FORM R405-2020

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	Foote Renovation	Builder Name:	
Street:		Permit Office:	
City, State, Zip:	Lake City, FL,	Permit Number:	
Owner:		Jurisdiction:	
Design Location:	FL, Gainesville	County:	Columbia(Florida Climate Zone 2)

1. New construction or existing		Existing (Projected)
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)		2720
Conditioned floor area below grade (ft²)		0

7. Windows(527.8 sqft.)	Description	Area
a. U-Factor:	Dbl, U=0.60	527.75 ft²
SHGC:	SHGC=0.27	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		4.887 ft
Area Weighted Average SHGC:		0.270

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	2720.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

10. Wall Types(2597.3 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	2597.30 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

11. Ceiling Types(2720.0 sqft.)	Insulation	Area
a. Under Attic (Unvented)	R=30.0	2720.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

12. Ducts, location & insulation level	R	ft²
a. a. Sup: Main, Ret: Main, AH: Main	6	544
b.		
c.		

13. Cooling Systems	kBtu/hr	Efficiency
a. Central Unit	48.0	SEER:16.00

14. Heating Systems	kBtu/hr	Efficiency
a. Electric Heat Pump	48.0	HSPF:8.50

15. Hot Water Systems	
a. Electric	Cap: 50 gallons EF: 0.920
b. Conservation features	None
16. Credits	CF, Pstat

COLUMBIA COUNTY BUILDING DEPARTMENT
Received for
FILE COPY
Code Compliance
EXAMINER

Glass/Floor Area:0.194

Total Proposed Modified Loads: 69.67
Total Baseline Loads: 71.74

PASS

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

PREPARED BY: _____

DATE: 8-19-21

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.

GREAT SEAL OF THE STATE OF FLORIDA
IN GOD WE TRUST

BUILDING OFFICIAL: _____

DATE: _____

- 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 with a proposed duct leakage Qn requires a PERFORMANCE Duct Leakage Test Report confirming duct leakage to outdoors, tested in accordance with ANSI/RESNET/ICC 380, is not greater than 0.000 Qn for whole house.
- 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 5.00 ACH50 (R402.4.1.2).

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INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	FooteRenovation			Address type:	Street Address
Building Type:	User	Bedrooms:	4	Lot #:	---
Owner:		Conditioned Area:	2720	Block/SubDivision:	---
		Total Stories:	1	PlatBook:	---
Builder Name:		Worst Case:	No	Street:	
Permit Office:		Rotate Angle:	0	County:	Columbia
Jurisdiction:		Cross Ventilation:		City, State, Zip:	Lake City, FL,
Family Type:	Detached	Whole House Fan:			
New/Existing:	Existing (Projected)	Terrain:	Rural		
Year Construct:	2021	Shielding:	Moderate/Rural		
Comment:					

CLIMATE

✓	Design Location	Tmy Site	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_REGIONA	32	92	70	75	1305.5	51	Medium

BLOCKS

✓	Number	Name	Area	Volume
___	1	Block1	2720	21760

SPACES

✓	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated
___	1	Main	2720	21760	Yes	6	4	Yes	Yes	Yes

FLOORS (Total Exposed Area = 2720 sq.ft.)

✓	#	Floor Type	Space	Exposed Perim	Perimeter R-Value	Area	U-Factor	Joist R-Value	Tile	Wood	Carpet
___	1	Slab-On-Grade Edge Ins	Main	295	0	2720 ft	0.442	---	0.00	0.75	0.25

ROOF

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
___	1	Hip	Metal	3847 ft²	0 ft²	Light	N	0.6	No	0.9	No	0	45

ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
___	1	Full attic	Vented	300	2720 ft²	N	N

CEILING (Total Exposed Area = 2720 sq.ft.)

✓	#	Ceiling Type	Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.	Truss Type
___	1	Under Attic(Vented)	Main	30.0	Blown	2720.0ft²	0.053	0.11	Wood

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INPUT SUMMARY CHECKLIST REPORT

WALLS (Total Exposed Area = 2597 sq.ft.)

√ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area sq.ft.	U-Factor	Sheath R-Value	Frm. Frac.	Solar Absor.	Below Grade
1	E	Exterior	Frame - Wood	Main	13.0	27.0	9	8.0	0	222.0	0.087	0.625	0.23	0.75	0 %
2	N	Exterior	Frame - Wood	Main	13.0	36.0	0	8.0	0	288.0	0.087	0.625	0.23	0.75	0 %
3	W	Exterior	Frame - Wood	Main	13.0	13.0	0	8.0	0	104.0	0.087	0.625	0.23	0.75	0 %
4	N	Exterior	Frame - Wood	Main	13.0	8.0	0	8.0	0	64.0	0.087	0.625	0.23	0.75	0 %
5	W	Exterior	Frame - Wood	Main	13.0	15.0	0	8.0	0	120.0	0.087	0.625	0.23	0.75	0 %
6	S	Exterior	Frame - Wood	Main	13.0	15.0	0	8.0	0	120.0	0.087	0.625	0.23	0.75	0 %
7	W	Exterior	Frame - Wood	Main	13.0	20.0	0	8.0	0	160.0	0.087	0.625	0.23	0.75	0 %
8	N	Exterior	Frame - Wood	Main	13.0	28.0	8	8.0	0	229.3	0.087	0.625	0.23	0.75	0 %
9	E	Exterior	Frame - Wood	Main	13.0	20.0	4	8.0	0	162.7	0.087	0.625	0.23	0.75	0 %
10	S	Exterior	Frame - Wood	Main	13.0	8.0	0	8.0	0	64.0	0.087	0.625	0.23	0.75	0 %
11	E	Exterior	Frame - Wood	Main	13.0	10.0	0	8.0	0	80.0	0.087	0.625	0.23	0.75	0 %
12	N	Exterior	Frame - Wood	Main	13.0	23.0	7	8.0	0	188.7	0.087	0.625	0.23	0.75	0 %
13	E	Exterior	Frame - Wood	Main	13.0	21.0	0	8.0	0	168.0	0.087	0.625	0.23	0.75	0 %
14	N	Exterior	Frame - Wood	Main	13.0	5.0	0	8.0	0	40.0	0.087	0.625	0.23	0.75	0 %
15	E	Exterior	Frame - Wood	Main	13.0	25.0	4	8.0	0	202.7	0.087	0.625	0.23	0.75	0 %
16	S	Exterior	Frame - Wood	Main	13.0	48.0	0	8.0	0	384.0	0.087	0.625	0.23	0.75	0 %

DOORS (Total Exposed Area = 94 sq.ft.)

√ #	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
1	N	Exterior	Insulated	Main	None	0.40	2.00	8	6.00	8	17.8ft²
2	N	Exterior	Insulated	Main	None	0.40	3.00	0	6.00	8	20.0ft²
3	N	Exterior	Insulated	Main	None	0.40	5.00	0	6.00	8	33.3ft²
4	E	Exterior	Insulated	Main	None	0.40	3.00	6	6.00	8	23.3ft²

WINDOWS (Total Exposed Area = 528 sq.ft.)

