

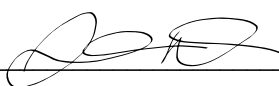
FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Royster Residence Street: City, State, Zip: , FL, Owner: Design Location: FL, Gainesville	Builder Name: Permit Office: Permit Number: Jurisdiction: County: Columbia(Florida Climate Zone 2)
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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) 2897 Conditioned floor area below grade (ft²) 0 7. Windows(505.0 sqft.) Description Area a. U-Factor: Dbl, U=0.26 505.00 ft² SHGC: SHGC=0.20 b. U-Factor: N/A ft² SHGC: c. U-Factor: N/A ft² SHGC: Area Weighted Average Overhang Depth: 5.049 ft Area Weighted Average SHGC: 0.200 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 2330.00 ft² b. Floor Over Other Space R= 0.0 567.00 ft² c. N/A R= ft²	10. Wall Types(3375.7 sqft.) Insulation Area a. Frame - Wood, Exterior R=13.0 3105.70 ft² b. Frame - Wood, Adjacent R=13.0 270.00 ft² c. N/A d. N/A 11. Ceiling Types(2897.0 sqft.) Insulation Area a. Single assembly, no ai (Vented) R=30.0 2897.00 ft² b. N/A c. N/A 12. Roof(Comp. Shingles, Unvent) Deck R=38.0 2698 ft² 13. Ducts, location & insulation level R ft² a. Sup: 1st Floor, Ret: 1st Floor, AH: 2nd Floor 6 579 b. c. 14. Cooling Systems kBtu/hr Efficiency a. Central Unit 48.0 SEER:15.00 15. Heating Systems kBtu/hr Efficiency a. Electric Heat Pump 48.0 HSPF:8.50 16. Hot Water Systems a. Electric Cap: 50 gallons EF: 0.920 b. Conservation features None 17. Credits CF, Pstat
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Glass/Floor Area: 0.174	Total Proposed Modified Loads: 63.68	PASS
	Total Baseline Loads: 87.45	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY:  DATE: 3-9-23 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 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 0.030 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 4.91 ACH50 (R402.4.1.2).

INPUT SUMMARY CHECKLIST REPORT

PROJECT														
Title:	Royster Residence				Address type:	Street Address								
Building Type:	User				Bedrooms:	4				Lot #:	---			
Owner:					Conditioned Area:	2897				Block/SubDivision:	---			
					Total Stories:	2				PlatBook:	---			
Builder Name:					Worst Case:	No				Street:				
Permit Office:					Rotate Angle:	0				County:	Columbia			
Jurisdiction:					Cross Ventilation:					City, State, Zip:	, FL,			
Family Type:	Detached				Whole House Fan:									
New/Existing:	New (From Plans)				Terrain:	Rural								
Year Construct:	2023				Shielding:	No obstructions								
Comment:														

CLIMATE									
☒	Design Location	Tmy Site	Design Temp		Int Design Temp		Heating	Design	Daily temp
			97.5%	2.5%	Winter	Summer	Degree Days	Moisture	Range
	___ FL, Gainesville	FL_GAINESVILLE_REGIONA	32	92	70	75	1305.5	51	Medium

BLOCKS				
☒	Number	Name	Area	Volume
	___ 1	Block1	2897	27836 cu ft

SPACES										
☒	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated
	___ 1	1st Floor	2330	23300	Yes	4	2	Yes	Yes	Yes
	___ 2	2nd Floor	567	4536	No	4	2	Yes	Yes	Yes

FLOORS (Total Exposed Area = 2330 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	1st Floor	284	0	2330 ft	0.563	---	0.20	0.60	0.20
	___ 2	Floor Over Other Space	2nd Floor	---	---	567 ft	0.233		0.20	0.20	0.60

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	2698 ft²	0 ft²	Dark	N	0.92	No	0.9	No	38	30.26

ATTIC							
☒	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
	___ 1	No attic	Unvented	0	2330 ft²	N	N

