.00	1814	6330	0	230	344	0	
12	Infiltration	Heating Load (Btuh)		Effect ACH		0.38	WAR	4378	WAR	0.05	238	
		Sensible Load (Btuh)				0.20		1139			62	
		Latent Load (Btuh)						1793				
13	Internal	a Occupants at 230 and 200 Btuh				6		1380	1200	1	230	200
		b Scenario number						2600			1200	
		c Default Adjustments										
		d Custom Appliances						0	0		0	0
		e Plants							0		0	0
14	Subtotals	Sum lines 6 through 12						21041	15634	2993	1265	2232
15	Duct Loads	EHLF & ESGF		0.237	0.393			4979	6149		299	878
		ELG							1188			151
16	Ventilation Loads	Vent Cfm	0	E Cfm	0			0	0	0		
17	Winter Humidification Load	Gal/Day		0				0				
18	Piping Load							0				
19	Blower Heat							0				
20	AED Excursion & Latent Moisture Migration Load							0			-59	
21	Total Load	Sum lines 13 through 19						26021	21783	4180	1565	3110

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

1 Name of Room			laundry			owner bath						
2 Running Feet of Exposed Wall			0 ft			11.9 ft						
3 Ceiling Ht (Ft) and Gross Wall Area (SqFt)			10.0 ft	240.0 ft ²	10.0 ft	501.6 ft ²						
4 Room Dimensions (Ft) and Floor Plan Area (SqFt)			6.0 x 6.0 ft	36.0 ft ²	1.0 x 123.5 ft	123.5 ft ²						
5 Ceiling Slope (Deg.) and Gross Ceiling Area (SqFt)			0 °	36.0 ft ²	0 °	123.5 ft ²						
Type of Exposure	Const., Number	Panel Faces	HTM		Area or Length	Btuh			Area or Length	Btuh		
			Htg.	Clg.		Heating	S-Clg	L-Clg		Heating	S-Clg	L-Clg
6	Wall	12C-0bw	ne	3.17	1.38	0	0	0	0	0	0	0
	Glaz	4A5-2ov	ne	16.36	28.96	0	0	0	0	0	0	0
	Wall	12C-0bw	se	3.17	1.38	0	0	0	0	0	0	0
	Glaz	10D-v	se	17.05	21.73	0	0	0	0	0	0	0
11	Glaz	4A5-2ov	se	16.36	29.99	0	0	0	0	0	0	0
	Glaz	4A5-2ov	se	16.36	16.41	0	0	0	0	0	0	0
	Wall	12C-0bw	sw	3.17	1.38	0	0	0	120	342	149	
	Glaz	4A5-2ov	sw	16.36	29.99	0	0	0	12	196	360	
	Glaz	4A5-2ov	sw	16.36	20.29	0	0	0	0	0	0	
	Wall	12C-0bw	nw	3.17	1.38	0	0	0	0	0	0	
	Glaz	10D-v	nw	17.05	20.98	0	0	0	0	0	0	
	Glaz	4A5-2ov	nw	16.36	28.96	0	0	0	0	0	0	
	Ceiling	16B-38ad	-	0.90	1.38	36	33	50	124	112	171	
	Floor	22A-tol	-	34.42	0.00	36	0	0	124	410	0	
12	Infiltration	Heating Load (Btuh)		Effect		0.38	WAR	0	WAR	286		
		Sensible Load (Btuh)		ACH		0.20	0	0	0.07	74		
		Latent Load (Btuh)										
13	Internal	a Occupants at 230 and 200 Btuh				0		0	0	0	0	0
		b Scenario number						500			0	
		c Default Adjustments										
		d Custom Appliances						0			0	0
		e Plants									0	0
14	Subtotals	Sum lines 6 through 12						33	508		1346	810
15	Duct Loads	EHLF & ESGF		0.237	0.393			8	200		318	319
		ELG							24			81
16	Ventilation Loads	Vent Cfm	0	E Cfm	0							
17	Winter Humidification Load	Gal/Day		0								
18	Piping Load											
19	Blower Heat											
20	AED Excursion & Latent Moisture Migration Load											
21	Total Load	Sum lines 13 through 19						40	708		1664	1129

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

1 Name of Room			wic			den/br4							
2 Running Feet of Exposed Wall			0 ft			32.0 ft							
3 Ceiling Ht (Ft) and Gross Wall Area (SqFt)			10.0 ft	262.4 ft²	10.0 ft	520.0 ft²							
4 Room Dimensions (Ft) and Floor Plan Area (SqFt)			1.0 x 44.5 ft	44.5 ft²	13.0 x 13.0 ft	169.0 ft²							
5 Ceiling Slope (Deg.) and Gross Ceiling Area (SqFt)			0 °	44.5 ft²	0 °	169.0 ft²							
Type of Exposure	Const., Number	Panel Faces	HTM		Area or Length	Btuh			Area or Length	Btuh			
			Htg.	Clg.		Heating	S-Clg	L-Clg		Heating	S-Clg	L-Clg	
6	Wall	12C-0bw	ne	3.17	1.38	0	0	0	130	412	180		
	Glaz	4A5-2ov	ne	16.36	28.96	0	0	0	0	0	0		
	Wall	12C-0bw	se	3.17	1.38	0	0	0	130	336	147		
	Glaz	10D-v	se	17.05	21.73	0	0	0	0	0	0		
11	Glaz	4A5-2ov	se	16.36	29.99	0	0	0	24	393	720		
	Glaz	4A5-2ov	se	16.36	16.41	0	0	0	0	0	0		
	Wall	12C-0bw	sw	3.17	1.38	0	0	0	60	190	83		
	Glaz	4A5-2ov	sw	16.36	29.99	0	0	0	0	0	0		
	Glaz	4A5-2ov	sw	16.36	20.29	0	0	0	0	0	0		
	Wall	12C-0bw	nw	3.17	1.38	0	0	0	0	0	0		
	Glaz	10D-v	nw	17.05	20.98	0	0	0	0	0	0		
	Glaz	4A5-2ov	nw	16.36	28.96	0	0	0	0	0	0		
	Ceiling	16B-38ad	-	0.90	1.38	44	40	62	169	153	234		
	Floor	22A-tpl	-	34.42	0.00	44	0	0	169	1101	0		
12	Infiltration	Heating Load (Btuh)		Effect ACH		0.38	WAR	0	WAR	761			
		Sensible Load (Btuh)		0.20		0		0	0.17	198			
		Latent Load (Btuh)											
13	Internal	a Occupants at 230 and 200 Btuh				0		0	1		230	200	
		b Scenario number						0			0		
		c Default Adjustments											
		d Custom Appliances						0			0	0	
		e Plants									0	0	
14	Subtotals	Sum lines 6 through 12						40	57		3346	1712	
15	Duct Loads	EHLF & ESGF		0.237	0.393			10	22		792	673	
		ELG							29			111	
16	Ventilation Loads	Vent Cfm	0	E Cfm	0								
17	Winter Humidification Load	Gal/Day		0									
18	Piping Load												
19	Blower Heat												
20	AED Excursion & Latent Moisture Migration Load												
21	Total Load	Sum lines 13 through 19						50	79		4137	2385	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

