

LEGEND AND SET UP KIT.

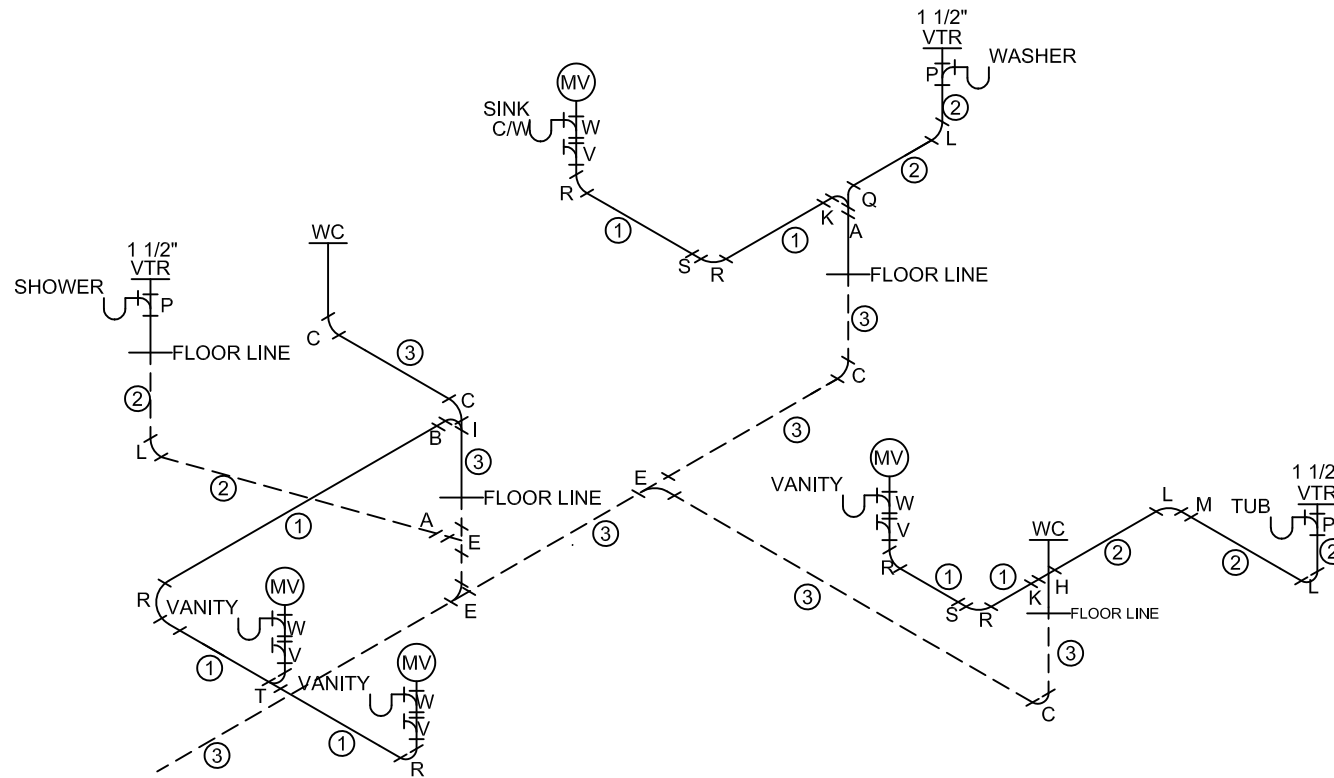
VTR - VENT THRU ROOF
 (MV) - MECHANICAL VENT

40 (3) -3" PIPE
 10 (2) -2" PIPE
 0 (1) -1 1/2" PIPE

0 A -3"X2" REDUCER
 0 B -3"X1 1/2" REDUCER
 2 C -3" ERTL 90°
 0 D -3" ELL 45°
 3 E -3" LTTY
 3 F -3" COUPLING
 0 G -3" X 3" X 3" X 2" X 2" ST
 0 H -3" X 3" X 2" X 2" ST
 0 I -3" X 3" X 2" ST
 0 J -3" 3 WAY ELL

0 K -2"X1 1/2" REDUCER
 1 L -2" ERTL 90°
 0 M -2" ELL 45°
 0 N -2" LTTY
 1 O -2" COUPLING
 0 P -2" X 1 1/2" X 1 1/2" ST
 0 Q -2" 3 WAY ELL

0 R -1 1/2" ERTL 90°
 0 S -1 1/2" ELL 45°
 0 T -1 1/2" LTTY
 0 U -1 1/2" COUPLING
 0 V -1 1/2" CLEAN OUT
 0 W -1 1/2" SAN TEE



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 12 JUN 2023
 Federal Manufactured
 Home Construction
 And Safety Standards

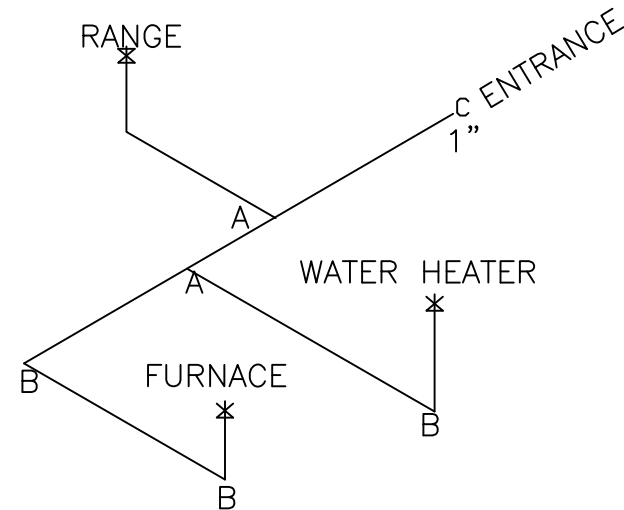
GILES HOMES		Model #: MODEL#	Drawing #:
405 S. BROAD ST, NEW TAZEVELL TN 37825		Date: 5/18/23	Scale: N/A
Product Designer: HARVILLED		32X68	
DWV		M46068	