INPUT SUMMARY CHECKLIST REPORT

CEILING														(Total Exposed Area = 2897 sq.ft.)	
✓ #	Ceiling Type	Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.	Truss Type							
___ 1	Single assembly, no airspace(Unvented)	1st Floor	30.0	Blown	2330.0ft²	0.030	0.11	Wood							
___ 2	Single assembly, no airspace(Unvented)	2nd Floor	30.0	Blown	567.0ft²	0.030	0.11	Wood							

WALLS														(Total Exposed Area = 3376 sq.ft.)	
✓ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	In	Height Ft	In	Area sq.ft.	U-Factor	Sheath R-Value	Frm. Frac.	Solar Absor.	Below Grade
___ 1	N	Exterior	Frame - Wood	1st Floor	13.0	11.0	8	10.0	0	116.7	0.094		0.23	0.75	0 %
___ 2	E	Exterior	Frame - Wood	1st Floor	13.0	15.0	10	10.0	0	158.3	0.094		0.23	0.75	0 %
___ 3	N	Exterior	Frame - Wood	1st Floor	13.0	16.0	4	10.0	0	163.3	0.094		0.23	0.75	0 %
___ 4	W	Exterior	Frame - Wood	1st Floor	13.0	6.0	2	10.0	0	61.7	0.094		0.23	0.75	0 %
___ 5	N	Exterior	Frame - Wood	1st Floor	13.0	21.0	2	10.0	0	211.7	0.094		0.23	0.75	0 %
___ 6	W	Exterior	Frame - Wood	1st Floor	13.0	9.0	8	10.0	0	96.7	0.094		0.23	0.75	0 %
___ 7	N	Exterior	Frame - Wood	1st Floor	13.0	14.0	8	10.0	0	146.7	0.094		0.23	0.75	0 %
___ 8	E	Exterior	Frame - Wood	1st Floor	13.0	15.0	2	10.0	0	151.7	0.094		0.23	0.75	0 %
___ 9	N	Exterior	Frame - Wood	1st Floor	13.0	3.0	0	10.0	0	30.0	0.094		0.23	0.75	0 %
___ 10	E	Exterior	Frame - Wood	1st Floor	13.0	14.0	0	10.0	0	140.0	0.094		0.23	0.75	0 %
___ 11	S	Exterior	Frame - Wood	1st Floor	13.0	3.0	0	10.0	0	30.0	0.094		0.23	0.75	0 %
___ 12	E	Exterior	Frame - Wood	1st Floor	13.0	9.0	4	10.0	0	93.3	0.094		0.23	0.75	0 %
___ 13	S	Exterior	Frame - Wood	1st Floor	13.0	2.0	8	10.0	0	26.7	0.094		0.23	0.75	0 %
___ 14	E	Exterior	Frame - Wood	1st Floor	13.0	2.0	6	10.0	0	25.0	0.094		0.23	0.75	0 %
___ 15	S	Exterior	Frame - Wood	1st Floor	13.0	2.0	8	10.0	0	26.7	0.094		0.23	0.75	0 %
___ 16	E	