

20

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: 1680 Model		Builder Name: Adam's Construction	
Street:		Permit Office:	
City, State, Zip: Lake City, FL, 32024		Permit Number:	
Owner:		Jurisdiction:	
Design Location: FL, Gainesville		County: Columbia (Florida Climate Zone 2)	

<table><tr><td>1. New construction or existing</td><td>New (From Plans)</td></tr><tr><td>2. Single family or multiple family</td><td>Single-family</td></tr><tr><td>3. Number of units, if multiple family</td><td>1</td></tr><tr><td>4. Number of Bedrooms</td><td>3</td></tr><tr><td>5. Is this a worst case?</td><td>No</td></tr><tr><td>6. Conditioned floor area above grade (ft²)</td><td>1680</td></tr><tr><td>Conditioned floor area below grade (ft²)</td><td>0</td></tr><tr><td>7. Windows (182.0 sqft.)</td><td>Description</td><td>Area</td></tr><tr><td>a. U-Factor:</td><td>DbI, U=0.33</td><td>182.00 ft²</td></tr><tr><td>SHGC:</td><td>SHGC=0.22</td><td></td></tr><tr><td>b. U-Factor:</td><td>N/A</td><td>ft²</td></tr><tr><td>SHGC:</td><td></td><td></td></tr><tr><td>c. U-Factor:</td><td>N/A</td><td>ft²</td></tr><tr><td>SHGC:</td><td></td><td></td></tr><tr><td>d. U-Factor:</td><td>N/A</td><td>ft²</td></tr><tr><td>SHGC:</td><td></td><td></td></tr><tr><td colspan="2">Area Weighted Average Overhang Depth:</td><td>2.687 ft.</td></tr><tr><td colspan="2">Area Weighted Average SHGC:</td><td>0.220</td></tr><tr><td>8. Floor Types (1680.0 sqft.)</td><td>Insulation</td><td>Area</td></tr><tr><td>a. Slab-On-Grade Edge Insulation</td><td>R=0.0</td><td>1680.00 ft²</td></tr><tr><td>b. N/A</td><td>R=</td><td>ft²</td></tr><tr><td>c. N/A</td><td>R=</td><td>ft²</td></tr></table>	1. New construction or existing	New (From Plans)	2. Single family or multiple family	Single-family	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)	1680	Conditioned floor area below grade (ft²)	0	7. Windows (182.0 sqft.)	Description	Area	a. U-Factor:	DbI, U=0.33	182.00 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:		2.687 ft.	Area Weighted Average SHGC:		0.220	8. Floor Types (1680.0 sqft.)	Insulation	Area	a. Slab-On-Grade Edge Insulation	R=0.0	1680.00 ft²	b. N/A	R=	ft²	c. N/A	R=	ft²	<table><tr><td>9. Wall Types (1750.5 sqft.)</td><td>Insulation</td><td>Area</td></tr><tr><td>a. Frame - Wood, Exterior</td><td>R=13.0</td><td>1498.50 ft²</td></tr><tr><td>b. Frame - Wood, Adjacent</td><td>R=13.0</td><td>252.00 ft²</td></tr><tr><td>c. N/A</td><td>R=</td><td>ft²</td></tr><tr><td>d. N/A</td><td>R=</td><td>ft²</td></tr><tr><td>10. Ceiling Types (1680.0 sqft.)</td><td>Insulation</td><td>Area</td></tr><tr><td>a. Under Attic (Vented)</td><td>R=30.0</td><td>1680.00 ft²</td></tr><tr><td>b. N/A</td><td>R=</td><td>ft²</td></tr><tr><td>c. N/A</td><td>R=</td><td>ft²</td></tr><tr><td>11. Ducts</td><td></td><td>R ft²</td></tr><tr><td>a. Sup: Attic, Ret: Attic, AH: Garage</td><td></td><td>6 304.4</td></tr><tr><td>12. Cooling systems</td><td>kBtu/hr</td><td>Efficiency</td></tr><tr><td>a. Central Unit</td><td>30.0</td><td>SEER:14.00</td></tr><tr><td>13. Heating systems</td><td>kBtu/hr</td><td>Efficiency</td></tr><tr><td>a. Electric Heat Pump</td><td>30.0</td><td>HSPF:8.50</td></tr><tr><td>14. Hot water systems</td><td></td><td>Cap: 40 gallons</td></tr><tr><td>a. Electric</td><td></td><td>EF: 0.920</td></tr><tr><td>b. Conservation features</td><td></td><td>None</td></tr><tr><td>15. Credits</td><td></td><td>CF, Pstat</td></tr></table>	9. Wall Types (1750.5 sqft.)	Insulation	Area	a. Frame - Wood, Exterior	R=13.0	1498.50 ft²	b. Frame - Wood, Adjacent	R=13.0	252.00 ft²	c. N/A	R=	ft²	d. N/A	R=	ft²	10. Ceiling Types (1680.0 sqft.)	Insulation	Area	a. Under Attic (Vented)	R=30.0	1680.00 ft²	b. N/A	R=	ft²	c. N/A	R=	ft²	11. Ducts		R ft²	a. Sup: Attic, Ret: Attic, AH: Garage		6 304.4	12. Cooling systems	kBtu/hr	Efficiency	a. Central Unit	30.0	SEER:14.00	13. Heating systems	kBtu/hr	Efficiency	a. Electric Heat Pump	30.0	HSPF:8.50	14. Hot water systems		Cap: 40 gallons	a. Electric		EF: 0.920	b. Conservation features		None	15. Credits		CF, Pstat
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Glass/Floor Area: 0.108

Total Proposed Modified Loads: 45.74
Total Baseline Loads: 48.03

PASS

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

PREPARED BY: _____

DATE: 4-8-20

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).
- 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 0.030 Qn for whole house.

