

Project Name: Drake Res_ Street: SW Cheifland Lane City, State, Zip: Ft White, FL, Owner: Bart & Leslie Drake 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 2 5. Is this a worst case? No 6. Conditioned floor area above grade (ft²) 1734 Conditioned floor area below grade (ft²) 0 7. Windows(224.3 sqft.) Description Area a. U-Factor: Dbl, U=0.36 224.33 ft² SHGC: SHGC=0.25 b. U-Factor: N/A ft² SHGC: c. U-Factor: N/A ft² SHGC: Area Weighted Average Overhang Depth: 11.950 ft Area Weighted Average SHGC: 0.250 8. Skylights Description Area U-Factor:(AVG) N/A N/A ft² SHGC(AVG): N/A 9. Floor Types Insulation Area a. Slab-On-Grade Edge Insulation R= 0.0 1734.00 ft² b. N/A R= ft² c. N/A R= ft²	10. Wall Types(1590.0 sqft.) Insulation Area a. Frame - Wood, Exterior R=19.0 1348.50 ft² b. Frame - Wood, Adjacent R=19.0 241.50 ft² c. N/A d. N/A 11. Ceiling Types(1907.4 sqft.) Insulation Area a. Flat ceiling under att (Vented) R=38.0 1907.40 ft² b. N/A c. N/A 12. Roof(Comp. Shingles, Vented) Deck R=0.0 2008 ft² 13. Ducts, location & insulation level R ft² a. Sup: Attic, Ret: Attic, AH: Garage 6 434 b. c. 14. Cooling Systems kBtu/hr Efficiency a. Central Unit 26.0 SEER2:15.00 15. Heating Systems kBtu/hr Efficiency a. Electric Heat Pump 26.3 HSPF2:8.80 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:0.129	Total Proposed Modified Loads: 39.43	PASS
	Total Baseline Loads: 44.32	

NOTE: Proposed residence must have annual total normalized Modified Loads that are less than or equal to 95 percent of the annual total loads of the standard reference design in order to comply.

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. PREPARED BY: _____ DATE: <u>5 / 14 / 2026</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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INPUT SUMMARY CHECKLIST REPORT

PROJECT													
Title:	Drake Res_			Bedrooms:	2		Address type:	Street Address					
Building Type:	User			Conditioned Area:	1734		Lot #:	---					
Owner:	Bart & Leslie Drake			Total Stories:	1		Block/SubDivision:	---					
Builder Home ID:				Worst Case:	No		PlatBook:	---					
Builder Name:				Rotate Angle:	0		Street:	SW Cheifland Lane					
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:	2026												
Comment:													
CLIMATE													
✓ Design Location	Tmy Site			Design Temp	97.5% 2.5%		Int Design Temp	Winter Summer		Heating Degree Days	Design Moisture	Daily temp Range	
___ FL, Gainesville	FL_GAINESVILLE_REGIONA			32	92		70	75		1305.5	51	Medium	
BLOCKS													
✓ Number	Name	Area	Volume										
___ 1	Block1	1734	15606 cu ft										
SPACES													
✓ Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated				
___ 1	1st Floor	1734	15606	Yes	6	2	Yes	Yes	Yes				
FLOORS (Total Exposed Area = 1734 sq.ft.)													
✓ #	Floor Type	Space	Exposed Perim(ft)	Area	R-Value Perim.	U-Factor Joist	Slab Insul. Vert/Horiz	Tile	Wood	Carpet			
___ 1	Slab-On-Grade Edge Ins	1st Floor	176.667	1734 sqft	0.0	---	0.304	2 (ft)/0 (ft)	0.00	0.00	1.00		
ROOF													
✓ #	Type	Materials	Roof Area	Gable Area	Framing. Fract.	Roof Color	Rad Barr	Solar Absor.	SA Tested	Emitt	Emitt Tested	Deck Insul.	Pitch (deg)
___ 1	Hip	Composition shingles	2008 ft²	0 ft²	0.11	Medium	Y	0.96	No	0.9	No	0	30.26
ATTIC													
✓ #	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC							
___ 1	Partial cathedral ceiling	Vented	300	1734 ft²	Y	N							
CEILING (Total Exposed Area = 1907 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	1907.4ft²	0.024	0.11	Wood					

