

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: 176 SW Kimberly Lane Street: 176 SW Kimberly Lane City, State, Zip: Lake City, FL, 32025 Owner: N/A Design Location: FL, Gainesville	Builder Name: Permit Office: Columbia County Permit Number: Jurisdiction: County: Columbia(Florida Climate Zone 2)
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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 3 5. Is this a worst case? No 6. Conditioned floor area above grade (ft²) 1895 Conditioned floor area below grade (ft²) 0 7. Windows(215.0 sqft.) Description Area a. U-Factor: Dbl, U=0.36 215.00 ft² SHGC: SHGC=0.25 b. U-Factor: N/A ft² SHGC: c. U-Factor: N/A ft² SHGC: Area Weighted Average Overhang Depth: 3.267 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 1895.00 ft² b. N/A R= ft² c. N/A R= ft²	10. Wall Types(1758.0 sqft.) Insulation Area a. Frame - Wood, Exterior R=13.0 1437.00 ft² b. Frame - Wood, Adjacent R=13.0 321.00 ft² c. N/A d. N/A 11. Ceiling Types(1989.8 sqft.) Insulation Area a. Flat ceiling under att (Vented) R=38.0 1989.80 ft² b. N/A c. N/A 12. Roof(Comp. Shingles, Vented) Deck R=0.0 2278 ft² 13. Ducts, location & insulation level R ft² a. Sup: Attic, Ret: Attic, AH: Main 6 474 b. c. 14. Cooling Systems kBtu/hr Efficiency a. Central Unit 23.5 SEER2:16.00 15. Heating Systems kBtu/hr Efficiency a. Electric Heat Pump 28.1 HSPF2:8.20 16. Hot Water Systems a. Electric Cap: 40 gallons EF: 0.920 b. Conservation features None 17. Credits CV, Pstat
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Glass/Floor Area: 0.113	Total Proposed Modified Loads: 44.56	PASS
	Total Baseline Loads: 47.80	
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: <u>Wm C. [Signature]</u> DATE: <u>01 / 29 / 2024</u> 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: _____
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- 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.
- 1 of the 1 duct systems requires a Duct Leakage Test Report. Systems with Default duct leakage do not require this 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 5.00 ACH50 (R402.4.1.2).

INPUT SUMMARY CHECKLIST REPORT

PROJECT													
Title:	176 SW Kimberly Lane				Address type:	Street Address							
Building Type:	User		Bedrooms:	3	Lot #:	---							
Owner:	N/A		Conditioned Area:	1895	Block/SubDivision:	---							
Builder Home ID:					PlatBook:	---							
Builder Name:					Street:	176 SW Kimberly Lane							
Permit Office:	Columbia County				County:	Columbia							
Jurisdiction:					Cross Ventilation:	Yes		City, State, Zip:	Lake City, FL, 32025				
Family Type:	Detached		Whole House Fan:	No									
New/Existing:	New (From Plans)		Terrain:	Suburban									
Year Construct:	2024		Shielding:	Suburban									
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_REGIONA		32	92	70	75	1305.5	51	Medium				
BLOCKS													
✓ Number	Name	Area	Volume										
___ 1	Block1	1895	17055 cu ft										
SPACES													
✓ Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated				
___ 1	Main	1895	17055	Yes	6	3	Yes	Yes	Yes				
FLOORS (Total Exposed Area = 1895 sq.ft.)													
✓ #	Floor Type	Space	Exposed Perim(ft)	Area	R-Value Perim.	U-Factor Joist	Slab Insul. Vert/Horiz	Tile	Wood	Carpet			
___ 1	Slab-On-Grade Edge Ins	Main	195.33	1895 sqft	0	---	0.304	2 (ft)/0 (ft)	0.00	0.00	1.00		
ROOF													
✓ #	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)	
___ 1	Hip	Composition shingles	2278 ft²	0 ft²	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		1895 ft²	Y	N						
CEILING (Total Exposed Area = 1990 sq.ft.)													
✓ #	Ceiling Type	Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.	Truss Type					
___ 1	Flat ceiling under attic(Vented)	Main	38.0	Double Batt	1989.8ft²	0.024	0.11	Wood					

