FORM R405-2020

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	Swink Residence	Builder Name:	
Street:		Permit Office:	
City, State, Zip:	, FL,	Permit Number:	
Owner:		Jurisdiction:	
Design Location:	FL, Gainesville	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	4
5. Is this a worst case?	No
6. Conditioned floor area above grade (ft²)	3000
Conditioned floor area below grade (ft²)	0

7. Windows(210.0 sqft.)	Description	Area
a. U-Factor:	Dbl, U=0.26	210.00 ft²
SHGC:	SHGC=0.20	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		18.214 ft
Area Weighted Average SHGC:		0.200

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	1500.00 ft²
b. Floor Over Other Space	R= 0.0	1500.00 ft²
c. N/A	R=	ft²

10. Wall Types(2986.7 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=19.0	2426.70 ft²
b. Frame - Wood, Adjacent	R=13.0	560.00 ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

11. Ceiling Types(3000.0 sqft.)	Insulation	Area
a. Cathedral/Single Assembly (Unvented)	R=30.0	3000.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

12. Ducts, location & insulation level	R	ft²
a. a. Sup: 1st Floor, Ret: 1st Floor, AH: 1st Floor	6	300
b. b. Sup: 2nd Floor, Ret: 2nd Floor, AH: 2nd Floor	6	300
c.		

13. Cooling Systems	kBtu/hr	Efficiency
a. Central Unit	30.0	SEER:15.00
b. Central Unit	30.0	SEER:15.00

14. Heating Systems	kBtu/hr	Efficiency
a. Electric Heat Pump	30.0	HSPF:8.50
b. Electric Heat Pump	30.0	HSPF:8.50

15. Hot Water Systems	
a. ElectricTankless	Cap: 1 gallons
	EF: 0.920
b. Conservation features	
	None
16. Credits	CF, Pstat

Glass/Floor Area: 0.070

Total Proposed Modified Loads: 59.62

Total Baseline Loads: 73.32

PASS

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

PREPARED BY: _____

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.

- Compliance with a proposed duct leakage Qn requires a PERFORMANCE 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.

- 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 5.00 ACH50 (R402.4.1.2).

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INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	Swink Residence			Address type:	Street Address
Building Type:	User	Bedrooms:	4	Lot #:	---
Owner:		Conditioned Area:	3000	Block/SubDivision:	---
		Total Stories:	2	PlatBook:	---
Builder Name:		Worst Case:	No	Street:	
Permit Office:		Rotate Angle:	0	County:	Columbia
Jurisdiction:		Cross Ventilation:		City, State, Zip:	,
Family Type:	Detached	Whole House Fan:			FL,
New/Existing:	New (From Plans)	Terrain:	Rural		
Year Construct:	2022	Shielding:	Moderate/Rural		
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_REGIONA	32	92	70	75	1305.5	51	Medium

BLOCKS

√	Number	Name	Area	Volume
___	1	Block1	1500	15000
___	2	Block2	1500	13000.5

SPACES

√	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated
___	1	1st Floor	1500	15000	Yes	4	2	Yes	Yes	Yes
___	2	2nd Floor	1500	13000.5	Yes	4	2	Yes	Yes	Yes

FLOORS (Total Exposed Area = 1500 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	1st Floor	160	0	1500 ft	0.600	---	0.33	0.33	0.34
___	2	Floor Over Other Space	2nd Floor	---	---	1500 ft	0.245		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	Gable or shed	Metal	1581 ft²	250 ft²	Unfinished, Galvanized	N	0.7	No	0.7	No	0	18.43

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
___	1	No attic	Unvented	0	1500 ft²	N	N

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INPUT SUMMARY CHECKLIST REPORT

CEILING (Total Exposed Area = 3000 sq.ft.)

√	#	Ceiling Type	Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.	Truss Type
___	1	Cathedral/Single Assembly(Unvented)	1st Floor	30.0	Blown	1500.0ft²	0.060	0.11	Wood
___	2	Cathedral/Single Assembly(Unvented)	2nd Floor	30.0	Blown	1500.0ft²	0.060	0.11	Wood

WALLS (Total Exposed Area = 2987 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	N	Exterior	Frame - Wood	1st Floor	19.0	30.0	0	10.0	0	300.0	0.071		0.23	0.75	0 %
___	2	E	Exterior	Frame - Wood	1st Floor	19.0	20.0	0	10.0	0	200.0	0.071		0.23	0.75	0 %
___	3	E	Garage	Frame - Wood	1st Floor	13.0	30.0	0	10.0	0	300.0	0.094		0.23	0.75	0 %
___	4	S	Exterior	Frame - Wood	1st Floor	19.0	30.0	0	10.0	0	300.0	0.071		0.23	0.75	0 %
___	5	W	Exterior	Frame - Wood	1st Floor	19.0	50.0	0	10.0	0	500.0	0.071		0.23	0.75	0 %
___	6	N	Exterior	Frame - Wood	2nd Floor	19.0	30.0	0	8.0	8	260.0	0.071		0.23	0.75	0 %
___	7	E	Exterior	Frame - Wood	2nd Floor	19.0	20.0	0	8.0	8	173.3	0.071		0.23	0.75	0 %
___	8	E	Garage	Frame - Wood	2nd Floor	13.0	30.0	0	8.0	8	260.0	0.094		0.23	0.75	0 %
___	9	S	Exterior	Frame - Wood	2nd Floor	19.0	30.0	0	8.0	8	260.0	0.071		0.23	0.75	0 %
___	10	W	Exterior	Frame - Wood	2nd Floor	19.0	50.0	0	8.0	8	433.3	0.071		0.23	0.75	0 %

DOORS (Total Exposed Area = 180 sq.ft.)

