FORM R405-2020

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	Scheffler Residence	Builder Name:	IC Construction, LLC
Street:		Permit Office:	Columbia County
City, State, Zip:	Lake City , FL , 32055	Permit Number:	
Owner:		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	4
5. Is this a worst case?	No
6. Conditioned floor area above grade (ft²)	2168
Conditioned floor area below grade (ft²)	0

7. Windows(276.3 sqft.)	Description	Area
a. U-Factor:	Dbl, U=0.33	276.25 ft²
SHGC:	SHGC=0.22	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		5.515 ft.
Area Weighted Average SHGC:		0.220

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

9. Floor Types (2168.0 sqft.)	Insulation	Area
a. Slab-On-Grade Edge Insulation	R=0.0	2168.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

10. Wall Types (2366.3 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	2013.80 ft²
b. Frame - Wood, Adjacent	R=13.0	352.50 ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

11. Ceiling Types (2168.0 sqft.)	Insulation	Area
a. Cathedral/Single Assembly (Unvented)	R=45.0	2168.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

12. Ducts	R	ft²
a. Sup: Attic, Ret: Attic, AH: Garage	6	433.6

13. Cooling systems	kBtu/hr	Efficiency
a. Central Unit	42.0	SEER:14.00

14. Heating systems	kBtu/hr	Efficiency
a. Electric Heat Pump	42.0	HSPF:8.50

15. Hot water systems	
a. Natural Gas Tankless	Cap: 1 gallons
	EF: 0.590
b. Conservation features	
None	
16. Credits	CF, Pstat

Glass/Floor Area: 0.127

Total Proposed Modified Loads: 52.20

Total Baseline Loads: 56.25

PASS

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

PREPARED BY: _____

DATE: 5-19-21

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.

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 5.00 ACH50 (R402.4.1.2).

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	Scheffler Residence	Bedrooms:	4	Address Type:	Lot Information
Building Type:	User	Conditioned Area:	2168	Lot #	
Owner Name:		Total Stories:	1	Block/Subdivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	IC Construction, LLC	Rotate Angle:	0	Street:	
Permit Office:	Columbia County	Cross Ventilation:		County:	Columbia
Jurisdiction:		Whole House Fan:		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	2168	17344

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	2168	17344	Yes	6	4	1	Yes	Yes	Yes

FLOORS

√	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	Main	256 ft	0	2168 ft²	----	0.33	0.33	0.34

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	2425 ft²	0 ft²	Medium	N	0.85	No	0.9	No	45	26.6

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Unvented	0	2168 ft²	N	N

CEILING

√	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
_____	1	Cathedral/Single Assembly (Unvented	Main	45	Blown	2168 ft²	0.11	Wood

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	Frame - Wood	Main	13	12	8	9		114.0 ft²	0.625	0.23	0.75	0
____	2	E	Exterior	Frame - Wood	Main	13	12	10	9		115.5 ft²	0.625	0.23	0.75	0
____	3	N	Exterior	Frame - Wood	Main	13	18		10		180.0 ft²	0.625	0.23	0.75	0
____	4	W	Exterior	Frame - Wood	Main	13	10		10		100.0 ft²	0.625	0.23	0.75	0
____	5	N	Exterior	Frame - Wood	Main	13	11	4	10		113.3 ft²	0.625	0.23	0.75	0
____	6	W	Exterior	Frame - Wood	Main	13	8	2	9		73.5 ft²	0.625	0.23	0.75	0
____	7	N	Exterior	Frame - Wood	Main	13	24		9		216.0 ft²	0.625	0.23	0.75	0
____	8	E	Exterior	Frame - Wood	Main	13	29	2	9		262.5 ft²	0.625	0.23	0.75	0
____	9	S	Exterior	Frame - Wood	Main	13	8		9		72.0 ft²	0.625	0.23	0.75	0
____	10	E	Exterior	Frame - Wood	Main	13	2	4	10		23.3 ft²	0.625	0.23	0.75	0
____	11	S	Exterior	Frame - Wood	Main	13	14	2	10		141.7 ft²	0.625	0.23	0.75	0
____	12	W	Exterior	Frame - Wood	Main	13	2	4	10		23.3 ft²	0.625	0.23	0.75	0
____	13	S	Exterior	Frame - Wood	Main	13	7	2	10		71.7 ft²	0.625	0.23	0.75	0
____	14	E	Exterior	Frame - Wood	Main	13	2	4	9		21.0 ft²	0.625	0.23	0.75	0
____	15	S	Exterior	Frame - Wood	Main	13	12	8	9		114.0 ft²	0.625	0.23	0.75	0
____	16	W	Exterior	Frame - Wood	Main	13	41	4	9		372.0 ft²	0.625	0.23	0.75	0
____	17	S	Garage	Frame - Wood	Main	13	39	2	9		352.5 ft²	0.625	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	.46	5		8		40 ft²
_____	2	S	Insulated	Main	None	.46	3		8		24 ft²
_____	3	S	Insulated	Main	None	.46	3		8		24 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	Low-E Double	Yes	0.33	0.22	N	15.0 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	2	N	3	Vinyl	Low-E Double	Yes	0.33	0.22	N	30.0 ft²	11 ft 6 in	1 ft 4 in	None	None
_____	3	N	5	Vinyl	Low-E Double	Yes	0.33	0.22	N	36.0 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	4	W	6	Vinyl	Low-E Double	Yes	0.33	0.22	N	15.0 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	5	N	7	Vinyl	Low-E Double	Yes	0.33	0.22	N	30.0 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	6	N	7	Vinyl	Low-E Double	Yes	0.33	0.22	N	10.0 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	7	E	8	Vinyl	Low-E Double	Yes	0.33	0.22	N	12.0 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	8	E	8	Vinyl	Low-E Double	Yes	0.33	0.22	N	3.0 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	9	S	9	Vinyl	Low-E Double	Yes	0.33	0.22	N	6.0 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	10	S	11	Vinyl	Low-E Double	Yes	0.33	0.22	N	18.0 ft²	7 ft 6 in	1 ft 4 in	None	None
_____	11	S	11	Vinyl	Low-E Double	Yes	0.33	0.22	N	18.0 ft²	7 ft 6 in	1 ft 4 in	None	None
_____	12	S	13	Vinyl	Low-E Double	Yes	0.33	0.22	N	16.0 ft²	11 ft 10 in	1 ft 4 in	None	None
_____	13	S	15	Vinyl	Low-E Double	Yes	0.33	0.22	N	15.0 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	14	W	16	Vinyl	Low-E Double	Yes	0.33	0.22	N	10.0 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	15	N	3	Vinyl	Low-E Double	Yes	0.33	0.22	N	26.0 ft²	11 ft 6 in	1 ft 4 in	None	None

