

Residential System Sizing Calculation

Summary

Jeff & Sunny Streer
5614 SW CR 240
Lake City, FL 32024

Project Title:
Streer Residence

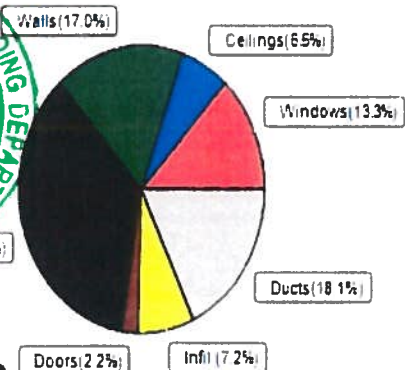
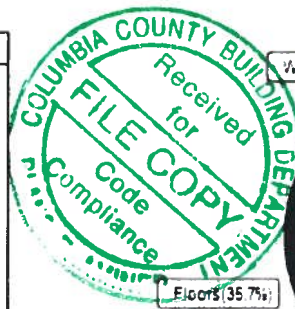
9/26/2019

Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(152 ft.) Temp Range(M)			
Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(51gr.)			
Winter design temperature(TMY3 99%)	30 F	Summer design temperature(TMY3 99%)	94 F
Winter setpoint	70 F	Summer setpoint	75 F
Winter temperature difference	40 F	Summer temperature difference	19 F
Total heating load calculation	32751 Btuh	Total cooling load calculation	23955 Btuh
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	100.1 32768	Sensible (SHR = 0.70)	83.8 16377
Heat Pump + Auxiliary(0.0kW)	100.1 32768	Latent	159.2 7019
		Total (Electric Heat Pump)	97.7 23396

WINTER CALCULATIONS

Winter Heating Load (for 1983 sqft)

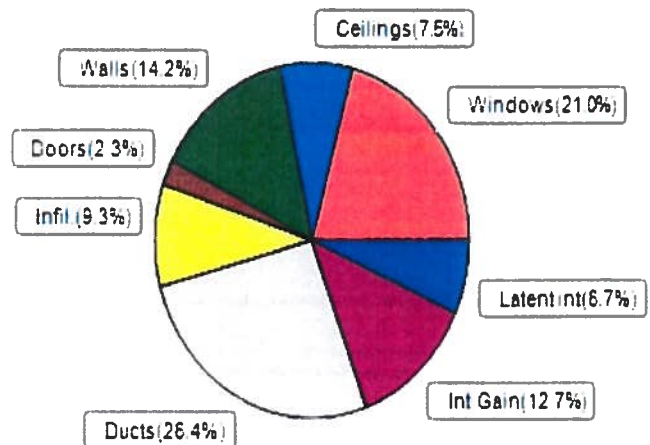
Load component		Load	
Window total	302 sqft	4354 Btuh	
Wall total	1569 sqft	5569 Btuh	
Door total	40 sqft	736 Btuh	
Ceiling total	2082 sqft	2114 Btuh	
Floor total	1983 sqft	11706 Btuh	
Infiltration	54 cfm	2350 Btuh	
Duct loss		5923 Btuh	
Subtotal		32751 Btuh	
Ventilation	0 cfm	0 Btuh	
TOTAL HEAT LOSS		32751 Btuh	



SUMMER CALCULATIONS

Summer Cooling Load (for 1983 sqft)

Load component		Load	
Window total	302 sqft	5019 Btuh	
Wall total	1569 sqft	3396 Btuh	
Door total	40 sqft	552 Btuh	
Ceiling total	2082 sqft	1797 Btuh	
Floor total		0 Btuh	
Infiltration	40 cfm	837 Btuh	
Internal gain		3040 Btuh	
Duct gain		4905 Btuh	
Sens. Ventilation	0 cfm	0 Btuh	
Blower Load		0 Btuh	
Total sensible gain		19545 Btuh	
Latent gain(ducts)		1421 Btuh	
Latent gain(infiltration)		1389 Btuh	
Latent gain(ventilation)		0 Btuh	
Latent gain(internal/occupants/other)		1600 Btuh	
Total latent gain		4410 Btuh	
TOTAL HEAT GAIN		23955 Btuh	



