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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:	2249 Little Rd House	Builder Name:	N/A
Street:	2249 SW Little Road	Permit Office:	Columbia County
City, State, Zip:	Lake City , FL , 32024-	Permit Number:	
Owner:		Jurisdiction:	
Design Location:	FL, Gainesville		

1. New construction or existing	Existing (Projecte	9. Wall Types (2176.0 sqft.)	Insulation	Area
2. Single family or multiple family	Single-family	a. Face Brick - Wood, Exterior	R=13.0	2176.00 ft²
3. Number of units, if multiple family	1	b. N/A	R=	ft²
4. Number of Bedrooms	2	c. N/A	R=	ft²
5. Is this a worst case?	No	d. N/A	R=	ft²
6. Conditioned floor area above grade (ft²)	2533	10. Ceiling Types (2786.0 sqft.)	Insulation	Area
Conditioned floor area below grade (ft²)	0	a. Under Attic (Vented)	R=30.0	2786.00 ft²
		b. N/A	R=	ft²
		c. N/A	R=	ft²
		11. Ducts	R	ft²
		a. Sup: Attic, Ret: Attic, AH: RoomsInBlock1	6	728.25

7. Windows(258.3 sqft.)	Description	Area	12. Cooling systems	kBtu/hr	Efficiency
a. U-Factor:	Dbl, U=0.30	258.30 ft²	a. Central Unit	51.2	SEER:15.00
SHGC:	SHGC=0.50				
b. U-Factor:	N/A	ft²	13. Heating systems	kBtu/hr	Efficiency
SHGC:			a. Electric Heat Pump	51.2	HSPF:7.70
c. U-Factor:	N/A	ft²			
SHGC:			14. Hot water systems		
d. U-Factor:	N/A	ft²	a. Electric		Cap: 80 gallons
SHGC:					EF: 0.920
Area Weighted Average Overhang Depth:		1.871 ft.	b. Conservation features		
Area Weighted Average SHGC:		0.500	None		
8. Floor Types (2533.0 sqft.)	Insulation	Area	15. Credits		Pstat
a. Slab-On-Grade Edge Insulation	R=5.0	2533.00 ft²			
b. N/A	R=	ft²			
c. N/A	R=	ft²			

Glass/Floor Area: 0.102

Total Proposed Modified Loads: 37.71
Total Standard Reference Loads: 48.13

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.

BUILDING OFFICIAL: _____
DATE: _____

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

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

PROJECT

Title:	2249 Little Rd House	Bedrooms:	2	Address Type:	
Building Type:	FLProp2010	Conditioned Area:	2533	Lot #	
Owner:		Total Stories:	1	Block/SubDivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	N/A	Rotate Angle:	0	Street:	2249 SW Little Road
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:	Existing (Projected)				
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	2533	20264

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	RoomsInBlock1	2533	20264	Yes	2	2	1	Yes	Yes	Yes

FLOORS

√	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
	1	Slab-On-Grade Edge Insulatio	RoomsInBlock1	272 ft	5	2533 ft²	----	0	0	1

ROOF

√	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
	1	Gable or shed	Barrel tile	2669 ft²	422 ft²	Dark	0.96	No	0.9	No	0	18.4

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
	1	Full attic	Vented	303	2533 ft²	N	N

CEILING

√	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type
	1	Under Attic (Vented)	RoomsInBlock1	30	2786 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	W	Exterior	Face Brick - Wood	RoomsInBloc	13	272		8		2176 ft²	0	0.23	0.75	0

DOORS

√	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
	1	W	Insulated	RoomsInBloc	None	0.460000	3		6	8	20 ft²
	2	W	Insulated	RoomsInBloc	None	0.460000	3		6	8	20 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	W	1	Metal	Double (Clear)	Yes	0.3	0.5	N	105 ft²	1 ft 0 in	1.5 ft 0 in	HERS 2006	None
	2	W	1	Metal	Double (Clear)	Yes	0.3	0.5	N	30 ft²	1 ft 0 in	9 ft 6 in	HERS 2006	None
	3	W	1	Metal	Double (Clear)	Yes	0.3	0.5	N	30 ft²	6 ft 0 in	1.5 ft 0 in	HERS 2006	None
	4	W	1	Metal	Double (Clear)	Yes	0.3	0.5	N	15 ft²	6 ft 0 in	1 ft 0 in	HERS 2006	None
	5	W	1	Metal	Double (Clear)	Yes	0.3	0.5	N	9 ft²	1 ft 0 in	1.5 ft 0 in	HERS 2006	None
	6	W	1	Metal	Double (Clear)	Yes	0.3	0.5	N	6.67 ft²	1 ft 0 in	1.5 ft 0 in	HERS 2006	None
	7	W	1	Metal	Double (Clear)	Yes	0.3	0.5	N	40 ft²	1 ft 0 in	1.5 ft 0 in	HERS 2006	None
	8	W	1	Metal	Double (Clear)	Yes	0.3	0.5	N	10.13 ft²	1 ft 0 in	1.5 ft 0 in	HERS 2006	None
	9	W	1	Metal	Double (Clear)	Yes	0.3	0.5	N	12.5 ft²	1 ft 0 in	1.5 ft 0 in	HERS 2006	None

