FORM 405-10

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUC

Florida Department of Business and Professional Regulation - Residential Performance Meth

Project Name:	Becker Residence	Builder Name	Premier Builders
Street:		Permit Office	Columbia County
City, State, Zip	Lake City , FL , 32024-	Permit Number:	
Owner:	Joel & Ashley Becker	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	3
5	Is this a worst case?	No
6	Conditioned floor area above grade (ft²)	2809
	Conditioned floor area below grade (ft²)	0

7 Windows(496 0 sqft)	Description	Area
a U-Factor:	Dbl, U=0.30	496 00 ft²
SHGC	SHGC=0 30	
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		1 500 ft.
Area Weighted Average SHGC		0 300

8 Floor Types (2809.0 sqft)	Insulation	Area
a Slab-On-Grade Edge Insulation	R=0 0	2809 00 ft²
b N/A	R=	ft²
c. N/A	R=	ft²

9 Wall Types (2574 0 sqft.)	Insulation	Area
a Frame - Wood, Exterior	R=19 0	2574 00 ft²
b N/A	R=	ft²
c. N/A	R=	ft²
d N/A	R=	ft²

10. Ceiling Types (2809 0 sqft.)	Insulation	Area
a. Under Attic (Vented)	R=30 0	2809 00 ft²
b N/A	R=	ft²
c. N/A	R=	ft²

11 Ducts	R	ft²
a Sup Attic, Ret. Attic, AH Main	6	561 8

12 Cooling systems	kBtu/hr	Efficiency
a Central Unit	43 3	SEER.15 00

13 Heating systems	kBtu/hr	Efficiency
a Electric Heat Pump	44 5	HSPF 7 80

14 Hot water systems	
a Electric	Cap 80 gallons
	EF 0 920
b Conservation features	
None	
15 Credits	Pstat

Glass/Floor Area: 0.177

Total Proposed Modified Loads: 35.57
Total Standard Reference Loads: 54.35

PASS

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

PREPARED BY: _____
DATE 12-5-13

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.

BUILDING OFFICIAL: _____
DATE: _____

GREAT SEAL OF THE STATE OF FLORIDA
IN GOD WE TRUST

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

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

PROJECT

Title	Becker Residence	Bedrooms	3	Address Type	Lot Information
Building Type	User	Conditioned Area	2809	Lot #	
Owner	Joel & Ashley Becker	Total Stories	1	Block/SubDivision	
# of Units	1	Worst Case	No	PlatBook.	
Builder Name	Premier Builders	Rotate Angle	315	Street	
Permit Office	Columbia County	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	2809	25281

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	2809	25281	Yes	6	3	1	Yes	Yes	Yes

FLOORS

√	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
____	1	Slab-On-Grade Edge Insulatio	Main	284 ft	0	2809 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	3376 ft²	0 ft²	Dark	0 96	No	0 9	No	0	33 7

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
____	1	Full attic	Vented	300	2809 ft²	N	N

CEILING

√	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type
____	1	Under Attic (Vented)	Main	30	2809 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=>NW	Exterior	Frame - Wood	Main	19	75		9		675 0 ft²		0 23	0 75	0
____	2	E=>NE	Exterior	Frame - Wood	Main	19	68		9		612 0 ft²		0.23	0 75	0
____	3	S=>SE	Exterior	Frame - Wood	Main	19	75		9		675 0 ft²		0 23	0 75	0
____	4	W=>SW	Exterior	Frame - Wood	Main	19	68		9		612 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	N=>NW	Insulated	Main	None	0.400000	3		6	8	20 ft²
_____	2	N=>NW	Insulated	Main	None	0 400000	2	8	6	8	17 77777

WINDOWS

Orientation shown is the entered orientation (=>) changed to As Built (rotated 315 degrees)

