FORM R405-2017

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	Buddy & Mary Slay	Builder Name:	
Street:		Permit Office:	
City, State, Zip:	Lake City , FL , 32055	Permit Number:	
Owner:		Jurisdiction:	
Design Location:	FL, Gainesville	County:	columbia (Florida Climate Zone 2)

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	6
5. Is this a worst case?	No
6. Conditioned floor area above grade (ft²)	4976
Conditioned floor area below grade (ft²)	0

7. Windows(764.6 sqft.)	Description	Area
a. U-Factor:	Dbl, U=0.33	764.58 ft²
SHGC:	SHGC=0.22	
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:		11.240 ft.
Area Weighted Average SHGC:		0.220

8. Floor Types (4976.0 sqft.)	Insulation	Area
a. Slab-On-Grade Edge Insulation	R=0.0	3597.00 ft²
b. Floor Over Other Space	R=0.0	1379.00 ft²
c. N/A	R=	ft²

9. Wall Types (5546.7 sqft.)	Insulation	Area
a. Concrete Block - Int Insul, Exterior	R=13.0	3013.30 ft²
b. Frame - Wood, Exterior	R=13.0	1990.00 ft²
c. Frame - Wood, Adjacent	R=13.0	543.33 ft²
d. N/A	R=	ft²

10. Ceiling Types (4976.0 sqft.)	Insulation	Area
a. Roof Deck (Unvented)	R=40.0	4976.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

11. Ducts	R	ft²
a. Sup: Main, Ret: Main, AH: Garage	6	497.6
b. Sup: 2nd Floor, Ret: 2nd Floor, AH: 2nd Floor	6	497.6

12. Cooling systems	kBtu/hr	Efficiency
a. Central Unit	60.0	SEER:16.00
b. Central Unit	30.0	SEER:16.00

13. Heating systems	kBtu/hr	Efficiency
a. Electric Heat Pump	60.0	HSPF:8.50
b. Electric Heat Pump	30.0	HSPF:8.50

14. Hot water systems

a. EF: -7.97146E012

b. Conservation features

15. Credits CF, Pstat

COLUMBIA COUNTY BUILDING DEPARTMENT
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Code Compliance
PLANS EXAMINER

Glass/Floor Area: 0.154

Total Proposed Modified Loads: 100.46

Total Baseline Loads: 151.57

PASS

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

PREPARED BY: _____

DATE: 8-12-20

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 certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with R403.3.2.1.

- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires an envelope leakage test report with envelope leakage no greater than 4.72 ACH50 (R402.4.1.2).

- Compliance with a proposed duct leakage Qn requires a Duct Leakage Test Report confirming duct leakage to outdoors, tested in accordance with ANSI/RESNET/ICC 380, is not greater than 0.000 Qn for whole house.

FORM R405-2017

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	Buddy & Mary Slay	Bedrooms:	6	Address Type:	Street Address
Building Type:	User	Conditioned Area:	2236	Lot #	
Owner Name:		Total Stories:	2	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:	Lake City , FL , 32055
Family Type:	Single-family				
New/Existing:	New (From Plans)				
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_REGI	32	92	70	75	1305.5	51	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	3597	35970
2	Block2	1379	13790

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	3597	35970	Yes	8	4	1	Yes	Yes	Yes
2	2nd Floor	1379	13790	No	4	2	1	Yes	Yes	Yes

FLOORS

√	#	Floor Type	Space	Perimeter	Perimeter R-Value	Area	Joist R-Value	Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	Main	339 ft	0	3597 ft²	----	0.5	0.5	0
_____	2	Floor Over Other Space	2nd Floor	----	----	1379 ft²	0	0.25	0	0.75

ROOF

√	#	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Hip	Barrel tile	4023 ft²	0 ft²	Medium	N	0.75	No	0.9	No	40	26.6

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	No attic	Unvented	0	3597 ft²	N	N