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	BySpaces	Proposed SLA	0.000360	2391.8	131.31	246.94	0.2771	7.0821

HEATING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
	1	Electric Heat Pump	None	HSPF: 7.7	51.2 kBtu/hr	1	sys#1

COOLING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
	1	Central Unit	None	SEER: 15	51.2 kBtu/hr	1536 cfm	0.75	1	sys#1

HOT WATER SYSTEM

√	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
	1	Electric	None	RoomsInBlock	0.92	80 gal	50 gal	120 deg	None

SOLAR HOT WATER SYSTEM

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

DUCTS

√	#	---- Supply ---- Location	R-Value	Area	---- Return ---- Location	Area	Leakage Type	Air Handler	CFM 25	Percent Leakage	QN	RLF	HVAC # Heat	HVAC # Cool
____	1	Attic	6	728.25	Attic	145.65	DSE=0.88	RoomsInBl	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	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	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: 2249 SW Little Road
Lake City, FL, 32024-

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.	
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.	

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 78

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

2249 SW Little Road, Lake City, FL, 32024-

1. New construction or existing		Existing (Projecte	
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 (ft²)		2533	
7. Windows**	Description		Area
a. U-Factor: SHGC:	Dbl, U=0.30 SHGC=0.50		258.30 ft²
b. U-Factor: SHGC:	N/A		ft²
c. U-Factor: SHGC:	N/A		ft²
d. U-Factor: SHGC:	N/A		ft²
Area Weighted Average Overhang Depth:			1.871 ft.
Area Weighted Average SHGC:			0.500
8. Floor Types		Insulation	Area
a. Slab-On-Grade Edge Insulation		R=5.0	2533.00 ft²
b. N/A		R=	ft²
c. N/A		R=	ft²

9. Wall Types	Insulation	Area
a. Face Brick - Wood, Exterior	R=13.0	2176.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
d. N/A	R=	ft²
10. Ceiling Types	Insulation	Area
a. Under Attic (Vented)	R=30.0	2786.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²
11. Ducts		R ft²
a. Sup: Attic, Ret: Attic, AH: RoomsInBlock1		6 728.25
12. Cooling systems	kBtu/hr	Efficiency
a. Central Unit	51.2	SEER:15.00
13. Heating systems	kBtu/hr	Efficiency
a. Electric Heat Pump	51.2	HSPF:7.70
14. Hot water systems		
a. Electric		Cap: 80 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: _____ Date: _____

Address of New Home: _____ City/FL Zip: _____

*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.

Residential System Sizing Calculation

Summary

Project Title:
2249 Little Rd House

2249 SW Little Road
Lake City, FL 32024-

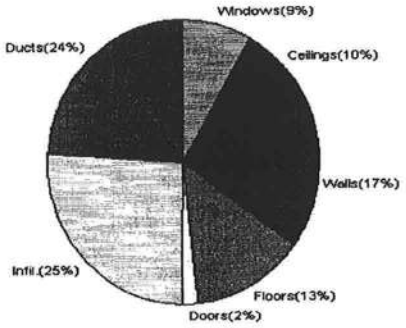
6/1/2012

Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(152 ft.) Temp Range(M)					
Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(54gr.)					
Winter design temperature(MJ8 99%)	33	F	Summer design temperature(MJ8 99%)	92	F
Winter setpoint	70	F	Summer setpoint	75	F
Winter temperature difference	37	F	Summer temperature difference	17	F
Total heating load calculation	**33263**	**Btuh**	**Total cooling load calculation**	**46567**	**Btuh**
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	153.9	51200	Sensible (SHR = 0.75)	102.4	38400
Heat Pump + Auxiliary(0.0kW)	153.9	51200	Latent	141.4	12800
			Total (Electric Heat Pump)	110.0	51200

WINTER CALCULATIONS

Winter Heating Load (for 2533 sqft)

