

# FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

<b>Project Name:</b> Mowry Residence <b>Street:</b> SW Dusk Glen <b>City, State, Zip:</b> Lake City, FL, 32024- <b>Owner:</b> Dale & Whitney Mowry <b>Design Location:</b> FL, Gainesville	<b>Builder Name:</b> Bryan Zacher Construction <b>Permit Office:</b> Columbia County <b>Permit Number:</b> <b>Jurisdiction:</b> 221000
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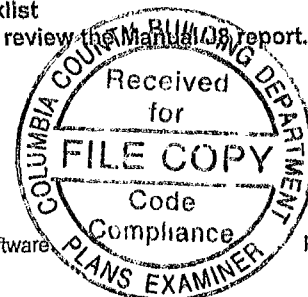
  

Glass/Floor Area: 0.117	Total Proposed Modified Loads: 37.35	PASS
	Total Standard Reference Loads: 49.47	

<p>I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.</p> <p>PREPARED BY: <u><i>J. A. O'Brien</i></u>          DATE: <u>4/16/13</u></p> <p>I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.</p> <p>OWNER/AGENT: <u><i>[Signature]</i></u>          DATE: <u>4/24/13</u></p>	<p>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.</p> <div style="text-align: center;">  </div> <p>BUILDING OFFICIAL: _____          DATE: _____</p>
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- Compliance requires completion of a Florida Air Barrier and Insulation Inspection Checklist
- Heat sys #1 may be undersized. Size of 35.0 was increased to 38.1 for simulation. Please review the Manual J report.



PROJECT												
Title:	Mowry Residence	Bedrooms:	3	Address Type:	Street Address							
Building Type:	User	Conditioned Area	2516	Lot #								
Owner:	Dale & Whitney Mowry	Total Stories:	1	Block/SubDivision:								
# of Units:	1	Worst Case:	No	PlatBook:								
Builder Name	Bryan Zecher Construction	Rotate Angle:	0	Street:	SW Dusk Glen							
Permit Office:	Columbia County	Cross Ventilation:		County:	Columbia							
Jurisdiction:	221000	Whole House Fan:		City, State, Zip:	Lake City , FL , 32024-							
Family Type:	Single-family											
New/Existing:	New (From Plans)											
Comment:												
CLIMATE												
✓	Design Location	TMY Site	IECC Zone	Design Temp 97.5 %	2.5 %	Int Design Temp Winter	Summer	Heating Degree Days	Design Moisture	Daily Temp Range		
_____	FL, Gainesville	FL_GAINESVILLE_REGI	2	32	92	70	75	1305.5	51	Medium		
BLOCKS												
	Number	Name	Area	Volume								
	1	Block1	2516	22644								
SPACES												
	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated	
	1	Main	2516	22644	Yes	2	3	1	Yes	Yes	Yes	
FLOORS												
✓	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet		
_____	1	Slab-On-Grade Edge Insulatio	Main	192 ft	0	2516 ft²	_____	0.2	0.5	0.3		
ROOF												
✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Hip	Composition shingles	2914 ft²	0 ft²	Medium	0.96	No	0.9	No	0	30.3
ATTIC												
✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC					
_____	1	Full attic	Vented	300	2516 ft²	N	N					
CEILING												
✓	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type					
_____	1	Under Attic (Vented)	Main	19	2516 ft²	0.11	Wood					

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	19	40	0	9	0	360 ft²		0.23	0.75	0
2	W	Exterior	Frame - Wood	Main	19	58	0	9	0	522 ft²		0.23	0.75	0
3	N	Exterior	Frame - Wood	Main	19	64	0	9	0	576 ft²		0.23	0.75	0
4	E	Exterior	Frame - Wood	Main	19	44	0	9	0	396 ft²		0.23	0.75	0
5	S	Garage	Frame - Wood	Main	19	24	0	9	0	216 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	Metal	0.460000	5	0	8	0	40 ft²	
2	S	Insulated	Main	Metal	0.460000	5	0	8	0	20 ft²	
3	N	Insulated	Main	Metal	0.460000	5	0	8	0	20 ft²	
4	N	Insulated	Main	Metal	0.460000	5	0	8	0	20 ft²	

