

Project Name: Frisinger Residential Build

Address: Scrubtown Road, Fort White, FL

OUTDOOR DESIGN CONDITIONS

Weather station: Gainesville Regional AP

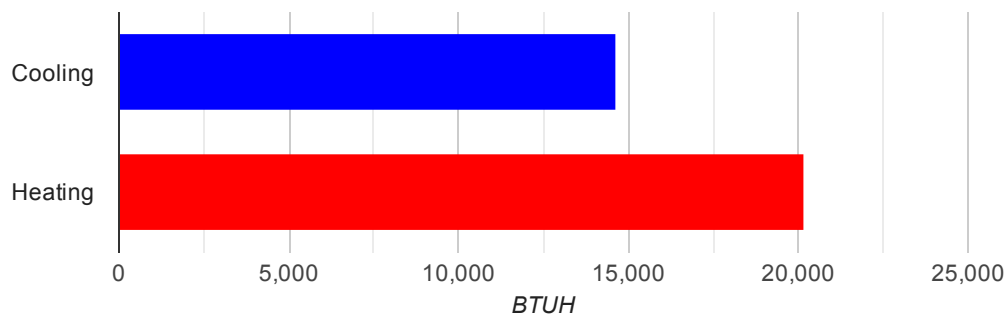
Summer Outdoor F:	92	Summer Indoor F:	75	Design Grains:	47	Daily Range:	Medium
Winter Outdoor F:	33	Winter Indoor F:	75	Cooling RH:	50	Elevation (Ft):	164

LOAD CALCULATION TOTALS

HVAC System: Mini Split

Heated square footage:	1,204	Heating BTUH:	20,124
Cooled square footage:	1,204	Cooling BTUH:	14,640
Heated volume (above grade CF):	9,631	CFM:	639
Cooled volume (above grade CF):	9,631	Sensible cooling:	12,669
Exposed wall area (SF):	1,200	Latent cooling:	1,971
		SHR:	0.865

Load Calculation



Approved ACCA MJ8 Calculations

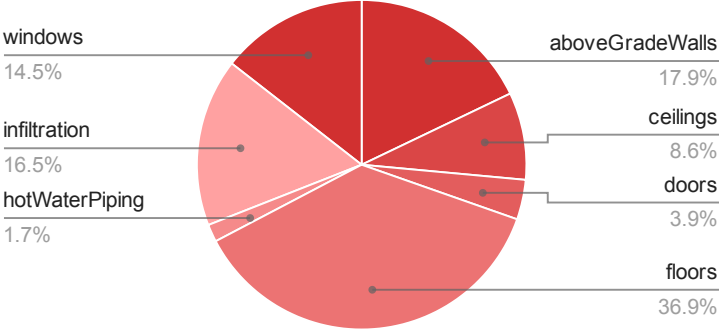
Calculations are based on the ACCA Manual J 8th Edition and are approved by ACCA. All computed calculations are estimates on building use, weather data, and inputted values such as R-Values, window types, duct loss, etc. Equipment selections should meet both the latent and sensible gain as well as building heat loss.



HEATING AND COOLING LOADS

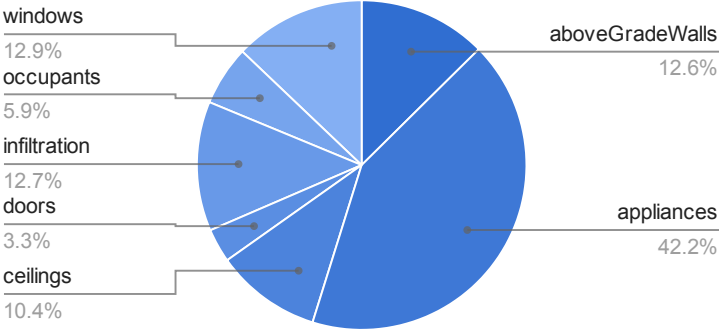
HEATING LOADS		
SECTION	AREA	HEAT LOSS
aboveGradeWalls	942	3,600
ceilings	1,416.9	1,726
doors	48	786
floors	1,203.9	7,434
hotWaterPiping	0	347
infiltration	0	3,320
skylights	0	0
windows	210	2,911
Totals		20,124

