FORM R405-2023

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	Norman_Almonte	Builder Name:	ChrisMill Homes Florida
Street:	SW Kicklighter Terr	Permit Office:	Columbia County
City, State, Zip:	Lake City, FL,	Permit Number:	
Owner:	Norman_Almonte	Jurisdiction:	
Design Location:	FL, Gainesville	County:	Columbia(Florida Climate Zone 2)

1. New construction or existing	New (From Plans)
2. Single family or multiple family	Detached
3. Number of units, if multiple family	1
4. Number of Bedrooms	1
5. Is this a worst case?	No
6. Conditioned floor area above grade (ft²)	2137
Conditioned floor area below grade (ft²)	0

7. Windows(220.9 sqft.)	Description	Area
a. U-Factor:	Dbl, U=0.36	220.89 ft²
SHGC:	SHGC=0.25	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		3.593 ft
Area Weighted Average SHGC:		0.250

8. Skylights	Description	Area
U-Factor:(AVG)	N/A	N/A ft²
SHGC(AVG):	N/A	

9. Floor Types	Insulation	Area
a. Slab-On-Grade Edge Insulation	R= 0.0	2137.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

10. Wall Types(2049.0 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	1737.00 ft²
b. Frame - Wood, Adjacent	R=13.0	312.00 ft²
c. N/A		
d. N/A		

11. Ceiling Types(2350.7 sqft.)	Insulation	Area
a. Flat ceiling under att (Vented)	R=38.0	2350.70 ft²
b. N/A		
c. N/A		

12. Roof(Comp. Shingles, Vented)	Deck R=0.0	2568 ft²

13. Ducts, location & insulation level	R	ft²
a. Sup: Attic, Ret: Attic, AH: Attic	6	534
b.		
c.		

14. Cooling Systems	kBtu/hr	Efficiency
a. Central Unit	39.5	SEER2:16.00

15. Heating Systems	kBtu/hr	Efficiency
a. Electric Heat Pump	39.6	HSPF2:8.80

16. Hot Water Systems	
a. Electric	Cap: 50 gallons
	EF: 0.920
b. Conservation features	None
17. Credits	CV, Pstat

Glass/Floor Area: 0.103

Total Proposed Modified Loads: 46.69

Total Baseline Loads: 49.13

PASS

NOTE: Proposed residence must have annual total normalized Modified Loads that are less than or equal to 95 percent of the annual total loads of the standard reference design in order to comply.

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: _____

DATE: 4 / 8 / 2025

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.

- Default duct leakage does not require a Duct Leakage Test Report.

- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires a PERFORMANCE envelope leakage test report with envelope leakage no greater than 7.00 ACH50 (R402.4.1.2).

FORM R405-2023

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	Norman_Almonte			Address type:	Street Address
Building Type:	User	Bedrooms:	1	Lot #:	---
Owner:	Norman_Almonte	Conditioned Area:	2137	Block/SubDivision:	---
Builder Home ID:		Total Stories:	1	PlatBook:	---
Builder Name:	ChrisMill Homes Florida	Worst Case:	No	Street:	SW Kicklighter Terr
Permit Office:	Columbia County	Rotate Angle:	0	County:	Columbia
Jurisdiction:		Cross Ventilation:	Yes	City, State, Zip:	Lake City, FL,
Family Type:	Detached	Whole House Fan:	No		
New/Existing:	New (From Plans)	Terrain:	Suburban		
Year Construct:	2025	Shielding:	Suburban		
Comment:					

CLIMATE

√	Design Location	Tmy Site	Design Temp 97.5%	Design Temp 2.5%	Int Design Temp Winter	Int Design Temp Summer	Heating Degree Days	Design Moisture	Daily temp Range
___	FL, Gainesville	FL_GAINESVILLE_REGIONA	32	92	70	75	1305.5	51	Medium

BLOCKS

√	Number	Name	Area	Volume
___	1	Block1	2137	19233 cu ft

SPACES

√	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated
___	1	1st Floor	2137	19233	Yes	1	1	Yes	Yes	Yes

FLOORS (Total Exposed Area = 2137 sq.ft.)

