

Project Name: Cannon Residence Street: 495 SW Jordan Street City, State, Zip: Ft White, FL, Owner: Monica Cannon Design Location: FL, Gainesville	Builder Name: Permit Office: Columbia County Permit Number: Jurisdiction: County: Columbia(Florida Climate Zone 2)
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1. New construction or existing New (From Plans) 2. Single family or multiple family Detached 3. Number of units, if multiple family 1 4. Number of Bedrooms 5 5. Is this a worst case? No 6. Conditioned floor area above grade (ft ²) 3293 Conditioned floor area below grade (ft ²) 0 7. Windows(498.0 sqft.) Description Area a. U-Factor: Dbl, U=0.36 498.00 ft ² SHGC: SHGC=0.25 b. U-Factor: N/A ft ² SHGC: c. U-Factor: N/A ft ² SHGC: Area Weighted Average Overhang Depth: 4.809 ft Area Weighted Average SHGC: 0.250 8. Skylights Description Area U-Factor:(AVG) N/A N/A ft ² SHGC(AVG): N/A 9. Floor Types Insulation Area a. Slab-On-Grade Edge Insulation R= 0.0 3293.00 ft ² b. N/A R= ft ² c. N/A R= ft ²	10. Wall Types(3085.3 sqft.) Insulation Area a. Frame - Wood, Exterior R=13.0 2862.00 ft ² b. Frame - Wood, Adjacent R=13.0 223.33 ft ² c. N/A d. N/A 11. Ceiling Types(3457.6 sqft.) Insulation Area a. Flat ceiling under att (Vented) R=38.0 3457.60 ft ² b. N/A c. N/A 12. Roof(Comp. Shingles, Vented) Deck R=0.0 3958 ft ² 13. Ducts, location & insulation level R ft ² a. Sup: Attic, Ret: Attic, AH: 1st Floor 6 823 b. c. 14. Cooling Systems kBtu/hr Efficiency a. Central Unit 38.9 SEER2:14.00 15. Heating Systems kBtu/hr Efficiency a. Electric Heat Pump 49.4 HSPF2:8.20 16. Hot Water Systems a. Electric Cap: 50 gallons EF: 0.920 b. Conservation features None 17. Credits CV, Pstat
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Glass/Floor Area:0.151	Total Proposed Modified Loads: 77.58	PASS
	Total Baseline Loads: 85.82	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY: _____ DATE: <u>7 / 5 / 2023</u> 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: _____
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- 7/5/2023 10:15:24 AM EnergyGauge® USA 7.0.00 - FlaRes2020 FBC 7th Edition (2020) Compliant Software Page 1

INPUT SUMMARY CHECKLIST REPORT

PROJECT													
Title:	Cannon Residence			Bedrooms:	5	Address type:	Street Address						
Building Type:	User			Conditioned Area:	3293	Lot #:	---						
Owner:	Monica Cannon			Total Stories:	1	Block/SubDivision:	---						
Builder Home ID:				Worst Case:	No	PlatBook:	---						
Builder Name:				Rotate Angle:	0	Street:	495 SW Jordan Street						
Permit Office:	Columbia County			Cross Ventilation:	Yes	County:	Columbia						
Jurisdiction:				Whole House Fan:	No	City, State, Zip:	Ft White, FL,						
Family Type:	Detached			Terrain:	Suburban								
New/Existing:	New (From Plans)			Shielding:	Suburban								
Year Construct:	2023												
Comment:													
CLIMATE													
✓ Design Location	Tmy Site		Design Temp		Int Design Temp		Heating		Design		Daily temp		
			97.5%	2.5%	Winter	Summer	Degree Days		Moisture		Range		
___ FL, Gainesville	FL_GAINESVILLE_REGIONA		32	92	70	75	1305.5		51		Medium		
BLOCKS													
✓ Number	Name	Area	Volume										
___ 1	Block1	3293	32930 cu ft										
SPACES													
✓ Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated				
___ 1	1st Floor	3293	32930	Yes	10	5	Yes	Yes	Yes				
FLOORS (Total Exposed Area = 3293 sq.ft.)													
✓ #	Floor Type	Space	Exposed Perim	Perimeter R-Value	Area	U-Factor	Joist R-Value	Tile	Wood	Carpet			
___ 1	Slab-On-Grade Edge Ins	1st Floor	318.667	0	3293 ft	0.304	---	0.00	0.00	1.00			
ROOF													
✓ #	Type	Materials	Roof Area	Gable Area	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)	
___ 1	Hip	Composition shingles	3958 ft²	0 ft²	Medium	Y	0.96	No	0.9	No	0	33.69	
ATTIC													
✓ #	Type	Ventilation	Vent Ratio (1 in)		Area	RBS	IRCC						
___ 1	Partial cathedral ceiling	Vented	300		3293 ft²	Y	N						
CEILING (Total Exposed Area = 3458 sq.ft.)													
✓ #	Ceiling Type	Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.		Truss Type				
___ 1	Flat ceiling under attic(Vented)	1st Floor	38.0	Double Batt	3457.7ft²	0.024	0.11		Wood				

