FORM R405-2022 Supplement

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	Malak Ali	Builder Name:	chrisMill Homes of Florida
Street:		Permit Office:	COLUMBA BUILDING DEPARTMENGT
City, State, Zip:	LAKE CITY, FL,	Permit Number:	
Owner:	Malak Ali	Jurisdiction:	COLUMBA
Design Location:	FL, Tallahassee	County:	Columbia(Florida Climate Zone 2)

1. New construction or existing	New (From Plans)
2. Single family or multiple family	Attached
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)	1564
Conditioned floor area below grade (ft²)	0

7. Windows(110.3 sqft.)	Description	Area
a. U-Factor:	Dbl, U=0.35	110.28 ft²
SHGC:	SHGC=0.31	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		0.000 ft
Area Weighted Average SHGC:		0.310

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	1564.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

10. Wall Types(1437.0 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=19.0	1437.00 ft²
b. N/A		
c. N/A		
d. N/A		

11. Ceiling Types(1564.0 sqft.)	Insulation	Area
a. Flat ceiling under att (Vented)	R=38.0	1564.00 ft²
b. N/A		
c. N/A		

12. Roof(Comp. Shingles, Vented)	Deck R=0.0	1811 ft²

13. Ducts, location & insulation level	R	ft²
a. Sup: Attic, Ret: Attic, AH: Attic	8	313
b.		
c.		

14. Cooling Systems	kBtu/hr	Efficiency
a. Central Unit	18.6	SEER2:14.30

15. Heating Systems	kBtu/hr	Efficiency
a. Electric Heat Pump	23.2	HSPF2:14.20

16. Hot Water Systems	
a. Electric	Cap: 40 gallons
	EF: 0.920
b. Conservation features	
	None
17. Credits	Pstat

Glass/Floor Area: 0.071

Total Proposed Modified Loads: 39.37
Total Baseline Loads: 39.72

PASS

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

PREPARED BY: Charlotte Green

DATE: 8-20-23

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT: Greens Sales + Service

DATE: 8-20-23

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this buildihg will be inspected for compliance with Section 553.908 Florida Statutes.

GREAT SEAL OF THE STATE OF FLORIDA · IN GOD WE TRUST

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.

- Default duct leakage does not require a Duct Leakage Test Report.

- 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 5.99 ACH50 (R402.4.1.2).

FORM R405-2022S

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	Malak Ali			Address type:	Lot
Building Type:	User	Bedrooms:	3	Lot #:	
Owner:	Malak Ali	Conditioned Area:	1564	Block/SubDivision:	
Builder Home ID:		Total Stories:	1	PlatBook:	
Builder Name:	chrisMill Homes of Florida	Worst Case:	No	Street:	
Permit Office:	COLUMBA BUILDING DEPARTMENT	Rotate Angle:	0	County:	Columbia
Jurisdiction:	COLUMBA	Cross Ventilation:		City, State, Zip:	LAKE CITY, FL,
Family Type:	Attached	Whole House Fan:			
New/Existing:	New (From Plans)	Terrain:	Suburban		
Year Construct:	2023	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, Tallahassee	FL_TALLAHASSEE_REGIONA	28	94	70	75	1545	46	Medium

BLOCKS

√	Number	Name	Area	Volume
___	1	Block1	1564	14076 cu ft

SPACES

√	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated
___	1	Main	1564	14076	Yes	4	3	Yes	Yes	Yes

FLOORS (Total Exposed Area = 1564 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	160	0	1564 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	Hip,	Composition shingles	1811 ft²	0 ft²	Light	N	0.96	No	0.9	No	0	30.26

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
___	1	Full attic	Vented	300	1564 ft²	N	N

CEILING (Total Exposed Area = 1564 sq.ft.)

√	#	Ceiling Type	Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.	Truss Type
___	1	Flat ceiling under attic(Vented)	Main	38.0	Blown	1564.0ft²	0.024	0.11	Wood

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WALLS (Total Exposed Area = 1437 sq.ft.)

✓ #	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	W	Exterior	Frame - Wood	Main	19.0	46.0	4	9.0	0	417.0	0.061		0.23	0.75	0 %
___ 2	S	Exterior	Frame - Wood	Main	19.0	34.0	2	9.0	0	307.5	0.061		0.23	0.75	0 %
___ 3	E	Exterior	Frame - Wood	Main	19.0	40.0	8	9.0	0	366.0	0.061		0.23	0.75	0 %
___ 4	N	Exterior	Frame - Wood	Main	19.0	38.0	6	9.0	0	346.5	0.061		0.23	0.75	0 %

DOORS (Total Exposed Area = 73 sq.ft.)

✓ #	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
___ 1	W	Exterior	Insulated	Main	Wood	0.46	3.00	0	6.00	8	20.0ft²
___ 2	S	Exterior	Insulated	Main	Wood	0.46	2.00	8	6.00	8	17.8ft²
___ 3	E	Exterior	Insulated	Main	Wood	0.46	5.00	4	6.00	8	35.6ft²

WINDOWS (Total Exposed Area = 110 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	W	1	Wood	Low-E Double	Y	0.35	0.31	N	Y	64.0	4	2.67	6.00	0.0	0.0	IECC 2012	None
___ 2	S	2	Vinyl	Low-E Double	Y	0.35	0.31	N	Y	17.8	1	2.67	6.67	0.0	0.0	IECC 2012	None
___ 3	E	3	Vinyl	Low-E Double	Y	0.35	0.31	N	Y	9.0	1	3.00	3.00	0.0	0.0	IECC 2012	None
___ 4	E	3	Vinyl	Low-E Double	Y	0.35	0.31	N	Y	15.5	1	3.00	5.17	0.0	0.0	IECC 2012	None
___ 5	E	3	Vinyl	Low-E Double	Y	0.35	0.31	N	Y	4.0	1	4.00	1.00	0.0	0.0	IECC 2012	None

INFILTRATION

✓ #	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)	Infiltration Test Volume
___ 1	Wholehouse	Proposed ELA	0.00034	1405	77.23	144.73	0.1200	6.0	All	14076 cu ft

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	None/Single	204837570	HSPF2: 14.20	23.2		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	204837570	SEER2:14.3	18.6	720	0.75	sys#1	1

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HOT WATER SYSTEM

✓ #	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	Fixture Flow	Pipe Ins.	Pipe length
___ 1	Electric	None	Main	0.92 (0.92)	40.00 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	HVAC # Cool
___ 1	Attic	8.0	313 ft²	Attic	8.0	78 ft²	Default Leakage	Attic	(Default)	(Default)			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