



Load Short Form Entire House HOMETOWN HEATING AND AIR

Job:
Date: Dec 28, 2022
By:

399 SW BOSTON TER, FORT WHITE, FL 32038 Phone: 352-316-7273 License: CAC1818078

Project Information

For: LERNER LUXURY PROPERTIES
SW HERMITAGE GLEN, HIGH SPRINGS, FL 32643

Design Information

Outside db (°F)	Htg 33	Clg 92	Method	Infiltration	Simplified
Inside db (°F)	70	72	Construction quality	Code	Semi-tight
Design TD (°F)	37	20	Fireplaces	Compliance	0
Daily range	-	M		Plans Examiner	
Inside humidity (%)	50	50			
Moisture difference (gr/lb)	33	52			

HEATING EQUIPMENT

Make n/a
Trade n/a
Model n/a
AHRI ref. n/a
Efficiency n/a
Heating input 0 Btuh
Heating output 0 °F
Temperature rise 0 cfm
Actual air flow 0 cfm/Btuh
Air flow factor 0 in H2O
Static pressure n/a
Space thermostat n/a

COOLING EQUIPMENT

Make n/a
Trade n/a
Cond n/a
Coil n/a
AHRI ref. n/a
Efficiency n/a
Sensible cooling 0 Btuh
Latent cooling 0 Btuh
Total cooling 0 Btuh
Actual air flow 0 cfm
Air flow factor 0 cfm/Btuh
Static pressure 0 in H2O
Load sensible heat ratio 0

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
FLOOR 1	2388	29488	28233	1225	1225
FLOOR 2	752	9462	11154	620	525
Entire House	3140	38950	38549	1845	1750
Other equip loads		6315	3413		
Equip. @ 1.00 RSM			41963		
Latent cooling			7214		
TOTALS	3140	45265	49176	1845	1750

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



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Load Short Form
FLOOR 1
HOMETOWN HEATING AND AIR

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SW HERMITAGE GLEN, HIGH SPRINGS, FL 32643

Design Information

	Htg	Clg	Infiltration	Simplified
Outside db (°F)	33	92	Method	Semi-tight
Inside db (°F)	70	72	Construction quality	0
Design TD (°F)	37	20	Fireplaces	
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	33	52		

HEATING EQUIPMENT

Make Goodman Mfg.
Trade GOODMAN
Model GSZ140491K
AHRI ref 201664363
Efficiency 8.5 HSPF
Heating input 45500 Btuh @ 47°F
Heating output 34 °F
Temperature rise 1225 cfm
Actual air flow 0.042 cfm/Btuh
Air flow factor 0.50 in H2O
Static pressure
Space thermostat
Capacity balance point = 27 °F

COOLING EQUIPMENT

Make Goodman Mfg.
Trade GOODMAN
Cond GSZ140491K
Coil ASPT49D14A
AHRI ref 201664363
Efficiency 12.5 EER, 15 SEER
Sensible cooling 31850 Btuh
Latent cooling 13650 Btuh
Total cooling 45500 Btuh
Actual air flow 1225 cfm
Air flow factor 0.043 cfm/Btuh
Static pressure 0.50 in H2O
Load sensible heat ratio 0.78

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Room1	382	4422	6086	184	264
Room10	186	3414	2536	142	110
Room11	100	1677	1477	70	64
Room12	1056	10050	10463	418	454
Room4	84	924	577	38	25
Room5	36	1251	732	52	32
Room6	198	3927	2791	163	121
Room7	48	1025	584	43	25
Room8	124	2075	2623	86	114
Room9	66	545	285	23	12
Room13	24	0	0	0	0
Room2	21	17	10	1	0
Room24	63	161	69	7	3

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FLOOR 1	2388	29488	28233	1225	1225
Other equip loads		3831	2071		
Equip. @ 1.00 RSM			30303		
Latent cooling			8470		
TOTALS	2388	33318	38774	1225	1225

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Load Short Form
FLOOR 2
HOMETOWN HEATING AND AIR

