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FORM 405-10

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name	Aaron Simque Residence	Builder Name	Aaron Simque
Street		Permit Office	
City, State, Zip	Lake City , FL , 32024-	Permit Number	
Owner	Aaron Simque	Jurisdiction	
Design Location	FL, Gainesville		

1 New construction or existing		New (From Plans)
2 Single family or multiple family		Single-family
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)		2359
Conditioned floor area below grade (ft²)		0

7 Windows(302 1 sqft)	Description	Area
a U-Factor	Dbl, U=0 55	302 11 ft²
SHGC	SHGC=0 50	
b U-Factor	N/A	ft²
SHGC		
c U-Factor	N/A	ft²
SHGC		
d U-Factor	N/A	ft²
SHGC		
Area Weighted Average Overhang Depth		2 158 ft
Area Weighted Average SHGC		0 500

8 Floor Types (2359 0 sqft)	Insulation	Area
a Slab-On-Grade Edge Insulation	R=0 0	2359 00 ft²
b N/A	R=	ft²
c N/A	R=	ft²

9 Wall Types (3268 3 sqft)	Insulation	Area
a *Frame - Wood, Exterior*	R=13 0	2828 30 ft²
b Frame - Wood, Adjacent	R=13 0	440 00 ft²
c N/A	R=	ft²
d N/A	R=	ft²

10 Ceiling Types (2359 0 sqft)	Insulation	Area
a Under Attic (Vented)	R=38 0	2359 00 ft²
b N/A	R=	ft²
c N/A	R=	ft²

11 Ducts	R	ft²
a Sup Attic, Ret Attic, AH Garage	6	471 8

12 Cooling systems	kBtu/hr	Efficiency
a Central Unit	36 2	SEER 14 00

13 Heating systems	kBtu/hr	Efficiency
a Electric Heat Pump	49 0	HSPF 7 70

14 Hot water systems	
a Natural Gas Tankless	Cap 1 gallons
	EF 0 940
b Conservation features	
None	
15 Credits	Pstat

Glass/Floor Area 0 128

Total Proposed Modified Loads 39 29

Total Standard Reference Loads 52 26

PASS

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

PREPARED BY _____

DATE 2-19-2014

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 completion of a Florida Air Barrier and Insulation Inspection Checklist**

COLUMBIA COUNTY BUILDING DEPARTMENT
Received for FILE COPY
Code Compliance
PLANS EXAMINER

PROJECT

Title	Aaron Simque Residence	Bedrooms	4	Address Type	Lot Information
Building Type	User	Conditioned Area	2359	Lot #	
Owner	Aaron Simque	Total Stories	1	Block/SubDivision	The Preserve
# of Units	1	Worst Case	No	PlatBook	
Builder Name	Aaron Simque	Rotate Angle	0	Street	
Permit Office		Cross Ventilation		County	Columbia
Jurisdiction		Whole House Fan		City, State, Zip	Lake City , FL , 32024-
Family Type	Single-family				
New/Existing	New (From Plans)				
Comment					

CLIMATE

√	Design Location	TMY Site	IECC Zone	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	2	32	92	70	75	1305 5	51	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	2359	18872

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	2359	18872	Yes	4	4	1	Yes	Yes	Yes

FLOORS

√	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
	1	Slab-On-Grade Edge Insulatio	Main	348 ft	0	2359 ft²	----	0 33	0 33	0 34

ROOF

√	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor	SA Tested	Emitt	Emitt Tested	Deck Insul	Pitch (deg)
	1	Hip	Composition shingles	2835 ft²	0 ft²	Medium	0 96	No	0 9	No	0	33 7

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
	1	Full attic	Vented	300	2359 ft²	N	N

CEILING

√	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type
	1	Under Attic (Vented)	Main	38	2359 ft²	0 11	Wood