1 Name of Room			owner bed				dining					
2 Running Feet of Exposed Wall			42.0 ft				11.0 ft					
3 Ceiling Ht (Ft) and Gross Wall Area (SqFt)			10.0 ft		640.0 ft²		10.0 ft		480.0 ft²			
4 Room Dimensions (Ft) and Floor Plan Area (SqFt)			1.0 x 218.0 ft		218.0 ft²		13.0 x 11.0 ft		143.0 ft²			
5 Ceiling Slope (Deg.) and Gross Ceiling Area (SqFt)			0 °		218.0 ft²		0 °		143.0 ft²			
Type of Exposure	Const., Number	Panel Faces	HTM		Area or Length	Btuh			Area or Length	Btuh		
			Htg.	Clg.		Heating	S-Clg	L-Clg		Heating	S-Clg	L-Clg
6	Wall	12C-0bw	ne	3.17	1.38	80	253	111		110	272	119
	Glaz	4A5-2ov	ne	16.36	28.96	0	0	0		24	393	695
	Wall	12C-0bw	se	3.17	1.38	20	63	28		0	0	0
	Glaz	10D-v	se	17.05	21.73	0	0	0		0	0	0
11	Wall	4A5-2ov	se	16.36	29.99	0	0	0		0	0	0
	Glaz	4A5-2ov	se	16.36	16.41	0	0	0		0	0	0
	Wall	12C-0bw	sw	3.17	1.38	160	459	201		0	0	0
	Glaz	4A5-2ov	sw	16.36	29.99	0	0	0		0	0	0
	Glaz	4A5-2ov	sw	16.36	20.29	15	245	304		0	0	0
	Wall	12C-0bw	nw	3.17	1.38	160	469	205		0	0	0
	Glaz	10D-v	nw	17.05	20.98	0	0	0		0	0	0
	Glaz	4A5-2ov	nw	16.36	28.96	12	196	348		0	0	0
	Ceiling	16B-38ad	-	0.90	1.38	218	197	302		143	129	198
	Floor	22A-tpl	-	34.42	0.00	218	1446	0		143	379	0
12	Infiltration	Heating Load (Btuh)		Effect ACH		0.38	WAR	999		WAR	262	
		Sensible Load (Btuh)		0.20		0.23		260		0.06	68	
		Latent Load (Btuh)										
13	Internal	a Occupants at 230 and 200 Btuh				0		0	0	1	230	200
		b Scenario number						0			0	
		c Default Adjustments										
		d Custom Appliances						0	0		0	0
		e Plants							0		0	0
14	Subtotals	Sum lines 6 through 12						4328	1864		1435	1211
15	Duct Loads	EHLF & ESGF		0.237	0.393			1024	733		339	476
		ELG							143			94
16	Ventilation Loads	Vent Cfm	0	E Cfm	0							
17	Winter Humidification Load	Gal/Day		0								
18	Piping Load											
19	Blower Heat											
20	AED Excursion & Latent Moisture Migration Load								107			-98
21	Total Load	Sum lines 13 through 19						5353	2598		1774	1688

