



Manual S Compliance Report

Entire House

All-Rite Heating & Air Conditioning, Inc.

Job: Theyry Resid
Date: 1-1-2026
By: Loren Walbaum

4751 NE 155th Ave, Williston, FL 32696 Phone: 352-528-2511 Fax: 352-528-2505 Email: info@allriteheatcool.com Web: www.allriteheatcool.com License: CMC1249660

Project Information

For: Steve Ayoub, Ayoub Construction, Corp #CRC1332955
20273 NW 251st Terrace, High Springs, FL 32643
Phone: 352-215-0131
Email: steveayoub@yahoo.com

Cooling Equipment

Design Conditions

Outdoor design DB:	90.6°F	Sensible gain:	24973 Btuh	Entering coil DB:	77.6°F
Outdoor design WB:	75.5°F	Latent gain:	6578 Btuh	Entering coil WB:	64.3°F
Indoor design DB:	75.0°F	Total gain:	31551 Btuh		
Indoor RH:	50%	Estimated airflow:	1200 cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP				
Manufacturer:	Bryant	Model:	PH5SAN53600A+PF5MNXB36L00		
Actual airflow:	1200 cfm				
Sensible capacity:	26022 Btuh		104% of load		
Latent capacity:	7119 Btuh		108% of load		
Total capacity:	33141 Btuh		105% of load	SHR:	79%

Heating Equipment

Design Conditions

Outdoor design DB:	33.2°F	Heat loss:	21432 Btuh	Entering coil DB:	66.4°F
Indoor design DB:	70.0°F				

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP				
Manufacturer:	Bryant	Model:	PH5SAN53600A+PF5MNXB36L00		
Actual airflow:	1200 cfm				
Output capacity:	27222 Btuh		127% of load	Capacity balance:	20 °F
Supplemental heat required:	0 Btuh			Economic balance:	-99 °F

Backup equipment type:	Elec strip				
Manufacturer:		Model:			
Actual airflow:	1200 cfm				
Output capacity:	0 kW		0% of load	Temp. rise:	0 °F

Meets all requirements of ACCA Manual S.





Residential Plans Examiner Review Form for HVAC System Design (Loads, Equipment, Ducts)

Form
RPER 2.0

Header Information

Contractor All-Rite Heating & Air Conditioning, Inc. Applicable Attachments
 Mechanical license# Loren Walbaum Manual J1 Form and Worksheet A: Yes No
CMC1249660 OEM performance data (heating, cooling, blower): Yes No
 Building plan # _____ Duct distribution sketch: Yes No
 IRC Table R301.2 (climate & geographic design criteria) Yes No

Home address (Street or Lot#, Block, Subdivision) 20273 NW 251st Terrace, Entire House

HVAC LOAD CALCULATION (IRC M1401.3)

Manual J Design Criteria and Loads

Location		Summer Design Conditions		Manual J Loads	
Elevation	123 ft	Outdoor Cooling Temp	91 °F	Total Heat Loss	21432 Btuh
Altitude Correction Factor	1.00	Indoor Cooling Temp	75 °F	Sensible Heat Gain	24973 Btuh
Latitude	30 °N	Cooling Temp Diff	16 °F	Latent Heat Gain	6578 Btuh
		Indoor Summer Design RH	50 %	Total Heat Gain	31551 Btuh
		Coincident Wet Bulb Temp	76 °F		

Winter Design Conditions

Outdoor Winter Temp 33 °F
 Indoor Winter Temp 70 °F
 Heating Temp Diff 37 °F

The heat loss/gain was calculated in accordance with ACCA Manual J? Y N

HVAC EQUIPMENT SELECTION (IRC M1401.3)

Heating Equipment

Furnace Boiler Electric Heat
 Single Speed Multi Stage Modulating

Model _____

Output 27222 Btuh Sizing Value 21432 Btuh
 Supplemental Heat 0 Btuh Sizing Limit 175.0 %
 Load: Capacity 0 %

Size Factor is within Manual S Size Limit? Y N

Cooling Equipment

Air Conditioner Heat Pump
 Air-to-Air Geothermal Open Loop Geothermal Closed Loop
 Single Speed Multi Stage Variable Speed

Model PH5SAN53600A+PF5MNXB36L00

Sensible 26022 Btuh Sizing Value 31551 Btuh
 Latent 7119 Btuh Sizing Limit 115.0 %
 Total 33141 Btuh Load: Capacity 105.0 %

Size Factor is within Manual S Size Limit? Y N

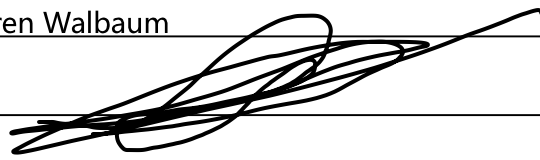
HVAC DUCT DISTRIBUTION DESIGN (IRC M1601.1)

Design airflow	1200 cfm	Longest Supply Duct	125 ft	Duct Materials Used	
External Static Pressure (ESP)	0.50 in H2O	Longest Return Duct	97.8 ft	Trunk Duct:	<input type="checkbox"/> Duct Board <input type="checkbox"/> Sheet Metal
Component Pressure Loss (CPL)	0.12 in H2O	Total Effective Length (TEL)	222 ft		<input checked="" type="checkbox"/> Flex <input type="checkbox"/> Lined Sheet Metal <input type="checkbox"/> Other
Available static pressure (ASP)	0.38 in H2O	Friction Rate	0.17 in/100ft	Branch Duct:	<input type="checkbox"/> Duct Board <input type="checkbox"/> Sheet Metal
ESP - CPL = ASP		(ASP x 100) / TEL = Friction Rate			<input checked="" type="checkbox"/> Flex <input type="checkbox"/> Lined Sheet Metal <input type="checkbox"/> Other

Ducts are sized per Manual D? Y N

I declare the load calculation, equipment selection, and duct system design were rigorously performed based on the building plan listed above and understand the claims made on these forms may be subject to review and verification.

Contractor's printed name: Loren Walbaum

Contractor's signature:  Date: 1-1-2026



Load Short Form

Entire House

All-Rite Heating & Air Conditioning, Inc.

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 Phone: 352-215-0131
 Email: steveayoub@yahoo.com

Design Information

	Htg	Clg	Method	Infiltration
Outside db (°F)	33	91		Simplified
Inside db (°F)	70	75	Construction quality	Semi-tight
Design TD (°F)	37	16	Fireplaces	1 (Average)
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	33	45		

HEATING EQUIPMENT

Make Bryant
 Trade Carrier
 Model PH5SAN53600A
 AHRI ref 214101836

Efficiency 7.8 HSPF2
 Heating input
 Heating output 33200 Btuh @ 47°F
 Temperature rise 25 °F
 Actual air flow 1200 cfm
 Air flow factor 0.068 cfm/Btuh
 Static pressure 0.50 in H2O
 Space thermostat
 Capacity balance point = 20 °F

COOLING EQUIPMENT

Make Bryant
 Trade Carrier
 Cond PH5SAN53600A
 Coil PF5MNXB36L00
 AHRI ref 214101836

Efficiency 12.0 EER2, 15.2 SEER2
 Sensible cooling 23660 Btuh
 Latent cooling 10140 Btuh
 Total cooling 33800 Btuh
 Actual air flow 1200 cfm
 Air flow factor 0.051 cfm/Btuh
 Static pressure 0.50 in H2O
 Load sensible heat ratio 0.79

Backup:
 Input = 0 kW, Output = 0 Btuh, 100 AFUE

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
MSTR Bdrm	224	2174	3890	148	197
MSTR Bath	112	1748	1791	119	91
Great RM	357	3435	4624	234	234
Safe RM	104	753	949	51	48
Hall 2	32	0	0	0	0
Bdrm 3	182	2635	3178	180	161
Kitchen	294	2785	4813	190	243
Bath	72	859	1026	59	52
Bdrm 2	156	2259	2374	154	120
Laundry	91	277	810	19	41
WIC	91	659	287	45	15
Hall	52	0	0	0	0

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.



Entire House	1767	17582	23742	1200	1200
Other equip loads		3850	1632		
Equip. @ 0.96 RSM			24973		
Latent cooling			6578		
TOTALS	1767	21432	31551	1200	1200

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





Building Analysis

Entire House

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 20273 NW 251st Terrace, High Springs, FL 32643
 Phone: 352-215-0131
 Email: steveyayoub@yahoo.com

Design Conditions

Location:

Gainesville Regional, FL, US
 Elevation: 123 ft
 Latitude: 30°N

Outdoor:

Drybulb (°F)
 Daily range (°F)
 Wet bulb (°F)
 Wind speed (mph)

Heating

33
 -
 -
 15.0

Cooling

91
 18 (M)
 76
 7.5

Indoor:

Indoor temperature (°F)
 Design TD (°F)
 Relative humidity (%)
 Moisture difference (gr/lb)

Heating

70
 37
 50
 32.6

Cooling

75
 16
 50
 44.6

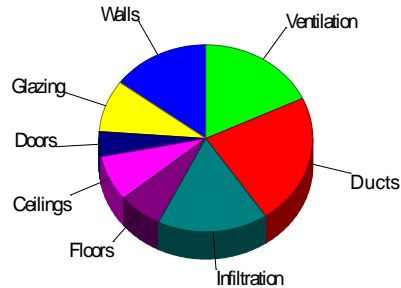
Infiltration:

Method
 Construction quality
 Fireplaces

Simplified
 Semi-tight
 1 (Average)

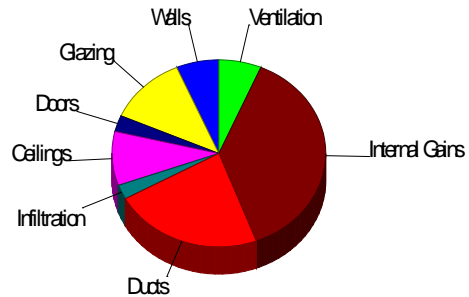
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	2.5	3174	14.8
Glazing	17.3	1933	9.0
Doors	22.1	927	4.3
Ceilings	1.0	1691	7.9
Floors	0.8	1431	6.7
Infiltration	2.5	3583	16.7
Ducts		4844	22.6
Piping		0	0
Humidification		0	0
Ventilation		3850	18.0
Adjustments		0	0
Total		21432	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.3	1639	6.5
Glazing	27.1	3034	12.0
Doors	16.9	708	2.8
Ceilings	1.3	2371	9.3
Floors	0	0	0
Infiltration	0.4	634	2.5
Ducts		5746	22.6
Ventilation		1632	6.4
Internal gains		9610	37.9
Blower		0	0
Adjustments		0	0
Total		25374	100.0



Latent Cooling Load = 6578 Btuh
 Overall U-value = 0.050 Btuh/ft²·°F, Window / Floor Area = 6.3 %

Data entries checked.



