



Project Summary
Entire House
Bounds Heating and Air

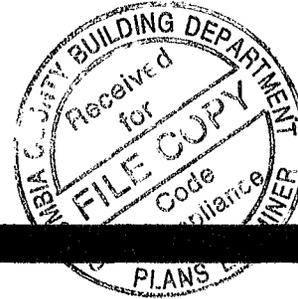
Job:
 Date: Dec 12, 2025
 By:

Email jlegler@boundshvac.com

Project Information

For: Harris, Ronald Clark

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

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 17073 Btuh
 Ducts (R-6.0) 4017 Btuh
 Central vent (0 cfm) 0 Btuh
 Humidification 0 Btuh
 Piping 0 Btuh
 Equipment load 21090 Btuh

Sensible Cooling Equipment Load Sizing

Structure 12806 Btuh
 Ducts (R-6.0) 6974 Btuh
 Central vent (0 cfm) 0 Btuh
 Blower 0 Btuh
 Use manufacturer's data n
 Rate/swing multiplier 0.97
 Equipment sensible load 19225 Btuh

Infiltration

Method Simplified
 Construction quality Average
 Fireplaces 0

Latent Cooling Equipment Load Sizing

Structure 2206 Btuh
 Ducts 1054 Btuh
 Central vent (0 cfm) 0 Btuh

	Heating	Cooling
Area (ft ²)	1380	1380
Volume (ft ³)	12371	12371
Air changes/hour	0.45	0.23
Equiv. AVF (cfm)	93	47

Equipment latent load 3260 Btuh

Equipment Total Load (Sen+Lat) 22485 Btuh
 Req. total capacity at 0.70 SHR 2.3 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 0.045 cfm/Btuh
 Static pressure 0.50 in H2O
 Space thermostat
 Capacity balance point = 26 °F
 Backup: n/a n/a
 Input = 0 kW, Output = 0 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 0.048 cfm/Btuh
 Static pressure 0.50 in H2O
 Load sensible heat ratio 0.86

Bold/italic values have been manually overridden

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



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Load Short Form
Entire House
Bounds Heating and Air

Job:
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 By:

Email jlegler@boundshvac.com

Project Information

For: Harris, Ronald Clark

Design Information

	Htg	Clg	Method	Infiltration	Simplified Average
Outside db (°F)	33	92			
Inside db (°F)	68	75	Construction quality		
Design TD (°F)	35	17	Fireplaces		0
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 0.045 cfm/Btuh
 Static pressure 0.50 in H2O
 Space thermostat
 Capacity balance point = 26 °F

Backup: n/a n/a
 Input = 0 kW, Output = 0 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 0.048 cfm/Btuh
 Static pressure 0.50 in H2O
 Load sensible heat ratio 0.86

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
bedroom 2	140	2966	2183	133	104
bath	75	1115	585	50	28
bedroom 3	154	3089	2606	139	125
hall	46	0	0	0	0
kitchen/living	514	6060	7881	272	377
master bedroom	185	3363	2711	151	130
wic	64	89	162	4	8
laundry	115	3154	3016	142	144
master bath	81	1254	637	56	30

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Entire House	1375	21090	19779	947	947
Other equip loads		0	0		
Equip. @ 0.97 RSM			19225		
Latent cooling			3260		
TOTALS	1375	21090	22485	947	947