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

1 Name of Room			br3				bath					
2 Running Feet of Exposed Wall			13.0 ft				5.0 ft					
3 Ceiling Ht (Ft) and Gross Wall Area (SqFt)			10.0 ft 520.0 ft²				10.0 ft 280.0 ft²					
4 Room Dimensions (Ft) and Floor Plan Area (SqFt)			13.0 x 13.0 ft 169.0 ft²				9.0 x 5.0 ft 45.0 ft²					
5 Ceiling Slope (Deg.) and Gross Ceiling Area (SqFt)			0 ° 169.0 ft²				0 ° 45.0 ft²					
Type of Exposure	Const., Number	Panel Faces	HTM		Area or Length	Btuh			Area or Length	Btuh		
			Htg.	Clg.		Heating	S-Clg	L-Clg		Heating	S-Clg	L-Clg
6 Wall	12C-0bw	ne	3.17	1.38	130	374	163		50	158	69	
Glaz	4A5-2ov	ne	16.36	28.96	12	196	348		0	0	0	
Wall	12C-0bw	se	3.17	1.38	0	0	0		0	0	0	
Glaz	10D-v	se	17.05	21.73	0	0	0		0	0	0	
Glaz	4A5-2ov	se	16.36	29.99	0	0	0		0	0	0	
Glaz	4A5-2ov	se	16.36	16.41	0	0	0		0	0	0	
Wall	12C-0bw	sw	3.17	1.38	0	0	0		0	0	0	
Glaz	4A5-2ov	sw	16.36	29.99	0	0	0		0	0	0	
Glaz	4A5-2ov	sw	16.36	20.29	0	0	0		0	0	0	
Wall	12C-0bw	nw	3.17	1.38	0	0	0		0	0	0	
Glaz	10D-v	nw	17.05	20.98	0	0	0		0	0	0	
Glaz	4A5-2ov	nw	16.36	28.96	0	0	0		0	0	0	
Ceiling	16B-38ad	-	0.90	1.38	169	153	234		45	41	62	
Floor	22A-tol	-	34.42	0.00	169	447	0		45	172	0	
12 Infiltration	Heating Load (Btuh)		Effect ACH		0.38	WAR	309		WAR	119		
	Sensible Load (Btuh)		0.20		WAR	0.07			0.03		31	
	Latent Load (Btuh)											
13 Internal	a Occupants at 230 and 200 Btuh				0		0	0	0		0	0
	b Scenario number						0				0	
	c Default Adjustments											
	d Custom Appliances						0	0			0	0
	e Plants							0			0	0
14 Subtotals	Sum lines 6 through 12						1484	769		496	158	
15 Duct Loads	EHLF & ESGF		0.237	0.393			351	303		117	62	
	ELG								111			29
16 Ventilation Loads	Vent Cfm	0	E Cfm	0								
17 Winter Humidification Load	Gal/Day		0									
18 Piping Load												
19 Blower Heat												
20 AED Excursion & Latent Moisture Migration Load								-62			-12	
21 Total Load	Sum lines 13 through 19						1835	1072		613	221	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

1 Name of Room				br2			living						
2 Running Feet of Exposed Wall				33.0 ft			13.0 ft						
3 Ceiling Ht (Ft) and Gross Wall Area (SqFt)				10.0 ft 500.0 ft²			10.0 ft 900.0 ft²						
4 Room Dimensions (Ft) and Floor Plan Area (SqFt)				1.0 x 148.0 ft 148.0 ft²			1.0 x 336.0 ft 336.0 ft²						
5 Ceiling Slope (Deg.) and Gross Ceiling Area (SqFt)				0 ° 148.0 ft²			0 ° 336.0 ft²						
Type of Exposure	Const., Number	Panel Faces	HTM		Area or Length	Btuh			Area or Length	Btuh			
			Htg.	Clg.		Heating	S-Clg	L-Clg		Heating	S-Clg	L-Clg	
6	Wall	12C-0bw	ne	3.17	1.38	120	380	166		0	0	0	
	Glaz	4A5-2ov	ne	16.36	28.96	0	0	0		0	0	0	
	Wall	12C-0bw	se	3.17	1.38	0	0	0		0	0	0	
	Glaz	10D-v	se	17.05	21.73	0	0	0		0	0	0	
11	Wall	4A5-2ov	se	16.36	29.99	0	0	0		0	0	0	
	Glaz	4A5-2ov	se	16.36	16.41	0	0	0		0	0	0	
	Wall	12C-0bw	sw	3.17	1.38	80	253	111		0	0	0	
	Glaz	4A5-2ov	sw	16.36	29.99	0	0	0		0	0	0	
	Glaz	4A5-2ov	sw	16.36	20.29	0	0	0		0	0	0	
	Wall	12C-0bw	nw	3.17	1.38	130	374	163		130	269	118	
	Glaz	10D-v	nw	17.05	20.98	0	0	0		21	358	441	
	Glaz	4A5-2ov	nw	16.36	28.96	12	196	348		24	393	695	
	Ceiling	16B-38ad	-	0.90	1.38	148	134	205		336	304	465	
	Floor	22A-tpl	-	34.42	0.00	148	1136	0		336	447	0	
12	Infiltration	Heating Load (Btuh)		Effect ACH		0.38	WAR	785		WAR	309		
		Sensible Load (Btuh)		0.20				204			80		
		Latent Load (Btuh)											
13	Internal	a Occupants at 230 and 200 Btuh				0		0	0	3	690	600	
		b Scenario number						0			900		
		c Default Adjustments											
		d Custom Appliances						0	0		0	0	
		e Plants							0		0	0	
14	Subtotals	Sum lines 6 through 12						3265	1228		2089	3542	
15	Duct Loads	EHLF & ESGF		0.237	0.393			773	483		494	1393	
		ELG							97			220	
16	Ventilation Loads	Vent Cfm	0	E Cfm	0								
17	Winter Humidification Load	Gal/Day		0									
18	Piping Load												
19	Blower Heat												
20	AED Excursion & Latent Moisture Migration Load								22			142	
21	Total Load	Sum lines 13 through 19						4038	1711		2583	4934	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