√	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Overhang Area	Overhang Depth	Overhang Separation	Int Shade	Screening
_____	1	N=>NW	1	Vinyl	Low-E Double	Yes	0 3	0 3	60 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
_____	2	N=>NW	1	Vinyl	Low-E Double	Yes	0 3	0 3	9 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
_____	3	E=>NE	2	Vinyl	Low-E Double	Yes	0 3	0 3	120 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
_____	4	E=>NE	2	Vinyl	Low-E Double	Yes	0 3	0 3	48 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
_____	5	E=>NE	2	Vinyl	Low-E Double	Yes	0 3	0 3	40 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
_____	6	S=>SE	3	Vinyl	Low-E Double	Yes	0 3	0 3	30 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
_____	7	S=>SE	3	Vinyl	Low-E Double	Yes	0 3	0 3	20 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
_____	8	S=>SE	3	Vinyl	Low-E Double	Yes	0 3	0 3	12 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
_____	9	S=>SE	3	Vinyl	Low-E Double	Yes	0.3	0 3	20 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
_____	10	W=>SW	4	Vinyl	Low-E Double	Yes	0 3	0 3	60 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
_____	11	W=>SW	4	Vinyl	Low-E Double	Yes	0 3	0 3	40 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
_____	12	W=>SW	4	Vinyl	Low-E Double	Yes	0 3	0 3	8 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
_____	13	W=>SW	4	Vinyl	Low-E Double	Yes	0 3	0 3	9 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
_____	14	N=>NW	1	Vinyl	Low-E Double	Yes	0 3	0 3	20 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Best Guess	0 000500	3684 0	202 24	380 35	0 3850	8 7433

HEATING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
_____	1	Electric Heat Pump	None	HSPF 7 8	44 49 kBtu/hr	1	sys#1

COOLING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
_____	1	Central Unit	None	SEER 15	43 3 kBtu/hr	1440 cfm	0 75	1	sys#1

HOT WATER SYSTEM

√	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
_____	1	Electric	None	Main	0 92	80 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	R-Value	Area	---- Return ---- Location	Area	Leakage Type	Air Handler	CFM25	CFM25 OUT	QN	RLF	HVAC # Heat	HVAC # Cool
_____	1	Attic	6	561 8 ft	Attic	140.45	Default Leakage	Main	cfm	(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 / Schedule Type	HERS 2006 Reference	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	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

MECHANICAL VENTILATION

Type	Supply CFM	Exhaust CFM	Fan Watts	HRV	Heating System	Run Time	Cooling System
None	0	0	0	1 - Electric Heat Pump		0%	1 - Central Unit

·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.	

Florida Code Summary Report

Joel & Ashley Becker

Lake City, FL, 32024-
Registration #:

Title: Becker Residence
FLAsBuilt

TMY City: FL_GAINESVILLE_R
Elec Util: Florida Average
Gas Util: Florida Average
Run Date:

Energy Uses	Reference Home	Proposed Home	e-Ratio
Heating	6.43 MBtu	3.24 MBtu	0.50
Cooling	15.44 MBtu	9.88 MBtu	0.64
Hot Water	9.77 MBtu	8.98 MBtu	0.92
Total	31.65 MBtu	22.09 MBtu	0.70

Building Loads	Reference Home	Proposed Home	e-Ratio
Heating	11.20 MBtu	5.64 MBtu*	0.50
Cooling	34.81 MBtu	22.27 MBtu*	0.64
Hot Water	8.34 MBtu	7.66 MBtu*	0.92
Total	54.35 MBtu	35.57 MBtu	0.65

* normalized modified loads

Glass/Floor Area	0.177	Total Proposed Modified Loads	35.57	**PASS**
		Total Reference Loads.	54.35	

Building Input Summary Report

PROJECT

Title	Becker Residence	Bedrooms	3	Address Type	Lot Information
Building Type	User	Bathrooms	0	Lot #	
Owner	Joel & Ashley Becker	Conditioned Area	2809 sq ft.	Block/SubDivision	
# of Units	1	Total Stories	1	PlatBook:	
Builder Name	Premier Builders	Worst Case	No	Street.	
Permit Office	Columbia County	Rotate Angle	315	County	Columbia
Jurisdiction		Cross Ventilation		City, State, Zip	Lake City ,
Family Type	Single-family	Whole House Fan			FL , 32024-
New/Existing	New (From Plans)	Terrain	Suburban		
Year Construct.	2014	Shielding	Suburban		
Comment:					

CLIMATE

Design Location	Tmy Site	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_REGIONAL_AP	32	92	70	75	1305 5	51	Medium

UTILITY RATES

Fuel	Unit	Utility Name	Monthly Fixed Cost	$/Unit
Electricity	kWh	Florida Average	0	0 09
Natural Gas	Therm	Florida Average	0	1 72
Fuel Oil	Gallon	Florida Default	0	1 1
Propane	Gallon	Florida Default	0	1 4