WINDOWS													
Orientation shown is the entered, Proposed orientation.													
✓ #	Ornt	Wall ID	Frame	Panels	NFRC	U-Factor	SHGC	Area	Overhang Depth	Separation	Int Shade	Screening	
1	S	1	Vinyl	Low-E Double	Yes	0.55	0.5	60.44444	2 ft 0 in	0 ft 4 in	Drapes/blinds	None	
2	S	1	Vinyl	Low-E Double	Yes	0.55	0.5	12 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None	
3	W	2	Vinyl	Low-E Double	Yes	0.55	0.5	39.66666	2 ft 0 in	0 ft 4 in	Drapes/blinds	None	
4	W	2	Vinyl	Low-E Double	Yes	0.55	0.5	9.777777	2 ft 0 in	0 ft 4 in	Drapes/blinds	None	
5	W	2	Vinyl	Low-E Double	Yes	0.55	0.5	8 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None	
6	N	3	Vinyl	Low-E Double	Yes	0.55	0.5	75.55555	2 ft 0 in	0 ft 4 in	Drapes/blinds	None	
7	N	3	Vinyl	Low-E Double	Yes	0.55	0.5	89.44444	2 ft 0 in	0 ft 4 in	Drapes/blinds	None	

GARAGE						
✓ #	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation	
1	720 ft²	720 ft²	84 ft	9 ft	1	

INFILTRATION								
#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Best Guess	0.000600	3299.7	181.15	340.68	0.3850	8.7433

HEATING SYSTEM							
✓ #	System Type	Subtype	Efficiency	Capacity	Block	Ducts	
1	Electric Heat Pump	None	HSPF: 7.7	35 kBtu/hr	1	sys#1	

COOLING SYSTEM											
✓	#	System Type	SubType	Efficiency	Capacity	Air Flow	SHR	Block	Ducts		
	1	Central Unit	Split	SEER: 15	35 kBtu/hr	1050 cfm	0.75	1	sys#1		

HOT WATER SYSTEM									
✓	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
	1	Electric	None	Garage	0.92	40 gal	60 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	Percent Leakage	QN	RLF	HVAC #	
		Location	R-Value	Area	Location	Area				(Default) %			Heat	Cool
	1	Attic	6	503.2 ft	Attic	125.8 ft	Default Leakage	Main	(Default)	(Default) %			1	1

TEMPERATURES														
Programable Thermostat Y				Ceiling Fans:										
Cooling	Heating	Venting	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
			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

# Florida Code Compliance Checklist

Florida Department of Business and Professional Regulations  
Residential Whole Building Performance Method

ADDRESS: SW Dusk Glen  
Lake City, FL, 32024-

PERMIT #:

## MANDATORY REQUIREMENTS SUMMARY - See individual code sections for full details.

COMPONENT	SECTION	SUMMARY OF REQUIREMENT(S)	CHECK
Air leakage	402.4	To be caulked, gasketed, weatherstripped or otherwise sealed. Recessed lighting IC-rated as meeting ASTM E 283. Windows and doors = 0.30 cfm/sq.ft. Testing or visual inspection required. Fireplaces; gasketed doors & outdoor combustion air. Must complete envelope leakage report or visually verify Table 402.4.2.	✓
Thermostat & controls	403.1	At least one thermostat shall be provided for each separate heating and cooling system. Where forced-air furnace is primary system, programmable thermostat is required. Heat pumps with supplemental electric heat must prevent supplemental heat when compressor can meet the load.	✓
Ducts	403.2.2	All ducts, air handlers, filter boxes and building cavities which form the primary air containment passageways for air distribution systems shall be considered ducts or plenum chambers, shall be constructed and sealed in accordance with Section 503.2.7.2 of this code.	✓
	403.3.3	Building framing cavities shall not be used as supply ducts.	
Water heaters	403.4	Heat trap required for vertical pipe risers. Comply with efficiencies in Table 403.4.3.2. Provide switch or clearly marked circuit breaker (electric) or shutoff (gas). Circulating system pipes insulated to = R-2 + accessible manual OFF switch.	✓
Mechanical ventilation	403.5	Homes designed to operate at positive pressure or with mechanical ventilation systems shall not exceed the minimum ASHRAE 62 level. No make-up air from attics, crawlspaces, garages or outdoors adjacent to pools or spas.	✓
Swimming Pools & Spas	403.9	Pool pumps and pool pump motors with a total horsepower (HP) of = 1 HP shall have the capability of operating at two or more speeds. Spas and heated pools must have vapor-retardant covers or a liquid cover or other means proven to reduce heat loss except if 70% of heat from site-recovered energy. Off/timer switch required. Gas heaters minimum thermal efficiency=78% (82% after 4/16/13). Heat pump pool heaters minimum COP= 4.0.	N/A
Cooling/heating equipment	403.6	Sizing calculation performed & attached. Minimum efficiencies per Tables 503.2.3. Equipment efficiency verification required. Special occasion cooling or heating capacity requires separate system or variable capacity system. Electric heat >10kW must be divided into two or more stages.	✓
Ceilings/knee walls	405.2.1	R-19 space permitting.	✓