FORM R405-2023

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name:	Mink Res - 2nd floor	Builder Name:	
Street:	22185 S Highway 441	Permit Office:	Columbia County
City, State, Zip:	High Springs, FL, 32643	Permit Number:	
Owner:	Kimberly Mink	Jurisdiction:	
Design Location:	FL, Gainesville	County:	Columbia(Florida Climate Zone 2)

1. New construction or existing	Addition
2. Single family or multiple family	Detached
3. Number of units, if multiple family	1
4. Number of Bedrooms	1
5. Is this a worst case?	No
6. Conditioned floor area above grade (ft²)	1214
Conditioned floor area below grade (ft²)	0

7. Windows(31.6 sqft.)	Description	Area
a. U-Factor:	Dbl, U=0.36	31.56 ft²
SHGC:	SHGC=0.25	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		1.000 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. Raised Floor	R= 19.0	1214.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

10. Wall Types(1495.3 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	1495.30 ft²
b. N/A		
c. N/A		
d. N/A		

11. Ceiling Types(1214.0 sqft.)	Insulation	Area
a. Flat ceiling under att (Vented)	R=38.0	1214.00 ft²
b. N/A		
c. N/A		

12. Roof(Comp. Shingles, Vented)	Deck R=0.0	1717 ft²

13. Ducts, location & insulation level	R	ft²
a. Sup: Attic, Ret: Attic, AH: 2nd Floor	6	304
b.		
c.		

14. Cooling Systems	kBtu/hr	Efficiency
a. Central Unit	23.5	SEER2:15.50

15. Heating Systems	kBtu/hr	Efficiency
a. Electric Heat Pump	23.5	HSPF2:8.80

16. Hot Water Systems - None required
a. N/A — N/A

b. Conservation features

17. Credits — CV, Pstat

Glass/Floor Area: 0.026

Total Proposed Modified Loads: 30.44
Total Baseline Loads: 32.08

PASS

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: 4 / 15 / 2026

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 certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with R403.3.2.1.
- Default duct leakage does not require a Duct Leakage Test Report.
- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires a PERFORMANCE envelope leakage test report with envelope leakage no greater than 7.00 ACH50 (R402.4.1.2). (Exception may apply)

FORM R405-2023

INPUT SUMMARY CHECKLIST REPORT

PROJECT

Title:	Mink Res - 2nd floor			Address type:	Street Address
Building Type:	User	Bedrooms:	1	Lot #:	---
Owner:	Kimberly Mink	Conditioned Area:	1214	Block/SubDivision:	---
Builder Home ID:		Total Stories:	1	PlatBook:	---
Builder Name:		Worst Case:	No	Street:	22185 S Highway 441
Permit Office:	Columbia County	Rotate Angle:	0	County:	Columbia
Jurisdiction:		Cross Ventilation:	Yes	City, State, Zip:	High Springs, FL, 32643
Family Type:	Detached	Whole House Fan:	No		
New/Existing:	Addition	Terrain:	Suburban		
Year Construct:	2026	Shielding:	Suburban		
Comment:					

CLIMATE

√	Design Location	Tmy Site	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_REGIONA	32	92	70	75	1305.5	51	Medium

BLOCKS

√	Number	Name	Area	Volume
___	1	Block1	1214	9712 cu ft

SPACES

√	Number	Name	Area	Volume	Kitchen	Occupants	Bedrooms	Finished	Cooled	Heated
___	1	2nd Floor	1214	9712	No	4	1	Yes	Yes	Yes

FLOORS (Total Exposed Area = 1214 sq.ft.)

√	#	Floor Type	Space	Exposed Perim(ft)	Area	R-Value Perim.	R-Value Joist	U-Factor	Slab Insul. Vert/Horiz	Tile	Wood	Carpet
___	1	Raised Floor	2nd Floor	---	1214 sqft	---	19.0	0.047	-------	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	Gable or shed	Composition shingles	1717 ft²	606 ft²	0.11	Medium	Y	0.96	No	0.9	No	0	45

ATTIC

√	#	Type	Ventilation	Vent Ratio (1 in)	Area	RBS	IRCC
___	1	Full attic	Vented	300	1214 ft²	Y	N

CEILING (Total Exposed Area = 1214 sq.ft.)