1 Name of Room			hall				nook						
2 Running Feet of Exposed Wall			0 ft				6.0 ft						
3 Ceiling Ht (Ft) and Gross Wall Area (SqFt)			10.0 ft 220.0 ft²				10.0 ft 300.0 ft²						
4 Room Dimensions (Ft) and Floor Plan Area (SqFt)			4.0 x 7.0 ft 28.0 ft²				9.0 x 6.0 ft 54.0 ft²						
5 Ceiling Slope (Deg.) and Gross Ceiling Area (SqFt)			0 ° 28.0 ft²				0 ° 54.0 ft²						
Type of Exposure	Const., Number	Panel Faces	HTM		Area or Length	Btuh			Area or Length	Btuh			
			Htg.	Clg.		Heating	S-Clg	L-Clg		Heating	S-Clg	L-Clg	
6	Wall	12C-0bw	3.17	1.38	0	0	0	0	0	0	0	0	
	Glaz	4A5-2ov	16.36	28.96	0	0	0	0	0	0	0	0	
	Wall	12C-0bw	3.17	1.38	0	0	0	0	0	0	0	0	
	Glaz	10D-v	17.05	21.73	0	0	0	0	0	0	0	0	
11	Glaz	4A5-2ov	16.36	29.99	0	0	0	0	0	0	0	0	
	Glaz	4A5-2ov	16.36	16.41	0	0	0	0	0	0	0	0	
	Wall	12C-0bw	3.17	1.38	0	0	0	0	60	152	66	0	
	Glaz	4A5-2ov	16.36	29.99	0	0	0	0	12	196	360	0	
	Glaz	4A5-2ov	16.36	20.29	0	0	0	0	0	0	0	0	
	Wall	12C-0bw	3.17	1.38	0	0	0	0	0	0	0	0	
	Glaz	10D-v	17.05	20.98	0	0	0	0	0	0	0	0	
	Glaz	4A5-2ov	16.36	28.96	0	0	0	0	0	0	0	0	
	Ceiling	16B-38ad	0.90	1.38	28	25	39	54	49	75	0	0	
	Floor	22A-tpl	34.42	0.00	28	0	0	54	207	0	0	0	
12	Infiltration	Heating Load (Btuh)		0.38	WAR 0	0	0	0	WAR 0.03	143	0	0	
		Sensible Load (Btuh)		0.20		0	0	0		37	0	0	
		Latent Load (Btuh)											
13	Internal	a Occupants at 230 and 200 Btuh			0	0	0	0	0	0	0	0	
		b Scenario number				0	0	0	0	0	0	0	
		c Default Adjustments											
		d Custom Appliances				0	0	0	0	0	0	0	
		e Plants											
14	Subtotals	Sum lines 6 through 12				0	0		746	610			
15	Duct Loads	EHLF & ESGF		0.237	0.393	0	0		177	240			
		ELG						18			35		
16	Ventilation Loads	Vent Cfm	0	E Cfm	0								
17	Winter Humidification Load	Gal/Day			0								
18	Piping Load												
19	Blower Heat												
20	AED Excursion & Latent Moisture Migration Load							-3			72		
21	Total Load	Sum lines 13 through 19				0	0		923	851			

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

1 Name of Room			2 Running Feet of Exposed Wall			3 Ceiling Ht (Ft) and Gross Wall Area (SqFt)			4 Room Dimensions (Ft) and Floor Plan Area (SqFt)			5 Ceiling Slope (Deg.) and Gross Ceiling Area (SqFt)		
			foyer			7.0 ft			10.0 ft			340.0 ft²		
			7.0 x 10.0 ft			70.0 ft²			0 °			70.0 ft²		
Type of Exposure	Const., Number	Panel Faces	HTM		Area or Length	Btuh			Area or Length	Btuh				
			Htg.	Clg.		Heating	S-Clg	L-Clg		Heating	S-Clg	L-Clg		
6	Wall	12C-0bw	ne	3.17	1.38	0	0	0						
	Glaz	4A5-2ov	ne	16.36	28.96	0	0	0						
	Wall	12C-0bw	se	3.17	1.38	70	111	48						
	Glaz	10D-v	se	17.05	21.73	21	358	456						
11	Glaz	4A5-2ov	se	16.36	29.99	7	114	210						
	Glaz	4A5-2ov	se	16.36	16.41	7	114	115						
	Wall	12C-0bw	sw	3.17	1.38	0	0	0						
	Glaz	4A5-2ov	sw	16.36	29.99	0	0	0						
	Glaz	4A5-2ov	sw	16.36	20.29	0	0	0						
	Wall	12C-0bw	nw	3.17	1.38	0	0	0						
	Glaz	10D-v	nw	17.05	20.98	0	0	0						
	Glaz	4A5-2ov	nw	16.36	28.96	0	0	0						
	Ceiling	16B-38ad	-	0.90	1.38	70	63	97						
	Floor	22A-tpl	-	34.42	0.00	70	241	0						
12	Infiltration	Heating Load (Btuh)		Effect		0.38		WAR		167				
		Sensible Load (Btuh)		ACH		0.20		0.04		43				
		Latent Load (Btuh)												
13	Internal	a Occupants at 230 and 200 Btuh				0		0		0				
		b Scenario number						0						
		c Default Adjustments												
		d Custom Appliances						0		0				
		e Plants								0				
14	Subtotals	Sum lines 6 through 12						1169		931				
15	Duct Loads	EHLF & ESGF		0.237		0.393		277		366				
		ELG								46				
16	Ventilation Loads	Vent Cfm	0	E Cfm	0									
17	Winter Humidification Load	Gal/Day		0										
18	Piping Load													
19	Blower Heat													
20	AED Excursion & Latent Moisture Migration Load									-39				
21	Total Load	Sum lines 13 through 19						1445		1297				

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Loads for Multiple Orientations

Entire House

DL Williams Heating & Cooling L.L.C.

Job: 1
 Date: 02/24/2025
 By: DL Williams Heating & C...
 Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