INPUT SUMMARY CHECKLIST REPORT

WALLS																		(Total Exposed Area = 1758 sq.ft.)			
✓ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	In	Height Ft	In	Area sq.ft.	U-Factor	Sheath R-Value	Frm. Frac.	Solar Absor.	Below Grade						
___ 1	N	Exterior	Frame - Wood	Main	13.0	22.0	8	9.0	0	204.0	0.084		0.23	0.75	0 %						
___ 2	E	Exterior	Frame - Wood	Main	13.0	38.0	0	9.0	0	342.0	0.084		0.23	0.75	0 %						
___ 3	S	Exterior	Frame - Wood	Main	13.0	10.0	0	9.0	0	90.0	0.084		0.23	0.75	0 %						
___ 4	E	Exterior	Frame - Wood	Main	13.0	16.0	0	9.0	0	144.0	0.084		0.23	0.75	0 %						
___ 5	S	Exterior	Frame - Wood	Main	13.0	33.0	8	9.0	0	303.0	0.084		0.23	0.75	0 %						
___ 6	W	Exterior	Frame - Wood	Main	13.0	39.0	4	9.0	0	354.0	0.084		0.23	0.75	0 %						
___ 7	N	Garage	Frame - Wood	Main	13.0	21.0	0	9.0	0	189.0	0.084		0.23	0.75	0 %						
___ 8	W	Garage	Frame - Wood	Main	13.0	14.0	8	9.0	0	132.0	0.084		0.23	0.75	0 %						

DOORS																		(Total Exposed Area = 40 sq.ft.)			
✓ #	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area										
___ 1	N	Exterior	Insulated	Main	None	0.46	3.00	0	6.00	8	20.0ft²										
___ 2	N	Garage	Insulated	Main	None	0.46	3.00	0	6.00	8	20.0ft²										

WINDOWS																		(Total Exposed Area = 215 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	N	1	Vinyl	Low-E Double	Y	0.36	0.25	N	N	30.0	2	3.00	5.00	7.5	1.0	None	None				
___ 2	E	2	Vinyl	Low-E Double	Y	0.36	0.25	N	N	75.0	5	3.00	5.00	1.5	1.0	None	None				
___ 3	S	3	TIM	Low-E Double	Y	0.36	0.25	N	N	40.0	2	3.00	6.67	6.5	1.0	None	None				
___ 4	S	5	Vinyl	Low-E Double	Y	0.36	0.25	N	N	30.0	2	3.00	5.00	1.5	1.0	None	None				
___ 5	S	5	Vinyl	Low-E Double	Y	0.36	0.25	N	N	4.0	1	4.00	1.00	1.5	1.0	None	None				
___ 6	W	6	Vinyl	Low-E Double	Y	0.36	0.25	N	N	6.0	1	2.00	3.00	1.5	1.0	None	None				
___ 7	W	6	Vinyl	Low-E Double	Y	0.36	0.25	N	N	30.0	2	3.00	5.00	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)	0.00029	1421	77.97	146.39	0.1027	5.0	All	17055 cu ft	

GARAGE						
✓ #	Floor Area	Roof Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation	
___ 1	525 ft²	525 ft²	56 ft	9 ft	1	

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

HEATING SYSTEM											
✓ #	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	---Geothermal Entry	HeatPump Power	Volts	Current	Ducts	Block
___ 1	Electric Heat Pump	None/Single		HSPF2: 8.20	28.1		0.00	0.00	0.00	sys#1	1

INPUT SUMMARY CHECKLIST REPORT

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	23.5	690	0.75	sys#1	1

HOT WATER SYSTEM

✓ #	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	Fixture Flow	Pipe Ins.	Pipe length
___ 1	Electric	None	Garage	0.92 (0.92)	40.00 gal	40 gal	120 deg	Standard	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 #	Location	Supply R-Value	Area	Return R-Value	Area	Leakage Type	Air Handler	CFM 25 TOT	CFM 25 OUT	QN OUT	RLF	HVAC # Heat Cool
___ 1	Attic	6.0	474 ft²	Attic	6.0	95 ft²	Default Leakage	Main	(Default)	(Default)		1 1