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	SE	Exterior	Frame - Wood	Main	13	4		10		40 0 ft²		0 23	0 75	0
____	2	S	Exterior	Frame - Wood	Main	13	24		10		240 0 ft²		0 23	0 75	0
____	3	W	Exterior	Frame - Wood	Main	13	6	4	10		63 3 ft²		0 23	0 75	0
____	4	S	Exterior	Frame - Wood	Main	13	14		10		140 0 ft²		0 23	0 75	0
____	5	E	Exterior	Frame - Wood	Main	13	53		10		530 0 ft²		0 23	0 75	0
____	6	N	Exterior	Frame - Wood	Main	13	45		10		450 0 ft²		0 23	0 75	0
____	7	W	Exterior	Frame - Wood	Main	13	32		20		640 0 ft²		0 23	0 75	0
____	8	NW	Exterior	Frame - Wood	Main	13	37		10		370 0 ft²		0 23	0 75	0
____	9	NE	Exterior	Frame - Wood	Main	13	14	6	10		145 0 ft²		0 23	0 75	0
____	10	SW	Exterior	Frame - Wood	Main	13	14	6	10		145 0 ft²		0 23	0 75	0
____	11	SE	Garage	Frame - Wood	Main	13	24		10		240 0 ft²		0 23	0 75	0
____	12	SW	Garage	Frame - Wood	Main	13	20		10		200 0 ft²		0 23	0 75	0
____	13	E	Exterior	Frame - Wood	Main	13	6	6	10		65 0 ft²		0 23	0 75	0

DOORS

√	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
_____	1	SE	Wood	Main	None	46	2	8	8		21 3 ft²
_____	2	S	Wood	Main	None	46	5	8	8		45 3 ft²
_____	3	W	Wood	Main	None	46	6		8		48 ft²
_____	4	N	Wood	Main	None	46	6		8		48 ft²
_____	5	N	Wood	Main	None	46	5		8		40 ft²
_____	6	N	Wood	Main	None	46	5		8		40 ft²
_____	7	W	Wood	Main	None	46	3		8		24 ft²
_____	8	SW	Wood	Main	None	46	2	8	8		21 3 ft²
_____	9	NW	Insulated	Main	None	46	9		8		72 ft²
_____	10	NW	Insulated	Main	None	46	6		8		48 ft²

WINDOWS

Orientation shown is the entered, Proposed orientation

√	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Area	Overhang Depth	Overhang Separation	Int Shade	Screening
_____	1	S	2	Metal	Double (Tinted)	Yes	0 55	0 5	18 0 ft²	6 ft 18 in	0 ft 6 in	Drapes/blinds	None
_____	2	S	2	Metal	Double (Tinted)	Yes	0 55	0 5	15 1 ft²	6 ft 18 in	0 ft 6 in	Drapes/blinds	None
_____	3	S	4	Metal	Double (Tinted)	Yes	0 55	0 5	36 0 ft²	0 ft 18 in	0 ft 6 in	Drapes/blinds	None
_____	4	E	5	Metal	Double (Tinted)	Yes	0 55	0 5	72 0 ft²	0 ft 18 in	0 ft 6 in	Drapes/blinds	None
_____	5	E	5	Metal	Double (Tinted)	Yes	0 55	0 5	15 0 ft²	0 ft 18 in	0 ft 6 in	Drapes/blinds	None
_____	6	N	6	Metal	Double (Tinted)	Yes	0 55	0 5	18 0 ft²	0 ft 18 in	0 ft 6 in	Drapes/blinds	None
_____	7	N	6	Metal	Double (Tinted)	Yes	0 55	0 5	30 0 ft²	0 ft 18 in	0 ft 6 in	Drapes/blinds	None
_____	8	N	6	Metal	Double (Tinted)	Yes	0 55	0 5	20 0 ft²	0 ft 18 in	0 ft 6 in	Drapes/blinds	None
_____	9	E	13	Metal	Double (Tinted)	Yes	0 55	0 5	30 0 ft²	0 ft 18 in	0 ft 6 in	Drapes/blinds	None
_____	10	W	7	Metal	Double (Tinted)	Yes	0 55	0 5	30 0 ft²	0 ft 18 in	0 ft 6 in	Drapes/blinds	None
_____	11	SW	10	Metal	Double (Tinted)	Yes	0 55	0 5	18 0 ft²	0 ft 18 in	0 ft 6 in	Drapes/blinds	None

GARAGE

√	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg Wall Height	Exposed Wall Insulation
_____	1	535 ft²	535 ft²	47 ft	9 ft	13