LEGEND		APPLIANCE BTU'S RATINGS MAX. INPUT		
SYM	FITTINGS	FURNACE	77,000	BTU'S
A	TEE	W/H	36,000	BTU'S
B	90 ELL	RANGE	56,000	BTU'S
X	VALVE			
C	CAP			

$$\underline{MDL = 40'}$$

NOTES:

- 1) ALL PIPE IS 3/4" I.D. CAST
(EXCEPT WHERE NOTED OTHERWISE)
- 2) MDL=MAX. DETERMINED LENGTH OF PIPE
- 3) FITTING MAY BE ADDED OR SUBTRACTED
TO TRAVERSE VARIATIONS IN AXLE
QUANTITY, PLACEMENT, AND FRAME TYPE.
- 4) INLET LOCATION MAY VARY TO STAY WITHIN
MAX. DETERMINED LENGTH



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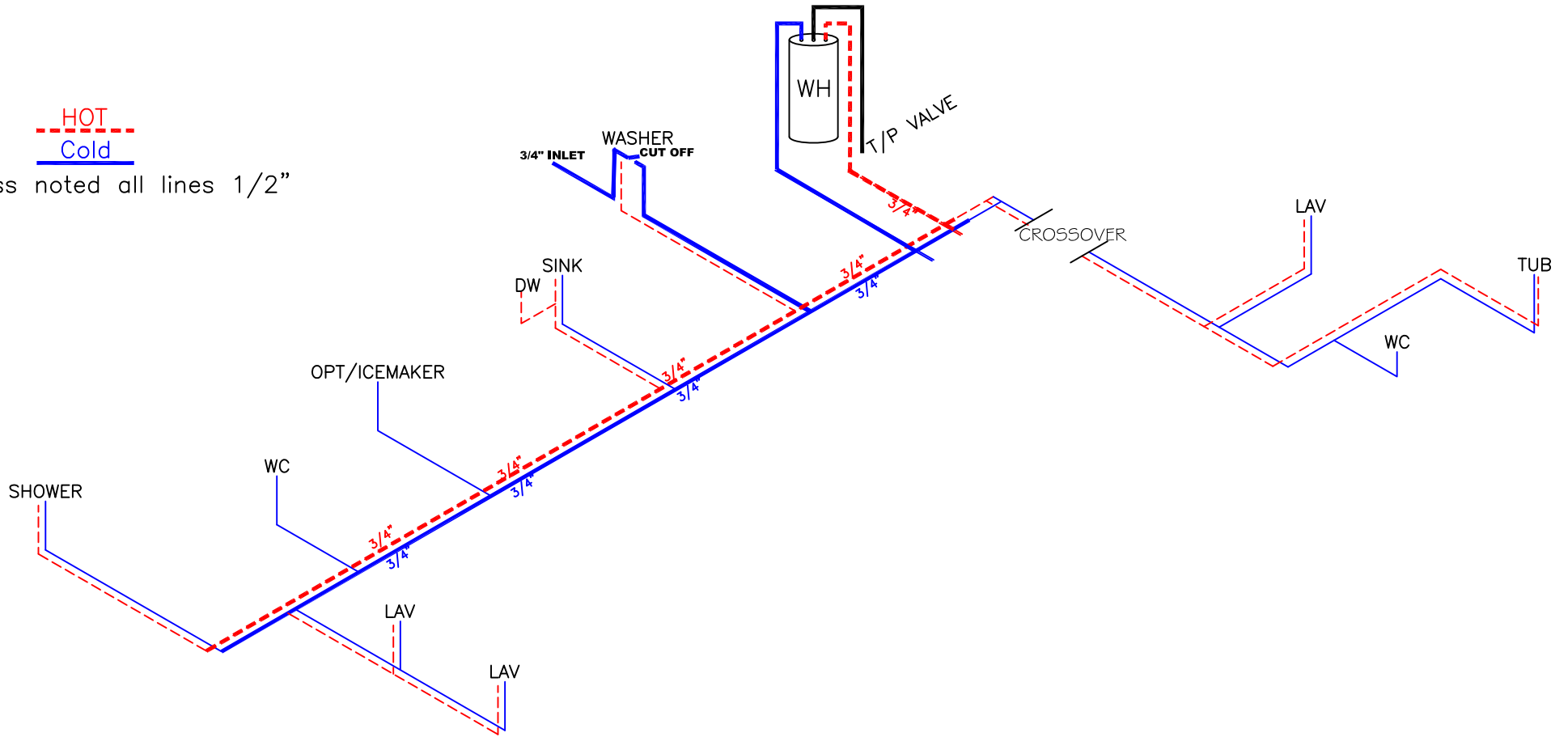
12 JUN 2023

Federal Manufactured
Home Construction
And Safety Standards

GILES HOMES 405 S. BROAD ST., NEW TAZEVELL TN 37825	Model #:	MODEL#	Drawing #:
	Date: 5/18/23	Scale: N/A	M46068
Product Designer: HARVILLE	32X68		
GAS LINES			M46068

HOT
Cold

Unless noted all lines 1/2"



APPROVED **IWGC** **APPROVED**
 12 JUN 2023
 Federal Manufactured
 Home Construction
 And Safety Standards

GILES HOMES 405 S. BROAD ST., NEW TAZEVELL TN 37825	Model #:	MODEL#	Drawing #:
	Date: 5/18/23	Scale: N/A	M46068
Product Designer: HARVILLE	32X68		
PRESSURE LINES			M46068

