FORM R405-2020

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	Hamilton Residence	Builder Name:	
Street:	4670 Southern Breeze Drive	Permit Office:	Collier County
City, State, Zip:	Naples, FL, 34114	Permit Number:	
Owner:		Jurisdiction:	211000
Design Location:	FL, NAPLES_MUNICIPAL	County:	Collier(Florida Climate Zone 1)

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	0
5. Is this a worst case?	No
6. Conditioned floor area above grade (ft²)	308
Conditioned floor area below grade (ft²)	0

7. Windows(131.8 sqft.)	Description	Area
a. U-Factor:	Dbl, U=0.58	88.00 ft²
SHGC:	SHGC=0.22	
b. U-Factor:	Dbl, U=0.63	43.75 ft²
SHGC:	SHGC=0.24	
c. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		1.333 ft
Area Weighted Average SHGC:		0.227

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	308.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

10. Wall Types(895.0 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=19.0	895.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

11. Ceiling Types(308.0 sqft.)	Insulation	Area
a. Roof Deck (Unvented)	R=19.0	308.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

12. Ducts, location & insulation level	R	ft²
a. a. Sup: Attic, Ret: Attic, AH: Main	6	60
b.		
c.		

13. Cooling Systems	kBtu/hr	Efficiency
a. Central Unit	18.0	SEER:21.50

14. Heating Systems	kBtu/hr	Efficiency
a. Electric Heat Pump	18.0	HSPF:13.00

15. Hot Water Systems	
a. Natural GasTankless	Cap: 1 gallons EF: 0.920
b. Conservation features	None
16. Credits	Pstat

Glass/Floor Area: 0.428

Total Proposed Modified Loads: 11.38

Total Baseline Loads: 19.30

PASS

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

PREPARED BY: Tiffany Jimenez Digitally signed by Tiffany Jimenez DN: cn=Tiffany Jimenez, o=Conditioned Air, ou=Estimating, email=tj@conditionedair.com, c=US Date: 2022.04.05 06:55:36 -04'00'

DATE: _____

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.

- Proposed Qn of 0.080 exceeds the performance method default limit of 0.08 and therefore does not require duct testing. R405 .2.3

- 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 7.00 ACH50 (R402.4.1.2).

FORM R405-2020

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	Hamilton Residence			Address type:	Street Address
Building Type:	User	Bedrooms:	0	Lot #:	---
Owner:		Conditioned Area:	308	Block/SubDivision:	---
		Total Stories:	1	PlatBook:	---
Builder Name:		Worst Case:	No	Street:	4670 Southern Breeze Drive
Permit Office:	Collier County	Rotate Angle:	135	County:	Collier
Jurisdiction:	211000	Cross Ventilation:		City, State, Zip:	Naples, FL, 34114
Family Type:	Detached	Whole House Fan:			
New/Existing:	New (From Plans)	Terrain:	Suburban		
Year Construct:		Shielding:	Suburban		
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, NAPLES_MUNICIPAL	FL_NAPLES_MUNICIPAL	46	90	70	75	288.5	58	Medium

BLOCKS

√	Number	Name	Area	Volume
___	1	Block1	308	4004

SPACES

√	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated
___	1	Main	308	4004	Yes	0		Yes	Yes	Yes

FLOORS (Total Exposed Area = 308 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	Main	70	0	308 ft	0.710	---	1.00	0.00	0.00

ROOF

√	#	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
___	1	Gable or shed	Barrel tile	325 ft²	52 ft²	Light	N	0.6	No	0.9	No	19	18.43

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
___	1	Full attic	Unvented	0	308 ft²	N	N

CEILING (Total Exposed Area = 308 sq.ft.)

√	#	Ceiling Type	Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.	Truss Type
___	1	Under Attic(Unvented)	Main	0.0	Blown	308.0ft²	0.063	0.11	Wood

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INPUT SUMMARY CHECKLIST REPORT

WALLS (Total Exposed Area = 895 sq.ft.)

Note: First wall orientation below is as entered. Actual orientation is modified by the rotate angle (135 degrees) as shown in the "Project" section on page 1.