INPUT SUMMARY CHECKLIST REPORT

WALLS (Total Exposed Area = 1590 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	SW	Exterior	Frame - Wood	1st Floor	19.0	55.0	4	9.0	0	498.0	0.061		0.23	0.75	0.0 %
___ 2	SE	Exterior	Frame - Wood	1st Floor	19.0	28.0	10	9.0	0	259.5	0.061		0.23	0.75	0.0 %
___ 3	NE	Garage	Frame - Wood	1st Floor	19.0	22.0	8	9.0	0	204.0	0.061		0.23	0.75	0.0 %
___ 4	SE	Garage	Frame - Wood	1st Floor	19.0	4.0	2	9.0	0	37.5	0.061		0.23	0.75	0.0 %
___ 5	NE	Exterior	Frame - Wood	1st Floor	19.0	32.0	8	9.0	0	294.0	0.061		0.23	0.75	0.0 %
___ 6	NW	Exterior	Frame - Wood	1st Floor	19.0	33.0	0	9.0	0	297.0	0.061		0.23	0.75	0.0 %

DOORS (Total Exposed Area = 40 sq.ft.)												
✓ #	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	In	Height Ft	In	Area	
___ 1	SW	Exterior	Insulated	1st Floor	None	0.46	3.00	0	6.00	8	20.0ft²	
___ 2	NE	Garage	Insulated	1st Floor	None	0.46	3.00	0	6.00	8	20.0ft²	

WINDOWS (Total Exposed Area = 224 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	SW	1	Vinyl	Low-E Double	Y	0.36	0.25	N	N	90.0	6	3.00	5.00	11.5	1.0	None	None
___ 2	SW	1	Vinyl	Low-E Double	Y	0.36	0.25	N	N	13.3	2	1.00	6.67	11.5	1.0	None	None
___ 3	SE	2	Vinyl	Low-E Double	Y	0.36	0.25	N	N	4.0	1	4.00	1.00	1.5	1.0	None	None
___ 4	SE	2	Vinyl	Low-E Double	Y	0.36	0.25	N	N	15.0	1	3.00	5.00	1.5	1.0	None	None
___ 5	NE	5	TIM	Low-E Double	Y	0.36	0.25	N	N	20.0	1	3.00	6.67	20.5	1.0	None	None
___ 6	NE	5	Vinyl	Low-E Double	Y	0.36	0.25	N	N	9.0	1	3.00	3.00	20.5	1.0	None	None
___ 7	NE	5	Metal	Low-E Double	Y	0.36	0.25	N	N	40.0	1	6.00	6.67	20.5	1.0	None	None
___ 8	NW	6	Vinyl	Low-E Double	Y	0.36	0.25	N	N	20.0	2	2.00	5.00	1.5	1.0	None	None
___ 9	NW	6	Vinyl	Low-E Double	Y	0.36	0.25	N	N	4.0	1	4.00	1.00	1.5	1.0	None	None
___ 10	NW	6	Vinyl	Low-E Double	Y	0.36	0.25	N	N	9.0	1	3.00	3.00	1.5	1.0	None	None

INFILTRATION										
✓ #	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)	Infiltration Test Volume
___ 1	Wholehouse	Proposed ACH(50)	0.00040	1821	99.89	187.53	0.1438	7.0	All	15606 cu ft

GARAGE								
✓ #	Floor Area	Length	Width	Roof Area	Exposed Perimeter	Area Under Uncond.	Avg. Wall Height	Exposed Wall Insulation
___ 1	524 ft²	22.7 ft²	23.1 ft²	524 ft²	65 ft	524 ft	9 ft	1

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

INPUT SUMMARY CHECKLIST REPORT

HEATING SYSTEM

✓ #	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	Geothermal Entry	HeatPump Power	Ducts Volt	Block Current
___ 1	Electric Heat Pump	None/Single		HSPF2: 8.80	26.3		0.00	0.00	0.00 sys#1

COOLING SYSTEM

✓ #	System Type	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	Air Flow cfm	SHR	Duct	Block
___ 1	Central Unit	None/Single		SEER2:15.0	26.0	780	0.75	sys#1	1