√	#	Floor Type	Space	Exposed Perim(ft)	Area	R-Value Perim.	R-Value Joist	U-Factor	Slab Insul. Vert/Horiz	Tile	Wood	Carpet
___	1	Slab-On-Grade Edge Ins	1st Floor	208	2137 sqft	0.0	---	0.304	2 (ft)/0 (ft)	0.00	0.00	1.00

ROOF

√	#	Type	Materials	Roof Area	Gable Area	Framing. Fract.	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
___	1	Hip	Composition shingles	2568 ft²	0 ft²	0.11	Medium	Y	0.96	No	0.9	No	0	33.69

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
___	1	Full attic	Vented	300	2137 ft²	Y	N

CEILING (Total Exposed Area = 2351 sq.ft.)

√	#	Ceiling Type	Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.	Truss Type
___	1	Flat ceiling under attic(Vented)	1st Floor	38.0	Double Batt	2350.7ft²	0.024	0.11	Wood

FORM R405-2023

INPUT SUMMARY CHECKLIST REPORT

WALLS (Total Exposed Area = 2049 sq.ft.)

✓ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area sq.ft.	U-Factor	Sheath R-Value	Frm. Frac.	Solar Absor.	Below Grade
___ 1	W	Exterior	Frame - Wood	1st Floor	13.0	8.0	4	9.0	0	75.0	0.084		0.23	0.75	0 %
___ 2	N	Exterior	Frame - Wood	1st Floor	13.0	2.0	0	9.0	0	18.0	0.084		0.23	0.75	0 %
___ 3	W	Exterior	Frame - Wood	1st Floor	13.0	11.0	8	9.0	0	105.0	0.084		0.23	0.75	0 %
___ 4	S	Exterior	Frame - Wood	1st Floor	13.0	2.0	0	9.0	0	18.0	0.084		0.23	0.75	0 %
___ 5	W	Exterior	Frame - Wood	1st Floor	13.0	6.0	4	9.0	0	57.0	0.084		0.23	0.75	0 %
___ 6	N	Exterior	Frame - Wood	1st Floor	13.0	2.0	0	9.0	0	18.0	0.084		0.23	0.75	0 %
___ 7	W	Exterior	Frame - Wood	1st Floor	13.0	12.0	0	9.0	0	108.0	0.084		0.23	0.75	0 %
___ 8	N	Exterior	Frame - Wood	1st Floor	13.0	6.0	0	9.0	0	54.0	0.084		0.23	0.75	0 %
___ 9	W	Exterior	Frame - Wood	1st Floor	13.0	13.0	4	9.0	0	120.0	0.084		0.23	0.75	0 %
___ 10	S	Exterior	Frame - Wood	1st Floor	13.0	39.0	2	9.0	0	352.5	0.084		0.23	0.75	0 %
___ 11	E	Exterior	Frame - Wood	1st Floor	13.0	13.0	4	9.0	0	120.0	0.084		0.23	0.75	0 %
___ 12	E	Exterior	Frame - Wood	1st Floor	13.0	28.0	6	9.0	0	256.5	0.084		0.23	0.75	0 %
___ 13	E	Exterior	Frame - Wood	1st Floor	13.0	31.0	6	9.0	0	283.5	0.084		0.23	0.75	0 %
___ 14	N	Exterior	Frame - Wood	1st Floor	13.0	16.0	10	9.0	0	151.5	0.084		0.23	0.75	0 %
___ 15	W	Garage	Frame - Wood	1st Floor	13.0	21.0	8	9.0	0	195.0	0.084		0.23	0.75	0 %
___ 16	N	Garage	Frame - Wood	1st Floor	13.0	13.0	0	9.0	0	117.0	0.084		0.23	0.75	0 %

DOORS (Total Exposed Area = 38 sq.ft.)

✓ #	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
___ 1	S	Exterior	Insulated	1st Floor	None	0.46	3.00	0	6.00	8	20.0ft²
___ 2	W	Garage	Insulated	1st Floor	None	0.46	2.00	8	6.00	8	17.8ft²

WINDOWS (Total Exposed Area = 221 sq.ft.)