Exterior	Frame - Wood	1st Floor	13.0	3.0	0	10.0	0	30.0	0.094		0.23	0.75	0 %
___ 17	S	Exterior	Frame - Wood	1st Floor	13.0	6.0	8	10.0	0	66.7	0.094		0.23	0.75	0 %
___ 18	W	Exterior	Frame - Wood	1st Floor	13.0	3.0	0	10.0	0	30.0	0.094		0.23	0.75	0 %
___ 19	S	Exterior	Frame - Wood	1st Floor	13.0	2.0	8	10.0	0	26.7	0.094		0.23	0.75	0 %
___ 20	W	Exterior	Frame - Wood	1st Floor	13.0	2.0	0	10.0	0	20.0	0.094		0.23	0.75	0 %
___ 21	S	Exterior	Frame - Wood	1st Floor	13.0	11.0	6	10.0	0	115.0	0.094		0.23	0.75	0 %
___ 22	S	Exterior	Frame - Wood	1st Floor	13.0	9.0	8	10.0	0	96.7	0.094		0.23	0.75	0 %
___ 23	E	Exterior	Frame - Wood	1st Floor	13.0	5.0	2	10.0	0	51.7	0.094		0.23	0.75	0 %
___ 24	S	Exterior	Frame - Wood	1st Floor	13.0	16.0	8	10.0	0	166.7	0.094		0.23	0.75	0 %
___ 25	W	Exterior	Frame - Wood	1st Floor	13.0	1.0	8	10.0	0	16.7	0.094		0.23	0.75	0 %
___ 26	S	Exterior	Frame - Wood	1st Floor	13.0	8.0	0	10.0	0	80.0	0.094		0.23	0.75	0 %
___ 27	W	Exterior	Frame - Wood	1st Floor	13.0	3.0	0	10.0	0	30.0	0.094		0.23	0.75	0 %
___ 28	W	Garage	Frame - Wood	1st Floor	13.0	27.0	0	10.0	0	270.0	0.094		0.23	0.75	0 %
___ 29	W	Exterior	Frame - Wood	1st Floor	13.0	14.0	0	10.0	0	140.0	0.094		0.23	0.75	0 %
___ 30	E	Exterior	Frame - Wood	2nd Floor	13.0	14.0	4	8.0	0	114.7	0.094		0.23	0.75	0 %
___ 31	S	Exterior	Frame - Wood	2nd Floor	13.0	11.0	6	8.0	0	92.0	0.094		0.23	0.75	0 %
___ 32	E	Exterior	Frame - Wood	2nd Floor	13.0	1.0	6	8.0	0	12.0	0.094		0.23	0.75	0 %
___ 33	S	Exterior	Frame - Wood	2nd Floor	13.0	9.0	8	8.0	0	77.3	0.094		0.23	0.75	0 %
___ 34	E	Exterior	Frame - Wood	2nd Floor	13.0	5.0	2	8.0	0	41.3	0.094		0.23	0.75	0 %
___ 35	S	Exterior	Frame - Wood	2nd Floor	13.0	16.0	8	8.0	0	133.3	0.094		0.23	0.75	0 %
___ 36	W	Exterior	Frame - Wood	2nd Floor	13.0	26.0	8	8.0	0	213.3	0.094		0.23	0.75	0 %
___ 37	S	Exterior	Frame - Wood	1st Floor	13.0	7.0	4	10.0	0	73.3	0.094		0.23	0.75	0 %