8th Edition

EnergyGauge® System Sizing

PREPARED BY:

DATE:

9/26/2019

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Jeff & Sunny Streer
5614 SW CR 240
Lake City, FL 32024

Project Title:
Streer Residence
Building Type: User

9/26/2019

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 40.0 F (TMY3 99%)

Component Loads for Whole House								
Window	Panes/Type	Frame	U	Orientation	Area(sqft)	X	HTM=	Load
1	2, NFRC 0.25	Vinyl	0.36	S	36.0		14.4	518 Btuh
2	2, NFRC 0.25	Vinyl	0.36	S	13.3		14.4	192 Btuh
3	2, NFRC 0.25	Vinyl	0.36	S	5.0		14.4	72 Btuh
4	2, NFRC 0.25	Vinyl	0.36	S	16.0		14.4	230 Btuh
5	2, NFRC 0.25	Vinyl	0.36	E	6.0		14.4	86 Btuh
6	2, NFRC 0.25	Vinyl	0.36	E	20.0		14.4	288 Btuh
7	2, NFRC 0.25	Vinyl	0.36	N	25.0		14.4	360 Btuh
8	2, NFRC 0.25	Vinyl	0.36	N	60.0		14.4	864 Btuh
9	2, NFRC 0.25	Vinyl	0.36	E	40.0		14.4	576 Btuh
10	2, NFRC 0.25	Vinyl	0.36	N	45.0		14.4	648 Btuh
11	2, NFRC 0.25	Vinyl	0.36	N	15.0		14.4	216 Btuh
12	2, NFRC 0.25	Vinyl	0.36	W	6.0		14.4	86 Btuh
13	2, NFRC 0.25	Vinyl	0.36	W	15.0		14.4	216 Btuh
Window Total					302.3(sqft)			4354 Btuh
Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area	X	HTM=	Load
1	Frame - Wood	- Ext	(0.089)	13.0/0.0	87		3.55	309 Btuh
2	Frame - Wood	- Ext	(0.089)	13.0/0.0	20		3.55	72 Btuh
3	Frame - Wood	- Ext	(0.089)	13.0/0.0	113		3.55	401 Btuh
4	Frame - Wood	- Ext	(0.089)	13.0/0.0	312		3.55	1106 Btuh
5	Frame - Wood	- Ext	(0.089)	13.0/0.0	109		3.55	385 Btuh
6	Frame - Wood	- Ext	(0.089)	13.0/0.0	72		3.55	256 Btuh
7	Frame - Wood	- Ext	(0.089)	13.0/0.0	78		3.55	277 Btuh
8	Frame - Wood	- Ext	(0.089)	13.0/0.0	80		3.55	284 Btuh
9	Frame - Wood	- Ext	(0.089)	13.0/0.0	176		3.55	623 Btuh
10	Frame - Wood	- Ext	(0.089)	13.0/0.0	255		3.55	905 Btuh
11	Frame - Wood	- Adj	(0.089)	13.0/0.0	178		3.55	632 Btuh
12	Frame - Wood	- Adj	(0.089)	13.0/0.0	90		3.55	320 Btuh
Wall Total					1569(sqft)			5569 Btuh
Doors	Type	Storm	Ueff.		Area	X	HTM=	Load
1	Insulated - Exterior, n		(0.460)		20		18.4	368 Btuh
2	Insulated - Garage, n		(0.460)		20		18.4	368 Btuh
Door Total					40(sqft)			736Btuh
Ceilings	Type/Color/Surface		Ueff.	R-Value	Area	X	HTM=	Load
1	Vented Attic/L/Shing		(0.025)	38.0/0.0	2082		1.0	2114 Btuh
Ceiling Total					2082(sqft)			2114Btuh
Floors	Type		Ueff.	R-Value	Size	X	HTM=	Load
1	Slab On Grade		(1.180)	0.0	248.0 ft(perim.)		47.2	11706 Btuh
Floor Total					1983 sqft			11706 Btuh
Envelope Subtotal:								24478 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Jeff & Sunny Streer
5614 SW CR 240
Lake City, FL 32024