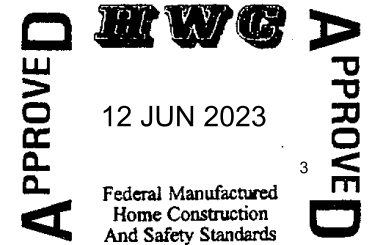
Model # **M46068**

Giles Homes Light and Vent Chart

Room	Floor Area SQFT	Window(s)	Glass Area	% of Floor	Artificial Light	Vent Area	% of Floor	Artificial Vent	Min. Door
Living Room	253	3660 x2	24.4	9.64%		12.4	4.90%		Vent
Kitchen	210	3040	6.3	3.00%	X	3.3	1.57%	X	36
DINING	142	3660	12.2	8.59%		6.2	4.37%		24
P-BEDROOM	154	3060 x2	19.8	12.86%		10.4	6.75%		28
DEN	190	3060 x2	19.8	10.42%		10.4	5.47%		36
Bedroom 2	132	3660	12.2	9.24%		6.2	4.70%		24
Bedroom 3	132	3660	12.2	9.24%		6.2	4.70%		24
Bedroom 4	132	3660	12.2	9.24%		6.2	4.70%		24
P- Bath	125	3640	10.48	8.38%	X	0	0.00%	X	24
Bath 2	52	0			X			X	24
					X			X	
Utility	65	0							24

* (X) Artificial Light and Vent has been provided for this room

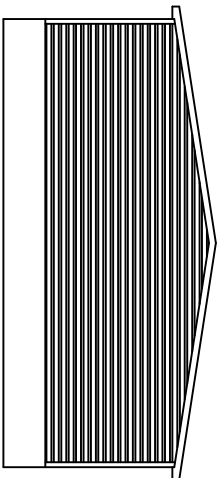
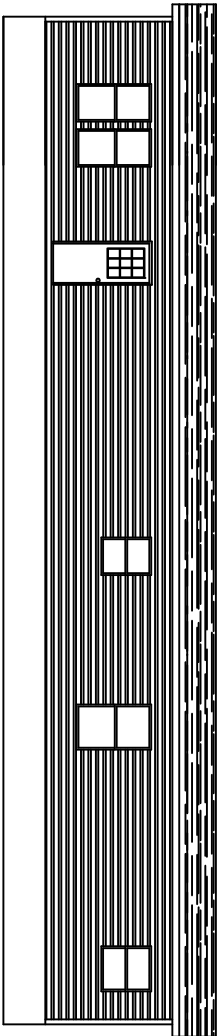
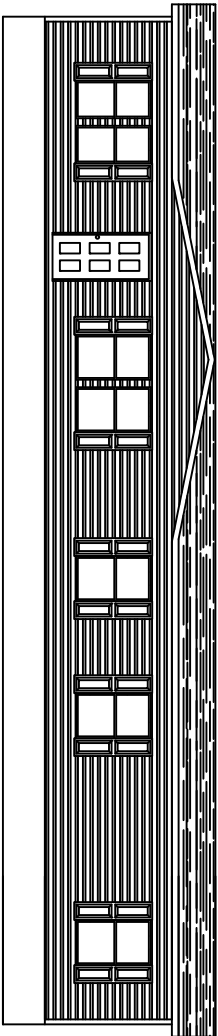
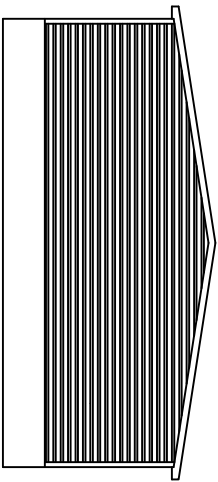
** Note: All window sizes are minimum requirements for rooms. And windows may be added as long as heat loss allows and/or is documented on the floor plan