Job:
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Project Information

For: LERNER LUXURY PROPERTIES
SW HERMITAGE GLEN, HIGH SPRINGS, FL 32643

Design Information

	Htg	Clg	Infiltration	Simplified
Outside db (°F)	33	92	Method	Semi-tight
Inside db (°F)	70	72	Construction quality	0
Design TD (°F)	37	20	Fireplaces	
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	33	52		

HEATING EQUIPMENT

Make Goodman Mfg.
Trade GOODMAN
Model GSZ140181L
AHRI ref 202630555

Efficiency 8.2 HSPF
Heating input 17200 Btuh @ 47°F
Heating output 25 °F
Temperature rise 620 cfm
Actual air flow 0.066 cfm/Btuh
Air flow factor 0.35 in H2O
Static pressure
Space thermostat
Capacity balance point = 25 °F

COOLING EQUIPMENT

Make Goodman Mfg.
Trade GOODMAN
Cond GSZ140181L
Coil ASPT25B14A
AHRI ref 202630555

Efficiency 12.0 EER, 15 SEER
Sensible cooling 12600 Btuh
Latent cooling 5400 Btuh
Total cooling 18000 Btuh
Actual air flow 525 cfm
Air flow factor 0.047 cfm/Btuh
Static pressure 0.35 in H2O
Load sensible heat ratio 0.75

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
BATH	84	1349	848	88	40
Room35	168	1789	1989	117	94
Room37	168	2180	4493	143	211
Room39	84	1282	812	84	38
Room40	168	2514	2665	165	125
Room41	40	304	211	20	10
Room42	16	0	0	0	0
Room43	24	44	135	3	6

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FLOOR 2	752	9462	11154	620	525
Other equip loads		2484	1343		
Equip. @ 1.00 RSM			12497		
Latent cooling			4217		
TOTALS	752	11946	16714	620	525

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Project Summary

Entire House

HOMETOWN HEATING AND AIR

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Project Information

For: LERNER LUXURY PROPERTIES
SW HERMITAGE GLEN, HIGH SPRINGS, FL 32643

Notes:

Design Information

Weather: Gainesville Regional AP, FL, US

Winter Design Conditions

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

Summer Design Conditions

Outside db	92 °F
Inside db	72 °F
Design TD	20 °F
Daily range	M
Relative humidity	50 %
Moisture difference	52 gr/lb

Heating Summary

Structure	30359 Btuh
Ducts	8591 Btuh
Central vent (156 cfm)	6315 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	45265 Btuh

Sensible Cooling Equipment Load Sizing

Structure	28503 Btuh
Ducts	10046 Btuh
Central vent (156 cfm)	3413 Btuh
Blower	0 Btuh
Use manufacturer's data	y
Rate/swing multiplier	1.00
Equipment sensible load	41963 Btuh

Infiltration

Method	Simplified
Construction quality	Semi-tight
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	4630 Btuh
Ducts	2584 Btuh
Central vent (156 cfm)	5474 Btuh
Equipment latent load	7214 Btuh
Equipment Total Load (Sen+Lat)	49176 Btuh
Req. total capacity at 0.70 SHR	5.0 ton

	Heating	Cooling
Area (ft²)	3140	3140
Volume (ft³)	31980	31980
Air changes/hour	0.25	0.13
Equiv. AVF (cfm)	133	69

Heating Equipment Summary

Make	n/a
Trade	n/a
Model	n/a
AHRI ref	n/a
Efficiency	n/a
Heating input	
Heating output	0 Btuh
Temperature rise	0 °F
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	n/a

Cooling Equipment Summary

Make	n/a
Trade	n/a
Cond	n/a
Coil	n/a
AHRI ref	n/a
Efficiency	n/a
Sensible cooling	0 Btuh
Latent cooling	0 Btuh
Total cooling	0 Btuh
Actual air flow	0 cfm
Air flow factor	0 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0

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Project Summary

FLOOR 1

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Notes:

Design Information

Weather: Gainesville Regional AP, FL, US

Winter Design Conditions

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

Summer Design Conditions

Outside db	92 °F
Inside db	72 °F
Design TD	20 °F
Daily range	M
Relative humidity	50 %
Moisture difference	52 gr/lb

Heating Summary

Structure	22951 Btuh
Ducts	6537 Btuh
Central vent (95 cfm)	3831 Btuh
Outside air	
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	33318 Btuh

Sensible Cooling Equipment Load Sizing

Structure	20448 Btuh
Ducts	7785 Btuh
Central vent (95 cfm)	2071 Btuh
Outside air	
Blower	0 Btuh
Use manufacturer's data	y
Rate/swing multiplier	1.00
Equipment sensible load	30303 Btuh

Infiltration

Method	Simplified
Construction quality	Semi-tight
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	3177 Btuh
Ducts	1972 Btuh
Central vent (95 cfm)	3320 Btuh
Outside air	
Equipment latent load	8470 Btuh
Equipment Total Load (Sen+Lat)	38774 Btuh
Req. total capacity at 0.70 SHR	3.6 ton

	Heating	Cooling
Area (ft²)	2388	2388
Volume (ft³)	24920	24920
Air changes/hour	0.23	0.12
Equiv. AVF (cfm)	97	51

Heating Equipment Summary

Make	Goodman Mfg.
Trade	GOODMAN
Model	GSZ140491K
AHRI ref	201664363
Efficiency	8.5 HSPF
Heating input	
Heating output	45500 Btuh @ 47°F
Temperature rise	34 °F
Actual air flow	1225 cfm
Air flow factor	0.042 cfm/Btuh
Static pressure	0.50 in H2O
Space thermostat	
Capacity balance point = 27 °F	

Cooling Equipment Summary

Make	Goodman Mfg.
Trade	GOODMAN
Cond	GSZ140491K
Coil	ASPT49D14A
AHRI ref	201664363
Efficiency	12.5 EER, 15 SEER
Sensible cooling	31850 Btuh
Latent cooling	13650 Btuh
Total cooling	45500 Btuh
Actual air flow	1225 cfm
Air flow factor	0.043 cfm/Btuh
Static pressure	0.50 in H2O
Load sensible heat ratio	0.78

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Project Summary
FLOOR 2
HOMETOWN HEATING AND AIR

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Project Information

For: LERNER LUXURY PROPERTIES
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Notes:

Design Information

Weather: Gainesville Regional AP, FL, US

Winter Design Conditions

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

Summer Design Conditions

Outside db	92 °F
Inside db	72 °F
Design TD	20 °F
Daily range	M
Relative humidity	50 %
Moisture difference	52 gr/lb

Heating Summary

Structure	7408 Btuh
Ducts	2054 Btuh
Central vent (61 cfm)	2484 Btuh
Outside air	
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	11946 Btuh

Sensible Cooling Equipment Load Sizing

Structure	8674 Btuh
Ducts	2480 Btuh
Central vent (61 cfm)	1343 Btuh
Outside air	
Blower	0 Btuh
Use manufacturer's data	y
Rate/swing multiplier	1.00
Equipment sensible load	12497 Btuh

Infiltration

Method	Simplified
Construction quality	Semi-tight
Fireplaces	0

Latent Cooling Equipment Load Sizing

Structure	1452 Btuh
Ducts	612 Btuh
Central vent (61 cfm)	2153 Btuh
Outside air	
Equipment latent load	4217 Btuh
Equipment Total Load (Sen+Lat)	16714 Btuh
Req. total capacity at 0.70 SHR	1.5 ton

	Heating	Cooling
Area (ft²)	752	752
Volume (ft³)	7060	7060
Air changes/hour	0.30	0.16
Equiv. AVF (cfm)	36	19

Heating Equipment Summary

Make	Goodman Mfg.
Trade	GOODMAN
Model	GSZ140181L
AHRI ref	202630555
Efficiency	8.2 HSPF
Heating input	
Heating output	17200 Btuh @ 47°F
Temperature rise	25 °F
Actual air flow	620 cfm
Air flow factor	0.066 cfm/Btuh
Static pressure	0.35 in H2O
Space thermostat	
Capacity balance point = 25 °F	

