

48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0

9'-10 1/4" 6'-2 1/2" 24'-1 1/2" 4'-4 1/2" 5'-5" 4'-5 1/2" 9'-6 3/4" 4'-5 1/2" 5'-3 1/2" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

13.2 26.4 13.2 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

16'-0 3/4" 15'-0 3/4" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

13.2 26.4 13.2 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

16'-0 3/4" 15'-0 3/4" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

13.2 26.4 13.2 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

16'-0 3/4" 15'-0 3/4" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

13.2 26.4 13.2 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

16'-0 3/4" 15'-0 3/4" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

13.2 26.4 13.2 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

16'-0 3/4" 15'-0 3/4" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

13.2 26.4 13.2 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

16'-0 3/4" 15'-0 3/4" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

13.2 26.4 13.2 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

16'-0 3/4" 15'-0 3/4" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

13.2 26.4 13.2 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

16'-0 3/4" 15'-0 3/4" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

13.2 26.4 13.2 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

16'-0 3/4" 15'-0 3/4" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

13.2 26.4 13.2 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

16'-0 3/4" 15'-0 3/4" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

13.2 26.4 13.2 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

16'-0 3/4" 15'-0 3/4" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

13.2 26.4 13.2 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

16'-0 3/4" 15'-0 3/4" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

13.2 26.4 13.2 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

16'-0 3/4" 15'-0 3/4" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

13.2 26.4 13.2 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

16'-0 3/4" 15'-0 3/4" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

13.2 26.4 13.2 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

16'-0 3/4" 15'-0 3/4" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

13.2 26.4 13.2 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

16'-0 3/4" 15'-0 3/4" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

13.2 26.4 13.2 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

16'-0 3/4" 15'-0 3/4" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

13.2 26.4 13.2 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

16'-0 3/4" 15'-0 3/4" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

13.2 26.4 13.2 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

16'-0 3/4" 15'-0 3/4" 19'-4" 64'-0" 9'-3 1/2" 4'-5 1/2" 9'-6 3/4"