SURROUNDINGS

		Shade Trees				Adjacent Buildings		
Ornt	Type	Height	Width	Distance	Exist	Height	Width	Distance
N	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
NE	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
E	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
SE	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
S	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
SW	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
W	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft
NW	None	0 ft	0 ft	0 ft		0 ft	0 ft	0 ft

FLOORS

#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
1	Slab-On-Grade Edge Insulation	Main	284 ft	0	2809 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	3376 ft²	0 ft²	Dark	0 96	No	0 9	No	0	33 7

Building Input Summary Report

ATTIC

#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
1	Full attic	Vented	300	2809 ft²	N	N

CEILING

#	Ceiling Type	Space	R-Value	Area	Framing Fraction	Truss Type
1	Under Attic ()	Main	30	2809 ft²	0 11	Wood

WALLS

Wall orientation below is as entered Actual orientation is modified by rotate angle shown in "Project" section above

#	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=>NW	Exterior	Frame - Wood	Main	19	75		9		675 0 ft²		0.23	0 75	0
2	E=>NE	Exterior	Frame - Wood	Main	19	68		9		612 0 ft²		0 23	0 75	0
3	S=>SE	Exterior	Frame - Wood	Main	19	75		9		675 0 ft²		0 23	0 75	0
4	W=>SW	Exterior	Frame - Wood	Main	19	68		9		612 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	N=>NW	Insulated	Main	None	0 400000	3		6	8	20 ft²
2	N=>NW	Insulated	Main	None	0 400000	2	8	6	8	17 77777

WINDOWS

#	Wall Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Storm	Area	Overhang Depth	Overhang Separation	Interior Shade	Screening
1	N=>NW	1	Vinyl	Low-E Double	Yes	0 3	0 3	N	60 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
2	N=>NW	1	Vinyl	Low-E Double	Yes	0 3	0 3	N	9 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
3	E=>NE	2	Vinyl	Low-E Double	Yes	0 3	0 3	N	120 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
4	E=>NE	2	Vinyl	Low-E Double	Yes	0 3	0 3	N	48 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
5	E=>NE	2	Vinyl	Low-E Double	Yes	0 3	0 3	N	40 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
6	S=>SE	3	Vinyl	Low-E Double	Yes	0 3	0 3	N	30 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
7	S=>SE	3	Vinyl	Low-E Double	Yes	0 3	0 3	N	20 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
8	S=>SE	3	Vinyl	Low-E Double	Yes	0 3	0 3	N	12 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
9	S=>SE	3	Vinyl	Low-E Double	Yes	0 3	0 3	N	20 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
10	W=>SW	4	Vinyl	Low-E Double	Yes	0 3	0 3	N	60 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
11	W=>SW	4	Vinyl	Low-E Double	Yes	0 3	0 3	N	40 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
12	W=>SW	4	Vinyl	Low-E Double	Yes	0 3	0 3	N	8 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
13	W=>SW	4	Vinyl	Low-E Double	Yes	0 3	0 3	N	9 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None
14	N=>NW	1	Vinyl	Low-E Double	Yes	0 3	0 3	N	20 0 ft²	1 ft 6 in	1 ft 0 in	Drapes/blinds	None

Building Input Summary Report

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50	Space(s)
1	Wholehouse	Best Guess	0 000500	3684 0	202 24	380 35	0 3850	8 7433	All

MASS

Mass Type	Area	Thickness	Furniture Fraction	Space
No Added Mass	0 ft²	0 ft	0 3	Main

HEATING SYSTEM

#	System Type	Subtype	Efficiency	Capacity	Ducts	Block
1	Electric Heat Pump	None	HSPF 7 8	44 49 kBtu/hr	sys#1	1

COOLING SYSTEM

#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Ducts	Block
1	Central Unit	None	SEER 15	43 3 kBtu/hr	1440 cfm	0.75	sys#1	1

HOT WATER SYSTEM

#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Credits
1	Electric	None	Main	0 92	80 gal	60 gal	120 deg	None

SOLAR HOT WATER

Collector Type	Collector Tilt	Azimuth	Surface Area	Loss Coef	Absorp Prod	Trans Corr	Tank Volume	Tank U-Value	Tank Surf Area	Heat Exch Eff	PV Pumped	Pump Energy

