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FORM 405-10

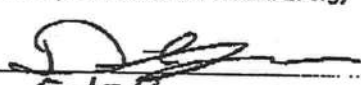
FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Kasak - ACE Street: City, State, Zip: FL Owner: Kasak Residence Design Location: FL, Jacksonville	Builder Name: Permit Office: Columbia Permit Number: Jurisdiction:
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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 above grade (ft²) 2650 Conditioned floor area below grade (ft²) 0 7. Windows (276.0 sqft.) Description Area a. U-Factor: Dbl, U=0.60 276.00 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: 0.000 ft Area Weighted Average SHGC: 0.290 8. Floor Types (2650.0 sqft.) Insulation Area a. Slab-On-Grade Edge Insulation R=0.0 2650.00 ft² b. N/A R= ft² c. N/A R= ft²	9. Wall Types (2540.0 sqft.) Insulation Area a. Frame - Wood, Exterior R=19.0 2060.00 ft² b. Frame - Wood, Adjacent R=11.0 480.00 ft² c. N/A R= ft² d. N/A R= ft² 10. Ceiling Types (2650.0 sqft.) Insulation Area a. Under Attic (Vented) R=30.0 2650.00 ft² b. N/A R= ft² c. N/A R= ft² 11. Ducts R ft² a. Sup: Attic, Ret: Attic, AH: Garage 6 530 12. Cooling systems kBtu/hr Efficiency a. Central Unit 58.0 SEER:15.00 13. Heating systems kBtu/hr Efficiency a. Electric Heat Pump 58.0 HSPF:8.20 14. Hot water systems a. Electric Cap: 40 gallons EF: 0.920 b. Conservation features, None 15. Credits CF
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Glass/Floor Area: 0.104	Total Proposed Modified Loads: 32.81	PASS
	Total Standard Reference Loads: 51.73	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY:  DATE: <u>5-1-13</u> 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: _____
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- Compliance requires completion of a Florida Air Barrier and Insulation Inspection Checklist

5/1/2013 5:31 AM

EnergyGauge® USA - FlaRes2010 Section 405.4.1 Compliant Software

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WALLS														
✓	#	Omt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Height Ft	Area	Sheathing R-Value	Framing Fraction	Solar Absor	Below Grade%	
	1	N	Exterior	Frame - Wood	RoomsInBloc	19	52	0 10 0	520 ft²	0	0.25	0.8	0	
	2	E	Exterior	Frame - Wood	RoomsInBloc	19	46	0 10 0	460 ft²	0	0.25	0.8	0	
	3	S	Exterior	Frame - Wood	RoomsInBloc	19	33	0 10 0	330 ft²	0	0.25	0.8	0	
	4	W	Exterior	Frame - Wood	RoomsInBloc	19	75	0 10 0	750 ft²	0	0.25	0.8	0	
	5	-	Garage	Frame - Wood	RoomsInBloc	11	48	0 10 0	480 ft²	0	0.25	0.01	0	

DOORS											
✓	#	Omt	Door Type	Space	Storms	U-Value	Width Ft	Height Ft	Area		
	1	E	Wood	RoomsInBloc	None	0.39	3	7	21 ft²		
	2	-	Wood	RoomsInBloc	None	0.39	3	7	21 ft²		

WINDOWS														
Orientation shown is the entered, Proposed orientation.														
✓	#	Walt	ID	Frame	Panels	NFRC	U-Factor	SHGC	Storms	Area	Overhang Depth	Separation	Int Shade	Screening
	1	N	1	Metal	Low-E Double	Yes	0.6	0.29	N	6 ft²	0 ft 0 in	0 ft 0 in	HERS 2006	None
	2	N	1	Metal	Low-E Double	Yes	0.6	0.29	N	12 ft²	0 ft 0 in	0 ft 0 in	HERS 2006	None
	3	E	2	Metal	Low-E Double	Yes	0.6	0.29	N	6 ft²	0 ft 0 in	0 ft 0 in	HERS 2006	None
	4	E	2	Metal	Low-E Double	Yes	0.6	0.29	N	48 ft²	0 ft 0 in	0 ft 0 in	HERS 2006	None
	5	E	2	Metal	Low-E Double	Yes	0.6	0.29	N	12 ft²	0 ft 0 in	0 ft 0 in	HERS 2006	None
	6	S	3	Metal	Low-E Double	Yes	0.6	0.29	N	60 ft²	0 ft 0 in	0 ft 0 in	HERS 2006	None
	7	W	4	Metal	Low-E Double	Yes	0.6	0.29	N	42 ft²	0 ft 0 in	0 ft 0 in	HERS 2006	None
	8	W	4	Metal	Low-E Double	Yes	0.6	0.29	N	18 ft²	0 ft 0 in	0 ft 0 in	HERS 2006	None
	9	W	4	Metal	Low-E Double	Yes	0.6	0.29	N	72 ft²	0 ft 0 in	0 ft 0 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	2502.3	137.37	258.35	0.2771	7.0821