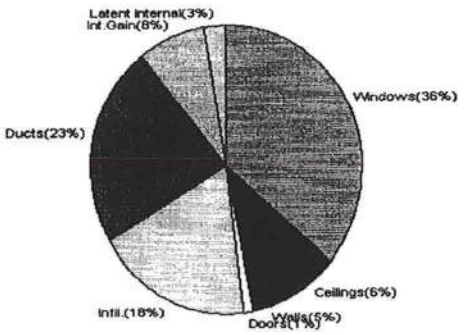
Load component			Load	
Window total	258	sqft	2867	Btuh
Wall total	1878	sqft	5541	Btuh
Door total	40	sqft	681	Btuh
Ceiling total	2786	sqft	3283	Btuh
Floor total	2533	sqft	4448	Btuh
Infiltration	208	cfm	8427	Btuh
Duct loss			8016	Btuh
Subtotal			**33263**	**Btuh**
Ventilation	0	cfm	0	Btuh
TOTAL HEAT LOSS			**33263**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 2533 sqft)

Load component			Load	
Window total	258	sqft	16869	Btuh
Wall total	1878	sqft	2096	Btuh
Door total	40	sqft	515	Btuh
Ceiling total	2786	sqft	2839	Btuh
Floor total			0	Btuh
Infiltration	156	cfm	2904	Btuh
Internal gain			3780	Btuh
Duct gain			8510	Btuh
Sens. Ventilation	0	cfm	0	Btuh
Blower Load			0	Btuh
Total sensible gain			**37514**	**Btuh**
Latent gain(ducts)			2150	Btuh
Latent gain(infiltration)			5702	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/other)			1200	Btuh
Total latent gain			**9053**	**Btuh**
TOTAL HEAT GAIN			**46567**	**Btuh**



Powered by MANUAL J 8th Edition

EnergyGauge® System Sizing
PREPARED BY: _____
DATE: 6/2/12

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

2249 SW Little Road
Lake City, FL 32024-

Project Title:
2249 Little Rd House
Building Type: User

6/1/2012

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 37.0 F (MJ8 99%)

Component Loads for Whole House

Window	Panes/Type	Frame	U	Orientation	Area(sqft) X	HTM=	Load
1	2, NFRC 0.50	Metal	0.30	W	105.0	11.1	1166 Btuh
2	2, NFRC 0.50	Metal	0.30	W	30.0	11.1	333 Btuh
3	2, NFRC 0.50	Metal	0.30	W	30.0	11.1	333 Btuh
4	2, NFRC 0.50	Metal	0.30	W	15.0	11.1	166 Btuh
5	2, NFRC 0.50	Metal	0.30	W	9.0	11.1	100 Btuh
6	2, NFRC 0.50	Metal	0.30	W	6.7	11.1	74 Btuh
7	2, NFRC 0.50	Metal	0.30	W	40.0	11.1	444 Btuh
8	2, NFRC 0.50	Metal	0.30	W	10.1	11.1	112 Btuh
9	2, NFRC 0.50	Metal	0.30	W	12.5	11.1	139 Btuh
	Window Total				258.3(sqft)		2867 Btuh

Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area X	HTM=	Load
1	Face Br - Wood	- Ext	(0.080)	13.0/0.0	1878	2.95	5541 Btuh
	Wall Total				1878(sqft)		5541 Btuh

Doors	Type	Storm	Ueff.	Area X	HTM=	Load
1	Insulated - Exterior,	n	(0.460)	20	17.0	340 Btuh
2	Insulated - Exterior,	n	(0.460)	20	17.0	340 Btuh
	Door Total			40(sqft)		681Btuh

Ceilings	Type/Color/Surface	Ueff.	R-Value	Area X	HTM=	Load
1	Vented Attic/D/Tile	(0.032)	30.0/0.0	2786	1.2	3283 Btuh
	Ceiling Total			2786(sqft)		3283Btuh

Floors	Type	Ueff.	R-Value	Size X	HTM=	Load
1	Slab On Grade	(0.442)	5.0	272.0 ft(perim.)	16.4	4448 Btuh
	Floor Total			2533 sqft		4448 Btuh

	Envelope Subtotal:	16820 Btuh

Infiltration	Type	Wholehouse	ACH	Volume(cuft)	Wall Ratio	CFM=	
	Natural		0.62	20264	1.00	208.0	8427 Btuh

Duct load	Average sealed, R6.0, Supply(Att), Return(Att) (DLM of 0.317)	8016 Btuh
All Zones	**Sensible Subtotal All Zones**	**33263 Btuh**

Manual J Winter Calculations

Residential Load - Component Details (continued)

2249 SW Little Road
Lake City, FL 32024-

Project Title:
2249 Little Rd House
Building Type: User

6/1/2012

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss Ventilation Sensible Heat Loss Total Heat Loss	33263 Btuh 0 Btuh 33263 Btuh