DUCTS

DUCT #	Supply Location	Supply R-Value	Supply Area	Return Location	Return Area	Return Number	Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat	HVAC # Cool
1	Attic	6	561 8 ft²	Attic	140 45 ft²		Default Leakage	Main	(Default)	(Default)			1	1

TEMPERATURES

Programable Thermostat Y Ceiling Fans N

	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

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	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

Building Input Summary Report

APPLIANCES & LIGHTING

Appliance Schedule HERS 2006 Reference Schedule Type		Hours 1	2	3	4	5	6	7	8	9	10	11	12
Ceiling Fans (Summer)	AM	0 65	0 65	0 65	0 65	0 65	0 65	0 65	0 33	0 33	0 33	0 33	0 33
% Released 100	PM	0 33	0 33	0 33	0 33	0 33	1	0 9	0 9	0 9	0 9	0 9	0 65
Annual Use 0 kWh/Yr		Peak Value 0 Watts											
Clothes Washer	AM	0 105	0 081	0 046	0 046	0 081	0 128	0 256	0 57	0 849	1	0 977	0 872
% Released 60	PM	0 779	0 698	0 605	0 57	0 581	0 57	0 57	0 57	0 57	0 488	0 43	0.198
Annual Use 0 kWh/Yr		Peak Value 0 Watts											
Dishwasher	AM	0 139	0 05	0 028	0 024	0 029	0 09	0 169	0 303	0 541	0 594	0 502	0 443
% Released 60	PM	0 377	0 396	0 335	0 323	0 344	0 448	0 791	1	0 8	0 597	0 383	0 281
Annual Use 0 kWh/Yr		Peak Value 0 Watts											
Dryer	AM	0 2	0 1	0 05	0 05	0 05	0 075	0 2	0 375	0 5	0 8	0 95	1
% Released 10	PM	0 875	0 85	0 8	0 625	0 625	0 6	0 575	0 55	0 625	0 7	0 65	0 375
Annual Use 0 kWh/Yr		Peak Value 0 Watts											
Lighting	AM	0 16	0 15	0 16	0 18	0 23	0 45	0 4	0 26	0 19	0 16	0 12	0 11
% Released 90	PM	0 16	0 17	0 25	0 27	0 34	0 55	0 55	0 88	1	0 86	0 51	0 28
Annual Use 2702 kWh/Yr		Peak Value 882 Watts											
Miscellaneous	AM	0 48	0 47	0 47	0 47	0 47	0 47	0 64	0 71	0 67	0 61	0 55	0 53
% Released 90	PM	0 52	0 5	0 5	0 5	0 59	0 73	0 79	0 99	1	0 96	0 77	0 55
Annual Use 4933 kWh/Yr		Peak Value 905 Watts											
Pool Pump	AM	0	0	0	0	0	0	0	0	0	1	1	1
% Released 0	PM	1	1	1	1	0	0	0	0	0	0	0	0
Annual Use 0 kWh/Yr		Peak Value 0 Watts											
Range	AM	0 057	0 057	0 057	0 057	0 057	0 114	0 171	0 286	0 343	0 343	0 343	0 4
% Released 100	PM	0.457	0 343	0 286	0 4	0 571	1	0 857	0 429	0 286	0 229	0 171	0 114
Annual Use 0 kWh/Yr		Peak Value 0 Watts											
Refrigeration	AM	0 85	0 78	0 75	0 73	0 73	0 73	0 75	0 75	0 8	0 8	0 8	0 8
% Released 100	PM	0 88	0 85	0 85	0 83	0 88	0 95	1	0 98	0 95	0 93	0 9	0 85
Annual Use 775 kWh/Yr		Peak Value 106 Watts											
Well Pump	AM	0 05	0 05	0 05	0 05	0 05	0 05	0 1	0 1	0 1	0 1	0 1	0 1
% Released 0	PM	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Annual Use 0 kWh/Yr		Peak Value 0 Watts											

MECHANICAL VENTILATION

Type	Supply CFM	Exhaust CFM	HRV	Fan	Run Time	Heating System	Cooling System
None	0	0	0	0W	0%	1 - Electric Heat Pump	1 - Central Unit

