

### Project Information

For: Sample  
1234 5th Street, Anywhere, FL 32109  
Phone: 777-777-7777  
Email: Coolhouse@rucool.net

### Design Information

	Htg	Clg	Method	Infiltration	Simplified
Outside db (°F)	41	93	Method		
Inside db (°F)	70	72	Construction quality		Tight
Design TD (°F)	29	21	Fireplaces		0
Daily range	-	M			
Inside humidity (%)	30	50			
Moisture difference (gr/lb)	2	47			

#### HEATING EQUIPMENT

Make Trane  
Trade TRANE  
Model 4TWR7060A1  
AHRI ref 207821009

Efficiency 9.25 HSPF  
Heating input  
Heating output 54500 Btu/h @ 47°F  
Temperature rise 26 °F  
Actual air flow 1883 cfm  
Air flow factor 0.060 cfm/Btuh  
Static pressure 0.0 in H2O  
Space thermostat  
Capacity balance point = 29 °F

Backup: TRANE  
Input = 10 kW, Output = 34121 Btuh @ 0.8 AFUE

#### COOLING EQUIPMENT

Make Trane  
Trade TRANE  
Model 4TWR7060A1  
AHRI ref 207821009

Efficiency 11.7 EER, 16 SEER  
Sensible cooling 39550 Btuh  
Latent cooling 16950 Btuh  
Total cooling 56500 Btuh  
Actual air flow 1883 cfm  
Air flow factor 0.051 cfm/Btuh  
Static pressure 0.60 in H2O  
Load sensible heat ratio 0.70

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
M WIC	78	2615	1259	156	64
MSTR SUITE	244	4754	5738	284	294
WC	18	512	250	31	13
M BATH	95	1034	688	62	35
BEDROOM 4	119	1745	2697	104	138
BATH	57	1008	848	60	43
DINING	166	4649	6314	278	323
KITCHEN	229	2427	4092	145	209
BR4 C	17	0	0	0	0
LIN	5	0	0	0	0
FAMILY	201	228	2408	14	123
UTILITY	55	1835	1660	110	85
LIVING	170	1002	2579	60	132
BEDROOM 3	137	2116	2881	126	147

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

BR3 CL	13	0	0	0	0
HALL	23	0	0	0	0
BEDROOM 2	152	5346	4049	319	207
BR2 CL	24	0	0	0	0
FOYER	99	2275	1332	136	68
L	6	0	0	0	0
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Whole House	1905	31545	34644	1883	1883
Other equip loads		3349	3878		
Equip. @ 1.00 RSM			38522		
Latent cooling			16370		
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TOTALS	1905	34894	54892	1883	1883

SAMPLE

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**Notes:** 1234 5th Street, Anywhere, FL 32109

## Design Information

**Weather:** Orlando Sanford Intl, FL, US

### Winter Design Conditions

Outside db 41 °F  
Inside db 70 °F  
Design TD 29 °F

### Summer Design Conditions

Outside db 93 °F  
Inside db 72 °F  
Design TD 21 °F  
Daily range M  
Relative humidity 50 %  
Moisture difference 47 gr/lb

### Heating Summary

Structure 22086 Btuh  
Ducts 9459 Btuh  
Central vent (95 cfm) 3024 Btuh  
Outside air  
Humidification 325 Btuh  
Piping 0 Btuh  
Equipment load 34894 Btuh

### Sensible Cooling Equipment Load Sizing

Structure 24485 Btuh  
Ducts 10159 Btuh  
Central vent (95 cfm) 2172 Btuh  
Outside air  
Blower 1707 Btuh  
Use manufacturer's data y  
Rate/swing multiplier 1.00  
Equipment sensible load 38522 Btuh

### Infiltration

Method Simplified  
Construction quality Tight  
Fireplaces 0

### Latent Cooling Equipment Load Sizing

Structure 10739 Btuh  
Ducts 2606 Btuh  
Central vent (95 cfm) 3025 Btuh  
Outside air  
Equipment latent load 16370 Btuh

	Heating	Cooling
Area (ft <sup>2</sup> )	1905	1905
Volume (ft <sup>3</sup> )	1714	1714
Air changes/hour	0.24	0.07
Equiv. AVF (cfm)	40	20

**Equipment Total Load (Sen+Lat)** 54892 Btuh  
Req. total capacity at 0.70 SHR 4.6 ton

### Heating Equipment Summary

**Make** Trane  
**Trade** TRANE  
**Model** 4TWR7060A1  
**AHRI ref** 207821009

**Efficiency** 9.25 HSPF  
**Heating input**  
**Heating output** 54500 Btuh @ 47°F  
**Temperature rise** 26 °F  
**Actual air flow** 1883 cfm  
**Air flow factor** 0.060 cfm/Btuh  
**Static pressure** 0.60 in H2O  
**Space thermostat**  
**Capacity balance point = 29 °F**