✓ #	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Storm	Total Area (ft²)	Same Units	Width (ft)	Height (ft)	--Overhang-- Depth (ft)	Sep. (ft)	Interior Shade	Screen
___ 1	W	1	Vinyl	Low-E Double	Y	0.36	0.25	N	N	7.0	1	2.33	3.00	1.5	1.0	None	None
___ 2	W	3	Vinyl	Low-E Double	Y	0.36	0.25	N	N	27.6	2	2.67	5.17	1.5	1.0	None	None
___ 3	W	7	Vinyl	Low-E Double	Y	0.36	0.25	N	N	27.6	2	2.67	5.17	1.5	1.0	None	None
___ 4	W	9	Vinyl	Low-E Double	Y	0.36	0.25	N	N	15.5	1	3.00	5.17	1.5	1.0	None	None
___ 5	S	10	Vinyl	Low-E Double	Y	0.36	0.25	N	N	31.0	2	3.00	5.17	1.5	1.0	None	None
___ 6	S	10	Vinyl	Low-E Double	Y	0.36	0.25	N	N	4.0	1	4.00	1.00	1.5	1.0	None	None
___ 7	E	11	Vinyl	Low-E Double	Y	0.36	0.25	N	N	15.5	1	3.00	5.17	1.5	1.0	None	None
___ 8	E	12	Vinyl	Low-E Double	Y	0.36	0.25	N	N	31.0	2	3.00	5.17	9.5	1.0	None	None
___ 9	E	12	Vinyl	Low-E Double	Y	0.36	0.25	N	N	9.0	1	3.00	3.00	9.5	1.0	None	None
___ 10	E	12	TIM	Low-E Double	Y	0.36	0.25	N	N	17.8	1	2.67	6.67	9.5	1.0	None	None
___ 11	E	13	Vinyl	Low-E Double	Y	0.36	0.25	N	N	31.0	2	3.00	5.17	1.5	1.0	None	None
___ 12	N	14	Vinyl	Low-E Double	Y	0.36	0.25	N	N	4.0	1	4.00	1.00	1.5	1.0	None	None

INFILTRATION

✓ #	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)	Infiltration Test Volume
___ 1	Wholehouse	Proposed ACH(50)	0.00040	2244	123.10	231.11	0.1438	7.0	All	19233 cu ft

GARAGE

✓ #	Floor Area	Length	Width	Roof Area	Exposed Perimeter	Area Under Uncond.	Avg. Wall Height	Exposed Wall Insulation
___ 1	520 ft²	21.7 ft²	24.0 ft²	520 ft²	57 ft	520 ft	9 ft	1

FORM R405-2023

INPUT SUMMARY CHECKLIST REPORT

MASS

✓	#	Mass Type	Area	Thickness	Furniture Fraction	Space
	1	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	1st Floor

HEATING SYSTEM

✓	#	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	----Geothermal HeatPump---- Entry	Power	Volt	Current	Ducts	Block
	1	Electric Heat Pump	None/Single		HSPF2: 8.80	39.6		0.00	0.00	0.00	sys#1	1

COOLING SYSTEM

✓	#	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	Air Flow cfm	SHR	Duct	Block
	1	Central Unit	None/Single		SEER2:16.0	39.5	1185	0.75	sys#1	1

HOT WATER SYSTEM

✓	#	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	Fixt. Flow	Trap	Pipe Ins.	Pipe length
	1	Electric	None	1st Floor	0.92 (0.92)	50.0 gal	40 gal	120 deg	Standard	Yes	None	12

	Recirculation System	Recirc Control Type	Loop length	Branch length	Pump power	DWHR	Facilities Connected	Equal Flow	DWHR Eff	Other Credits
1	No		NA	NA	NA	No	NA	NA	NA	None

DUCTS

✓	Duct #	Supply Location	Supply R-Value	Supply Area	Return Location	Return R-Value	Return Area	Leakage Type	AHU Location	CFM 25 TOT|OUT	QN OUT	AHU SEALED	RLF	HVAC # Heat	HVAC # Cool
	1	Attic	6.0	534 ft²	Attic	6.0	107 ft²	Default Leakage	Attic	(Default) (Default)				1	1

TEMPERATURES

Programable Thermostat: Y Ceiling Fans: N

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cooling	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]	[X]	[X]	[ ]	[ ]	[ ]
Heating	[X]	[X]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]
Venting	[ ]	[ ]	[X]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]	[ ]

✓ Thermostat Schedule: HERS 2006 Reference

Schedule Type		Hours 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

FORM R405-2023

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 95

The lower the EnergyPerformance Index, the more efficient the home.