INPUT SUMMARY CHECKLIST REPORT

CEILING

√	#	Ceiling Type	Space	R-Value	Ins Type	Area	Framing Frac	Truss Type
____	1	Under Attic (Unvented)	Main	30	Blown	3597 ft²	0.11	Wood
____	2	Under Attic (Unvented)	2nd Floor	30	Blown	1379 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	Concrete Block - Int Insul	Main	13	54	8	10		546.7 ft²		0	0.75	0
____ 2	E	Exterior	Concrete Block - Int Insul	Main	13	7	4	10		73.3 ft²		0	0.75	0
____ 3	S	Exterior	Concrete Block - Int Insul	Main	13	5		10		50.0 ft²		0	0.75	0
____ 4	E	Exterior	Concrete Block - Int Insul	Main	13	1	4	10		13.3 ft²		0	0.75	0
____ 5	S	Exterior	Concrete Block - Int Insul	Main	13	7	4	12		88.0 ft²		0	0.75	0
____ 6	E	Exterior	Concrete Block - Int Insul	Main	13	7	4	12		88.0 ft²		0	0.75	0
____ 7	N	Exterior	Concrete Block - Int Insul	Main	13	7	4	12		88.0 ft²		0	0.75	0
____ 8	E	Exterior	Concrete Block - Int Insul	Main	13	8	8	12		104.0 ft²		0	0.75	0
____ 9	N	Exterior	Concrete Block - Int Insul	Main	13	9		10		90.0 ft²		0	0.75	0
____ 10	E	Exterior	Concrete Block - Int Insul	Main	13	2		10		20.0 ft²		0	0.75	0
____ 11	E	Exterior	Concrete Block - Int Insul	Main	13	2		10		20.0 ft²		0	0.75	0
____ 12	S	Exterior	Concrete Block - Int Insul	Main	13	52	8	10		526.7 ft²		0	0.75	0
____ 13	N	Exterior	Concrete Block - Int Insul	Main	13	2		10		20.0 ft²		0	0.75	0
____ 14	S	Exterior	Concrete Block - Int Insul	Main	13	21	4	10		213.3 ft²		0	0.75	0
____ 15	W	Exterior	Concrete Block - Int Insul	Main	13	15	8	10		156.7 ft²		0	0.75	0
____ 16	N	Exterior	Concrete Block - Int Insul	Main	13	9	4	10		93.3 ft²		0	0.75	0
____ 17	W	Exterior	Concrete Block - Int Insul	Main	13	14		12		168.0 ft²		0	0.75	0
____ 18	N	Exterior	Concrete Block - Int Insul	Main	13	12	8	12		152.0 ft²		0	0.75	0
____ 19	W	Exterior	Concrete Block - Int Insul	Main	13	16	10	12		202.0 ft²		0	0.75	0
____ 20	S	Exterior	Concrete Block - Int Insul	Main	13	13	6	10		135.0 ft²		0	0.75	0
____ 21	W	Exterior	Concrete Block - Int Insul	Main	13	16	6	10		165.0 ft²		0	0.75	0
____ 22	E	Garage	Frame - Wood	Main	13	30	8	10		306.7 ft²		0.23	0.75	0
____ 23	N	Garage	Frame - Wood	Main	13	23	8	10		236.7 ft²		0.23	0.75	0
____ 24	N	Exterior	Frame - Wood	2nd Floor	13	29	2	10		291.7 ft²		0.23	0.75	0
____ 25	E	Exterior	Frame - Wood	2nd Floor	13	6	4	10		63.3 ft²		0.23	0.75	0
____ 26	N	Exterior	Frame - Wood	2nd Floor	13	2		10		20.0 ft²		0.23	0.75	0
____ 27	E	Exterior	Frame - Wood	2nd Floor	13	7		10		70.0 ft²		0.23	0.75	0
____ 28	N	Exterior	Frame - Wood	2nd Floor	13	25	4	10		253.3 ft²		0.23	0.75	0
____ 29	E	Exterior	Frame - Wood	2nd Floor	13	9	4	10		93.3 ft²		0.23	0.75	0
____ 30	S	Exterior	Frame - Wood	2nd Floor	13	7	4	10		73.3 ft²		0.23	0.75	0
____ 31	E	Exterior	Frame - Wood	2nd Floor	13	7	4	10		73.3 ft²		0.23	0.75	0
____ 32	E	Exterior	Frame - Wood	2nd Floor	13	9	4	10		93.3 ft²		0.23	0.75	0
____ 33	S	Exterior	Frame - Wood	2nd Floor	13	15	6	10		155.0 ft²		0.23	0.75	0
____ 34	W	Exterior	Frame - Wood	2nd Floor	13	4		10		40.0 ft²		0.23	0.75	0
____ 35	S	Exterior	Frame - Wood	2nd Floor	13	32	10	10		328.3 ft²		0.23	0.75	0
____ 36	W	Exterior	Frame - Wood	2nd Floor	13	18	10	10		188.3 ft²		0.23	0.75	0
____ 37	S	Exterior	Frame - Wood	2nd Floor	13	8	2	10		81.7 ft²		0.23	0.75	0
____ 38	W	Exterior	Frame - Wood	2nd Floor	13	16	6	10		165.0 ft²		0.23	0.75	0

INPUT SUMMARY CHECKLIST REPORT

DOORS

√	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
_____	1	E	Insulated	Main	None	.4	6		8		48 ft²
_____	2	S	Insulated	Main	None	.4	5		8		40 ft²
_____	3	W	Insulated	Main	None	.4	5		8		40 ft²
_____	4	E	Insulated	Main	None	.4	3		8		24 ft²
_____	5	N	Insulated	Main	None	.4	3		8		24 ft²
_____	6	S	Insulated	2nd Floor	None	.4	3		8		24 ft²

WINDOWS

Orientation shown is the entered, Proposed orientation.