HOT WATER SYSTEM

✓ #	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	Fixt. Flow	Trap	Pipe Ins.	Pipe length
___ 1	Electric	None	Garage	0.92 (0.92)	50.0 gal	40 gal	120 deg	Standard	Yes	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 #	Location	Supply R-Value	Area	Return R-Value	Area	Leakage Type	AHU Location	CFM 25 TOT OUT	QN OUT	AHU SEALED	RLF	HVAC # Heat Cool
___ 1	Attic	6.0	434 ft²	Attic	6.0	87 ft²	Default Leakage	Garage	(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	
Thermostat Schedule: HERS 2006 Reference													
✓ 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* = 89

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

SW Cheifland Lane,Ft White,FL,

1. New construction or existing	New (From Plans)	10. Wall Types(1590.0 sqft.)	Insulation	Area
2. Single family or multiple family	Detached	a. Frame - Wood, Exterior	R=19.0	1348.50 ft ²
3. Number of units, if multiple family	1	b. Frame - Wood, Adjacent	R=19.0	241.50 ft ²
4. Number of Bedrooms	2	c. N/A		
5. Is this a worst case?	No	d. N/A		
6. Conditioned floor area above grade (ft ²)	1734	11. Ceiling Types(1907.4 sqft.)	Insulation	Area
Conditioned floor area below grade (ft ²)	0	a. Flat ceiling under att (Vented)	R=38.0	1907.40 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	2008 ft ²
b. U-Factor:	N/A	13. Ducts, location & insulation level	R	ft ²
SHGC:		a. Sup: Attic, Ret: Attic, AH: Garage	6	434
c. U-Factor:	N/A	b.		
SHGC:		c.		
Area Weighted Average Overhang Depth:	11.950 ft	14. Cooling Systems	kBtu/hr	Efficiency
Area Weighted Average SHGC:	0.250	a. Central Unit	26.0	SEER2:15.00
8. Skylights	Description	15. Heating Systems	kBtu/hr	Efficiency
U-Factor:(AVG)	N/A	a. Electric Heat Pump	26.3	HSPF2:8.80
SHGC(AVG):	N/A			
9. Floor Types	Insulation	16. Hot Water Systems		
a. Slab-On-Grade Edge Insulation	R= 0.0	a. Electric		Cap: 50 gallons
b. N/A	R=			EF: 0.920
c. N/A	R=	b. Conservation features		
				None
		17. Credits		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: SW Cheifland Lane

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
2023 Florida Building Code, Energy Conservation, 8th Edition

Jurisdiction:	Permit #:		
Job Information			
Builder:	Community:	Lot:	NA
Address: SW Cheifland Lane			
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 R405-2023 (Performance) or R406-2023 (ERI), section labeled as infiltration, sub-section ACH50. ACH(50) specified on Form R405-2023-Energy Calc (Performance) or R406-2023 (ERI): 7.000			
$\frac{\text{CFM}(50)}{\text{Building Volume}} \times 60 \div \frac{15606}{\text{ACH}(50)} =$ 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. The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding seven air changes per hour in Climate Zones 1 and 2, and three air changes per hour in Climate Zones 3 through 8. Dwelling units with an air leakage rate less than three air changes per hour shall be provided with whole-house mechanical ventilation in accordance with Section R403.6.1 of this code and Section M1507.3 if the <i>Florida Building Code, Residential</i>. 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 (7), <i>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 trade official <i>code official</i>. Testing shall be performed at any time after creation of all penetrations of the building <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. 7. If an attic is both sealed and insulated at the roof deck, interior access doors and hatches between the conditioned space volume and the attic shall be opened during the test and the volume of the attic shall be added to the conditioned space volume for purposes of reporting the infiltration volume and calculating the air leakage of the home.			
Testing Company			
Company Name: _____ Phone: _____ I hereby verify that the above Air Leakage results are in accordance with the 2023 8th 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