INPUT SUMMARY CHECKLIST REPORT

WALLS															(Total Exposed Area = 3085 sq.ft.)			
✓ #	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	In	Height Ft	In	Area sq.ft.	U-Factor	Sheath R-Value	Frm. Frac.	Solar Absor.	Below Grade			
___ 1	N	Exterior	Frame - Wood	1st Floor	13.0	24.0	0	10.0	6	252.0	0.084		0.23	0.75	0 %			
___ 2	N	Exterior	Frame - Wood	1st Floor	13.0	6.0	0	10.0	0	60.0	0.084		0.23	0.75	0 %			
___ 3	E	Exterior	Frame - Wood	1st Floor	13.0	4.0	4	10.0	0	43.3	0.084		0.23	0.75	0 %			
___ 4	N	Exterior	Frame - Wood	1st Floor	13.0	12.0	8	10.0	0	126.7	0.084		0.23	0.75	0 %			
___ 5	W	Exterior	Frame - Wood	1st Floor	13.0	6.0	0	10.0	0	60.0	0.084		0.23	0.75	0 %			
___ 6	N	Exterior	Frame - Wood	1st Floor	13.0	8.0	8	10.0	0	86.7	0.084		0.23	0.75	0 %			
___ 7	E	Exterior	Frame - Wood	1st Floor	13.0	4.0	0	10.0	0	40.0	0.084		0.23	0.75	0 %			
___ 8	N	Exterior	Frame - Wood	1st Floor	13.0	11.0	8	10.0	0	116.7	0.084		0.23	0.75	0 %			
___ 9	W	Exterior	Frame - Wood	1st Floor	13.0	12.0	8	10.0	0	126.7	0.084		0.23	0.75	0 %			
___ 10	N	Exterior	Frame - Wood	1st Floor	13.0	12.0	8	10.0	0	126.7	0.084		0.23	0.75	0 %			
___ 11	W	Exterior	Frame - Wood	1st Floor	13.0	22.0	4	10.0	0	223.3	0.084		0.23	0.75	0 %			
___ 12	S	Garage	Frame - Wood	1st Floor	13.0	22.0	4	10.0	0	223.3	0.084		0.23	0.75	0 %			
___ 13	S	Exterior	Frame - Wood	1st Floor	13.0	17.0	4	10.0	0	173.3	0.084		0.23	0.75	0 %			
___ 14	W	Exterior	Frame - Wood	1st Floor	13.0	9.0	4	10.0	0	93.3	0.084		0.23	0.75	0 %			
___ 15	S	Exterior	Frame - Wood	1st Floor	13.0	13.0	4	10.0	0	133.3	0.084		0.23	0.75	0 %			
___ 16	E	Exterior	Frame - Wood	1st Floor	13.0	10.0	0	10.0	0	100.0	0.084		0.23	0.75	0 %			
___ 17	S	Exterior	Frame - Wood	1st Floor	13.0	14.0	0	10.0	0	140.0	0.084		0.23	0.75	0 %			
___ 18	W	Exterior	Frame - Wood	1st Floor	13.0	6.0	0	10.0	0	60.0	0.084		0.23	0.75	0 %			
___ 19	S	Exterior	Frame - Wood	1st Floor	13.0	16.0	8	10.0	0	166.7	0.084		0.23	0.75	0 %			
___ 20	E	Exterior	Frame - Wood	1st Floor	13.0	48.0	8	10.0	0	486.7	0.084		0.23	0.75	0 %			
___ 21	N	Exterior	Frame - Wood	1st Floor	13.0	16.0	8	10.0	0	166.7	0.084		0.23	0.75	0 %			
___ 22	W	Exterior	Frame - Wood	1st Floor	13.0	8.0	0	10.0	0	80.0	0.084		0.23	0.75	0 %			

DOORS											(Total Exposed Area = 24 sq.ft.)			
✓ #	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area			
___ 1	S	Garage	Insulated	1st Floor	None	0.46	3.00	0	8.00	0	24.0ft²			