Project Title:
Streer Residence
Building Type: User

9/26/2019

Infiltration	Type Natural	Wholehouse ACH 0.18	Volume(cuft) 17847	Wall Ratio 1.00	CFM= 53.7	2350 Btuh
Duct load	Average sealed, R6.0, Supply(Att), Return(Att) (DLM of 0.221)					5923 Btuh
All Zones	Sensible Subtotal All Zones					32751 Btuh

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss Ventilation Sensible Heat Loss Total Heat Loss	32751 Btuh 0 Btuh 32751 Btuh
---------------------------	--	------------------------------------

EQUIPMENT

1. Electric Heat Pump	#	32768 Btuh
-----------------------	---	------------

Key: Window types - NFRC (Requires U-Factor and Shading coefficient(SHGC) of glass as numerical values)
or - Glass as 'Clear' or 'Tint' (Uses U-Factor and SHGC defaults)

U - (Window U-Factor)

HTM - (ManualJ Heat Transfer Multiplier)



Version 8

System Sizing Calculations - Summer

Residential Load - Whole House Component Details

Jeff & Sunny Streer
5614 SW CR 240
Lake City, FL 32024

Project Title:
Streer Residence

9/26/2019

Reference City: Gainesville, FL

Temperature Difference: 19.0F(TMY3 99%) Humidity difference: 51gr.

Component Loads for Whole House

Window	Type*						Overhang		Window Area(sqft)			HTM		Load		
	Panes	SHGC	U	InSh	IS	Omt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded			
1	2 NFRC	0.25, 0.36	No	No	S		7.5ft.	1.0ft.	36.0	36.0	0.0	12	14	436	Btuh	
2	2 NFRC	0.25, 0.36	No	No	S		9.5ft.	2.0ft.	13.3	13.3	0.0	12	14	161	Btuh	
3	2 NFRC	0.25, 0.36	No	No	S		9.5ft.	0.5ft.	5.0	5.0	0.0	12	14	60	Btuh	
4	2 NFRC	0.25, 0.36	No	No	S		1.5ft.	1.0ft.	16.0	16.0	0.0	12	14	194	Btuh	
5	2 NFRC	0.25, 0.36	No	No	E		1.5ft.	1.0ft.	6.0	0.5	5.5	12	31	176	Btuh	
6	2 NFRC	0.25, 0.36	No	No	E		1.5ft.	1.0ft.	20.0	1.0	19.0	12	31	600	Btuh	
7	2 NFRC	0.25, 0.36	No	No	N		1.5ft.	1.0ft.	25.0	0.0	25.0	12	12	302	Btuh	
8	2 NFRC	0.25, 0.36	No	No	N		9.5ft.	1.0ft.	60.0	0.0	60.0	12	12	726	Btuh	
9	2 NFRC	0.25, 0.36	No	No	E		4.0ft.	1.0ft.	40.0	11.6	28.4	12	31	1019	Btuh	
10	2 NFRC	0.25, 0.36	No	No	N		1.5ft.	1.0ft.	45.0	0.0	45.0	12	12	544	Btuh	
11	2 NFRC	0.25, 0.36	No	No	N		1.5ft.	1.0ft.	15.0	0.0	15.0	12	12	181	Btuh	
12	2 NFRC	0.25, 0.36	No	No	W		1.5ft.	1.0ft.	6.0	1.0	5.0	12	31	167	Btuh	
13	2 NFRC	0.25, 0.36	No	No	W		1.5ft.	1.0ft.	15.0	0.7	14.3	12	31	450	Btuh	
Window Total									302 (sqft)					5019 Btuh		
Walls	Type						U-Value	R-Value	Area(sqft)		HTM		Load			
							Cav/Sheath									
1	Frame - Wood - Ext						0.09	13.0/0.0	87.0		2.3		197 Btuh			
2	Frame - Wood - Ext						0.09	13.0/0.0	20.2		2.3		46 Btuh			
3	Frame - Wood - Ext						0.09	13.0/0.0	113.0		2.3		256 Btuh			
4	Frame - Wood - Ext						0.09	13.0/0.0	311.5		2.3		705 Btuh			
5	Frame - Wood - Ext						0.09	13.0/0.0	108.5		2.3		246 Btuh			
6	Frame - Wood - Ext						0.09	13.0/0.0	72.0		2.3		163 Btuh			
7	Frame - Wood - Ext						0.09	13.0/0.0	78.0		2.3		177 Btuh			
8	Frame - Wood - Ext						0.09	13.0/0.0	80.0		2.3		181 Btuh			
9	Frame - Wood - Ext						0.09	13.0/0.0	175.5		2.3		397 Btuh			
10	Frame - Wood - Ext						0.09	13.0/0.0	255.0		2.3		577 Btuh			
11	Frame - Wood - Adj						0.09	13.0/0.0	178.0		1.7		300 Btuh			
12	Frame - Wood - Adj						0.09	13.0/0.0	90.0		1.7		152 Btuh			
Wall Total									1569 (sqft)					3396 Btuh		
Doors	Type								Area (sqft)		HTM		Load			
	1 Insulated - Exterior								20.0		13.8		276 Btuh			
	2 Insulated - Garage								20.0		13.8		276 Btuh			
Door Total									40 (sqft)					552 Btuh		
Ceilings	Type/Color/Surface						U-Value	R-Value	Area(sqft)		HTM		Load			
	1 Vented AtticLight/Shingle/RB						0.025	38.0/0.0	2082.0		0.86		1797 Btuh			
Ceiling Total									2082 (sqft)					1797 Btuh		
Floors	Type								R-Value		Size		HTM		Load	
	1 Slab On Grade								0.0		1983 (ft-perimeter)		0.0		0 Btuh	
Floor Total									1983.0 (sqft)					0 Btuh		
Envelope Subtotal:														10763 Btuh		