Component Constructions

Entire House

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Project Information

For: Steve Ayoub, Ayoub Construction, Corp #CRC1332955
 20273 NW 251st Terrace, High Springs, FL 32643
 Phone: 352-215-0131
 Email: steveayoub@yahoo.com

Design Conditions

Location: Gainesville Regional, FL, US Elevation: 123 ft Latitude: 30°N	Indoor: Indoor temperature (°F) 70 Design TD (°F) 37 Relative humidity (%) 50 Moisture difference (gr/lb) 32.6	Heating 70 37 50 32.6	Cooling 75 16 50 44.6
Outdoor: Drybulb (°F) 33 Daily range (°F) - Wet bulb (°F) - Wind speed (mph) 15.0	Heating 33 - - 15.0	Cooling 91 18 (M) 76 7.5	Infiltration: Method Simplified Construction quality Semi-tight Fireplaces 1 (Average)

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12E-0sw: Frm wall, vnl ext, 1/2" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	n	283	0.068	19.0	2.50	708	1.29	366
	e	462	0.068	19.0	2.50	1156	1.29	597
	s	283	0.068	19.0	2.50	709	1.29	366
	w	240	0.068	19.0	2.50	601	1.29	310
	all	1268	0.068	19.0	2.50	3174	1.29	1639
Partitions (none)								
Windows								
4A5-2ov: 2 glazing, heat abs low-e outr, air gas, insulated vinyl frm mat, n clr innr, 1/2" gap, 1/4" thk; 50% blinds 45°, medium; 50% outdoor insect screen; foreground = green grass (0.23); 2 ft overhang (1 ft window ht, 2 ft sep.); 7 ft head ht	n	5	0.470	0	17.3	86	11.0	55
4A5-2ov: 2 glazing, heat abs low-e outr, air gas, insulated vinyl frm mat, e clr innr, 1/2" gap, 1/4" thk; 50% blinds 45°, medium; 50% outdoor insect screen; foreground = green grass (0.23); 2 ft overhang (3 ft window ht, 2 ft sep.); 7 ft head ht	e	9	0.470	0	17.3	156	31.9	287
	s	8	0.470	0	17.3	134	13.0	101
	all	17	0.470	0	17.3	290	23.2	388
4A5-2ov: 2 glazing, heat abs low-e outr, air gas, insulated vinyl frm mat, e clr innr, 1/2" gap, 1/4" thk; 50% blinds 45°, medium; 50% outdoor insect screen; foreground = green grass (0.23); 2 ft overhang (5 ft window ht, 2 ft sep.); 7 ft head ht	e	30	0.470	0	17.3	519	31.9	958
	s	15	0.470	0	17.3	259	13.0	195
	w	45	0.470	0	17.3	778	31.9	1437
	all	90	0.470	0	17.3	1557	28.8	2591
Doors								
11J0: Door, mtl fbgrl type	e	21	0.600	6.3	22.1	464	16.9	354
	w	21	0.600	6.3	22.1	464	16.9	354
	all	42	0.600	6.3	22.1	927	16.9	708
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 5/8" gypsum board int fnsh		1767	0.026	38.0	0.96	1691	1.34	2371

Floors

21A-28t: Bg floor, heavy dry or light damp soil, 6.5' depth, carp 80% flr
fnsh

1767

0.022

0

0.81

1431

0

0





Component Constructions
MSTR Bdrm
All-Rite Heating & Air Conditioning, Inc.

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Outdoor: Dry bulb (°F) Daily range (°F) Wet bulb (°F) Wind speed (mph)	Heating 33 - - 15.0	Cooling 91 18 (M) 76 7.5	Infiltration: Method Simplified Construction quality Semi-tight Fireplaces 1 (Average)	

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls 12E-0sw: Frm wall, vnl ext, 1/2" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	e	114	0.068	19.0	2.50	285	1.29	147
Partitions (none)								
Windows 4A5-2ov: 2 glazing, heat abs low-e outr, air gas, insulated vinyl frm mat, e clr innr, 1/2" gap, 1/4" thk; 50% blinds 45°, medium; 50% outdoor insect screen; foreground = green grass (0.23); 2 ft overhang (5 ft window ht, 2 ft sep.); 7 ft head ht		30	0.470	0	17.3	519	31.9	958
Doors (none)								
Ceilings 16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 5/8" gypsum board int fnsh		224	0.026	38.0	0.96	214	1.34	301
Floors 21A-28t: Bg floor, heavy dry or light damp soil, 6.5' depth, carp 80% flr fnsh		224	0.022	0	0.81	181	0	0





Component Constructions
MSTR Bath
All-Rite Heating & Air Conditioning, Inc.

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Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls 12E-0sw: Frm wall, vnl ext, 1/2" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	n e all	121 72 193	0.068 0.068 0.068	19.0 19.0 19.0	2.50 2.50 2.50	303 180 483	1.29 1.29 1.29	156 93 249
Partitions (none)								
Windows 4A5-2ov: 2 glazing, heat abs low-e outr, air gas, insulated vinyl frm mat, n clr innr, 1/2" gap, 1/4" thk; 50% blinds 45°, medium; 50% outdoor ins ect screen; foreground = green grass (0.23); 2 ft overhang (1 ft window ht, 2 ft sep.); 7 ft head ht		5	0.470	0	17.3	86	11.0	55
Doors (none)								
Ceilings 16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 5/8" gypsum board int fnsh		112	0.026	38.0	0.96	107	1.34	150
Floors 21A-28t: Bg floor, heavy dry or light damp soil, 6.5' depth, carp 80% flr fnsh		112	0.022	0	0.81	91	0	0



Component Constructions
Great RM
All-Rite Heating & Air Conditioning, Inc.

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	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls 12E-0sw: Frm wall, vnl ext, 1/2" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	w	138	0.068	19.0	2.50	345	1.29	178
Partitions (none)								
Windows 4A5-2ov: 2 glazing, heat abs low-e outr, air gas, insulated vinyl frm mat, w clr innr, 1/2" gap, 1/4" thk; 50% blinds 45°, medium; 50% outdoor insect screen; foreground = green grass (0.23); 2 ft overhang (5 ft window ht, 2 ft sep.); 7 ft head ht		30	0.470	0	17.3	519	31.9	958
Doors 11J0: Door, mtl fbrgl type	w	21	0.600	6.3	22.1	464	16.9	354
Ceilings 16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 5/8" gypsum board int fnsh		357	0.026	38.0	0.96	342	1.34	479
Floors 21A-28t: Bg floor, heavy dry or light damp soil, 6.5' depth, carp 80% flr fnsh		357	0.022	0	0.81	289	0	0



Component Constructions
Safe RM
All-Rite Heating & Air Conditioning, Inc.

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Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
--	----	-------------	------------------------	------------------------	---------------------	--------------	---------------------	--------------

Walls
 12E-0sw: Frm wall, vnl ext, 1/2" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud n 72 0.068 19.0 2.50 180 1.29 93

Partitions
(none)

Windows
(none)

Doors
(none)

Ceilings
 16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 5/8" gypsum board int fnsh 104 0.026 38.0 0.96 100 1.34 140

Floors
 21A-28t: Bg floor, heavy dry or light damp soil, 6.5' depth, carp 80% flr fnsh 104 0.022 0 0.81 84 0 0



Component Constructions
Hall 2
All-Rite Heating & Air Conditioning, Inc.

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Outdoor: Drybulb (°F) 33 Daily range (°F) - Wet bulb (°F) - Wind speed (mph) 15.0	Heating	Cooling	Infiltration: Method Simplified Construction quality Semi-tight Fireplaces 1 (Average)		

Construction descriptions

	Or	Area	U-value	Insul R	Htg HTM	Loss	Clg HTM	Gain
		ft²	Btuh/ft²-°F	ft²-°F/Btuh	Btuh/ft²	Btuh	Btuh/ft²	Btuh
Walls (none)								
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 5/8" gypsum board int fnsh		32	0.026	38.0	0.96	31	1.34	43
Floors 21A-28t: Bg floor, heavy dry or light damp soil, 6.5' depth, carp 80% flr fnsh		32	0.022	0	0.81	26	0	0



Component Constructions
Bdrm 3
All-Rite Heating & Air Conditioning, Inc.

Job: Theyry Resid
Date: 1-1-2026
By: Loren Walbaum

4751 NE 155th Ave, Williston, FL 32696 Phone: 352-528-2511 Fax: 352-528-2505 Email: info@allriteheatcool.com Web: www.allriteheatcool.com License: CMC1249660

Project Information

For: Steve Ayoub, Ayoub Construction, Corp #CRC1332955
 20273 NW 251st Terrace, High Springs, FL 32643
 Phone: 352-215-0131
 Email: steveayoub@yahoo.com

Design Conditions

Location: Gainesville Regional, FL, US Elevation: 123 ft Latitude: 30°N		Indoor: Indoor temperature (°F) 70 Design TD (°F) 37 Relative humidity (%) 50 Moisture difference (gr/lb) 32.6	Heating 70 37 50 32.6	Cooling 75 16 50 44.6
Outdoor: Dry bulb (°F) Daily range (°F) Wet bulb (°F) Wind speed (mph)	Heating 33 - - 15.0	Cooling 91 18 (M) 76 7.5	Infiltration: Method Simplified Construction quality Semi-tight Fireplaces 1 (Average)	

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12E-0sw: Frm wall, vnl ext, 1/2" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	n	27	0.068	19.0	2.50	68	1.29	35
	s	126	0.068	19.0	2.50	315	1.29	163
	w	102	0.068	19.0	2.50	255	1.29	132
	all	255	0.068	19.0	2.50	638	1.29	329
Partitions (none)								
Windows								
4A5-2ov: 2 glazing, heat abs low-e outr, air gas, insulated vinyl frm mat, w clr innr, 1/2" gap, 1/4" thk; 50% blinds 45°, medium; 50% outdoor insect screen; foreground = green grass (0.23); 2 ft overhang (5 ft window ht, 2 ft sep.); 7 ft head ht		15	0.470	0	17.3	259	31.9	479
Doors (none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 5/8" gypsum board int fnsh		182	0.026	38.0	0.96	174	1.34	244
Floors								
21A-28t: Bg floor, heavy dry or light damp soil, 6.5' depth, carp 80% flr fnsh		182	0.022	0	0.81	147	0	0



Component Constructions

Kitchen

All-Rite Heating & Air Conditioning, Inc.