√	#	Ceiling Type	Space	R-Value	Ins. Type	Area	U-Factor	Framing Frac.	Truss Type
___	1	Flat ceiling under attic(Vented)	2nd Floor	38.0	Double Batt	1214.0ft²	0.024	0.11	Wood

FORM R405-2023

INPUT SUMMARY CHECKLIST REPORT

WALLS (Total Exposed Area = 1495 sq.ft.)

√	#	Ornt	Adjacent To	Wall Type	Space	Cavity R-Value	Width Ft	Width In	Height Ft	Height In	Area sq.ft.	U-Factor	Sheath R-Value	Frm. Frac.	Solar Absor.	Below Grade
___	1	SW	Exterior	Frame - Wood	2nd Floor	13.0	17.0	0	8.0	0	136.0	0.084		0.23	0.75	0.0 %
___	2	S	Exterior	Frame - Wood	2nd Floor	13.0	18.0	4	8.0	0	146.7	0.084		0.23	0.75	0.0 %
___	3	W	Exterior	Frame - Wood	2nd Floor	13.0	21.0	6	8.0	0	172.0	0.084		0.23	0.75	0.0 %
___	4	S	Exterior	Frame - Wood	2nd Floor	13.0	18.0	7	8.0	0	148.7	0.084		0.23	0.75	0.0 %
___	5	E	Exterior	Frame - Wood	2nd Floor	13.0	19.0	9	8.0	0	158.0	0.084		0.23	0.75	0.0 %
___	6	S	Exterior	Frame - Wood	2nd Floor	13.0	4.0	6	8.0	0	36.0	0.084		0.23	0.75	0.0 %
___	7	E	Exterior	Frame - Wood	2nd Floor	13.0	12.0	7	8.0	0	100.7	0.084		0.23	0.75	0.0 %
___	8	N	Exterior	Frame - Wood	2nd Floor	13.0	4.0	6	8.0	0	36.0	0.084		0.23	0.75	0.0 %
___	9	E	Exterior	Frame - Wood	2nd Floor	13.0	19.0	9	8.0	0	158.0	0.084		0.23	0.75	0.0 %
___	10	N	Exterior	Frame - Wood	2nd Floor	13.0	18.0	7	8.0	0	148.7	0.084		0.23	0.75	0.0 %
___	11	W	Exterior	Frame - Wood	2nd Floor	13.0	13.0	6	8.0	0	108.0	0.084		0.23	0.75	0.0 %
___	12	N	Exterior	Frame - Wood	2nd Floor	13.0	18.0	4	8.0	0	146.7	0.084		0.23	0.75	0.0 %

DOORS (Total Exposed Area = 20 sq.ft.)

√	#	Ornt	Adjacent To	Door Type	Space	Storms	U-Value	Width Ft	Width In	Height Ft	Height In	Area
___	1	SW	Exterior	Insulated	2nd Floor	None	0.46	3.00	0	6.00	8	20.0ft²

WINDOWS (Total Exposed Area = 32 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	4.0	1	2.00	2.00	1.0	2.0	None	None
___	2	W	3	Vinyl	Low-E Double	Y	0.36	0.25	N	N	13.8	1	2.67	5.17	1.0	1.0	None	None
___	3	E	7	Vinyl	Low-E Double	Y	0.36	0.25	N	N	13.8	1	2.67	5.17	1.0	0.5	None	None

INFILTRATION

√	#	Scope	Method	SLA	CFM50	ELA	EqLA	ACH	ACH50	Space(s)	Infiltration Test Volume
___	1	Wholehouse	Proposed ACH(50)	0.00036	1133	62.16	116.70	0.1372	7.0	All	9712 cu ft

MASS

√	#	Mass Type	Area	Thickness	Furniture Fraction	Space
___	1	Default(8 lbs/sq.ft.)	0 ft²	0 ft	0.30	2nd Floor

HEATING SYSTEM

√	#	System Type/Fl. Addition	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	----Geothermal HeatPump---- Entry	Power	Volt	Current	Ducts	Block
___	1	Electric Heat Pump/Supplementa	None/Single		HSPF2: 8.80	23.5		0.00	0.00	0.00	sys#1	1

