

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

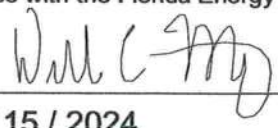
Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Diego Castro Street: 259 SW Mossy Oak Way City, State, Zip: Lake City, FL, 32024 Owner: Diego Castro 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) 2116 Conditioned floor area below grade (ft²) 0 7. Windows(256.0 sqft.) Description Area a. U-Factor: Dbl, U=0.36 256.00 ft² SHGC: SHGC=0.25 b. U-Factor: N/A ft² SHGC: c. U-Factor: N/A ft² SHGC: Area Weighted Average Overhang Depth: 5.377 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 2116.00 ft² b. N/A R= ft² c. N/A R= ft²	10. Wall Types(2149.5 sqft.) Insulation Area a. Frame - Wood, Exterior R=19.0 1765.50 ft² b. Frame - Wood, Adjacent R=13.0 330.00 ft² c. Frame - Wood, Adjacent R=19.0 54.00 ft² d. N/A 11. Ceiling Types(2327.6 sqft.) Insulation Area a. Flat ceiling under att (Vented) R=38.0 2327.60 ft² b. N/A c. N/A 12. Roof(Comp. Shingles, Vented) Deck R=0.0 2543 ft² 13. Ducts, location & insulation level R ft² a. Sup: Attic, Ret: Attic, AH: Garage 6 529 b. c. 14. Cooling Systems kBtu/hr Efficiency a. Central Unit 26.4 SEER2:15.50 15. Heating Systems kBtu/hr Efficiency a. Electric Heat Pump 33.6 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: 0.121	Total Proposed Modified Loads: 48.75	PASS
	Total Baseline Loads: 56.01	

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: 3 / 15 / 2024 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:	Diego Castro	Bedrooms:	4	Address type:	Street Address
Building Type:	User	Conditioned Area:	2116	Lot #:	---
Owner:	Diego Castro	Total Stories:	1	Block/SubDivision:	---
Builder Home ID:		Worst Case:	No	PlatBook:	---
Builder Name:		Rotate Angle:	0	Street:	259 SW Mossy Oak Way
Permit Office:	Columbia County	Cross Ventilation:	Yes	County:	Columbia
Jurisdiction:		Whole House Fan:	No	City, State, Zip:	Lake City, FL, 32024
Family Type:	Detached	Terrain:	Suburban		
New/Existing:	New (From Plans)	Shielding:	Suburban		
Year Construct:	2024				
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	2116	19044 cu ft

SPACES

✓ Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated
___ 1	1st Floor	2116	19044	Yes	8	4	Yes	Yes	Yes

FLOORS

(Total Exposed Area = 2116 sq.ft.)

✓ #	Floor Type	Space	Exposed Perim(ft)	Area	R-Value Perim. Joist	U-Factor	Slab Insul. Vert/Horiz	Tile	Wood	Carpet
___ 1	Slab-On-Grade Edge Ins	1st Floor	241.833	2116 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	Gable or shed	Composition shingles	2543 ft²	394 ft²	Medium	Y	0.96	No	0.9	No	0	33.69

ATTIC

✓ #	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
___ 1	Partial cathedral ceiling	Vented	300	2116 ft²	Y	N

CEILING

(Total Exposed Area = 2328 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	2327.6ft²	0.024	0.11	Wood

