

Project Information

For: McCoy Residence
 PID 01-7S-15-01439-610(4461), Fort White, FL

Design Information

	Htg	Clg	Infiltration	
Outside db (°F)	33	92	Method	Simplified
Inside db (°F)	68	75	Construction quality	Average
Design TD (°F)	35	17	Fireplaces	0
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	29	43		

HEATING EQUIPMENT

Make Trane
 Trade TRANE
 Model 4TWR5036H1
 AHRI ref 9127467
 Efficiency 7.8 HSPF2
 Heating input
 Heating output 34000 Btuh @ 47°F
 Temperature rise 0 °F
 Actual air flow 0 cfm
 Air flow factor 0 cfm/Btuh
 Static pressure 0.50 in H2O
 Space thermostat
 Capacity balance point = 29 °F

COOLING EQUIPMENT

Make Trane
 Trade TRANE
 Cond 4TWR5036H1
 Coil TEM4A0C42S41++TDR
 AHRI ref 9127467
 Efficiency 12.0 EER2, 14.3 SEER2
 Sensible cooling 25060 Btuh
 Latent cooling 10740 Btuh
 Total cooling 35800 Btuh
 Actual air flow 1193 cfm
 Air flow factor 0.047 cfm/Btuh
 Static pressure 0.50 in H2O
 Load sensible heat ratio 0.84

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
m bd	253	4625	3284	0	153
m bath	80	2445	1139	0	53
office	52	1216	1342	0	63
wic	38	0	0	0	0
pntry	32	0	0	0	0
common	682	9649	11548	0	539
laundry	89	1283	1576	0	74
bath	66	790	426	0	20
bd4	155	3582	2306	0	108
bd3	155	3432	2136	0	100
bd2	150	1744	1789	0	84
hall	48	0	0	0	0

Bold/italic values have been manually overridden

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

Entire House	1800	28765	25546	0	1193
Other equip loads		0	0		
Equip. @ 0.97 RSM			24882		
Latent cooling			4746		
TOTALS	1800	28765	29628	0	1193

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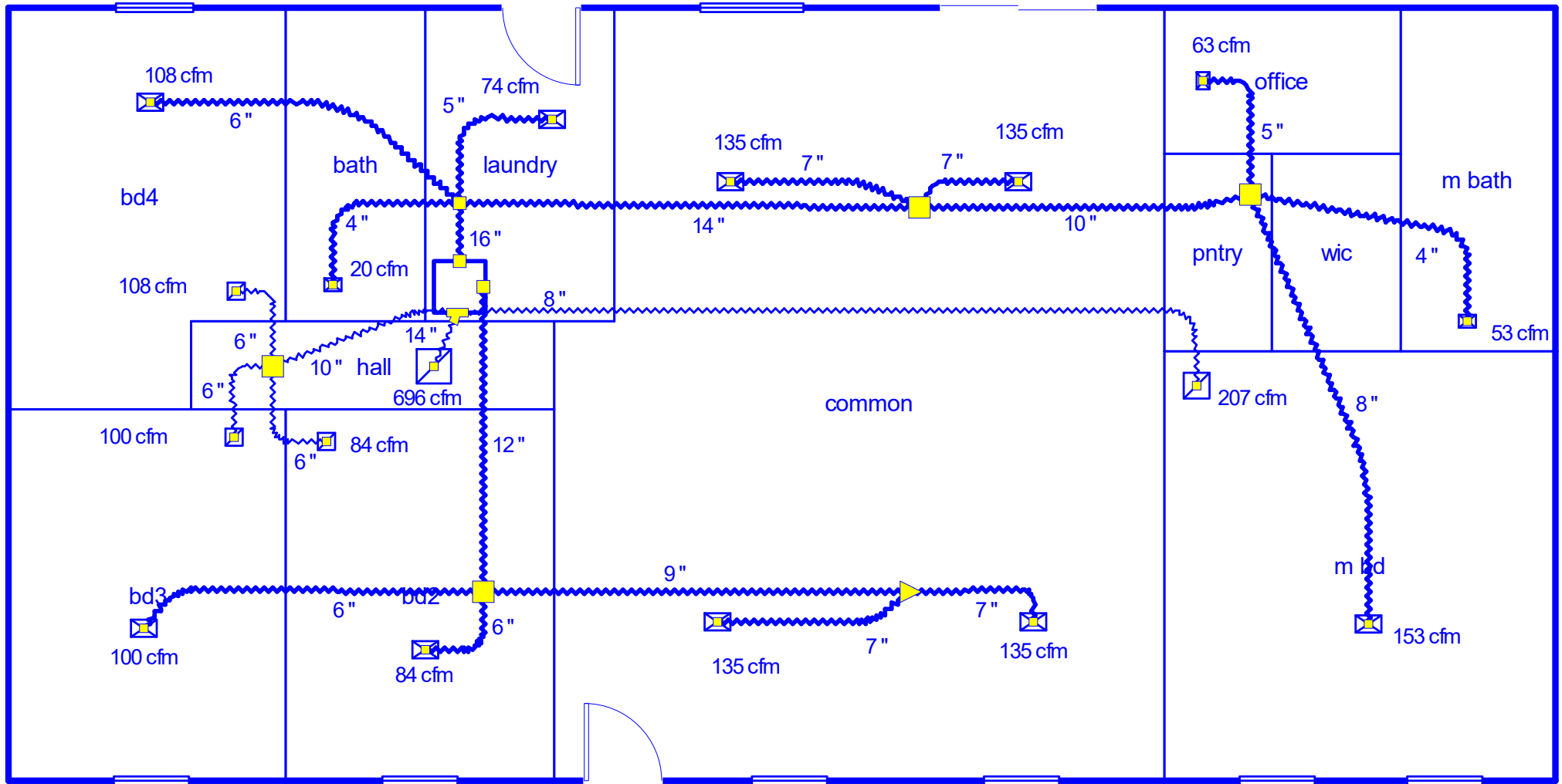
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Page 2