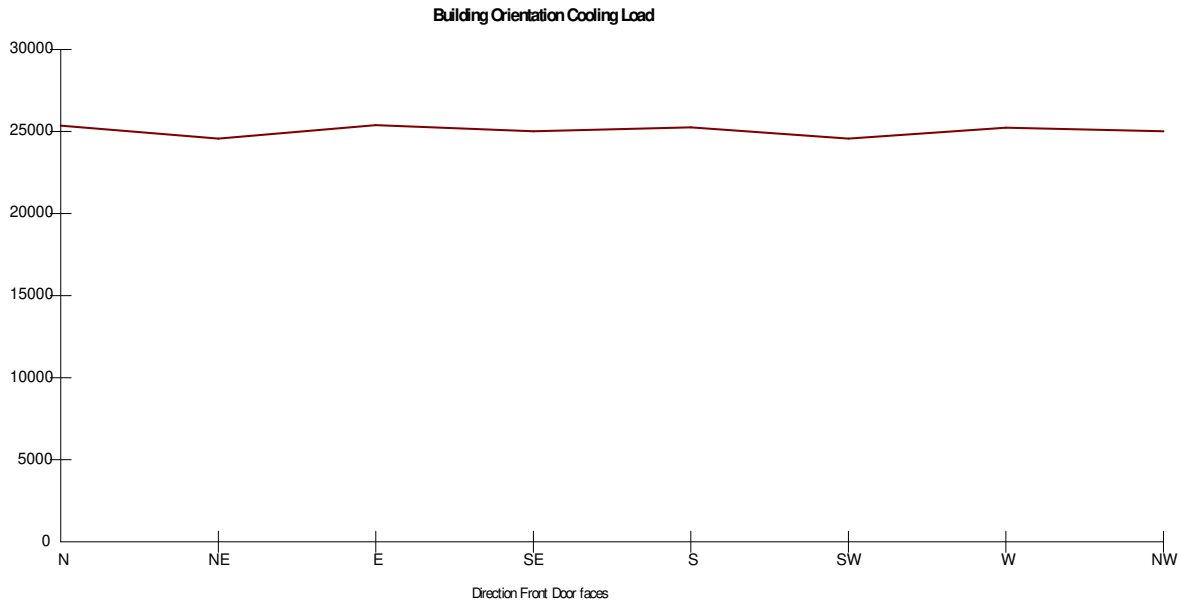
Project Information

For: Adams Preserve lot 97-1820, Adams Homes
 lot 97, Columbia, FL

Design Conditions

Location:				Indoor:	Heating	Cooling
Gainesville Regional, FL, US				Indoor temperature (°F)	68	75
Elevation:	123 ft			Design TD (°F)	35	17
Latitude:	30°N			Relative humidity (%)	30	50
Outdoor:		Heating	Cooling	Moisture difference (gr/lb)	8.2	43.8
Drybulb (°F)		33	92	Infiltration:		
Daily range (°F)		-	18 (M)			
Wet bulb (°F)		-	76			
Wind speed (mph)		15.0	7.5			

Front Door	North	Northeast	East	Southeast	South	Southwest	West	Northwest
Sensible Load (Btuh)	21173	20387	21202	20836	21076	20391	21047	20836
Latent Load (Btuh)	4180	4180	4180	4180	4180	4180	4180	4180
Total Load (Btuh)	25353	24568	25382	25016	25257	24571	25228	25016
Heating AVF (cfm)	875	875	875	875	875	875	875	875
Cooling AVF (cfm)	875	875	875	875	875	875	875	875



Current Orientation: Front Door faces North
 Highest Cooling Load: Front Door faces East

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





J1 Form - Worksheet A

Entire House

DL Williams Heating & Cooling L.L.C.

Job: 1
Date: 02/24/2025
By: DL Williams Heating & C...
Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Supporting Detail	
Project Name: Adams Preserve lot 97-1820 manuals	Date: 02/24/2025
Address: lot 97, Columbia, FL	
Phone:	Job ID: 1

Worksheet A Location and Design Conditions			
Weather Location: Gainesville Regional, FL, US	Elevation = 123	Latitude = 30	
Indoor Conditions, Heating: DB = 68 °F RH = 30 %	Indoor Conditions, Cooling: DB = 75 °F RH = 50 %		
Table 1 Conditions 99% DB = 33 °F 1% DB = 92 °F	Grains Difference = 44 gr/lb	Daily Range = M	
Design Temperature Differences	HTD = 35 °F	CTD = 17 °F	

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Right-Suite® Universal 2025 25.0.01 RSU02245

2025-Feb-24 09:16:47



Duct System Summary

Entire House

DL Williams Heating & Cooling L.L.C.

Job: 1
 Date: 02/24/2025
 By: DL Williams Heating & C...
 Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
 lot 97, Columbia, FL

	Heating	Cooling
External static pressure	0.50 in H2O	0.50 in H2O
Pressure losses	0 in H2O	0 in H2O
Available static pressure	0.50 in H2O	0.50 in H2O
Supply / return available pressure	0.360 / 0.140 in H2O	0.360 / 0.140 in H2O
Lowest friction rate	0.229 in/100ft	0.229 in/100ft
Actual air flow	875 cfm	875 cfm
Total effective length (TEL)	218 ft	

Supply Branch Detail Table

Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
bath	h 613	21	9	0.333	4.0	0x0	VIFx	13.0	95.0	
br2	h 4038	136	69	0.322	6.0	0x0	VIFx	16.8	95.0	
br3	h 1835	62	43	0.364	5.0	0x0	VIFx	4.0	95.0	
den/br4	h 4137	139	96	0.332	6.0	0x0	VIFx	13.6	95.0	
dining	c 1688	60	68	0.356	6.0	0x0	VIFx	6.1	95.0	
foyer	c 1297	49	52	0.338	4.0	0x0	VIFx	11.7	95.0	
kitchen	c 3110	53	125	0.266	6.0	0x0	VIFx	20.4	115.0	st2
laundry	c 708	1	28	0.258	4.0	0x0	VIFx	24.3	115.0	st2
living	c 4934	87	198	0.348	7.0	0x0	VIFx	8.5	95.0	
nook	c 851	31	34	0.254	4.0	0x0	VIFx	26.6	115.0	st2
owner bath	h 1664	56	45	0.233	5.0	0x0	VIFx	24.5	130.0	st1
owner bed	h 5353	180	104	0.229	7.0	0x0	VIFx	27.1	130.0	st1
wic	c 79	2	3	0.240	4.0	0x0	VIFx	19.8	130.0	st1

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st1	Peak AVF	238	153	0.229	889	7.0	0 x 0	ShtMetl	
st2	Peak AVF	85	188	0.254	702	7.0	0 x 0	VinIFlx	

Bold/italic values have been manually overridden



Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb1	0x0	466	336	61.0	0.229	593	12.0	0x 0		VIFx	
rb6	0x0	409	539	0	0	0	0	0x 0		VIFx	



Duct system multi orientation report

Entire House

DL Williams Heating & Cooling L.L.C.