SW Kicklighter Terr,Lake City,FL,

1. New construction or existing		New (From Plans)
2. Single family or multiple family		Detached
3. Number of units, if multiple family		1
4. Number of Bedrooms		1
5. Is this a worst case?		No
6. Conditioned floor area above grade (ft²)		2137
Conditioned floor area below grade (ft²)		0

7. Windows**	Description	Area
a. U-Factor:	Dbl, U=0.36	220.89 ft²
SHGC:	SHGC=0.25	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		3.593 ft
Area Weighted Average SHGC:		0.250

8. Skylights	Description	Area
U-Factor:(AVG)	N/A	N/A ft²
SHGC(AVG):	N/A	

9. Floor Types	Insulation	Area
a. Slab-On-Grade Edge Insulation	R= 0.0	2137.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

10. Wall Types(2049.0 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	1737.00 ft²
b. Frame - Wood, Adjacent	R=13.0	312.00 ft²
c. N/A		
d. N/A		

11. Ceiling Types(2350.7 sqft.)	Insulation	Area
a. Flat ceiling under att (Vented)	R=38.0	2350.70 ft²
b. N/A		
c. N/A		

12. Roof(Comp. Shingles, Vented)	Deck R=0.0	2568 ft²

13. Ducts, location & insulation level	R	ft²
a. Sup: Attic, Ret: Attic, AH: Attic	6	534
b.		
c.		

14. Cooling Systems	kBtu/hr	Efficiency
a. Central Unit	39.5	SEER2:16.00

15. Heating Systems	kBtu/hr	Efficiency
a. Electric Heat Pump	39.6	HSPF2:8.80

16. Hot Water Systems	
a. Electric	Cap: 50 gallons
	EF: 0.920
b. Conservation features	None
17. Credits	CV, Pstat

I certify that this home has complied with the Florida Energy Efficiency Code for Building Construction 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: SW Kicklighter Terr City/FL Zip: Lake City,FL,

*Note: This is not a Building Energy Rating. If your Index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida Energy Rating. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

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

Envelope Leakage Test Report (Blower Door Test)
Residential Prescriptive, Performance or ERI Method Compliance
2023 Florida Building Code, Energy Conservation, 8th Edition

Jurisdiction:	Permit #:

Job Information

Builder: ChrisMill Homes Florida Community: Lot: NA

Address: SW Kicklighter Terr

City: Lake City State: FL Zip:

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 R405-2023 (Performance) or R406-2023 (ERI), section labeled as infiltration, sub-section ACH50.

ACH(50) specified on Form R405-2023-Energy Calc (Performance) or R406-2023 (ERI): 7.000

_____ (CFM(50)) x 60 ÷ 19233 (Building Volume) = _____ (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. The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding seven air changes per hour in Climate Zones 1 and 2, and three air changes per hour in Climate Zones 3 through 8. Dwelling units with an air leakage rate less than three air changes per hour shall be provided with whole-house mechanical ventilation in accordance with Section R403.6.1 of this code and Section M1507.3 if the *Florida Building Code, Residential*. 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 Statues*, 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.
7. If an attic is both sealed and insulated at the roof deck, interior access doors and hatches between the conditioned space volume and the attic shall be opened during the test and the volume of the attic shall be added to the conditioned space volume for purposes of reporting the infiltration volume and calculating the air leakage of the home.