Job: Theyry Resid
 Date: 1-1-2026
 By: Loren Walbaum

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Project Information

For: Steve Ayoub, Ayoub Construction, Corp #CRC1332955
 20273 NW 251st Terrace, High Springs, FL 32643
 Phone: 352-215-0131
 Email: steveayoub@yahoo.com

Design Conditions

Location:	Gainesville Regional, FL, US		Indoor:	Indoor temperature (°F)	70	Heating	75
	Elevation:	123 ft		Design TD (°F)	37		16
	Latitude:	30°N		Relative humidity (%)	50		50
Outdoor:				Moisture difference (gr/lb)	32.6		44.6
	Heating	Cooling		Infiltration:			
	Dry bulb (°F)	33	91	Method	Simplified		
	Daily range (°F)	-	18 (M)	Construction quality	Semi-tight		
	Wet bulb (°F)	-	76	Fireplaces	1 (Average)		
	Wind speed (mph)	15.0	7.5				

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls								
12E-0sw: Frm wall, vnl ext, 1/2" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	e	159	0.068	19.0	2.50	398	1.29	205
Partitions								
(none)								
Windows								
4A5-2ov: 2 glazing, heat abs low-e outr, air gas, insulated vinyl frm mat, e clr innr, 1/2" gap, 1/4" thk; 50% blinds 45°, medium; 50% outdoor insect screen; foreground = green grass (0.23); 2 ft overhang (3 ft window ht, 2 ft sep.); 7 ft head ht		9	0.470	0	17.3	156	31.9	287
Doors								
11J0: Door, mtl fbrgl type	e	21	0.600	6.3	22.1	464	16.9	354
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 5/8" gypsum board int fnsh		294	0.026	38.0	0.96	281	1.34	394
Floors								
21A-28t: Bg floor, heavy dry or light damp soil, 6.5' depth, carp 80% flr fnsh		294	0.022	0	0.81	238	0	0



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Right-Suite® Universal 2025 25.0.02 RSU06193

...Resid Custom Home 1768sq ft-High Springs FL.rup Calc = MJ8 Front Door faces: W

2026-Jan-04 21:31:07

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Component Constructions

Bath

All-Rite Heating & Air Conditioning, Inc.

Job: Theyry Resid
Date: 1-1-2026
By: Loren Walbaum

4751 NE 155th Ave, Williston, FL 32696 Phone: 352-528-2511 Fax: 352-528-2505 Email: info@allriteheatcool.com Web: www.allriteheatcool.com License: CMC1249660

Project Information

For: Steve Ayoub, Ayoub Construction, Corp #CRC1332955
20273 NW 251st Terrace, High Springs, FL 32643
Phone: 352-215-0131
Email: steveayoub@yahoo.com

Design Conditions

Location: Gainesville Regional, FL, US Elevation: 123 ft Latitude: 30°N			Indoor: Indoor temperature (°F) 70 Design TD (°F) 37 Relative humidity (%) 50 Moisture difference (gr/lb) 32.6	Heating 70 37 50 32.6	Cooling 75 16 50 44.6
Outdoor: Drybulb (°F) Daily range (°F) Wet bulb (°F) Wind speed (mph)	Heating 33 - - 15.0	Cooling 91 18 (M) 76 7.5	Infiltration: Method Construction quality Fireplaces	Simplified Semi-tight 1 (Average)	

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²·°F	Insul R ft²·°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls 12E-0sw: Frm wall, vnl ext, 1/2" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	s	64	0.068	19.0	2.50	161	1.29	83
Partitions (none)								
Windows 4A5-2ov: 2 glazing, heat abs low-e outr, air gas, insulated vinyl frm mat, s clr innr, 1/2" gap, 1/4" thk; 50% blinds 45°, medium; 50% outdoor insect screen; foreground = green grass (0.23); 2 ft overhang (3 ft window ht, 2 ft sep.); 7 ft head ht		8	0.470	0	17.3	134	13.0	101
Doors (none)								
Ceilings 16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 5/8" gypsum board int fnsh		72	0.026	38.0	0.96	69	1.34	97
Floors 21A-28t: Bg floor, heavy dry or light damp soil, 6.5' depth, carp 80% flr fnsh		72	0.022	0	0.81	58	0	0



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Right-Suite® Universal 2025 25.0.02 RSU06193

...Resid Custom Home 1768sq ft-High Springs FL.rup Calc = MJ8 Front Door faces: W

2026-Jan-04 21:31:07

Page 10



Component Constructions

Bdrm 2

All-Rite Heating & Air Conditioning, Inc.

Job: Theyry Resid
Date: 1-1-2026
By: Loren Walbaum

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Project Information

For: Steve Ayoub, Ayoub Construction, Corp #CRC1332955
20273 NW 251st Terrace, High Springs, FL 32643
Phone: 352-215-0131
Email: steveayoub@yahoo.com

Design Conditions

Location: Gainesville Regional, FL, US Elevation: 123 ft Latitude: 30°N		Indoor: Indoor temperature (°F) 70 Design TD (°F) 37 Relative humidity (%) 50 Moisture difference (gr/lb) 32.6	Heating 70 37 50 32.6	Cooling 75 16 50 44.6
Outdoor: Dry bulb (°F) Daily range (°F) Wet bulb (°F) Wind speed (mph)	Heating 33 - - 15.0	Cooling 91 18 (M) 76 7.5	Infiltration: Method Construction quality Fireplaces	Simplified Semi-tight 1 (Average)

Construction descriptions

	Or	Area ft ²	U-value Btuh/ft ² -°F	Insul R ft ² -°F/Btuh	Htg HTM Btuh/ft ²	Loss Btuh	Clg HTM Btuh/ft ²	Gain Btuh
Walls								
12E-0sw: Frm wall, vnl ext, 1/2" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	e	117	0.068	19.0	2.50	293	1.29	151
	s	93	0.068	19.0	2.50	233	1.29	120
	all	210	0.068	19.0	2.50	526	1.29	271
Partitions (none)								
Windows								
4A5-2ov: 2 glazing, heat abs low-e outr, air gas, insulated vinyl frm mat, s clr innr, 1/2" gap, 1/4" thk; 50% blinds 45°, medium; 50% outdoor ins ect screen; foreground = green grass (0.23); 2 ft overhang (5 ft window ht, 2 ft sep.); 7 ft head ht		15	0.470	0	17.3	259	13.0	195
Doors (none)								
Ceilings								
16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 5/8" gypsum board int fnsh		156	0.026	38.0	0.96	149	1.34	209
Floors								
21A-28t: Bg floor, heavy dry or light damp soil, 6.5' depth, carp 80% flr fnsh		156	0.022	0	0.81	126	0	0



Component Constructions

WIC

All-Rite Heating & Air Conditioning, Inc.

Job: Theyry Resid
Date: 1-1-2026
By: Loren Walbaum

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Project Information

For: Steve Ayoub, Ayoub Construction, Corp #CRC1332955
20273 NW 251st Terrace, High Springs, FL 32643
Phone: 352-215-0131
Email: steveayoub@yahoo.com

Design Conditions

Location: Gainesville Regional, FL, US Elevation: 123 ft Latitude: 30°N		Indoor: Indoor temperature (°F) 70 Design TD (°F) 37 Relative humidity (%) 50 Moisture difference (gr/lb) 32.6	Heating 70 37 50 32.6	Cooling 75 16 50 44.6
Outdoor: Dry bulb (°F) Daily range (°F) Wet bulb (°F) Wind speed (mph)	Heating 33 - - 15.0	Cooling 91 18 (M) 76 7.5	Infiltration: Method Simplified Construction quality Semi-tight Fireplaces 1 (Average)	

Construction descriptions

	Or	Area ft²	U-value Btuh/ft²-°F	Insul R ft²-°F/Btuh	Htg HTM Btuh/ft²	Loss Btuh	Clg HTM Btuh/ft²	Gain Btuh
Walls 12E-0sw: Frm wall, vnl ext, 1/2" wood shth, r-19 cav ins, 1/2" gypsum board int fnsh, 2"x4" wood frm, 16" o.c. stud	n	63	0.068	19.0	2.50	158	1.29	81
Partitions (none)								
Windows (none)								
Doors (none)								
Ceilings 16B-38ad: Attic ceiling, asphalt shingles roof mat, r-38 ceil ins, 5/8" gypsum board int fnsh		91	0.026	38.0	0.96	87	1.34	122
Floors 21A-28t: Bg floor, heavy dry or light damp soil, 6.5' depth, carp 80% flr fnsh		91	0.022	0	0.81	74	0	0





Project Summary

Entire House

All-Rite Heating & Air Conditioning, Inc.

Job: Theiry Resid
 Date: 1-1-2026
 By: Loren Walbaum

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Project Information

For: Steve Ayoub, Ayoub Construction, Corp #CRC1332955
 20273 NW 251st Terrace, High Springs, FL 32643
 Phone: 352-215-0131
 Email: steveayoub@yahoo.com

Notes: Theiry Resid-Custom Home-1768sqft, 20107 NW 249th Str., High Springs, FL 32643.
 Bryant-Carrier 15-Seer2 - 3-Ton Heat Pump System-8-Kw backup Heat strips.

Design Information

Weather: Gainesville Regional, FL, US

Winter Design Conditions

Outside db 33 °F
 Inside db 70 °F
 Design TD 37 °F

Ventilation Method MJ8

Summer Design Conditions

Outside db 91 °F
 Inside db 75 °F
 Design TD 16 °F
 Daily range M
 Relative humidity 50 %
 Moisture difference 45 gr/lb

Heating Summary

Structure 12738 Btuh
 Ducts (R-6.0) 4844 Btuh
 Central vent (96 cfm) 3850 Btuh
 Outside air
 Humidification 0 Btuh
 Piping 0 Btuh
 Equipment load 21432 Btuh

Infiltration

Method Simplified
 Construction quality Semi-tight
 Fireplaces 1 (Average)

	Heating	Cooling
Area (ft ²)	1767	1767
Volume (ft ³)	15903	15903
Air changes/hour	0.34	0.14
Equiv. AVF (cfm)	89	37

Heating Equipment Summary

Make Bryant
 Trade Carrier
 Model PH5SAN53600A
 AHRI ref 214101836

Efficiency 7.8 HSPF2
 Heating input
 Heating output 33200 Btuh @ 47°F
 Temperature rise 25 °F
 Actual air flow 1200 cfm
 Air flow factor 0.068 cfm/Btuh
 Static pressure 0.50 in H2O
 Space thermostat
 Capacity balance point = 20 °F

Backup:
 Input = 0 kW, Output = 0 Btuh, 100 AFUE

Sensible Cooling Equipment Load Sizing

Structure 17995 Btuh
 Ducts (R-6.0) 5746 Btuh
 Central vent (96 cfm) 1632 Btuh
 Outside air
 Blower 0 Btuh

Use manufacturer's data n
 Rate/swing multiplier 0.96
 Equipment sensible load 24973 Btuh

Latent Cooling Equipment Load Sizing

Structure 2521 Btuh
 Ducts 1173 Btuh
 Central vent (96 cfm) 2885 Btuh
 Outside air
 Equipment latent load 6578 Btuh

Equipment Total Load (Sen+Lat) 31551 Btuh
 Req. total capacity at 0.70 SHR 3.0 ton

Cooling Equipment Summary

Make Bryant
 Trade Carrier
 Cond PH5SAN53600A
 Coil PF5MNXB36L00
 AHRI ref 214101836

Efficiency 12.0 EER2, 15.2 SEER2
 Sensible cooling 23660 Btuh
 Latent cooling 10140 Btuh
 Total cooling 33800 Btuh
 Actual air flow 1200 cfm
 Air flow factor 0.051 cfm/Btuh
 Static pressure 0.50 in H2O
 Load sensible heat ratio 0.79

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





AED Assessment

Entire House

All-Rite Heating & Air Conditioning, Inc.

