

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: 138 Mercury Ct Street: 138 Mercury Ct City, State, Zip: Lake City, FL, 32025 Owner: Steven Winsberg 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 4 5. Is this a worst case? No 6. Conditioned floor area above grade (ft²) 2010 Conditioned floor area below grade (ft²) 0 7. Windows(392.3 sqft) Description Area a. U-Factor: Dbl, U=0.36 392.33 ft² SHGC: SHGC=0.25 b. U-Factor: N/A ft² SHGC: c. U-Factor: N/A ft² SHGC: Area Weighted Average Overhang Depth: 4.621 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 2010.00 ft² b. N/A R= ft² c. N/A R= ft²	10. Wall Types(1797.0 sqft.) Insulation Area a. Frame - Wood, Exterior R=13.0 1767.00 ft² b. Frame - Wood, Adjacent R=13.0 30.00 ft² c. N/A d. N/A 11. Ceiling Types(2211.0 sqft.) Insulation Area a. Flat ceiling under att (Vented) R=38.0 2211.00 ft² b. N/A c. N/A 12. Roof(Comp. Shingles, Vented) Deck R=0.0 2327 ft² 13. Ducts, location & insulation level R ft² a. Sup: Attic, Ret: Attic, AH: Garage 6 503 b. c. 14. Cooling Systems kBtu/hr Efficiency a. Central Unit 36.1 SEER2:17.00 15. Heating Systems kBtu/hr Efficiency a. Electric Heat Pump 37.9 HSPF2:8.80 16. Hot Water Systems a. Electric Cap. 50 gallons EF 0.920 b. Conservation features None 17. Credits CV, Pstat
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Glass/Floor Area:0.195	Total Proposed Modified Loads: 52.22	PASS
	Total Baseline Loads: 54.84	

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>01/21/2025</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.
- 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).

INPUT SUMMARY CHECKLIST REPORT

PROJECT													
Title	138 Mercury Ct			Address type	Street Address								
Building Type	User	Bedrooms	4	Lot #	---								
Owner	Steven Winsberg	Conditioned Area	2010	Block/SubDivision	---								
Builder Home ID		Total Stories	1	PlatBook	---								
Builder Name		Worst Case	No	Street	138 Mercury Ct								
Permit Office	Columbia County	Rotate Angle	0	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	2025	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	2010	18090 cu ft										
SPACES													
✓ Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated				
___ 1	1st Floor	2010	18090	Yes	8	4	Yes	Yes	Yes				
FLOORS (Total Exposed Area = 2010 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	1st Floor	200	2010 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	Gable or shed	Composition shingles	2327 ft²	328 ft²	0 11	Medium	Y	0 96	No	0 9	No	0	30 26
ATTIC													
✓ #	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC							
___ 1	Partial cathedral ceiling	Vented	300	2010 ft²	Y	N							
CEILING (Total Exposed Area = 2211 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	2211 0ft²	0 024	0 11	Wood					

INPUT SUMMARY CHECKLIST REPORT

WALLS														(Total Exposed Area = 1797 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	NE	Exterior	Frame - Wood	1st Floor	13 0	11 0	4	9 0	0	102 0	0 084		0 23	0 75	0 %		
___ 2	SE	Exterior	Frame - Wood	1st Floor	13 0	6 0	0	9 0	0	54 0	0 084		0 23	0 75	0 %		
___ 3	NE	Exterior	Frame - Wood	1st Floor	13 0	7 0	0	9 0	0	63 0	0 084		0 23	0 75	0 %		
___ 4	SE	Exterior	Frame - Wood	1st Floor	13 0	7 0	0	9 0	0	63 0	0 084		0 23	0 75	0 %		
___ 5	NE	Exterior	Frame - Wood	1st Floor	13 0	12 0	4	9 0	0	111 0	0 084		0 23	0 75	0 %		
___ 6	NW	Garage	Frame - Wood	1st Floor	13 0	3 0	4	9 0	0	30 0	0 084		0 23	0 75	0 %		
___ 7	NE	Exterior	Frame - Wood	1st Floor	13 0	23 0	4	9 0	0	210 0	0 084		0 23	0 75	0 %		
___ 8	NW	Exterior	Frame - Wood	1st Floor	13 0	42 0	4	9 0	0	381 0	0 084		0 23	0 75	0 %		
___ 9	SW	Exterior	Frame - Wood	1st Floor	13 0	36 0	4	9 0	0	327 0	0 084		0 23	0 75	0 %		
___ 10	SE	Exterior	Frame - Wood	1st Floor	13 0	11 0	0	9 0	0	99 0	0 084		0 23	0 75	0 %		
___ 11	SW	Exterior	Frame - Wood	1st Floor	13 0	18 0	4	9 0	0	165 0	0 084		0 23	0 75	0 %		
___ 12	SE	Exterior	Frame - Wood	1st Floor	13 0	21 0	4	9 0	0	192 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	SE	Exterior	Insulated	1st Floor	None	0 46	3 00	0	6 00	8	20 0ft²		
___ 2	NE	Exterior	Insulated	1st Floor	None	0 46	3 00	0	6 00	8	20 0ft²		