INPUT SUMMARY CHECKLIST REPORT

WALLS															(Total Exposed Area = 2150 sq.ft.)			
✓ #	Omt	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	S	Exterior	Frame - Wood	1st Floor	19.0	29.0	8	9.0	0	267.0	0.061		0.23	0.75	0 %			
___ 2	W	Exterior	Frame - Wood	1st Floor	19.0	9.0	0	9.0	0	81.0	0.061		0.23	0.75	0 %			
___ 3	S	Exterior	Frame - Wood	1st Floor	19.0	12.0	8	9.0	0	114.0	0.061		0.23	0.75	0 %			
___ 4	E	Exterior	Frame - Wood	1st Floor	19.0	39.0	0	9.0	0	351.0	0.061		0.23	0.75	0 %			
___ 5	N	Exterior	Frame - Wood	1st Floor	19.0	12.0	2	9.0	0	109.5	0.061		0.23	0.75	0 %			
___ 6	N	Exterior	Frame - Wood	1st Floor	19.0	19.0	8	9.0	0	177.0	0.061		0.23	0.75	0 %			
___ 7	E	Exterior	Frame - Wood	1st Floor	19.0	8.0	0	9.0	0	72.0	0.061		0.23	0.75	0 %			
___ 8	N	Exterior	Frame - Wood	1st Floor	19.0	13.0	6	9.0	0	121.5	0.061		0.23	0.75	0 %			
___ 9	W	Exterior	Frame - Wood	1st Floor	19.0	8.0	0	9.0	0	72.0	0.061		0.23	0.75	0 %			
___ 10	N	Exterior	Frame - Wood	1st Floor	19.0	25.0	8	9.0	0	231.0	0.061		0.23	0.75	0 %			
___ 11	W	Exterior	Frame - Wood	1st Floor	19.0	18.0	10	9.0	0	169.5	0.061		0.23	0.75	0 %			
___ 12	S	Garage	Frame - Wood	1st Floor	13.0	22.0	8	9.0	0	204.0	0.084		0.23	0.75	0 %			
___ 13	W	Garage	Frame - Wood	1st Floor	13.0	14.0	0	9.0	0	126.0	0.084		0.23	0.75	0 %			
___ 14	S	Garage	Frame - Wood	1st Floor	19.0	6.0	0	9.0	0	54.0	0.061		0.23	0.75	0 %			

DOORS											(Total Exposed Area = 40 sq.ft.)		
✓ #	Omt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	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	3.00	0	6.00	8	20.0ft²		

WINDOWS															(Total Exposed Area = 256 sq.ft.)			
✓ #	Omt	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	S	1	Vinyl	Low-E Double	Y	0.36	0.25	N	N	60.0	4	3.00	5.00	9.5	1.0	None	None	
___ 2	S	3	Vinyl	Low-E Double	Y	0.36	0.25	N	N	15.0	1	3.00	5.00	1.0	3.0	None	None	
___ 3	E	4	Vinyl	Low-E Double	Y	0.36	0.25	N	N	4.0	1	4.00	1.00	1.5	1.0	None	None	
___ 4	N	5	Vinyl	Low-E Double	Y	0.36	0.25	N	N	15.0	1	3.00	5.00	1.5	1.0	None	None	
___ 5	N	6	Vinyl	Low-E Double	Y	0.36	0.25	N	N	45.0	3	3.00	5.00	9.5	1.0	None	None	
___ 6	N	6	TIM	Low-E Double	Y	0.36	0.25	N	N	20.0	1	3.00	6.67	9.5	1.0	None	None	
___ 7	N	8	Vinyl	Low-E Double	Y	0.36	0.25	N	N	45.0	3	3.00	5.00	1.5	1.0	None	None	
___ 8	N	10	Vinyl	Low-E Double	Y	0.36	0.25	N	N	30.0	2	3.00	5.00	1.5	1.0	None	None	
___ 9	N	10	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	W	11	Vinyl	Low-E Double	Y	0.36	0.25	N	N	16.0	1	4.00	4.00	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	2222	121.89	228.84	0.1438	7.0	All	19044 cu ft

GARAGE					
✓ #	Floor Area	Roof Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
___ 1	616 ft²	616 ft²	66 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 Entry	HeatPump Power	Ducts Volt	Block Current
1	Electric Heat Pump	None/Single		HSPF2: 8.80	33.6		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		SEER2:15.5	26.4	780	0.70	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)	50.00 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	529 ft²	Attic	6.0	106 ft²	Default Leakage	Garage	(Default)	(Default)		1 1