Job: Theyr Resid
 Date: 1-1-2026
 By: Loren Walbaum

4751 NE 155th Ave, Williston, FL 32696 Phone: 352-528-2511 Fax: 352-528-2505 Email: info@allriteheatcool.com Web: www.allriteheatcool.com License: CMC1249660

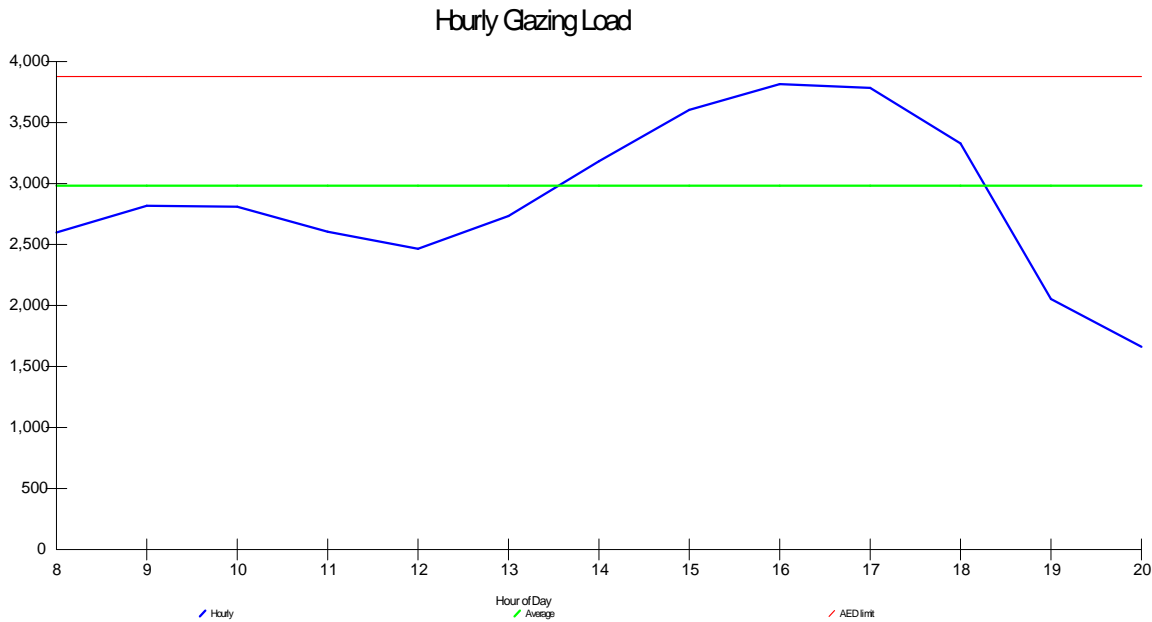
Project Information

For: Steve Ayoub, Ayoub Construction, Corp #CRC1332955
 20273 NW 251st Terrace, High Springs, FL 32643
 Phone: 352-215-0131
 Email: steveayoub@yahoo.com

Design Conditions

Location:			Indoor:	Heating	Cooling
Gainesville Regional, FL, US			Indoor temperature (°F)	70	75
Elevation: 123 ft			Design TD (°F)	37	16
Latitude: 30°N			Relative humidity (%)	50	50
Outdoor:	Heating	Cooling	Moisture difference (gr/lb)	32.6	44.6
Dry bulb (°F)	33	91	Infiltration:		
Daily range (°F)	-	18 (M)			
Wet bulb (°F)	-	76			
Wind speed (mph)	15.0	7.5			

Test for Adequate Exposure Diversity



Maximum hourly glazing load exceeds average by 27.9%.

House has adequate exposure diversity (AED), based on AED limit of 30%.

AED excursion: 0 Btuh



Right-J® Worksheet

Entire House

All-Rite Heating & Air Conditioning, Inc.

Job: Theyry Resid
 Date: 1-1-2026
 By: Loren Walbaum

4751 NE 155th Ave, Williston, FL 32696 Phone: 352-528-2511 Fax: 352-528-2505 Email: info@allriteheatcool.com Web: www.allriteheatcool.com License: CMC1249660

1 Room name				Entire House				MSTR Bdrm						
2 Exposed wall				158.0 ft				16.0 ft						
3 Room height				9.0 ft				9.0 ft						
4 Room dimensions								16.0 x 14.0 ft						
5 Room area				1767.0 ft²				224.0 ft²						
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12E-0sw	0.068	n	2.50	1.29	288	283	708	366	0	0	0	0
	G	4A5-2ov	0.470	n	17.30	11.01	5	0	86	55	0	0	0	0
	W	12E-0sw	0.068	e	2.50	1.29	522	462	1156	597	144	114	285	147
	G	4A5-2ov	0.470	e	17.30	31.94	9	0	156	287	0	0	0	0
11	G	4A5-2ov	0.470	e	17.30	31.94	30	0	519	958	30	0	519	958
	D	11J0	0.600	e	22.08	16.86	21	21	464	354	0	0	0	0
	W	12E-0sw	0.068	s	2.50	1.29	306	283	709	366	0	0	0	0
	G	4A5-2ov	0.470	s	17.30	13.01	8	16	134	101	0	0	0	0
	G	4A5-2ov	0.470	s	17.30	13.01	15	30	259	195	0	0	0	0
	W	12E-0sw	0.068	w	2.50	1.29	306	240	601	310	0	0	0	0
	G	4A5-2ov	0.470	w	17.30	31.94	45	0	778	1437	0	0	0	0
	D	11J0	0.600	w	22.08	16.86	21	21	464	354	0	0	0	0
	C	16B-38ad	0.026	-	0.96	1.34	1767	1767	1691	2371	224	224	214	301
	F	21A-28t	0.022	-	0.81	0.00	1767	1767	1431	0	224	224	181	0
6	c) AED excursion									0				110
	Envelope loss/gain								9155	7751			1200	1516
12	a) Infiltration								3583	634			363	64
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230			7			1610	2			460
			Appliances/other							8000				900
	Subtotal (lines 6 to 13)								12738	17995			1563	2940
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			12	9
14	Subtotal								12738	17995			1575	2949
15	Duct loads						38%	32%	4844	5746	38%	32%	599	942
	Total room load								17582	23742			2174	3890
	Air required (cfm)								1200	1200			148	197

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





Right-J® Worksheet

Entire House

All-Rite Heating & Air Conditioning, Inc.

Job: Theyry Resid
Date: 1-1-2026
By: Loren Walbaum

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1 Room name				MSTR Bath 22.0 ft				Great RM 21.0 ft						
2 Exposed wall				9.0 ft heat/cool				9.0 ft heat/cool						
3 Room height				8.0 x 14.0 ft				21.0 x 17.0 ft						
4 Room dimensions				112.0 ft²				357.0 ft²						
5 Room area														
	Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12E-0sw	0.068	n	2.50	1.29	126	121	303	156	0	0	0	0
	G	4A5-2ov	0.470	n	17.30	11.01	5	0	86	55	0	0	0	0
	W	12E-0sw	0.068	e	2.50	1.29	72	72	180	93	0	0	0	0
	G	4A5-2ov	0.470	e	17.30	31.94	0	0	0	0	0	0	0	0
11	G	4A5-2ov	0.470	e	17.30	31.94	0	0	0	0	0	0	0	0
	D	11J0	0.600	e	22.08	16.86	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	2.50	1.29	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	s	17.30	13.01	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	s	17.30	13.01	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	2.50	1.29	0	0	0	0	189	138	345	178
	G	4A5-2ov	0.470	w	17.30	31.94	0	0	0	0	30	0	519	958
	D	11J0	0.600	w	22.08	16.86	0	0	0	0	21	21	464	354
	C	16B-38ad	0.026	-	0.96	1.34	112	112	107	150	357	357	342	479
	F	21A-28t	0.022	-	0.81	0.00	112	112	91	0	357	357	289	0
6	c) AED excursion									-86				282
	Envelope loss/gain								767	369			1958	2252
12	a) Infiltration								499	88			476	84
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230			0			0	1			230
			Appliances/other							900				900
	Subtotal (lines 6 to 13)								1266	1357			2435	3466
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			54	39
14	Subtotal								1266	1357			2489	3505
15	Duct loads						38%	32%	481	433	38%	32%	946	1119
	Total room load								1748	1791			3435	4624
	Air required (cfm)								119	91			234	234

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





Right-J® Worksheet
Entire House
All-Rite Heating & Air Conditioning, Inc.