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INPUT SUMMARY CHECKLIST REPORT

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
_____	16	S	13	Vinyl	Low-E Double	Yes	0.33	0.22	N	16.3 ft²	11 ft 10 in	1 ft 4 in	None	None

GARAGE

√	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
_____	1	844.0008 ft²	844.0008 ft²	79.1667 ft	9 ft	1

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.000254	1445.3	79.3	148.87	.098	5

HEATING SYSTEM

√	#	System Type	Subtype	Speed	Efficiency	Capacity	Block	Ducts
_____	1	Electric Heat Pump/	None	Singl	HSPF:8.5	42 kBtu/hr	1	sys#1

COOLING SYSTEM

√	#	System Type	Subtype	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
_____	1	Central Unit/	None	Singl	SEER: 14	42 kBtu/hr	1260 cfm	0.85	1	sys#1

HOT WATER SYSTEM

√	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
_____	1	Natural Gas	Tankless	Exterior	0.59	1 gal	70 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	HVAC # Cool
_____	1	Attic	6	433.6 ft	Attic	108.4 ft	Default Leakage	Garage	(Default)	(Default)			1	1

INPUT SUMMARY CHECKLIST REPORT

TEMPERATURES

Programable Thermostat: Y

Ceiling Fans:

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

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

MASS

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

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ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 93

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

, Lake City, FL, 32055

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		4
5. Is this a worst case?		No
6. Conditioned floor area (ft²)		2168
7. Windows**	Description	Area
a. U-Factor:	Dbl, U=0.33	276.25 ft²
SHGC:	SHGC=0.22	
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:		5.515 ft.
Area Weighted Average SHGC:		0.220
8. Skylights	Description	Area
a. U-Factor(AVG):	N/A	ft²
SHGC(AVG):	N/A	
9. Floor Types	Insulation	Area
a. Slab-On-Grade Edge Insulation	R=0.0	2168.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

10. Wall Type and Insulation	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	2013.80 ft²
b. Frame - Wood, Adjacent	R=13.0	352.50 ft²
c. N/A	R=	ft²
d. N/A	R=	ft²
11. Ceiling Type and insulation level	Insulation	Area
a. Cathedral/Single Assembly (Unvented)	R=45.0	2168.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
12. Ducts, location & insulation level		R ft²
a. Sup: Attic, Ret: Attic, AH: Garage		6 433.6
13. Cooling systems	kBtu/hr	Efficiency
a. Central Unit	42.0	SEER:14.00
14. Heating systems	kBtu/hr	Efficiency
a. Electric Heat Pump	42.0	HSPF:8.50
15. Hot water systems		
a. Natural Gas		Cap: 1 gallons EF: 0.59
b. Conservation features		
None		
Credits (Performance method)		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: _____

*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.