Manual J Summer Calculations

Residential Load - Component Details (continued)

Jeff & Sunny Streer
5614 SW CR 240
Lake City, FL 32024

Project Title: Climate:FL_GAINESVILLE_REGIONAL_A
Streer Residence

9/26/2019

Infiltration	Type Natural	Average ACH 0.14	Volume(cuft) 17847	Wall Ratio 1	CFM= 40.3	Load 837 Btuh
Internal gain		Occupants 8	Btuh/occupant X 230	Appliance +	1200	Load 3040 Btuh
					Sensible Envelope Load:	14640 Btuh
Duct load	Average sealed,Supply(R6.0-Attic), Return(R6.0-Attic)				(DGM of 0.335)	4905 Btuh
					Sensible Load All Zones	19545 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

Jeff & Sunny Streer
5614 SW CR 240
Lake City, FL 32024

Project Title: Climate:FL_GAINESVILLE_REGIONAL_A
Streer Residence

9/26/2019

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	14640 Btuh
	Sensible Duct Load	4905 Btuh
	Total Sensible Zone Loads	19545 Btuh
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	19545 Btuh
	Latent infiltration gain (for 51 gr. humidity difference)	1389 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	1421 Btuh
	Latent occupant gain (8.0 people @ 200 Btuh per person)	1600 Btuh
	Latent other gain	0 Btuh
	Latent total gain	4410 Btuh
	TOTAL GAIN	23955 Btuh

EQUIPMENT

1. Central Unit	#	23396 Btuh
-----------------	---	------------

*Key: Window types (Panels - Number and type of panes of glass)
(SHGC - Shading coefficient of glass as SHGC numerical value)
(U - Window U-Factor)
(InSh - Interior shading device: none(No), Blinds(B), Draperies(D) or Roller Shades(R))
- For Blinds: Assume medium color, half closed
For Draperies: Assume medium weave, half closed
For Roller shades: Assume translucent, half closed
(IS - Insect screen: none(N), Full(F) or Half(½))
(Ornt - compass orientation)



