FORM R405-2020

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	DALE TOMPKINS RESIDENCE - C-1309 - J-6838	Builder Name:	
Street:	257 SW Hudson In	Permit Office:	
City, State, Zip:	Lake City , FL , 32025	Permit Number:	
Owner:	Tompkins Addition	Jurisdiction:	
Design Location:	FL, Gainesville	County:	Columbia (Florida Climate Zone 2)

1. New construction or existing	Addition
2. Single family or multiple family	Detached
3. Number of units, if multiple family	1
4. Number of Bedrooms(Bedrms In Addition)	4(0)
5. Is this a worst case?	No
6. Conditioned floor area above grade (ft²)	1491
Conditioned floor area below grade (ft²)	0

7. Windows(102.0 sqft.)

	Description	Area
a. U-Factor:	Dbl, U=0.35	102.00 ft²
SHGC:	SHGC=0.25	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		

Area Weighted Average Overhang Depth: 1.000 ft.
Area Weighted Average SHGC: 0.250

8. Skylights

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

9. Floor Types (1491.1 sqft.)

	Insulation	Area
a. Slab-On-Grade Edge Insulation	R=0.0	1491.10 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

10. Wall Types(1448.0 sqft.)

	Insulation	Area
a. Face Brick - Wood, Exterior	R=13.0	1248.00 ft²
b. Frame - Wood, Adjacent	R=13.0	200.00 ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

11. Ceiling Types (1488.0 sqft.)

	Insulation	Area
a. Under Attic (Vented)	R=30.0	1488.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

12. Ducts

	R	ft²
a. Sup: Attic, Ret: Attic, AH: Main	6	200

13. Cooling systems

	kBtu/hr	Efficiency
a. Central Unit	34.8	SEER:16.00

14. Heating systems

	kBtu/hr	Efficiency
a. Electric Heat Pump	34.8	HSPF:9.00

15. Hot water systems -

a. Electric — Cap: 40 gallons, EF: 0.950

b. Conservation features
None

16. Credits — Pstat

Glass/Floor Area: 0.068

Total Proposed Modified Loads: 25.81
Total Baseline Loads: 32.26

PASS

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

PREPARED BY: James Bolton
DATE: 08/17/2021

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 5.00 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:	DALE TOMPKINS RESIDEN	Bedrooms:	4	Address Type:	Street Address
Building Type:	User	Conditioned Area:	1491	Lot #	
Owner Name:	Tompkins Addition	Total Stories:	1	Block/Subdivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:		Rotate Angle:	0	Street:	257 SW Hudson In
Permit Office:		Cross Ventilation:	No	County:	Columbia
Jurisdiction:		Whole House Fan:	No	City, State, Zip:	Lake City ,
Family Type:	Detached				FL , 32025
New/Existing:	Addition				
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	1491	11928

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	1491	11928	Yes	5	4	1	Yes	Yes	Yes

FLOORS

√	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	Main	181 ft		1491.12 ft	----	0	0	1

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	Composition shingles	1572 ft²	248 ft²	Medium	N	0.9	N	0.9	No	0	18.43

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	1491 ft²	N	N

CEILING

√	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	Main	30	Blown	1488 ft²	0.1	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	Face Brick - Wood	Main	13	55	6	8	0	444.0 ft²	0	0.25	0.8	0
____	2	E	Exterior	Face Brick - Wood	Main	13	10	0	8	0	80.0 ft²	0	0.25	0.8	0
____	3	S	Exterior	Face Brick - Wood	Main	13	56	6	8	0	452.0 ft²	0	0.25	0.8	0
____	4	W	Exterior	Face Brick - Wood	Main	13	34	0	8	0	272.0 ft²	0	0.25	0.8	0
____	5	-	Garage	Frame - Wood	Main	13	25	0	8	0	200.0 ft²	0	0.25	0.8	0

DOORS

√	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
_____	1	N	Wood	Main	None	.39	3		6	8	20 ft²
_____	2	W	Wood	Main	None	.39	3		6	8	20 ft²
_____	3	-	Wood	Main	None	.39	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	Overhang Separation	Int Shade	Screening
_____	1	n	1	Metal	Low-E Double	Yes	0.35	0.25	N	66.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	None
_____	2	n	1	Metal	Low-E Double	Yes	0.35	0.25	N	30.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	None
_____	3	S	3	Metal	Low-E Double	Yes	0.35	0.25	N	6.0 ft²	1 ft 0 in	1 ft 0 in	Drapes/blinds	None

GARAGE

√	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
_____	1	516 ft²	516 ft²	64 ft	8 ft	1

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.000254	994	54.53	102.38	.098	5

HEATING SYSTEM

√	#	System Type	Subtype	Speed	Efficiency	Capacity	Block	Ducts
_____	1	Electric Heat Pump/Existing/c	Split	Singl	HSPF:9	34.8 kBtu/hr	1	sys#1

COOLING SYSTEM

√	#	System Type	Subtype	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
_____	1	Central Unit/Existing/confirme	Split	Singl	SEER: 16	34.8 kBtu/hr	cfm	0.8	1	sys#1

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HOT WATER SYSTEM

√	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
_____	1	Electric	None	Main	0.95	40 gal	60.9 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	Cool
_____	1	Attic	6	200 ft²	Attic	100 ft²	Prop. Leak Free	Main	--- cfm	44.7 cfm	0.03	0.50	1	1

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