Bart & Leslie Drake
SW Cheifland Lane
Ft White, FL

Project Title:
Drake Res_

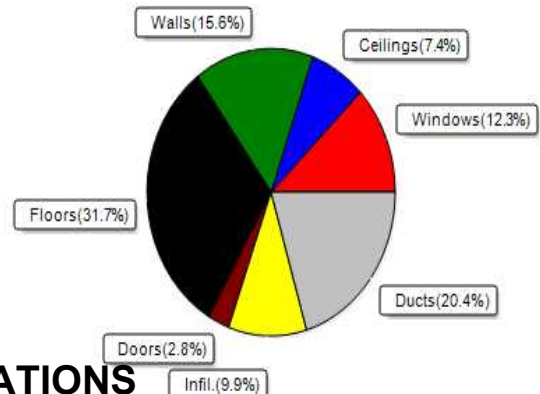
5/14/2026

Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(152 ft.) Temp Range(M)			
Humidity data: Interior RH (50%) Outdoor wet bulb (79F) Humidity difference(54gr.)			
Winter design temperature(MJ8 99%/Cu)33 F		Summer design temperature(MJ8 99%/Cu)99 F	
Winter setpoint 70 F		Summer setpoint 75 F	
Winter temperature difference 37 F		Summer temperature difference 24 F	
Total heating load calculation	24364 Btuh	Total cooling load calculation	23717 Btuh
Submitted heating capacity % of calc Btuh		Submitted cooling capacity % of calc Btuh	
Total (Electric Heat Pump) 108.0 26314		Sensible (SHR = 0.75) 99.8 19500	
Heat Pump + Auxiliary(0.0kW) 108.0 26314		Latent 155.3 6500	
		Total (Electric Heat Pump) 109.6 26000	

WINTER CALCULATIONS

Winter Heating Load (for 1734 sqft)

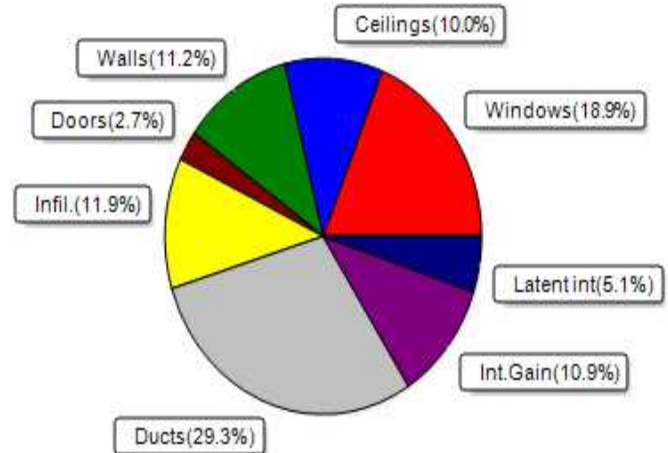
Load component		Load	
Window total	224 sqft	2988 Btuh	
Wall total	1326 sqft	3790 Btuh	
Door total	40 sqft	681 Btuh	
Ceiling total	1907 sqft	1791 Btuh	
Floor total	1734 sqft	7713 Btuh	
Infiltration	60 cfm	2424 Btuh	
Duct loss		4977 Btuh	
Subtotal		24364 Btuh	
Ventilation Ex:0 cfm; Sup:0 cfm		0 Btuh	
TOTAL HEAT LOSS		24364 Btuh	



SUMMER CALCULATIONS

Summer Cooling Load (for 1734 sqft)

Load component		Load	
Window total	224 sqft	4489 Btuh	
Wall total	1326 sqft	2663 Btuh	
Door total	40 sqft	644 Btuh	
Ceiling total	1907 sqft	2372 Btuh	
Floor total		0 Btuh	
Infiltration	45 cfm	1179 Btuh	
Internal gain		2580 Btuh	
Duct gain		5604 Btuh	
Sens.Ventilation Ex:0 cfm; Sup:0 cfm		0 Btuh	
Blower Load		0 Btuh	
Total sensible gain		19532 Btuh	
Latent gain(ducts)		1345 Btuh	
Latent gain(infiltration)		1640 Btuh	
Latent gain(ventilation)		0 Btuh	
Latent gain(internal/occupants/other)		1200 Btuh	
Total latent gain		4185 Btuh	
TOTAL HEAT GAIN		23717 Btuh	