Testing Company

Company Name: _____ Phone: _____

I hereby verify that the above Air Leakage results are in accordance with the 2023 8th 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: _____

Residential System Sizing Calculation

Summary

Norman_Almonte
SW Kicklighter Terr
Lake City, FL

Project Title:
Norman_Almonte

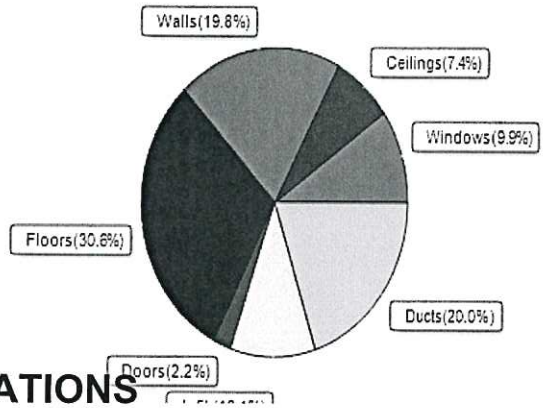
4/8/2025

Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(152 ft.) Temp Range(M)					
Humidity data: Interior RH (50%) Outdoor wet bulb (79F) Humidity difference(54gr.)					
Winter design temperature(MJ8 99%/Cu)	33	F	Summer design temperature(MJ8 99%/Cu)	99	F
Winter setpoint	70	F	Summer setpoint	75	F
Winter temperature difference	37	F	Summer temperature difference	24	F
Total heating load calculation	**29665**	**Btuh**	**Total cooling load calculation**	**27408**	**Btuh**
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	133.4	39580	Sensible (SHR = 0.75)	126.0	29625
Heat Pump + Auxiliary(0.0kW)	133.4	39580	Latent	253.9	9875
			Total (Electric Heat Pump)	144.1	39500

WINTER CALCULATIONS

Winter Heating Load (for 2137 sqft)

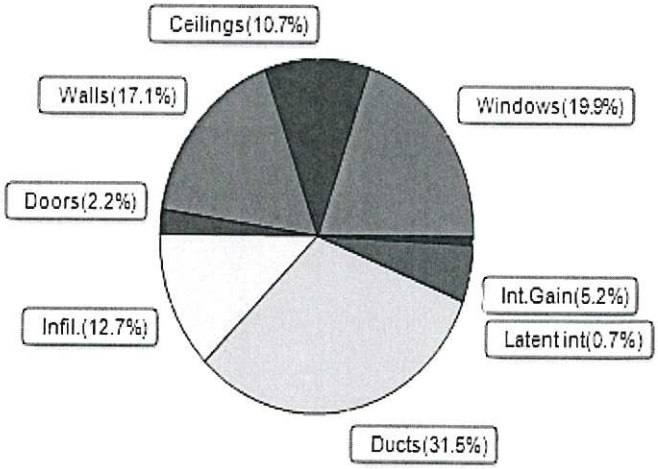
Load component			Load	
Window total	221	sqft	2942	Btuh
Wall total	1790	sqft	5880	Btuh
Door total	38	sqft	643	Btuh
Ceiling total	2351	sqft	2208	Btuh
Floor total	2137	sqft	9081	Btuh
Infiltration	74	cfm	2987	Btuh
Duct loss			5924	Btuh
Subtotal			**29665**	**Btuh**
Ventilation	Ex:0 cfm; Sup:0 cfm		0	Btuh
TOTAL HEAT LOSS			**29665**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 2137 sqft)

Load component			Load	
Window total	221	sqft	5456	Btuh
Wall total	1790	sqft	4677	Btuh
Door total	38	sqft	608	Btuh
Ceiling total	2351	sqft	2923	Btuh
Floor total			0	Btuh
Infiltration	55	cfm	1453	Btuh
Internal gain			1430	Btuh
Duct gain			6971	Btuh
Sens.Ventilation	Ex:0 cfm; Sup:0 cfm		0	Btuh
Blower Load			0	Btuh
Total sensible gain			**23518**	**Btuh**
Latent gain(ducts)			1668	Btuh
Latent gain(infiltration)			2021	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/other)			200	Btuh
Total latent gain			**3890**	**Btuh**
TOTAL HEAT GAIN			**27408**	**Btuh**



Powered by ACCA MANUAL J8 8th Edition

EnergyGauge® System Sizing
PREPARED BY: _____
DATE: 4 / 8 / 2025

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Norman_Almonte
SW Kicklighter Terr
Lake City, FL