Version 8

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Streer Residence Street: 5614 SW CR 240 City, State, Zip: Lake City, FL, 32024 Owner: Jeff & Sunny Streer Design Location: FL, Gainesville	Builder Name: Gibraltar Contracting Permit Office: Columbia County Permit Number: Jurisdiction: County: Columbia (Florida Climate Zone 2)
---	--

1. New construction or existing New (From Plans) 2. Single family or multiple family Single-family 3. Number of units, if multiple family 1 4. Number of Bedrooms 4 5. Is this a worst case? No 6. Conditioned floor area abovegrade (ft²) 1983 Conditioned floor area below grade (ft²) 0 7. Windows (302.3 sqft.) Description Area a. U-Factor: Dbl, U=0.36 302.33 ft² SHGC: SHGC=0.25 b. U-Factor: N/A ft² SHGC: c. U-Factor: N/A ft² SHGC: d. U-Factor: N/A ft² SHGC: Area Weighted Average Overhang Depth: 4.618 ft. Area Weighted Average SHGC: 0.250 8. Floor Types (1983.0 sqft.) Insulation Area a. Slab-On-Grade Edge Insulation R=0.0 1983.00 ft² b. N/A R= ft² c. N/A R= ft²	9. Wall Types (1911.0 sqft.) Insulation Area a. Frame - Wood, Exterior R=13.0 1623.00 ft² b. Frame - Wood, Adjacent R=13.0 288.00 ft² c. N/A R= ft² d. N/A R= ft² 10. Ceiling Types (2082.0 sqft.) Insulation Area a. Under Attic (Vented) R=38.0 2082.00 ft² b. N/A R= ft² c. N/A R= ft² 11. Ducts R ft² a. Sup: Attic, Ret: Attic, AH: Garage 6 495.75 12. Cooling systems kBtu/hr Efficiency a. Central Unit 23.4 SEER:14.00 13. Heating systems kBtu/hr Efficiency a. Electric Heat Pump 32.8 HSPF:8.20 14. Hot water systems Cap: 50 gallons a. Electric EF: 0.920 b. Conservation features None 15. Credits CV, Pstat
---	---

Glass/Floor Area: 0.152	Total Proposed Modified Loads: 54.09	PASS
	Total Baseline Loads: 56.30	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY:  DATE: 9/26/2019 I hereby certify that this building, as designed, is in compliance with the Florida Energy Code. OWNER/AGENT: DATE:	Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.  BUILDING OFFICIAL: DATE:
--	--

- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with R403.3.2.1.
- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires an envelope leakage test report with envelope leakage no greater than 5.00 ACH50 (R402.4.1.2).

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	Streer Residence	Bedrooms:	4	Address Type:	Street Address
Building Type:	User	Conditioned Area:	1983	Lot #	
Owner Name:	Jeff & Sunny Streer	Total Stories:	1	Block/Subdivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	Gibraltar Contracting	Rotate Angle:	0	Street:	5614 SW CR 240
Permit Office:	Columbia County	Cross Ventilation:	Yes	County:	Columbia
Jurisdiction:		Whole House Fan:	No	City, State, Zip:	Lake City , FL , 32024
Family Type:	Single-family				
New/Existing:	New (From Plans)				
Comment:					

CLIMATE

✓	Design Location	TMY Site	Design Temp 97.5 %	2.5 %	Int Design Temp Winter	Summer	Heating Degree Days	Design Moisture	Daily Temp Range
_____	FL, Gainesville	FL_GAINESVILLE_REGI	32	92	70	75	1305.5	51	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	1983	17847

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	1983	17847	Yes	8	4	1	Yes	Yes	Yes

FLOORS

✓	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
_____	1	Slab-On-Grade	Edge Insulation	Main	248 ft	0	1983 ft²	----	0	0 1

ROOF

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt Tested	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Hip	Composition shingles	2297 ft²	0 ft²	Medium	Y	0.96	No	0.9	No	0	30.3

ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	1983 ft²	Y	N

CEILING

✓	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	Main	38	Double Batt	2082 ft²	0.11	Wood