COOLING SYSTEM

√	#	System Type/Fl. Addition	Subtype/Speed	AHRI #	Efficiency	Capacity kBtu/hr	Air Flow cfm	SHR	Duct	Block
___	1	Central Unit/Supplementa	None/Single		SEER2:15.5	23.5	705	0.75	sys#1	1

FORM R405-2023

INPUT SUMMARY CHECKLIST REPORT

HOT WATER SYSTEM

✓ #	System Type	Subtype	Location	EF(UEF)	Cap	Use	SetPnt	Fixt. Flow	Trap	Pipe Ins.	Pipe length

Recirculation System	Recirc Control Type	Loop length	Branch length	Pump power	DWHR	Facilities Connected	Equal Flow	DWHR Eff	Other Credits

DUCTS

✓ Duct #	Supply Location	Supply R-Value	Supply Area	Return Location	Return R-Value	Return Area	Leakage Type	AHU Location	CFM 25 TOT|OUT	QN OUT	AHU SEALED	RLF	HVAC # Heat	HVAC # Cool
___ 1	Attic	6.0	304 ft²	Attic	6.0	61 ft²	Default Leakage	2nd Floor	(Default) (Default)				1	1

TEMPERATURES

Programable Thermostat: Y Ceiling Fans: N

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cooling	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]	[X]	[X]	[ ]	[ ]	[ ]
Heating	[X]	[X]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[X]	[X]
Venting	[ ]	[ ]	[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 R405-2023

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE INDEX* = 95

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

22185 S Highway 441,High Springs,FL,32643

1. New construction or existing		Addition
2. Single family or multiple family		Detached
3. Number of units, if multiple family		1
4. Number of Bedrooms		1
5. Is this a worst case?		No
6. Conditioned floor area above grade (ft²)		1214
Conditioned floor area below grade (ft²)		0

7. Windows**	Description	Area
a. U-Factor:	Dbl, U=0.36	31.56 ft²
SHGC:	SHGC=0.25	
b. U-Factor:	N/A	ft²
SHGC:		
c. U-Factor:	N/A	ft²
SHGC:		
Area Weighted Average Overhang Depth:		1.000 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. Raised Floor	R= 19.0	1214.00 ft²
b. N/A	R=	ft²
c. N/A	R=	ft²

10. Wall Types(1495.3 sqft.)	Insulation	Area
a. Frame - Wood, Exterior	R=13.0	1495.30 ft²
b. N/A		
c. N/A		
d. N/A		

11. Ceiling Types(1214.0 sqft.)	Insulation	Area
a. Flat ceiling under att (Vented)	R=38.0	1214.00 ft²
b. N/A		
c. N/A		

12. Roof(Comp. Shingles, Vented)	Deck R=0.0	1717 ft²

13. Ducts, location & insulation level	R	ft²
a. Sup: Attic, Ret: Attic, AH: 2nd Floor	6	304
b.		
c.		

14. Cooling Systems	kBtu/hr	Efficiency
a. Central Unit	23.5	SEER2:15.50

15. Heating Systems	kBtu/hr	Efficiency
a. Electric Heat Pump	23.5	HSPF2:8.80

16. Hot Water Systems - None required
a. N/A — N/A

b. Conservation features

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: 22185 S Highway 441 City/FL Zip: High Springs,FL,32643

*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: 22185 S Highway 441

City: High Springs State: FL Zip: 32643

Air Leakage Test Results *Passing results must meet either the Performance, Prescriptive, or ERI Method*

○ **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

_____ x 60 ÷ 9712 = _____
CFM(50) Building Volume 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 *Florida Building Code, Residential*. 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), *Florida Statues*, 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 *code official*. Testing shall be performed at any time after creation of all penetrations of the *building thermal envelope*.

