

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: 1304097
 Street:
 City, State, Zip: , FL ,
 Owner: Miller Res
 Design Location: FL, Gainesville

Builder Name: Erkinger Construction Group
 Permit Office: COLUMBIA
 Permit Number:
 Jurisdiction: 221000

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?	Yes
6. Conditioned floor area above grade (ft ²)	1520
Conditioned floor area below grade (ft ²)	0
7. Windows (227.4 sqft.)	Description Area
a. U-Factor:	Dbl, U=0.35 227.44 ft ²
SHGC:	SHGC=0.35
b. U-Factor:	N/A ft ²
SHGC:	
c. U-Factor:	N/A ft ²
SHGC:	
d. U-Factor:	N/A ft ²
SHGC:	
Area Weighted Average Overhang Depth:	6.620 ft.
Area Weighted Average SHGC:	0.350
8. Floor Types (1520.0 sqft.)	Insulation Area
a. Slab-On-Grade Edge Insulation	R=0.0 1520.00 ft ²
b. N/A	R= ft ²
c. N/A	R= ft ²

9. Wall Types (1280.0 sqft.)	Insulation Area
a. Frame - Wood, Exterior	R=13.0 1280.00 ft ²
b. N/A	R= ft ²
c. N/A	R= ft ²
d. N/A	R= ft ²
10. Ceiling Types (1520.0 sqft.)	Insulation Area
a. Under Attic (Vented)	R=30.0 1520.00 ft ²
b. N/A	R= ft ²
c. N/A	R= ft ²
11. Ducts	R ft ²
a. Sup: Attic, Ret: Attic, AH: Main	6 304
12. Cooling systems	kBtu/hr Efficiency
a. Central Unit	33.0 SEER:13.00
13. Heating systems	kBtu/hr Efficiency
a. Electric Heat Pump	33.0 HSPF:7.70
14. Hot water systems	
a. Electric	Cap: 50 gallons
	EF: 0.920
b. Conservation features	
None	
15. Credits	Pstat

Glass/Floor Area: 0.150

Total Proposed Modified Loads: 28.58

Total Standard Reference Loads: 35.93

PASS

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

PREPARED BY: EIN BEANSLEY
 DATE: 2013-05-29

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

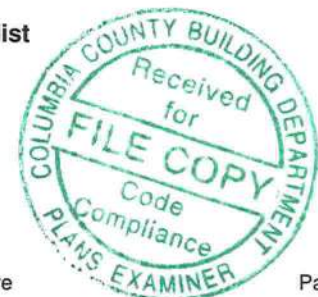
OWNER/AGENT: _____
 DATE: _____

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



PROJECT

Title:	1304097	Bedrooms:	3	Address Type:	Lot Information
Building Type:	User	Conditioned Area:	1520	Lot #	29
Owner:	Miller Res	Total Stories:	1	Block/SubDivision:	Indian Ridge
# of Units:	1	Worst Case:	Yes	PlatBook:	
Builder Name:	Erkinger Construction Group	Rotate Angle:	90	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, Gainesville	FL_GAINESVILLE_REGI	2	32	92	70	75	1305.5	51	Medium

BLOCKS

Number	Name	Area	Volume
1	Block1	1520	12160

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	Main	1520	12160	Yes	6	3	1	Yes	Yes	Yes

FLOORS

✓	#	Floor Type	Space	Perimeter	R-Value	Area	Tile	Wood	Carpet	
_____	1	Slab-On-Grade Edge Insulation	Main	160 ft	0	1520 ft²	----	0.3	0.3	0.4

ROOF

✓	#	Type	Materials	Roof Area	Gable Area	Roof Color	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
_____	1	Hip	Composition shingles	1827 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	1520 ft²	N	N

CEILING

✓	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	Main	30	1520 ft²	0.11	Wood