√	#	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area sq.ft.	U-Factor	Sheath R-Value	Frm. Frac.	Solar Absor.	Below Grade
___	1	N=>SE	Exterior	Frame - Wood	Main	19.0	15.0	0	13.0	0	195.0	0.071		0.23	0.40	0 %
___	2	W=>NE	Exterior	Frame - Wood	Main	19.0	20.0	6	12.0	6	256.3	0.071		0.23	0.40	0 %
___	3	S=>NW	Exterior	Frame - Wood	Main	19.0	15.0	0	12.0	6	187.5	0.071		0.23	0.40	0 %
___	4	E=>SW	Exterior	Frame - Wood	Main	19.0	20.0	6	12.0	6	256.3	0.071		0.23	0.40	0 %

DOORS (Total Exposed Area = 0 sq.ft.)

√	#	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
___	1	N=>SE	Exterior	Wood	Main	None	0.20	0.10	0	0.10	0	0.1ft²

WINDOWS (Total Exposed Area = 132 sq.ft.)

√	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Storm	Area	-----Overhang----- Depth	Separation	Interior Shade	Screening
___	1	N=>SE	1	Metal	Low-E Double	Yes	0.58	0.22	N	N	64.0ft²	1.0 ft 4 in	3.0 ft 0 in	None	Exterior 50%
___	2	N=>SE	1	Metal	Low-E Double	Yes	0.63	0.24	N	N	13.5ft²	1.0 ft 4 in	1.0 ft 0 in	None	None
___	3	W=>NE	2	Metal	Low-E Double	Yes	0.58	0.22	N	N	24.0ft²	1.0 ft 4 in	3.0 ft 0 in	None	None
___	4	W=>NE	2	Metal	Low-E Double	Yes	0.63	0.24	N	N	5.3ft²	1.0 ft 4 in	1.0 ft 0 in	None	None
___	5	W=>NE	2	Metal	Low-E Double	Yes	0.63	0.24	N	N	5.3ft²	1.0 ft 4 in	3.0 ft 0 in	Drapes/blinds	Exterior 50%
___	6	W=>NE	2	Metal	Low-E Double	Yes	0.63	0.24	N	N	5.3ft²	1.0 ft 4 in	1.0 ft 0 in	None	None
___	7	S=>NW	3	Metal	Low-E Double	Yes	0.63	0.24	N	N	14.3ft²	1.0 ft 4 in	1.0 ft 0 in	None	None

INFILTRATION

√	#	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)
___	1	Wholehouse	Proposed ACH(50)	0.00058	467	25.63	48.11	0.1534	7.0	All

MASS

√	#	Mass Type	Area	Thickness	Furniture Fraction	Space
___	1	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	Main

HEATING SYSTEM

√	#	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	----Geothermal HeatPump---- Entry	Power	Volt	Current	Ducts	Block
___	1	Electric Heat Pump	Through the Wall(Split)/Si		HSPF: 13.00	18.0		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	Through the Wall(Split)/Si		SEER:21.5	18.0	540	0.75	sys#1	1

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INPUT SUMMARY CHECKLIST REPORT

HOT WATER SYSTEM

√ #	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	Fixture Flow	Pipe Ins.	Pipe length
___ 1	Natural Gas	Tankless	Exterior	0.92 (0.92)	1.00 gal	60 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--------- Location	R-Value	Area	---------Return--------- Location	R-Value	Area	Leakage Type	Air Handler	CFM 25 TOT	CFM 25 OUT	QN	RLF	HVAC # Heat	Cool
___ 1	Attic	6.0	60 ft²	Attic	6.0	15 ft²	Proposed Qn	Main	---	---	0.08	0.50	1	1

TEMPERATURES

Programable Thermostat: Y Ceiling Fans: N

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

√ 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	80	80	78	78	78	78	78	78	78	78
___ Cooling (WEH)	AM	78	78	78	78	78	78	78	78	80	80	80	80
	PM	80	80	80	80	78	78	78	78	78	78	78	78
___ Heating (WD)	AM	65	65	65	65	65	65	65	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	68	68
___ Heating (WEH)	AM	65	65	65	65	65	65	65	68	68	68	68	68
	PM	68	68	68	68	68	68	68	68	68	68	68	68

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ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 59

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

4670 Southern Breeze Drive,Naples,FL,34114

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13. Cooling Systems	kBtu/hr	Efficiency
a. Central Unit	18.0	SEER:21.50

14. Heating Systems	kBtu/hr	Efficiency
a. Electric Heat Pump	18.0	HSPF:13.00

15. Hot Water Systems	
a. Natural GasTankless	Cap: 1 gallons
	EF: 0.920
b. Conservation features	
	None
16. Credits	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: 4670 Southern Breeze Drive City/FL Zip: Naples,FL,34114

*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.