

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: McDaniel & Reed Residence
 Street: 415 SW Beauford Place
 City, State, Zip: Lake City, FL, 32055
 Owner: McDaniel & Reed
 Design Location: FL, Gainesville

Builder Name: McDaniel & Reed
 Permit Office: Columbia
 Permit Number:
 Jurisdiction: 221000
 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)	1639
Conditioned floor area below grade (ft²)	0
7. Windows (146.7 sqft.)	Description Area
a. U-Factor:	DbI, U=0.47 146.65 ft²
SHGC:	SHGC=0.31
b. U-Factor:	N/A ft²
SHGC:	
c. U-Factor:	N/A ft²
SHGC:	
Area Weighted Average Overhang Depth:	2.000 ft.
Area Weighted Average SHGC:	0.310
8. Skylights	Area
c. U-Factor:(AVG)	N/A ft²
SHGC(AVG):	N/A
9. Floor Types (1638.7 sqft.)	Insulation Area
a. Slab-On-Grade Edge Insulation	R=0.0 1638.70 ft²
b. N/A	R= ft²
c. N/A	R= ft²

10. Wall Types (1368.0 sqft.)	Insulation Area
a. Face Brick - Wood, Exterior	R=13.0 1368.00 ft²
b. N/A	R= ft²
c. N/A	R= ft²
d. N/A	R= ft²
11. Ceiling Types (1639.0 sqft.)	Insulation Area
a. Under Attic (Vented)	R=30.0 1639.00 ft²
b. N/A	R= ft²
c. N/A	R= ft²
12. Ducts	R ft²
a. Sup: Attic, Ret: Attic, AH: Laundry	6 116
13. Cooling systems	kBtu/hr Efficiency
a. Central Unit	34.4 SEER:14.00
14. Heating systems	kBtu/hr Efficiency
a. Electric Heat Pump	34.4 HSPF:8.20
15. Hot water systems	
a. Electric	Cap: 50 gallons
	EF: 0.945
b. Conservation features	
None	
16. Credits	CF, Pstat

Glass/Floor Area: 0.089

Total Proposed Modified Loads: 34.52

Total Baseline Loads: 39.71

PASS

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

PREPARED BY: John Pirkle
 DATE: 10/06/2021

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 5.82 ACH50 (R402.4.1.2).

INPUT SUMMARY CHECKLIST REPORT**PROJECT**

Title:	McDaniel & Reed Residence	Bedrooms:	3	Address Type:	Street Address
Building Type:	User	Conditioned Area:	1639	Lot #	
Owner Name:	McDaniel & Reed	Total Stories:	1	Block/Subdivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	McDaniel & Reed	Rotate Angle:	0	Street:	415 SW Beauford Place
Permit Office:	Columbia	Cross Ventilation:	No	County:	Columbia
Jurisdiction:	221000	Whole House Fan:	No	City, State, Zip:	Lake City ,
Family Type:	Detached				FL , 32055
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	Entire House	1639	13112

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Mstr Bedroom	168	1344	No	2	1	1	Yes	Yes	Yes
2	Mstr WIC	43	344	No	0		1	Yes	Yes	Yes
3	Bedroom #2	163	1304	No	1	1	1	Yes	Yes	Yes
4	Bedroom #3	131	1048	No	1	1	1	Yes	Yes	Yes
5	Bathroom	96	768	No	0		1	Yes	Yes	Yes
6	Kitchen/Dining	276	2208	Yes	0		1	Yes	Yes	Yes
7	Laundry	86	688	No	0		1	Yes	Yes	Yes
8	Living RM	676	5408	No	0		1	Yes	Yes	Yes

FLOORS

✓	#	Floor Type	Space	Perimeter	Perimeter	R-Value	Area	Joist R-Value	Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	Mstr Bedroom	26 ft		0	168 ft²	----	1	0	0
_____	2	Slab-On-Grade Edge Insulatio	Mstr WIC	4.5 ft		0	42.8 ft²	----	1	0	0
_____	3	Slab-On-Grade Edge Insulatio	Bedroom #2	25.5 ft		0	162.5 ft²	----	1	0	0
_____	4	Slab-On-Grade Edge Insulatio	Bedroom #3	10.5 ft		0	131.3 ft²	----	1	0	0
_____	5	Slab-On-Grade Edge Insulatio	Bathroom	8 ft		0	96 ft²	----	1	0	0
_____	6	Slab-On-Grade Edge Insulatio	Kitchen/Dining	23 ft		0	276 ft²	----	1	0	0
_____	7	Slab-On-Grade Edge Insulatio	Laundry	19 ft		0	86.3 ft²	----	1	0	0
_____	8	Slab-On-Grade Edge Insulatio	Living RM	54.5 ft		0	675.8 ft²	----	1	0	0

INPUT SUMMARY CHECKLIST REPORT

ROOF													
✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt Tested	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Gable or Shed	Composition shingles	1728 ft²	274 ft²	Medium	N	0.9	No	0.9	No	0	18.43

ATTIC							
✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	150	1639 ft²	N	N