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Best Guess	0003	1856 3	101 91	191 65	231	5 9018

HEATING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
_____	1	Electric Heat Pump	None	HSPF 7 7	48 98 kBtu/hr	1	sys#1

COOLING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
_____	1	Central Unit	None	SEER 14 36 22	kBtu/hr	1080 cfm	0 75	1	sys#1

HOT WATER SYSTEM

√	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
_____	1	Natural Gas	Tankless	Garage	0 94	1 gal	70 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	HVAC # Cool
_____	1	Attic	6	471 8 ft	Attic	117 95	Default Leakage	Garage	(Default)	(Default)			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	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	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

FORM 405-10

Florida Code Compliance Checklist

Florida Department of Business and Professional Regulations
Residential Whole Building Performance Method

ADDRESS	PERMIT #
Lake City, FL, 32024-	

MANDATORY REQUIREMENTS SUMMARY - See individual code sections for full details.

COMPONENT	SECTION	SUMMARY OF REQUIREMENT(S)	CHECK
Air leakage	402 4	To be caulked, gasketed, weatherstripped or otherwise sealed Recessed lighting IC-rated as meeting ASTM E 283 Windows and doors = 0 30 cfm/sq ft Testing or visual inspection required Fireplaces gasketed doors & outdoor combustion air Must complete envelope leakage report or visually verify Table 402 4 2	
Thermostat & controls	403 1	At least one thermostat shall be provided for each separate heating and cooling system Where forced-air furnace is primary system, programmable thermostat is required Heat pumps with supplemental electric heat must prevent supplemental heat when compressor can meet the load	
Ducts	403 2 2 403 3 3	All ducts, air handlers, filter boxes and building cavities which form the primary air containment passageways for air distribution systems shall be considered ducts or plenum chambers, shall be constructed and sealed in accordance with Section 503 2 7 2 of this code Building framing cavities shall not be used as supply ducts	
Water heaters	403 4	Heat trap required for vertical pipe risers Comply with efficiencies in Table 403 4 3 2 Provide switch or clearly marked circuit breaker (electric) or shutoff (gas) Circulating system pipes insulated to = R-2 + accessible manual OFF switch	
Mechanical ventilation	403 5	Homes designed to operate at positive pressure or with mechanical ventilation systems shall not exceed the minimum ASHRAE 62 level No make-up air from attics, crawlspaces, garages or outdoors adjacent to pools or spas	
Swimming Pools & Spas	403 9	Pool pumps and pool pump motors with a total horsepower (HP) of = 1 HP shall have the capability of operating at two or more speeds Spas and heated pools must have vapor-retardant covers or a liquid cover or other means proven to reduce heat loss except if 70% of heat from site-recovered energy Off/timer switch required Gas heaters minimum thermal efficiency=78% (82% after 4/16/13) Heat pump pool heaters minimum COP= 4 0	
Cooling/heating equipment	403 6	Sizing calculation performed & attached Minimum efficiencies per Tables 503 2 3 Equipment efficiency verification required Special occasion cooling or heating capacity requires separate system or variable capacity system Electric heat >10kW must be divided into two or more stages	
Ceilings/knee walls	405 2 1	R-19 space permitting	

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 75

The lower the EnergyPerformance Index, the more efficient the home

, Lake City, FL, 32024-

1	New construction or existing	New (From Plans)
2	Single family or multiple family	Single-family
3	Number of units, if multiple family	1
4	Number of Bedrooms	4
5	Is this a worst case?	No
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a Central Unit	36 2	SEER 14 00

13 Heating systems	kBtu/hr	Efficiency
a Electric Heat Pump	49 0	HSPF 7 70

14 Hot water systems	
a Natural Gas	Cap 1 gallons
	EF 0 94
b Conservation features	
None	
15 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 _____ City/FL Zip _____

*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 EnergyGauge Rating Contact the EnergyGauge Hotline at (321) 638-1492 or see the EnergyGauge web site at energygauge com for information and a list of certified Raters For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff

**Label required by Section 303 1 3 of the Florida Building Code, Energy Conservation, if not DEFAULT.