Job: Theyry Resid
Date: 1-1-2026
By: Loren Walbaum

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1 Room name				Safe RM				Hall 2						
2 Exposed wall				8.0 ft				0 ft						
3 Room height				9.0 ft				9.0 ft						
4 Room dimensions				13.0 x 8.0 ft				4.0 x 8.0 ft						
5 Room area				104.0 ft ²				32.0 ft ²						
	Ty	Construction number	U-value (Btuh/ft ² -°F)	Or	HTM (Btuh/ft ²)		Area (ft ²) or perimeter (ft)		Load (Btuh)		Area (ft ²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12E-0sw	0.068	n	2.50	1.29	72	72	180	93	0	0	0	0
	G	4A5-2ov	0.470	n	17.30	11.01	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	2.50	1.29	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	17.30	31.94	0	0	0	0	0	0	0	0
11	G	4A5-2ov	0.470	e	17.30	31.94	0	0	0	0	0	0	0	0
	D	11J0	0.600	e	22.08	16.86	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	2.50	1.29	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	s	17.30	13.01	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	s	17.30	13.01	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	2.50	1.29	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	w	17.30	31.94	0	0	0	0	0	0	0	0
	D	11J0	0.600	w	22.08	16.86	0	0	0	0	0	0	0	0
	C	16B-38ad	0.026	-	0.96	1.34	104	104	100	140	32	32	31	43
	F	21A-28t	0.022	-	0.81	0.00	104	104	84	0	32	32	26	0
6	c) AED excursion									-45				-3
	Envelope loss/gain								364	187			57	40
12	a) Infiltration								181	32			0	0
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230			0			0	0			0
			Appliances/other							500				0
	Subtotal (lines 6 to 13)								545	719			57	40
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			-57	-40
14	Subtotal								545	719			0	0
15	Duct loads						38%	32%	207	230	38%	32%	0	0
	Total room load								753	949			0	0
	Air required (cfm)								51	48			0	0

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





Right-J® Worksheet

Entire House

All-Rite Heating & Air Conditioning, Inc.

Job: Theyry Resid
 Date: 1-1-2026
 By: Loren Walbaum

4751 NE 155th Ave, Williston, FL 32696 Phone: 352-528-2511 Fax: 352-528-2505 Email: info@allriteheatcool.com Web: www.allriteheatcool.com License: CMC1249660

1 Room name		Bdrm 3						Kitchen						
2 Exposed wall		30.0 ft						21.0 ft						
3 Room height		9.0 ft						9.0 ft						
4 Room dimensions		13.0 x 14.0 ft						21.0 x 14.0 ft						
5 Room area		182.0 ft²						294.0 ft²						
6	Ty	Construction number	U-value (Btuh/ft²-F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12E-0sw	0.068	n	2.50	1.29	27	27	68	35	0	0	0	0
	G	4A5-2ov	0.470	n	17.30	11.01	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	2.50	1.29	0	0	0	0	189	159	398	205
	G	4A5-2ov	0.470	e	17.30	31.94	0	0	0	0	9	0	156	287
11	G	4A5-2ov	0.470	e	17.30	31.94	0	0	0	0	0	0	0	0
	D	11J0	0.600	e	22.08	16.86	0	0	0	0	21	21	464	354
	W	12E-0sw	0.068	s	2.50	1.29	126	126	315	163	0	0	0	0
	G	4A5-2ov	0.470	s	17.30	13.01	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	s	17.30	13.01	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	2.50	1.29	117	102	255	132	0	0	0	0
	G	4A5-2ov	0.470	w	17.30	31.94	15	0	259	479	0	0	0	0
	D	11J0	0.600	w	22.08	16.86	0	0	0	0	0	0	0	0
	C	16B-38ad	0.026	-	0.96	1.34	182	182	174	244	294	294	281	394
	F	21A-28t	0.022	-	0.81	0.00	182	182	147	0	294	294	238	0
6	c) AED excursion									99				-141
	Envelope loss/gain								1219	1152			1537	1100
12	a) Infiltration								680	120			476	84
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230		1			230	900	2		460	2000
			Appliances/other											
	Subtotal (lines 6 to 13)								1899	2402			2013	3644
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								9	7			5	3
14	Subtotal								1909	2409			2018	3648
15	Duct loads						38%	32%	726	769	38%	32%	767	1165
	Total room load								2635	3178			2785	4813
	Air required (cfm)								180	161			190	243

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





Right-J® Worksheet

Entire House

All-Rite Heating & Air Conditioning, Inc.

Job: Theyry Resid
 Date: 1-1-2026
 By: Loren Walbaum

4751 NE 155th Ave, Williston, FL 32696 Phone: 352-528-2511 Fax: 352-528-2505 Email: info@allriteheatcool.com Web: www.allriteheatcool.com License: CMC1249660

1 Room name				Bath		Bdrm 2								
2 Exposed wall				8.0 ft		25.0 ft								
3 Room height				9.0 ft		9.0 ft								
4 Room dimensions				9.0 x 8.0 ft		13.0 x 12.0 ft								
5 Room area				72.0 ft²		156.0 ft²								
Ty	Construction number	U-value (Btuh/ft²·°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area (ft²) or perimeter (ft)		Load (Btuh)		
				Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool	
6	W	12E-0sw	0.068	n	2.50	1.29	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	n	17.30	11.01	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	2.50	1.29	0	0	0	0	117	117	293	151
	G	4A5-2ov	0.470	e	17.30	31.94	0	0	0	0	0	0	0	0
11	G	4A5-2ov	0.470	e	17.30	31.94	0	0	0	0	0	0	0	0
	D	11J0	0.600	e	22.08	16.86	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	2.50	1.29	72	64	161	83	108	93	233	120
	G	4A5-2ov	0.470	s	17.30	13.01	8	8	134	101	0	0	0	0
	G	4A5-2ov	0.470	s	17.30	13.01	0	0	0	0	15	15	259	195
	W	12E-0sw	0.068	w	2.50	1.29	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	w	17.30	31.94	0	0	0	0	0	0	0	0
	D	11J0	0.600	w	22.08	16.86	0	0	0	0	0	0	0	0
	C	16B-38ad	0.026	-	0.96	1.34	72	72	69	97	156	156	149	209
	F	21A-28t	0.022	-	0.81	0.00	72	72	58	0	156	156	126	0
6	c) AED excursion													-113
	Envelope loss/gain								422	232			1061	563
12	a) Infiltration								181	32			567	100
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230			0			0	1			230
			Appliances/other							500				900
	Subtotal (lines 6 to 13)								603	764			1627	1793
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								19	13			9	7
14	Subtotal								622	778			1637	1800
15	Duct loads						38%	32%	237	248	38%	32%	622	575
	Total room load								859	1026			2259	2374
	Air required (cfm)								59	52			154	120

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





Right-J® Worksheet
Entire House
All-Rite Heating & Air Conditioning, Inc.

Job: Theyry Resid
Date: 1-1-2026
By: Loren Walbaum

4751 NE 155th Ave, Williston, FL 32696 Phone: 352-528-2511 Fax: 352-528-2505 Email: info@allriteheatcool.com Web: www.allriteheatcool.com License: CMC1249660

1 Room name				Laundry				WIC						
2 Exposed wall				0 ft				7.0 ft						
3 Room height				9.0 ft				9.0 ft						
4 Room dimensions				7.0 x 13.0 ft				13.0 x 7.0 ft						
5 Room area				91.0 ft ²				91.0 ft ²						
	Ty	Construction number	U-value (Btuh/ft ² -°F)	Or	HTM (Btuh/ft ²)		Area (ft ²) or perimeter (ft)		Load (Btuh)		Area (ft ²) or perimeter (ft)		Load (Btuh)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12E-0sw	0.068	n	2.50	1.29	0	0	0	0	63	63	158	81
	G	4A5-2ov	0.470	n	17.30	11.01	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	e	2.50	1.29	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	e	17.30	31.94	0	0	0	0	0	0	0	0
11	G	4A5-2ov	0.470	e	17.30	31.94	0	0	0	0	0	0	0	0
	D	11J0	0.600	e	22.08	16.86	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	s	2.50	1.29	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	s	17.30	13.01	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	s	17.30	13.01	0	0	0	0	0	0	0	0
	W	12E-0sw	0.068	w	2.50	1.29	0	0	0	0	0	0	0	0
	G	4A5-2ov	0.470	w	17.30	31.94	0	0	0	0	0	0	0	0
	D	11J0	0.600	w	22.08	16.86	0	0	0	0	0	0	0	0
	C	16B-38ad	0.026	-	0.96	1.34	91	91	87	122	91	91	87	122
	F	21A-28t	0.022	-	0.81	0.00	91	91	74	0	91	91	74	0
6	c) AED excursion													
	Envelope loss/gain								161	85			318	190
12	a) Infiltration								0	0			159	28
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @	230			0			0	0			0
			Appliances/other							500				0
	Subtotal (lines 6 to 13)								161	585			477	218
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								40	28			0	0
14	Subtotal								201	614			477	218
15	Duct loads						38%	32%	76	196	38%	32%	181	70
	Total room load								277	810			659	287
	Air required (cfm)								19	41			45	15

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





Right-J® Worksheet
Entire House
All-Rite Heating & Air Conditioning, Inc.

Job: Theyry Resid
Date: 1-1-2026
By: Loren Walbaum

4751 NE 155th Ave, Williston, FL 32696 Phone: 352-528-2511 Fax: 352-528-2505 Email: info@allriteheatcool.com Web: www.allriteheatcool.com License: CMC1249660

1		Room name				Hall								
2		Exposed wall				0 ft								
3		Room height				9.0 ft				heat/cool				
4		Room dimensions				4.0 x 13.0 ft								
5		Room area				52.0 ft²								
	Ty	Construction number	U-value (Btuh/ft²-°F)	Or	HTM (Btuh/ft²)		Area (ft²) or perimeter (ft)		Load (Btuh)		Area or perimeter		Load	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W	12E-0sw	0.068	n	2.50	1.29	0	0	0	0				
	G	4A5-2ov	0.470	n	17.30	11.01	0	0	0	0				
	W	12E-0sw	0.068	e	2.50	1.29	0	0	0	0				
	G	4A5-2ov	0.470	e	17.30	31.94	0	0	0	0				
11	G	4A5-2ov	0.470	e	17.30	31.94	0	0	0	0				
	D	11J0	0.600	e	22.08	16.86	0	0	0	0				
	W	12E-0sw	0.068	s	2.50	1.29	0	0	0	0				
	G	4A5-2ov	0.470	s	17.30	13.01	0	0	0	0				
	G	4A5-2ov	0.470	s	17.30	13.01	0	0	0	0				
	W	12E-0sw	0.068	w	2.50	1.29	0	0	0	0				
	G	4A5-2ov	0.470	w	17.30	31.94	0	0	0	0				
	D	11J0	0.600	w	22.08	16.86	0	0	0	0				
	C	16B-38ad	0.026	-	0.96	1.34	52	52	50	70				
	F	21A-28t	0.022	-	0.81	0.00	52	52	42	0				
6	c) AED excursion													
	Envelope loss/gain								92	66				
12	a) Infiltration								0	0				
	b) Room ventilation								0	0				
13	Internal gains:		Occupants @	230			0			0				
			Appliances/other							0				
	Subtotal (lines 6 to 13)								92	66				
	Less external load								0	0				
	Less transfer								0	0				
	Redistribution								-92	-66				
14	Subtotal								0	0				
15	Duct loads						38%	32%	0	0				
	Total room load								0	0				
	Air required (cfm)								0	0				

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





Loads for Multiple Orientations

Entire House

All-Rite Heating & Air Conditioning, Inc.

