



Load Short Form

Entire House

Bounds Heating and Air

Job:
Date: Jun 24, 2026
By:

Email: jlegler@boundshvac.com

Project Information

For: Morrison

Design Information

	Htg	Clg	Infiltration	Simplified
Outside db (°F)	33	92	Method	Average
Inside db (°F)	70	75	Construction quality	0
Design TD (°F)	37	17	Fireplaces	
Daily range	-	M		
Inside humidity (%)	30	50		
Moisture difference (gr/lb)	10	44		

HEATING EQUIPMENT

Make Carrier
Trade 2-STAGE 18 SEER HP
Model GH8TAN53600AA0
AHRI ref 215560680

Efficiency 8.1 HSPF2
Heating input
Heating output 37600 Btuh @ 47°F
Temperature rise 30 °F
Actual air flow 1153 cfm
Air flow factor 0.038 cfm/Btuh
Static pressure 0.50 in H2O
Space thermostat
Capacity balance point = 30 °F

Backup:

Input = 9 kW, Output = 29536 Btuh, 100 AFUE

COOLING EQUIPMENT

Make Carrier
Trade 2-STAGE 18 SEER HP
Cond GH8TAN53600AA0
Coil FG5ANXC36L
AHRI ref 215560680

Efficiency 12.0 EER2, 15.2 SEER2
Sensible cooling 24220 Btuh
Latent cooling 10380 Btuh
Total cooling 34600 Btuh
Actual air flow 1153 cfm
Air flow factor 0.043 cfm/Btuh
Static pressure 0.50 in H2O
Load sensible heat ratio 0.87

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
master bedroom	225	5504	5037	209	218
bedroom 3	168	1944	1837	74	80
bath	65	1120	763	43	33
hall 2	27	0	0	0	0
bedroom 2	175	2253	2164	85	94
living room	270	6637	5880	252	255
master bath	100	1555	1344	59	58
wic	75	2021	798	77	35
laundry	77	1520	1660	58	72
ah	39	0	0	0	0
hall 1	66	0	0	0	0
kitchen/dining	380	7836	7139	297	309

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



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... (2026)\Individuals\Shane Morrison\Morrison.rup Calc = MJ8 Front Door faces: N

Entire House	1667	30391	26620	1153	1153
Other equip loads		0	0		
Equip. @ 0.97 RSM			25875		
Latent cooling			4036		
TOTALS	1667	30391	29911	1153	1153

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





Project Summary

Entire House

Bounds Heating and Air

Job:
Date: Jun 24, 2026
By:

Email: jlegler@boundshvac.com

Project Information

For: Morrison

Notes:

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

Heating Summary

Structure	24414 Btuh
Ducts (R-6.0)	5977 Btuh
Central vent (0 cfm)	0 Btuh

Humidification	0 Btuh
Piping	0 Btuh
Equipment load	30391 Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

	Heating	Cooling
Area (ft ²)	1653	1653
Volume (ft ³)	16671	16671
Air changes/hour	0.38	0.20
Equiv. AVF (cfm)	106	56

Heating Equipment Summary

Make	Carrier
Trade	2-STAGE 18 SEER HP
Model	GH8TAN53600AA0
AHRI ref	215560680

Efficiency	8.1 HSPF2
Heating input	
Heating output	37600 Btuh @ 47°F
Temperature rise	30 °F
Actual air flow	1153 cfm
Air flow factor	0.038 cfm/Btuh
Static pressure	0.50 in H2O
Space thermostat	
Capacity balance point = 30 °F	

Backup:
Input = 9 kW, Output = 29536 Btuh, 100 AFUE

Bold/italic values have been manually overridden

Summer Design Conditions

Outside db	92 °F
Inside db	75 °F
Design TD	17 °F
Daily range	M
Relative humidity	50 %
Moisture difference	44 gr/lb

Sensible Cooling Equipment Load Sizing

Structure	16349 Btuh
Ducts (R-6.0)	10272 Btuh
Central vent (0 cfm)	0 Btuh

Blower 0 Btuh

Use manufacturer's data	n
Rate/swing multiplier	0.97
Equipment sensible load	25875 Btuh

Latent Cooling Equipment Load Sizing

Structure	2448 Btuh
Ducts	1588 Btuh
Central vent (0 cfm)	0 Btuh

Equipment latent load 4036 Btuh

Equipment Total Load (Sen+Lat)	29911 Btuh
Req. total capacity at 0.70 SHR	3.1 ton