WINDOWS															(Total Exposed Area = 498 sq.ft.)			
✓ #	Ornt	Wall ID	Frame	Panes	NFRC U-Factor	SHGC	Imp	Storm	Total Area (ft²)	Same Units	Width (ft)	Height (ft)	--Overhang-- Depth (ft)	Sep. (ft)	Interior Shade	Screen		
___ 1	N	1	TIM	Low-E Double	Y	0.36	0.25	N	N	40.0	2	2.50	8.00	8.5	2.0	None	None	
___ 2	N	1	Vinyl	Low-E Double	Y	0.36	0.25	N	N	54.0	3	3.00	6.00	8.5	2.0	None	None	
___ 3	N	4	Vinyl	Low-E Double	Y	0.36	0.25	N	N	24.0	1	4.00	6.00	1.0	3.0	None	None	
___ 4	N	6	Vinyl	Low-E Double	Y	0.36	0.25	N	N	12.0	1	2.00	6.00	1.5	1.0	None	None	
___ 5	N	8	Vinyl	Low-E Double	Y	0.36	0.25	N	N	24.0	1	4.00	6.00	1.0	3.0	None	None	
___ 6	N	10	Vinyl	Low-E Double	Y	0.36	0.25	N	N	24.0	1	4.00	6.00	1.5	1.0	None	None	
___ 7	W	11	Vinyl	Low-E Double	Y	0.36	0.25	N	N	4.0	1	4.00	1.00	1.5	1.0	None	None	
___ 8	W	11	Vinyl	Low-E Double	Y	0.36	0.25	N	N	8.0	1	2.00	4.00	1.5	1.0	None	None	
___ 9	S	13	Vinyl	Low-E Double	Y	0.36	0.25	N	N	30.0	2	3.00	5.00	10.5	1.0	None	None	
___ 10	S	13	TIM	Low-E Double	Y	0.36	0.25	N	N	48.0	2	3.00	8.00	10.5	1.0	None	None	
___ 11	S	15	Vinyl	Low-E Double	Y	0.36	0.25	N	N	54.0	3	3.00	6.00	1.5	1.0	None	None	
___ 12	S	17	Vinyl	Low-E Double	Y	0.36	0.25	N	N	54.0	3	3.00	6.00	7.5	1.0	None	None	
___ 13	S	19	Vinyl	Low-E Double	Y	0.36	0.25	N	N	54.0	3	3.00	6.00	1.5	1.0	None	None	
___ 14	E	20	Vinyl	Low-E Double	Y	0.36	0.25	N	N	20.0	2	2.00	5.00	1.5	1.0	None	None	
___ 15	E	20	Vinyl	Low-E Double	Y	0.36	0.25	N	N	20.0	1	4.00	5.00	1.5	1.0	None	None	
___ 16	E	20	Vinyl	Low-E Double	Y	0.36	0.25	N	N	4.0	1	4.00	1.00	1.5	1.0	None	None	
___ 17	N	21	Vinyl	Low-E Double	Y	0.36	0.25	N	N	24.0	1	4.00	6.00	1.0	3.0	None	None	

INPUT SUMMARY CHECKLIST REPORT

INFILTRATION												
✓ #	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)	Infiltration Test Volume		
___ 1	Wholehouse	Proposed ACH(50)	0.00032	2744	150.55	282.65	0.1071	5.0	All	32930 cu ft		

GARAGE						
✓ #	Floor Area	Roof Area	Exposed Wall Perimeter	Avg. Wall Height	Exposed Wall Insulation	
___ 1	491 ft²	491 ft²	66 ft	10 ft	1	

MASS					
✓ #	Mass Type	Area	Thickness	Furniture Fraction	Space
___ 1	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	1st Floor

HEATING SYSTEM										
✓ #	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	----Geothermal HeatPump----			Ducts	Block
						Entry	Power	Volt	Current	
___ 1	Electric Heat Pump	None/Single		HSPF2: 8.20	49.4		0.00	0.00	0.00	sys#1 1

COOLING SYSTEM									
✓ #	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	Air Flow cfm	SHR	Duct	Block
___ 1	Central Unit	None/Single		SEER2:14.0	38.9	1170	0.70	sys#1	1

HOT WATER SYSTEM										
✓ #	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	Fixture Flow	Pipe Ins.	Pipe length
___ 1	Electric	None	1st Floor	0.92 (0.92)	50.00 gal	40 gal	120 deg	Standard	None	12
	Recirculation System	Recirc Control Type	Loop length	Branch length	Pump power	DWHR	Facilities Connected	Equal Flow	DWHR Eff	Other Credits
___ 1	No		NA	NA	NA	No	NA	NA	NA	None

DUCTS													
✓ Duct #	-----Supply-----			-----Return-----			Leakage Type	Air Handler	CFM 25 TOT	CFM 25 OUT	Qn	RLF	HVAC # Heat Cool
	Location	R-Value	Area	Location	R-Value	Area							
___ 1	Attic	6.0	823 ft²	Attic	6.0	165 ft²	Default Leakage	1st Floor	(Default)	(Default)			1 1