√ #	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Storm	Area	-----Overhang----- Depth	Separation	Interior Shade	Screening
1	E	1	Wood	Low-E Double	Yes	0.60	0.27	N	N	72.5ft²	1.0 ft 6 in	2.0 ft 4 in	None	None
2	W	3	Wood	Low-E Double	Yes	0.60	0.27	N	N	32.0ft²	4.0 ft 6 in	2.0 ft 4 in	None	None
3	W	5	Wood	Low-E Double	Yes	0.60	0.27	N	N	48.3ft²	16.0 ft 6 in	2.0 ft 4 in	None	None
4	S	6	Wood	Low-E Double	Yes	0.60	0.27	N	N	24.0ft²	1.0 ft 6 in	2.0 ft 4 in	None	None
5	W	7	Wood	Low-E Double	Yes	0.60	0.27	N	N	12.0ft²	1.0 ft 6 in	2.0 ft 4 in	None	None
6	N	8	Wood	Low-E Double	Yes	0.60	0.27	N	N	24.0ft²	1.0 ft 6 in	2.0 ft 4 in	None	None
7	E	9	Wood	Low-E Double	Yes	0.60	0.27	N	N	9.0ft²	1.0 ft 6 in	2.0 ft 4 in	None	None
8	N	12	Wood	Low-E Double	Yes	0.60	0.27	N	N	48.3ft²	11.0 ft 6 in	2.0 ft 4 in	None	None
9	E	13	Wood	Low-E Double	Yes	0.60	0.27	N	N	48.3ft²	11.0 ft 6 in	2.0 ft 4 in	None	None
10	N	14	Wood	Low-E Double	Yes	0.60	0.27	N	N	20.0ft²	1.0 ft 6 in	2.0 ft 4 in	None	None
11	E	15	Wood	Low-E Double	Yes	0.60	0.27	N	N	72.5ft²	1.0 ft 6 in	2.0 ft 4 in	None	None
12	S	16	Wood	Low-E Double	Yes	0.60	0.27	N	N	108.7ft²	1.0 ft 6 in	2.0 ft 4 in	None	None
13	S	16	Wood	Low-E Double	Yes	0.60	0.27	N	N	8.0ft²	1.0 ft 6 in	2.0 ft 4 in	None	None

INFILTRATION

√ #	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)
1	Wholehouse	Proposed ACH(50)	0.00025	1813	99.48	186.77	0.0980	5.0	All

MASS

√ #	Mass Type	Area	Thickness	Furniture Fraction	Space
1	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	Main

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INPUT SUMMARY CHECKLIST REPORT

HEATING SYSTEM

✓	#	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	----GeothermalHeatPump---- Entry	Power	Volt	Current	Ducts	Block
	1	Electric Heat Pump	None/Single		HSPF: 8.50	48.0		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		SEER:16.0	48.0	1440	0.85	sys#1	1

HOT WATER SYSTEM

✓	#	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	FixtureFlow	Pipe Ins.	Pipe length
	1	Electric	None	Main	0.92 (0.92)	50.00 gal	70 gal	120 deg	Standard	None	99

	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 #	---------Supply--------- Location	R-Value	Area	---------Return--------- Location	R-Value	Area	LeakageType	Air Handler	CFM 25 TOT	CFM 25 OUT	QN	RLF	HVAC # Heat	Cool
	1	Main	6.0	544 ft²	Main	6.0	136 ft²	DefaultLeakage	Main	(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		Hours 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

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ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 97

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

,Lake City,FL,

1. New construction or existing		Existing (Projected)
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)		2720
Conditioned floor area below grade (ft²)		0

7. Windows**	Description	Area
a. U-Factor:	Dbl, U=0.60	527.75 ft²
SHGC:	SHGC=0.27	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		4.887 ft
Area Weighted Average SHGC:		0.270

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	2720.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

10. Wall Types(2597.3 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	2597.30 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

11. Ceiling Types(2720.0 sqft.)	Insulation	Area
a. Under Attic (Unvented)	R=30.0	2720.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

12. Ducts, location & insulation level	R	ft²
a. a. Sup: Main, Ret: Main, AH: Main	6	544
b.		
c.		

13. Cooling Systems	kBtu/hr	Efficiency
a. Central Unit	48.0	SEER:16.00

14. Heating Systems	kBtu/hr	Efficiency
a. Electric Heat Pump	48.0	HSPF:8.50

15. Hot Water Systems	
a. Electric	Cap: 50 gallons
	EF: 0.920
b. Conservation features	None
16. Credits	CF, 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: City/FL Zip: Lake City,FL,

*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.