FORM 405-10

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name	Randy Marks residence	Builder Name	Owner
Street	CR 778	Permit Office	Columbia County
City, State, Zip	Ft White , FL , 32038-	Permit Number	
Owner	Randy Marks	Jurisdiction	121000
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		2
5 Is this a worst case?		No
6 Conditioned floor area above grade (ft²)		884
Conditioned floor area below grade (ft²)		0

7 Windows(146 8 sqft)	Description	Area
a U-Factor	Dbl, U=0 55	146 78 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		2 000 ft
Area Weighted Average SHGC		0 500

8 Floor Types (884 0 sqft)	Insulation	Area
a Slab-On-Grade Edge Insulation	R=0 0	884 00 ft²
b N/A	R=	ft²
c N/A	R=	ft²

9 Wall Types (1572 0 sqft)	Insulation	Area
a Frame - Wood, Exterior	R=13 0	1572 00 ft²
b N/A	R=	ft²
c N/A	R=	ft²
d N/A	R=	ft²

10 Ceiling Types (884 0 sqft)	Insulation	Area
a Under Attic (Vented)	R=30 0	884 00 ft²
b N/A	R=	ft²
c N/A	R=	ft²

11 Ducts		R ft²

12 Cooling systems	kBtu/hr	Efficiency
a PTAC and Room Unit	18 0	EER 13 00

13 Heating systems	kBtu/hr	Efficiency
a Electric Strip Heat	18 0	COP 1 00

14 Hot water systems	
a Electric	Cap 40 gallons
	EF 0 920
b Conservation features	
None	
15 Credits	CF, Pstat

Glass/Floor Area 0 166

Total Proposed Modified Loads 21 21

Total Standard Reference Loads 28 92

PASS

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

PREPARED BY. _____

DATE 2/16/13

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

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

BUILDING OFFICIAL _____

DATE _____

- **Compliance requires completion of a Florida Air Barrier and Insulation Inspection Checklist**

COLUMBIA COUNTY BUILDING
Received
for
FILE COPY
Code
Compliance
PLANS EXAMINER

PROJECT

Title	Randy Marks residence	Bedrooms	2	Address Type	Street Address
Building Type	User	Conditioned Area	884	Lot #	
Owner	Randy Marks	Total Stories	1	Block/SubDivision	
# of Units	1	Worst Case	No	PlatBook	
Builder Name	Owner	Rotate Angle	0	Street	CR 778
Permit Office	Columbia County	Cross Ventilation		County	Columbia
Jurisdiction	121000	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 %	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	884	7072

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	884	7072	Yes	2	2	1	Yes	Yes	Yes

FLOORS

√	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	Main	120 ft	0	0 ft²	----	0	0 3	0 7

ROOF

√	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor	SA Tested	Emitt	Emitt Tested	Deck Insul	Pitch (deg)
_____	1	Gable or shed	Metal	958 ft²	184 ft²	Medium	0 96	No	0 9	No	0	22 6

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Full attic	Vented	300	884 ft²	N	N

CEILING

√	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	Main	30	884 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	N	Exterior	Frame - Wood	Main	13	34		8		272 ft²		0 23	0 75	0
____	2	E	Exterior	Frame - Wood	Main	13	26		8		208 ft²		0 23	0 75	0
____	3	S	Exterior	Frame - Wood	Main	13	34		26		884 ft²		0 23	0 75	0
____	4	W	Exterior	Frame - Wood	Main	13	26		8		208 ft²		0 23	0 75	0

DOORS

√	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
_____	1	S	Insulated	Main	Metal	0 28	3	0	6	8	20 ft²

WINDOWS

Orientation shown is the entered, Proposed orientation

√	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Overhang Area	Overhang Depth	Overhang Separation	Int Shade	Screening
_____	1	N	1	Vinyl	Low-E Double	Yes	0 55	0 5	24 88888	2 ft 0 in	0 ft 4 in	Drapes/blinds	None
_____	2	N	1	Vinyl	Low-E Double	Yes	0 55	0 5	35 88888	2 ft 0 in	1 ft 4 in	Drapes/blinds	None
_____	3	E	2	Vinyl	Low-E Double	Yes	0 55	0 5	24 88888	2 ft 0 in	0 ft 4 in	Drapes/blinds	None
_____	4	S	3	Vinyl	Low-E Double	Yes	0 55	0 5	12 44444	2 ft 0 in	0 ft 4 in	Drapes/blinds	None
_____	5	S	3	Vinyl	Low-E Double	Yes	0 55	0 5	7 111111	2 ft 0 in	0 ft 4 in	Drapes/blinds	None
_____	6	W	4	Vinyl	Low-E Double	Yes	0 55	0 5	41 55555	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	0 000300	695 62	38 188	71 819	0 2310	5 9017

HEATING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
_____	1	Electric Strip Heat	None	COP 1	18 kBtu/hr	1	Ductless

COOLING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
_____	1	PTAC and Room Unit	Through the Wall(Single)	EER 13	18 kBtu/hr	540 cfm	0 75	1	Ductless

HOT WATER SYSTEM

√	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
_____	1	Electric	None	Main	0 92	40 gal	50 gal	120 deg	None

SOLAR HOT WATER SYSTEM

√	FSEC Cert #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
_____	None	None			ft²		

TEMPERATURES

Programable Thermostat Y Ceiling Fans

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	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: CR 778
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 2.2 403 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.	N/A
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.	✓