TEMPERATURES												
Programable Thermostat: Y						Ceiling Fans: N						
Cooling	[] Jan	[] Feb	[] Mar	[] Apr	[] May	[X] Jun	[X] Jul	[X] Aug	[X] Sep	[] Oct	[] Nov	[] Dec
Heating	[X] Jan	[X] Feb	[X] Mar	[] Apr	[] May	[] Jun	[] Jul	[] Aug	[] Sep	[] Oct	[X] Nov	[X] Dec
Venting	[] Jan	[] Feb	[X] Mar	[X] Apr	[] May	[] Jun	[] Jul	[] Aug	[] Sep	[X] Oct	[X] Nov	[] Dec

INPUT SUMMARY CHECKLIST REPORT

TEMPERATURES(Continued)

✓ Thermostat Schedule: HERS 2006 Reference		Hours											
Schedule Type		1	2	3	4	5	6	7	8	9	10	11	12
___ Cooling (WD)	AM PM	78 80	78 80	78 78	78 78	78 78	78 78	78 78	78 78	80 78	80 78	80 78	80 78
___ Cooling (WEH)	AM PM	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78	78 78
___ Heating (WD)	AM PM	66 68	66 68	66 68	66 68	66 68	68 68	68 68	68 68	68 68	68 68	68 66	68 66
___ Heating (WEH)	AM PM	66 68	66 68	66 68	66 68	66 68	68 68	68 68	68 68	68 68	68 68	68 66	68 66

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 90

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

495 SW Jordan Street,Ft White,FL,

1. New construction or existing	New (From Plans)	10. Wall Types(3085.3 sqft.)	Insulation	Area
2. Single family or multiple family	Detached	a. Frame - Wood, Exterior	R=13.0	2862.00 ft ²
3. Number of units, if multiple family	1	b. Frame - Wood, Adjacent	R=13.0	223.33 ft ²
4. Number of Bedrooms	5	c. N/A		
5. Is this a worst case?	No	d. N/A		
6. Conditioned floor area above grade (ft ²)	3293	11. Ceiling Types(3457.6 sqft.)	Insulation	Area
Conditioned floor area below grade (ft ²)	0	a. Flat ceiling under att (Vented)	R=38.0	3457.60 ft ²
7. Windows**	Description	b. N/A		
a. U-Factor:	Dbl, U=0.36	c. N/A		
SHGC:	SHGC=0.25	12. Roof(Comp. Shingles, Vented) Deck	R=0.0	3958 ft ²
b. U-Factor:	N/A	13. Ducts, location & insulation level	R	ft ²
SHGC:		a. Sup: Attic, Ret: Attic, AH: 1st Floor	6	823
c. U-Factor:	N/A	b.		
SHGC:		c.		
Area Weighted Average Overhang Depth:	4.809 ft	14. Cooling Systems	kBtu/hr	Efficiency
Area Weighted Average SHGC:	0.250	a. Central Unit	38.9	SEER2:14.00
8. Skylights	Description	15. Heating Systems	kBtu/hr	Efficiency
U-Factor:(AVG)	N/A	a. Electric Heat Pump	49.4	HSPF2:8.20
SHGC(AVG):	N/A	16. Hot Water Systems		
9. Floor Types	Insulation	a. Electric	Cap: 50 gallons	
a. Slab-On-Grade Edge Insulation	R= 0.0		EF: 0.920	
b. N/A	R=	b. Conservation features		
c. N/A	R=			
		17. Credits	None	
			CV, 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: 495 SW Jordan Street

City/FL Zip: Ft White,FL,



*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 Energy Rating. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

**Label required by Section R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

Envelope Leakage Test Report (Blower Door Test)
Residential Prescriptive, Performance or ERI Method Compliance
2020 Florida Building Code, Energy Conservation, 7th Edition

