



Load Short Form

Entire House

Bounds Heating and Air

Job:
Date: Aug 05, 2026
By:

Email: jlegler@boundshvac.com

Project Information

For: lot 58 Emerald Cove, DWC

Design Information

	Htg	Clg	Infiltration	Simplified Average
Outside db (°F)	33	92	Method	0
Inside db (°F)	68	75	Construction quality	
Design TD (°F)	35	17	Fireplaces	
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	29	44		

HEATING EQUIPMENT

Make Carrier
Trade 15 SEER2 HP
Model GH5SAN53000AA0
AHRI ref 214101792

Efficiency 7.5 HSPF2
Heating input
Heating output 28600 Btuh @ 47°F
Temperature rise 28 °F
Actual air flow 947 cfm
Air flow factor 0.042 cfm/Btuh
Static pressure 0.50 in H2O
Space thermostat
Capacity balance point = 28 °F

Backup:

Input = 7 kW, Output = 22384 Btuh, 100 AFUE

COOLING EQUIPMENT

Make Carrier
Trade 15 SEER2 HP
Cond GH5SAN53000AA0
Coil FJ5ANXB30L00
AHRI ref 214101792

Efficiency 12.0 EER2, 14.5 SEER2
Sensible cooling 19880 Btuh
Latent cooling 8520 Btuh
Total cooling 28400 Btuh
Actual air flow 947 cfm
Air flow factor 0.042 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)
bedroom 3	183	3690	3144	154	134
bath	52	702	407	29	17
bedroom 2	151	3091	1831	129	78
hall	28	0	0	0	0
kitchen/living	535	7043	9574	294	407
laundry	66	1151	1292	48	55
master bedroom	225	4289	4792	179	204
wic	55	554	287	23	12
master bath	90	2137	958	89	41

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

Entire House	1384	22658	22286	947	947
Other equip loads		0	0		
Equip. @ 0.97 RSM			21662		
Latent cooling			3272		
TOTALS	1384	22658	24934	947	947

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Project Summary

Entire House

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Notes:

Design Information

Weather: Gainesville Regional, FL, US

Winter Design Conditions

Outside db	33 °F
Inside db	68 °F
Design TD	35 °F

Ventilation Method MJ8

Heating Summary

Structure	18628 Btuh
Ducts (R-6.0)	4030 Btuh
Central vent (0 cfm)	0 Btuh

Humidification	0 Btuh
Piping	0 Btuh
Equipment load	22658 Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

	Heating	Cooling
Area (ft ²)	1384	1384
Volume (ft ³)	12460	12460
Air changes/hour	0.45	0.23
Equiv. AVF (cfm)	93	48

Heating Equipment Summary

Make	Carrier
Trade	15 SEER2 HP
Model	GH5SAN53000AA0
AHRI ref	214101792

Efficiency	7.5 HSPF2
Heating input	
Heating output	28600 Btuh @ 47°F
Temperature rise	28 °F
Actual air flow	947 cfm
Air flow factor	0.042 cfm/Btuh
Static pressure	0.50 in H2O
Space thermostat	
Capacity balance point = 28 °F	

Backup:
Input = 7 kW, Output = 22384 Btuh, 100 AFUE

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	15297 Btuh
Ducts (R-6.0)	6989 Btuh
Central vent (0 cfm)	0 Btuh

Blower 0 Btuh

Use manufacturer's data	n
Rate/swing multiplier	0.97
Equipment sensible load	21662 Btuh

Latent Cooling Equipment Load Sizing

Structure	2216 Btuh
Ducts	1056 Btuh
Central vent (0 cfm)	0 Btuh

Equipment latent load 3272 Btuh

Equipment Total Load (Sen+Lat)	24934 Btuh
Req. total capacity at 0.70 SHR	2.6 ton

Cooling Equipment Summary

Make	Carrier
Trade	15 SEER2 HP
Cond	GH5SAN53000AA0
Coil	FJ5ANXB30L00
AHRI ref	214101792

Efficiency	12.0 EER2, 14.5 SEER2
Sensible cooling	19880 Btuh
Latent cooling	8520 Btuh
Total cooling	28400 Btuh
Actual air flow	947 cfm
Air flow factor	0.042 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.