DOORS												(Total Exposed Area = 76 sq.ft.)	
✓ #	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area		
___ 1	W	Exterior	Insulated	1st Floor	None	0.40	3.00	0	8.00	0	24.0ft²		
___ 2	S	Exterior	Insulated	1st Floor	None	0.40	3.00	6	8.00	0	28.0ft²		
___ 3	W	Exterior	Insulated	1st Floor	None	0.40	3.00	0	8.00	0	24.0ft²		

INPUT SUMMARY CHECKLIST REPORT

WINDOWS														(Total Exposed Area = 505 sq.ft.)			
✓ #	Ornt	Wall ID	Frame	Panes	NFRC U-Factor	SHGC	Imp	Storm	Total Area (ft²)	Same Units	Width (ft)	Height (ft)	--Overhang-- Depth (ft) Sep. (ft)		Interior Shade	Screen	
___ 1	N	1	Vinyl	Low-E Double	Y	0.26	0.20	N	N	36.0	2	3.00	6.00	1.5	2.3	None	None
___ 2	N	3	Vinyl	Low-E Double	Y	0.26	0.20	N	N	112.0	1	14.00	8.00	17.5	2.3	None	None
___ 3	N	5	Vinyl	Low-E Double	Y	0.26	0.20	N	N	60.0	4	3.00	5.00	1.5	2.3	None	None
___ 4	N	5	Vinyl	Low-E Double	Y	0.26	0.20	N	N	18.0	4	3.00	1.50	1.5	2.3	None	None
___ 5	N	7	Vinyl	Low-E Double	Y	0.26	0.20	N	N	36.0	2	3.00	6.00	1.5	2.3	None	None
___ 6	E	8	Vinyl	Low-E Double	Y	0.26	0.20	N	N	24.0	2	2.00	6.00	1.5	2.3	None	None
___ 7	E	10	Vinyl	Low-E Double	Y	0.26	0.20	N	N	12.0	1	2.00	6.00	1.5	2.3	None	None
___ 8	E	12	Vinyl	Low-E Double	Y	0.26	0.20	N	N	8.0	1	4.00	2.00	1.5	2.3	None	None
___ 9	S	17	Vinyl	Low-E Double	Y	0.26	0.20	N	N	21.0	1	3.50	6.00	1.5	2.3	None	None
___ 10	S	21	Vinyl	Low-E Double	Y	0.26	0.20	N	N	36.0	3	2.00	6.00	1.5	2.3	None	None
___ 11	S	21	Vinyl	Low-E Double	Y	0.26	0.20	N	N	24.0	3	2.00	4.00	1.5	2.3	None	None
___ 12	S	21	Vinyl	Low-E Double	Y	0.26	0.20	N	N	18.0	3	2.00	3.00	1.5	2.3	None	None
___ 13	S	24	Vinyl	Low-E Double	Y	0.26	0.20	N	N	30.0	3	2.00	5.00	1.5	2.3	None	None
___ 14	S	26	Vinyl	Low-E Double	Y	0.26	0.20	N	N	10.0	1	2.50	4.00	1.5	2.3	None	None
___ 15	S	33	Vinyl	Low-E Double	Y	0.26	0.20	N	N	25.0	2	2.50	5.00	1.5	2.3	None	None
___ 16	S	35	Vinyl	Low-E Double	Y	0.26	0.20	N	N	25.0	2	2.50	5.00	1.5	2.3	None	None
___ 17	S	37	Vinyl	Low-E Double	Y	0.26	0.20	N	N	10.0	1	2.50	4.00	1.5	2.3	None	None

INFILTRATION										
✓ #	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)	Infiltration Test Volume
___ 1	Wholehouse	Proposed ACH(50)	0.00030	2277	124.94	234.56	0.1366	4.9	All	27836 cu ft

GARAGE					
✓ #	Floor Area	Roof Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
___ 1	567 ft²	567 ft²	69 ft	10 ft	1

MASS					
✓ #	Mass Type	Area	Thickness	Furniture Fraction	Space
___ 1	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	1st Floor
___ 2	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	2nd Floor

HEATING SYSTEM										
✓ #	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	---Geothermal HeatPump--- 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:15.0	48.0	1440	0.85	sys#1	1

INPUT SUMMARY CHECKLIST REPORT

HOT WATER SYSTEM

✓ #	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	Fixture Flow	Pipe Ins.	Pipe length
___ 1	Electric	None	Garage	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-----			-----Return-----			Leakage Type	Air Handler	CFM 25 TOT	CFM 25 OUT	QN	RLF	HVAC #	
	Location	R-Value	Area	Location	R-Value	Area							Heat	Cool
___ 1	1st Floor	6.0	579 ft²	1st Floor	6.0	145 ft²	Prop. Leak Free	2nd Floor	---	---	0.03	0.50	1	1

TEMPERATURES

Programable Thermostat: Y				Ceiling Fans: N									
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	
✓	Thermostat Schedule: HERS 2006 Reference												
Schedule Type		1	2	3	4	5	6	Hours 7	8	9	10	11	12
___ Cooling (WD)	AM PM	78 80	78 80	78 78	78 78	78 78	78 78	78 78	78 78	80 78	80 78	80 78	80 78
___ Cooling (WEH)	AM PM	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78
___ Heating (WD)	AM PM	66 68	66 68	66 68	66 68	66 68	68 68	68 68	68 68	68 68	68 68	68 66	68 66
___ Heating (WEH)	AM PM	66 68	66 68	66 68	66 68	66 68	68 68	68 68	68 68	68 68	68 68	68 66	68 66