FORM 405-10

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	Model 1302	Builder Name:	Innovative Home Builers
Street:	Rose Point Place	Permit Office:	Columbia County
City, State, Zip:	Lake City , FL , 32024-	Permit Number:	
Owner:	N/A	Jurisdiction:	
Design Location	FL, Gainesville		

1. New construction or existing	New (From Plans)	9 Wall Types(1396.5 sqft.)	Insulation	Area
2. Single family or multiple family	Single-family	a. Frame - Wood, Exterior	R=13.0	1155.00 ft²
3 Number of units, if multiple family	1	b. Frame - Wood, Adjacent	R=13.0	241.50 ft²
4. Number of Bedrooms	3	c. N/A	R=	ft²
5. Is this a worst case?	No	d. N/A	R=	ft²
6. Conditioned floor area above grade (ft²)	1302	10. Ceiling Types (1432.0 sqft.)	Insulation	Area
Conditioned floor area below grade (ft²)	0	a. Under Attic (Vented)	R=30.0	1432 00 ft²
7. Windows(172.0 sqft.) Description	Area	b. N/A	R=	ft²
a. U-Factor: Dbl, U=0.30	172 00 ft²	c. N/A	R=	ft²
SHGC: SHGC=0.50		11. Ducts		R ft²
b U-Factor: N/A	ft²	a. Sup: Attic, Ret: Attic, AH: Garage		6 325.5
SHGC:				
c. U-Factor: N/A	ft²	12. Cooling systems	kBtu/hr	Efficiency
SHGC.		a. Central Unit	27 1	SEER:16.50
d U-Factor: N/A	ft²			
SHGC:		13. Heating systems	kBtu/hr	Efficiency
Area Weighted Average Overhang Depth:	2.547 ft.	a. Electric Heat Pump	27 1	HSPF:7.70
Area Weighted Average SHGC:	0.500			
8. Floor Types (1302.0 sqft.) Insulation	Area	14. Hot water systems		
a Slab-On-Grade Edge Insulation R=5.0	1302.00 ft²	a. Electric		Cap: 50 gallons
b N/A R=	ft²			EF. 0.920
c. N/A R=	ft²	b. Conservation features		
		None		
		15. Credits		Pstat

Glass/Floor Area: 0.132	Total Proposed Modified Loads: 26.97 Total Standard Reference Loads: 33.82	**PASS**

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

PREPARED BY: _____
DATE: 4/30/14

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:	Model 1302	Bedrooms:	3	Address Type:	Street Address
Building Type:	FLProp2010	Conditioned Area:	1302	Lot #	
Owner:	N/A	Total Stories:	1	Block/SubDivision:	
# of Units:	1	Worst Case:	No	PlatBook:	
Builder Name:	Innovative Home Builers	Rotate Angle.	0	Street:	Rose Point Place
Permit Office	Columbia County	Cross Ventilation:	No	County:	Columbia
Jurisdiction:		Whole House Fan:	No	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	1302	11718

SPACES

Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Infil ID	Finished	Cooled	Heated
1	RoomsInBlock1	1302	11718	Yes	3	3	1	Yes	Yes	Yes

FLOORS

√	#	Floor Type	Space	Perimeter	R-Value	Area		Tile	Wood	Carpet
_____	1	Slab-On-Grade Edge Insulatio	RoomsInBlock1	155 ft	5	1302 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	Hip	Composition shingles	1565 ft²	0 ft²	Medium	0 96	No	0.9	No	0	33 7

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
_____	1	Partial cathedral cei	Vented	303	1302 ft²	N	N

CEILING

√	#	Ceiling Type	Space	R-Value	Area	Framing Frac	Truss Type
_____	1	Under Attic (Vented)	RoomsInBlock1	30	1432 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	E	Exterior	Frame - Wood	RoomsInBloc	13	14	8	9		132 ft²		0 23	0.75	0
	2	N	Exterior	Frame - Wood	RoomsInBloc	13	41	8	9		375 ft²		0.23	0.75	0
	3	W	Exterior	Frame - Wood	RoomsInBloc	13	36		9		324 ft²		0 23	0.75	0
	4	S	Exterior	Frame - Wood	RoomsInBloc	13	36		9		324 ft²		0 23	0.75	0
	5	E	Garage	Frame - Wood	RoomsInBloc	13	21	4	9		192 ft²		0.23	0.01	0
	6	S	Garage	Frame - Wood	RoomsInBloc	13	5	6	9		49.5 ft²		0.23	0.01	0