Heating Loads



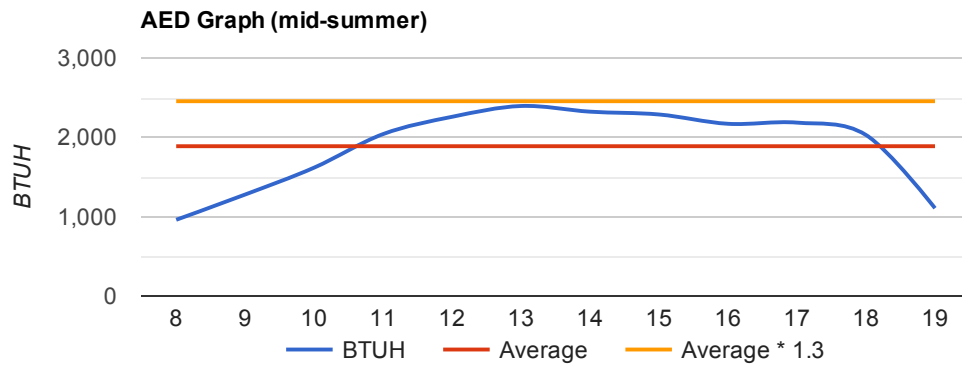
COOLING LOADS			
SECTION	AREA	SENSIBLE	LATENT
AEDExcursion	0	0	0
aboveGradeWalls	942	1,843	0
appliances	0	5,784	397
ceilings	1,416.9	1,520	0
doors	48	487	0
floors	1,203.9	0	0
infiltration	0	687	1,174
occupants	0	460	400
skylights	0	0	0
windows	210	1,887	0
Totals		12,669	1,971

Cooling Loads

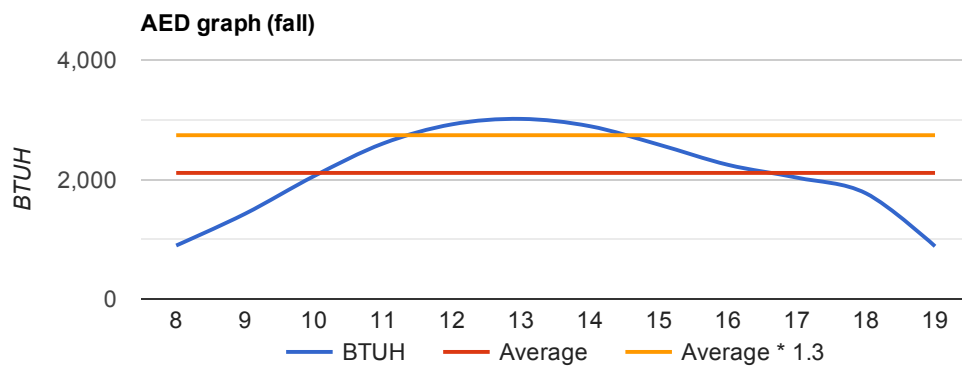


FENESTRATION LOADS

Warning (0): The sensible load for this application peaks during late fall or early winter. This behavior is caused by glass that faces SouthEast, South or SouthWest. Some rooms may be noticeably cooler or warmer than the temperature set point if zoning is not provided. Simultaneous heating and cooling may be required.



This graph represents hourly aggregate fenestration loads in mid-summer.



This graph represents hourly aggregate fenestration loads in October.

COMPONENT LOADS

ABOVE GRADE WALLS					
System generated wall - S Frame Wall, Wood framing, R-13 cavity insulation, Stucco or Siding.	Construction nr: U Value:	12C-0s w 0.091	Exposure: Area:	S 48	Heating BTUH: 183 Cooling BTUH: 94
System generated wall - N Frame Wall, Wood framing, R-13 cavity insulation, Stucco or Siding.	Construction nr: U Value:	12C-0s w 0.091	Exposure: Area:	N 204	Heating BTUH: 780 Cooling BTUH: 399
System generated wall - E Frame Wall, Wood framing, R-13 cavity insulation, Stucco or Siding.	Construction nr: U Value:	12C-0s w 0.091	Exposure: Area:	E 216	Heating BTUH: 826 Cooling BTUH: 423
System generated wall - S Frame Wall, Wood framing, R-13 cavity insulation, Stucco or Siding.	Construction nr: U Value:	12C-0s w 0.091	Exposure: Area:	S 270	Heating BTUH: 1,032 Cooling BTUH: 528
System generated wall - W Frame Wall, Wood framing, R-13 cavity insulation, Stucco or Siding.	Construction nr: U Value:	12C-0s w 0.091	Exposure: Area:	W 204	Heating BTUH: 780 Cooling BTUH: 399

BELOW GRADE WALLS					
There are no components for this section.					