Project Title:
Norman_Almonte
Building Type: User

4/8/2025

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 37.0 °F (MJ8 99%/Cu)
Winter Setpoint: 70 °F (Required Manual J default)

Component Loads for Whole House

Window	Panes/Type	Frame	U	Orientation	Area(sqft) X	HTM=	Load
1	2, NFRC 0.25	Vinyl	0.36	W	7.0	13.3	93 Btuh
2	2, NFRC 0.25	Vinyl	0.36	W	27.6	13.3	367 Btuh
3	2, NFRC 0.25	Vinyl	0.36	W	27.6	13.3	367 Btuh
4	2, NFRC 0.25	Vinyl	0.36	W	15.5	13.3	206 Btuh
5	2, NFRC 0.25	Vinyl	0.36	S	31.0	13.3	413 Btuh
6	2, NFRC 0.25	Vinyl	0.36	S	4.0	13.3	53 Btuh
7	2, NFRC 0.25	Vinyl	0.36	E	15.5	13.3	206 Btuh
8	2, NFRC 0.25	Vinyl	0.36	E	31.0	13.3	413 Btuh
9	2, NFRC 0.25	Vinyl	0.36	E	9.0	13.3	120 Btuh
10	2, NFRC 0.25	TIM	0.36	E	17.8	13.3	237 Btuh
11	2, NFRC 0.25	Vinyl	0.36	E	31.0	13.3	413 Btuh
12	2, NFRC 0.25	Vinyl	0.36	N	4.0	13.3	53 Btuh
	Window Total				220.9(sqft)		2942 Btuh

Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area X	HTM=	Load
1	Frame - Wood	- Ext	(0.089)	13.0/0.0	68	3.28	223 Btuh
2	Frame - Wood	- Ext	(0.089)	13.0/0.0	18	3.28	59 Btuh
3	Frame - Wood	- Ext	(0.089)	13.0/0.0	77	3.28	254 Btuh
4	Frame - Wood	- Ext	(0.089)	13.0/0.0	18	3.28	59 Btuh
5	Frame - Wood	- Ext	(0.089)	13.0/0.0	37	3.28	122 Btuh
6	Frame - Wood	- Ext	(0.089)	13.0/0.0	18	3.28	59 Btuh
7	Frame - Wood	- Ext	(0.089)	13.0/0.0	80	3.28	264 Btuh
8	Frame - Wood	- Ext	(0.089)	13.0/0.0	54	3.28	177 Btuh
9	Frame - Wood	- Ext	(0.089)	13.0/0.0	105	3.28	343 Btuh
10	Frame - Wood	- Ext	(0.089)	13.0/0.0	318	3.28	1043 Btuh
11	Frame - Wood	- Ext	(0.089)	13.0/0.0	105	3.28	343 Btuh
12	Frame - Wood	- Ext	(0.089)	13.0/0.0	199	3.28	653 Btuh
13	Frame - Wood	- Ext	(0.089)	13.0/0.0	253	3.28	829 Btuh
14	Frame - Wood	- Ext	(0.089)	13.0/0.0	148	3.28	484 Btuh
15	Frame - Wood	- Adj	(0.089)	13.0/0.0	195	3.28	640 Btuh
16	Frame - Wood	- Adj	(0.089)	13.0/0.0	99	3.28	326 Btuh
	Wall Total				1790(sqft)		5880 Btuh

Doors	Type	Storm	Ueff.	Area X	HTM=	Load
1	Insulated - Exterior,	n	(0.460)	20	17.0	340 Btuh
2	Insulated - Garage,	n	(0.460)	18	17.0	303 Btuh
	Door Total			38(sqft)		643Btuh

Ceilings	Type/Color/Surface	Ueff.	R-Value	Area X	HTM=	Load
1	Flat ceil/D/Shing	(0.025)	38.0/0.0	2351	0.94	2208 Btuh
	Ceiling Total			2351(sqft)		2208Btuh

Floors	Type	Ueff.	R-Value	Size X	HTM=	Load
1	Slab On Grade	(1.180)	0.0	208.0 ft(perim.)	43.7	9081 Btuh
	Floor Total			2137 sqft		9081 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Norman_Almonte
SW Kicklighter Terr
Lake City, FL