DOORS

√	#	Ornt	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
	1	E	Insulated	RoomsInBloc	None	0.460000	3		6	8	20 ft²
	2	E	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	E	1	Vinyl	Low-E Double	Yes	0.3	0.5	N	30 ft²	7 ft 6 in	1 ft 6 in	HERS 2006	None
	2	N	2	Vinyl	Low-E Double	Yes	0 3	0.5	N	60 ft²	1 ft 6 in	1 ft 6 in	HERS 2006	None
	3	W	3	Vinyl	Low-E Double	Yes	0.3	0.5	N	30 ft²	1 ft 6 in	1 ft 6 in	HERS 2006	None
	4	W	3	Vinyl	Low-E Double	Yes	0.3	0.5	N	16 ft²	1 ft 6 in	1 ft 6 in	HERS 2006	None
	5	S	4	Vinyl	Low-E Double	Yes	0 3	0.5	N	6 ft²	1 ft 6 in	1 ft 6 in	HERS 2006	None
	6	S	4	Vinyl	Low-E Double	Yes	0 3	0.5	N	30 ft²	1 ft 6 in	1 ft 6 in	HERS 2006	None

GARAGE

√	#	Floor Area	Ceiling Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation
	1	511.92 ft²	511.92 ft²	64 ft	9 ft	1

INFILTRATION

#	Scope	Method	SLA	CFM 50	ELA	EqLA	ACH	ACH 50
1	BySpaces	Proposed SLA	0.000360	1229.4	67.495	126.93	0 2771	6.2952

HEATING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Block	Ducts
	1	Electric Heat Pump	None	HSPF 7.7	27.1 kBtu/hr	1	sys#1

COOLING SYSTEM

√	#	System Type	Subtype	Efficiency	Capacity	Air Flow	SHR	Block	Ducts
_____	1	Central Unit	None	SEER: 16.5	27.1 kBtu/hr	813 cfm	0.75	1	sys#1

HOT WATER SYSTEM

√	#	System Type	SubType	Location	EF	Cap	Use	SetPnt	Conservation
_____	1	Electric	None	RoomsInBlock	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 ---- Location	R-Value	Area	---- Return ---- Location	Area	Leakage Type	Air Handler	CFM 25	Percent Leakage	QN	RLF	HVAC # Heat	Cool
_____	1	Attic	6	325.5 ft	Attic	65 1 ft²	DSE=0 88	Garage	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

FORM 405-10

Florida Code Compliance Checklist

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

ADDRESS: Rose Point Place 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* = 80

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

Rose Point Place, Lake City, FL, 32024-

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 (ft²)	1302

7 Windows**	Description	Area
a U-Factor:	Dbl, U=0.30	172.00 ft²
SHGC·	SHGC=0 50	
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		2.547 ft.
Area Weighted Average SHGC·		0.500

8. Floor Types	Insulation	Area
a. Slab-On-Grade Edge Insulation	R=5.0	1302.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

9 Wall Types	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	1155 00 ft²
b. Frame - Wood, Adjacent	R=13 0	241.50 ft²
c. N/A	R=	ft²
d. N/A	R=	ft²

10 Ceiling Types	Insulation	Area
a. Under Attic (Vented)	R=30 0	1432.00 ft²
b N/A	R=	ft²
c. N/A	R=	ft²

11 Ducts	R	ft²
a Sup: Attic, Ret. Attic, AH. Garage	6	325 5

12. Cooling systems	kBtu/hr	Efficiency
a Central Unit	27 1	SEER 16 50

13 Heating systems	kBtu/hr	Efficiency
a Electric Heat Pump	27 1	HSPF:7 70

14 Hot water systems	
a Electric	Cap 50 gallons
	EF: 0 92
b Conservationfeatures	
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

N/A
Rose Point Place
Lake City, FL 32024-

Project Title:
Model 1302

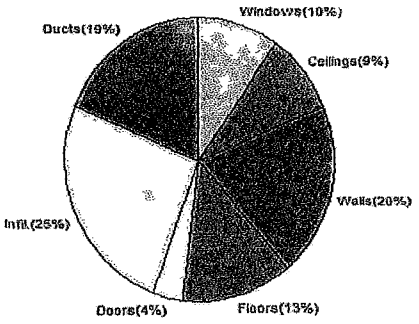
5/1/2014

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	**19144**	**Btuh**	**Total cooling load calculation**	**24646**	**Btuh**
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	141.6	27100	Sensible (SHR = 0.75)	105.6	20325
Heat Pump + Auxiliary(0.0kW)	141.6	27100	Latent	125.3	6775
			Total (Electric Heat Pump)	110.0	27100