√	#	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Imp	Area	Overhang Depth	Overhang Separation	Int Shade	Screening
_____	1	N	1	Vinyl	Low-E Double	Yes	0.33	0.22	N	56.0 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	2	N	1	Vinyl	Low-E Double	Yes	0.33	0.22	N	6.9 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	3	E	2	Vinyl	Low-E Double	Yes	0.33	0.22	N	9.0 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	4	E	6	Vinyl	Low-E Double	Yes	0.33	0.22	N	12.0 ft²	14 ft 6 in	1 ft 4 in	None	None
_____	5	E	8	Vinyl	Low-E Double	Yes	0.33	0.22	N	25.0 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	6	E	8	Vinyl	Low-E Double	Yes	0.33	0.22	N	10.0 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	7	N	9	Vinyl	Low-E Double	Yes	0.33	0.22	N	9.0 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	8	N	9	Vinyl	Low-E Double	Yes	0.33	0.22	N	4.3 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	9	S	12	Vinyl	Low-E Double	Yes	0.33	0.22	N	6.7 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	10	S	12	Vinyl	Low-E Double	Yes	0.33	0.22	N	28.0 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	11	S	12	Vinyl	Low-E Double	Yes	0.33	0.22	N	12.7 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	12	S	12	Vinyl	Low-E Double	Yes	0.33	0.22	N	16.6 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	13	S	12	Vinyl	Low-E Double	Yes	0.33	0.22	N	6.9 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	14	S	12	Vinyl	Low-E Double	Yes	0.33	0.22	N	5.3 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	15	W	15	Vinyl	Low-E Double	Yes	0.33	0.22	N	72.0 ft²	7 ft 6 in	1 ft 4 in	None	None
_____	16	W	17	Vinyl	Low-E Double	Yes	0.33	0.22	N	72.0 ft²	20 ft 6 in	1 ft 4 in	None	None
_____	17	N	18	Vinyl	Low-E Double	Yes	0.33	0.22	N	72.0 ft²	20 ft 6 in	1 ft 4 in	None	None
_____	18	W	19	Vinyl	Low-E Double	Yes	0.33	0.22	N	128.0 ft²	20 ft 6 in	1 ft 4 in	None	None
_____	19	N	24	Vinyl	Low-E Double	Yes	0.33	0.22	N	6.9 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	20	E	25	Vinyl	Low-E Double	Yes	0.33	0.22	N	6.9 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	21	N	28	Vinyl	Low-E Double	Yes	0.33	0.22	N	16.0 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	22	E	29	Vinyl	Low-E Double	Yes	0.33	0.22	N	13.9 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	23	E	31	Vinyl	Low-E Double	Yes	0.33	0.22	N	26.7 ft²	14 ft 6 in	1 ft 4 in	None	None
_____	24	S	33	Vinyl	Low-E Double	Yes	0.33	0.22	N	13.9 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	25	S	33	Vinyl	Low-E Double	Yes	0.33	0.22	N	4.0 ft²	1 ft 6 in	1 ft 4 in	None	None
_____	26	W	36	Vinyl	Low-E Double	Yes	0.33	0.22	N	96.0 ft²	15 ft 6 in	1 ft 4 in	None	None
_____	27	W	38	Vinyl	Low-E Double	Yes	0.33	0.22	N	28.0 ft²	1 ft 6 in	1 ft 4 in	None	None

FORM R405-2017

INPUT SUMMARY CHECKLIST REPORT

GARAGE

√	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
_____	1	540.5717778 ft²	540.5717778 ft²	70 ft	10 ft	13

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Proposed ACH(50)	.0003	3915.6	214.96	404.27	.1628	4.7214

HEATING SYSTEM

√	#	System Type	Subtype	Speed	Efficiency	Capacity	Block	Ducts
_____	1	Electric Heat Pump/	None	Singl	HSPF:8.5	60 kBtu/hr	1	sys#1
_____	2	Electric Heat Pump/	None	Singl	HSPF:8.5	30 kBtu/hr	2	sys#2

COOLING SYSTEM

√	#	System Type	Subtype	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
_____	1	Central Unit/	None	Singl	SEER: 16	60 kBtu/hr	1800 cfm	0.85	1	sys#1
_____	2	Central Unit/	None	Singl	SEER: 16	30 kBtu/hr	900 cfm	0.85	2	sys#2

SOLAR HOT WATER SYSTEM

√	FSEC Cert #	Company Name	System Model #	Collector Model #	Collector Area	Storage Volume	FEF
_____					ft²		

DUCTS

√	#	---- Supply ---- Location	R-Value	Area	---- Return ---- Location	Area	Leakage Type	Air Handler	CFM 25 TOT	CFM25 OUT	QN	RLF	HVAC # Heat	Cool
_____	1	Main	6	497.6 ft	Main	124.4 ft	Default Leakage	Garage	(Default)	(Default)			1	1
_____	2	2nd Floor	6	497.6 ft	2nd Floor	124.4 ft	Default Leakage	2nd Floor	(Default)	(Default)			2	2

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]	[ ]