Load Short Form
Entire House

Bounds Heating and Air

Email: jlegler@boundshvac.com

Job:
Date: Jan 29, 2026
By:

Project Information

For: Lot 97 Emerald Cove, DWC Contracting

Design Information

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

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

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	0.044	cfm/Btuh
Static pressure	0.50	in H2O
Space thermostat		

Capacity balance point = 27 °F

Backup:
Input = 5 kW, Output = 15906 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)
master bedroom	230	4075	3824	180	160
kitchen/living	536	8565	10202	379	428
master bath	87	1473	1750	65	73
wic	58	366	319	16	13
laundry	65	786	1246	35	52
bedroom 3	177	2960	2534	131	106
bath	55	498	396	22	17
bedroom 2	147	2688	2310	119	97
hall	36	0	0	0	0

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

Entire House	1391	21411	22582	947	947
Other equip loads		0	0		
Equip. @ 0.97 RSM			21950		
Latent cooling			3279		
TOTALS	1391	21411	25229	947	947

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

Project Summary
Entire House
Bounds Heating and Air

Job:
Date: **Jan 29, 2026**
By:

Email: jlegler@boundshvac.com

Project Information

For: Lot 97 Emerald Cove, DWC Contracting

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	

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

Heating Summary

Structure	17187	Btuh
Ducts (R-6.0)	4224	Btuh
Central vent (0 cfm)	0	Btuh
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	21411	Btuh

Sensible Cooling Equipment Load Sizing

Structure	16318	Btuh
Ducts (R-6.0)	6264	Btuh
Central vent (0 cfm)	0	Btuh
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.97	
Equipment sensible load	21950	Btuh

Infiltration

Method	Simplified
Construction quality	Average
Fireplaces	0

	Heating	Cooling
Area (ft²)	*1384*	*1384*
Volume (ft³)	12519	12519
Air changes/hour	0.45	0.23
Equiv. AVF (cfm)	94	48

Latent Cooling Equipment Load Sizing

Structure	2223	Btuh
Ducts	1056	Btuh
Central vent (0 cfm)	0	Btuh
Equipment latent load	3279	Btuh
Equipment Total Load (Sen+Lat)	25229	Btuh
Req. total capacity at 0.70 SHR	2.6	ton

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	0.044	cfm/Btuh
Static pressure	0.50	in H2O

Space thermostat
Capacity balance point = 27 °F

Backup:
Input = 5 kW, Output = 15906 Btuh, 100 AFUE

Cooling Equipment Summary

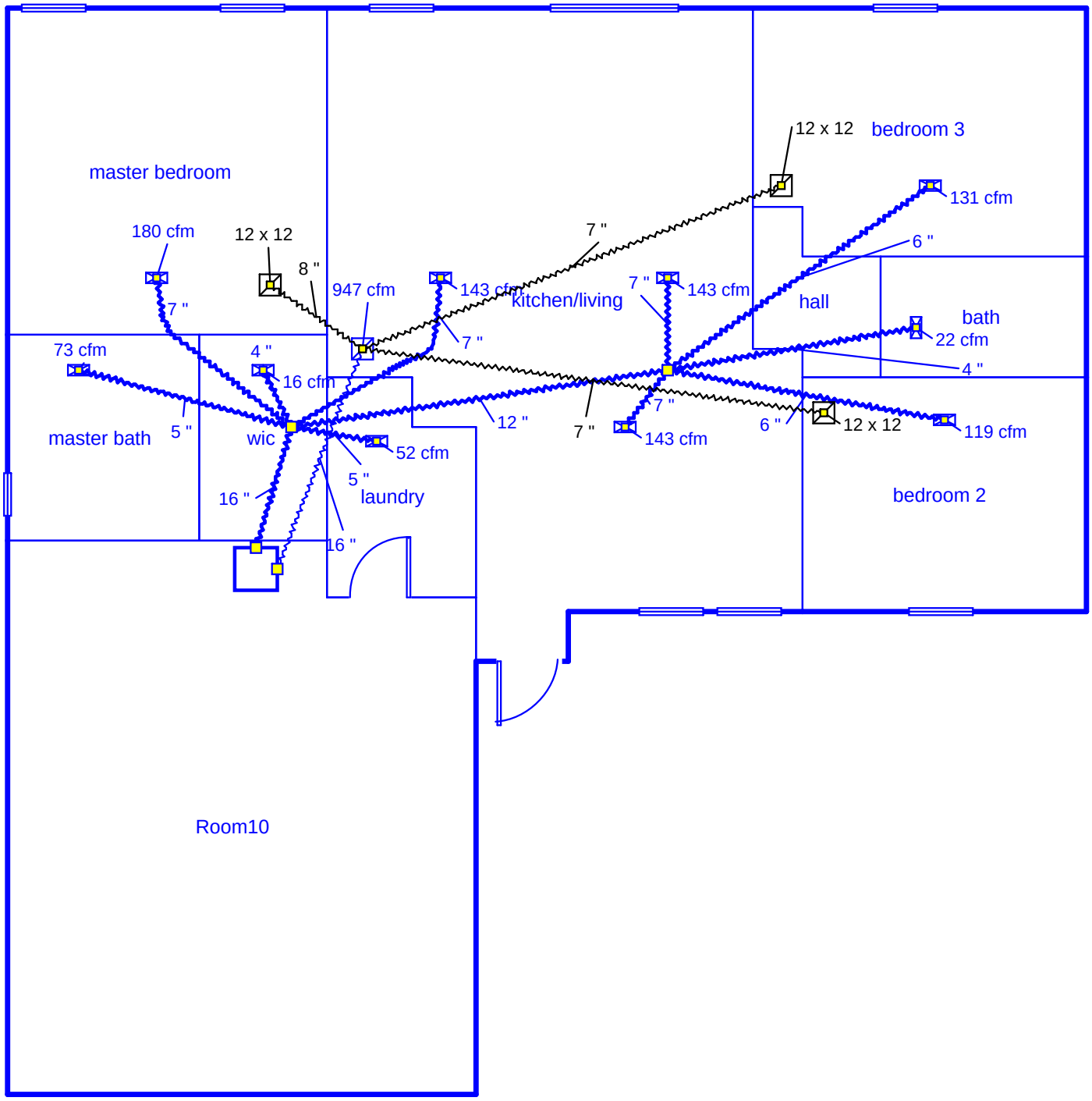
Make	Carrier
Trade	15 SEER2 HP
Cond	GH5SAN53000AA0
Coil	FJ5ANXB30L00
AHRI ref	214101792