WINTER CALCULATIONS

Winter Heating Load (for 1302 sqft)

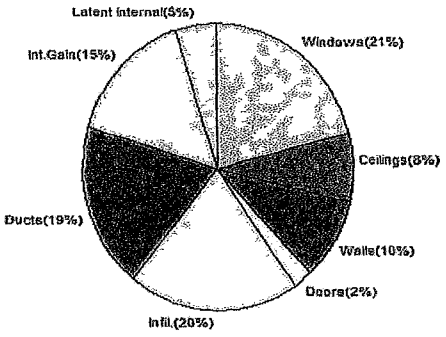
Load component			Load	
Window total	172	sqft	1909	Btuh
Wall total	1185	sqft	3890	Btuh
Door total	40	sqft	681	Btuh
Ceiling total	1432	sqft	1687	Btuh
Floor total	1302	sqft	2535	Btuh
Infiltration	120	cfm	4873	Btuh
Duct loss			3569	Btuh
Subtotal			**19144**	**Btuh**
Ventilation	0	cfm	0	Btuh
TOTAL HEAT LOSS			**19144**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 1302 sqft)

Load component			Load	
Window total	172	sqft	5174	Btuh
Wall total	1185	sqft	2343	Btuh
Door total	40	sqft	515	Btuh
Ceiling total	1432	sqft	1915	Btuh
Floor total			0	Btuh
Infiltration	90	cfm	1679	Btuh
Internal gain			3780	Btuh
Duct gain			3834	Btuh
Sens. Ventilation	0	cfm	0	Btuh
Blower Load			0	Btuh
Total sensible gain			**19241**	**Btuh**
Latent gain(ducts)			908	Btuh
Latent gain(infiltration)			3297	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/other)			1200	Btuh
Total latent gain			**5405**	**Btuh**
TOTAL HEAT GAIN			**24646**	**Btuh**



Manual J 8th Edition

EnergyGauge® System Sizing
PREPARED BY: W
DATE: 4/30/14

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

N/A
Rose Point Place
Lake City, FL 32024-

Project Title:
Model 1302
Building Type: User

5/1/2014

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	Vinyl	0.30	E	30.0	11.1	333 Btuh
2	2, NFRC 0.50	Vinyl	0.30	N	60.0	11.1	666 Btuh
3	2, NFRC 0.50	Vinyl	0.30	W	30.0	11.1	333 Btuh
4	2, NFRC 0.50	Vinyl	0.30	W	16.0	11.1	178 Btuh
5	2, NFRC 0.50	Vinyl	0.30	S	6.0	11.1	67 Btuh
6	2, NFRC 0.50	Vinyl	0.30	S	30.0	11.1	333 Btuh
	Window Total				172.0(sqft)		1909 Btuh
Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area X	HTM=	Load
1	Frame - Wood	- Ext	(0.089)	13.0/0.0	82	3.28	269 Btuh
2	Frame - Wood	- Ext	(0.089)	13.0/0.0	315	3.28	1034 Btuh
3	Frame - Wood	- Ext	(0.089)	13.0/0.0	278	3.28	913 Btuh
4	Frame - Wood	- Ext	(0.089)	13.0/0.0	288	3.28	946 Btuh
5	Frame - Wood	- Adj	(0.089)	13.0/0.0	172	3.28	565 Btuh
6	Frame - Wood	- Adj	(0.089)	13.0/0.0	50	3.28	163 Btuh
	Wall Total				1185(sqft)		3890 Btuh
Doors	Type	Storm	Ueff.		Area X	HTM=	Load
1	Insulated - Exterior,	n	(0.460)		20	17.0	340 Btuh
2	Insulated - Garage,	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/L/Shing		(0.032)	30.0/0.0	1432	1.2	1687 Btuh
	Ceiling Total				1432(sqft)		1687Btuh
Floors	Type		Ueff.	R-Value	Size X	HTM=	Load
1	Slab On Grade		(0.442)	5.0	155.0 ft(perim.)	16.4	2535 Btuh
	Floor Total				1302 sqft		2535 Btuh
					Envelope Subtotal:		10702 Btuh
Infiltration	Type	Wholehouse	ACH	Volume(cuft)	Wall Ratio	CFM=	
	Natural		0.62	11718	1.00	120.3	4873 Btuh
Duct load	Average sealed, R6.0, Supply(Att), Return(Att)					(DLM of 0.229)	3569 Btuh
All Zones				**Sensible Subtotal All Zones**			**19144 Btuh**