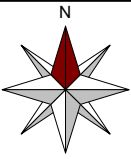
### Cooling Equipment Summary

**Make** Trane  
**Trade** TRANE  
**Cond** 4TWR7060A1  
**Coil** TEM6B0C60H51++TDR  
**AHRI ref** 207821009

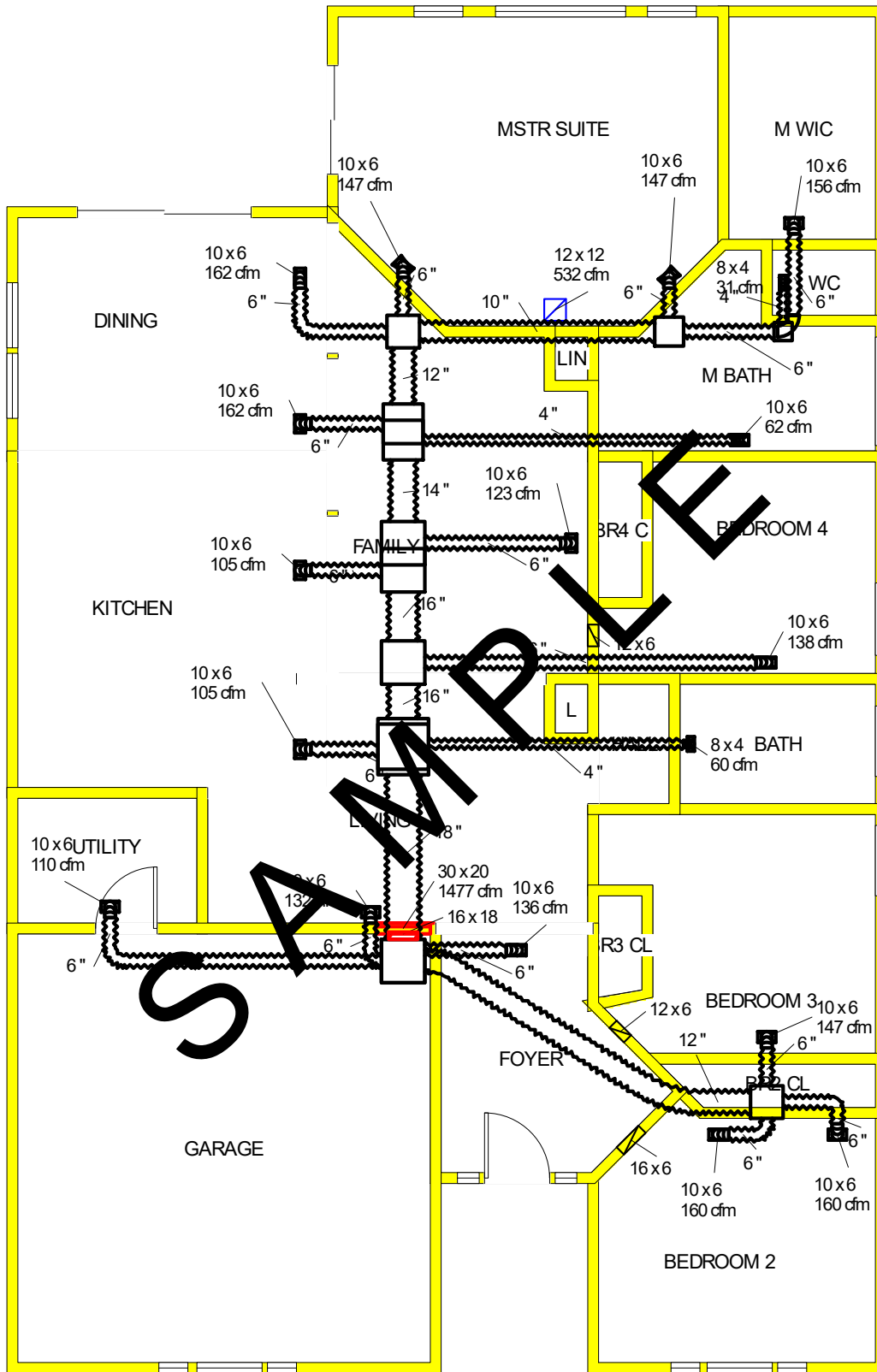
**Efficiency** 11.7 EER, 16 SEER  
**Sensible cooling** 39550 Btuh  
**Latent cooling** 16950 Btuh  
**Total cooling** 56500 Btuh  
**Actual air flow** 1883 cfm  
**Air flow factor** 0.051 cfm/Btuh  
**Static pressure** 0.60 in H2O  
**Load sensible heat ratio** 0.70