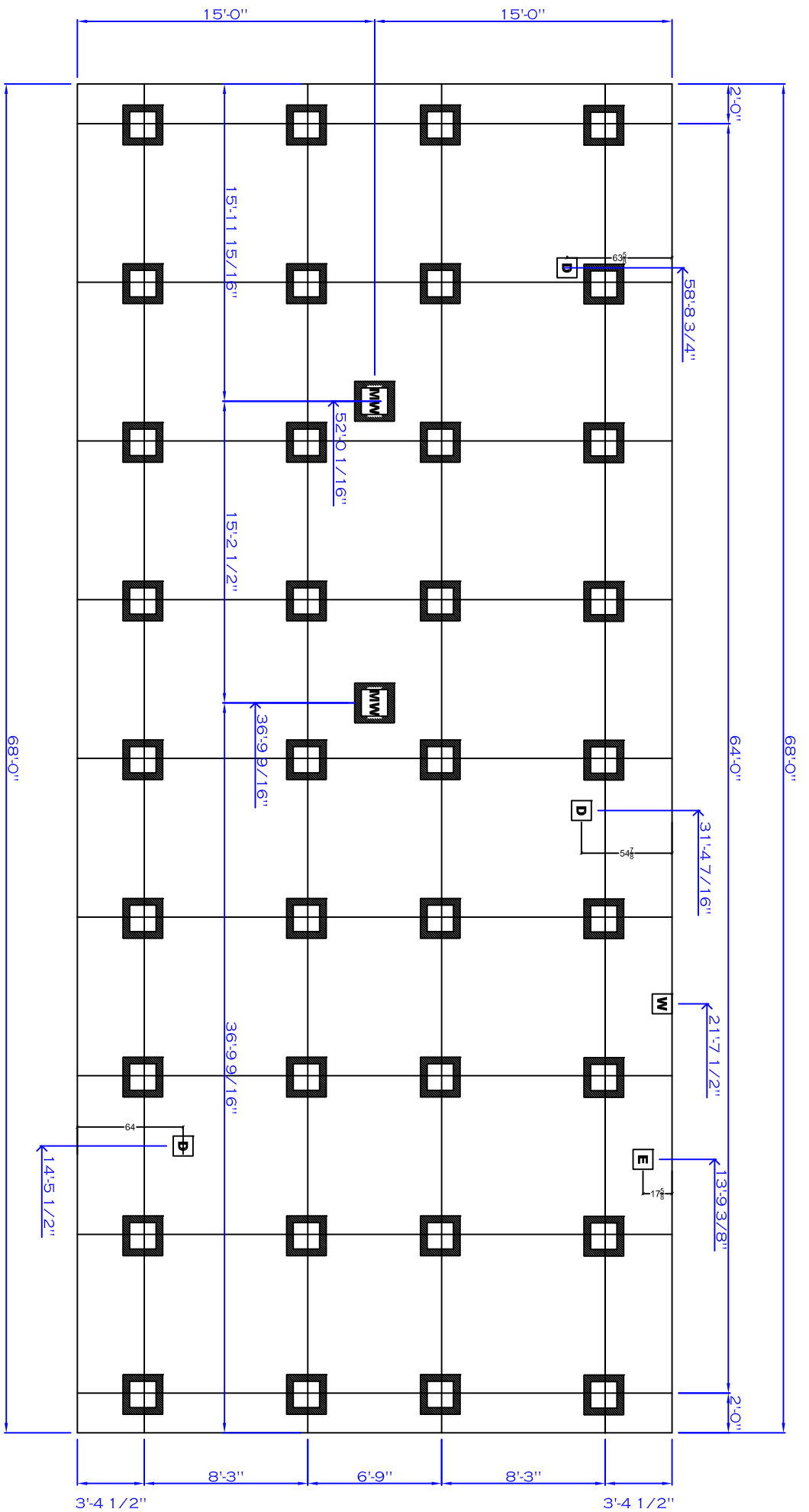


Data on this submitted








By: Andy Cupp

MFG. Giles Industries





*THIS FOOTER DIAGRAM IS FOR STANDARD PRODUCT ONLY
 *FOR PIER SPACING REFER TO SET UP MANUAL

-  MARRIAGE WALL PIER
-  WATER INLET
-  DRAIN
-  ELECTRICAL DROP
-  DOOR PIER
-  DOOR PIER
-  REGULAR PIER



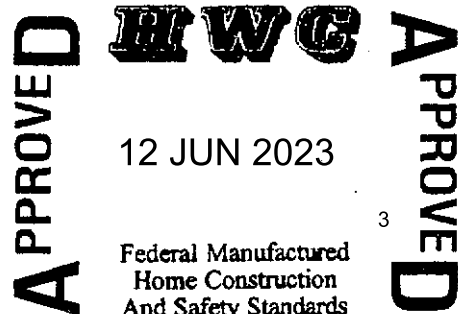
Manual S Compliance Report
Entire House
Clayton Homes

Job: M46068-FDJ-TZIII
 Date: May 31, 2023
 By:

5000 Clayton Road, Maryville, TN 37804 Phone: 865-380-3000

Project Information

For: M46068-FDJ-TZIII, GILES



Cooling Equipment

Design Conditions

Outdoor design DB:	87.6°F	Sensible gain:	13047	Btuh	Entering coil DB:	75.0°F
Outdoor design WB:	71.2°F	Latent gain:	3210	Btuh	Entering coil WB:	62.2°F
Indoor design DB:	75.0°F	Total gain:	16256	Btuh		
Indoor RH:	50%	Estimated airflow:	593	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split AC			
Manufacturer:	Smart Comfort	Model:	R4A518GKB+FED002410++NADA43601CK	
Actual airflow:	593	cfm		
Sensible capacity:	19121	Btuh	147%	of load
Latent capacity:	2428	Btuh	76%	of load
Total capacity:	21549	Btuh	133%	of load SHR: 89%

Heating Equipment

Design Conditions

Outdoor design DB:	15.8°F	Heat loss:	21859	Btuh	Entering coil DB:	70.0°F
Indoor design DB:	70.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Elec strip					
Manufacturer:	Smart Comfort	Model:				
Actual airflow:	593	cfm				
Output capacity:	0	kW	0%	of load	Temp. rise:	0 °F

Meets all requirements of ACCA Manual S.



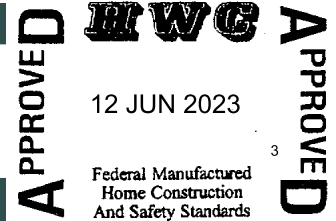
Building Analysis
Entire House
Clayton Homes

Job: M46068-FDJ-TZIII
Date: May 31, 2023
By:

5000 Clayton Road, Maryville, TN 37804 Phone: 865-380-3000

Project Information

For: M46068-FDJ-TZIII, GILES



Design Conditions

Location:

VA-SG22
Elevation: 2133 ft
Latitude: 37°N

Outdoor:

Dry bulb (°F)
Daily range (°F)
Wet bulb (°F)
Wind speed (mph)

Heating

16
-
-
15.0

Cooling

88
20 (M)
71
7.5

Indoor:

Indoor temperature (°F)
Design TD (°F)
Relative humidity (%)
Moisture difference (gr/lb)

Heating

70
54
50
48.7

Cooling

75
13
50
28.1

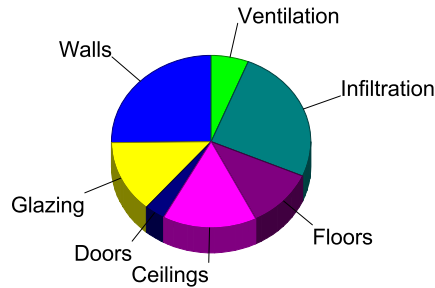
Infiltration:

Method
Construction quality
Fireplaces

Simplified
Average
0

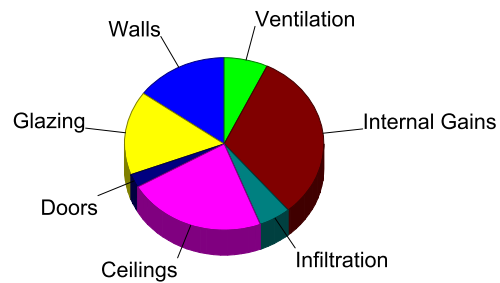
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	4.1	5503	25.2
Glazing	19.0	2964	13.6
Doors	17.3	728	3.3
Ceilings	1.7	3346	15.3
Floors	1.2	2428	11.1
Infiltration	3.6	5566	25.5
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		1324	6.1
Adjustments		0	0
Total		21859	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.4	1960	15.0
Glazing	13.2	2056	15.8
Doors	7.8	327	2.5
Ceilings	1.5	2951	22.6
Floors	0	0	0
Infiltration	0.4	681	5.2
Ducts		0	0
Ventilation		923	7.1
Internal gains		4150	31.8
Blower		0	0
Adjustments		0	0
Total		13047	100.0



Latent Cooling Load = 3210 Btuh
Overall U-value = 0.058 Btuh/ft²·°F, Window / Floor Area = 7.8 %

Data entries checked.



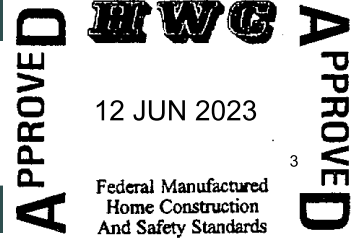
Component Constructions
Entire House
Clayton Homes

Job: M46068-FDJ-TZIII
Date: May 31, 2023
By:

5000 Clayton Road, Maryville, TN 37804 Phone: 865-380-3000

Project Information

For: M46068-FDJ-TZIII, GILES



Design Conditions

Location:

VA-SG22
Elevation: 2133 ft
Latitude: 37°N

Outdoor:

Dry bulb (°F)
Daily range (°F)
Wet bulb (°F)
Wind speed (mph)

Heating

16
-
-
15.0

Cooling

88
20 (M)
71
7.5

Indoor:

Indoor temperature (°F)
Design TD (°F)
Relative humidity (%)
Moisture difference (gr/lb)

Infiltration:

Method
Construction quality
Fireplaces

Heating

70
54
50
48.7

Cooling

75
13
50
28.1

Simplified
Average
0

Construction descriptions

Construction descriptions	Or	Area ft ²	U-value Btuh/ft ² °F	Insul R ft ² ·F/Btuh	Htg HTM Btuh/ft ²	Loss Btuh	Clg HTM Btuh/ft ²	Gain Btuh
Walls								
R-15 SIDEWALL: R-15-SIDEWALL-R-15-THP-504	n	462	0.075	15.0	4.07	1879	1.45	669
	e	236	0.075	15.0	4.07	959	1.45	342
	s	419	0.075	15.0	4.07	1705	1.45	607
	w	236	0.075	15.0	4.07	959	1.45	342
	all	1354	0.075	15.0	4.07	5503	1.45	1960
Partitions								
(none)								
Windows								
Clayton - Thermopane Low-E: Clayton - Thermopane Low-E; 50% blinds	n	57	0.350	0	19.0	1075	7.76	440
45°, medium; 50% outdoor insect screen; 6.67 ft head ht	s	100	0.350	0	19.0	1889	11.8	1175
	all	156	0.350	0	19.0	2964	10.3	1615
Doors								
CMH - Standard Door: CMH - Standard Door - Solid no stom	n	21	0.320	0	17.3	364	7.78	163
	s	21	0.320	0	17.3	364	7.78	163
	all	42	0.320	0	17.3	728	7.78	327
Ceilings								
DW -158 R-38		1991	0.031	38.0	1.68	3346	1.48	2951
Floors								
SW-180-R-22: DW-180-R-22-THP-164		1991	0.045	22.0	1.22	2428	0	0



Project Summary
Entire House
Clayton Homes

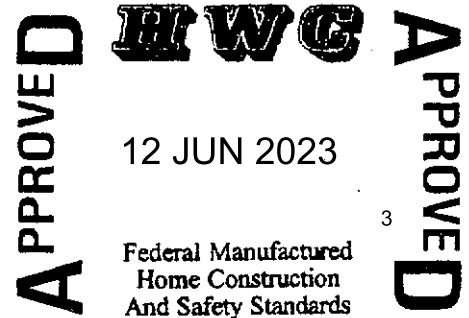
Job: M46068-FDJ-TZIII
Date: May 31, 2023
By:

5000 Clayton Road, Maryville, TN 37804 Phone: 865-380-3000

Project Information

For: M46068-FDJ-TZIII, GILES

Notes: DUCT CAPACITY-19766 BTUHS



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Design Information

Weather: VA-SG22

Winter Design Conditions

Outside db 16 °F
Inside db 70 °F
Design TD 54 °F

Summer Design Conditions

Outside db 88 °F
Inside db 75 °F
Design TD 13 °F
Daily range M
Relative humidity 50 %
Moisture difference 28 gr/lb

Heating Summary

Structure 21859 Btuh
Ducts 0 Btuh
Central vent (0 cfm)
(none) 0 Btuh
Humidification 0 Btuh
Piping 0 Btuh
Equipment load 21859 Btuh

Sensible Cooling Equipment Load Sizing

Structure 13047 Btuh
Ducts 0 Btuh
Central vent (0 cfm)
(none) 0 Btuh
Blower 0 Btuh
Use manufacturer's data n
Rate/swing multiplier 0.93
Equipment sensible load 12081 Btuh