Manual J Winter Calculations

Residential Load - Component Details (continued)

N/A
Rose Point Place
Lake City, FL 32024-

Project Title:
Model 1302
Building Type: User

5/1/2014

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss	19144 Btuh
	Ventilation Sensible Heat Loss	0 Btuh
	Total Heat Loss	19144 Btuh

EQUIPMENT

1 Electric Heat Pump	#	27100 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

N/A
Rose Point Place
Lake City, FL 32024-

Project Title:
Model 1302

5/1/2014

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

Component Loads for Whole House

Window	Type* Panes	SHGC	U	InSh	IS	Ornt	Overhang Len	Hgt	Window Area(sqft) Gross	Shaded	Unshaded	HTM Shaded	Unshaded	Load
1	2 NFRC	0.50, 0 30		No	No	E	7.5ft.	1.5ft.	30.0	28.3	1.7	16	53	531 Btuh
2	2 NFRC	0 50, 0 30		No	No	N	1 5ft.	1.5ft.	60.0	0.0	60.0	16	16	937 Btuh
3	2 NFRC	0.50, 0.30		No	No	W	1 5ft.	1.5ft.	30.0	0.0	30 0	16	53	1599 Btuh
4	2 NFRC	0.50, 0.30		No	No	W	1 5ft.	1.5ft	16.0	0 0	16.0	16	53	853 Btuh
5	2 NFRC	0.50, 0 30		No	No	S	1 5ft	1.5ft	6 0	6.0	0.0	16	20	94 Btuh
6	2 NFRC	0.50, 0.30		No	No	S	1 5ft.	1 5ft.	30.0	30.0	0.0	16	20	469 Btuh
	Excursion													692 Btuh
	Window Total								172 (sqft)					5174 Btuh

Walls	Type	U-Value	R-Value Cav/Sheath	Area(sqft)	HTM	Load
1	Frame - Wood - Ext	0.09	13.0/0.0	82 0	2 1	171 Btuh
2	Frame - Wood - Ext	0 09	13.0/0.0	315.0	2 1	657 Btuh
3	Frame - Wood - Ext	0 09	13.0/0.0	278.0	2 1	580 Btuh
4	Frame - Wood - Ext	0 09	13.0/0.0	288 0	2.1	601 Btuh
5	Frame - Wood - Adj	0.09	13.0/0.0	172.0	1 5	260 Btuh
6	Frame - Wood - Adj	0 09	13.0/0.0	49 5	1.5	75 Btuh
	Wall Total			1185 (sqft)		2343 Btuh

Doors	Type	Area (sqft)	HTM	Load
1	Insulated - Exterior	20.0	12.9	258 Btuh
2	Insulated - Garage	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/Light/Shingle	0.032	30 0/0 0	1432.0	1 34	1915 Btuh
	Ceiling Total			1432 (sqft)		1915 Btuh

Floors	Type	R-Value	Size	HTM	Load
1	Slab On Grade	5.0	1302 (ft-perimeter)	0.0	0 Btuh
	Floor Total		1302.0 (sqft)		0 Btuh

				Envelope Subtotal:		9948 Btuh
Infiltration	Type	Average ACH	Volume(cuft)	Wall Ratio	CFM=	Load
	Natural	0.46	11718	1	90.2	1679 Btuh
Internal gain		Occupants	Btuh/occupant		Appliance	Load
		6	X 230	+	2400	3780 Btuh
				Sensible Envelope Load:		15407 Btuh
Duct load	Average sealed,Supply(R6.0-Attic), Return(R6.0-Attic)			(DGM of 0.249)		3834 Btuh
				Sensible Load All Zones		**19241 Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

N/A
Rose Point Place
Lake City, FL 32024-

Project Title:
Model 1302

Climate:FL_GAINESVILLE_REGIONAL_A

5/1/2014

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	**Sensible Envelope Load All Zones**	**15407 Btuh**
	Sensible Duct Load	3834 Btuh
	Total Sensible Zone Loads	**19241 Btuh**
	Sensible ventilation	0 Btuh
	Blower	0 Btuh
	Total sensible gain	**19241 Btuh**
	Latent infiltration gain (for 54 gr. humidity difference)	3297 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	908 Btuh
	Latent occupant gain (6.0 people @ 200 Btuh per person)	1200 Btuh
	Latent other gain	0 Btuh
	Latent total gain	**5405 Btuh**
	TOTAL GAIN	**24646 Btuh**

EQUIPMENT

1. Central Unit	#	27100 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