APPROVED BY
NIA INC.
 FEDERAL MANUFACTURED HOME
 CONSTRUCTION AND SAFETY STANDARDS

2/18/2025

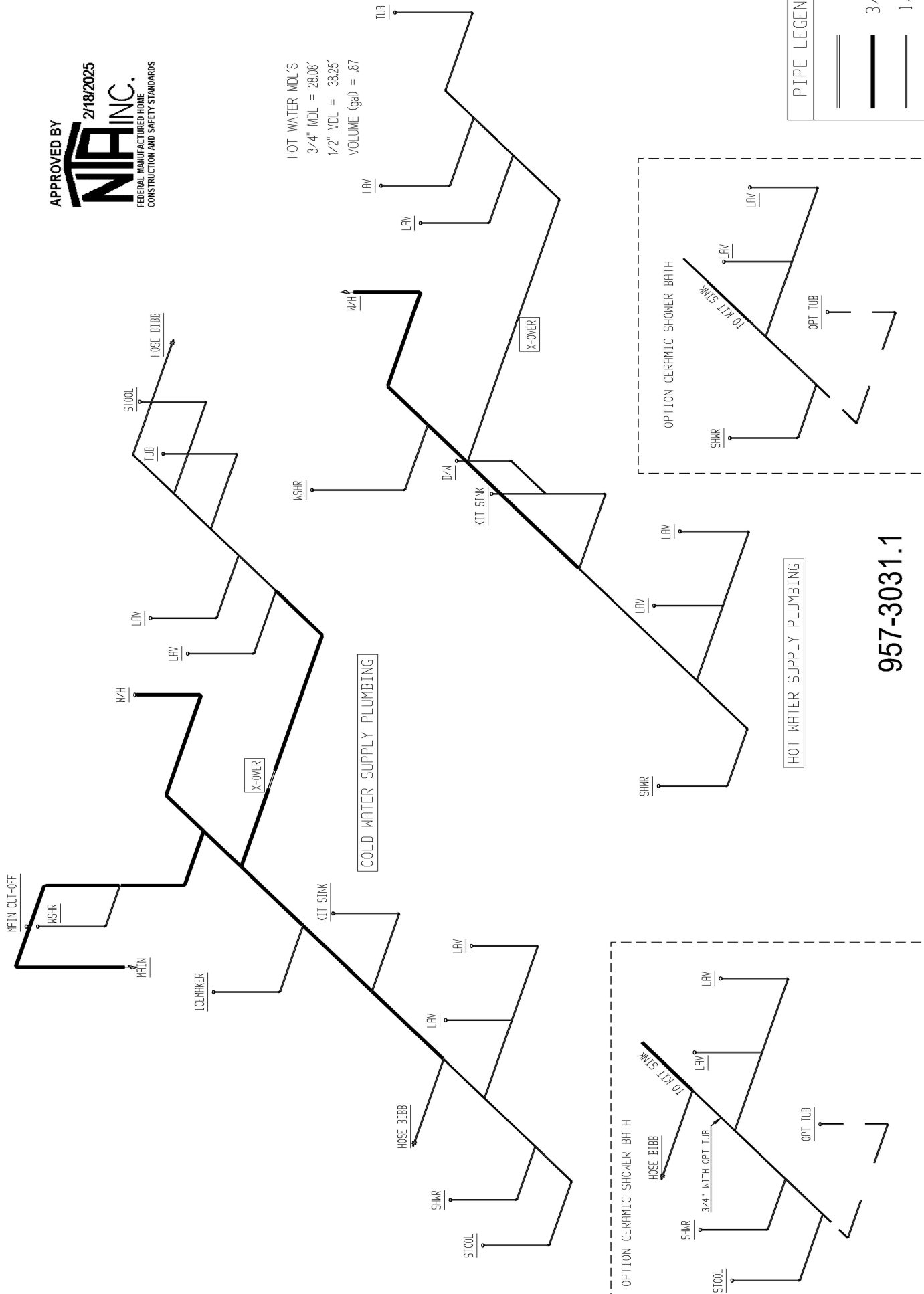
957-3031.0

INDICATES REQUIRED NUMBER OF STUDS IN COLUMN THE * SPECIFIES THAT THERE CAN BE NO HOLES IN STUDS IN COLUMNS		RETURN AIR REQUIREMENTS 1) 20"x16" GRILL REQUIRED 2) 4"x10" GRILL W/ 2 1/2" DOOR UNDERCUT 3) DOOR(S) MUST BE UNDERCUT 2 1/2" MIN. 4) 4"x24" OR 6"x14" GRILL REQUIRED		DESIGN LOADS DECK FLOOR PSF 2-20 1ST FLOOR PSF 3-20
DIMENSION = 72 P.F. 1 WIND-2 DESIGN P.F. SHEAR AREA JOISTS GENERAL DESIGN P.F. SHEAR AREA JOISTS B 210 P.F. 112* C 210 P.F. 112* D 420 P.F. 112* E 420 P.F. 112* F 420 P.F. 112* G 420 P.F. 112*	DIMENSION = 232 P.F. 1 WIND-2 DESIGN P.F. SHEAR AREA JOISTS GENERAL DESIGN P.F. SHEAR AREA JOISTS B 210 P.F. FULL* C 420 P.F. FULL* D 420 P.F. FULL* E 420 P.F. FULL* F 420 P.F. FULL* G 420 P.F. FULL*	DIMENSION = 232 P.F. 1 WIND-2 DESIGN P.F. SHEAR AREA JOISTS GENERAL DESIGN P.F. SHEAR AREA JOISTS B 210 P.F. FULL* C 420 P.F. FULL* D 420 P.F. FULL* E 420 P.F. FULL* F 420 P.F. FULL* G 420 P.F. FULL*	DIMENSION = 232 P.F. 1 WIND-2 DESIGN P.F. SHEAR AREA JOISTS GENERAL DESIGN P.F. SHEAR AREA JOISTS B 210 P.F. FULL* C 420 P.F. FULL* D 420 P.F. FULL* E 420 P.F. FULL* F 420 P.F. FULL* G 420 P.F. FULL*	
GENERAL NOTES CEILING HEIGHT = 96.00 REFER TO DRAFT PAGE MP-2.0 FOR AREA LIGHT & VENT REFER TO DRAFT PAGE EL-1.2 FOR ELEC. SYMBOL & BRANCH CIRCUIT NUMBER FLOOR FRAMING SPACING = 16 TOTAL WINDOW SFT = 154 S1D/23 WITH PATIO-CIRCLUM OPT				
BRAND CLAYTON	SERIES F528	DRAWING TITLE MASTER PLAN		
MODEL NAME 3031		PLANT DESCRIPTION 28X64 4BR-2BA	50. FT. 1685	
DRAWN BY GDB		DATE PRINTED 01/20/2025	SHEET NO. 1-1	