TEMPERATURES

Programable Thermostat: Y				Ceiling Fans: N									
Cooling	<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr	<input type="checkbox"/> May	<input checked="" type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input type="checkbox"/> Oct	<input type="checkbox"/> Nov	<input type="checkbox"/> Dec	
Heating	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input type="checkbox"/> Apr	<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input type="checkbox"/> Jul	<input type="checkbox"/> Aug	<input type="checkbox"/> Sep	<input type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec	
Venting	<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input type="checkbox"/> Jul	<input type="checkbox"/> Aug	<input type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input type="checkbox"/> Dec	
Thermostat Schedule: HERS 2006 Reference													
✓ Schedule Type		1	2	3	4	5	6	Hours 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* = 87

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

259 SW Mossy Oak Way,Lake City,FL,32024

1. New construction or existing	New (From Plans)	10. Wall Types(2149.5 sqft.)	Insulation	Area
2. Single family or multiple family	Detached	a. Frame - Wood, Exterior	R=19.0	1765.50 ft ²
3. Number of units, if multiple family	1	b. Frame - Wood, Adjacent	R=13.0	330.00 ft ²
4. Number of Bedrooms	4	c. Frame - Wood, Adjacent	R=19.0	54.00 ft ²
5. Is this a worst case?	No	d. N/A		
6. Conditioned floor area above grade (ft ²)	2116	11. Ceiling Types(2327.6 sqft.)	Insulation	Area
Conditioned floor area below grade (ft ²)	0	a. Flat ceiling under att (Vented)	R=38.0	2327.60 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	2543 ft ²
b. U-Factor:	N/A	13. Ducts, location & insulation level	R	ft ²
SHGC:		a. Sup: Attic, Ret: Attic, AH: Garage	6	529
c. U-Factor:	N/A	b.		
SHGC:		c.		
Area Weighted Average Overhang Depth:	5.377 ft	14. Cooling Systems	kBtu/hr	Efficiency
Area Weighted Average SHGC:	0.250	a. Central Unit	26.4	SEER2:15.50
8. Skylights	Description	15. Heating Systems	kBtu/hr	Efficiency
U-Factor:(AVG)	N/A	a. Electric Heat Pump	33.6	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: 259 SW Mossy Oak Way

City/FL Zip: Lake City,FL,32024



*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: 259 SW Mossy Oak Way		
City: Lake City	State: FL	Zip: 32024
Air Leakage Test Results <i>Passing results must meet either the Performance, Prescriptive, or ERI Method</i>		
<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"><input type="radio"/> 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.</div> <div style="border: 1px solid black; padding: 5px;"><input checked="" type="radio"/> 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. <div style="display: flex; justify-content: space-between; align-items: center;">ACH(50) specified on Form R405-2023-Energy Calc (Performance) or R406-2023 (ERI):<div style="border: 1px solid black; padding: 2px 10px; text-align: center;">7.000</div></div></div>		
<div style="display: flex; justify-content: space-between; align-items: flex-start;"><div style="width: 60%;">$\frac{\text{CFM}(50)}{\text{Building Volume}} \times 60 \div \frac{19044}{\text{ACH}(50)} =$<div style="border: 1px solid black; width: 40px; height: 40px; margin: 10px auto; text-align: center; line-height: 40px; font-size: 24px;">PASS</div><div style="margin-top: 10px;"><input type="checkbox"/> When ACH(50) is less than 3, Mechanical Ventilation installation must be verified by building department.</div></div><div style="width: 35%;"><p><u>Method for calculating building volume:</u></p><div style="margin-top: 5px;"><input type="radio"/> Retrieved from architectural plans</div><div style="margin-top: 5px;"><input checked="" type="radio"/> Code software calculated</div><div style="margin-top: 5px;"><input type="radio"/> Field measured and calculated</div></div></div>		
<p>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.</p> <p>During testing:</p> <ol style="list-style-type: none">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		
<div style="display: flex; justify-content: space-between;"><div>Company Name: _____</div><div>Phone: _____</div></div> <p>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.</p> <div style="display: flex; justify-content: space-between; margin-top: 10px;"><div>Signature of Tester: _____</div><div>Date of Test: _____</div></div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"><div>Printed Name of Tester: _____</div><div></div></div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"><div>License/Certification #: _____</div><div>Issuing Authority: _____</div></div>		