Cooling Equipment Summary

Make	Carrier
Trade	2-STAGE 18 SEER HP
Cond	GH8TAN53600AA0
Coil	FG5ANXC36L
AHRI ref	215560680

Efficiency	12.0 EER2,15.2 SEER2
Sensible cooling	24220 Btuh
Latent cooling	10380 Btuh
Total cooling	34600 Btuh
Actual air flow	1153 cfm
Air flow factor	0.043 cfm/Btuh
Static pressure	0.50 in H2O
Load sensible heat ratio	0.87

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



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... (2026)\\Individuals\\Shane Morrison\\Morrison.rup Calc = MJ8 Front Door faces: N

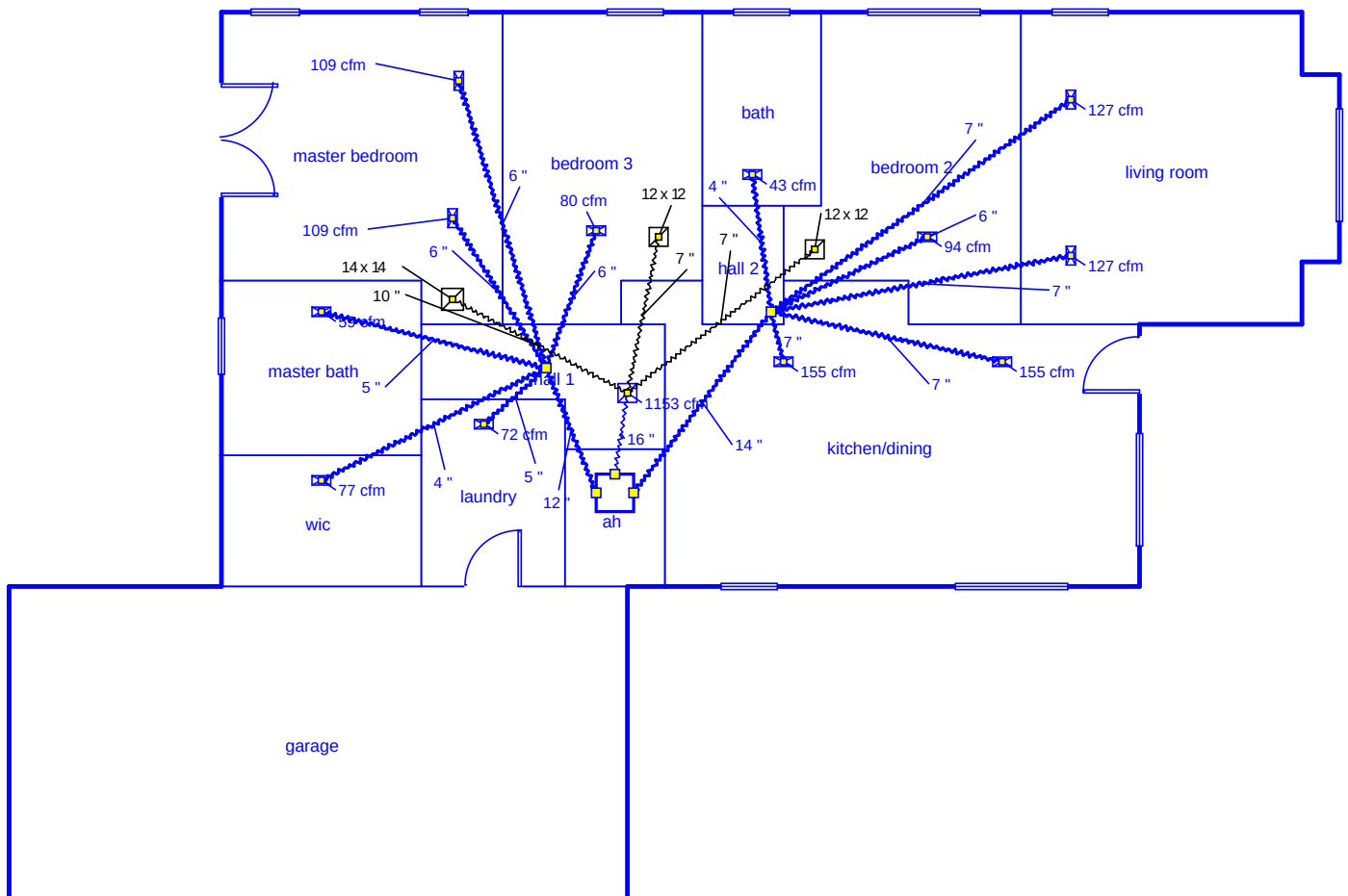
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Sheet 1

