

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Lot 41 Jewel Lake Street: City, State, Zip: Lake City, FL, 32025 Owner: Design Location: FL, Gainesville	Builder Name: Sorensen & Smith, LLC. Permit Office: Columbia County Permit Number: Jurisdiction: County: Columbia (Florida Climate Zone 2)
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Glass/Floor Area: 0.108	Total Proposed Modified Loads: 51.20	PASS
	Total Baseline Loads: 51.99	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY: <u>HA</u> DATE: <u>7/30/2020</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.
- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires an envelope leakage test report with envelope leakage no greater than 5.00 ACH50 (R402.4.1.2).



INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	Lot 41 Jewel Lake	Bedrooms:	4	Address Type:	Lot Information
Building Type:	User	Conditioned Area:	1867	Lot #	41
Owner Name:		Total Stories:	1	Block/Subdivision:	Jewel Lake
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	Sorensen & Smith, LLC.	Rotate Angle:	0	Street:	
Permit Office:	Columbia County	Cross Ventilation:	Yes	County:	Columbia
Jurisdiction:		Whole House Fan:	No	City, State, Zip:	Lake City , FL , 32025
Family Type:	Single-family				
New/Existing:	New (From Plans)				
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_REGI	32	92	70	75	1305.5	51	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	1867	16803

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	1867	16803	Yes	8	4	1	Yes	Yes	Yes

FLOORS

✓	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulation	Main	199.5 ft	0	1867 ft²	----	0	0	1

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	2244 ft²	0 ft²	Medium	Y	0.96	No	0.9	No	0	33.7

ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	1867 ft²	Y	N

CEILING

✓	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	Main	38	Double Batt	1960 ft²	0.11	Wood

INPUT SUMMARY CHECKLIST REPORT

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	13	16	8	9		150.0 ft²		0.23	0.75	0
2	E	Exterior	Frame - Wood	Main	13	4		9		36.0 ft²		0.23	0.75	0
3	S	Exterior	Frame - Wood	Main	13	4		9		36.0 ft²		0.23	0.75	0
4	W	Exterior	Frame - Wood	Main	13	4		9		36.0 ft²		0.23	0.75	0
5	S	Exterior	Frame - Wood	Main	13	9	10	9		88.5 ft²		0.23	0.75	0
6	S	Garage	Frame - Wood	Main	13	21	6	9		193.5 ft²		0.23	0.75	0
7	E	Exterior	Frame - Wood	Main	13	41	6	9		373.5 ft²		0.23	0.75	0
8	N	Exterior	Frame - Wood	Main	13	12	10	9		115.5 ft²		0.23	0.75	0
9	E	Exterior	Frame - Wood	Main	13	7	2	9		64.5 ft²		0.23	0.75	0
10	N	Exterior	Frame - Wood	Main	13	11	4	9		102.0 ft²		0.23	0.75	0
11	W	Exterior	Frame - Wood	Main	13	8	8	9		78.0 ft²		0.23	0.75	0
12	N	Exterior	Frame - Wood	Main	13	15	0	9		135.0 ft²		0.23	0.75	0
13	N	Exterior	Frame - Wood	Main	13	12	10	9		115.5 ft²		0.23	0.75	0
14	W	Exterior	Frame - Wood	Main	13	30	2	9		271.5 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	None	.46	3		6	8	20 ft²
2	S	Insulated	Main	None	.46	3		6	8	20 ft²

WINDOWS

Orientation shown is the entered, Proposed orientation.

✓ #	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Area	Overhang Depth	Separation	Int Shade	Screening
1	S	1	Vinyl	Low-E Double	Yes	0.36	0.25	N	16.0 ft²	5 ft 6 in	1 ft 0 in	None	None
2	S	5	Vinyl	Low-E Double	Yes	0.36	0.25	N	30.0 ft²	1 ft 6 in	1 ft 0 in	None	None
3	E	7	Vinyl	Low-E Double	Yes	0.36	0.25	N	15.0 ft²	1 ft 6 in	1 ft 0 in	None	None
4	E	7	Vinyl	Low-E Double	Yes	0.36	0.25	N	6.0 ft²	1 ft 6 in	1 ft 0 in	None	None
5	N	8	Vinyl	Low-E Double	Yes	0.36	0.25	N	15.0 ft²	1 ft 6 in	1 ft 0 in	None	None
6	N	10	Vinyl	Low-E Double	Yes	0.36	0.25	N	30.0 ft²	1 ft 6 in	1 ft 0 in	None	None
7	N	12	Vinyl	Low-E Double	Yes	0.36	0.25	N	40.0 ft²	10 ft 2 in	1 ft 0 in	None	None
8	N	13	Vinyl	Low-E Double	Yes	0.36	0.25	N	30.0 ft²	1 ft 6 in	2 ft 0 in	None	None
9	W	14	Vinyl	Low-E Double	Yes	0.36	0.25	N	20.0 ft²	1 ft 6 in	1 ft 0 in	None	None

