RESIDENTIAL ENERGY CONSERVATION CODE DOCUMENTATION CHECKLIST

Florida Department of Business and Professional Regulation
Simulated Performance Alternative (Performance) Method

Applications for compliance with the 2020 Florida Building Code, Energy Conservation via the Residential Simulated Performance Alternative shall include:

- ☐ *This checklist*
- ☐ *Form R405-2020 report*
- ☐ *Input summary checklist that can be used for field verification (usually four pages/may be greater)*
- ☐ *Energy Performance Level (EPL) Display Card (one page)*
- ☐ *HVAC system sizing and selection based on ACCA Manual S or per exceptions provided in Section R403.7*
- ☐ *Mandatory Requirements (five pages)*

Required prior to CO:

- ☐ *Air Barrier and Insulation Inspection Component Criteria checklist (Table R402.4.1.1 - one page)*
- ☐ *A completed 2020 Envelope Leakage Test Report (usually one page); exception in R402.4 allows dwelling units of R-2 Occupancies and multiple attached single family dwellings to comply with Section C402.5*
- ☐ *If Form R405 duct leakage type indicates anything other than "default leakage", then a completed 2020 Duct Leakage Test Report - Performance Method (usually one page)*

20

FORM R405-2020

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	Lot 33 Crosswinds Subdivision	Builder Name:	Trent Giebeig
Street:	Anyplace	Permit Office:	Columbia County
City, State, Zip:	Lake City , FL , 32055	Permit Number:	
Owner:	Trent Giebeig	Jurisdiction:	
Design Location:	FL, Gainesville	County:	Columbia (Florida Climate Zone 2)

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	3
5. Is this a worst case?	No
6. Conditioned floor area above grade (ft²)	1660
Conditioned floor area below grade (ft²)	0

7. Windows(119.0 sqft.)	Description	Area
a. U-Factor:	Dbl, U=0.55	119.00 ft²
SHGC:	SHGC=0.45	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		1.500 ft.
Area Weighted Average SHGC:		0.450

8. Skylights		Area
c. U-Factor:(AVG)	N/A	ft²
SHGC(AVG):	N/A	

9. Floor Types (1660.0 sqft.)	Insulation	Area
a. Slab-On-Grade Edge Insulation	R=0.0	1660.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

10. Wall Type$1639.5 sqft.)	Insulation	Area
a. Face Brick - Wood, Exterior	R=13.0	1459.50 ft²
b. Frame - Wood, Adjacent	R=13.0	180.00 ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

11. Ceiling Types (1660.0 sqft.)	Insulation	Area
a. Under Attic (Vented)	R=38.0	1660.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

12. Ducts	R	ft²
a. Sup: Attic, Ret: Attic, AH: Main	6	400

13. Cooling systems	kBtu/hr	Efficiency
a. Central Unit	15.9	SEER:15.00

14. Heating systems	kBtu/hr	Efficiency
a. Electric Heat Pump	25.0	HSPF:8.40

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

Glass/Floor Area: 0.072

Total Proposed Modified Loads: 39.47

Total Baseline Loads: 41.43

PASS

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

PREPARED BY: William H. Freeman

DATE: 2/16/22

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: _____

- **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 7.00 ACH50 (R402.4.1.2).**
- **Compliance requires a roof absorptance test and a roof emittance test in accordance with R405.7.2**
- **Compliance with a proposed duct leakage Qn requires a Duct Leakage Test Report confirming duct leakage to outdoors, tested in accordance with ANSI/RESNET/ICC 380, is not greater than 0.040 Qn for whole house.**

COLUMBIA COUNTY BUILDING DEPARTMENT Received for FILE COPY Code Compliance PLANS EXAMINER

FORM R405-2020

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	Lot 33 Crosswinds Subdivisio	Bedrooms:	3	Address Type:	Lot Information
Building Type:	User	Conditioned Area:	1660	Lot #	33
Owner Name:	Trent Giebeig	Total Stories:	1	Block/Subdivision:	Crosswinds Sub
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	Trent Giebeig	Rotate Angle:	0	Street:	Anyplace
Permit Office:	Columbia County	Cross Ventilation:	No	County:	Columbia
Jurisdiction:		Whole House Fan:	No	City, State, Zip:	Lake City , FL , 32055
Family Type:	Detached				
New/Existing:	New (From Plans)				
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_REGI	32	92	70	75	1305.5	51	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	1660	14940

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	1660	14940	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	182 ft	0	1660 ft²	----	0.25	0.5	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	Composition shingles	1856 ft²	0 ft²	Medium	N	0.75	Yes	0.9	Yes	0	26.57

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	1660 ft²	N	N

CEILING

√	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	Main	38	Blown	1660 ft²	0.11	Wood