BLOCKS

Number	Name	Area	Volume	
1	Block1	2809	25281	25281

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated
1	Main	2809	25281	Yes	6	3	Yes	Yes	Yes

TABLE 402.4.2

AIR BARRIER AND INSULATION INSPECTION COMPONENT CRITERIA

Project Name.	Becker Residence	Builder Name	Premier Builders
Street		Permit Office·	Columbia County
City, State, Zip	Lake City , FL , 32024-	Permit Number·	
Owner·	Joel & Ashley Becker	Jurisdiction.	
Design Location	FL, Gainesville		

COMPONENT	CRITERIA	CHECK
Air barrier and thermal barrier	Exterior thermal envelope insulation for framed walls is installed in substantial contact and continuous alignment with building envelope air barrier Breaks or joints in the air barrier are filled or repaired. Air-permeable insulation is not used as a sealing material. Air-permeable insulation is inside of an air barrier.	
Ceiling/attic	Air barrier in any dropped ceiling/soffit is substantially aligned with insulation and any gaps are sealed. Attic access (except unvented attic), knee wall door, or drop down stair is sealed.	
Walls	Corners and headers are insulated. Junction of foundation and sill plate is sealed	
Windows and doors	Space between window/door jambs and framing is sealed.	
Rim joists	Rim joists are insulated and include an air barrier	
Floors (including above-garage and cantilevered floors)	Insulation is installed to maintain permanent contact with underside of subfloor decking. Air barrier is installed at any exposed edge of insulation	
Crawl space walls	Insulation is permanently attached to walls Exposed earth in unvented crawl spaces is covered with Class I vapor retarder with overlapping joints taped.	
Shafts, penetrations	Duct shafts, utility penetrations, knee walls and flue shafts opening to exterior or unconditioned space are sealed.	
Narrow cavities	Batts in narrow cavities are cut to fit, or narrow cavities are filled by sprayed/blown insulation.	
Garage separation	Air sealing is provided between the garage and conditioned spaces	
Recessed lighting	Recessed light fixtures are air tight, IC rated, and sealed to drywall. Exception—fixtures in conditioned space.	
Plumbing and wiring	Insulation is placed between outside and pipes Batt insulation is cut to fit around wiring and plumbing, or sprayed/blown insulation extends behind piping and wiring.	
Shower/tub on exterior wall	Showers and tubs on exterior walls have insulation and an air barrier separating them from the exterior wall.	
Electrical/phone box on	Air barrier extends behind boxes or air sealed-type boxes are installed.	
Common wall	Air barrier is installed in common wall between dwelling units	
HVAC register boots	HVAC register boots that penetrate building envelope are sealed to subfloor or drywall.	
Fireplace	Fireplace walls include an air barrier.	

WORST CASE ROTATION
BUILDING ENERGY SUMMARY

Joel & Ashley Becker

Lake City, FL, 32024-

Registration #.

Title. Becker Residence

User

TMY City. FL_GAINESVILLE_REGI

Elec Util: Florida Average

Gas Util· Florida Average

Run Date. 12/05/2013 16·35·22

	---- Cooling ----			---- Heating ----				HERS	
Rotation	Energy Use	Fan Energy	Cost	Energy Use	Fan/Pump	Cost	Total Energy	Index	e-Ratio
0	2439 kWh	463 kWh	$262	775 kWh	109 kWh	$80	12 921 MBtu		0 6484
45	2447 kWh	464 kWh	$262	751 kWh	105 kWh	$77	12.857 MBtu		0 6467
90	2372 kWh	449 kWh	$253	695 kWh	97 kWh	$72	12.331 MBtu		0 6269
135	2466 kWh	468 kWh	$264	741 kWh	103 kWh	$76	12.894 MBtu		0 6486
180	2455 kWh	467 kWh	$263	753 kWh	105 kWh	$77	12.901 MBtu		0 6484
225	2430 kWh	462 kWh	$261	813 kWh	114 kWh	$83	13 035 MBtu		0 6518
270	2342 kWh	444 kWh	$251	801 kWh	113 kWh	$82	12.628 MBtu		0 6353
315	2432 kWh	462 kWh	$261	832 kWh	117 kWh	$86	13.116 MBtu		0 6544

These results represent the most recent analysis when worst case was checked For ratings where default appliance values were not used, the energy values will represent the building used for the HERS Score and not the entered building. Select Reports|Annual Simulation to view energy use from the current building