INPUT SUMMARY CHECKLIST REPORT

WALLS

✓ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	In	Height Ft	In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
1	S	Exterior	Frame - Wood	Main	13	13	8	9		123.0 ft²		0.23	0.75	0
2	S	Exterior	Frame - Wood	Main	13	6	6	9		58.5 ft²		0.23	0.75	0
3	S	Exterior	Frame - Wood	Main	13	14	4	9		129.0 ft²		0.23	0.75	0
4	E	Exterior	Frame - Wood	Main	13	37	6	9		337.5 ft²		0.23	0.75	0
5	N	Exterior	Frame - Wood	Main	13	14	10	9		133.5 ft²		0.23	0.75	0
6	W	Exterior	Frame - Wood	Main	13	8		9		72.0 ft²		0.23	0.75	0
7	N	Exterior	Frame - Wood	Main	13	15	4	9		138.0 ft²		0.23	0.75	0
8	E	Exterior	Frame - Wood	Main	13	13	4	9		120.0 ft²		0.23	0.75	0
9	N	Exterior	Frame - Wood	Main	13	26	2	9		235.5 ft²		0.23	0.75	0
10	W	Exterior	Frame - Wood	Main	13	30	8	9		276.0 ft²		0.23	0.75	0
11	S	Garage	Frame - Wood	Main	13	22		9		198.0 ft²		0.23	0.75	0
12	W	Garage	Frame - Wood	Main	13	10		9		90.0 ft²		0.23	0.75	0

DOORS

✓ #	Ornt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
1	S	Insulated	Main	None	.46	3		6	8	20 ft²
2	S	Insulated	Main	None	.46	3		6	8	20 ft²

WINDOWS

Orientation shown is the entered, Proposed orientation.

✓ #	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Area	Overhang Depth	Separation	Int Shade	Screening
1	S	1	Vinyl	Low-E Double	Yes	0.36	0.25	N	36.0 ft²	7 ft 6 in	1 ft 0 in	None	None
2	S	2	Vinyl	Low-E Double	Yes	0.36	0.25	N	13.3 ft²	9 ft 6 in	2 ft 0 in	None	None
3	S	2	Vinyl	Low-E Double	Yes	0.36	0.25	N	5.0 ft²	9 ft 6 in	0 ft 6 in	None	None
4	S	3	Vinyl	Low-E Double	Yes	0.36	0.25	N	16.0 ft²	1 ft 6 in	1 ft 0 in	None	None
5	E	4	Vinyl	Low-E Double	Yes	0.36	0.25	N	6.0 ft²	1 ft 6 in	1 ft 0 in	None	None
6	E	4	Vinyl	Low-E Double	Yes	0.36	0.25	N	20.0 ft²	1 ft 6 in	1 ft 0 in	None	None
7	N	5	Vinyl	Low-E Double	Yes	0.36	0.25	N	25.0 ft²	1 ft 6 in	1 ft 0 in	None	None
8	N	7	Vinyl	Low-E Double	Yes	0.36	0.25	N	60.0 ft²	9 ft 6 in	1 ft 0 in	None	None
9	E	8	Vinyl	Low-E Double	Yes	0.36	0.25	N	40.0 ft²	4 ft 0 in	1 ft 0 in	None	None
10	N	9	Vinyl	Low-E Double	Yes	0.36	0.25	N	45.0 ft²	1 ft 6 in	1 ft 0 in	None	None
11	N	9	Vinyl	Low-E Double	Yes	0.36	0.25	N	15.0 ft²	1 ft 6 in	1 ft 0 in	None	None
12	W	10	Vinyl	Low-E Double	Yes	0.36	0.25	N	6.0 ft²	1 ft 6 in	1 ft 0 in	None	None
13	W	10	Vinyl	Low-E Double	Yes	0.36	0.25	N	15.0 ft²	1 ft 6 in	1 ft 0 in	None	None

INPUT SUMMARY CHECKLIST REPORT

GARAGE											
✓	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation					
✓	1	528 ft²	528 ft²	63.6667 ft	9 ft	1					

INFILTRATION								
#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.000286	1487.3	81.65	153.55	.1128	5

