

# FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Lot 67 Preserves at Laurel Lake  
 Street:  
 City, State, Zip: Lake City, FL, 32055-  
 Owner: Bryan Zecher Constr.  
 Design Location: FL, Gainesville

Builder Name: Bryan Zecher Construction  
 Permit Office: Columbia Co  
 Permit Number:  
 Jurisdiction: 124000  
 22

- |   |                        |
|---|------------------------|
| 1. New construction or existing             | New (From Plans)       |
| 2. Single family or multiple family         | Single-family          |
| 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) | 2020                   |
| Conditioned floor area below grade (ft²)    | 0                      |
| 7. Windows(230.9 sqft.)                     | Description Area       |
| a. U-Factor:                                | Dbf, U=0.55 230.89 ft² |
| SHGC:                                       | SHGC=0.50              |
| b. U-Factor:                                | N/A ft²                |
| SHGC:                                       |                        |
| c. U-Factor:                                | N/A ft²                |
| SHGC:                                       |                        |
| d. U-Factor:                                | N/A ft²                |
| SHGC:                                       |                        |
| Area Weighted Average Overhang Depth:       | 4.227 ft.              |
| Area Weighted Average SHGC:                 | 0.500                  |
| 8. Floor Types (2020.0 sqft.)               | Insulation Area        |
| a. Slab-On-Grade Edge Insulation            | R=0.0 2020.00 ft²      |
| b. N/A                                      | R= ft²                 |
| c. N/A                                      | R= ft²                 |

- |                                     |                    |
|-------------------------------------|--------------------|
| 9. Wall Types(1725.0 sqft.)         | Insulation Area    |
| a. Frame - Wood, Exterior           | R=13.0 1542.00 ft² |
| b. Frame - Wood, Adjacent           | R=13.0 183.00 ft²  |
| c. N/A                              | R= ft²             |
| d. N/A                              | R= ft²             |
| 10. Ceiling Types (2020.0 sqft.)    | Insulation Area    |
| a. Under Attic (Vented)             | R=30.0 2020.00 ft² |
| b. N/A                              | R= ft²             |
| c. N/A                              | R= ft²             |
| 11. Ducts                           | R ft²              |
| a. Sup: Attic, Ret: Attic, AH: Main | 6 404              |
| 12. Cooling systems                 | kBtu/hr Efficiency |
| a. Central Unit                     | 35.0 SEER:14.00    |
| 13. Heating systems                 | kBtu/hr Efficiency |
| a. Electric Heat Pump               | 35.0 HSPF:7.70     |
| 14. Hot water systems               |                    |
| a. Electric                         | Cap: 40 gallons    |
|                                     | EF: 0.920          |
| b. Conservation features            |                    |
| None                                |                    |
| 15. Credits                         | CF, Pstat          |

Glass/Floor Area: 0.114 Total Proposed Modified Loads: 31.54  
 Total Standard Reference Loads: 42.52

**PASS**

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

PREPARED BY: J.A. Ollie  
 DATE: 4/22/13

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

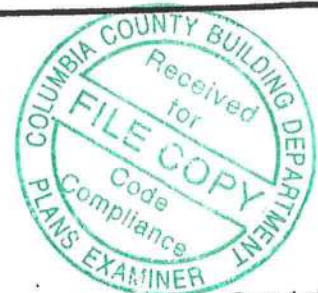
OWNER/AGENT: [Signature]  
 DATE: 5/10/13

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 completion of a Florida Air Barrier and Insulation Inspection Checklist



## PROJECT

Title: Lot 67 Preserves at Laurel La	Bedrooms: 3	Address Type: Lot Information
Building Type: User	Conditioned Area: 2020	Lot #: 67
Owner: Bryan Zecher Constr.	Total Stories: 1	Block/SubDivision: Pres Laurel Lk
# of Units: 1	Worst Case: No	PlatBook:
Builder Name: Bryan Zecher Construction	Rotate Angle: 0	Street:
Permit Office: Columbia Co	Cross Ventilation:	County: Columbia
Jurisdiction: 121000	Whole House Fan:	City, State, Zip: Lake City , FL , 32055-
Family Type: Single-family		
New/Existing: New (From Plans)		
Comment:		

## CLIMATE

✓	Design Location	TMY Site	IECC Zone	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_REGI	2	32	92	70	75	1305.5	51	Medium

## BLOCKS

Number	Name	Area	Volume
1	Block1	2020	18180

## SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	2020	18180	Yes	3	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	2020 ft²	0.3	0.3	0.4

## ROOF

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
✓	1	Hip	Composition shingles	2259 ft²	0 ft²	Medium	0.96	No	0.9	No	0	26.6

## ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
✓	1	Full attic	Vented	300	2020 ft²	N	N

## CEILING

✓	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type
✓	1	Under Attic (Vented)	Main	30	2020 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	NE	Garage	Frame - Wood	Main	13	20	4	9	0	183 ft²		0.23	0.75	0
2	NE	Exterior	Frame - Wood	Main	13	19	0	9	0	171 ft²		0.23	0.75	0
3	NE	Exterior	Frame - Wood	Main	13	14	8	9	0	132 ft²		0.23	0.75	0
4	SE	Exterior	Frame - Wood	Main	13	34	4	9	0	309 ft²		0.23	0.75	0
5	SW	Exterior	Frame - Wood	Main	13	26		9		234 ft²		0.23	0.75	0
6	SE	Exterior	Frame - Wood	Main	13	9	4	9	0	84 ft²		0.23	0.75	0
7	SW	Exterior	Frame - Wood	Main	13	28		9		252 ft²		0.23	0.75	0
8	NW	Exterior	Frame - Wood	Main	13	40		9		360 ft²		0.23	0.75	0

### DOORS

✓ #	Ornt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
1	NE	Insulated	Main	Metal	0.28	3	0	6	8	20 ft²
2	NE	Insulated	Main	Wood	0.25	3	0	6	8	24 ft²

### WINDOWS

Orientation shown is the entered, Proposed orientation.

✓ #	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Area	Overhang Depth	Separation	Int Shade	Screening
1	NE	2	Vinyl	Low-E Double	Yes	0.55	0.5	30.22222	7 ft 0 in	0 ft 4 in	Drapes/blinds	None
2	NE	3	Vinyl	Low-E Double	Yes	0.55	0.5	8.888889	2 ft 0 in	0 ft 4 in	Drapes/blinds	None
3	NE	3	Vinyl	Low-E Double	Yes	0.55	0.5	2.777777	2 ft 0 in	0 ft 4 in	Drapes/blinds	None
4	SE	4	Vinyl	Low-E Double	Yes	0.55	0.5	10.88888	2 ft 0 in	0 ft 4 in	Drapes/blinds	None
5	SE	4	Vinyl	Low-E Double	Yes	0.55	0.5	4.444444	2 ft 0 in	0 ft 4 in	Drapes/blinds	None
6	SW	5	Vinyl	Low-E Double	Yes	0.55	0.5	13.22222	2 ft 0 in	0 ft 4 in	Drapes/blinds	None
7	SW	5	Vinyl	Low-E Double	Yes	0.55	0.5	45.38888	2 ft 0 in	0 ft 4 in	Drapes/blinds	None
8	SE	6	Vinyl	Low-E Double	Yes	0.55	0.5	45.38888	10 ft 0 in	0 ft 4 in	Drapes/blinds	None
9	SW	7	Vinyl	Low-E Double	Yes	0.55	0.5	30.22222	2 ft 0 in	0 ft 4 in	Drapes/blinds	None
10	SW	7	Vinyl	Low-E Double	Yes	0.55	0.5	12.44444	2 ft 0 in	0 ft 4 in	Drapes/blinds	None
11	NW	8	Vinyl	Low-E Double	Yes	0.55	0.5	3.666666	2 ft 0 in	0 ft 4 in	Drapes/blinds	None
12	NW	8	Vinyl	Low-E Double	Yes	0.55	0.5	12.44444	2 ft 0 in	0 ft 4 in	Drapes/blinds	None
13	NW	8	Vinyl	Low-E Double	Yes	0.55	0.5	10.88888	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	413.3089 ft²	413.3089 ft²	57 ft	9 ft	3

INFILTRATION										
#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50		
1	Wholehouse	Best Guess	0.000500	2649.2	145.44	273.52	0.3850	8.7433		

HEATING SYSTEM									
<input checked="" type="checkbox"/>	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts		
<input checked="" type="checkbox"/>	1	Electric Heat Pump	None	HSPF: 7.7	35 kBtu/hr	1	sys#1		

COOLING SYSTEM									
<input checked="" type="checkbox"/>	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
<input checked="" type="checkbox"/>	1	Central Unit	Split	SEER: 14	35 kBtu/hr	1050 cfm	0.75	1	sys#1

HOT WATER SYSTEM									
<input checked="" type="checkbox"/>	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
<input checked="" type="checkbox"/>	1	Electric	None	Garage	0.92	40 gal	60 gal	120 deg	None

SOLAR HOT WATER SYSTEM							
<input checked="" type="checkbox"/>	FSEC	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
<input checked="" type="checkbox"/>	None	None			ft²		

DUCTS														
<input checked="" type="checkbox"/>	#	Supply			Return		Leakage Type	Air Handler	CFM 25	Percent Leakage	QN	RLF	HVAC #	
		Location	R-Value	Area	Location	Area							Heat	Cool
<input checked="" type="checkbox"/>	1	Attic	6	404 ft²	Attic	101 ft²	Default Leakage	Main	(Default)	(Default) %			1	1

TEMPERATURES												
Programable Thermostat: Y						Ceiling Fans:						
Cooling	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" 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 checked="" type="checkbox"/> Dec
Heating	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input checked="" 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
Venting	<input checked="" type="checkbox"/> Jan	<input checked="" type="checkbox"/> Feb	<input checked="" type="checkbox"/> Mar	<input checked="" type="checkbox"/> Apr	<input checked="" 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		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:

Lake City, FL, 32055-

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.	✓