



Load Short Form
Entire House
America's Home Place

Job:
Date: April 15, 2025
By: Donna Brackeen
Plan: Murray Model 2281

Project Information

For: Pizzagalli
245 SW Colony Glen, Lake City, FL 32024

Design Information

	Htg	Clg	Infiltration	
Outside db (°F)	33	92	Method	Simplified
Inside db (°F)	70	75	Construction quality	Average
Design TD (°F)	37	17	Fireplaces	0
Daily range	-	M		
Inside humidity (%)	50	50		
Moisture difference (gr/lb)	33	43		

HEATING EQUIPMENT

Make Trane
Trade TRANE
Model 4TWR4042N1
AHRI ref 209842229
Efficiency 7.5 HSPF2
Heating input
Heating output 39000 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 4TWR4042N1
Coil TEM4A0C43M41++TDR
AHRI ref 209842229
Efficiency 11.7 EER2, 14.3 SEER2
Sensible cooling 27300 Btuh
Latent cooling 11700 Btuh
Total cooling 39000 Btuh
Actual air flow 1300 cfm
Air flow factor 0.041 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)
m bath	125	1404	1137	0	46
m bd	282	4846	3507	0	143
common area	824	13464	14753	0	603
pantry	48	66	114	0	5
utility	66	133	928	0	38
CL	18	0	0	0	0
wic	62	143	248	0	10
bd 2	174	2634	3679	0	150
wc	19	26	366	0	15
bd 3	182	3712	3274	0	134
bd 4	169	3301	2465	0	101
bath2	69	783	688	0	28
bath	55	1339	640	0	26
hall	188	0	0	0	0

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



Right-Suite® Universal 2023 23.0.05 RSU07253

2025-Apr-15 05:43:42

...ctric\Americas Home Place\MURRAY 2281 South.rup Calc = MJ8 Front Door faces: S

Page 1

Entire House	2281	31851	31798	0	1300
Other equip loads		0	0		
Equip. @ 1.00 RSM			31798		
Latent cooling			4955		
TOTALS	2281	31851	36753	0	1300

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

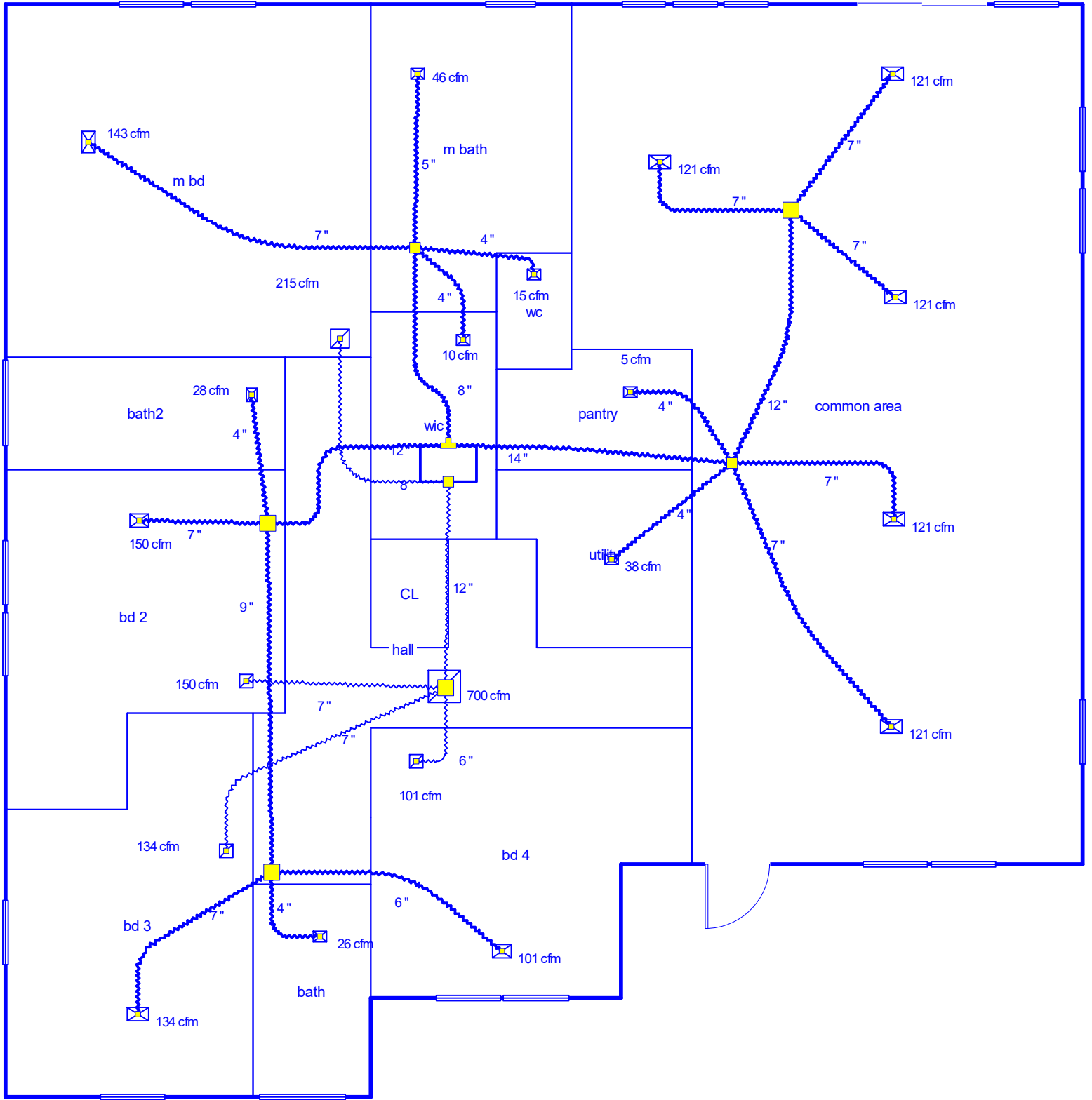


Right-Suite® Universal 2023 23.0.05 RSU07253

2025-Apr-15 05:43:42

Page 2

...ctric\Americas Home Place\MURRAY 2281 South.rup Calc = MJ8 Front Door faces: S