HEATING SYSTEM								
✓	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts	
✓	1	Electric Heat Pump/	None	HSPF:8.2	32.77 kBtu/hr	1	sys#1	

COOLING SYSTEM									
✓	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
✓	1	Central Unit/	None	SEER: 14	23.4 kBtu/hr	690 cfm	0.7	1	sys#1

HOT WATER SYSTEM									
✓	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
✓	1	Electric	None	Garage	0.92	50 gal	40 gal	120 deg	None

SOLAR HOT WATER SYSTEM							
✓	FSEC Cert #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
✓	None	None			ft²		

DUCTS														
✓	#	--- Supply ---			--- Return ---		Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat Cool	
✓	1	Attic	6	495.75 f	Attic	99.15 ft²	Default Leakage	Garage	(Default) c	(Default) c			1	1

INPUT SUMMARY CHECKLIST REPORT

TEMPERATURES

Programable Thermostat: Y

Ceiling Fans:

Cooling	☐ Jan	☐ Feb	☐ Mar	☐ Apr	☐ May	☒ Jun	☒ Jul	☒ Aug	☒ Sep	☐ Oct	☐ Nov	☐ Dec
Heating	☒ Jan	☒ Feb	☒ Mar	☒ Apr	☐ May	☐ Jun	☐ Jul	☐ Aug	☐ Sep	☒ Oct	☒ Nov	☒ Dec
Venting	☐ Jan	☐ Feb	☒ Mar	☒ Apr	☐ May	☐ Jun	☐ Jul	☐ Aug	☐ Sep	☒ Oct	☒ Nov	☒ Dec

Thermostat Schedule: HERS 2006 Reference

Hours

Schedule Type		1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM	78	78	78	78	78	78	78	78	80	80	80	80
	PM	80	80	78	78	78	78	78	78	78	78	78	78
Cooling (WEH)	AM	78	78	78	78	78	78	78	78	78	78	78	78
	PM	78	78	78	78	78	78	78	78	78	78	78	78
Heating (WD)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66
Heating (WEH)	AM	66	66	66	66	66	68	68	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	66	66

MASS

Mass Type	Area	Thickness	Furniture Fraction	Space
Default(8 lbs/sq.ft.)	0 ft ²	0 ft	0.3	Main

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD**ESTIMATED ENERGY PERFORMANCE INDEX* =96****The lower the Energy Performance Index, the more efficient the home.**

1. New home or, addition	1. <u>New (From Plans)</u>	12. Ducts, location & insulation level	
2. Single-family or multiple-family	2. <u>Single-family</u>	a) Supply ducts	R <u>6.0</u>
3. No. of units (if multiple-family)	3. <u>1</u>	b) Return ducts	R <u>6.0</u>
4. Number of bedrooms	4. <u>4</u>	c) AHU location	<u>Garage</u>
5. Is this a worst case? (yes/no)	5. <u>No</u>	13. Cooling system:	Capacity <u>23.4</u>
6. Conditioned floor area (sq. ft.)	6. <u>1983</u>	a) Split system	SEER <u> </u>
7. Windows, type and area		b) Single package	SEER <u> </u>
a) U-factor:(weighted average)	7a. <u>0.360</u>	c) Ground/water source	SEER/COP <u> </u>
b) Solar Heat Gain Coefficient (SHGC)	7b. <u>0.250</u>	d) Room unit/PTAC	EER <u> </u>
c) Area	7c. <u>302.3</u>	e) Other	<u>14.0</u>
8. Skylights		14. Heating system:	Capacity <u>32.8</u>
a) U-factor:(weighted average)	8a. <u>NA</u>	a) Split system heat pump	HSPF <u> </u>
b) Solar Heat Gain Coefficient (SHGC)	8b. <u>NA</u>	b) Single package heat pump	HSPF <u> </u>
9. Floor type, insulation level:		c) Electric resistance	COP <u> </u>
a) Slab-on-grade (R-value)	9a. <u>0.0</u>	d) Gas furnace, natural gas	AFUE <u> </u>
b) Wood, raised (R-value)	9b. <u> </u>	e) Gas furnace, LPG	AFUE <u> </u>
c) Concrete, raised (R-value)	9c. <u> </u>	f) Other	<u>8.20</u>
10. Wall type and insulation:		15. Water heating system	
A. Exterior:		a) Electric resistance	EF <u>0.92</u>
1. Wood frame (Insulation R-value)	10A1. <u>13.0</u>	b) Gas fired, natural gas	EF <u> </u>
2. Masonry (Insulation R-value)	10A2. <u> </u>	c) Gas fired, LPG	EF <u> </u>
B. Adjacent:		d) Solar system with tank	EF <u> </u>
1. Wood frame (Insulation R-value)	10B1. <u>13.0</u>	e) Dedicated heat pump with tank	EF <u> </u>
2. Masonry (Insulation R-value)	10B2. <u> </u>	f) Heat recovery unit	HeatRec% <u> </u>
11. Ceiling type and insulation level		g) Other	<u> </u>
a) Under attic	11a. <u>38.0</u>	16. HVAC credits claimed (Performance Method)	
b) Single assembly	11b. <u> </u>	a) Ceiling fans	<u> </u>
c) Knee walls/skylight walls	11c. <u> </u>	b) Cross ventilation	<u>Yes</u>
d) Radiant barrier installed	11d. <u>Yes</u>	c) Whole house fan	<u>No</u>
		d) Multizone cooling credit	<u> </u>
		e) Multizone heating credit	<u> </u>
		f) Programmable thermostat	<u>Yes</u>