Infiltration

Method Simplified
Construction quality Average
Fireplaces 0

Latent Cooling Equipment Load Sizing

Structure 3210 Btuh
Ducts 0 Btuh
Central vent (0 cfm)
(none) 0 Btuh
Equipment latent load 3210 Btuh

	Heating	Cooling
Area (ft ²)	1991	1991
Volume (ft ³)	15930	15930
Air changes/hour	0.38	0.20
Equiv. AVF (cfm)	101	53

Equipment Total Load (Sen+Lat) 15291 Btuh
Req. total capacity at 0.70 SHR 1.4 ton

Heating Equipment Summary

Make Smart Comfort
Trade
Model
AHRI ref
Efficiency 100 EFF
Heating input 0 kW
Heating output 0 Btuh
Temperature rise 0 °F
Actual air flow 593 cfm
Air flow factor 0.027 cfm/Btuh
Static pressure 0.30 in H2O
Space thermostat

Cooling Equipment Summary

Make Smart Comfort
Trade SMART COMFORT
Cond R4A518GKB
Coil FED002410++NADA43601CK
AHRI ref 203358045
Efficiency 12.2 EER, 14 SEER
Sensible cooling 12460 Btuh
Latent cooling 5340 Btuh
Total cooling 17800 Btuh
Actual air flow 593 cfm
Air flow factor 0.045 cfm/Btuh
Static pressure 0.30 in H2O
Load sensible heat ratio 0.80

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





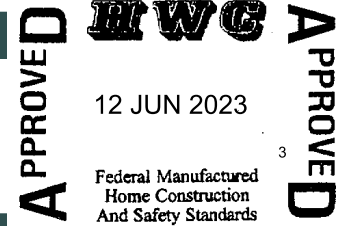
Duct System Summary
Entire House
Clayton Homes

Job: M46068-FDJ-TZIII
 Date: May 31, 2023
 By:

5000 Clayton Road, Maryville, TN 37804 Phone: 865-380-3000

Project Information

For: M46068-FDJ-TZIII, GILES



	Heating	Cooling
External static pressure	0.30 in H2O	0.30 in H2O
Pressure losses	0 in H2O	0 in H2O
Available static pressure	0.30 in H2O	0.30 in H2O
Supply / return available pressure	0.150 / 0.150 in H2O	0.150 / 0.150 in H2O
Lowest friction rate	0.191 in/100ft	0.191 in/100ft
Actual air flow	593 cfm	593 cfm
Total effective length (TEL)	157 ft	

Supply Branch Detail Table

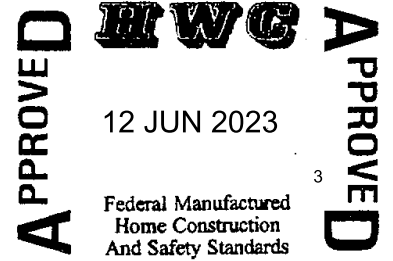
Name	Design (Btuh)	Htg (cfm)	Clg (cfm)	Design FR	Diam (in)	H x W (in)	Duct Matl	Actual Ln (ft)	Ftg.Eqv Ln (ft)	Trunk
BATH	h 568	15	9	0.194	5.0	0x0	VIFx	54.4	100.0	st5
BEDROOM 2	c 841	35	38	0.229	5.0	0x0	VIFx	30.9	100.0	st5
BEDROOM 3	c 817	34	37	0.201	5.0	0x0	VIFx	48.9	100.0	st5
BEDROOM 4	h 2144	58	47	0.191	5.0	0x0	VIFx	56.9	100.0	st5
DEN	c 3128	140	142	0.723	6.0	0x0	VIFx	6.5	35.0	st1
DINING	h 1323	36	22	0.465	5.0	0x0	VIFx	29.5	35.0	st3
KITCHEN	c 2008	62	91	0.632	5.0	0x0	VIFx	12.5	35.0	st3
LIVING ROOM	c 2125	69	97	0.222	6.0	0x0	VIFx	35.4	100.0	st4
P-BATH	h 2613	71	38	0.417	5.0	0x0	VIFx	37.0	35.0	st3
PRIMARY BEDROOM	h 2706	73	71	0.217	6.0	0x0	VIFx	37.9	100.0	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
st4	Peak AVF	142	168	0.217	346	5.3	5 x 14	ShtMetl	st2
st1	Peak AVF	140	142	0.723	293	4.5	5 x 14	ShtMetl	
st3	Peak AVF	168	151	0.417	347	4.3	5 x 14	ShtMetl	
st5	Peak AVF	143	132	0.191	343	3.0	5 x 12	ShtMetl	st2
st2	Peak AVF	285	300	0.191	720	3.0	5 x 12	MetlFlx	

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	593	593	0	0	0	0	0x 0		VIFx	





Manual S Compliance Report

Entire House

Clayton Homes

Job: M46068-FDJ-TZII
 Date: May 31, 2023
 By:

5000 Clayton Road, Maryville, TN 37804 Phone: 865-380-3000

Project Information

For: M46068-FDJ-TZII, GILES

APPROVED

HWG

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12 JUN 2023

Federal Manufactured
Home Construction
And Safety Standards

Cooling Equipment

Design Conditions

Outdoor design DB:	92.6°F	Sensible gain:	14845 Btuh	Entering coil DB:	75.0°F
Outdoor design WB:	74.3°F	Latent gain:	3974 Btuh	Entering coil WB:	62.4°F
Indoor design DB:	75.0°F	Total gain:	18818 Btuh		
Indoor RH:	50%	Estimated airflow:	767 cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Split AC			
Manufacturer:	Smart Comfort	Model:	R4A324GKH+FED002410++NADA43601CK	
Actual airflow:	767 cfm			
Sensible capacity:	19121 Btuh		129% of load	
Latent capacity:	2428 Btuh		61% of load	
Total capacity:	21549 Btuh		115% of load	SHR: 89%

Heating Equipment

Design Conditions

Outdoor design DB:	15.0°F	Heat loss:	22482 Btuh	Entering coil DB:	70.0°F
Indoor design DB:	70.0°F				

Manufacturer's Performance Data at Actual Design Conditions

Equipment type:	Elec strip			
Manufacturer:	Smart Comfort	Model:		
Actual airflow:	767 cfm			
Output capacity:	0 kW		0% of load	Temp. rise: 0 °F

Meets all requirements of ACCA Manual S.