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

Kimberly Mink
22185 S Highway 441
High Springs, FL 32643

Project Title:
Mink Res - 2nd floor

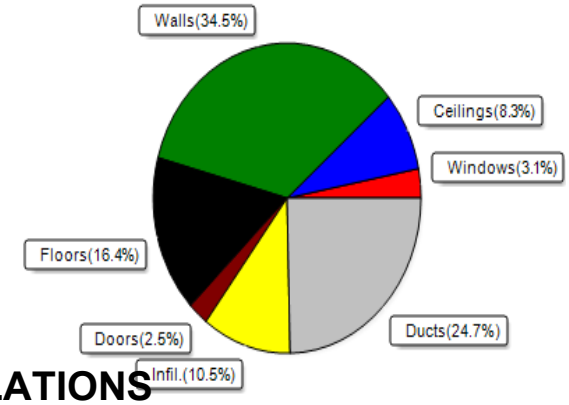
4/15/2026

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	**13725**	**Btuh**	**Total cooling load calculation**	**17262**	**Btuh**
Submitted heating capacity	% of calc	Btuh	Submitted cooling capacity	% of calc	Btuh
Total (Electric Heat Pump)	171.2	23500	Sensible (SHR = 0.75)	121.0	17625
Heat Pump + Auxiliary(0.0kW)	171.2	23500	Latent	218.1	5875
			Total (Electric Heat Pump)	136.1	23500

WINTER CALCULATIONS

Winter Heating Load (for 1214 sqft)

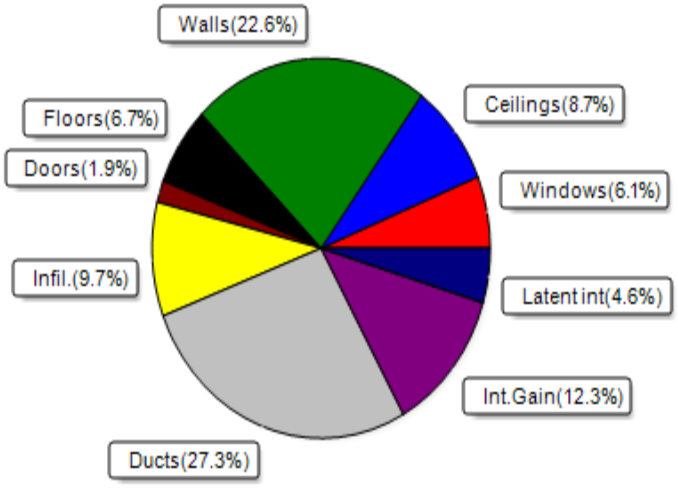
Load component			Load	
Window total	32	sqft	420	Btuh
Wall total	1444	sqft	4741	Btuh
Door total	20	sqft	340	Btuh
Ceiling total	1214	sqft	1140	Btuh
Floor total	1214	sqft	2252	Btuh
Infiltration	36	cfm	1439	Btuh
Duct loss			3391	Btuh
Subtotal			**13725**	**Btuh**
Ventilation	Ex:0 cfm; Sup:0 cfm		0	Btuh
TOTAL HEAT LOSS			**13725**	**Btuh**



SUMMER CALCULATIONS

Summer Cooling Load (for 1214 sqft)

Load component			Load	
Window total	32	sqft	1060	Btuh
Wall total	1444	sqft	3908	Btuh
Door total	20	sqft	322	Btuh
Ceiling total	1214	sqft	1510	Btuh
Floor total			1157	Btuh
Infiltration	27	cfm	700	Btuh
Internal gain			2120	Btuh
Duct gain			3791	Btuh
Sens.Ventilation	Ex:0 cfm; Sup:0 cfm		0	Btuh
Blower Load			0	Btuh
Total sensible gain			**14568**	**Btuh**
Latent gain(ducts)			920	Btuh
Latent gain(infiltration)			974	Btuh
Latent gain(ventilation)			0	Btuh
Latent gain(internal/occupants/other)			800	Btuh
Total latent gain			**2694**	**Btuh**
TOTAL HEAT GAIN			**17262**	**Btuh**