B-SECTION HITCH END

B-SECTION HITCH END

HOT WATER MDL'S
 3/4" MDL = 28.08'
 1/2" MDL = 38.25'
 VOLUME (gal) = .87



PIPE LEGEND

1"	1"
3/4"	3/4"
1/2"	1/2"

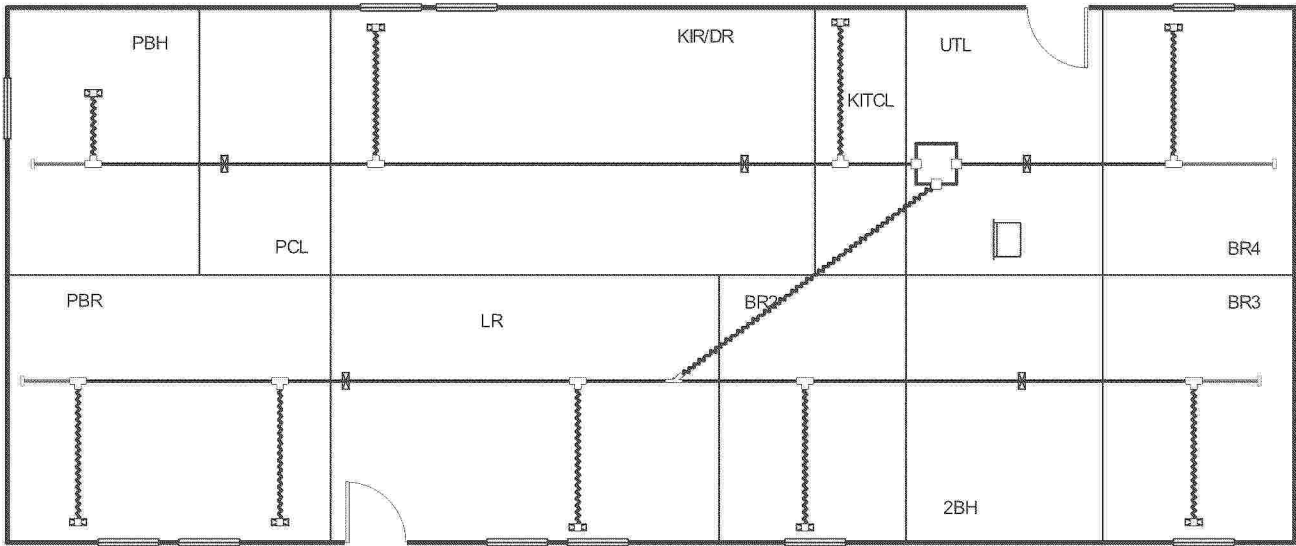
957-3031.1

BRAND CLAYTON	SERIES FS28	DRAWING TITLE SUPPLY PLUMBING		MODEL NAME 3031	SO. FT. 1685
		GENERAL NOTES HOSE BIBBS PER SPECS		PLANT 957	MODEL NO. 3031
REVISIONS		DESCRIPTION 28X64 4BR-2BR	DATE PRINTED 02/11/2025	DATE 01/20/2025	SHEET NO. 9-1
		BY GDB	DATE 01/20/2025	DRAWN BY GDB	DATE PRINTED 02/11/2025



APPROVED BY
NIA INC. 2/18/2025
FEDERAL MANUFACTURED HOME
CONSTRUCTION AND SAFETY STANDARDS

Level 1



957-3031.4.1

Job #: 3031(P)
Performed by CLAYTON ROCKWELL for:
3031(P)
ROCKWELL, NC

Scale: 1 : 114
Page 1
Right-Suite® Universal 2024
24.0.04 RSU59516
2025-Feb-05 10:01:38
...layton Homes\Desktop\3031(P),rup