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Envelope Leakage Test Report

Project Name	Becker Residence	Builder Name	Premier Builders
Street		Permit Office	Columbia County
City, State, Zip	Lake City , FL , 32024-	Permit Number	
Owner	Joel & Ashley Becker	Jurisdiction	
Design Location	FL, Gainesville		

Envelope Leakage Test Results

Regression Data

C _____ n _____ R² _____

Multi Point Test Data

	HOUSE PRESSURE	FLOW:
1	Pa	cfm
1	Pa	cfm
1	Pa	cfm
1	Pa	cfm
1	Pa	cfm
1	Pa	cfm

Leakage Characteristics

CFM(50): _____

ELA: _____

EqLA: _____

ACH _____

ACH(50): _____

SLA. _____

402.4.2.1 Testing option. Building envelope tightness and insulation installation shall be considered acceptable when tested air leakage is less than seven air changes per hour (ACH) when tested with a blower door at a pressure of 50 pascals (1 psf) Testing shall occur after rough in and after installation of penetrations of the building envelope, including penetrations for utilities, plumbing, electrical, ventilation and combustion appliances

During testing:

1 Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed,

2 Dampers shall be closed, but not sealed, including exhaust, intake, makeup air, backdraft and flue dampers,

3 Interior doors shall be open,

4 Exterior openings for continuous ventilation systems and heat recovery ventilators shall be closed and sealed,

5 Heating and cooling system(s) shall be turned off;

6 HVAC ducts shall not be sealed, and

7 Supply and return registers shall not be sealed

I hereby certify that the above envelope leakage performance results demonstrate compliance with Florida Energy Code requirements in accordance with Section Table B-1.1.2.

Signature: _____

Printed Name: _____

Florida Rater Certification #: _____

DATE: _____

Florida Building Code requires testing to confirm envelope leakage be performed by a Class 1 Florida Energy Gauge Certified Energy Rater Certified Florida Class 1 raters can be found at: http://energygauge.com/search.htm

BUILDING OFFICIAL: _____

DATE: _____

Project Summary
Entire House
Cook's Heat & Air Conditioning, Inc.

Job:
Date: 12/02/2013
By: Joel Becker

1955 SW Main Blvd, Lake City, FL 32025 Phone (866) 266-5709 Fax: (305) 489-2458 Email support@cooksair.com Web www.cooksair.com License· CAC1813212

Project Information

For: Joel & Ashley Becker
337 SW Rose Creek Dr, Lake City, FL 32024
Phone: (386) 623-3806
Email: joel@cooksair.com
Notes: Front door faces west

Design Information

Weather: Gainesville, FL, US

Winter Design Conditions

Outside db	30 °F
Inside db	70 °F
Design TD	40 °F

Summer Design Conditions

Outside db	92 °F
Inside db	75 °F
Design TD	17 °F
Daily range	M
Relative humidity	50 %
Moisture difference	52 gr/lb

Heating Summary

Structure	42466 Btuh
Ducts	0 Btuh
Central vent (0 cfm)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	42466 Btuh

Sensible Cooling Equipment Load Sizing

Structure	37597 Btuh
Ducts	0 Btuh
Central vent (0 cfm)	0 Btuh
Blower	0 Btuh
Use manufacturer's data	n
Rate/swing multiplier	0.97
Equipment sensible load	36469 Btuh

Infiltration

Method	Simplified
Construction quality	Tight
Fireplaces	1 (Tight)

	Heating	Cooling
Area (ft²)	2809	2809
Volume (ft³)	30703	30703
Air changes/hour	0.11	0 06
Equiv. AVF (cfm)	56	31

Latent Cooling Equipment Load Sizing

Structure	2279 Btuh
Ducts	0 Btuh
Central vent (0 cfm)	0 Btuh
Equipment latent load	2279 Btuh
Equipment total load	38749 Btuh
Req. total capacity at 0.70 SHR	4.3 ton

Heating Equipment Summary

Make	n/a
Trade	n/a
Model	n/a
AHRI ref.	n/a
Efficiency	n/a
Heating input	
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	n/a

Cooling Equipment Summary

Make	n/a
Trade	n/a
Cond	n/a
Coil	n/a
AHRI ref.	n/a
Efficiency	n/a
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0

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