√	#	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
___	1	E	Exterior	Insulated	1st Floor	None	0.40	3.00	0	6.00	8	20.0ft²
___	2	S	Exterior	Insulated	1st Floor	None	0.40	3.00	0	6.00	8	20.0ft²
___	3	W	Exterior	Insulated	1st Floor	None	0.40	3.00	0	6.00	8	20.0ft²
___	4	E	Garage	Insulated	2nd Floor	None	0.40	3.00	0	6.00	8	20.0ft²
___	5	W	Exterior	Insulated	2nd Floor	None	0.40	3.00	0	6.00	8	20.0ft²
___	6	W	Exterior	Insulated	1st Floor	None	0.40	6.00	0	6.00	8	40.0ft²
___	7	W	Exterior	Insulated	2nd Floor	None	0.40	6.00	0	6.00	8	40.0ft²

WINDOWS (Total Exposed Area = 210 sq.ft.)

√	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Storm	Area	-----Overhang----- Depth	Separation	Interior Shade	Screening
___	1	N	1	Vinyl	Low-E Double	Yes	0.26	0.20	N	N	30.0ft²	1.0 ft 6 in	11.0 ft 0 in	None	None
___	2	S	4	Vinyl	Low-E Double	Yes	0.26	0.20	N	N	30.0ft²	1.0 ft 6 in	11.0 ft 0 in	None	None
___	3	W	5	Vinyl	Low-E Double	Yes	0.26	0.20	N	N	45.0ft²	40.0 ft 6 in	2.0 ft 4 in	None	None
___	4	N	6	Vinyl	Low-E Double	Yes	0.26	0.20	N	N	30.0ft²	1.0 ft 6 in	2.0 ft 4 in	None	None
___	5	S	9	Vinyl	Low-E Double	Yes	0.26	0.20	N	N	30.0ft²	1.0 ft 6 in	2.0 ft 4 in	None	None
___	6	W	10	Vinyl	Low-E Double	Yes	0.26	0.20	N	N	45.0ft²	40.0 ft 6 in	2.0 ft 4 in	None	None

INFILTRATION

√	#	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)
___	1	Wholehouse	Proposed ACH(50)	0.00030	2333	128.02	240.34	0.1375	5.0	All

GARAGE

√	#	Floor Area	Roof Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
___	1	910 ft²	910 ft²	91 ft	10 ft	1

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INPUT SUMMARY CHECKLIST REPORT

MASS

√	#	Mass Type	Area	Thickness	Furniture Fraction	Space
___	1	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	1st Floor
___	2	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	2nd Floor

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		HSPF: 8.50	30.0		0.00	0.00	0.00	sys#1	1
___	2	Electric Heat Pump	None/Single		HSPF: 8.50	30.0		0.00	0.00	0.00	sys#2	2

COOLING SYSTEM

√	#	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	Air Flow cfm	SHR	Duct	Block
___	1	Central Unit	None/Single		SEER:15.0	30.0	900	0.85	sys#1	1
___	2	Central Unit	None/Single		SEER:15.0	30.0	900	0.85	sys#2	2

HOT WATER SYSTEM

√	#	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	Fixture Flow	Pipe Ins.	Pipe length
___	1	Electric	Tankless	Garage	0.92 (0.92)	1.00 gal	70 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	1st Floor	6.0	300 ft²	1st Floor	6.0	75 ft²	Prop. Leak Free	1st Floor	---	---	0.03	0.50	1	1
___	2	2nd Floor	6.0	300 ft²	2nd Floor	6.0	75 ft²	Prop. Leak Free	2nd Floor	---	---	0.03	0.50	2	2

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

INPUT SUMMARY CHECKLIST REPORT

TEMPERATURES(Continued)

___ 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* = 81

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

,,FL,

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		4
5. Is this a worst case?		No
6. Conditioned floor area above grade (ft²)		3000
Conditioned floor area below grade (ft²)		0

7. Windows**	Description	Area
a. U-Factor:	Dbl, U=0.26	210.00 ft²
SHGC:	SHGC=0.20	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		18.214 ft
Area Weighted Average SHGC:		0.200

8. Skylights	Description	Area
U-Factor:(AVG)	N/A	N/A ft²
SHGC(AVG):	N/A	

9. Floor Types	Insulation	Area
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c. N/A	R=	ft²

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b. Frame - Wood, Adjacent	R=13.0	560.00 ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

11. Ceiling Types(3000.0 sqft.)	Insulation	Area
a. Cathedral/Single Assembly (Unvented)	R=30.0	3000.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

12. Ducts, location & insulation level	R	ft²
a. a. Sup: 1st Floor, Ret: 1st Floor, AH: 1st Floor	6	300
b. b. Sup: 2nd Floor, Ret: 2nd Floor, AH: 2nd Floor	6	300
c.		

13. Cooling Systems	kBtu/hr	Efficiency
a. Central Unit	30.0	SEER:15.00
b. Central Unit	30.0	SEER:15.00

14. Heating Systems	kBtu/hr	Efficiency
a. Electric Heat Pump	30.0	HSPF:8.50
b. Electric Heat Pump	30.0	HSPF:8.50

15. Hot Water Systems	
a. ElectricTankless	Cap: 1 gallons
	EF: 0.920
b. Conservation features	
	None
16. Credits	CF, 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: City/FL Zip: ,FL,

*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.