20

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 74

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		Single-family
3. Number of units, if multiple family		1
4. Number of Bedrooms		3
5. Is this a worst case?		No
6. Conditioned floor area (ft²)		2470
7. Windows**	Description	Area
a. U-Factor:	Dbl, U=0.60	329.33 ft²
SHGC:	SHGC=0.29	
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:		2.093 ft.
Area Weighted Average SHGC:		0.290

8. Floor Types	Insulation	Area
a. Slab-On-Grade Edge Insulation	R=0.0	2470.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

9. Wall Types	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	2151.00 ft²
b. Frame - Wood, Adjacent	R=13.0	405.00 ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

10. Ceiling Types	Insulation	Area
a. Under Attic (Vented)	R=30.0	2470.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

11. Ducts	R	ft²
a. Sup: Attic, Ret: Attic, AH: Garage	6	494

12. Cooling systems	kBtu/hr	Efficiency
a. Central Unit	47.5	SEER:13.80

13. Heating systems	kBtu/hr	Efficiency
a. Electric Heat Pump	46.0	HSPF:7.70

14. Hot water systems	
a. Electric	Cap: 40 gallons
	EF: 0.92
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: Freddie B. Romero Date: 6-7-12

Address of New Home: 174 SE CR 349 City/FL Zip: Lake City FL 32025

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*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.

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

EnergyGauge® USA - FlaRes2010 Section 405.4.1 Compliant Software

COLUMBIA COUNTY BUILDING DEPARTMENT REVIEWED FOR FIELD COPY CODE COMPLIANCE EXAMINER

wrightsoft

Load Short Form
Entire House
CAD of Ocala, LLC

Job: Thomas Residence
Date: Jun 01, 2012
By: JAC

53 Hemlock Radial Loop, Ocala, FL 34472 Phone: (352) 390-5609 Fax: (352) 292-4288 Email: Design@cadofocala.com Web: WWW.cadofocala.com

Project Information

For: Thomas Residence

Design Information

	Htg	Clg
Outside db (°F)	34	93
Inside db (°F)	70	75
Design TD (°F)	36	18
Daily range	-	M
Inside humidity (%)	30	50
Moisture difference (gr/lb)	10	50

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

HEATING EQUIPMENT

Make American Standard
Trade AMERICAN STANDARD 13
Model 4A6B3048A1
AHRI ref no4151269

Efficiency	7.7 HSPF	
Heating input		
Heating output	46000	Btuh @ 47°F
Temperature rise	26	°F
Actual air flow	1583	cfm
Air flow factor	0.040	cfm/Btuh
Static pressure	0	in H2O
Space thermostat		

COOLING EQUIPMENT

Make American Standard
Trade AMERICAN STANDARD 13
Cond 4A6B3048A1
Coil GAM5A0B36M31
AHRI ref no4151269

Efficiency	11.0 EER, 13.8 SEER	
Sensible cooling	33250	Btuh
Latent cooling	14250	Btuh
Total cooling	47500	Btuh
Actual air flow	1583	cfm
Air flow factor	0.042	cfm/Btuh
Static pressure	0	in H2O
Load sensible heat ratio	0.84	

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Whole House	2210	34737	31030	1388	1300
Bonus Room	260	4868	6743	195	283
Entire House d	2470	39605	37773	1583	1583
Other equip loads		0	0		
Equip. @ 0.98 RSM			37018		
Latent cooling			7116		
TOTALS	2470	39605	44134	1583	1583

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

FORM 405-10

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	Wilson - Thomas	Builder Name:	
Street:		Permit Office:	
City, State, Zip:	, FL ,	Permit Number:	
Owner:	Thomas Residence	Jurisdiction:	
Design Location:	FL, Ocala		

1. New construction or existing	New (From Plans)	9. Wall Types (2556.0 sqft.)		Insulation	Area
2. Single family or multiple family	Single-family	a. Frame - Wood, Exterior		R=13.0	2151.00 ft²
3. Number of units, if multiple family	1	b. Frame - Wood, Adjacent		R=13.0	405.00 ft²
4. Number of Bedrooms	3	c. N/A		R=	ft²
5. Is this a worst case?	No	d. N/A		R=	ft²
6. Conditioned floor area above grade (ft²)	2470	10. Ceiling Types (2470.0 sqft.)		Insulation	Area
Conditioned floor area below grade (ft²)	0	a. Under Attic (Vented)		R=30.0	2470.00 ft²
7. Windows(329.3 sqft.)	Description	Area	b. N/A	R=	ft²
a. U-Factor:	Dbl, U=0.60	329.33 ft²	c. N/A	R=	ft²
SHGC:	SHGC=0.29		11. Ducts		R ft²
b. U-Factor:	N/A	ft²	a. Sup: Attic, Ret: Attic, AH: Garage		6 494
SHGC:					
c. U-Factor:	N/A	ft²	12. Cooling systems	kBtu/hr	Efficiency
SHGC:			a. Central Unit	47.5	SEER:13.80
d. U-Factor:	N/A	ft²			
SHGC:			13. Heating systems	kBtu/hr	Efficiency
Area Weighted Average Overhang Depth:		2.093 ft.	a. Electric Heat Pump	46.0	HSPF:7.70
Area Weighted Average SHGC:		0.290			
8. Floor Types (2470.0 sqft.)	Insulation	Area	14. Hot water systems		
a. Slab-On-Grade Edge Insulation	R=0.0	2470.00 ft²	a. Electric		Cap: 40 gallons
b. N/A	R=	ft²			EF: 0.920
c. N/A	R=	ft²	b. Conservation features		
			None		
			15. Credits		Pstat