TEMPERATURES

Programable Thermostat: Y													
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													
Ceiling Fans: N													
✓ Thermostat Schedule: HERS 2006 Reference	Hours												
Schedule Type	1	2	3	4	5	6	7	8	9	10	11	12	
___ Cooling (WD)	AM PM	78 80	78 80	78 78	78 78	78 78	78 78	78 78	78 78	80 78	80 78	80 78	80 78
___ Cooling (WEH)	AM PM	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78
___ Heating (WD)	AM PM	66 68	66 68	66 68	66 68	66 68	68 68	68 68	68 68	68 68	68 68	68 66	68 66
___ Heating (WEH)	AM PM	66 68	66 68	66 68	66 68	66 68	68 68	68 68	68 68	68 68	68 68	68 66	68 66

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 93

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

176 SW Kimberly Lane,Lake City,FL,32025

1. New construction or existing	New (From Plans)	10. Wall Types(1758.0 sqft.)	Insulation	Area
2. Single family or multiple family	Detached	a. Frame - Wood, Exterior	R=13.0	1437.00 ft ²
3. Number of units, if multiple family	1	b. Frame - Wood, Adjacent	R=13.0	321.00 ft ²
4. Number of Bedrooms	3	c. N/A		
5. Is this a worst case?	No	d. N/A		
6. Conditioned floor area above grade (ft ²)	1895	11. Ceiling Types(1989.8 sqft.)	Insulation	Area
Conditioned floor area below grade (ft ²)	0	a. Flat ceiling under att (Vented)	R=38.0	1989.80 ft ²
7. Windows**	Description	b. N/A		
a. U-Factor:	DbI, U=0.36	c. N/A		
SHGC:	SHGC=0.25	12. Roof(Comp. Shingles, Vented) Deck	R=0.0	2278 ft ²
b. U-Factor:	N/A	13. Ducts, location & insulation level	R	ft ²
SHGC:		a. Sup: Attic, Ret: Attic, AH: Main	6	474
c. U-Factor:	N/A	b.		
SHGC:		c.		
Area Weighted Average Overhang Depth:	3.267 ft	14. Cooling Systems	kBtu/hr	Efficiency
Area Weighted Average SHGC:	0.250	a. Central Unit	23.5	SEER2:16.00
8. Skylights	Description	15. Heating Systems	kBtu/hr	Efficiency
U-Factor:(AVG)	N/A	a. Electric Heat Pump	28.1	HSPF2:8.20
SHGC(AVG):	N/A			
9. Floor Types	Insulation	16. Hot Water Systems		
a. Slab-On-Grade Edge Insulation	R= 0.0	a. Electric	Cap: 40 gallons	
b. N/A	R=		EF: 0.920	
c. N/A	R=	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: 176 SW Kimberly Lane

City/FL Zip: Lake City,FL,32025



*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:	Community:	Lot:	NA
Address: 176 SW Kimberly Lane			
City: Lake City	State: FL	Zip: 32025	
Air Leakage Test Results <i>Passing results must meet either the Performance, Prescriptive, or ERI Method</i>			
☐ 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. <i>ACH(50) specified on Form R405-2023-Energy Calc (Performance) or R406-2023 (ERI):</i> 5.000 <u>Method for calculating building volume:</u> ☐ Retrieved from architectural plans ☒ Code software calculated ☐ Field measured and calculated $\frac{\text{CFM}(50)}{\text{Building Volume}} \times 60 \div \frac{17055}{\text{ACH}(50)} =$ PASS ☐ When ACH(50) is less than 3, Mechanical Ventilation installation must be verified by building department. <u>Method for calculating building volume:</u> ☐ Retrieved from architectural plans ☒ Code software calculated ☐ Field measured and calculated			