Job: Theyry Resid
 Date: 1-1-2026
 By: Loren Walbaum

4751 NE 155th Ave, Williston, FL 32696 Phone: 352-528-2511 Fax: 352-528-2505 Email: info@allriteheatcool.com Web: www.allriteheatcool.com License: CMC1249660

Project Information

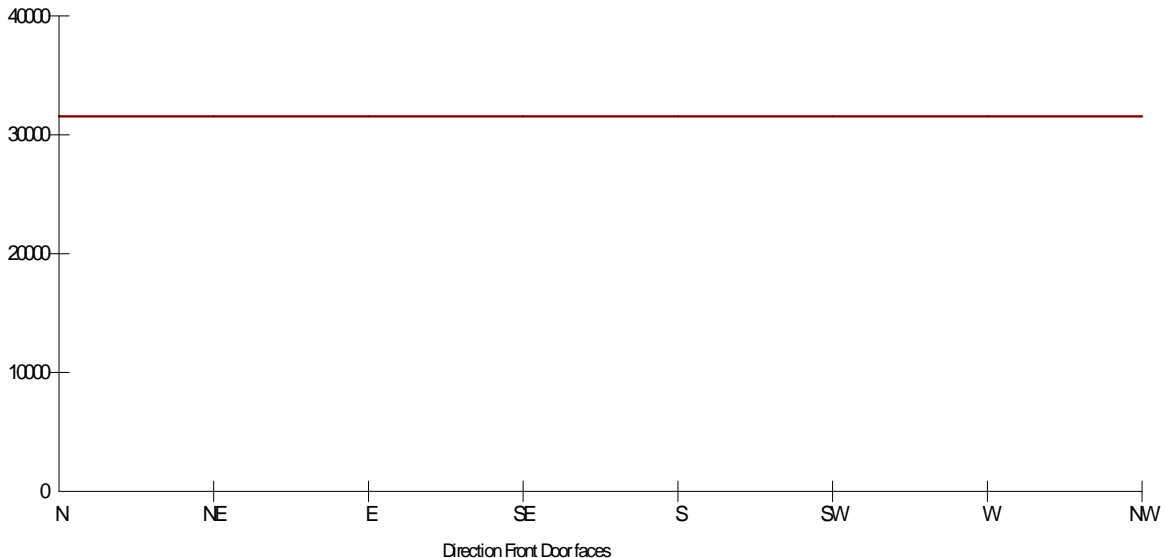
For: Steve Ayoub, Ayoub Construction, Corp #CRC1332955
 20273 NW 251st Terrace, High Springs, FL 32643
 Phone: 352-215-0131
 Email: steveayoub@yahoo.com

Design Conditions

Location: Gainesville Regional, FL, US Elevation: 123 ft Latitude: 30°N	Indoor: Indoor temperature (°F) 70 Design TD (°F) 37 Relative humidity (%) 50 Moisture difference (gr/lb) 32.6	Heating 70 37 50 32.6	Cooling 75 16 50 44.6
Outdoor: Dry bulb (°F) 33 Daily range (°F) - Wet bulb (°F) - Wind speed (mph) 15.0	Heating 33 - - 15.0	Cooling 91 18 (M) 76 7.5	Infiltration:

Front Door	North	Northeast	East	Southeast	South	Southwest	West	Northwest
Sensible Load (Btuh)	24973	24973	24973	24973	24973	24973	24973	24973
Latent Load (Btuh)	6578	6578	6578	6578	6578	6578	6578	6578
Total Load (Btuh)	31551	31551	31551	31551	31551	31551	31551	31551
Heating AVF (cfm)	1200	1200	1200	1200	1200	1200	1200	1200
Cooling AVF (cfm)	1200	1200	1200	1200	1200	1200	1200	1200

Building Orientation Cooling Load



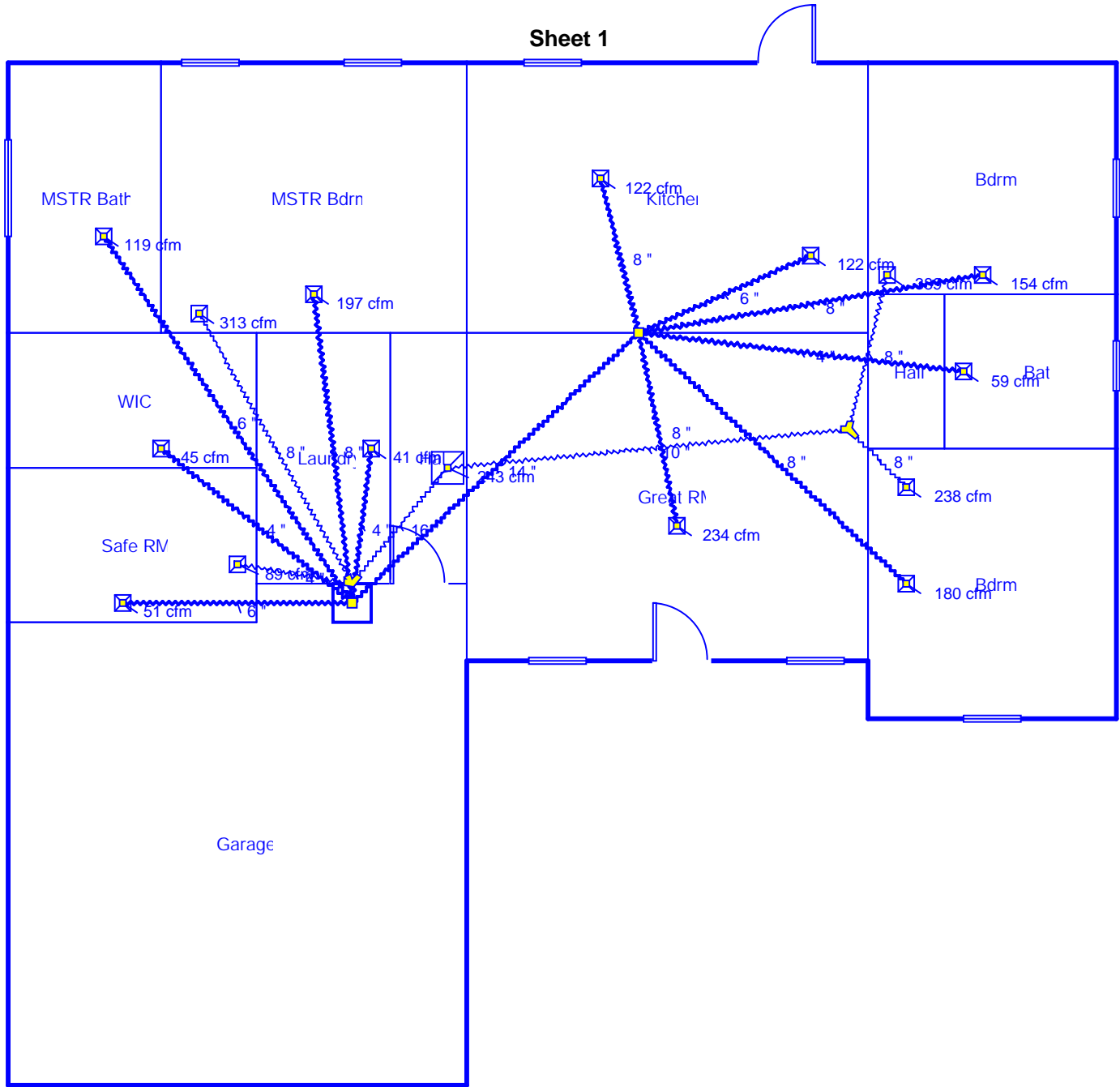
Current Orientation: Front Door faces West
 Highest Cooling Load: Front Door faces North

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





Sheet 1



Job #: Theyr Resid
Performed by Loren Walbaum for:

Steve Ayoub
20273 NW 251st Terrace
High Springs, FL 32643
Phone: 352-215-0131
steveayoub@yahoo.com

All-Rite Heating & Air Conditioning, I.

4751 NE 155th Ave
Williston, FL 32696
Phone: 352-528-2511 Fax: 352-528-2505 License: CMC12...
www.allriteheatcool.com info@allriteheatcool.com

Scale: 1 : 97

Page 1
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25.0.02 RSU06193
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...me 1768sq ft-High Springs FL.rup



Duct System Summary

Entire House

All-Rite Heating & Air Conditioning, Inc.

Job: Theiry Resid
 Date: 1-1-2026
 By: Loren Walbaum

4751 NE 155th Ave, Williston, FL 32696 Phone: 352-528-2511 Fax: 352-528-2505 Email: info@allriteheatcool.com Web: www.allriteheatcool.com License: CMC1249660

Project Information

For: Steve Ayoub, Ayoub Construction, Corp #CRC1332955
 20273 NW 251st Terrace, High Springs, FL 32643
 Phone: 352-215-0131
 Email: steveyoub@yahoo.com

	Heating	Cooling
External static pressure	0.50 in H2O	0.50 in H2O
Pressure losses	0.12 in H2O	0.12 in H2O
Available static pressure	0.38 in H2O	0.38 in H2O
Supply / return available pressure	0.213 / 0.167 in H2O	0.213 / 0.167 in H2O
Lowest friction rate	0.171 in/100ft	0.171 in/100ft
Actual air flow	1200 cfm	1200 cfm
Total effective length (TEL)		222 ft

Supply Branch Detail Table

Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
Bath	h 859	59	52	0.174	4.0	0x0	VIFx	37.6	85.0	st1
Bdrm 2	h 2259	154	120	0.172	8.0	0x0	VIFx	38.8	85.0	st1
Bdrm 3	h 2635	180	161	0.171	8.0	0x0	VIFx	39.6	85.0	st1
Great RM	h 3435	234	234	0.184	8.0	0x0	VIFx	30.7	85.0	st1
Kitchen	c 2406	95	122	0.187	8.0	0x0	VIFx	28.8	85.0	st1
Kitchen-A	c 2406	95	122	0.185	6.0	0x0	VIFx	30.4	85.0	st1
Laundry	c 810	19	41	0.273	4.0	0x0	VIFx	8.1	70.0	
MSTR Bath	h 1748	119	91	0.229	6.0	0x0	VIFx	23.0	70.0	
MSTR Bdrm	c 3890	148	197	0.247	8.0	0x0	VIFx	16.1	70.0	
Safe RM	h 753	51	48	0.260	6.0	0x0	VIFx	12.0	70.0	
WIC	h 659	45	15	0.257	4.0	0x0	VIFx	12.8	70.0	

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st1	Peak AVF	817	809	0.171	764	14.0	0 x 0	VinIFlx	

Return Branch Detail Table

Name	Grille Size (in)	Htg (cfm)	Clg (cfm)	TEL (ft)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Stud/Joist Opening (in)	Duct Matl	Trunk
rb1	0x0	313	302	46.1	0.362	896	8.0	0x 0		VIFx	
rb2	0x0	389	354	82.2	0.203	1113	8.0	0x 0		VIFx	rt2
rb3	0x0	70	89	36.1	0.463	1019	4.0	0x 0		VIFx	
rb4	0x0	238	212	78.1	0.214	683	8.0	0x 0		VIFx	rt2
rb6	0x0	190	243	97.8	0.171	446	10.0	0x 0		VIFx	rt1

Return Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
rt2	Peak AVF	627	566	0.203	1150	10.0	0 x 0	VinIFlx	rt1
rt1	Peak AVF	817	809	0.171	585	16.0	0 x 0	VinIFlx	





Static Pressure and Friction Rate
Entire House
All-Rite Heating & Air Conditioning, Inc.