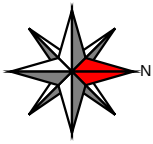


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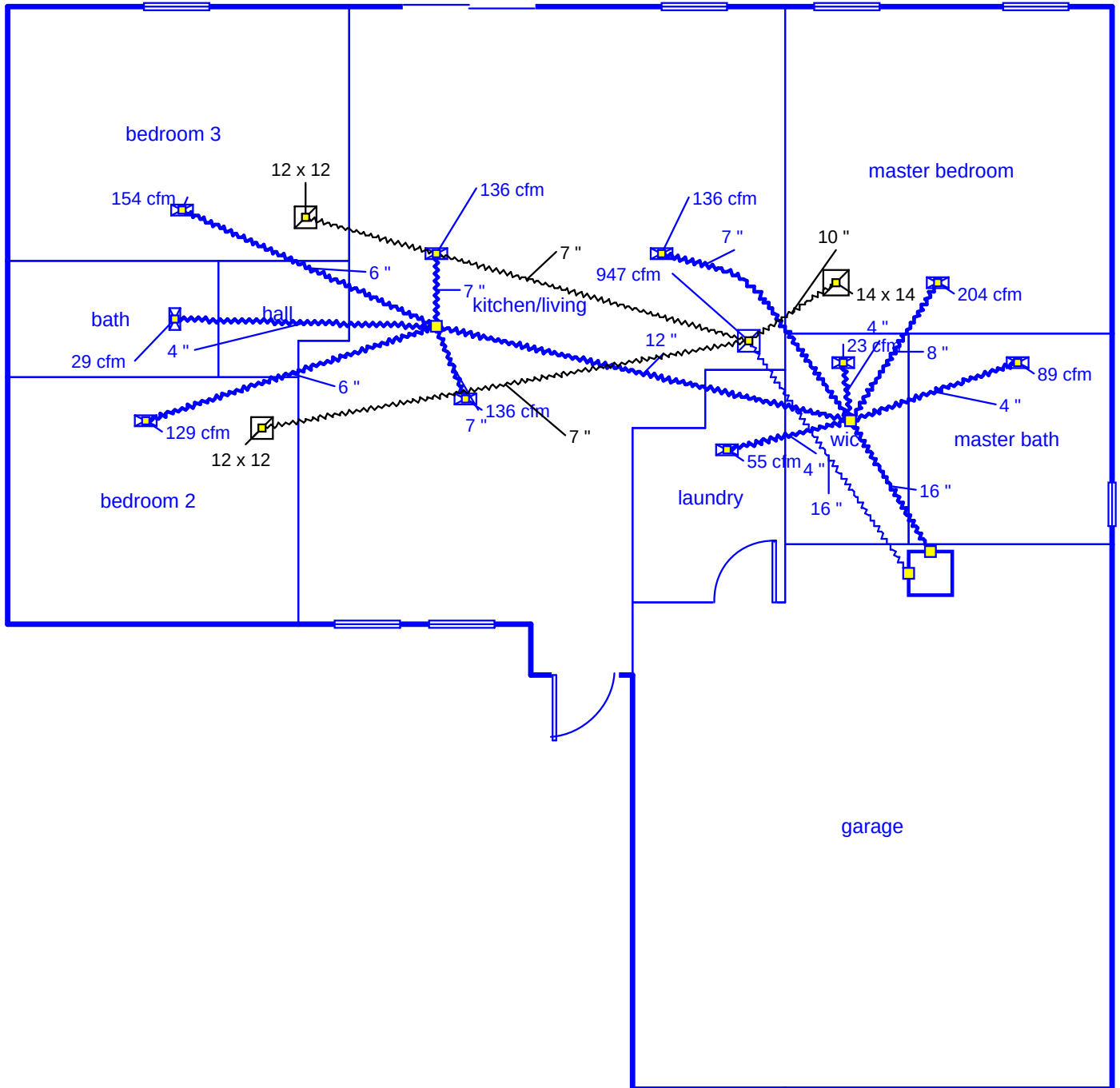
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Sheet 1