Glass/Floor Area: 0.133	Total Proposed Modified Loads: 36.37 Total Standard Reference Loads: 48.97	**PASS**

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

PREPARED BY: _____

DATE: 6-1-12

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.

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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 403.2.2.1.1.**
- **Compliance requires completion of a Florida Air Barrier and Insulation Inspection Checklist**

Building Type:	FLProp2010	Conditioned Area:	2470	Lot #	
Owner:	Thomas Residence	Total Stories:	1	Block/SubDivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:		Rotate Angle:	0	Street:	
Permit Office:		Cross Ventilation:		County:	Columbia
Jurisdiction:		Whole House Fan:		City, State, Zip:	, FL ,
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, Ocala	FL_OCALA_MUNI_(AWO	2	28	91	70	75	1144.5	51	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	2470	22230

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	RoomsInBlock1	2470	22230	Yes	3	3	1	Yes	Yes	Yes

FLOORS

√	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
	1	Slab-On-Grade Edge Insulatio	RoomsInBlock1	276 ft	0	2470 ft²		0.25	0	0.75

ROOF

√	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
	1	Hip	Composition shingles	2675 ft²	0 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	2470 ft²	N	N

CEILING

√	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type
	1	Under Attic (Vented)	RoomsInBlock1	30	2470 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	RoomsInBloc	13	74		9		666 ft²		0.23	0.75	0
	2	S	Exterior	Frame - Wood	RoomsInBloc	13	74		9		666 ft²		0.23	0.75	0
	3	E	Exterior	Frame - Wood	RoomsInBloc	13	35		9		315 ft²		0.23	0.75	0
	4	W	Exterior	Frame - Wood	RoomsInBloc	13	56		9		504 ft²		0.23	0.75	0
	5	W	Garage	Frame - Wood	RoomsInBloc	13	45		9		405 ft²		0.23	0.01	0

DOORS

√	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
	1	W	Wood	RoomsInBloc	None	0.460000	3		7		21 ft²
	2	S	Wood	RoomsInBloc	None	0.460000	3		7		21 ft²

WINDOWS

Orientation shown is the entered, Proposed orientation.

√	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Storms	Area	Overhang Depth	Overhang Separation	Int Shade	Screening
	1	N	1	Metal	Low-E Double	Yes	0.6	0.29	N	144 ft²	1 ft 0 in	0 ft 10 in	HERS 2006	None
	2	S	2	Metal	Low-E Double	Yes	0.6	0.29	N	90 ft²	1 ft 0 in	0 ft 10 in	HERS 2006	None
	3	W	4	Metal	Low-E Double	Yes	0.6	0.29	N	36 ft²	1 ft 0 in	0 ft 10 in	HERS 2006	None
	4	W	4	Metal	Low-E Double	Yes	0.6	0.29	N	6 ft²	1 ft 0 in	0 ft 10 in	HERS 2006	None
	5	S	2	Metal	Low-E Double	Yes	0.6	0.29	N	13.33333	1 ft 0 in	0 ft 10 in	HERS 2006	None
	6	N	1	Metal	Low-E Double	Yes	0.6	0.29	N	40 ft²	10 ft 0 in	0 ft 10 in	HERS 2006	None

GARAGE

√	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
	1	382.8 ft²	382.8 ft²	64 ft	8 ft	1

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	BySpaces	Proposed SLA	0.000360	2332.3	128.04	240.80	0.2628	6.2952

HEATING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
	1	Electric Heat Pump	None	HSPF: 7.7	46 kBtu/hr	1	sys#1

COOLING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
	1	Central Unit	None	SEER: 13.8	47.5 kBtu/hr	1425 cfm	0.75	1	sys#1

HOT WATER SYSTEM

✓	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
	1	Electric	None	Garage	0.92	40 gal	60 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	Supply R-Value	Supply Area	Return Location	Return Area	Leakage Type	Air Handler	CFM 25	Percent Leakage	QN	RLF	HVAC # Heat	HVAC # Cool
	1	Attic	6	494 ft²	Attic	123.5 ft	DSE=0.88	Garage	0.0 cfm	0.00 %	0.00	0.60	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]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Heating	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Venting	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]

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	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	66	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

ADDRESS: , FL, 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.	

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.