WINDOWS					
Default small windows for wall id 368944 Window, NFRC rated, Low-e glass.	Construction nr: Area: Exposure:	3C 12 N	U Value: SHGC:	0.33 0.23	Heating BTUH: 166 Cooling BTUH: 101
Default medium windows for wall id 368944 Window, NFRC rated, Low-e glass.	Construction nr: Area: Exposure:	3C 48 N	U Value: SHGC:	0.33 0.23	Heating BTUH: 665 Cooling BTUH: 403
Default large windows for wall id 368944 Window, NFRC rated, Low-e glass.	Construction nr: Area: Exposure:	3C 72 N	U Value: SHGC:	0.33 0.23	Heating BTUH: 998 Cooling BTUH: 605
Default small windows for wall id 368942 Window, NFRC rated, Low-e glass.	Construction nr: Area: Exposure:	3C 6 S	U Value: SHGC:	0.33 0.23	Heating BTUH: 83 Cooling BTUH: 44
Default medium windows for wall id 368942 Window, NFRC rated, Low-e glass.	Construction nr: Area: Exposure:	3C 24 S	U Value: SHGC:	0.33 0.23	Heating BTUH: 333 Cooling BTUH: 200
Default large windows for wall id 368942 Window, NFRC rated, Low-e glass.	Construction nr: Area: Exposure:	3C 36 S	U Value: SHGC:	0.33 0.23	Heating BTUH: 499 Cooling BTUH: 327
Default small windows for wall id 368943 Window, NFRC rated, Low-e glass.	Construction nr: Area: Exposure:	3C 12 W	U Value: SHGC:	0.33 0.23	Heating BTUH: 166 Cooling BTUH: 208

Window cooling BTUHs shown here are daily average values. See AED graphs for details of fenestration loads during the day.

CEILINGS					
System generated ceiling. Ceiling below roof joists, Membrane, Light, R-38.	Construction nr: U Value:	18B-38 zl 0.029	Area:	40.8	Heating BTUH: 50 Cooling BTUH: 44

CEILINGS					
System generated ceiling. Ceiling below roof joists, Membrane, Light, R-38.	Construction nr:	18B-38 zl	Area:	1,376.1	Heating BTUH: 1,676
	U Value:	0.029			Cooling BTUH: 1,477

SKYLIGHTS
There are no components for this section.

Skylight cooling BTUHs shown here are daily average values. See AED graphs for details of fenestration loads during the day.

DOORS					
Default doors for wall id 368944 Wood Door, Solid Core.	Construction nr:	11	Area:	24	Heating BTUH: 393
	U Value:	0.39	Exposure:	N	Cooling BTUH: 243
Default doors for wall id 368942 Wood Door, Solid Core.	Construction nr:	11	Area:	24	Heating BTUH: 393
	U Value:	0.39	Exposure:	S	Cooling BTUH: 243

FLOORS					
System generated floor. Concrete slab on grade floor.	Construction nr:	22A-pm	Heating U Value:	0	Heating BTUH: 297
	Area:	72.9	Cooling U Value:	0	Cooling BTUH: 0
System generated floor. Concrete slab on grade floor.	Construction nr:	22A-pm	Heating U Value:	0	Heating BTUH: 7,137
	Area:	1,131	Cooling U Value:	0	Cooling BTUH: 0
					F Value: 1.18
					F Value: 1.18

VENTILATION
There are no components for this section.

HOT WATER PIPING				
1/2 inch Steel; 1 1/2 inches insulation or better	F-Value:	0.15	Length:	15
				Heating BTUH: 347

DUCTS
There are no components for this section.

INFILTRATION					
Leakage Category:	Average	NCFM Heating:	72	Heating BTUH:	3,320
		NCFM Cooling:	37		Sensible BTUH: 687
					Latent BTUH: 1,174

BLOWER MOTOR
There are no components for this section.

WINTER HUMIDIFICATION
There are no components for this section.