Cooling Equipment Summary

Make	Goodman Mfg.
Trade	GOODMAN
Cond	GSZ140181L
Coil	ASPT25B14A
AHRI ref	202630555
Efficiency	12.0 EER, 15 SEER
Sensible cooling	12600 Btuh
Latent cooling	5400 Btuh
Total cooling	18000 Btuh
Actual air flow	525 cfm
Air flow factor	0.047 cfm/Btuh
Static pressure	0.35 in H2O
Load sensible heat ratio	0.75

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Duct System Summary

FLOOR 1

HOMETOWN HEATING AND AIR

Job:
Date: Dec 28, 2022
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Project Information

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SW HERMITAGE GLEN, HIGH SPRINGS, FL 32643

	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	0.316 / 0.184 in H ₂ O	0.316 / 0.184 in H ₂ O
Lowest friction rate	0.176 in/100ft	0.176 in/100ft
Actual air flow	1225 cfm	1225 cfm
Total effective length (TEL)	284 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
Room1	c 3043	92	132	0.195	7.0	0x 0	VFx	61.5	100.0	st8
Room1-A	c 3043	92	132	0.193	7.0	0x 0	VFx	63.7	100.0	st8
Room10	h 3414	142	110	0.212	7.0	0x 0	VFx	39.1	110.0	st5
Room11	h 1677	70	64	0.197	6.0	0x 0	VFx	40.1	120.0	st5
Room12	c 2093	84	91	0.217	7.0	0x 0	VFx	35.2	110.0	st5
Room12-A	c 2093	84	91	0.230	7.0	0x 0	VFx	27.1	110.0	st7
Room12-B	c 2093	84	91	0.226	7.0	0x 0	VFx	29.4	110.0	st5
Room12-C	c 2093	84	91	0.224	7.0	0x 0	VFx	31.1	110.0	st7
Room12-D	c 2093	84	91	0.176	7.0	0x 0	VFx	34.3	145.0	st7
Room2	h 17	1	0	0.199	4.0	0x 0	VFx	58.6	100.0	st8
Room24	h 161	7	3	0.202	4.0	0x 0	VFx	56.6	100.0	st8
Room4	h 924	38	25	0.199	4.0	0x 0	VFx	58.6	100.0	st8
Room5	h 1251	52	32	0.189	4.0	0x 0	VFx	67.0	100.0	st8
Room6	h 3927	163	121	0.194	8.0	0x 0	VFx	62.7	100.0	st8
Room7	h 1025	43	25	0.212	4.0	0x 0	VFx	38.6	110.0	st7
Room8	c 2623	86	114	0.220	6.0	0x 0	VFx	33.4	110.0	st7
Room9-A	h 545	23	12	0.217	4.0	0x 0	VFx	35.4	110.0	st5

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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	PeakAVF	445	445	0.189	567	12.0	0 x 0	VinIFlx	st2
st8	PeakAVF	445	445	0.189	567	12.0	0 x 0	VinIFlx	
st1	PeakAVF	780	780	0.176	559	16.0	0 x 0	VinIFlx	st1
st5	PeakAVF	401	368	0.197	511	12.0	0 x 0	VinIFlx	
st7	PeakAVF	379	412	0.176	524	12.0	0 x 0	VinIFlx	st1

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
rb3	0x 0	401	368	81.9	0.225	511	12.0	0x 0		VIFx	rt1
rb5	0x 0	445	445	94.0	0.196	567	12.0	0x 0		VIFx	rt2
rb4	0x 0	379	412	104.8	0.176	524	12.0	0x 0		VIFx	rt2

Return Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
rt1	PeakAVF	1225	1225	0.176	561	20.0	0 x 0	VinIFlx	rt1
rt2	PeakAVF	824	857	0.176	485	18.0	0 x 0	VinIFlx	