Job: **Theiry Resid**
 Date: **1-1-2026**
 By: **Loren Walbaum**

4751 NE 155th Ave, Williston, FL 32696 Phone: 352-528-2511 Fax: 352-528-2505 Email: info@allriteheatcool.com Web: www.allriteheatcool.com License: CMC1249660

Project Information

For: **Steve Ayoub, Ayoub Construction, Corp #CRC1332955**
 20273 NW 251st Terrace, High Springs, FL 32643
 Phone: 352-215-0131
 Email: steveayoub@yahoo.com

Available Static Pressure

	Heating (in H2O)	Cooling (in H2O)
External static pressure	0.50	0.50
Pressure losses		
Coil	0.12	0.12
Heat exchanger	0	0
Supply diffusers	0	0
Return grilles	0	0
Filter	0	0
Humidifier	0	0
Balancing damper	0	0
Other device	0	0
Available static pressure	0.38	0.38

Total Effective Length

	Supply (ft)	Return (ft)
Measured length of run-out	19	0
Measured length of trunk	21	8
Equivalent length of fittings	85	90
Total length	125	98
Total effective length		222

Friction Rate

	Heating (in/100ft)		Cooling (in/100ft)	
Supply Ducts	0.171	OK	0.171	OK
Return Ducts	0.171	OK	0.171	OK

Fitting Equivalent Length Details

Supply 4X=35, 11S=15, 1A=35: TotalEL=85
 Return 6M=20, 6A4=60, 5E1=10: TotalEL=90



Duct system multi orientation report

Entire House

All-Rite Heating & Air Conditioning, Inc.

Job: Theiry Resid
 Date: 1-1-2026
 By: Loren Walbaum

4751 NE 155th Ave, Williston, FL 32696 Phone: 352-528-2511 Fax: 352-528-2505 Email: info@allriteheatcool.com Web: www.allriteheatcool.com License: CMC1249660

Project Information

For: Steve Ayoub, Ayoub Construction, Corp #CRC1332955
 20273 NW 251st Terrace, High Springs, FL 32643
 Phone: 352-215-0131
 Email: steveayoub@yahoo.com

Group 1: (N, NE, E, SE, S, SW, W, NW)

Duct Name	(N)			(NE)			(E)			(SE)		
	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size
Supply Branches												
Bath	73 c	10x10	4	59 c	10x10	4	59 h	10x10	4	67 c	10x10	4
Bdrm 2	164 c	10x10	8	154 h	10x10	8	154 h	10x10	8	154 h	10x10	8
Bdrm 3	180 h	10x10	8	180 h	10x10	8	180 h	10x10	8	180 h	10x10	8
Great RM	234 h	10x10	8	234 h	10x10	8	234 h	10x10	8	234 h	10x10	8
Kitchen	126 c	10x10	8	123 c	10x10	8	124 c	10x10	8	124 c	10x10	8
Kitchen-A	126 c	10x10	6	123 c	10x10	6	124 c	10x10	6	124 c	10x10	6
Laundry	46 c	10x10	4	42 c	10x10	4	41 c	10x10	4	43 c	10x10	4
MSTR Bath	119 h	10x10	6	119 h	10x10	6	119 h	10x10	6	119 h	10x10	6
MSTR Bdrm	155 c	10x10	8	192 c	10x10	8	210 c	10x10	8	189 c	10x10	8
Safe RM	53 c	10x10	6	51 h	10x10	6	51 h	10x10	6	51 h	10x10	6
WIC	45 h	10x10	4	45 h	10x10	4	45 h	10x10	4	45 h	10x10	4
Supply Trunks												
st1	817 h		14	817 h		14	817 h		14	817 h		14
Return Branches												
rb1	313 h	10x10	8	313 h	10x10	8	316 c	10x10	8	313 h	10x10	8
rb2	389 h	10x10	8	389 h	10x10	8	389 h	10x10	8	389 h	10x10	8
rb3	99 c	10x10	4	91 c	10x10	4	89 c	10x10	4	93 c	10x10	4
rb4	238 h	10x10	8	238 h	10x10	8	238 h	10x10	8	238 h	10x10	8
rb6	252 c	20x20	10	247 c	20x20	10	248 c	20x20	10	248 c	20x20	10
Return Trunks												
rt2	627 h		10	627 h		10	627 h		10	627 h		10
rt1	817 h		16	817 h		16	817 h		16	817 h		16
Friction Rates												
Heating FR	0.171			0.171			0.171			0.171		
Cooling FR	0.171			0.171			0.171			0.171		



Project Information

For: Steve Ayoub, Ayoub Construction, Corp #CRC1332955
 20273 NW 251st Terrace, High Springs, FL 32643
 Phone: 352-215-0131
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Duct Name	(S)			(SW)			(W)			(NW)		
	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size
Supply Branches												
Bath	77 c	10x10	4	61 c	10x10	4	59 h	10x10	4	64 c	10x10	4
Bdrm 2	170 c	10x10	8	154 h	10x10	8	154 h	10x10	8	154 h	10x10	8
Bdrm 3	180 h	10x10	8	180 h	10x10	8	180 h	10x10	8	180 h	10x10	8
Great RM	234 h	10x10	8	234 h	10x10	8	234 h	10x10	8	234 h	10x10	8
Kitchen	126 c	10x10	8	121 c	10x10	8	122 c	10x10	8	121 c	10x10	8
Kitchen-A	126 c	10x10	6	121 c	10x10	6	122 c	10x10	6	121 c	10x10	6
Laundry	45 c	10x10	4	42 c	10x10	4	41 c	10x10	4	43 c	10x10	4
MSTR Bath	119 h	10x10	6	119 h	10x10	6	119 h	10x10	6	119 h	10x10	6
MSTR Bdrm	158 c	10x10	8	187 c	10x10	8	197 c	10x10	8	171 c	10x10	8
Safe RM	53 c	10x10	6	51 h	10x10	6	51 h	10x10	6	51 h	10x10	6
WIC	45 h	10x10	4	45 h	10x10	4	45 h	10x10	4	45 h	10x10	4
Supply Trunks												
st1	817 h		14	817 h		14	817 h		14	818 c		14
Return Branches												
rb1	313 h	10x10	8	313 h	10x10	8	313 h	10x10	8	313 h	10x10	8
rb2	389 h	10x10	8	389 h	10x10	8	389 h	10x10	8	389 h	10x10	8
rb3	98 c	10x10	4	90 c	10x10	4	89 c	10x10	4	92 c	10x10	4
rb4	238 h	10x10	8	238 h	10x10	8	238 h	10x10	8	238 h	10x10	8
rb6	251 c	20x20	10	242 c	20x20	10	243 c	20x20	10	243 c	20x20	10
Return Trunks												
rt2	627 h		10	627 h		10	627 h		10	627 h		10
rt1	817 h		16	817 h		16	817 h		16	818 c		16
Friction Rates												
Heating FR	0.171			0.171			0.171			0.171		
Cooling FR	0.171			0.171			0.171			0.171		



Project Information

For: Steve Ayoub, Ayoub Construction, Corp #CRC1332955
 20273 NW 251st Terrace, High Springs, FL 32643
 Phone: 352-215-0131
 Email: steveyoub@yahoo.com

Duct Name	Largest			Smallest		
	Reg CFM	Reg Size	Duct Size	Reg CFM	Reg Size	Duct Size
Supply Branches						
Bath	77 c	10x10	4	59 h	10x10	4
Bdrm 2	170 c	10x10	8	154 h	10x10	8
Bdrm 3	180 h	10x10	8	180 h	10x10	8
Great RM	234 h	10x10	8	234 h	10x10	8
Kitchen	126 c	10x10	8	121 c	10x10	8
Kitchen-A	126 c	10x10	6	121 c	10x10	6
Laundry	46 c	10x10	4	41 c	10x10	4
MSTR Bath	119 h	10x10	6	119 h	10x10	6
MSTR Bdrm	210 c	10x10	8	155 c	10x10	8
Safe RM	53 c	10x10	6	51 h	10x10	6
WIC	45 h	10x10	4	45 h	10x10	4
Supply Trunks						
st1	818 c		14	817 h		14
Return Branches						
rb1	316 c	10x10	8	313 h	10x10	8
rb2	389 h	10x10	8	389 h	10x10	8
rb3	99 c	10x10	4	89 c	10x10	4
rb4	238 h	10x10	8	238 h	10x10	8
rb6	252 c	20x20	10	242 c	20x20	10
Return Trunks						
rt2	627 h		10	627 h		10
rt1	818 c		16	817 h		16
Friction Rates						
Heating FR	0.171			0.171		
Cooling FR	0.171			0.171		

Background Color Legend

Yellow background

Duct Size - duct size is smaller than the largest duct size in the row

Reg Size - register size is smaller than the largest register size in the row

Reg CFM - register design cfm is larger than 150 CFM

Friction Rate - friction rate is outside ACCA Manual-D recommended range (0.06 - 0.18)

Pink background column header

Largest cooling load orientation





ENERGY STAR Single-Family New Homes National HVAC Design Report, Version 3.1 /3.2 /3.3 (Rev. 14)