**Backup: TRANE**  
**Input = 10 kW, Output = 34121 Btuh, 100 AFUE**

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



1st floor



Job #: 1234 5th Street  
 Performed by Craig C Brooks for:

Sample  
 1234 5th Street  
 Anywhere, FL 32109  
 Phone: 777-777-7777  
 Coolhouse@rucool.net

**WebREPS, LLC**

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Scale: 1 : 91

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	Heating	Cooling
External static pressure	0.60 in H2O	0.60 in H2O
Pressure losses	0.23 in H2O	0.23 in H2O
Available static pressure	0.37 in H2O	0.37 in H2O
Supply / return available pressure	0.343 / 0.027 in H2O	0.343 / 0.027 in H2O
Lowest friction rate	0.045 in/100ft	0.045 in/100ft
Actual air flow	1883 cfm	1883 cfm
Total effective length (TEL)	815 ft	

**Supply Branch Detail Table**

Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	Flow W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
BATH	h 1008	60	43	0.182	4.0	0x0	VIFx	23.3	165.0	st1
BEDROOM 2	h 2673	160	104	0.239	6.0	0x0	VIFx	23.3	120.0	st2
BEDROOM 2-A	h 2673	160	104	0.241	6.0	0x0	VIFx	22.3	120.0	st2
BEDROOM 3	c 2881	126	147	0.234	6.0	0x0	VIFx	21.6	115.0	st2
BEDROOM 4	c 2697	104	138	0.229	6.0	0x0	VIFx	30.5	235.0	st1A
DINING	c 3157	139	162	0.236	6.0	0x0	VIFx	36.3	570.0	st1D
DINING-A	c 3157	139	162	0.065	6.0	0x0	VIFx	29.5	495.0	st1C
FAMILY	c 2408	14	123	0.087	6.0	0x0	VIFx	27.0	365.0	st1B
FOYER	h 2275	136	68	0.615	6.0	0x0	VIFx	5.7	50.0	
KITCHEN	c 2046	72	105	0.105	6.0	0x0	VIFx	22.8	305.0	st1B
KITCHEN-A	c 2046	72	105	0.287	6.0	0x0	VIFx	14.5	105.0	st1
LIVING	c 2579	60	132	0.637	6.0	0x0	VIFx	3.8	50.0	
M BATH	h 1034	62	35	0.072	4.0	0x0	VIFx	39.5	435.0	st1C
M WIC	h 2614	15	64	0.045	6.0	0x0	VIFx	52.0	702.0	st3A
MSTR SUITE	c 2869	142	147	0.057	6.0	0x0	VIFx	32.0	565.0	st1D
MSTR SUITE-A	c 2869	142	147	0.051	6.0	0x0	VIFx	43.8	625.0	st3
UTILITY	h 1835	110	85	0.519	6.0	0x0	VIFx	16.0	50.0	
WC	h 512	31	13	0.046	4.0	0x0	VIFx	48.8	695.0	st3A

## Supply Trunk Detail Table

Name	Trunk Type	Htg (cfm)	Clg (cfm)	Design FR	Veloc (fpm)	Diam (in)	H x W (in)	Duct Material	Trunk
st1A	Peak AVF	1000	1095	0.045	784	16.0	0 x 0	VinlFix	st1
st1	Peak AVF	1133	1243	0.045	704	18.0	0 x 0	VinlFix	
st1B	Peak AVF	896	957	0.045	686	16.0	0 x 0	VinlFix	st1A
st1C	Peak AVF	810	729	0.045	758	14.0	0 x 0	VinlFix	st1B
st1D	Peak AVF	609	533	0.045	776	12.0	0 x 0	VinlFix	st1C
st3A	Peak AVF	187	77	0.045	951	6.0	0 x 0	VinlFix	st3
st3	Peak AVF	329	224	0.045	603	10.0	0 x 0	VinlFix	st1D
st2	Peak AVF	445	355	0.239	567	12.0	0 x 0	VinlFix	

## 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	0x0	1351	1477	60.5	0.045	739	21.5	18 x 16		VIFx	
rb6	0x0	532	406	0	0	0	0	0 x 0		VIFx	

SAMPLE