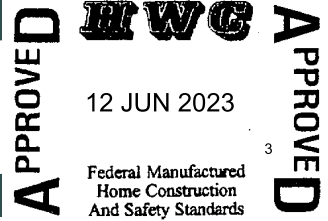
Building Analysis
Entire House
Clayton Homes

Job: M46068-FDJ-TZII
Date: May 31, 2023
By:

5000 Clayton Road, Maryville, TN 37804 Phone: 865-380-3000

Project Information

For: M46068-FDJ-TZII, GILES



Design Conditions

Location:

Knoxville McGhee Tyson AP, TN, US
Elevation: 981 ft
Latitude: 36°N

Outdoor:

Dry bulb (°F)
Daily range (°F)
Wet bulb (°F)
Wind speed (mph)

Heating

15
-
-
15.0

Cooling

93
19 (M)
74
7.5

Indoor:

Indoor temperature (°F)
Design TD (°F)
Relative humidity (%)
Moisture difference (gr/lb)

Heating

70
55
50
47.0

Cooling

75
18
50
36.2

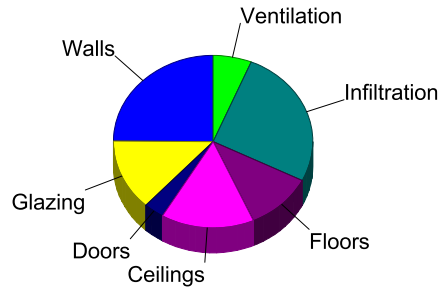
Infiltration:

Method
Construction quality
Fireplaces

Simplified
Average
0

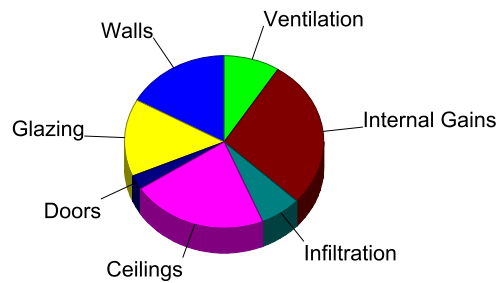
Heating

Component	Btuh/ft²	Btuh	% of load
Walls	4.1	5584	24.8
Glazing	19.3	3008	13.4
Doors	17.6	739	3.3
Ceilings	1.7	3395	15.1
Floors	1.2	2464	11.0
Infiltration	3.8	5891	26.2
Ducts		0	0
Piping		0	0
Humidification		0	0
Ventilation		1401	6.2
Adjustments		0	0
Total		22482	100.0



Cooling

Component	Btuh/ft²	Btuh	% of load
Walls	1.9	2513	16.9
Glazing	13.8	2158	14.5
Doors	9.5	400	2.7
Ceilings	1.7	3287	22.1
Floors	0	0	0
Infiltration	0.6	992	6.7
Ducts		0	0
Ventilation		1345	9.1
Internal gains		4150	28.0
Blower		0	0
Adjustments		0	0
Total		14845	100.0



Latent Cooling Load = 3974 Btuh
Overall U-value = 0.058 Btuh/ft²·°F, Window / Floor Area = 7.8 %

Data entries checked.



Component Constructions
Entire House
Clayton Homes

Job: M46068-FDJ-TZII
Date: May 31, 2023
By:

5000 Clayton Road, Maryville, TN 37804 Phone: 865-380-3000

Project Information

For: M46068-FDJ-TZII, GILES

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Design Conditions

Location:

Knoxville McGhee Tyson AP, TN, US
Elevation: 981 ft
Latitude: 36°N

Outdoor:

Dry bulb (°F)
Daily range (°F)
Wet bulb (°F)
Wind speed (mph)

Heating

15
-
-
15.0

Cooling

93
19 (M)
74
7.5

Indoor:

Indoor temperature (°F)
Design TD (°F)
Relative humidity (%)
Moisture difference (gr/lb)

Infiltration:

Method
Construction quality
Fireplaces

Heating

70
55
50
47.0

Cooling

75
18
50
36.2

Simplified
Average
0

Construction descriptions

Construction descriptions	Or	Area ft ²	U-value Btuh/ft ² °F	Insul R ft ² ·F/Btuh	Htg HTM Btuh/ft ²	Loss Btuh	Clg HTM Btuh/ft ²	Gain Btuh
Walls								
R-15 SIDEWALL: R-15-SIDEWALL-R-15-THP-504	n	462	0.075	15.0	4.13	1907	1.86	858
	e	236	0.075	15.0	4.13	974	1.86	438
	s	419	0.075	15.0	4.13	1730	1.86	779
	w	236	0.075	15.0	4.13	974	1.86	438
	all	1354	0.075	15.0	4.13	5584	1.86	2513
Partitions								
(none)								
Windows								
Clayton - Thermopane Low-E: Clayton - Thermopane Low-E; 50% blinds 45°, medium; 50% outdoor insect screen; 6.67 ft head ht	n	57	0.350	0	19.3	1091	9.39	532
	s	100	0.350	0	19.3	1917	13.0	1295
	all	156	0.350	0	19.3	3008	11.7	1826
Doors								
CMH - Standard Door: CMH - Standard Door - Solid no stom	n	21	0.320	0	17.6	370	9.52	200
	s	21	0.320	0	17.6	370	9.52	200
	all	42	0.320	0	17.6	739	9.52	400
Ceilings								
DW -158 R-38		1991	0.031	38.0	1.70	3395	1.65	3287
Floors								
SW-180-R-22: DW-180-R-22-THP-164		1991	0.045	22.0	1.24	2464	0	0