WALLS

✓ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft In	Height Ft In	Area	Sheathing R-Value	Framing Fraction	Solar Absor.	Below Grade%
1	N=>E	Exterior	Frame - Wood	Main	13	50	8	400 ft²		0.23	0.75	0
2	E=>S	Exterior	Frame - Wood	Main	13	30	8	240 ft²		0.23	0.75	0
3	S=>W	Exterior	Frame - Wood	Main	13	50	8	400 ft²		0.23	0.75	0
4	W=>N	Exterior	Frame - Wood	Main	13	30	8	240 ft²		0.23	0.75	0

DOORS

✓ #	Ornt	Door Type	Space	Storms	U-Value	Width Ft In	Height Ft In	Area
1	N=>E	Insulated	Main	None	0.400000	3	6 8	20 ft²
2	N=>E	Insulated	Main	None	0.400000	3	6 8	6.666666
3	E=>S	Insulated	Main	None	0.400000	3	6 8	13.333333
4	S=>W	Insulated	Main	None	0.400000	3	6 8	6.666666

WINDOWS

Orientation shown is the entered orientation (=>) changed to Worst Case.

✓ #	Ornt	Wall ID	Frame	Panes	NFRC	U-Factor	SHGC	Area	Overhang Depth	Separation	Int Shade	Screening
1	N=>E	1	Metal	Low-E Double	Yes	0.35	0.35	11.11111	1 ft 6 in	1 ft 0 in	None	None
2	N=>E	1	Metal	Low-E Double	Yes	0.35	0.35	17.77777	1 ft 6 in	1 ft 0 in	None	None
3	N=>E	1	Metal	Low-E Double	Yes	0.35	0.35	8 ft²	1 ft 6 in	1 ft 0 in	None	None
4	E=>S	2	Metal	Low-E Double	Yes	0.35	0.35	30 ft²	9 ft 6 in	1 ft 0 in	None	None
5	E=>S	2	Metal	Low-E Double	Yes	0.35	0.35	28.88888	9 ft 6 in	1 ft 0 in	None	None
6	S=>W	3	Metal	Low-E Double	Yes	0.35	0.35	60 ft²	9 ft 6 in	1 ft 0 in	None	None
7	S=>W	3	Metal	Low-E Double	Yes	0.35	0.35	26.66666	9 ft 6 in	1 ft 0 in	None	None
8	W=>N	4	Metal	Low-E Double	Yes	0.35	0.35	45 ft²	1 ft 6 in	1 ft 0 in	None	None

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	Wholehouse	Best Guess	0.000699	2790.88	153.215	288.145	0.53899	13.7708

HEATING SYSTEM

✓ #	System Type	Subtype	Efficiency	Capacity	Block	Ducts
1	Electric Heat Pump	None	HSPF: 7.7	33 kBtu/hr	1	sys#1

COOLING SYSTEM

✓ #	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
1	Central Unit	None	SEER: 13	33 kBtu/hr	990 cfm	0.75	1	sys#1

HOT WATER SYSTEM													
✓	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation				
_____	1	Electric	None	Main	0.92	50 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 # Heat Cool	
_____	1	Attic	6	304 ft²	Attic	76 ft²	Default Leakage	Main	(Default)	c (Default) %			1	1

TEMPERATURES																								
Programable Thermostat: Y				Ceiling Fans:																				
Cooling	☒	Jan	☒	Feb	☒	Mar	☐	Apr	☐	May	☒	Jun	☒	Jul	☒	Aug	☒	Sep	☐	Oct	☐	Nov	☒	Dec
Heating	☒	Jan	☒	Feb	☒	Mar	☐	Apr	☐	May	☐	Jun	☐	Jul	☐	Aug	☐	Sep	☐	Oct	☒	Nov	☒	Dec
Venting	☐	Jan	☐	Feb	☐	Mar	☐	Apr	☐	May	☐	Jun	☐	Jul	☐	Aug	☐	Sep	☐	Oct	☐	Nov	☐	Dec
Thermostat Schedule:		HERS 2006 Reference																						
Schedule Type		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	68	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											

Florida Code Compliance Checklist

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

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.	
	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.	