Jurisdiction:	Permit #:	
Job Information		
Builder:	Community:	Lot: NA
Address: 495 SW Jordan Street		
City: Ft White	State: FL	Zip:
Air Leakage Test Results <i>Passing results must meet either the Performance, Prescriptive, or ERI Method</i>		
☐ PRESCRIPTIVE METHOD-The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 7 air changes per hour at a pressure of 0.2 inch w.g. (50 Pascals) in Climate Zones 1 and 2. ☒ PERFORMANCE or ERI METHOD-The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding the selected ACH(50) value, as shown on Form R405-2020 (Performance) or R406-2020 (ERI), section labeled as infiltration, sub-section ACH50. ACH(50) specified on Form R405-2020-Energy Calc (Performance) or R406-2020 (ERI): 5.000		
$\frac{\text{CFM}(50) \times 60}{\text{Building Volume}} = \text{ACH}(50)$ PASS ☐ When ACH(50) is less than 3, Mechanical Ventilation installation must be verified by building department. Method for calculating building volume: ☐ Retrieved from architectural plans ☒ Code software calculated ☐ Field measured and calculated		
R402.4.1.2 Testing. Testing shall be conducted in accordance with ANSI/RESNET/ICC 380 and reported at a pressure of 0.2 inch w.g. (50 Pascals). Testing shall be conducted by either individuals as defined in Section 553.993(5) or <i>(7) Florida Statutes</i> or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i) or an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the <i>code official</i>. Testing shall be performed at any time after creation of all penetrations of the <i>building thermal envelope</i>. During testing: 1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures. 2. Dampers including exhaust, intake, makeup air, back draft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures. 3. Interior doors, if installed at the time of the test, shall be open. 4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed. 5. Heating and cooling systems, if installed at the time of the test, shall be turned off. 6. Supply and return registers, if installed at the time of the test, shall be fully open.		
Testing Company		
Company Name: _____ Phone: _____ I hereby verify that the above Air Leakage results are in accordance with the 2020 7th Edition Florida Building Code Energy Conservation requirements according to the compliance method selected above. Signature of Tester: _____ Date of Test: _____ Printed Name of Tester: _____ License/Certification #: _____ Issuing Authority: _____		

Residential System Sizing Calculation

Summary

Monica Cannon
495 SW Jordan Street
Ft White, FL

Project Title:
Cannon Residence

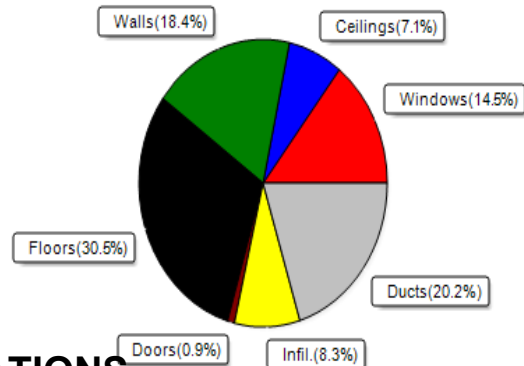
7/5/2023

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(51gr.)					
Winter design temperature(TMY3 99%)	30	F	Summer design temperature(TMY3 99%)	94	F
Winter setpoint	70	F	Summer setpoint	75	F
Winter temperature difference	40	F	Summer temperature difference	19	F
Total heating load calculation	49380	Btuh	Total cooling load calculation	38852	Btuh
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	100.0	49380	Sensible (SHR = 0.70)	85.3	27196
Heat Pump + Auxiliary(0.0kW)	100.0	49380	Latent	167.7	11656
			Total (Electric Heat Pump)	100.0	38852

WINTER CALCULATIONS

Winter Heating Load (for 3293 sqft)

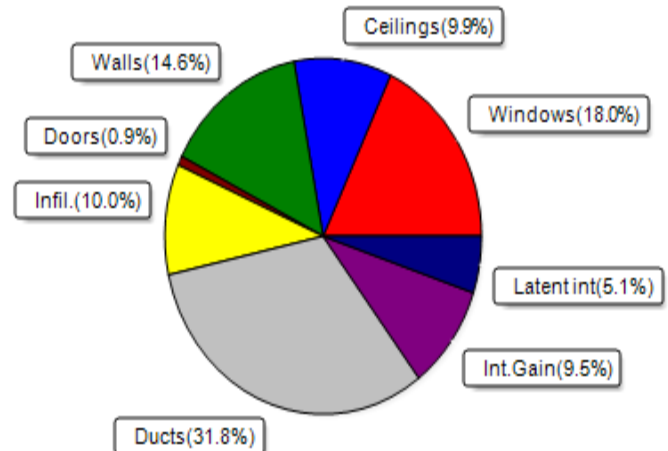
Load component		Load
Window total	498 sqft	7171 Btuh
Wall total	2563 sqft	9101 Btuh
Door total	24 sqft	442 Btuh
Ceiling total	3458 sqft	3510 Btuh
Floor total	3293 sqft	15041 Btuh
Infiltration	94 cfm	4119 Btuh
Duct loss		9996 Btuh
Subtotal		49380 Btuh
Ventilation Ex:0 cfm; Sup:0 cfm		0 Btuh
TOTAL HEAT LOSS		49380 Btuh



SUMMER CALCULATIONS

Summer Cooling Load (for 3293 sqft)

Load component		Load
Window total	498 sqft	6997 Btuh
Wall total	2563 sqft	5687 Btuh
Door total	24 sqft	331 Btuh
Ceiling total	3458 sqft	3861 Btuh
Floor total		0 Btuh
Infiltration	71 cfm	1467 Btuh
Internal gain		3700 Btuh
Duct gain		9856 Btuh
Sens.Ventilation Ex:0 cfm; Sup:0 cfm		0 Btuh
Blower Load		0 Btuh
Total sensible gain		31900 Btuh
Latent gain(ducts)		2517 Btuh
Latent gain(infiltration)		2435 Btuh
Latent gain(ventilation)		0 Btuh
Latent gain(internal/occupants/other)		2000 Btuh
Total latent gain		6952 Btuh
TOTAL HEAT GAIN		38852 Btuh