WINDOWS																(Total Exposed Area = 392 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	NE	1	Vinyl	Low-E Double	Y 0 36	0 25	N	N	30 0	2	2 50	6 00	5 5	1 0	None	None			
___ 2	NE	3	Vinyl	Low-E Double	Y 0 36	0 25	N	N	13 3	2	1 00	6 67	9 5	1 0	None	None			
___ 3	NE	3	Vinyl	Low-E Double	Y 0 36	0 25	N	N	5 0	1	5 00	1 00	9 5	1 0	None	None			
___ 4	NE	5	Vinyl	Low-E Double	Y 0 36	0 25	N	N	36 0	2	3 00	6 00	1 5	1 0	None	None			
___ 5	NW	8	Vinyl	Low-E Double	Y 0 36	0 25	N	N	30 0	2	3 00	5 00	1 5	1 0	None	None			
___ 6	NW	8	Vinyl	Low-E Double	Y 0 36	0 25	N	N	20 0	2	2 00	5 00	1 5	1 0	None	None			
___ 7	SW	9	Vinyl	Low-E Double	Y 0 36	0 25	N	N	30 0	2	3 00	5 00	1 5	1 0	None	None			
___ 8	SW	9	Vinyl	Low-E Double	Y 0 36	0 25	N	N	16 0	1	4 00	4 00	1 5	1 0	None	None			
___ 9	SW	9	Vinyl	Low-E Double	Y 0 36	0 25	N	N	6 0	1	2 00	3 00	1 5	1 0	None	None			
___ 10	SW	9	Vinyl	Low-E Double	Y 0 36	0 25	N	N	36 0	2	3 00	6 00	1 5	1 0	None	None			
___ 11	SE	10	Vinyl	Low-E Double	Y 0 36	0 25	N	N	36 0	2	3 00	6 00	5 5	1 0	None	None			
___ 12	SW	11	Vinyl	Low-E Double	Y 0 36	0 25	N	N	54 0	3	3 00	6 00	12 5	1 0	None	None			
___ 13	SW	11	TIM	Low-E Double	Y 0 36	0 25	N	N	20 0	1	3 00	6 67	12 5	1 0	None	None			
___ 14	SE	12	Vinyl	Low-E Double	Y 0 36	0 25	N	N	60 0	4	2 50	6 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	2111	115 79	217 38	0 1438	7 0	All	18090 cu ft

GARAGE								
✓ #	Floor Area	Length	Width	Roof Area	Exposed Perimeter	Area Under Uncond	Avg Wall Height	Exposed Wall Insulation
___ 1	528 ft²	23 7 ft²	22 3 ft²	528 ft²	65 ft	528 ft	9 ft	1

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	31 9	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 17 0	35 1	1053	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	Garage	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 #	Location	Supply R-Value	Area	Return R-Value	Area	Leakage Type	AHU Location	CFM 25 TOT OUT	QN OUT	AHU SEALED	RLF	HVAC # Heat Cool
___ 1	Attic	6 0	503 ft²	Attic	6 0	101 ft²	Default Leakage	Garage	(Default)	(Default)		1 1

TEMPERATURES													
Programable Thermostat Y						Ceiling Fans N							
Cooling	[] Jan	[] Feb	[] Mar	[] Apr	[] May	[X] Jun	[X] Jul	[X] Aug	[X] Sep	[] Oct	[] Nov	[] Dec	
Heating	[X] Jan	[X] Feb	[X] Mar	[] Apr	[] May	[] Jun	[] Jul	[] Aug	[] Sep	[] Oct	[X] Nov	[X] Dec	
Venting	[] Jan	[] Feb	[X] Mar	[X] Apr	[] May	[] Jun	[] Jul	[] Aug	[] Sep	[X] Oct	[X] Nov	[] Dec	
✓ Thermostat Schedule	HERS 2006 Reference												
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	
___ 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	
___ Heating (WD)	AM PM	66 68	66 68	66 68	66 68	66 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 66	68 66	

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 95

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

138 Mercury Ct,Lake City,FL,32025

1. New construction or existing	New (From Plans)	10. Wall Types(1797.0 sqft.)	Insulation	Area
2. Single family or multiple family	Detached	a. Frame - Wood, Exterior	R=13.0	1767.00 ft ²
3. Number of units, if multiple family	1	b. Frame - Wood, Adjacent	R=13.0	30 00 ft ²
4. Number of Bedrooms	4	c. N/A		
5. Is this a worst case?	No	d. N/A		
6. Conditioned floor area above grade (ft ²)	2010	11. Ceiling Types(2211.0 sqft.)	Insulation	Area
Conditioned floor area below grade (ft ²)	0	a. Flat ceiling under att (Vented)	R=38.0	2211.00 ft ²
7. Windows**	Description	b. N/A		
a. U-Factor:	Dbl, U=0.36	c. N/A		
SHGC:	SHGC=0.25	12. Roof(Comp. Shingles, Vented) Deck R=0.0		2327 ft ²
b. U-Factor:	N/A	13. Ducts, location & insulation level	R	ft ²
SHGC:		a. Sup: Attic, Ret: Attic, AH: Garage	6	503
c. U-Factor:	N/A	b.		
SHGC:		c.		
Area Weighted Average Overhang Depth	4.621 ft	14. Cooling Systems	kBtu/hr	Efficiency
Area Weighted Average SHGC	0.250	a. Central Unit	35.1	SEER2:17.00
8. Skylights	Description	15. Heating Systems	kBtu/hr	Efficiency
U-Factor:(AVG)	N/A	a. Electric Heat Pump	31 9	HSPF2:8.80
SHGC(AVG)	N/A			
9. Floor Types	Insulation	16. Hot Water Systems		
a. Slab-On-Grade Edge Insulation	R= 0.0	a. Electric		Cap. 50 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: 138 Mercury Ct

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: 138 Mercury Ct		
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> 7 000		
$\frac{\text{CFM}(50)}{\text{Building Volume}} \times 60 + \frac{18090}{\text{ACH}(50)} =$ PASS <u>Method for calculating building volume.</u> ☐ Retrieved from architectural plans ☒ Code software calculated ☐ Field measured and calculated ☐ When ACH(50) is less than 3, Mechanical Ventilation installation must be verified by building department.		
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 <i>Florida Building Code, Residential</i>. 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), <i>Florida Statutes</i>, 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: _____