8th Edition

EnergyGauge® System Sizing

PREPARED BY: _____

DATE: 5 / 14 / 2026

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Bart & Leslie Drake
SW Cheifland Lane
Ft White, FL

Project Title:
Drake Res
Building Type: User

5/14/2026

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 37.0 °F (MJ8 99%/Cu)
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	Vinyl	0.36	SW	90.0		13.3	1199 Btuh
2	2, NFRC 0.25	Vinyl	0.36	SW	13.3		13.3	178 Btuh
3	2, NFRC 0.25	Vinyl	0.36	SE	4.0		13.3	53 Btuh
4	2, NFRC 0.25	Vinyl	0.36	SE	15.0		13.3	200 Btuh
5	2, NFRC 0.25	TIM	0.36	NE	20.0		13.3	266 Btuh
6	2, NFRC 0.25	Vinyl	0.36	NE	9.0		13.3	120 Btuh
7	2, NFRC 0.25	Metal	0.36	NE	40.0		13.3	533 Btuh
8	2, NFRC 0.25	Vinyl	0.36	NW	20.0		13.3	266 Btuh
9	2, NFRC 0.25	Vinyl	0.36	NW	4.0		13.3	53 Btuh
10	2, NFRC 0.25	Vinyl	0.36	NW	9.0		13.3	120 Btuh
Window Total					224.3(sqft)			2988 Btuh
Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area	X	HTM=	Load
1	Frame - Wood	- Ext	(0.077)	19.0/0.0	375		2.86	1071 Btuh
2	Frame - Wood	- Ext	(0.077)	19.0/0.0	241		2.86	688 Btuh
3	Frame - Wood	- Adj	(0.077)	19.0/0.0	184		2.86	526 Btuh
4	Frame - Wood	- Adj	(0.077)	19.0/0.0	38		2.86	107 Btuh
5	Frame - Wood	- Ext	(0.077)	19.0/0.0	225		2.86	643 Btuh
6	Frame - Wood	- Ext	(0.077)	19.0/0.0	264		2.86	755 Btuh
Wall Total					1326(sqft)			3790 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	Flat ceil/D/Shing		(0.025)	38.0/0.0	1907		0.94	1791 Btuh
Ceiling Total					1907(sqft)			1791Btuh
Floors	Type		Ueff.	R-Value	Size	X	HTM=	Load
1	Slab On Grade		(1.180)	0.0	176.7 ft(perim.)		43.7	7713 Btuh
Floor Total					1734 sqft			7713 Btuh
Envelope Subtotal:								16964 Btuh
Infiltration	Type	Wholehouse	ACH	Volume(cuft)	Wall Ratio	CFM=		Load
	Natural		0.23	15606	1.00	59.8		2424 Btuh
Duct load	Average sealed, R6.0, Supply(Att), Return(Att) (DLM of 0.257)							4977 Btuh
All Zones	Sensible Subtotal All Zones							24364 Btuh

Manual J Winter Calculations

Residential Load - Component Details (continued)

Bart & Leslie Drake
SW Cheifland Lane
Ft White, FL

Project Title:
Drake Res
Building Type: User

5/14/2026

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss	24364 Btuh
	Ventilation Sens. Heat Loss (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Total Heat Loss	24364 Btuh

EQUIPMENT

1. Electric Heat Pump	#	26314 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

Bart & Leslie Drake
SW Cheifland Lane
Ft White, FL

Project Title:
Drake Res_

5/14/2026

Reference City: Gainesville, FL (Defaults)
Humidity difference: 54gr.