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

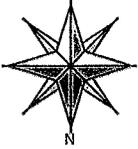


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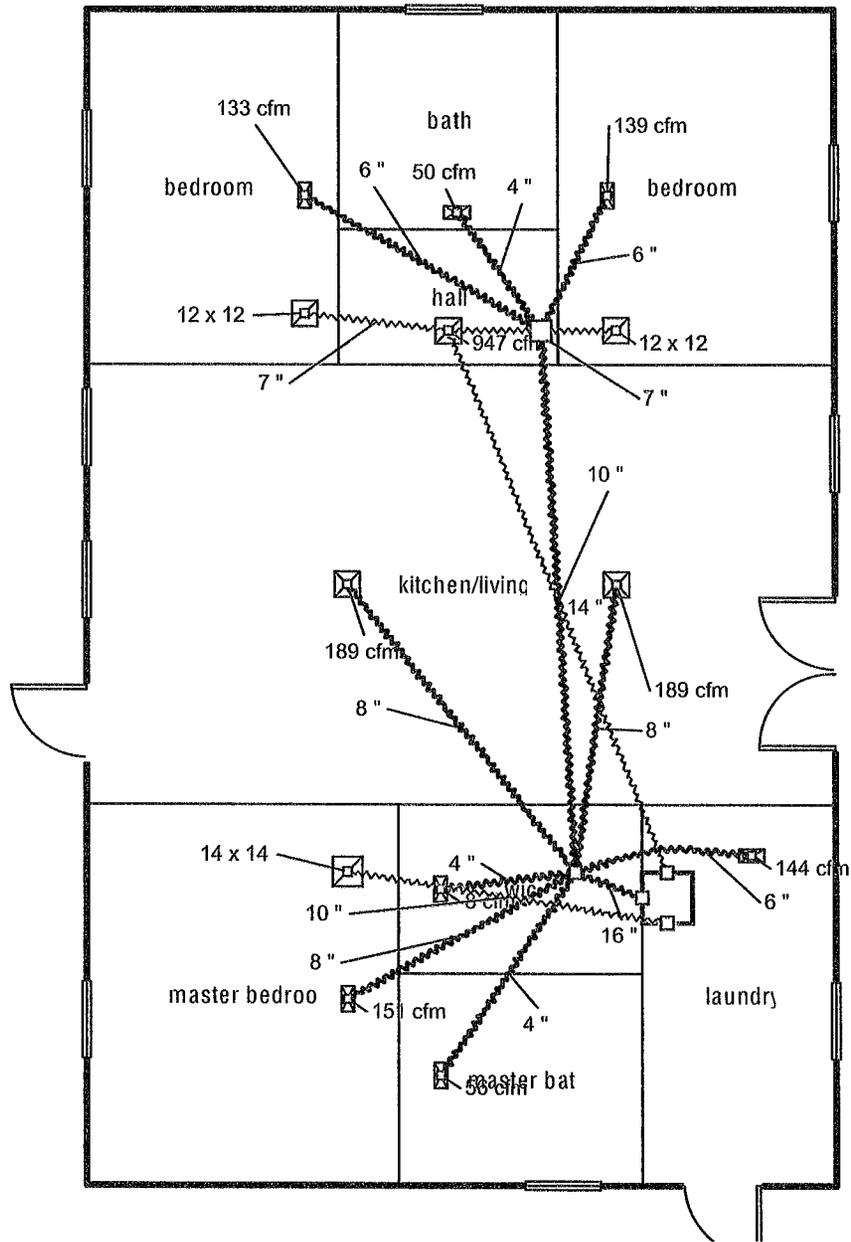
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Level 1



Job #:
Performed for:
Harris

Bounds Heating and Air

jlegler@boundshvac.com

Scale: 1 : 88

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Manual S Compliance Report
Entire House
Bounds Heating and Air

Job:
 Date: Dec 12, 2025
 By:

Email jlegler@boundshvac.com

Project Information

For: Harris, Ronald Clark

Cooling Equipment

Design Conditions

Outdoor design DB: 92.2°F	Sensible gain: 19779 Btuh	Entering coil DB: 77.5°F
Outdoor design WB: 75.8°F	Latent gain: 3260 Btuh	Entering coil WB: 63.6°F
Indoor design DB: 75.0°F	Total gain: 23039 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: 23085 Btuh	117% of load
Latent capacity: 4016 Btuh	123% of load
Total capacity: 27101 Btuh	118% of load SHR: 85%

Heating Equipment

Design Conditions

Outdoor design DB: 33.2°F	Heat loss: 21090 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	136% of load	Capacity balance: 26 °F
Supplemental heat required: 0 Btuh		Economic balance: -99 °F

Backup equipment type: Elec strip		
Manufacturer: n/a	Model: n/a+n/a	
Actual airflow: 947 cfm		
Output capacity: 0 kW	0% of load	Temp. rise: 0 °F

Meets all requirements of ACCA Manual S.





Duct System Summary

Entire House

Bounds Heating and Air

Job:
Date: Dec 12, 2025
By:

Email: jlegler@boundshvac.com

Project Information

For: Harris, Ronald Clark

	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	0.348 / 0.152 in H2O	0.348 / 0.152 in H2O
Lowest friction rate	0.240 in/100ft	0.240 in/100ft
Actual air flow	947 cfm	947 cfm
Total effective length (TEL)		208 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 1115	50	28	0.249	4.0	0x 0	VIFx	30.0	110.0	st2
bedroom 2	h 2966	133	105	0.240	6.0	0x 0	VIFx	35.0	110.0	st2
bedroom 3	h 3089	139	125	0.249	6.0	0x 0	VIFx	30.2	110.0	st2
kitchen/living	c 3940	136	189	0.325	8.0	0x 0	VIFx	17.3	90.0	st1
kitchen/living-A	c 3940	136	189	0.334	8.0	0x 0	VIFx	14.3	90.0	st1
laundry	c 3016	142	144	0.332	6.0	0x 0	VIFx	10.0	95.0	st1
master bath	h 1254	56	30	0.340	4.0	0x 0	VIFx	12.5	90.0	st1
master bedroom	h 3363	151	130	0.338	8.0	0x 0	VIFx	13.1	90.0	st1
wic	c 162	4	8	0.355	4.0	0x 0	VIFx	8.2	90.0	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	322	257	0.240	590	10.0	0 x 0	VinIFix	st1
st1	Peak AVF	947	947	0.240	678	16.0	0 x 0	VinIFix	

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	63.0	0.240	536	18.0	0x 0		VIFx	rst3

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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	0.240	886	<i>14.0</i>	<i>0 x 0</i>	VinIFlx	

Bold/italic values have been manually overridden