11'-0"



Job #:
Performed for:
Morrison

Bounds Heating and Air

jlegler@boundshvac.com

Scale: 1 : 118

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Manual S Compliance Report

Entire House

Bounds Heating and Air

Job:
Date: Jun 24, 2026
By:

Email: jlegler@boundshvac.com

Project Information

For: Morrison

Cooling Equipment

Design Conditions

Outdoor design DB:	92.2°F	Sensible gain:	26620 Btuh	Entering coil DB:	78.0°F
Outdoor design WB:	75.8°F	Latent gain:	4036 Btuh	Entering coil WB:	63.8°F
Indoor design DB:	75.0°F	Total gain:	30657 Btuh		
Indoor RH:	50%	Estimated airflow:	1153 cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Carrier	Model:	GH8TAN53600AA0+FG5ANXC36L
Actual airflow:	1153 cfm		
Sensible capacity:	24220 Btuh	91% of load	
Latent capacity:	10380 Btuh	257% of load	
Total capacity:	34600 Btuh	113% of load	SHR: 70%

Heating Equipment

Design Conditions

Outdoor design DB:	33.2°F	Heat loss:	30391 Btuh	Entering coil DB:	69.2°F
Indoor design DB:	70.0°F				

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Carrier	Model:	GH8TAN53600AA0+FG5ANXC36L
Actual airflow:	1153 cfm		
Output capacity:	37600 Btuh	124% of load	
Supplemental heat required:	0 Btuh		
		Capacity balance:	30 °F
		Economic balance:	-99 °F

Backup equipment type:	Elec strip		
Manufacturer:		Model:	
Actual airflow:	1153 cfm		
Output capacity:	8.7 kW	97% of load	Temp. rise: 50 °F

Meets all requirements of ACCA Manual S.



Duct System Summary

Entire House

Bounds Heating and Air

Job:
Date: Jun 24, 2026
By:

Email: jlegler@boundshvac.com

Project Information

For: Morrison

	Heating	Cooling
External static pressure	0.50 in H ₂ O	0.50 in H ₂ O
Pressure losses	0 in H ₂ O	0 in H ₂ O
Available static pressure	0.50 in H ₂ O	0.50 in H ₂ O
Supply / return available pressure	0.348 / 0.152 in H ₂ O	0.348 / 0.152 in H ₂ O
Lowest friction rate	0.237 in/100ft	0.237 in/100ft
Actual air flow	1153 cfm	1153 cfm
Total effective length (TEL)	211 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 1120	43	33	0.258	4.0	0x0	VIFx	19.5	115.0	st1
bedroom 2	c 2164	85	94	0.255	6.0	0x0	VIFx	21.4	115.0	st1
bedroom 3	c 1837	74	80	0.267	6.0	0x0	VIFx	15.0	115.0	st2
kitchen/dining	c 3569	149	155	0.268	7.0	0x0	VIFx	14.9	115.0	st1
kitchen/dining-A	c 3569	149	155	0.249	7.0	0x0	VIFx	24.8	115.0	st1
laundry	c 1660	58	72	0.274	5.0	0x0	VIFx	11.7	115.0	st2
living room	c 2940	126	127	0.237	7.0	0x0	VIFx	31.7	115.0	st1
living room-A	c 2940	126	127	0.242	7.0	0x0	VIFx	28.4	115.0	st1
master bath	h 1555	59	58	0.258	5.0	0x0	VIFx	19.5	115.0	st2
master bedroom	c 2518	104	109	0.264	6.0	0x0	VIFx	16.6	115.0	st2
master bedroom-A	c 2518	104	109	0.251	6.0	0x0	VIFx	23.2	115.0	st2
wic	h 2021	77	35	0.256	4.0	0x0	VIFx	20.6	115.0	st2

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	677	691	0.237	646	14.0	0 x 0	VinIFlx	
st2	Peak AVF	476	462	0.251	606	12.0	0 x 0	VinIFlx	

Bold/italic values have been manually overridden

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	0x 0	1153	1153	64.4	0.237	652	18.0	0x 0		VIFx	rst3

Return Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
rst3	Peak AVF	1153	1153	0.237	826	16.0	0 x 0	VinIFlx	

Bold/italic values have been manually overridden