Project Summary
Entire House
Clayton Homes

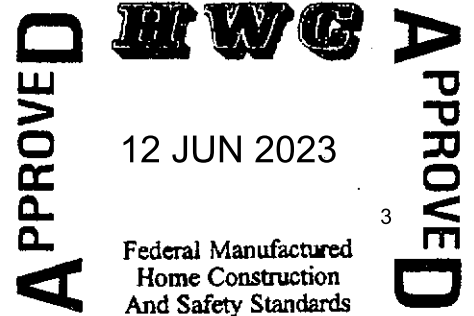
Job: M46068-FDJ-TZII
Date: May 31, 2023
By:

5000 Clayton Road, Maryville, TN 37804 Phone: 865-380-3000

Project Information

For: M46068-FDJ-TZII, GILES

Notes: DUCT CAPACITY-19766 BTUHS



Design Information

Weather: Knoxville McGhee Tyson AP, TN, US

Winter Design Conditions

Outside db 15 °F
Inside db 70 °F
Design TD 55 °F

Summer Design Conditions

Outside db 93 °F
Inside db 75 °F
Design TD 18 °F
Daily range M
Relative humidity 50 %
Moisture difference 36 gr/lb

Heating Summary

Structure 22482 Btuh
Ducts 0 Btuh
Central vent (0 cfm) 0 Btuh
(none)
Humidification 0 Btuh
Piping 0 Btuh
Equipment load 22482 Btuh

Sensible Cooling Equipment Load Sizing

Structure 14845 Btuh
Ducts 0 Btuh
Central vent (0 cfm) 0 Btuh
(none)
Blower 0 Btuh
Use manufacturer's data n
Rate/swing multiplier 0.98
Equipment sensible load 14488 Btuh

Infiltration

Method Simplified
Construction quality Average
Fireplaces 0

Latent Cooling Equipment Load Sizing

Structure 3974 Btuh
Ducts 0 Btuh
Central vent (0 cfm) 0 Btuh
(none)
Equipment latent load 3974 Btuh

	Heating	Cooling
Area (ft ²)	1991	1991
Volume (ft ³)	15930	15930
Air changes/hour	0.38	0.20
Equiv. AVF (cfm)	101	53

Equipment Total Load (Sen+Lat) 18462 Btuh
Req. total capacity at 0.70 SHR 1.7 ton

Heating Equipment Summary

Make Smart Comfort
Trade
Model
AHRI ref
Efficiency 100 EFF
Heating input 0 kW
Heating output 0 Btuh
Temperature rise 0 °F
Actual air flow 767 cfm
Air flow factor 0.034 cfm/Btuh
Static pressure 0.30 in H2O
Space thermostat

Cooling Equipment Summary

Make Smart Comfort
Trade SMART COMFORT
Cond R4A324GKH
Coil FED002410++NADA43601CK
AHRI ref 203358027
Efficiency 11.5 EER, 13 SEER
Sensible cooling 16100 Btuh
Latent cooling 6900 Btuh
Total cooling 23000 Btuh
Actual air flow 767 cfm
Air flow factor 0.052 cfm/Btuh
Static pressure 0.30 in H2O
Load sensible heat ratio 0.79

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





Duct System Summary
Entire House
Clayton Homes

Job: M46068-FDJ-TZII
 Date: May 31, 2023
 By:

5000 Clayton Road, Maryville, TN 37804 Phone: 865-380-3000

Project Information

For: M46068-FDJ-TZII, GILES

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	Heating	Cooling
External static pressure	0.30 in H2O	0.30 in H2O
Pressure losses	0 in H2O	0 in H2O
Available static pressure	0.30 in H2O	0.30 in H2O
Supply / return available pressure	0.150 / 0.150 in H2O	0.150 / 0.150 in H2O
Lowest friction rate	0.191 in/100ft	0.191 in/100ft
Actual air flow	767 cfm	767 cfm
Total effective length (TEL)	157 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 583	20	12	0.194	5.0	0x0	VIFx	54.4	100.0	st5
BEDROOM 2	c 916	46	47	0.229	5.0	0x0	VIFx	30.9	100.0	st5
BEDROOM 3	c 888	44	46	0.201	5.0	0x0	VIFx	48.9	100.0	st5
BEDROOM 4	h 2206	75	61	0.191	6.0	0x0	VIFx	56.9	100.0	st5
DEN	c 3831	182	198	0.723	7.0	0x0	VIFx	6.5	35.0	st1
DINING	h 1356	46	30	0.465	5.0	0x0	VIFx	29.5	35.0	st3
KITCHEN	c 2166	79	112	0.632	5.0	0x0	VIFx	12.5	35.0	st3
LIVING ROOM	c 2277	88	118	0.222	7.0	0x0	VIFx	35.4	100.0	st4
P-BATH	h 2689	92	53	0.417	5.0	0x0	VIFx	37.0	35.0	st3
PRIMARY BEDROOM	h 2781	95	90	0.217	6.0	0x0	VIFx	37.9	100.0	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
st4	Peak AVF	183	207	0.217	427	5.3	5 x 14	ShtMetl	st2
st1	Peak AVF	182	198	0.723	407	4.5	5 x 14	ShtMetl	
st3	Peak AVF	217	195	0.417	447	4.3	5 x 14	ShtMetl	
st5	Peak AVF	184	167	0.191	443	3.0	5 x 12	ShtMetl	st2
st2	Peak AVF	368	374	0.191	898	3.0	5 x 12	MetlFlx	

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	767	767	0	0	0	0	0x 0		VIFx	

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