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 80

The lower the Energy Performance 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=13.0	1280.00 ft ²
3. Number of units, if multiple family	1		b. N/A	R=	ft ²
4. Number of Bedrooms	3		c. N/A	R=	ft ²
5. Is this a worst case?	Yes		d. N/A	R=	ft ²
6. Conditioned floor area (ft ²)	1520		10. Ceiling Types	Insulation	Area
7. Windows**	Description	Area	a. Under Attic (Vented)	R=30.0	1520.00 ft ²
a. U-Factor:	Dbl, U=0.35	227.44 ft ²	b. N/A	R=	ft ²
SHGC:	SHGC=0.35		c. N/A	R=	ft ²
b. U-Factor:	N/A	ft ²	11. Ducts	R	ft ²
SHGC:			a. Sup: Attic, Ret: Attic, AH: Main	6	304
c. U-Factor:	N/A	ft ²	12. Cooling systems	kBtu/hr	Efficiency
SHGC:			a. Central Unit	33.0	SEER:13.00
d. U-Factor:	N/A	ft ²	13. Heating systems	kBtu/hr	Efficiency
SHGC:			a. Electric Heat Pump	33.0	HSPF:7.70
Area Weighted Average Overhang Depth:		6.620 ft.	14. Hot water systems		
Area Weighted Average SHGC:		0.350	a. Electric	Cap: 50 gallons	EF: 0.92
8. Floor Types	Insulation	Area	b. Conservation features		
a. Slab-On-Grade Edge Insulation	R=0.0	1520.00 ft ²	None		
b. N/A	R=	ft ²	15. Credits		Pstat
c. N/A	R=	ft ²			

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

Miller Res

Project Title:
1304097

, FL

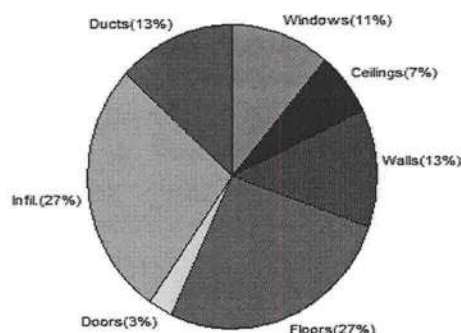
2013-05-29

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	26218 Btuh	Total cooling load calculation	27876 Btuh
Submitted heating capacity	% of calc Btuh	Submitted cooling capacity	% of calc Btuh
Total (Electric Heat Pump)	125.9 33000	Sensible (SHR = 0.75)	118.0 24750
Heat Pump + Auxiliary(0.0kW)	125.9 33000	Latent	119.6 8250
		Total (Electric Heat Pump)	118.4 33000

WINTER CALCULATIONS

Winter Heating Load (for 1520 sqft)

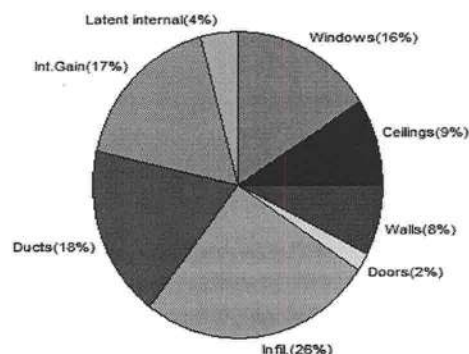
Load component		Load	
Window total	227 sqft	2945	Btuh
Wall total	1006 sqft	3303	Btuh
Door total	47 sqft	691	Btuh
Ceiling total	1520 sqft	1791	Btuh
Floor total	1520 sqft	6986	Btuh
Infiltration	175 cfm	7080	Btuh
Duct loss		3422	Btuh
Subtotal		26218	Btuh
Ventilation	0 cfm	0	Btuh
TOTAL HEAT LOSS		26218	Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 1520 sqft)

Load component		Load	
Window total	227 sqft	4452	Btuh
Wall total	1006 sqft	2098	Btuh
Door total	47 sqft	523	Btuh
Ceiling total	1520 sqft	2517	Btuh
Floor total		0	Btuh
Infiltration	131 cfm	2440	Btuh
Internal gain		4780	Btuh
Duct gain		4167	Btuh
Sens. Ventilation	0 cfm	0	Btuh
Blower Load		0	Btuh
Total sensible gain		20977	Btuh
Latent gain(ducts)		909	Btuh
Latent gain(infiltration)		4791	Btuh
Latent gain(ventilation)		0	Btuh
Latent gain(internal/occupants/other)		1200	Btuh
Total latent gain		6900	Btuh
TOTAL HEAT GAIN		27876	Btuh