Job: 1
 Date: 02/24/2025
 By: DL Williams Heating & C...
 Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
 lot 97, Columbia, FL

Group 1: (N) Group 2: (NE, E, SE, SW, W, NW) Group 3: (S)

Duct Name	(N)			(NE)			(E)			(SE)		
	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size
Supply Branches												
bath	21 h	12x6	4	21 h	12x6	4	21 h	12x6	4	21 h	12x6	4
br2	136 h	12x6	6	136 h	12x6	6	136 h	12x6	6	136 h	12x6	6
br3	62 h	12x6	5	62 h	12x6	5	62 h	12x6	5	62 h	12x6	5
den/br4	139 h	12x6	6	139 h	12x6	6	139 h	12x6	6	139 h	12x6	6
dining	89 c	12x6	6	68 c	12x6	6	60 h	12x6	6	82 c	12x6	6
foyer	49 h	12x6	4	52 c	12x6	4	70 c	12x6	4	54 c	12x6	4
kitchen	143 c	12x6	7	125 c	12x6	6	113 c	12x6	6	122 c	12x6	6
laundry	30 c	12x6	4	28 c	12x6	4	29 c	12x6	4	29 c	12x6	4
living	156 c	12x6	6	198 c	12x6	7	225 c	12x6	7	197 c	12x6	7
nook	46 c	12x6	4	34 c	12x6	4	31 h	12x6	4	31 h	12x6	4
owner bath	58 c	12x6	5	56 h	12x6	5	56 h	12x6	5	56 h	12x6	5
owner bed	180 h	12x6	7	180 h	12x6	7	180 h	12x6	7	180 h	12x6	7
wic	3 c	12x6	4	3 c	12x6	4	3 c	12x6	4	3 c	12x6	4
Supply Trunks												
st1	238 h		7	238 h		7	238 h		7	238 h		7
st2	219 c		8	188 c		7	163 c		7	181 c		7
Return Branches												
rb1	466 h	24x20	12	466 h	24x20	12	466 h	24x20	12	466 h	24x20	12
rb6	542 c	12x12	0	539 c	12x12	0	523 c	12x12	0	516 c	12x12	0
Friction Rates												
Heating FR	0.229			0.229			0.229			0.229		
Cooling FR	0.229			0.229			0.229			0.229		

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
lot 97, Columbia, FL

Duct Name	(S)			(SW)			(W)			(NW)		
	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size
Supply Branches												
bath	21 h	12x6	4	21 h	12x6	4	21 h	12x6	4	21 h	12x6	4
br2	136 h	12x6	6	136 h	12x6	6	136 h	12x6	6	136 h	12x6	6
br3	64 c	12x6	5	62 h	12x6	5	62 h	12x6	5	62 h	12x6	5
den/br4	139 h	12x6	6	139 h	12x6	6	139 h	12x6	6	139 h	12x6	6
dining	108 c	12x6	6	84 c	12x6	6	60 h	12x6	6	73 c	12x6	6
foyer	49 h	12x6	4	71 c	12x6	4	95 c	12x6	4	68 c	12x6	4
kitchen	136 c	12x6	6	121 c	12x6	6	112 c	12x6	6	125 c	12x6	6
laundry	31 c	12x6	4	29 c	12x6	4	29 c	12x6	4	29 c	12x6	4
living	163 c	12x6	7	170 c	12x6	7	189 c	12x6	7	178 c	12x6	7
nook	38 c	12x6	4	31 h	12x6	4	31 h	12x6	4	34 c	12x6	4
owner bath	56 h	12x6	5	56 h	12x6	5	56 h	12x6	5	56 h	12x6	5
owner bed	180 h	12x6	7	180 h	12x6	7	180 h	12x6	7	180 h	12x6	7
wic	3 c	12x6	4	3 c	12x6	4	3 c	12x6	4	3 c	12x6	4
Supply Trunks												
st1	238 h		7	238 h		7	238 h		7	238 h		7
st2	205 c		8	178 c		7	161 c		7	188 c		7
Return Branches												
rb1	466 h	24x20	12	466 h	24x20	12	466 h	24x20	12	466 h	24x20	12
rb6	519 c	12x12	0	487 c	12x12	0	475 c	12x12	0	510 c	12x12	0
Friction Rates												
Heating FR	0.229			0.229			0.229			0.229		
Cooling FR	0.229			0.229			0.229			0.229		

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
lot 97, Columbia, FL

Duct Name	Largest			Smallest		
	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size
Supply Branches						
bath	21 h	12x6	4	21 h	12x6	4
br2	136 h	12x6	6	136 h	12x6	6
br3	64 c	12x6	5	62 h	12x6	5
den/br4	139 h	12x6	6	139 h	12x6	6
dining	108 c	12x6	6	60 h	12x6	6
foyer	95 c	12x6	4	49 h	12x6	4
kitchen	143 c	12x6	7	112 c	12x6	6
laundry	31 c	12x6	4	28 c	12x6	4
living	225 c	12x6	7	156 c	12x6	6
nook	46 c	12x6	4	31 h	12x6	4
owner bath	58 c	12x6	5	56 h	12x6	5
owner bed	180 h	12x6	7	180 h	12x6	7
wic	3 c	12x6	4	3 c	12x6	4
Supply Trunks						
st1	238 h		7	238 h		7
st2	219 c		8	161 c		7
Return Branches						
rb1	466 h	24x20	12	466 h	24x20	12
rb6	542 c	12x12	0	475 c	12x12	0
Friction Rates						
Heating FR	0.229			0.229		
Cooling FR	0.229			0.229		

Background Color Legend

Yellow background

Duct Size - duct size is smaller than the largest duct size in the row

Reg Size - register size is smaller than the largest register size in the row

Reg CFM - register design cfm is larger than 150 CFM

Friction Rate - friction rate is outside ACCA Manual-D recommended range (0.06 - 0.18)

Pink background column header

Largest cooling load orientation



Static Pressure and Friction Rate
Entire House
DL Williams Heating & Cooling L.L.C.