Powered by ACCA MANUAL J8 8th Edition

EnergyGauge® System Sizing
PREPARED BY: _____
DATE: 4 / 15 / 2026

System Sizing Calculations - Winter

Residential Load - Whole House Component Details

Kimberly Mink
22185 S Highway 441
High Springs, FL 32643

Project Title:
Mink Res - 2nd floor
Building Type: User

4/15/2026

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	4.0	13.3	53 Btuh
2	2, NFRC 0.25	Vinyl	0.36	W	13.8	13.3	184 Btuh
3	2, NFRC 0.25	Vinyl	0.36	E	13.8	13.3	184 Btuh
	Window Total				31.6(sqft)		420 Btuh
Walls	Type	Ornt.	Ueff.	R-Value (Cav/Sh)	Area X	HTM=	Load
1	Frame - Wood	- Ext	(0.089)	13.0/0.0	112	3.28	368 Btuh
2	Frame - Wood	- Ext	(0.089)	13.0/0.0	147	3.28	482 Btuh
3	Frame - Wood	- Ext	(0.089)	13.0/0.0	158	3.28	520 Btuh
4	Frame - Wood	- Ext	(0.089)	13.0/0.0	149	3.28	488 Btuh
5	Frame - Wood	- Ext	(0.089)	13.0/0.0	158	3.28	519 Btuh
6	Frame - Wood	- Ext	(0.089)	13.0/0.0	36	3.28	118 Btuh
7	Frame - Wood	- Ext	(0.089)	13.0/0.0	87	3.28	285 Btuh
8	Frame - Wood	- Ext	(0.089)	13.0/0.0	36	3.28	118 Btuh
9	Frame - Wood	- Ext	(0.089)	13.0/0.0	158	3.28	519 Btuh
10	Frame - Wood	- Ext	(0.089)	13.0/0.0	149	3.28	488 Btuh
11	Frame - Wood	- Ext	(0.089)	13.0/0.0	108	3.28	355 Btuh
12	Frame - Wood	- Ext	(0.089)	13.0/0.0	147	3.28	482 Btuh
	Wall Total				1444(sqft)		4741 Btuh
Doors	Type	Storm	Ueff.		Area X	HTM=	Load
1	Insulated - Exterior, n		(0.460)		20	17.0	340 Btuh
	Door Total				20(sqft)		340Btuh
Ceilings	Type/Color/Surface		Ueff.	R-Value	Area X	HTM=	Load
1	Flat ceil/D/Shing		(0.025)	38.0/0.0	1214	0.94	1140 Btuh
	Ceiling Total				1214(sqft)		1140Btuh
Floors	Type		Ueff.	R-Value	Size X	HTM=	Load
1	Raised - Open		(0.050)	19.0	1214.0 sqft	1.9	2252 Btuh
	Floor Total				1214 sqft		2252 Btuh
					Envelope Subtotal:		8895 Btuh
Infiltration	Type	Wholehouse	ACH	Volume(cuft)	Wall Ratio	CFM=	
	Natural		0.22	9712	1.00	35.5	1439 Btuh
Duct load	Average sealed, R6.0, Supply(Att), Return(Att)					(DLM of 0.328)	3391 Btuh
All Zones					**Sensible Subtotal All Zones**		**13725 Btuh**

Manual J Winter Calculations

Residential Load - Component Details (continued)

Kimberly Mink
22185 S Highway 441
High Springs, FL 32643

Project Title:
Mink Res - 2nd floor
Building Type: User

4/15/2026

WHOLE HOUSE TOTALS

Totals for Heating	Subtotal Sensible Heat Loss	13725 Btuh
	Ventilation Sens. Heat Loss (Ex:0 cfm; Sup:0 cfm)	0 Btuh
	Total Heat Loss	13725 Btuh

EQUIPMENT

1. Electric Heat Pump	#	23500 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)

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System Sizing Calculations - Summer

Residential Load - Whole House Component Details

Kimberly Mink
22185 S Highway 441
High Springs, FL 32643

Project Title:
Mink Res - 2nd floor

4/15/2026

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

	Type*					Overhang		Window Area(sqft)			HTM		Load
Window	Panes	SHGC	U	InSh	IS	Ornt	Len	Hgt	Gross	Shaded	Unshaded	Shaded	Unshaded	
1	2 NFRC	0.25, 0.36		No	No	SW	1.0ft.	2.0ft.	4.0	0.0	4.0	14	27	106 Btuh
2	2 NFRC	0.25, 0.36		No	No	W	1.0ft.	1.0ft.	13.8	0.0	13.8	14	33	451 Btuh
3	2 NFRC	0.25, 0.36		No	No	E	1.0ft.	0.5ft.	13.8	0.9	12.9	14	33	435 Btuh
	Excursion AE													
	Window Total										32 (sqft)			1060 Btuh