8th Edition

EnergyGauge® System Sizing

PREPARED BY: _____

DATE: 7 / 5 / 2023

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Monica Cannon
495 SW Jordan Street
Ft White, FL

Project Title:
Cannon Residence
Building Type: User

7/5/2023

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 40.0 °F (TMY3 99%)
Winter Setpoint: 70 °F (Required Manual J default)

Component Loads for Whole House

Window	Panes/Type	Frame	U	Orientation	Area(sqft)	X	HTM=	Load
1	2, NFRC 0.25	TIM	0.36	N	40.0		14.4	576 Btuh
2	2, NFRC 0.25	Vinyl	0.36	N	54.0		14.4	778 Btuh
3	2, NFRC 0.25	Vinyl	0.36	N	24.0		14.4	346 Btuh
4	2, NFRC 0.25	Vinyl	0.36	N	12.0		14.4	173 Btuh
5	2, NFRC 0.25	Vinyl	0.36	N	24.0		14.4	346 Btuh
6	2, NFRC 0.25	Vinyl	0.36	N	24.0		14.4	346 Btuh
7	2, NFRC 0.25	Vinyl	0.36	W	4.0		14.4	58 Btuh
8	2, NFRC 0.25	Vinyl	0.36	W	8.0		14.4	115 Btuh
9	2, NFRC 0.25	Vinyl	0.36	S	30.0		14.4	432 Btuh
10	2, NFRC 0.25	TIM	0.36	S	48.0		14.4	691 Btuh
11	2, NFRC 0.25	Vinyl	0.36	S	54.0		14.4	778 Btuh
12	2, NFRC 0.25	Vinyl	0.36	S	54.0		14.4	778 Btuh
13	2, NFRC 0.25	Vinyl	0.36	S	54.0		14.4	778 Btuh
14	2, NFRC 0.25	Vinyl	0.36	E	20.0		14.4	288 Btuh
15	2, NFRC 0.25	Vinyl	0.36	E	20.0		14.4	288 Btuh
16	2, NFRC 0.25	Vinyl	0.36	E	4.0		14.4	58 Btuh
17	2, NFRC 0.25	Vinyl	0.36	N	24.0		14.4	346 Btuh
Window Total					498.0(sqft)			7171 Btuh
Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area	X	HTM=	Load
1	Frame - Wood	- Ext	(0.089)	13.0/0.0	158		3.55	561 Btuh
2	Frame - Wood	- Ext	(0.089)	13.0/0.0	60		3.55	213 Btuh
3	Frame - Wood	- Ext	(0.089)	13.0/0.0	43		3.55	154 Btuh
4	Frame - Wood	- Ext	(0.089)	13.0/0.0	103		3.55	365 Btuh
5	Frame - Wood	- Ext	(0.089)	13.0/0.0	60		3.55	213 Btuh
6	Frame - Wood	- Ext	(0.089)	13.0/0.0	75		3.55	265 Btuh
7	Frame - Wood	- Ext	(0.089)	13.0/0.0	40		3.55	142 Btuh
8	Frame - Wood	- Ext	(0.089)	13.0/0.0	93		3.55	329 Btuh
9	Frame - Wood	- Ext	(0.089)	13.0/0.0	127		3.55	450 Btuh
10	Frame - Wood	- Ext	(0.089)	13.0/0.0	103		3.55	365 Btuh
11	Frame - Wood	- Ext	(0.089)	13.0/0.0	211		3.55	750 Btuh
12	Frame - Wood	- Adj	(0.089)	13.0/0.0	199		3.55	708 Btuh
13	Frame - Wood	- Ext	(0.089)	13.0/0.0	95		3.55	338 Btuh
14	Frame - Wood	- Ext	(0.089)	13.0/0.0	93		3.55	331 Btuh
15	Frame - Wood	- Ext	(0.089)	13.0/0.0	79		3.55	282 Btuh
16	Frame - Wood	- Ext	(0.089)	13.0/0.0	100		3.55	355 Btuh
17	Frame - Wood	- Ext	(0.089)	13.0/0.0	86		3.55	305 Btuh
18	Frame - Wood	- Ext	(0.089)	13.0/0.0	60		3.55	213 Btuh
19	Frame - Wood	- Ext	(0.089)	13.0/0.0	113		3.55	400 Btuh
20	Frame - Wood	- Ext	(0.089)	13.0/0.0	443		3.55	1572 Btuh
21	Frame - Wood	- Ext	(0.089)	13.0/0.0	143		3.55	507 Btuh
22	Frame - Wood	- Ext	(0.089)	13.0/0.0	80		3.55	284 Btuh
Wall Total					2563.0(sqft)			9101 Btuh