Project Title:
Norman_Almonte
Building Type: User

4/8/2025

				Envelope Subtotal:			20754 Btuh
Infiltration	Type Natural	Wholehouse	ACH 0.23	Volume(cuft) 19233	Wall Ratio 1.00	CFM= 73.7	2987 Btuh
Duct load	Average sealed, R6.0, Supply(Att), Return(Att)				(DLM of 0.250)		5924 Btuh
All Zones				**Sensible Subtotal All Zones**			**29665 Btuh**

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss Ventilation Sens. Heat Loss Total Heat Loss	(Ex:0 cfm; Sup:0 cfm)	29665 Btuh 0 Btuh 29665 Btuh

EQUIPMENT

1. Electric Heat Pump	#	39580 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)

Powered by ACCA MANUAL J8

Version 8

System Sizing Calculations - Summer

Residential Load - Whole House Component Details

Norman_Almonte
SW Kicklighter Terr
Lake City, FL

Project Title:
Norman_Almonte

4/8/2025

Reference City: Gainesville, FL (Defaults)
Humidity difference: 54gr.

Temperature Difference: 24.0F(MJ8 99%/Cu)
Summer Setpoint: 75 °F (Required Manual J default)

Component Loads for Whole House

Window	Type* Panes	SHGC	U	InSh	IS	Ornt	Overhang Len	Hgt	Window Area(sqft) Gross	Shaded	Unshaded	HTM Shaded	Unshaded	Load
1	2 NFRC	0.25, 0.36		No	No	W	1.5ft.	1.0ft.	7.0	0.6	6.4	14	33	218 Btuh
2	2 NFRC	0.25, 0.36		No	No	W	1.5ft.	1.0ft.	27.6	1.3	26.2	14	33	878 Btuh
3	2 NFRC	0.25, 0.36		No	No	W	1.5ft.	1.0ft.	27.6	1.3	26.2	14	33	878 Btuh
4	2 NFRC	0.25, 0.36		No	No	W	1.5ft.	1.0ft.	15.5	0.7	14.8	14	33	494 Btuh
5	2 NFRC	0.25, 0.36		No	No	S	1.5ft.	1.0ft.	31.0	31.0	0.0	14	16	431 Btuh
6	2 NFRC	0.25, 0.36		No	No	S	1.5ft.	1.0ft.	4.0	4.0	0.0	14	16	56 Btuh
7	2 NFRC	0.25, 0.36		No	No	E	1.5ft.	1.0ft.	15.5	0.7	14.8	14	33	494 Btuh
8	2 NFRC	0.25, 0.36		No	No	E	9.5ft.	1.0ft.	31.0	31.0	0.0	14	33	431 Btuh
9	2 NFRC	0.25, 0.36		No	No	E	9.5ft.	1.0ft.	9.0	9.0	0.0	14	33	125 Btuh
10	2 NFRC	0.25, 0.36		No	No	E	9.5ft.	1.0ft.	17.8	17.8	0.0	14	33	247 Btuh
11	2 NFRC	0.25, 0.36		No	No	E	1.5ft.	1.0ft.	31.0	1.5	29.5	14	33	987 Btuh
12	2 NFRC	0.25, 0.36		No	No	N	1.5ft.	1.0ft.	4.0	0.0	4.0	14	14	56 Btuh
	Excursion AE													
	Window Total								221 (sqft)					5456 Btuh