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	1680 Model	Bedrooms:	3	Address Type:	Lot Information
Building Type:	User	Conditioned Area:	1680	Lot #	20
Owner Name:		Total Stories:	1	Block/Subdivision:	Cannon Creek
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	Adam's Construction	Rotate Angle:	0	Street:	
Permit Office:		Cross Ventilation:		County:	Columbia
Jurisdiction:		Whole House Fan:		City, State, Zip:	Lake City , FL , 32024
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	1680	15120

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	1680	15120	Yes	6	3	1	Yes	Yes	Yes

FLOORS

✓	#	Floor Type	Space	Perimeter	R-Value	Area	Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	Main	196 ft	0	1680 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	1879 ft²	0 ft²	Medium	N	0.85	No	0.9	No	0	26.6

ATTIC

✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	1680 ft²	N	N

CEILING

✓	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	Main	30	Blown	1680 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	N	Exterior	Frame - Wood	Main	13	31	8	9		285.0 ft²	0.625	0.23	0.75	0
2	E	Exterior	Frame - Wood	Main	13	6		9		54.0 ft²	0.625	0.23	0.75	0
3	N	Exterior	Frame - Wood	Main	13	13	4	9		120.0 ft²	0.625	0.23	0.75	0
4	W	Exterior	Frame - Wood	Main	13	6		9		54.0 ft²	0.625	0.23	0.75	0
5	E	Exterior	Frame - Wood	Main	13	22	10	9		205.5 ft²	0.625	0.23	0.75	0
6	S	Exterior	Frame - Wood	Main	13	5	8	9		51.0 ft²	0.625	0.23	0.75	0
7	E	Exterior	Frame - Wood	Main	13	6	8	9		60.0 ft²	0.625	0.23	0.75	0
8	S	Exterior	Frame - Wood	Main	13	10	4	9		93.0 ft²	0.625	0.23	0.75	0
9	E	Exterior	Frame - Wood	Main	13	7	2	9		64.5 ft²	0.625	0.23	0.75	0
10	S	Exterior	Frame - Wood	Main	13	11	8	9		105.0 ft²	0.625	0.23	0.75	0
11	W	Exterior	Frame - Wood	Main	13	45	2	9		406.5 ft²	0.625	0.23	0.75	0
12	N	Garage	Frame - Wood	Main	13	28		9		252.0 ft²		0.23	0.75	0

DOORS

✓ #	Ornt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
1	E	Insulated	Main	None	.46	3		8		24 ft²
2	S	Insulated	Main	None	.46	3		8		24 ft²
3	N	Insulated	Main	None	.4	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	N	1	Vinyl	Low-E Double	Yes	0.33	0.22	N	72.0 ft²	1 ft 6 in	1 ft 4 in	None	None
2	N	3	Vinyl	Low-E Double	Yes	0.33	0.22	N	36.0 ft²	7 ft 6 in	1 ft 4 in	None	None
3	W	4	Vinyl	Low-E Double	Yes	0.33	0.22	N	12.0 ft²	1 ft 6 in	1 ft 4 in	None	None
4	S	8	Vinyl	Low-E Double	Yes	0.33	0.22	N	18.0 ft²	1 ft 6 in	1 ft 4 in	None	None
5	S	10	Vinyl	Low-E Double	Yes	0.33	0.22	N	18.0 ft²	1 ft 6 in	1 ft 4 in	None	None
6	W	11	Vinyl	Low-E Double	Yes	0.33	0.22	N	8.0 ft²	1 ft 6 in	1 ft 4 in	None	None
7	W	11	Vinyl	Low-E Double	Yes	0.33	0.22	N	18.0 ft²	1 ft 6 in	1 ft 4 in	None	None

GARAGE

✓ #	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
1	420 ft²	420 ft²	59.5 ft	9 ft	1

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.000286	1260	69.17	130.09	.1128	5

INPUT SUMMARY CHECKLIST REPORT

HEATING SYSTEM

☒	#	System Type	Subtype	Speed	Efficiency	Capacity	Block	Ducts
☒	1	Electric Heat Pump/	None	Singl	HSPF:8.5	30 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	30 kBtu/hr	900 cfm	0.85	1	sys#1

HOT WATER SYSTEM

☒	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
☒	1	Electric	None	Garage	0.92	40 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			ft ²		

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	304.4 ft	Attic	76.1 ft ²	Prop. Leak Free	Garage	--- cfm	50.4 cfm	0.03	0.50	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
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	78	80	80	80	80										
	PM	80	80	78	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	78										
	PM	78	78	78	78	78	78	78	78	78	78	78	78	78										
Heating (WD)	AM	66	66	66	66	66	66	68	68	68	68	68	68	68										
	PM	68	68	68	68	68	68	68	68	68	68	68	66	66										
Heating (WEH)	AM	66	66	66	66	66	66	68	68	68	68	68	68	68										
	PM	68	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