Walls	Type	U-Value	R-Value	Area(sqft)	HTM	Load
			Cav/Sheath			
1	Frame - Wood - Ext	0.09	13.0/0.0	112.0	2.7	303 Btuh
2	Frame - Wood - Ext	0.09	13.0/0.0	146.7	2.7	397 Btuh
3	Frame - Wood - Ext	0.09	13.0/0.0	158.2	2.7	428 Btuh
4	Frame - Wood - Ext	0.09	13.0/0.0	148.7	2.7	402 Btuh
5	Frame - Wood - Ext	0.09	13.0/0.0	158.0	2.7	428 Btuh
6	Frame - Wood - Ext	0.09	13.0/0.0	36.0	2.7	97 Btuh
7	Frame - Wood - Ext	0.09	13.0/0.0	86.9	2.7	235 Btuh
8	Frame - Wood - Ext	0.09	13.0/0.0	36.0	2.7	97 Btuh
9	Frame - Wood - Ext	0.09	13.0/0.0	158.0	2.7	428 Btuh
10	Frame - Wood - Ext	0.09	13.0/0.0	148.7	2.7	402 Btuh
11	Frame - Wood - Ext	0.09	13.0/0.0	108.0	2.7	292 Btuh
12	Frame - Wood - Ext	0.09	13.0/0.0	146.7	2.7	397 Btuh
	Wall Total			1444 (sqft)		3908 Btuh

Doors	Type	Area (sqft)	HTM	Load
1	Insulated - Exterior	20.0	16.1	322 Btuh
	Door Total	20 (sqft)		322 Btuh

Ceilings	Type/Color/Surface	U-Value	R-Value	Area(sqft)	HTM	Load
1	Vented Attic/DarkShingle/RB	0.025	38.0/0.0	1214.0	1.24	1510 Btuh
	Ceiling Total			1214 (sqft)		1510 Btuh

Floors	Type	R-Value	Size	HTM	Load
1	Raised - Open	19.0	1214 (sqft)	1.0	1157 Btuh
	Floor Total		1214.0 (sqft)		1157 Btuh
				Envelope Subtotal:	7957 Btuh

Infiltration	Type	Average ACH	Volume(cuft)	Wall Ratio	CFM=	Load
	Natural	0.16	9712	1	26.6	700 Btuh
Internal gain		Occupants	Btuh/occupant		Appliance	Load
		4	X 230	+	1200	2120 Btuh
					Sensible Envelope Load:	10777 Btuh
Duct load	Average sealed,Supply(R6.0-Attic), Return(R6.0-Attic)				(DGM of 0.352)	3791 Btuh
					Sensible Load All Zones	**14568 Btuh**

Manual J Summer Calculations

Residential Load - Component Details (continued)

Kimberly Mink
22185 S Highway 441
High Springs, FL 32643

Project Title: Mink Res - 2nd floor

Climate:FL_GAINESVILLE_REGIONAL_A

4/15/2026

WHOLE HOUSE TOTALS

Whole House Totals for Cooling	**Sensible Envelope Load All Zones**	**10777**	**Btuh**
	Sensible Duct Load	3791	Btuh
	Total Sensible Zone Loads	**14568**	**Btuh**
	Sensible ventilation (Ex:0 cfm; Sup:0 cfm)	0	Btuh
	Blower	0	Btuh
	Total sensible gain	**14568**	**Btuh**
	Latent infiltration gain (for 54 gr. humidity difference)	974	Btuh
	Latent ventilation gain	0	Btuh
	Latent duct gain	920	Btuh
	Latent occupant gain (4.0 people @ 200 Btuh per person)	800	Btuh
	Latent other gain	0	Btuh
	Latent total gain	**2694**	**Btuh**
	TOTAL GAIN	**17262**	**Btuh**

EQUIPMENT

1. Central Unit	#	23500 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)

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