GARAGE

✓ #	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
1	437.1595 ft²	437.1595 ft²	65.2 ft	9 ft	1

INPUT SUMMARY CHECKLIST REPORT

INFILTRATION										
#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50		
1	Wholehouse	Proposed ACH(50)	.000286	1400.3	76.87	144.57	.1128	5		

HEATING SYSTEM										
✓	#	System Type	Subtype	Speed	Efficiency	Capacity	Block		Ducts	
✓	1	Electric Heat Pump/	None	Single	HSPF:8.2	28.29 kBtu/hr	1		sys#1	

COOLING SYSTEM										
✓	#	System Type	Subtype	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
✓	1	Central Unit/	None	Single	SEER: 14	21.44 kBtu/hr	630 cfm	0.7	1	sys#1

HOT WATER SYSTEM										
✓	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation	
✓	1	Electric	None	Garage	0.92	50 gal	40 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 ---			Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC #	
		Location	R-Value	Area	Location	Area	Leakage Type						Heat	Cool
✓	1	Attic	6	466.75 f	Attic	93.35 ft²	Default Leakage	Garage	(Default)	c(Default)	c		1	1

TEMPERATURES																								
Programable Thermostat: Y					Ceiling Fans:																			
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

INPUT SUMMARY CHECKLIST REPORT

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
MASS													
Mass Type		Area		Thickness		Furniture Fraction		Space					
Default(8 lbs/sq.ft.		0 ft ²		0 ft		0.3		Main					

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD**ESTIMATED ENERGY PERFORMANCE INDEX* = 98****The lower the Energy Performance Index, the more efficient the home.**

1. New home or, addition	1. <u>New (From Plans)</u>	12. Ducts, location & insulation level
2. Single-family or multiple-family	2. <u>Single-family</u>	a) Supply ducts R <u>6.0</u>
3. No. of units (if multiple-family)	3. <u>1</u>	b) Return ducts R <u>6.0</u>
4. Number of bedrooms	4. <u>4</u>	c) AHU location <u>Garage</u>
5. Is this a worst case? (yes/no)	5. <u>No</u>	13. Cooling system: Capacity <u>21.4</u>
6. Conditioned floor area (sq. ft.)	6. <u>1867</u>	a) Split system SEER <u> </u>
7. Windows, type and area		b) Single package SEER <u> </u>
a) U-factor:(weighted average)	7a. <u>0.360</u>	c) Ground/water source SEER/COP <u> </u>
b) Solar Heat Gain Coefficient (SHGC)	7b. <u>0.250</u>	d) Room unit/PTAC EER <u> </u>
c) Area	7c. <u>202.0</u>	e) Other <u>14.0</u>
8. Skylights		14. Heating system: Capacity <u>28.3</u>
a) U-factor:(weighted average)	8a. <u>NA</u>	a) Split system heat pump HSPF <u> </u>
b) Solar Heat Gain Coefficient (SHGC)	8b. <u>NA</u>	b) Single package heat pump HSPF <u> </u>
9. Floor type, insulation level:		c) Electric resistance COP <u> </u>
a) Slab-on-grade (R-value)	9a. <u>0.0</u>	d) Gas furnace, natural gas AFUE <u> </u>
b) Wood, raised (R-value)	9b. <u> </u>	e) Gas furnace, LPG AFUE <u> </u>
c) Concrete, raised (R-value)	9c. <u> </u>	f) Other <u>8.20</u>
10. Wall type and insulation:		15. Water heating system
A. Exterior:		a) Electric resistance EF <u>0.92</u>
1. Wood frame (Insulation R-value)	10A1. <u>13.0</u>	b) Gas fired, natural gas EF <u> </u>
2. Masonry (Insulation R-value)	10A2. <u> </u>	c) Gas fired, LPG EF <u> </u>
B. Adjacent:		d) Solar system with tank EF <u> </u>
1. Wood frame (Insulation R-value)	10B1. <u>13.0</u>	e) Dedicated heat pump with tank EF <u> </u>
2. Masonry (Insulation R-value)	10B2. <u> </u>	f) Heat recovery unit HeatRec% <u> </u>
11. Ceiling type and insulation level		g) Other <u> </u>
a) Under attic	11a. <u>38.0</u>	16. HVAC credits claimed (Performance Method)
b) Single assembly	11b. <u> </u>	a) Ceiling fans <u> </u>
c) Knee walls/skylight walls	11c. <u> </u>	b) Cross ventilation <u>Yes</u>
d) Radiant barrier installed	11d. <u>Yes</u>	c) Whole house fan <u>No</u>
		d) Multizone cooling credit <u> </u>
		e) Multizone heating credit <u> </u>
		f) Programmable thermostat <u>Yes</u>

*Label required by Section R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

I certify that this home has complied with the Florida Building Code, Energy Conservation, 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: _____ City/FL Zip: Lake City, FL 32025