8th Edition

EnergyGauge® System Sizing

PREPARED BY:

DATE: 2013-05-29

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Miller Res

Project Title:
1304097
Building Type: User

, FL

2013-05-29

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 0.35	Metal	0.35	E	11.1		12.9	144 Btuh
2	2, NFRC 0.35	Metal	0.35	E	17.8		12.9	230 Btuh
3	2, NFRC 0.35	Metal	0.35	E	8.0		12.9	104 Btuh
4	2, NFRC 0.35	Metal	0.35	S	30.0		12.9	388 Btuh
5	2, NFRC 0.35	Metal	0.35	S	28.9		12.9	374 Btuh
6	2, NFRC 0.35	Metal	0.35	W	60.0		12.9	777 Btuh
7	2, NFRC 0.35	Metal	0.35	W	26.7		12.9	345 Btuh
8	2, NFRC 0.35	Metal	0.35	N	45.0		12.9	583 Btuh
Window Total					227.4(sqft)			2945 Btuh
Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area	X	HTM=	Load
1	Frame - Wood	- Ext	(0.089)	13.0/0.0	336		3.28	1105 Btuh
2	Frame - Wood	- Ext	(0.089)	13.0/0.0	168		3.28	551 Btuh
3	Frame - Wood	- Ext	(0.089)	13.0/0.0	307		3.28	1007 Btuh
4	Frame - Wood	- Ext	(0.089)	13.0/0.0	195		3.28	640 Btuh
Wall Total					1006(sqft)			3303 Btuh
Doors	Type	Storm	Ueff.		Area	X	HTM=	Load
1	Insulated - Exterior, n		(0.400)		20		14.8	296 Btuh
2	Insulated - Exterior, n		(0.400)		7		14.8	99 Btuh
3	Insulated - Exterior, n		(0.400)		13		14.8	197 Btuh
4	Insulated - Exterior, n		(0.400)		7		14.8	99 Btuh
Door Total					47(sqft)			691 Btuh
Ceilings	Type/Color/Surface		Ueff.	R-Value	Area	X	HTM=	Load
1	Vented Attic/D/Shing		(0.032)	30.0/0.0	1520		1.2	1791 Btuh
Ceiling Total					1520(sqft)			1791 Btuh
Floors	Type		Ueff.	R-Value	Size	X	HTM=	Load
1	Slab On Grade		(1.180)	0.0	160.0 ft(perim.)		43.7	6986 Btuh
Floor Total					1520 sqft			6986 Btuh
Envelope Subtotal:								15716 Btuh
Infiltration	Type	Wholehouse	ACH	Volume(cuft)	Wall Ratio	CFM=		Load
	Natural		0.86	12160	1.00	174.8		7080 Btuh
Duct load	Average sealed, R6.0, Supply(Att), Return(Att) (DLM of 0.150)							3422 Btuh
All Zones	Sensible Subtotal All Zones							26218 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Miller Res
, FL

Project Title:
1304097
Building Type: User

2013-05-29

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss Ventilation Sensible Heat Loss Total Heat Loss	26218 Btuh 0 Btuh 26218 Btuh
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EQUIPMENT

1. Electric Heat Pump	#	33000 Btuh
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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

Miller Res

Project Title:
1304097

, FL

2013-05-29

Reference City: Gainesville, FL

Temperature Difference: 17.0F(MJ8 99%)

Humidity difference: 54gr.