EnergyGauge® / USRCZB v2.503

Manual J Winter Calculations

Residential Load - Component Details (continued)

Monica Cannon
495 SW Jordan Street
Ft White, FL

Project Title:
Cannon Residence
Building Type: User

7/5/2023

Doors 1	Type Insulated - Garage, n	Storm Ueff. (0.460)	Area X 24	HTM= 18.4	Load 442 Btuh
	Door Total		24(sqft)		442Btuh
Ceilings 1	Type/Color/Surface Flat ceil/M/Shing	Ueff. (0.025)	R-Value 38.0/0.0	Area X 3458	HTM= 1.0
	Ceiling Total		3458(sqft)		3510 Btuh
Floors 1	Type Slab On Grade	Ueff. (1.180)	R-Value 0.0	Size X 318.7 ft(perim.)	HTM= 47.2
	Floor Total		3293 sqft		15041 Btuh
	Envelope Subtotal:				35265 Btuh
Infiltration	Type Natural	Wholehouse ACH 0.17	Volume(cuft) 32930	Wall Ratio 1.00	CFM= 94.1
					4119 Btuh
Duct load	Average sealed, R6.0, Supply(Att), Return(Att) (DLM of 0.254)				9996 Btuh
All Zones	Sensible Subtotal All Zones				49380 Btuh

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss	49380 Btuh
	Ventilation Sens. Heat Loss (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Total Heat Loss	49380 Btuh

EQUIPMENT

1. Electric Heat Pump	#	49380 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

Monica Cannon
495 SW Jordan Street
Ft White, FL

Project Title:
Cannon Residence

7/5/2023

Reference City: Gainesville, FL (Defaults)
Humidity difference: 51gr.

Temperature Difference: 19.0F(TMY3 99%)
Summer Setpoint: 75 °F (Required Manual J default)