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	

Bold/italic values have been manually overridden

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

Sheet 1



Job #: **Performed for:** Lot 97 Emerald Cove	**Bounds Heating and Air** jlegler@boundshvac.com	Scale: 1 : 84 Page 1 Right-Suite® Universal 2025 25.0.04 RSU57217 2026-Jan-30 09:09:49 ...ald Cove\Emerald Cove lot 97.rup

Manual S Compliance Report

Entire House

Bounds Heating and Air

Job:
Date: Jan 29, 2026
By:

Email: jlegler@boundshvac.com

Project Information

For: Lot 97 Emerald Cove, DWC Contracting

Cooling Equipment

Design Conditions

Outdoor design DB:	92.2°F	Sensible gain:	22582	Btuh	Entering coil DB:	76.8°F
Outdoor design WB:	75.8°F	Latent gain:	3279	Btuh	Entering coil WB:	63.4°F
Indoor design DB:	75.0°F	Total gain:	25861	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	88% of load		
Latent capacity:	8520	Btuh	260% of load		
Total capacity:	28400	Btuh	110% of load	SHR:	70%

Heating Equipment

Design Conditions

Outdoor design DB:	33.2°F	Heat loss:	21411	Btuh	Entering coil DB:	69.1°F
Indoor design DB:	70.0°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	134% of load		Capacity balance:	27	°F
Supplemental heat required:	0	Btuh			Economic balance:	-99	°F

Backup equipment type:	Elec strip						
Manufacturer:			Model:				
Actual airflow:	947	cfm					
Output capacity:	4.7	kW	74% of load	Temp. rise:	50	°F	

Meets all requirements of ACCA Manual S.

Duct System Summary

Entire House

Bounds Heating and Air

Job:
Date: Jan 29, 2026
By:

Email: jlegler@boundshvac.com

Project Information

For: Lot 97 Emerald Cove, DWC Contracting

	Heating	Cooling
External static pressure	0.50 in H2O	0.50 in H2O
Pressure losses	0 in H2O	0 in H2O
Available static pressure	0.50 in H2O	0.50 in H2O
Supply / return available pressure	0.355 / 0.145 in H2O	0.355 / 0.145 in H2O
Lowest friction rate	0.204 in/100ft	0.204 in/100ft
Actual air flow	947 cfm	947 cfm
Total effective length (TEL)	245 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	498	22	17	0.208	*4.0*	*0x 0*	VlFx	35.6	135.0	st2
bedroom 2	h	2688	119	97	0.206	*6.0*	*0x 0*	VlFx	37.0	135.0	st2
bedroom 3	h	2960	131	106	0.204	*6.0*	*0x 0*	VlFx	38.8	135.0	st2
kitchen/living	c	3402	126	143	0.250	*7.0*	*0x 0*	VlFx	16.9	125.0	st1
kitchen/living-A	c	3401	126	143	0.218	*7.0*	*0x 0*	VlFx	28.1	135.0	st2
kitchen/living-B	c	3401	126	143	0.219	*7.0*	*0x 0*	VlFx	27.1	135.0	st2
laundry	c	1246	35	52	0.284	*5.0*	*0x 0*	VlFx	10.0	115.0	st1
master bath	c	1750	65	73	0.270	*5.0*	*0x 0*	VlFx	16.3	115.0	st1
master bedroom	h	4075	180	160	0.261	*7.0*	*0x 0*	VlFx	15.9	120.0	st1
wic	h	366	16	13	0.286	*4.0*	*0x 0*	VlFx	8.9	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	524	505	0.204	668	*12.0*	*0* x *0*	VinlFlx	st1
st1	Peak AVF	947	947	0.204	678	*16.0*	*0* x *0*	VinlFlx	

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	947	947	71.1	0.204	678	16.0	0x 0		VlFx	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	0.204	678	*16.0*	*0* x *0*	VinlFlx	

Bold/italic values have been manually overridden