Project9.rup Calc = MJ8 Front Door faces: N

16'-0"





Manual S Compliance Report

Entire House

High Springs Electric

Job:
Date: Aug 27, 2024
By: Donna Brackeen

Project Information

For: McCoy Residence
PID 01-7S-15-01439-610(4461), Fort White, FL

Cooling Equipment

Design Conditions

Outdoor design DB:	92.4°F	Sensible gain:	25546	Btuh	Entering coil DB:	77.2°F
Outdoor design WB:	75.8°F	Latent gain:	4746	Btuh	Entering coil WB:	63.5°F
Indoor design DB:	75.0°F	Total gain:	30292	Btuh		
Indoor RH:	50%	Estimated airflow:	1193	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Trane	Model:	4TWR5036H1+TEM4A0C42S41++TDR
Actual airflow:	1193	cfm	
Sensible capacity:	29279	Btuh	115% of load
Latent capacity:	4911	Btuh	103% of load
Total capacity:	34190	Btuh	113% of load SHR: 86%

Heating Equipment

Design Conditions

Outdoor design DB:	33.3°F	Heat loss:	28765	Btuh	Entering coil DB:	68.0°F
Indoor design DB:	68.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Trane	Model:	4TWR5036H1+TEM4A0C42S41++TDR
Actual airflow:	0	cfm	
Output capacity:	34000	Btuh	118% of load
Supplemental heat required:	0	Btuh	
Capacity balance:	29	°F	
Economic balance:	-99	°F	

Meets all requirements of ACCA Manual S.



Duct System Summary

Entire House

High Springs Electric

Job:
Date: Aug 27, 2024
By: Donna Brackeen

Project Information

For: McCoy Residence
PID 01-7S-15-01439-610(4461), Fort White, FL

	Heating	Cooling
External static pressure	0.50 in H2O	0.50 in H2O
Pressure losses	0.18 in H2O	0.18 in H2O
Available static pressure	0.32 in H2O	0.32 in H2O
Supply / return available pressure	0.232 / 0.088 in H2O	0.232 / 0.088 in H2O
Lowest friction rate	0.122 in/100ft	0.122 in/100ft
Actual air flow	0 cfm	1193 cfm
Total effective length (TEL)	263 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	c 426	0	20	0.220	4.0	0x 0	VIFx	10.3	95.0	st1
bd2	c 1789	0	84	0.208	6.0	0x 0	VIFx	16.3	95.0	st2
bd3	c 2136	0	100	0.192	6.0	0x 0	VIFx	25.7	95.0	st2
bd4	c 2306	0	108	0.209	6.0	0x 0	VIFx	15.8	95.0	st1
common	c 2887	0	135	0.153	7.0	0x 0	VIFx	36.3	115.0	st5
common-A	c 2887	0	135	0.155	7.0	0x 0	VIFx	34.4	115.0	st5
common-B	c 2887	0	135	0.162	7.0	0x 0	VIFx	27.6	115.0	st3
common-C	c 2887	0	135	0.166	7.0	0x 0	VIFx	24.5	115.0	st3
laundry	c 1576	0	74	0.222	5.0	0x 0	VIFx	9.2	95.0	st1
m bath	c 1139	0	53	0.125	4.0	0x 0	VIFx	44.9	140.0	st4
m bd	c 3284	0	153	0.122	8.0	0x 0	VIFx	50.6	140.0	st4
office	c 1342	0	63	0.129	5.0	0x 0	VIFx	39.2	140.0	st4

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	0	453	0.153	577	12.0	0 x 0	VinIFlx	st2 st3 st1
st5	Peak AVF	0	270	0.153	611	9.0	0 x 0	VinIFlx	
st4	Peak AVF	0	269	0.122	494	10.0	0 x 0	VinIFlx	
st3	Peak AVF	0	539	0.122	504	14.0	0 x 0	VinIFlx	
st1	Peak AVF	0	740	0.122	530	16.0	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
rb5	12x 8	0	207	71.5	0.123	592	8.0	0x 0		VIFx	
rb4	8x 6	0	108	71.9	0.123	548	6.0	0x 0		VIFx	rt1
rb3	8x 6	0	100	71.9	0.123	508	6.0	0x 0		VIFx	rt1
rb2	8x 5	0	84	72.6	0.122	426	6.0	0x 0		VIFx	rt1
rb1	0x 0	0	696	32.3	0.273	651	14.0	0x 0		VIFx	

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	Peak AVF	0	291	0.122	534	10.0	0 x 0	VinIFlx	

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