CEILING								
✓	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	Mstr Bedroom	30	Blown	168 ft²	0.1	Wood
_____	2	Under Attic (Vented)	Mstr WIC	30	Blown	43 ft²	0.1	Wood
_____	3	Under Attic (Vented)	Bedroom #2	30	Blown	163 ft²	0.1	Wood
_____	4	Under Attic (Vented)	Bedroom #3	30	Blown	131 ft²	0.1	Wood
_____	5	Under Attic (Vented)	Bathroom	30	Blown	96 ft²	0.1	Wood
_____	6	Under Attic (Vented)	Kitchen/Dining	30	Blown	276 ft²	0.1	Wood
_____	7	Under Attic (Vented)	Laundry	30	Blown	86 ft²	0.1	Wood
_____	8	Under Attic (Vented)	Living RM	30	Blown	676 ft²	0.1	Wood

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	Face Brick - Wood	Mstr Bedroo	13	14	0	8	0	112.0 ft²	0	0.25	0.23	0
_____	2	E	Exterior	Face Brick - Wood	Mstr Bedroo	13	12	0	8	0	96.0 ft²	0	0.25	0.23	0
_____	3	E	Exterior	Face Brick - Wood	Mstr WIC	13	4	6	8	0	36.0 ft²	0	0.25	0.23	0
_____	4	E	Exterior	Face Brick - Wood	Bedroom #2	13	12	6	8	0	100.0 ft²	0	0.25	0.23	0
_____	5	S	Exterior	Face Brick - Wood	Bedroom #2	13	13	0	8	0	104.0 ft²	0	0.25	0.23	0
_____	6	S	Exterior	Face Brick - Wood	Bedroom #3	13	10	6	8	0	84.0 ft²	0	0.25	0.23	0
_____	7	N	Exterior	Face Brick - Wood	Bathroom	13	8	0	8	0	64.0 ft²	0	0.25	0.23	0
_____	8	N	Exterior	Face Brick - Wood	Kitchen/Dinin	13	23	0	8	0	184.0 ft²	0	0.25	0.23	0
_____	9	N	Exterior	Face Brick - Wood	Laundry	13	11	6	8	0	92.0 ft²	0	0.25	0.23	0
_____	10	W	Exterior	Face Brick - Wood	Laundry	13	7	6	8	0	60.0 ft²	0	0.25	0.23	0
_____	11	S	Exterior	Face Brick - Wood	Living RM	13	33	0	8	0	264.0 ft²	0	0.25	0.23	0
_____	12	W	Exterior	Face Brick - Wood	Living RM	13	21	6	8	0	172.0 ft²	0	0.25	0.23	0

DOORS											
✓	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area
_____	1	N	Insulated	Kitchen/Dinin	Metal	.29	2	8	6	8	17.8 ft²
_____	2	S	Insulated	Living RM	Metal	.29	2	8	6	8	17.8 ft²

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	Separation	Int Shade	Screening
_____	1	N	1	Vinyl	Low-E Double	Yes	0.47	0.31	N	13.4 ft²	2 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
_____	2	E	2	Vinyl	Low-E Double	Yes	0.47	0.31	N	13.4 ft²	2 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
_____	3	E	4	Vinyl	Low-E Double	Yes	0.47	0.31	N	13.7 ft²	2 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
_____	4	S	5	Vinyl	Low-E Double	Yes	0.47	0.31	N	18.8 ft²	2 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
_____	5	S	6	Vinyl	Low-E Double	Yes	0.47	0.31	N	18.8 ft²	2 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
_____	6	N	7	Vinyl	Low-E Double	Yes	0.47	0.31	N	4.6 ft²	2 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
_____	7	N	7	Vinyl	Low-E Double	Yes	0.47	0.31	N	9.0 ft²	2 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
_____	8	N	8	Vinyl	Low-E Double	Yes	0.47	0.31	N	8.5 ft²	2 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
_____	9	N	9	Vinyl	Low-E Double	Yes	0.47	0.31	N	9.8 ft²	2 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5
_____	10	S	11	Vinyl	Low-E Double	Yes	0.47	0.31	N	36.8 ft²	2 ft 0 in	1 ft 0 in	Drapes/blinds	Exterior 5

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.000296	1271.9	69.78	131	.114	5.82

HEATING SYSTEM

✓	#	System Type	Subtype	Speed	Efficiency	Capacity	Block	Ducts
_____	1	Electric Heat Pump/	Split	Singl	HSPF:8.2	34.4 kBtu/hr	1	sys#1

COOLING SYSTEM

✓	#	System Type	Subtype	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
_____	1	Central Unit/	Split	Singl	SEER: 14	34.4 kBtu/hr	1200 cfm	0.7	1	sys#1

HOT WATER SYSTEM

✓	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
_____	1	Electric	None	Laundry	0.945	50 gal	62.3 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

✓	#	Location	Supply R-Value	Area	Location	Return Area	Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat	Cool
_____	1	Attic	6	116 ft²	Attic	34 ft²	Default Leakage	Laundry	(Default)	(Default)			1	1

INPUT SUMMARY CHECKLIST REPORT**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
	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	68	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 ft ²	0 ft	0.3	Mstr Bedroom
Default(8 lbs/sq.ft.	ft ²	ft	0.3	Mstr WIC
Default(8 lbs/sq.ft.	ft ²	ft	0.3	Bedroom #2
Default(8 lbs/sq.ft.	ft ²	ft	0.3	Bedroom #3
Default(8 lbs/sq.ft.	ft ²	ft	0.3	Bathroom
Default(8 lbs/sq.ft.	ft ²	ft	0.3	Kitchen/Dining
Default(8 lbs/sq.ft.	ft ²	ft	0.3	Laundry
Default(8 lbs/sq.ft.	ft ²	ft	0.3	Living RM