Job #:
Performed for:
lot 58 Emerald Cove

Bounds Heating and Air

jlegler@boundshvac.com

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Manual S Compliance Report

Entire House

Bounds Heating and Air

Job:
Date: Aug 05, 2026
By:

Email: jlegler@boundshvac.com

Project Information

For: lot 58 Emerald Cove, DWC

Cooling Equipment

Design Conditions

Outdoor design DB:	92.2°F	Sensible gain:	22286 Btuh	Entering coil DB:	77.5°F
Outdoor design WB:	75.8°F	Latent gain:	3272 Btuh	Entering coil WB:	63.6°F
Indoor design DB:	75.0°F	Total gain:	25558 Btuh		
Indoor RH:	50%	Estimated airflow:	947 cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Carrier	Model:	GH5SAN53000AA0+FJ5ANXB30L00
Actual airflow:	947 cfm		
Sensible capacity:	19880 Btuh	89% of load	
Latent capacity:	8520 Btuh	260% of load	
Total capacity:	28400 Btuh	111% of load	SHR: 70%

Heating Equipment

Design Conditions

Outdoor design DB:	33.2°F	Heat loss:	22658 Btuh	Entering coil DB:	67.4°F
Indoor design DB:	68.0°F				

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Carrier	Model:	GH5SAN53000AA0+FJ5ANXB30L00
Actual airflow:	947 cfm		
Output capacity:	28600 Btuh	126% of load	Capacity balance: 28 °F
Supplemental heat required:	0 Btuh		Economic balance: -99 °F

Backup equipment type:	Elec strip		
Manufacturer:		Model:	
Actual airflow:	947 cfm		
Output capacity:	6.6 kW	99% of load	Temp. rise: 50 °F

Meets all requirements of ACCA Manual S.



Duct System Summary

Entire House

Bounds Heating and Air

Job:
Date: Aug 05, 2026
By:

Email: jlegler@boundshvac.com

Project Information

For: lot 58 Emerald Cove, DWC

	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	0.340 / 0.160 in H ₂ O	0.340 / 0.160 in H ₂ O
Lowest friction rate	0.193 in/100ft	0.193 in/100ft
Actual air flow	947 cfm	947 cfm
Total effective length (TEL)	258 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 702	29	17	0.196	4.0	0x0	VIFx	38.5	135.0	st2
bedroom 2	h 3091	129	78	0.193	6.0	0x0	VIFx	40.5	135.0	st2
bedroom 3	h 3690	154	134	0.195	6.0	0x0	VIFx	39.3	135.0	st2
kitchen/living	c 3192	98	136	0.206	7.0	0x0	VIFx	29.9	135.0	st2
kitchen/living-A	c 3191	98	136	0.206	7.0	0x0	VIFx	30.1	135.0	st2
kitchen/living-B	c 3191	98	136	0.244	7.0	0x0	VIFx	19.3	120.0	st1
laundry	c 1292	48	55	0.266	4.0	0x0	VIFx	12.9	115.0	st1
master bath	h 2137	89	41	0.261	4.0	0x0	VIFx	15.1	115.0	st1
master bedroom	c 4792	179	204	0.262	8.0	0x0	VIFx	14.5	115.0	st1
wic	h 554	23	12	0.272	4.0	0x0	VIFx	9.7	115.0	st1

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st2	Peak AVF	509	500	0.193	648	12.0	0 x 0	VinIFlx	st1
st1	Peak AVF	947	947	0.193	678	16.0	0 x 0	VinIFlx	

Bold/italic values have been manually overridden



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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	947	947	82.9	0.193	678	16.0	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	947	947	0.193	678	16.0	0 x 0	VinIFlx	

Bold/italic values have been manually overridden