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Duct System Summary

FLOOR 2

HOMETOWN HEATING AND AIR

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Project Information

For: LERNER LUXURY PROPERTIES
SW HERMITAGE GLEN, HIGH SPRINGS, FL 32643

	Heating	Cooling
External static pressure	0.35 in H2O	0.35 in H2O
Pressure losses	0 in H2O	0 in H2O
Available static pressure	0.35 in H2O	0.35 in H2O
Supply / return available pressure	0.239 / 0.111 in H2O	0.239 / 0.111 in H2O
Lowest friction rate	0.172 in/100ft	0.172 in/100ft
Actual air flow	620 cfm	525 cfm
Total effective length (TEL)	203 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 1349	88	40	0.190	6.0	0x 0	VfFx	10.8	115.0	st3
Room35	h 1789	117	94	0.195	7.0	0x 0	VfFx	8.1	115.0	st3
Room37	c 2247	71	106	0.187	7.0	0x 0	VfFx	12.9	115.0	st3
Room37-A	c 2247	71	106	0.192	6.0	0x 0	VfFx	9.9	115.0	st3
Room39	h 1282	84	38	0.172	6.0	0x 0	VfFx	24.1	115.0	st4
Room40	h 2514	165	125	0.181	8.0	0x 0	VfFx	17.2	115.0	st4
Room41	h 304	20	10	0.181	4.0	0x 0	VfFx	17.2	115.0	st4
Room43	c 135	3	6	0.193	4.0	0x 0	VfFx	9.3	115.0	st3

Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st4	PeakAVF	269	174	0.172	608	9.0	0 x 0	VinIFlx	
st3	PeakAVF	351	351	0.187	644	10.0	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
rb25	0x 0	620	525	64.2	0.172	580	14.0	0x 0		VfFx	



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Manual S Compliance Report

FLOOR 1

HOMETOWN HEATING AND AIR

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Project Information

For: LERNER LUXURY PROPERTIES
SW HERMITAGE GLEN, HIGH SPRINGS, FL 32643

Cooling Equipment

Design Conditions

Outdoor design DB:	92.0°F	Sensible gain:	30303	Btuh	Entering coil DB:	76.4°F
Outdoor design WB:	76.0°F	Latent gain:	8470	Btuh	Entering coil WB:	63.0°F
Indoor design DB:	72.0°F	Total gain:	38774	Btuh		
Indoor RH:	50%	Estimated airflow:	1225	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Goodman Mfg.	Model:	GSZ140491K+ASPT49D14A
Actual airflow:	1225	cfm	
Sensible capacity:	34296	Btuh	113% of load
Latent capacity:	9610	Btuh	113% of load
Total capacity:	43907	Btuh	113% of load SHR: 78%

Heating Equipment

Design Conditions

Outdoor design DB:	33.0°F	Heat loss:	33318	Btuh	Entering coil DB:	65.5°F
Indoor design DB:	70.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Goodman Mfg.	Model:	GSZ140491K+ASPT49D14A
Actual airflow:	1225	cfm	
Output capacity:	34321	Btuh	103% of load
Supplemental heat required:	0	Btuh	
Capacity balance:	27	°F	
Economic balance:	-99	°F	

Meets all requirements of ACCA Manual S.



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Manual S Compliance Report

FLOOR 2

HOMETOWN HEATING AND AIR

Job:
Date: Dec 28, 2022
By:

399 SW BOSTON TER, FORT WHITE, FL 32038 Phone: 352-316-7273 License: CAC1818078

Project Information

For: LERNER LUXURY PROPERTIES
SW HERMITAGE GLEN, HIGH SPRINGS, FL 32643

Cooling Equipment

Design Conditions

Outdoor design DB:	92.0°F	Sensible gain:	12497	Btuh	Entering coil DB:	76.5°F
Outdoor design WB:	76.0°F	Latent gain:	4217	Btuh	Entering coil WB:	63.3°F
Indoor design DB:	72.0°F	Total gain:	16714	Btuh		
Indoor RH:	50%	Estimated airflow:	525	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Goodman Mfg.	Model:	GSZ140181L+ASPT25B14A
Actual airflow:	525	cfm	
Sensible capacity:	13044	Btuh	104% of load
Latent capacity:	4374	Btuh	104% of load
Total capacity:	17418	Btuh	104% of load SHR: 75%