Component Loads for Whole House

Window	Type*						Overhang		Window Area(sqft)			HTM		Load		
	Panes	SHGC	U	InSh	IS	Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded			
1	2 NFRC	0.35, 0.35	No	No	E		1.5ft.	1.0ft.	11.1	0.4	10.7	13	40	430	Btuh	
2	2 NFRC	0.35, 0.35	No	No	E		1.5ft.	1.0ft.	17.8	0.7	17.1	13	40	688	Btuh	
3	2 NFRC	0.35, 0.35	No	No	E		1.5ft.	1.0ft.	8.0	1.0	7.0	13	40	292	Btuh	
4	2 NFRC	0.35, 0.35	No	No	S		9.5ft.	1.0ft.	30.0	30.0	0.0	13	16	399	Btuh	
5	2 NFRC	0.35, 0.35	No	No	S		9.5ft.	1.0ft.	28.9	28.9	0.0	13	16	385	Btuh	
6	2 NFRC	0.35, 0.35	No	No	W		9.5ft.	1.0ft.	60.0	60.0	0.0	13	40	799	Btuh	
7	2 NFRC	0.35, 0.35	No	No	W		9.5ft.	1.0ft.	26.7	26.7	0.0	13	40	355	Btuh	
8	2 NFRC	0.35, 0.35	No	No	N		1.5ft.	1.0ft.	45.0	0.0	45.0	13	13	599	Btuh	
	Excursion													505	Btuh	
	Window Total								227 (sqft)					4452 Btuh		
Walls	Type	U-Value			R-Value			Area(sqft)			HTM		Load			
							Cav/Sheath									
1	Frame - Wood - Ext				0.09		13.0/0.0			336.4		2.1		702	Btuh	
2	Frame - Wood - Ext				0.09		13.0/0.0			167.8		2.1		350	Btuh	
3	Frame - Wood - Ext				0.09		13.0/0.0			306.7		2.1		640	Btuh	
4	Frame - Wood - Ext				0.09		13.0/0.0			195.0		2.1		407	Btuh	
	Wall Total									1006 (sqft)				2098 Btuh		
Doors	Type							Area (sqft)			HTM		Load			
1	Insulated - Exterior						20.0				11.2		224	Btuh		
2	Insulated - Exterior						6.7				11.2		75	Btuh		
3	Insulated - Exterior						13.3				11.2		149	Btuh		
4	Insulated - Exterior						6.7				11.2		75	Btuh		
	Door Total									47 (sqft)				523 Btuh		
Ceilings	Type/Color/Surface	U-Value			R-Value			Area(sqft)			HTM		Load			
1	Vented Attic/DarkShingle				0.032		30.0/0.0			1520.0		1.66		2517	Btuh	
	Ceiling Total									1520 (sqft)				2517 Btuh		
Floors	Type				R-Value			Size			HTM		Load			
1	Slab On Grade						0.0			1520 (ft-perimeter)			0.0		0	Btuh
	Floor Total									1520.0 (sqft)				0 Btuh		
	Envelope Subtotal:													9590 Btuh		
Infiltration	Type	Average ACH			Volume(cuft)			Wall Ratio			CFM=		Load			
	Natural				0.65		12160			1		131.1		2440	Btuh	
Internal gain		Occupants			Btuh/occupant			Appliance			Load					
					6		X	230	+		3400		4780	Btuh		
	Sensible Envelope Load:													16809 Btuh		
Duct load	Average sealed, Supply(R6.0-Attic), Return(R6.0-Attic) (DGM of 0.248)													4167 Btuh		
	Sensible Load All Zones													20977 Btuh		

Manual J Summer Calculations

Residential Load - Component Details (continued)

Miller Res
, FL

Project Title:
1304097

Climate:FL_GAINESVILLE_REGIONAL_A

2013-05-29

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	16809 Btuh
	Sensible Duct Load	4167 Btuh
	Total Sensible Zone Loads	20977 Btuh
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	20977 Btuh
	Latent infiltration gain (for 54 gr. humidity difference)	4791 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	909 Btuh
	Latent occupant gain (6.0 people @ 200 Btuh per person)	1200 Btuh
	Latent other gain	0 Btuh
	Latent total gain	6900 Btuh
	TOTAL GAIN	27876 Btuh

EQUIPMENT

1. Central Unit	#	33000 Btuh
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*Key: Window types (Panels - 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