EQUIPMENT

1. Electric Heat Pump	#	51200 Btuh

Key: Window types - NFRC (Requires U-Factor and Shading coefficient(SHGC) of glass as numerical values)
or - Glass as 'Clear' or 'Tint' (Uses U-Factor and SHGC defaults)
U - (Window U-Factor)
HTM - (ManualJ Heat Transfer Multiplier)

Version 8

System Sizing Calculations - Summer

Residential Load - Whole House Component Details

Project Title:
2249 Little Rd House

2249 SW Little Road
Lake City, FL 32024-

6/1/2012

Reference City: Gainesville, FL Temperature Difference: 17.0F(MJ8 99%) Humidity difference: 54gr.

Component Loads for Whole House

	Type*					Overhang		Window Area(sqft)			HTM		Load
Window	Panes	SHGC	U	InSh	IS	Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded	
1	2 NFRC	0.50,	0.30	No	No	W	1.0ft	1.5ft	105.0	0.0	105.0	16	53	5597 Btuh
2	2 NFRC	0.50,	0.30	No	No	W	1.0ft	9.5ft	30.0	0.0	30.0	16	53	1599 Btuh
3	2 NFRC	0.50,	0.30	No	No	W	6.0ft	1.5ft	30.0	20.9	9.1	16	53	812 Btuh
4	2 NFRC	0.50,	0.30	No	No	W	6.0ft	1.0ft	15.0	11.9	3.1	16	53	350 Btuh
5	2 NFRC	0.50,	0.30	No	No	W	1.0ft	1.5ft	9.0	0.0	9.0	16	53	480 Btuh
6	2 NFRC	0.50,	0.30	No	No	W	1.0ft	1.5ft	6.7	0.0	6.7	16	53	355 Btuh
7	2 NFRC	0.50,	0.30	No	No	W	1.0ft	1.5ft	40.0	0.0	40.0	16	53	2132 Btuh
8	2 NFRC	0.50,	0.30	No	No	W	1.0ft	1.5ft	10.1	0.0	10.1	16	53	540 Btuh
9	2 NFRC	0.50,	0.30	No	No	W	1.0ft	1.5ft	12.5	0.0	12.5	16	53	666 Btuh
	Excursion													4338 Btuh
	Window Total								258 (sqft)					16869 Btuh

Walls	Type	U-Value	R-Value Cav/Sheath	Area(sqft)	HTM	Load
1	Face Brick - Wood - Ext	0.08	13.0/0.0	1877.7	1.1	2096 Btuh
	Wall Total			1878 (sqft)		2096 Btuh

Doors	Type	Area (sqft)	HTM	Load
1	Insulated - Exterior	20.0	12.9	258 Btuh
2	Insulated - Exterior	20.0	12.9	258 Btuh
	Door Total	40 (sqft)		515 Btuh

Ceilings	Type/Color/Surface	U-Value	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/DarkTile	0.032	30.0/0.0	2786.0	1.02	2839 Btuh
	Ceiling Total			2786 (sqft)		2839 Btuh

Floors	Type	R-Value	Size	HTM	Load
1	Slab On Grade	5.0	2533 (ft-perimeter)	0.0	0 Btuh
	Floor Total		2533.0 (sqft)		0 Btuh

	Envelope Subtotal:	22320 Btuh

Infiltration	Type	Average ACH	Volume(cuft)	Wall Ratio	CFM=	Load
	Natural(Adjusted for ventilation)	0.46	20264	1	156.0	2904 Btuh

Internal gain	Occupants		Btuh/occupant		Appliance	Load
	6	X	230	+	2400	3780 Btuh

	Sensible Envelope Load:	29004 Btuh
Duct load	Average sealed, Supply(R6.0-Attic), Return(R6.0-Attic) (DGM of 0.293)	8510 Btuh
	Sensible Load All Zones	**37514 Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