*Label required by Section R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

I certify that this home has complied with the Florida Building Code, Energy Conservation, through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL display card will be completed based on installed code compliant features.

Builder Signature: _____ Date: _____

Address of New Home: 5614 SW CR 240 City/FL Zip: Lake City, FL 32024

Envelope Leakage Test Report (Blower Door Test)
Residential Prescriptive, Performance or ERI Method Compliance
2017 Florida Building Code, Energy Conservation, 6th Edition

Jurisdiction:

Permit #:

Job Information

Builder: Gibraltar Contracting

Community:

Lot: NA

Address: 5614 SW CR 240

City: Lake City

State: FL

Zip: 32024

Air Leakage Test Results *Passing results must meet either the Performance, Prescriptive, or ERI Method*



PRESCRIPTIVE METHOD-The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 7 air changes per hour at a pressure of 0.2 inch w.g. (50 Pascals) in Climate Zones 1 and 2.



PERFORMANCE or ERI METHOD-The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding the selected ACH(50) value, as shown on Form R405-2017 (Performance) or R406-2017 (ERI), section labeled as infiltration, sub-section ACH50.

ACH(50) specified on Form R405-2017-Energy Calc (Performance) or R406-2017 (ERI):

5.000

$$\frac{\text{CFM}(50)}{\text{Building Volume}} \times 60 \div \frac{17847}{\text{ACH}(50)} =$$



PASS



When ACH(50) is less than 3, Mechanical Ventilation installation must be verified by building department.

Method for calculating building volume:



Retrieved from architectural plans



Code software calculated



Field measured and calculated

R402.4.1.2 Testing. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380 and reported at a pressure of 0.2 inch w.g. (50 Pascals). Testing shall be conducted by either individuals as defined in Section 553.993(5) or (7) *Florida Statutes* or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i) or an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the *code official*. Testing shall be performed at any time after creation of all penetrations of the *building thermal envelope*.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.
2. Dampers including exhaust, intake, makeup air, back draft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.
3. Interior doors, if installed at the time of the test, shall be open.
4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed.
5. Heating and cooling systems, if installed at the time of the test, shall be turned off.
6. Supply and return registers, if installed at the time of the test, shall be fully open.

Testing Company

Company Name: _____

Phone: _____

I hereby verify that the above Air Leakage results are in accordance with the 2017 6th Edition Florida Building Code Energy Conservation requirements according to the compliance method selected above.

Signature of Tester: _____

Date of Test: _____

Printed Name of Tester: _____

License/Certification #: _____

Issuing Authority: _____