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	0.25, 0.36	No	No	N		8.5ft.	2.0ft.	40.0	0.0	40.0	12	12	484 Btuh
2	2 NFRC	0.25, 0.36	No	No	N		8.5ft.	2.0ft.	54.0	0.0	54.0	12	12	653 Btuh
3	2 NFRC	0.25, 0.36	No	No	N		1.0ft.	3.0ft.	24.0	0.0	24.0	12	12	290 Btuh
4	2 NFRC	0.25, 0.36	No	No	N		1.5ft.	1.0ft.	12.0	0.0	12.0	12	12	145 Btuh
5	2 NFRC	0.25, 0.36	No	No	N		1.0ft.	3.0ft.	24.0	0.0	24.0	12	12	290 Btuh
6	2 NFRC	0.25, 0.36	No	No	N		1.5ft.	1.0ft.	24.0	0.0	24.0	12	12	290 Btuh
7	2 NFRC	0.25, 0.36	No	No	W		1.5ft.	1.0ft.	4.0	1.0	3.0	12	31	105 Btuh
8	2 NFRC	0.25, 0.36	No	No	W		1.5ft.	1.0ft.	8.0	0.5	7.5	12	31	238 Btuh
9	2 NFRC	0.25, 0.36	No	No	S		10.5f	1.0ft.	30.0	30.0	0.0	12	14	363 Btuh
10	2 NFRC	0.25, 0.36	No	No	S		10.5f	1.0ft.	48.0	48.0	0.0	12	14	581 Btuh
11	2 NFRC	0.25, 0.36	No	No	S		1.5ft.	1.0ft.	54.0	54.0	0.0	12	14	653 Btuh
12	2 NFRC	0.25, 0.36	No	No	S		7.5ft.	1.0ft.	54.0	54.0	0.0	12	14	653 Btuh
13	2 NFRC	0.25, 0.36	No	No	S		1.5ft.	1.0ft.	54.0	54.0	0.0	12	14	653 Btuh
14	2 NFRC	0.25, 0.36	No	No	E		1.5ft.	1.0ft.	20.0	1.0	19.0	12	31	600 Btuh
15	2 NFRC	0.25, 0.36	No	No	E		1.5ft.	1.0ft.	20.0	1.0	19.0	12	31	600 Btuh
16	2 NFRC	0.25, 0.36	No	No	E		1.5ft.	1.0ft.	4.0	1.0	3.0	12	31	105 Btuh
17	2 NFRC	0.25, 0.36	No	No	N		1.0ft.	3.0ft.	24.0	0.0	24.0	12	12	290 Btuh
	Window Total								498 (sqft)					6997 Btuh
Walls	Type						U-Value	R-Value	Area(sqft)		HTM		Load	
							Cav/Sheath							
1	Frame - Wood - Ext						0.09	13.0/0.0	158.0		2.3		358 Btuh	
2	Frame - Wood - Ext						0.09	13.0/0.0	60.0		2.3		136 Btuh	
3	Frame - Wood - Ext						0.09	13.0/0.0	43.3		2.3		98 Btuh	
4	Frame - Wood - Ext						0.09	13.0/0.0	102.7		2.3		232 Btuh	
5	Frame - Wood - Ext						0.09	13.0/0.0	60.0		2.3		136 Btuh	
6	Frame - Wood - Ext						0.09	13.0/0.0	74.7		2.3		169 Btuh	
7	Frame - Wood - Ext						0.09	13.0/0.0	40.0		2.3		91 Btuh	
8	Frame - Wood - Ext						0.09	13.0/0.0	92.7		2.3		210 Btuh	
9	Frame - Wood - Ext						0.09	13.0/0.0	126.7		2.3		287 Btuh	
10	Frame - Wood - Ext						0.09	13.0/0.0	102.7		2.3		232 Btuh	
11	Frame - Wood - Ext						0.09	13.0/0.0	211.3		2.3		478 Btuh	
12	Frame - Wood - Adj						0.09	13.0/0.0	199.3		1.7		336 Btuh	
13	Frame - Wood - Ext						0.09	13.0/0.0	95.3		2.3		216 Btuh	
14	Frame - Wood - Ext						0.09	13.0/0.0	93.3		2.3		211 Btuh	
15	Frame - Wood - Ext						0.09	13.0/0.0	79.3		2.3		180 Btuh	
16	Frame - Wood - Ext						0.09	13.0/0.0	100.0		2.3		226 Btuh	
17	Frame - Wood - Ext						0.09	13.0/0.0	86.0		2.3		195 Btuh	
18	Frame - Wood - Ext						0.09	13.0/0.0	60.0		2.3		136 Btuh	
19	Frame - Wood - Ext						0.09	13.0/0.0	112.7		2.3		255 Btuh	
20	Frame - Wood - Ext						0.09	13.0/0.0	442.7		2.3		1002 Btuh	
21	Frame - Wood - Ext						0.09	13.0/0.0	142.7		2.3		323 Btuh	
22	Frame - Wood - Ext						0.09	13.0/0.0	80.0		2.3		181 Btuh	
	Wall Total								2563 (sqft)					5687 Btuh
Doors	Type								Area (sqft)		HTM		Load	
1	Insulated - Garage								24.0		13.8		331 Btuh	
	Door Total								24 (sqft)					331 Btuh
Ceilings	Type/Color/Surface						U-Value	R-Value	Area(sqft)		HTM		Load	
1	Vented Attic/Med/Shingle/RB						0.025	38.0/0.0	3457.6		1.12		3861 Btuh	
	Ceiling Total								3458 (sqft)					3861 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

Monica Cannon
495 SW Jordan Street
Ft White, FL

Project Title: Climate:FL_GAINESVILLE_REGIONAL_A
Cannon Residence

7/5/2023

Floors	Type	R-Value	Size	HTM	Load
1	Slab On Grade	0.0	3293 (ft-perimeter)	0.0	0 Btuh
	Floor Total		3293.0 (sqft)		0 Btuh
	Envelope Subtotal:				16877 Btuh
Infiltration	Type	Average ACH	Volume(cuft)	Wall Ratio	CFM=
	Natural	0.13	32930	1	70.5
Internal gain	Occupants		Btuh/occupant	Appliance	Load
	10	X	230	+	1400
	Sensible Envelope Load:				22044 Btuh
Duct load	Average sealed,Supply(R6.0-Attic), Return(R6.0-Attic) (DGM of 0.447)				9856 Btuh
	Sensible Load All Zones				31900 Btuh

Manual J Summer Calculations

Residential Load - Component Details (continued)

Monica Cannon
495 SW Jordan Street
Ft White, FL

Project Title: Cannon Residence

Climate:FL_GAINESVILLE_REGIONAL_A

7/5/2023

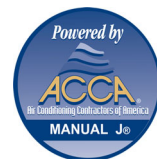
WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	22044 Btuh
	Sensible Duct Load	9856 Btuh
	Total Sensible Zone Loads	31900 Btuh
	Sensible ventilation (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Blower	0 Btuh
	Total sensible gain	31900 Btuh
	Latent infiltration gain (for 51 gr. humidity difference)	2435 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	2517 Btuh
	Latent occupant gain (10.0 people @ 200 Btuh per person)	2000 Btuh
	Latent other gain	0 Btuh
	Latent total gain	6952 Btuh
	TOTAL GAIN	38852 Btuh

EQUIPMENT

1. Central Unit	#	38852 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