Job: 1
 Date: 02/24/2025
 By: DL Williams Heating & C...
 Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
 lot 97, Columbia, FL

Available Static Pressure

	Heating (in H2O)	Cooling (in H2O)
External static pressure	0.50	0.50
Pressure losses		
Coil	0	0
Heat exchanger	0	0
Supply diffusers	0	0
Return grilles	0	0
Filter	0	0
Humidifier	0	0
Balancing damper	0	0
Other device	0	0
Available static pressure	0.50	0.50

Total Effective Length

	Supply (ft)	Return (ft)
Measured length of run-out	10	1
Measured length of trunk	17	0
Equivalent length of fittings	130	60
Total length	157	61
Total effective length		218

Friction Rate

	Heating (in/100ft)	Cooling (in/100ft)
Supply Ducts	0.229 > 0.18	0.229 > 0.18
Return Ducts	0.229 > 0.18	0.229 > 0.18

Fitting Equivalent Length Details

Supply 4AD=60, 2A0=35, 1A=35: TotalEL=130
 Return 6M=20, 5D=40: TotalEL=60





Manual S Compliance Report
Entire House
DL Williams Heating & Cooling L.L.C.

Job: 1
 Date: 02/24/2025
 By: DL Williams Heating & C...
 Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
 lot 97, Columbia, FL

Cooling Equipment

Design Conditions

Outdoor design DB:	92.2°F	Sensible gain:	21783	Btuh	Entering coil DB:	77.1°F
Outdoor design WB:	75.8°F	Latent gain:	4180	Btuh	Entering coil WB:	63.5°F
Indoor design DB:	75.0°F	Total gain:	25963	Btuh		
Indoor RH:	50%	Estimated airflow:	875	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type: Split ASHP
 Manufacturer: Trane Model: 4TWR5030H1+TEM6A0B30H21++TDR
 Actual airflow: 875 cfm
 Sensible capacity: 23146 Btuh 106% of load
 Latent capacity: 4557 Btuh 109% of load
 Total capacity: 27703 Btuh 107% of load SHR: 84%

Heating Equipment

Design Conditions

Outdoor design DB:	33.2°F	Heat loss:	26021	Btuh	Entering coil DB:	67.1°F
Indoor design DB:	68.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type: Split ASHP
 Manufacturer: Trane Model: 4TWR5030H1+TEM6A0B30H21++TDR
 Actual airflow: 875 cfm
 Output capacity: 21309 Btuh 82% of load Capacity balance: 32 °F
 Supplemental heat required: 4712 Btuh Economic balance: -99 °F

Backup equipment type: Elec strip
 Manufacturer: Model:
 Actual airflow: 875 cfm
 Output capacity: 7.7 kW 101% of load Temp. rise: 51 °F

Meets all requirements of ACCA Manual S.





Residential Plans Examiner Review Form for HVAC System Design (Loads, Equipment, Ducts)

Form
RPER 2.0

Alachua Header Information

Contractor DL Williams Heating & Cooling L.L.C. Applicable Attachments
 Mechanical license# _____ Derrick Williams Manual J1 Form and Worksheet A: Yes No
 Building plan # 1820 OEM performance data (heating, cooling, blower): Yes No
 Duct distribution sketch: Yes No
 IRC Table R301.2 (climate & geographic design criteria) Yes No

Home address (Street or Lot#, Block, Subdivision) lot 97, Entire House

HVAC LOAD CALCULATION (IRC M1401.3)

Manual J Design Criteria and Loads

Location		Summer Design Conditions		Manual J Loads	
Elevation	123 ft	Outdoor Cooling Temp	92 °F	Total Heat Loss	26021 Btuh
Altitude Correction Factor	1.00	Indoor Cooling Temp	75 °F	Sensible Heat Gain	21783 Btuh
Latitude	30 °N	Cooling Temp Diff	17 °F	Latent Heat Gain	4180 Btuh
		Indoor Summer Design RH	50 %	Total Heat Gain	25963 Btuh
		Coincident Wet Bulb Temp	76 °F		

Winter Design Conditions

Outdoor Winter Temp 33 °F
 Indoor Winter Temp 68 °F
 Heating Temp Diff 35 °F

The heat loss/gain was calculated in accordance with ACCA Manual J? Y N

HVAC EQUIPMENT SELECTION (IRC M1401.3)

Heating Equipment

Furnace Boiler Electric Heat
 Single Speed Multi Stage Modulating

Cooling Equipment

Air Conditioner Heat Pump
 Air-to-Air Geothermal Open Loop Geothermal Closed Loop
 Single Speed Multi Stage Variable Speed

Model _____

Model 4TWR5030H1+TEM6A0B30H21++TDR

Output	21309 Btuh	Sizing Value	26021 Btuh	Sensible	23146 Btuh	Sizing Value	25963 Btuh
Supplemental Heat	4712 Btuh	Sizing Limit	175.0 %	Latent	4557 Btuh	Sizing Limit	115.0 %
		Load: Capacity	101.5 %	Total	27703 Btuh	Load: Capacity	106.7 %

Size Factor is within Manual S Size Limit? Y N

Size Factor is within Manual S Size Limit? Y N

HVAC DUCT DISTRIBUTION DESIGN (IRC M1601.1)

Design airflow	875 cfm	Longest Supply Duct	157 ft	Duct Materials Used	
External Static Pressure (ESP)	0.50 in H2O	Longest Return Duct	61.0 ft	Trunk Duct:	<input type="checkbox"/> Duct Board <input checked="" type="checkbox"/> Sheet Metal
Component Pressure Loss (CPL)	0 in H2O	Total Effective Length (TEL)	218 ft		<input checked="" type="checkbox"/> Flex <input type="checkbox"/> Lined Sheet Metal <input type="checkbox"/> Other
Available static pressure (ASP)	0.50 in H2O	Friction Rate	0.23 in/100ft	Branch Duct:	<input type="checkbox"/> Duct Board <input type="checkbox"/> Sheet Metal
ESP - CPL = ASP		(ASP x 100) / TEL = Friction Rate			<input checked="" type="checkbox"/> Flex <input type="checkbox"/> Lined Sheet Metal <input type="checkbox"/> Other

Ducts are sized per Manual D? Y N

I declare the load calculation, equipment selection, and duct system design were rigorously performed based on the building plan listed above and understand the claims made on these forms may be subject to review and verification.