HEATING SYSTEM							
✓	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
	1	Electric Heat Pump	None	HSPF: 8.2	56 kBtu/hr	1	sys#1

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COOLING SYSTEM									
✓	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
	1	Central Unit	Split	SEER: 15	58 kBtu/hr	1740 cfm	0.7	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 —			— Return —		Leakage Type	Air Handler	CFM 25	Percent Leakage	QN	RLF	HVAC #	
		Location	R-Value	Area	Location	Area							Heat	Cool
	1	Attic	6	530 ft²	Attic	133 ft²	DSE=0.88	Garage	0.0 cfm	0.00 %	0.00	0.60	1	1

TEMPERATURES													
Programable Thermostat: N				Ceiling Fans:									
Cooling Heating Venting	☒ Jan ☒ Jan ☒ Jan	☒ Feb ☒ Feb ☒ Feb	☒ Mar ☒ Mar ☒ Mar	☒ Apr ☒ Apr ☒ Apr	☒ May ☒ May ☒ May	☒ Jun ☒ Jun ☒ Jun	☒ Jul ☒ Jul ☒ Jul	☒ Aug ☒ Aug ☒ Aug	☒ Sep ☒ Sep ☒ Sep	☒ Oct ☒ Oct ☒ Oct	☒ Nov ☒ Nov ☒ Nov	☒ Dec ☒ Dec ☒ Dec	
Thermostat Schedule: HERS 2006 Reference													
Schedule Type	1	2	3	4	5	6	7	8	9	10	11	12	
Cooling (WD)	AM 78 PM 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	
Cooling (WEH)	AM 78 PM 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	
Heating (WD)	AM 68 PM 68	68 68	68 68	68 68	68 68	68 68	68 68	68 68	68 68	68 68	68 68	68 68	
Heating (WEH)	AM 68 PM 68	68 68	68 68	68 68	68 68	68 68	68 68	68 68	68 68	68 68	68 68	68 68	

FORM 405-10

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

ADDRESS:

PERMIT #:

, FL.

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.	
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.	✓

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ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 63

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

, FL,

1. New construction or existing	New (From Plans)	9. Wall Types	Insulation	Area
2. Single family or multiple family	Single-family	a. Frame - Wood, Exterior	R=19.0	2060.00 ft ²
3. Number of units, if multiple family	1	b. Frame - Wood, Adjacent	R=11.0	480.00 ft ²
4. Number of Bedrooms	3	c. N/A	R=	ft ²
5. Is this a worst case?	No	d. N/A	R=	ft ²
6. Conditioned floor area (ft ²)	2650	10. Ceiling Types	Insulation	Area
7. Windows**	Description	a. Under Attic (Vented)	R=30.0	2650.00 ft ²
a. U-Factor:	Dbl, U=0.80	b. N/A	R=	ft ²
SHGC:	SHGC=0.29	c. N/A	R=	ft ²
b. U-Factor:	N/A	11. Ducts		
SHGC:		a. Sup: Attic, Ret: Attic, AH: Garage	R	ft ²
c. U-Factor:	N/A		6	530
SHGC:				
d. U-Factor:	N/A	12. Cooling systems	kBtu/hr	Efficiency
SHGC:		a. Central Unit	58.0	SEER:15.00
Area Weighted Average Overhang Depth:	0.000 ft	13. Heating systems	kBtu/hr	Efficiency
Area Weighted Average SHGC:	0.290	a. Electric Heat Pump	58.0	HSPF:8.20
8. Floor Types	Insulation	Area		
a. Slab-On-Grade Edge Insulation	R=0.0	2650.00 ft ²		
b. N/A	R=	ft ²		
c. N/A	R=	ft ²		
		14. Hot water systems		
		a. Electric	Cap: 40 gallons	
			EF: 0.92	
		b. Conservation features		
		None		
		15. Credits		CF

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: UGM Date: 5-22-13

Address of New Home: 812 SW Kirby Ave City/FL Zip: Lake City 32024



*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.