OCCUPANTS			
Nr. Occupants:	2	Sensible BTUH:	460
		Latent BTUH:	400

APPLIANCES

APPLIANCES			
Ceiling fan	Quantity:	2	Sensible BTUH: 500 Latent BTUH: 0
Clothes washing machine	Quantity:	1	Sensible BTUH: 51 Latent BTUH: 0
Color television	Quantity:	1	Sensible BTUH: 683 Latent BTUH: 0
Dishwasher	Quantity:	1	Sensible BTUH: 1,024 Latent BTUH: 358
Light Fixture - 100W	Quantity:	6	Sensible BTUH: 2,046 Latent BTUH: 0
Range with hood and exhaust to outdoors	Quantity:	1	Sensible BTUH: 0 Latent BTUH: 0
Refrigerator or Freezer - 12CuFt	Quantity:	1	Sensible BTUH: 700 Latent BTUH: 0
Toaster	Quantity:	1	Sensible BTUH: 353 Latent BTUH: 39
Vented clothes dryer	Quantity:	1	Sensible BTUH: 427 Latent BTUH: 0

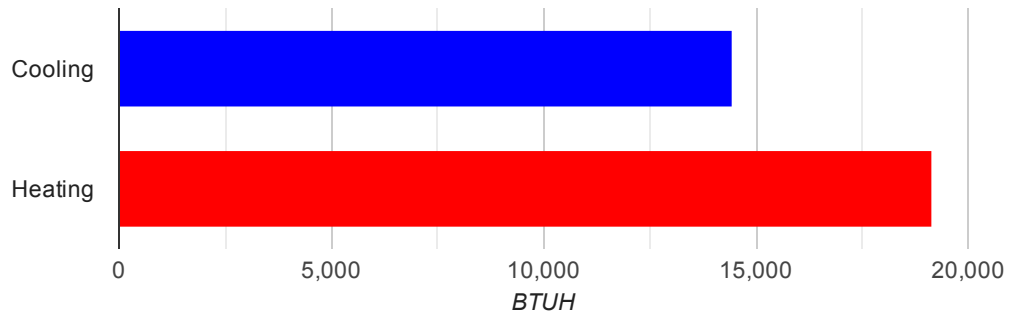
PLANTS	
There are no components for this section.	

ROOM DETAIL

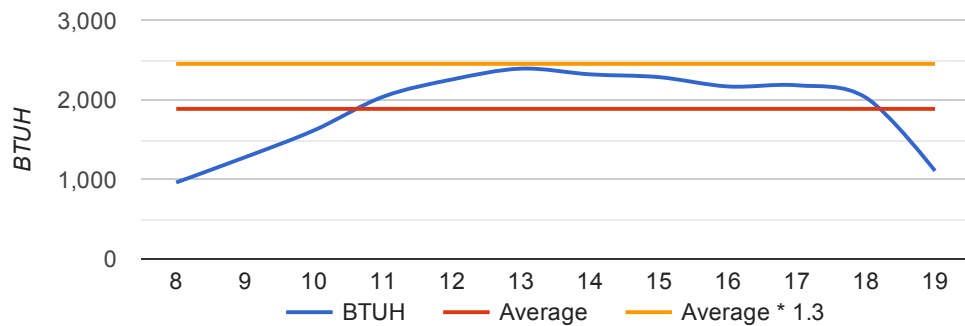
Room name: Studio

Heated square footage:	1,131	Total Cooling BTUH:	14,428
Cooled square footage:	1,131	Total Heating BTUH:	19,114
Heated volume (above grade CF):	9,048	CFM:	631
Cooled volume (above grade CF):	9,048		
Exposed wall area (SF):	1,152		

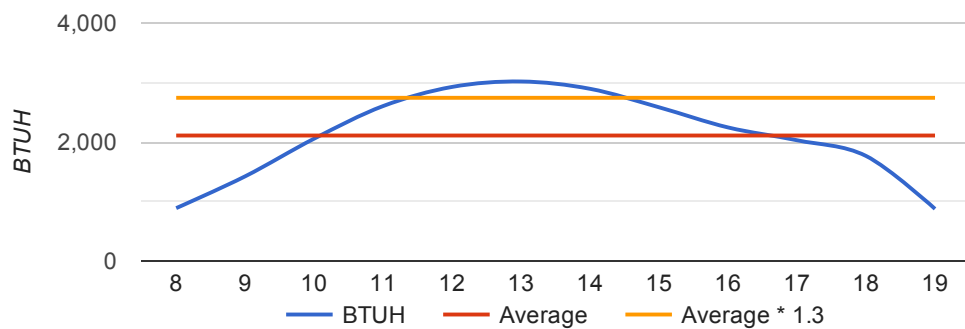
Load Calculation



AED Graph (mid-summer)



AED graph (fall)



ROOM DETAIL

Room name: Bathroom

Heated square footage:	73	Total Cooling BTUH:	212
Cooled square footage:	73	Total Heating BTUH:	663
Heated volume (above grade CF):	583	CFM:	6
Cooled volume (above grade CF):	583		
Exposed wall area (SF):	48		

Load Calculation