17'-0"



Manual S Compliance Report

Entire House

America's Home Place

Job:
Date: April 15, 2025
By: Donna Brackeen
Plan: Murray Model 2281

Project Information

For: Pizzagalli
245 SW Colony Glen, Lake City, FL 32024

Cooling Equipment

Design Conditions

Outdoor design DB:	92.4°F	Sensible gain:	31798	Btuh	Entering coil DB:	77.3°F
Outdoor design WB:	75.8°F	Latent gain:	4955	Btuh	Entering coil WB:	63.6°F
Indoor design DB:	75.0°F	Total gain:	36753	Btuh		
Indoor RH:	50%	Estimated airflow:	1300	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Trane	Model:	4TWR4042N1+TEM4A0C43M41++TDR
Actual airflow:	1300	cfm	
Sensible capacity:	27300	Btuh	86% of load
Latent capacity:	11700	Btuh	236% of load
Total capacity:	39000	Btuh	106% of load SHR: 70%

Heating Equipment

Design Conditions

Outdoor design DB:	33.3°F	Heat loss:	31851	Btuh	Entering coil DB:	70.0°F
Indoor design DB:	70.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split ASHP		
Manufacturer:	Trane	Model:	4TWR4042N1+TEM4A0C43M41++TDR
Actual airflow:	0	cfm	
Output capacity:	39000	Btuh	122% 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

America's Home Place

Job:
Date: April 15, 2025
By: Donna Brackeen
Plan: Murray Model 2281

Project Information

For: Pizzagalli
245 SW Colony Glen, Lake City, FL 32024

	Heating	Cooling
External static pressure	0.50 in H ₂ O	0.50 in H ₂ O
Pressure losses	0.18 in H ₂ O	0.18 in H ₂ O
Available static pressure	0.32 in H ₂ O	0.32 in H ₂ O
Supply / return available pressure	0.208 / 0.112 in H ₂ O	0.208 / 0.112 in H ₂ O
Lowest friction rate	0.126 in/100ft	0.126 in/100ft
Actual air flow	0 cfm	1300 cfm
Total effective length (TEL)	254 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 640	0	26	0.131	4.0	0x 0	VIFx	33.6	125.0	st4
bath2	c 688	0	28	0.176	4.0	0x 0	VIFx	18.0	100.0	st2
bd 2	c 3679	0	150	0.176	7.0	0x 0	VIFx	18.0	100.0	st2
bd 3	c 3274	0	134	0.127	7.0	0x 0	VIFx	38.5	125.0	st4
bd 4	c 2465	0	101	0.126	6.0	0x 0	VIFx	40.4	125.0	st4
common area	c 2951	0	121	0.169	7.0	0x 0	VIFx	23.5	100.0	st3
common area-A	c 2951	0	121	0.163	7.0	0x 0	VIFx	27.9	100.0	st3
common area-B	c 2951	0	121	0.137	7.0	0x 0	VIFx	32.1	120.0	st5
common area-C	c 2951	0	121	0.131	7.0	0x 0	VIFx	34.1	125.0	st5
common area-D	c 2951	0	121	0.135	7.0	0x 0	VIFx	33.7	120.0	st5
m bath	c 1137	0	46	0.176	5.0	0x 0	VIFx	18.2	100.0	st1
m bd	c 3507	0	143	0.158	7.0	0x 0	VIFx	26.8	105.0	st1
pantry	c 114	0	5	0.174	4.0	0x 0	VIFx	19.8	100.0	st3
utility	c 928	0	38	0.180	4.0	0x 0	VIFx	20.5	95.0	st3
wc-A	c 366	0	15	0.172	4.0	0x 0	VIFx	16.3	105.0	st1
wic	c 248	0	10	0.173	4.0	0x 0	VIFx	15.4	105.0	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
st1	Peak AVF	0	215	0.158	616	8.0	0 x 0	VinIFlx	st2
st4	Peak AVF	0	261	0.126	590	9.0	0 x 0	VinIFlx	
st2	Peak AVF	0	439	0.126	559	12.0	0 x 0	VinIFlx	
st5	Peak AVF	0	362	0.131	461	12.0	0 x 0	VinIFlx	st3
st3	Peak AVF	0	646	0.131	604	14.0	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
rb4	10x 10	0	215	46.8	0.239	616	8.0	0x 0		VIFx	rt1
rb5	8x 9	0	150	78.9	0.142	563	7.0	0x 0		VIFx	
rb2	8x 8	0	134	88.9	0.126	501	7.0	0x 0		VIFx	rt1
rb3	8x 6	0	101	79.4	0.141	513	6.0	0x 0		VIFx	rt1
rb1	18x 18	0	700	0	0	0	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	385	0.126	490	12.0	0 x 0	VinIFlx	