Walls	Type	U-Value	R-Value Cav/Sheath	Area(sqft)	HTM	Load
1	Frame - Wood - Ext	0.09	13.0/0.0	68.0	2.7	184 Btuh
2	Frame - Wood - Ext	0.09	13.0/0.0	18.0	2.7	49 Btuh
3	Frame - Wood - Ext	0.09	13.0/0.0	77.4	2.7	210 Btuh
4	Frame - Wood - Ext	0.09	13.0/0.0	18.0	2.7	49 Btuh
5	Frame - Wood - Ext	0.09	13.0/0.0	37.0	2.7	100 Btuh
6	Frame - Wood - Ext	0.09	13.0/0.0	18.0	2.7	49 Btuh
7	Frame - Wood - Ext	0.09	13.0/0.0	80.4	2.7	218 Btuh
8	Frame - Wood - Ext	0.09	13.0/0.0	54.0	2.7	146 Btuh
9	Frame - Wood - Ext	0.09	13.0/0.0	104.5	2.7	283 Btuh
10	Frame - Wood - Ext	0.09	13.0/0.0	317.5	2.7	860 Btuh
11	Frame - Wood - Ext	0.09	13.0/0.0	104.5	2.7	283 Btuh
12	Frame - Wood - Ext	0.09	13.0/0.0	198.7	2.7	538 Btuh
13	Frame - Wood - Ext	0.09	13.0/0.0	252.5	2.7	684 Btuh
14	Frame - Wood - Ext	0.09	13.0/0.0	147.5	2.7	399 Btuh
15	Frame - Wood - Adj	0.09	13.0/0.0	195.0	2.1	415 Btuh
16	Frame - Wood - Adj	0.09	13.0/0.0	99.2	2.1	211 Btuh
	Wall Total			1790 (sqft)		4677 Btuh

Doors	Type	Area (sqft)	HTM	Load
1	Insulated - Exterior	20.0	16.1	322 Btuh
2	Insulated - Garage	17.8	16.1	286 Btuh
	Door Total	38 (sqft)		608 Btuh

Ceilings	Type/Color/Surface	U-Value	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/DarkShingle/RB	0.025	38.0/0.0	2350.7	1.24	2923 Btuh
	Ceiling Total			2351 (sqft)		2923 Btuh

Floors	Type	R-Value	Size	HTM	Load
1	Slab On Grade	0.0	2137 (ft-perimeter)	0.0	0 Btuh
	Floor Total		2137.0 (sqft)		0 Btuh

		Envelope Subtotal:	13664 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

Norman_Almonte
SW Kicklighter Terr
Lake City, FL

Project Title: Norman_Almonte

Climate:FL_GAINESVILLE_REGIONAL_A

4/8/2025

Infiltration	Type Natural	Average ACH 0.17	Volume(cuft) 19233	Wall Ratio 1		CFM= 55.3	Load 1453	Btuh
Internal gain		Occupants 1	Btuh/occupant X 230		+	Appliance 1200	Load 1430	Btuh
					Sensible Envelope Load:		16547	Btuh
Duct load	Average sealed,Supply(R6.0-Attic), Return(R6.0-Attic)				(DGM of 0.421)		6971	Btuh
					Sensible Load All Zones		**23518**	**Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

Norman_Almonte
SW Kicklighter Terr
Lake City, FL

Project Title: Norman_Almonte

Climate:FL_GAINESVILLE_REGIONAL_A

4/8/2025

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	**Sensible Envelope Load All Zones**	**16547 Btuh**
	Sensible Duct Load	6971 Btuh
	Total Sensible Zone Loads	**23518 Btuh**
	Sensible ventilation (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Blower	0 Btuh
	Total sensible gain	**23518 Btuh**
	Latent infiltration gain (for 54 gr. humidity difference)	2021 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	1668 Btuh
	Latent occupant gain (1.0 people @ 200 Btuh per person)	200 Btuh
	Latent other gain	0 Btuh
	Latent total gain	**3890 Btuh**
	TOTAL GAIN	**27408 Btuh**

EQUIPMENT

1. Central Unit	#	39500 Btuh

*Key: Window types (Panes - 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

WM Design & Associates, Inc.
426 SW Commerce Drive, Suite 135
LAKE CITY, FL 32025
(386)758-8406
will@willmyers.net

Invoice

BILL TO
ChrisMill Homes of Florida

INVOICE #	DATE	TOTAL DUE	DUE DATE	TERMS	ENCLOSED
2802	04/08/2025	$350.00	04/08/2025	Due on receipt	

DESCRIPTION	QTY	RATE	AMOUNT
Norman_Almonte - Florida Energy Code & Manual J System Sizing Calculations	1	350.00	350.00

Thank you for your business!

BALANCE DUE **$350.00**