Heating Equipment

Design Conditions

Outdoor design DB:	33.0°F	Heat loss:	11946	Btuh	Entering coil DB:	65.3°F
Indoor design DB:	70.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Goodman Mfg.	Model:	GSZ140181L+ASPT25B14A
Actual airflow:	620	cfm	
Output capacity:	17200	Btuh	144% of load
Supplemental heat required:	0	Btuh	
Capacity balance:	25	°F	
Economic balance:	-99	°F	

Meets all requirements of ACCA Manual S.



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

Form
RPER 1
15 Mar 09

Header Information

Contractor: HOMETOWN HEATING AND AIR
Mechanical license: HOMETOWN HEATING AND AIR
CAC1818078
Building plan #:
Home address (Street or Lot#, Block, Subdivision): SW HERMITAGE GLEN, FLOOR 1

REQUIRED ATTACHMENTS
Manual J1 Form (and supporting worksheets):
or MJ1AE Form* (and supporting worksheets):
OEM performance data (heating, cooling, blower):
Manual D Friction Rate Worksheet:
Duct distribution sketch:

ATTACHED
Yes ☐ No ☐
Yes ☐ No ☐
Yes ☐ No ☐
Yes ☐ No ☐
Yes ☐ No ☐

HVAC LOAD CALCULATION (IRC M1401.3)

Design Conditions

Winter Design Conditions

Outdoor temperature: 33 °F
Indoor temperature: 70 °F
Total heat loss: 33318 Btuh

Summer Design Conditions

Outdoor temperature: 92 °F
Indoor temperature: 72 °F
Grains difference: 52 gr/lb @ 50% RH
Sensible heat gain: 30303 Btuh
Latent heat gain: 8470 Btuh
Total heat gain: 38774 Btuh

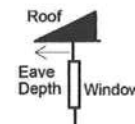
Building Construction Information

Building

Orientation: Front Door faces South
North, East, West, South, Northeast, Northwest, Southeast, Southwest
Number of bedrooms: 2
Conditioned floor area: 2388 ft²
Number of occupants: 6

Windows

Eave overhang depth: 13.0 ft
Internal shade: drapes, shades
Number of skylights: 0



HVAC EQUIPMENT SELECTION (IRC M1401.3)

Heating Equipment Data

Equipment type: Split ASHP
Furnace, Heat pump, Boiler, etc.
Model: Goodman Mfg.
GSZ140491K+ASPT49D14A
Heating output capacity: 34321 Btuh
Heat pumps - capacity at winter design outdoor conditions
Aux. heating output capacity: 0 Btuh

Cooling Equipment Data

Equipment type: Split ASHP
Air Conditioner, Heat pump, etc.
Model: Goodman Mfg.
GSZ140491K+ASPT49D14A
Total cooling capacity: 43907 Btuh
Sensible cooling capacity: 34296 Btuh
Latent cooling capacity: 9610 Btuh

Blower Data

Heating cfm: 1225
Cooling cfm: 1225
Static pressure: 0.50 in H2O
Fan's rated external static pressure for design airflow

HVAC DUCT DISTRIBUTION SYSTEM DESIGN (IRC M1601.1)

Design airflow: 1225 cfm
Equipment design ESP: 0.50 in H2O
Total device pressure losses: 0 in H2O
Available static pressure (ASP): 0.50 in H2O
Longest supply duct: 179 ft
Longest return duct: 105 ft
Total effective length (TEL): 284 ft
Friction rate: 0.176 in/100ft
Friction Rate = ASP + (TEL x 100)
Duct Materials Used
Trunk duct: Round flex vinyl
Branch duct: Round flex vinyl

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

Contractor's printed name:

MATT MCCORMICK

Contractor's signature:

[Signature]

Date:

Reserved for County, Town Municipality or Authority having jurisdiction use.

*Home qualifies for MJ1AE Form based on Abridged Edition Checklist