Contractor's printed name: _____

Contractor's signature: _____ Date: _____



DHW Report
Entire House
DL Williams Heating & Cooling L.L.C.

Job: 1
Date: 02/24/2025
By: DL Williams Heating & C...
Plan: 1820

PO Box 2156, Lake City, FL 32056 Phone: 386-754-1987

Project Information

For: Adams Preserve lot 97-1820, Adams Homes
 lot 97, Columbia, FL

Design Criteria

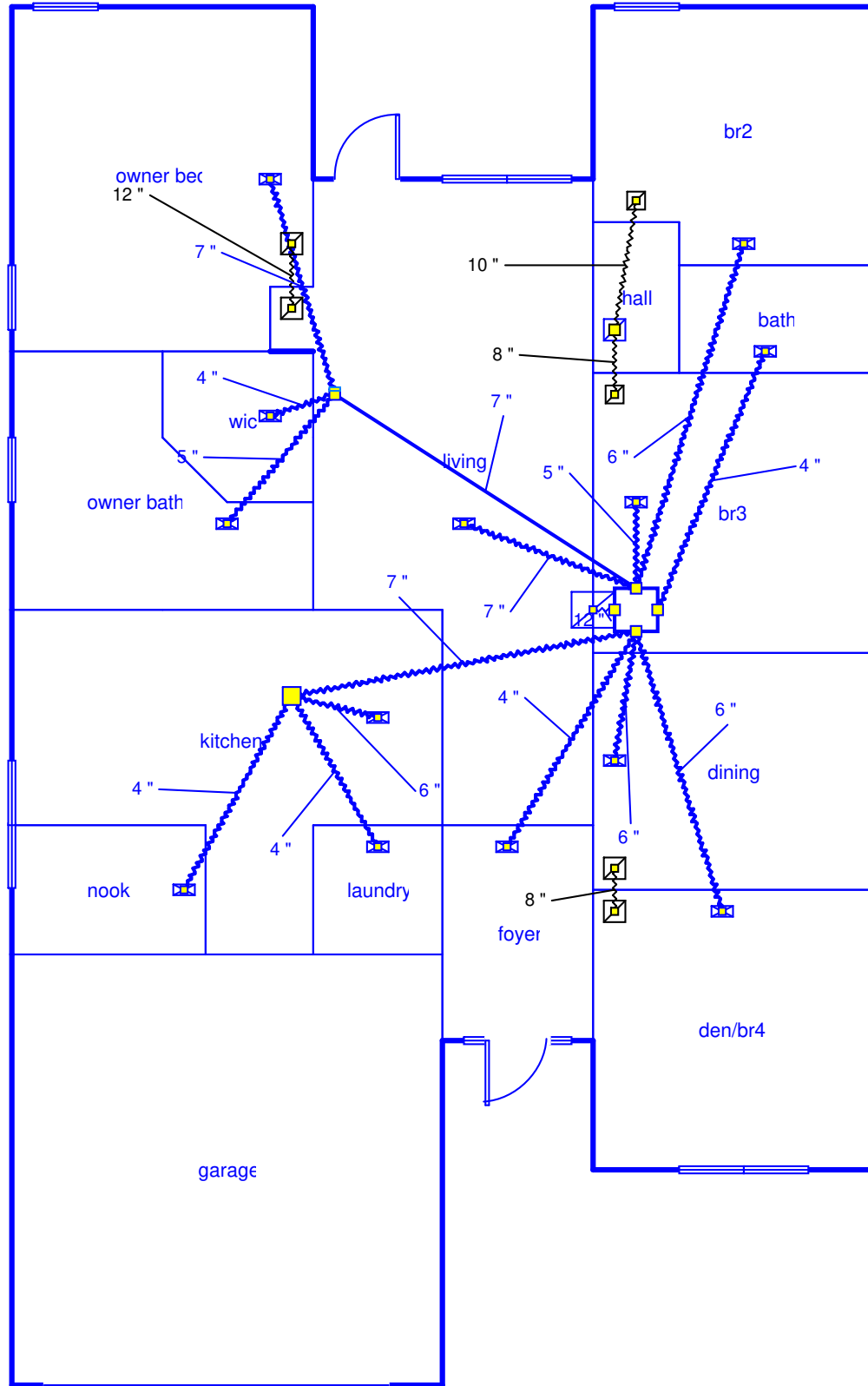
Occupants		Not occupied during the day	
Age	Number		
0-5	0	Dishwasher	
6-13	2	Clothes washer	
14-59	2	Additional use (gpd)	0
60+	0	Setpoint (°F)	120
		Daily use (gpd)	61

Electric conventional (40 gal, 0.90 EF)

Manufacturer	Tank size (gal)	40
Trade name	Energy factor	0.90
Model	Input (kWh)	0.0
AHRI ref. number	1st hour (gal)	50
	Recovery eff. (%)	98



Main



Job #: 1
Performed by DL Williams Heating & Cool
Adams Preserve lot 97-1820
lot 97
Columbia, FL

DL Williams Heating & Cooling L.L.C

PO Box 2156
Lake City, FL 32056
Phone: 386-754-1987

Scale: 1 : 93
Page 1
Right-Suite@ Universal 2025
25.0.01 RSU02245
2025-Feb-24 09:22:05
...Preserve lot 97-1820 manuals.ru