FORM R405-2020

INPUT SUMMARY CHECKLIST REPORT

WALLS

√	#	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
____	1	N	Exterior	Face Brick - Wood	Main	13	15	6	9		139.5 ft²		0.23	0.75	0
____	2	N	Exterior	Face Brick - Wood	Main	13	14	0	9		126.0 ft²		0.23	0.75	0
____	3	N	Exterior	Face Brick - Wood	Main	13	26	10	9		241.5 ft²		0.23	0.75	0
____	4	E	Exterior	Face Brick - Wood	Main	13	30	1	9		270.8 ft²		0.23	0.75	0
____	5	S	Garage	Frame - Wood	Main	13	20	0	9		180.0 ft²		0.23	0.75	0
____	6	S	Exterior	Face Brick - Wood	Main	13	14	9	9		132.8 ft²		0.23	0.75	0
____	7	W	Exterior	Face Brick - Wood	Main	13	4	8	9		42.0 ft²		0.23	0.75	0
____	8	S	Exterior	Face Brick - Wood	Main	13	7	9	9		69.8 ft²		0.23	0.75	0
____	9	E	Exterior	Face Brick - Wood	Main	13	4	8	9		42.0 ft²		0.23	0.75	0
____	10	S	Exterior	Face Brick - Wood	Main	13	13	10	9		124.5 ft²		0.23	0.75	0
____	11	W	Exterior	Face Brick - Wood	Main	13	30	1	9		270.8 ft²		0.23	0.75	0

DOORS

√	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
_____	1	N	Insulated	Main	None	.4	6		6	8	40 ft²
_____	2	S	Wood	Main	None	.46	2	8	6	8	17.8 ft²
_____	3	S	Wood	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	Overhang Separation	Int Shade	Screening
_____	1	N	1	Vinyl	Double (Tinted)	Yes	0.55	0.45	N	15.0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
_____	2	N	3	Vinyl	Double (Tinted)	Yes	0.55	0.45	N	9.0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
_____	3	N	3	Vinyl	Double (Tinted)	Yes	0.55	0.45	N	15.0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
_____	4	E	4	Vinyl	Double (Tinted)	Yes	0.55	0.45	N	20.0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
_____	5	E	4	Vinyl	Double (Tinted)	Yes	0.55	0.45	N	9.0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
_____	6	S	6	Vinyl	Double (Tinted)	Yes	0.55	0.45	N	36.0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
_____	7	S	10	Vinyl	Double (Tinted)	Yes	0.55	0.45	N	15.0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None

GARAGE

√	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
_____	1	400 ft²	400 ft²	60 ft	9 ft	13

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.0004	1743	95.63	179.53	.1438	7

FORM R405-2020

INPUT SUMMARY CHECKLIST REPORT

HEATING SYSTEM

√	#	System Type	Subtype	Speed	Efficiency	Capacity	Block	Ducts
_____	1	Electric Heat Pump/	Split	Singl	HSPF:8.4	25.03 kBtu/hr	1	sys#1

COOLING SYSTEM

√	#	System Type	Subtype	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
_____	1	Central Unit/	Split	Singl	SEER: 15	15.92 kBtu/hr	480 cfm	0.75	1	sys#1

HOT WATER SYSTEM

√	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
_____	1	Electric	None	Garage	0.92	50 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 ---- Location	R-Value	Area	---- Return ---- Location	Area	Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat	Cool
_____	1	Attic	6	400 ft²	Attic	100 ft²	Proposed Qn	Main	--- cfm	66.4 cfm	0.04	0.50	1	1

TEMPERATURES

Programable Thermostat: Y Ceiling Fans:

Cooling	[X] Jan	[X] Feb	[X] Mar	[X] Apr	[X] May	[X] Jun	[X] Jul	[X] Aug	[X] Sep	[X] Oct	[X] Nov	[X] Dec
Heating	[X] Jan	[X] Feb	[X] Mar	[X] Apr	[X] May	[X] Jun	[X] Jul	[X] Aug	[X] Sep	[X] Oct	[X] Nov	[X] Dec
Venting	[X] Jan	[X] Feb	[X] Mar	[X] Apr	[X] May	[X] Jun	[X] Jul	[X] Aug	[X] Sep	[X] Oct	[X] Nov	[X] Dec

Thermostat Schedule: FloridaCode 2014

Schedule Type		Hours 1	2	3	4	5	6	7	8	9	10	11	12
Cooling (WD)	AM	75	75	75	75	75	75	75	75	75	75	75	75
	PM	75	75	75	75	75	75	75	75	75	75	75	75
Cooling (WEH)	AM	75	75	75	75	75	75	75	75	75	75	75	75
	PM	75	75	75	75	75	75	75	75	75	75	75	75
Heating (WD)	AM	72	72	72	72	72	72	72	72	72	72	72	72
	PM	72	72	72	72	72	72	72	72	72	72	72	72
Heating (WEH)	AM	72	72	72	72	72	72	72	72	72	72	72	72
	PM	72	72	72	72	72	72	72	72	72	72	72	72

MASS

Mass Type	Area	Thickness	Furniture Fraction	Space
Default(8 lbs/sq.ft.	0 ft²	0 ft	0.3	Main