

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Hutchison Residence Street: 542 SW Angel Glen City, State, Zip: Ft White, FL, 32036 Owner: David & Donna Hutchison Design Location: FL, Gainesville	Builder Name: Bryan Zecher Construction Permit Office: Columbia County Permit Number: Jurisdiction: 221000
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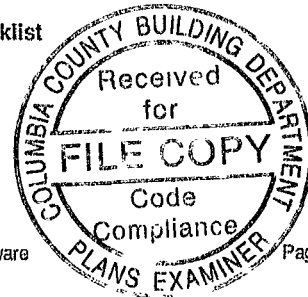
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Glass/Floor Area: 0.122	Total Proposed Modified Loads: 21.24	PASS
	Total Standard Reference Loads: 27.65	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY: <u>TA Ogden</u> DATE: <u>3/12/14</u> I hereby certify that this building, as designed, is in compliance with the Florida Energy Code. OWNER/AGENT: <u>[Signature]</u> DATE: <u>3/12/14</u>	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: _____
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* Compliance requires completion of a Florida Air Barrier and Insulation Inspection Checklist



PROJECT											
Title:	Hutchison Residence	Bedrooms:	2	Address Type:	Street Address						
Building Type:	User	Conditioned Area:	1046	Lot #							
Owner:	David & Donna Hutchison	Total Stories:	1	Block/SubDivision:							
# of Units:	1	Worst Case:	No	PlatBook:							
Builder Name:	Bryan Zecher Construction	Rotate Angle:	0	Street:	542 SW Angel Glen						
Permit Office:	Columbia County	Cross Ventilation:		County:	Columbia						
Jurisdiction:	221000	Whole House Fan:		City, State, Zip:	Ft White , FL , 32038-						
Family Type:	Single-family										
New/Existing:	New (From Plans)										
Comment:											
CLIMATE											
✓	Design Location	TMY Site	IECC Zone	Design Temp 97.5 %	2.5 %	Int Design Temp Winter	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	1046	8368							
SPACES											
	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
	1	Main	1046	8368	Yes	2	2	1	Yes	Yes	Yes
FLOORS											
✓	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet	
	1	Slab-On-Grade Edge Insulation	Main	158 ft	0	1046 ft²		0.3	0.3	0.4	
ROOF											
✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor	SA Tested	Emitt Tested	Deck Insul.	Pitch (deg)
	1	Hip	Composition shingles	1170 ft²	0 ft²	Medium	0.96	No	0.9	No	0 26.6
ATTIC											
✓	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC				
	1	Full attic	Vented	300	1046 ft²	N	N				
CEILING											
✓	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type				
	1	Under Attic (Vented)	Main	30	1046 ft²	0.11	Wood				

WALLS														
✓ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	In	Height Ft	In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
1	N	Exterior	Frame - Wood	Main	13	13	9	8		110.0 ft²		0.23	0.75	0
2	E	Exterior	Frame - Wood	Main	13	12	8	8		101.3 ft²		0.23	0.75	0
3	N	Exterior	Frame - Wood	Main	13	14	6	8		116.0 ft²		0.23	0.75	0
4	E	Exterior	Frame - Wood	Main	13	14		8		112.0 ft²		0.23	0.75	0
5	N	Exterior	Frame - Wood	Main	13	11		8		88.0 ft²		0.23	0.75	0
6	E	Exterior	Frame - Wood	Main	13	11	8	8		93.3 ft²		0.23	0.75	0
7	S	Exterior	Frame - Wood	Main	13	39	3	8		314.0 ft²		0.23	0.75	0
8	W	Exterior	Frame - Wood	Main	13	39	6	8		316.0 ft²		0.23	0.75	0

DOORS											
✓ #	Ornt	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area	
1	N	Insulated	Main	Metal	.46	3		6	8	20 ft²	
2	N	Insulated	Main	Metal	.46	2	8	6	8	17.8 ft²	

WINDOWS													
Orientation shown is the entered, Proposed orientation.													
✓ #	Ornt	Wall ID	Frame	Panels	NFRC	U-Factor	SHGC	Area	Overhang Depth	Separation	Int Shade	Screening	
1	N	1	Vinyl	Low-E Double	Yes	0.55	0.6	24.9 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None	
2	N	3	Vinyl	Low-E Double	Yes	0.55	0.6	8.0 ft²	10 ft 0 in	0 ft 4 in	Drapes/blinds	None	
3	N	3	Vinyl	Low-E Double	Yes	0.55	0.6	12.4 ft²	10 ft 0 in	0 ft 4 in	Drapes/blinds	None	
4	E	4	Vinyl	Low-E Double	Yes	0.55	0.6	24.9 ft²	10 ft 0 in	0 ft 4 in	Drapes/blinds	None	
5	N	5	Vinyl	Low-E Double	Yes	0.55	0.6	8.0 ft²	10 ft 0 in	0 ft 4 in	Drapes/blinds	None	
6	E	6	Vinyl	Low-E Double	Yes	0.55	0.6	24.9 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None	
7	S	7	Vinyl	Low-E Double	Yes	0.55	0.6	12.4 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None	
8	W	8	Vinyl	Low-E Double	Yes	0.55	0.6	12.4 ft²	2 ft 0 in	0 ft 4 in	Drapes/blinds	None	

INFILTRATION								
#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Best Guess	.0005	1371.8	75.31	141.64	.385	9.8363

HEATING SYSTEM							
✓ #	System Type	Subtype	Efficiency	Capacity	Block	Ducts	
1	Electric Heat Pump	None	HSPF: 7.7	35 kBtu/hr	1	sys#1	

COOLING SYSTEM										
☒	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts	
	1	Central Unit	Split	SEER: 14	35 kBtu/hr	1050 cfm	0.75	1	sys#1	

HOT WATER SYSTEM									
☒	#	System Type	SubType	Location	EF	Cap	Use	SatPnt	Conservation
	1	Electric	None	Main	0.92	30 gal	50 gal	120 deg	None

SOLAR HOT WATER SYSTEM							
☒	FSEC	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
	None	None			ft²		

DUCTS													
☒	#	--- Supply ---		--- Return ---		Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat	HVAC # Cool
		Location	R-Value	Area	Location	Area							
	1	Attic	6	209.2 ft²	Attic	52.3 ft²	Default Leakage	Main	(Default) c	(Default) c		1	1

TEMPERATURES														
Programable Thermostat: Y				Ceiling Fans:										
Cooling	Heating	Venting	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
			☒	☒	☒	☒		☒	☒	☒	☒	☒	☒	☒
Thermostat Schedule.		HERS 2006 Reference												
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	78	80	80	80	80
	PM	80	80	78	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	78
	PM	78	78	78	78	78	78	78	78	78	78	78	78	78
Heating (WD)	AM	66	66	66	66	66	66	66	66	66	66	66	66	66
	PM	68	68	68	68	68	68	68	68	68	68	68	66	66
Heating (WEH)	AM	66	66	66	66	66	66	66	66	66	66	66	66	66
	PM	68	68	68	68	68	68	68	68	68	68	68	66	66

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

ADDRESS: 542 SW Angel Glen
 Ft White, FL, 32038-

PERMIT #:

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	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.	✓
	403.3.3	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.	N/A
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.	✓