Temperature Difference: 24.0F(MJ8 99%/Cu)
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	SW		11.5f	1.0ft.	90.0	90.0	0.0	14	27	1251	Btuh	
2	2 NFRC	0.25, 0.36	No	No	SW		11.5f	1.0ft.	13.3	13.3	0.0	14	27	185	Btuh	
3	2 NFRC	0.25, 0.36	No	No	SE		1.5ft.	1.0ft.	4.0	4.0	0.0	14	27	56	Btuh	
4	2 NFRC	0.25, 0.36	No	No	SE		1.5ft.	1.0ft.	15.0	4.4	10.6	14	27	343	Btuh	
5	2 NFRC	0.25, 0.36	No	No	NE		20.5f	1.0ft.	20.0	0.0	20.0	14	25	509	Btuh	
6	2 NFRC	0.25, 0.36	No	No	NE		20.5f	1.0ft.	9.0	0.0	9.0	14	25	229	Btuh	
7	2 NFRC	0.25, 0.36	No	No	NE		20.5f	1.0ft.	40.0	0.0	40.0	14	25	1018	Btuh	
8	2 NFRC	0.25, 0.36	No	No	NW		1.5ft.	1.0ft.	20.0	0.0	20.0	14	25	509	Btuh	
9	2 NFRC	0.25, 0.36	No	No	NW		1.5ft.	1.0ft.	4.0	0.0	4.0	14	25	102	Btuh	
10	2 NFRC	0.25, 0.36	No	No	NW		1.5ft.	1.0ft.	9.0	0.0	9.0	14	25	229	Btuh	
	Excursion													60	Btuh	
	Window Total									224 (sqft)					4489 Btuh	
Walls	Type						U-Value	R-Value	Area(sqft)			HTM		Load		
								Cav/Sheath								
1	Frame - Wood - Ext						0.08	19.0/0.0	374.7			2.0		764	Btuh	
2	Frame - Wood - Ext						0.08	19.0/0.0	240.5			2.0		491	Btuh	
3	Frame - Wood - Adj						0.08	19.0/0.0	184.0			1.9		341	Btuh	
4	Frame - Wood - Adj						0.08	19.0/0.0	37.5			1.9		70	Btuh	
5	Frame - Wood - Ext						0.08	19.0/0.0	225.0			2.0		459	Btuh	
6	Frame - Wood - Ext						0.08	19.0/0.0	264.0			2.0		539	Btuh	
	Wall Total								1326 (sqft)					2663 Btuh		
Doors	Type						Area (sqft)			HTM		Load				
1	Insulated - Exterior						20.0			16.1		322	Btuh			
2	Insulated - Garage						20.0			16.1		322	Btuh			
	Door Total						40 (sqft)					644 Btuh				
Ceilings	Type/Color/Surface						U-Value	R-Value	Area(sqft)			HTM		Load		
1	Vented Attic/DarkShingle/RB						0.025	38.0/0.0	1907.4			1.24		2372	Btuh	
	Ceiling Total								1907 (sqft)					2372 Btuh		
Floors	Type						R-Value			Size			HTM		Load	
1	Slab On Grade						0.0			1734 (ft-perimeter)			0.0		0	Btuh
	Floor Total									1734.0 (sqft)					0 Btuh	
	Envelope Subtotal:														10168 Btuh	
Infiltration	Type						Average ACH		Volume(cuft)		Wall Ratio		CFM=		Load	
	Natural						0.17		15606		1		44.9		1179	Btuh
Internal gain							Occupants		Btuh/occupant		Appliance		Load			
							6		X 230		+		1200		2580	Btuh
	Sensible Envelope Load:														13927 Btuh	

Manual J Summer Calculations

Residential Load - Component Details (continued)

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Duct load	Average sealed,Supply(R6.0-Attic), Return(R6.0-Attic)	(DGM of 0.402)	5604 Btuh
	Sensible Load All Zones		19532 Btuh

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Residential Load - Component Details (continued)

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WHOLE HOUSE TOTALS

Whole House Totals for Cooling	Sensible Envelope Load All Zones	13927 Btuh
	Sensible Duct Load	5604 Btuh
	Total Sensible Zone Loads	19532 Btuh
	Sensible ventilation (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Blower	0 Btuh
	Total sensible gain	19532 Btuh
	Latent infiltration gain (for 54 gr. humidity difference)	1640 Btuh
	Latent ventilation gain	0 Btuh
	Latent duct gain	1345 Btuh
	Latent occupant gain (6.0 people @ 200 Btuh per person)	1200 Btuh
	Latent other gain	0 Btuh
	Latent total gain	4185 Btuh
	TOTAL GAIN	23717 Btuh

EQUIPMENT

1. Central Unit	#	26000 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