Project Title: 2249 Little Rd House
Climate:FL_GAINESVILLE_REGIONAL_A

2249 SW Little Road
Lake City, FL 32024-

6/1/2012

WHOLE HOUSE TOTALS

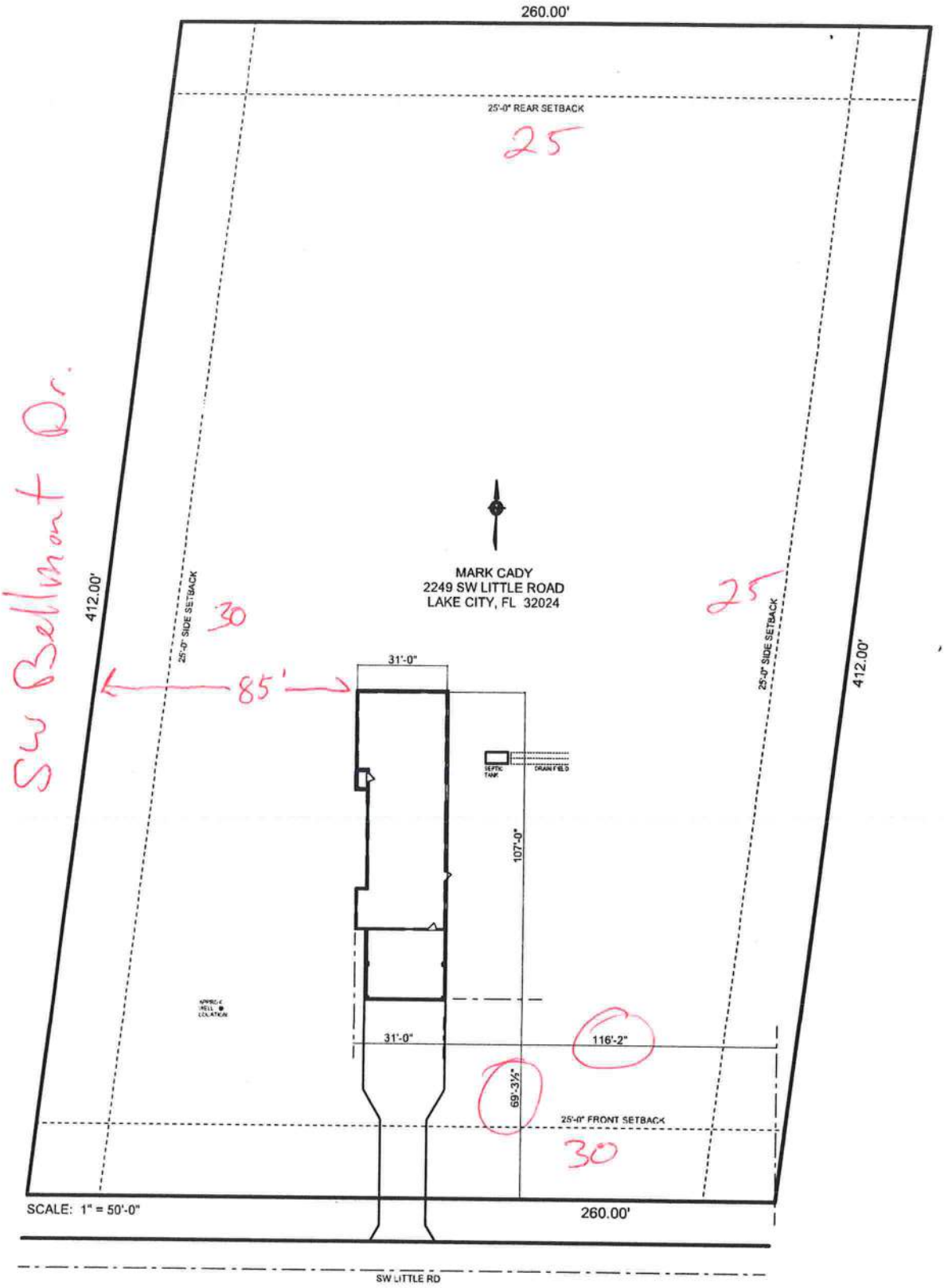
Whole House Totals for Cooling	**Sensible Envelope Load All Zones**	**29004 Btuh**
	Sensible Duct Load	8510 Btuh
	Total Sensible Zone Loads	**37514 Btuh**
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	**37514 Btuh**
	Latent infiltration gain (for 54 gr. humidity difference)	5702 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	2150 Btuh
	Latent occupant gain (6.0 people @ 200 Btuh per person)	1200 Btuh
	Latent other gain	0 Btuh
	Latent total gain	**9053 Btuh**
	TOTAL GAIN	**46567 Btuh**

EQUIPMENT

1. Central Unit	#	51200 Btuh

*Key: Window types (Panes - Number and type of panes of glass)
(SHGC - Shading coefficient of glass as SHGC numerical value)
(U - Window U-Factor)
(InSh - Interior shading device: none(No), Blinds(B), Draperies(D) or Roller Shades(R))
- For Blinds: Assume medium color, half closed
For Draperies: Assume medium weave, half closed
For Roller shades: Assume translucent, half closed
(IS - Insect screen: none(N), Full(F) or Half(½))
(Ornt - compass orientation)

Version 8



Sw Bellmont Dr.