HVAC Designer Responsibilities:											
<ul style="list-style-type: none"> • Complete one National HVAC Design Report for each system design for a house plan, created for either the specific plan configuration (i.e., elevation, option, orientation, & county) of the home to be certified or for a plan that is intended to be built with different configurations (i.e., different elevations, options, and/or orientations). Visit www.energystar.gov/newhomeshvacdesign and see Footnote 2 for more information. • Obtain efficiency features (e.g., window performance, insulation levels, and infiltration rate) from the builder or Rater. ³ • Provide the completed National HVAC Design Report to the builder or credentialed HVAC contractor and to the Rater. 											
1. Design Overview											
1.1 Designer name: Loren Walbaum Designer company: All-Rite Heating & Air Conditioning, Inc. Date: 1-1-2026 1.2 Select which party you are providing these design services to: <input checked="" type="checkbox"/> Builder or <input type="checkbox"/> Credentialed HVAC contractor 1.3 Name of company you are providing these design services to (if different than Item 1.1): Ayoub Construction, Corp #CRC1332955 1.4 Area that system serves: <input checked="" type="checkbox"/> Whole-house <input type="checkbox"/> Upper-level <input type="checkbox"/> Lower-level <input type="checkbox"/> Other 1.5 Is cooling system for a temporary occupant load? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 1.6 House plan: Check box to indicate whether the system design is site-specific or part of a group: <input checked="" type="checkbox"/> Site-specific design. Option(s) & elevation(s) modeled: <input type="checkbox"/> Group design. Group #: 0 out of 0 total groups for this house plan. Configuration modeled:											
2. Dwelling Unit Mechanical Ventilation System Design ("Vent System") & Inlets in Return Duct									Designer Verified		
Airflow:											
2.1 Ventilation airflow design rate & run-time meet the requirements of ASHRAE 62.2-2010 or later									<input type="checkbox"/>		
2.2 Ventilation airflow rate required by 62.2 for a continuous system: 96 CFM									-		
2.3 Design for this system: Vent. airflow rate: CFM Run-time per cycle: 0 minutes Cycle time: 0 minutes									-		
System Type & Controls:											
2.4 Specified system type: <input type="checkbox"/> Supply <input type="checkbox"/> Exhaust <input checked="" type="checkbox"/> Balanced									-		
2.5 Specified control location: (e.g., Master bath, utility room)									-		
2.6 Specified controls allow the system to operate automatically, without occupant intervention.									<input type="checkbox"/>		
2.7 Specified controls include a readily-accessible ventilation override and a label has also been specified if its function is not obvious (e.g., a label is required for a toggle wall switch, but not for a switch that's on the ventilation equipment).									<input type="checkbox"/>		
2.8 For any outdoor air inlet designed to connect to a ducted return of the HVAC system, specified controls automatically restrict airflow using a motorized damper during ventilation off-cycle and occupant override.									<input type="checkbox"/>		
Sound:	2.9 The fan of the specified system is rated ≤ 3 sones if intermittent and ≤ 1 sone if continuous, or exempted									<input type="checkbox"/>	
Efficiency:											
2.10 If Vent System controller operates the HVAC fan, then HVAC fan operation is intermittent and either the fan type in Item 4.7 is ECM / ICM or the controls will reduce the run-time by accounting for HVAC system heating or cooling hours.									<input type="checkbox"/>		
2.11 If bathroom fans are specified as part of the system, then they are ENERGY STAR certified									<input type="checkbox"/>		
Air Inlet Location: (Complete this section if system has a specified air inlet location; otherwise check "N/A")									<input type="checkbox"/> N/A		
2.12 Inlet pulls ventilation air directly from outdoors and not from attic, crawlspace, garage, or adjacent dwelling unit									<input type="checkbox"/>		
2.13 Inlet is ≥ 2 ft. above grade or roof deck; ≥ 10 ft. of stretched-string distance from known contamination sources (e.g., stack, vent, exhaust, vehicles) not exiting the roof, and ≥ 3 ft. from known sources exiting the roof									<input type="checkbox"/>		
3. Room-by-Room Heating & Cooling Loads											
3.1 Room-by-room loads calculated using: <input checked="" type="checkbox"/> Unabridged ACCA Manual J v8 <input type="checkbox"/> 2013 ASHRAE Fundamentals <input type="checkbox"/> Other per AHJ									-		
3.2 Indoor design temperatures used in loads are 70°F for heating and 75°F for cooling									<input checked="" type="checkbox"/>		
3.3 Outdoor design temperatures used in loads: (See Footnote 18 and www.energystar.gov/hvacdesigntemps) County & State, or US Territory, selected: Alachua, FL Cooling season: 91 °F Heating season: 33 °F									-		
3.4 Number of occupants used in loads: 7									-		
3.5 Conditioned floor area used in loads: 1767 Sq. Ft.									-		
3.6 Window area used in loads: 112 Sq. Ft.									-		
3.7 Predominant window SHGC used in loads: 0.31									-		
3.8 Infiltration rate used in loads: Summer: 0.14 Winter: 0.34									-		
3.9 Mechanical ventilation rate used in loads: 96 CFM									-		
Loads At Design Conditions (kBtuh)											
			N	NE	E	SE	S	SW	W	NW	
Cooling	3.10 Sensible heat gain (By orientation)		25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	-
	3.11 Latent heat gain (Not by orientation)		6.6								-
	3.12 Total heat gain (By orientation)		31.6	31.6	31.6	31.6	31.6	31.6	31.6	31.6	-
	3.13 Maximum – minimum total heat gain (Item 3.12) across orientations =		0 kBtuh					Variation is ≤ 6 kBtuh			
Heating	3.14 Total heat loss (Not by orientation)		21.4								-



ENERGY STAR Single-Family New Homes National HVAC Design Report, Version 3.1 /3.2 /3.3 (Rev. 14)

4. Heating & Cooling Equipment Selection						Designer Verified
4.1 Equipment selected per ACCA Manual S (see Footnote 26 & 27).						<input type="checkbox"/>
Air Conditioner / Heat Pump (Complete if air conditioner or heat pump will be installed; otherwise check "N/A")						<input type="checkbox"/> N/A
4.2 Equipment type: <input type="checkbox"/> Cooling-only air conditioner or <input checked="" type="checkbox"/> Cooling & heating heat pump						-
4.3 Condenser manufacturer & model: Bryant PH5SAN53600A						-
4.4 Evaporator / fan coil manufacturer & model: Bryant PF5MNXB36L00						-
4.5 AHRI reference #: 214101836						-
4.6 Rated cooling efficiency: 12.0 EER2/15.2 SEER2 Rated heating efficiency: 7.8 HSPF2						-
4.7 Evaporator fan type: <input type="checkbox"/> PSC <input type="checkbox"/> ECM / ICM <input checked="" type="checkbox"/> Other:						-
4.8 Compressor type: <input checked="" type="checkbox"/> Single-speed <input type="checkbox"/> Two-speed <input type="checkbox"/> Variable-speed						-
4.9 Latent capacity at design conditions, from OEM expanded performance data: 7.1 kBtuh						-
4.10 Sensible capacity at design conditions, from OEM expanded performance data: 26.0 kBtuh						-
4.11 Total capacity at design conditions, from OEM expanded performance data: 33.1 kBtuh						-
4.12 Air-source heat pump capacity: At 17°F: 22.4 kBtuh At 47°F: 33.2 kBtuh <input type="checkbox"/> N/A						-
4.13 Cooling sizing % = Total capacity (Item 4.11) divided by maximum total heat gain (Item 3.12): 105 %						-
4.14 Complete this item if Condition B Climate will be used to select sizing limit in Item 4.15. Otherwise, check "N/A": <input checked="" type="checkbox"/> N/A						-
4.14.1 Load sensible heat ratio = Max. sensible heat gain (Item 3.10) / Max. total heat gain (Item 3.12) = 79%						-
4.14.2 HDD / CDD ratio (Visit www.energystar.gov/hvacdesigntemps to determine this value for the design location)= 0.2						-
4.15 Check box of applicable cooling sizing limit from chart below:						-
Equipment Type (Per Item 4.2) & Climate Condition (Per Item 4.14)		Compressor Type (Per Item 4.8)				
		Single-Speed	Two-Speed	Variable-Speed		
For Cooling-Only Equipment or For Cooling Mode of Heat Pump in Condition A Climate		<input checked="" type="checkbox"/> Recommended: 90 – 115% Allowed: 90 – 130%	<input type="checkbox"/> Recommended: 90 – 120% Allowed: 90 – 140%	<input type="checkbox"/> Recommended: 90 – 130% Allowed: 90 – 160%		
For Cooling Mode of Heat Pump in Condition B Climate		<input type="checkbox"/> 90% - 100%, plus 15 kBtuh	<input type="checkbox"/> 90% - 100%, plus 15 kBtuh	<input type="checkbox"/> 90% - 100%, plus 15 kBtuh		
4.16 Cooling sizing % (4.13) is within cooling sizing limit (4.15)						<input checked="" type="checkbox"/>
Furnace (Complete if furnace will be installed; otherwise check "N/A")						<input checked="" type="checkbox"/> N/A
4.17 Furnace manufacturer & model:						-
4.18 Rated heating efficiency: AFUE						-
4.19 Total capacity: kBtuh						-
4.20 Heating sizing % = Total capacity (Item 4.19) divided by total heat loss (Item 3.14): 0%						-
4.21 Check box of applicable heating sizing limit from chart below:						-
When Used for Heating Only			When Paired With Cooling			
<input type="checkbox"/> 100 - 140%			<input type="checkbox"/> Recommended: 100 – 140% Allowed: 100 – 400%			
4.22 Heating sizing % (4.20) is within heating sizing limit (4.21)						<input type="checkbox"/>
5. Duct Design (Complete if heating or cooling equipment will be installed with ducts; otherwise check "N/A")						<input type="checkbox"/> N/A
5.1 Duct system designed for the equipment selected in Section 4, per ACCA Manual D						<input checked="" type="checkbox"/>
5.2 Design HVAC fan airflow: Cooling mode 1200 CFM Heating mode 1200 CFM						-
5.3 Design HVAC fan speed setting (e.g., low, medium, high): Cooling mode Medium Heating mode Medium						-
5.4 Design total external static pressure (corresponding to the mode with the higher airflow in Item 5.2): 0.5 IWC						-
5.5 Room-by-room design airflows documented below (which must sum to the mode with the higher airflow in Item 5.2)						-
Room Name	Design Airflow (CFM)	Room Name	Design Airflow (CFM)	Room Name	Design Airflow (CFM)	
1 Bath	52	12 WIC	15	23		
2 Bdrm 2	120	13		24		
3 Bdrm 3	161	14		25		
4 Great RM	234	15		26		
5 Hall	0	16		27		
6 Hall 2	0	17		28		
7 Kitchen	243	18		29		
8 Laundry	41	19		30		
9 MSTR Bath	91	20		31		
10 MSTR Bdrm	197	21		32		
11 Safe RM	48	22		Total for all rooms		1200