Project Information

For: 3031(P), CLAYTON 957
ROCKWELL, NC

Notes: DUCT COOLING CAPACITY = 30,667 BTU/HR
REFER TO MODEL PLAN FOR THERMAL ZONE CALCULATIONS

Design Information

Weather: NC 35

Winter Design Conditions

Outside db 26 °F
Inside db 70 °F
Design TD 44 °F

Ventilation Method MJ8

Heating Summary

Structure 16148 Btuh
Ducts (R-8.0) 1438 Btuh
Central vent (105 cfm) 5002 Btuh
Outside air
Humidification 0 Btuh
Piping 0 Btuh
Equipment load 22588 Btuh

Infiltration

Method Simplified
Construction quality Average
Fireplaces 0

	Heating	Cooling
Area (ft ²)	1689	1689
Volume (ft ³)	13515	13515
Air changes/hour	0.38	0.20
Equiv. AVF (cfm)	86	45

Heating Equipment Summary

Make Smart Comfort
Trade 15 SEER2 R SERIES R410A HP
Model R4H5S30*K*AAA*
AHRI ref 210537970
Efficiency 7.5 HSPF2
Heating input
Heating output 28000 Btuh @ 47°F
Temperature rise 28 °F
Actual air flow 920 cfm
Air flow factor 0.052 cfm/Btuh
Static pressure 0.30 in H2O
Space thermostat
Capacity balance point = 24 °F
Backup: Smart Comfort
Input = 10 kW, Output = 34121 Btuh, 100 AFUE

Summer Design Conditions

Outside db 94 °F
Inside db 75 °F
Design TD 19 °F
Daily range M
Relative humidity 50 %
Moisture difference 38 gr/lb

Sensible Cooling Equipment Load Sizing

Structure 14859 Btuh
Ducts (R-8.0) 789 Btuh
Central vent (105 cfm) 2145 Btuh
Outside air
Blower 0 Btuh
Use manufacturer's data n
Rate/swing multiplier 0.99
Equipment sensible load 17562 Btuh

Latent Cooling Equipment Load Sizing

Structure 2153 Btuh
Ducts 189 Btuh
Central vent (105 cfm) 2688 Btuh
Outside air
Equipment latent load 5031 Btuh

Equipment Total Load (Sen+Lat) 22593 Btuh
Req. total capacity at 0.70 SHR 2.1 ton

Cooling Equipment Summary

Make Smart Comfort
Trade 15 SEER2 R SERIES R410A HP
Cond R4H5S30*K*AAA*
Coil FEVA0036**+NAVA43601CK
AHRI ref 210537970
Efficiency 12.0 EER2, 14.3 SEER2
Sensible cooling 19320 Btuh
Latent cooling 8280 Btuh
Total cooling 27600 Btuh
Actual air flow 920 cfm
Air flow factor 0.059 cfm/Btuh
Static pressure 0.30 in H2O
Load sensible heat ratio 0.78

957-3031.4.2

Bold/italic values have been manually overridden

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

Project Information

For: 3031(P), CLAYTON 957
 ROCKWELL, NC

Cooling Equipment

Design Conditions

Outdoor design DB: 93.7°F	Sensible gain: 17794 Btuh	Entering coil DB: 77.2°F
Outdoor design WB: 75.2°F	Latent gain: 5031 Btuh	Entering coil WB: 64.2°F
Indoor design DB: 75.0°F	Total gain: 22825 Btuh	
Indoor RH: 50%	Estimated airflow: 920 cfm	

Manufacturer's Performance Data at Actual Design Conditions

Equipment type: Split ASHP
 Manufacturer: Smart Comfort Model: R4H5S30*K*AAA*+FEVA0036**+NAVA43601CK
 Actual airflow: 920 cfm
 Sensible capacity: 21577 Btuh 121% of load
 Latent capacity: 5435 Btuh 108% of load
 Total capacity: 27012 Btuh 118% of load SHR: 80%

Heating Equipment

Design Conditions

Outdoor design DB: 26.4°F	Heat loss: 22588 Btuh	Entering coil DB: 64.9°F
Indoor design DB: 70.0°F		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type: Split ASHP
 Manufacturer: Smart Comfort Model: R4H5S30*K*AAA*+FEVA0036**+NAVA43601CK
 Actual airflow: 920 cfm
 Output capacity: 28000 Btuh 124% of load Capacity balance: 24 °F
 Supplemental heat required: 0 Btuh Economic balance: -99 °F

Backup equipment type: Elec strip
 Manufacturer: Smart Comfort Model:
 Actual airflow: 920 cfm
 Output capacity: 10.0 kW 151% of load Temp. rise: 34 °F

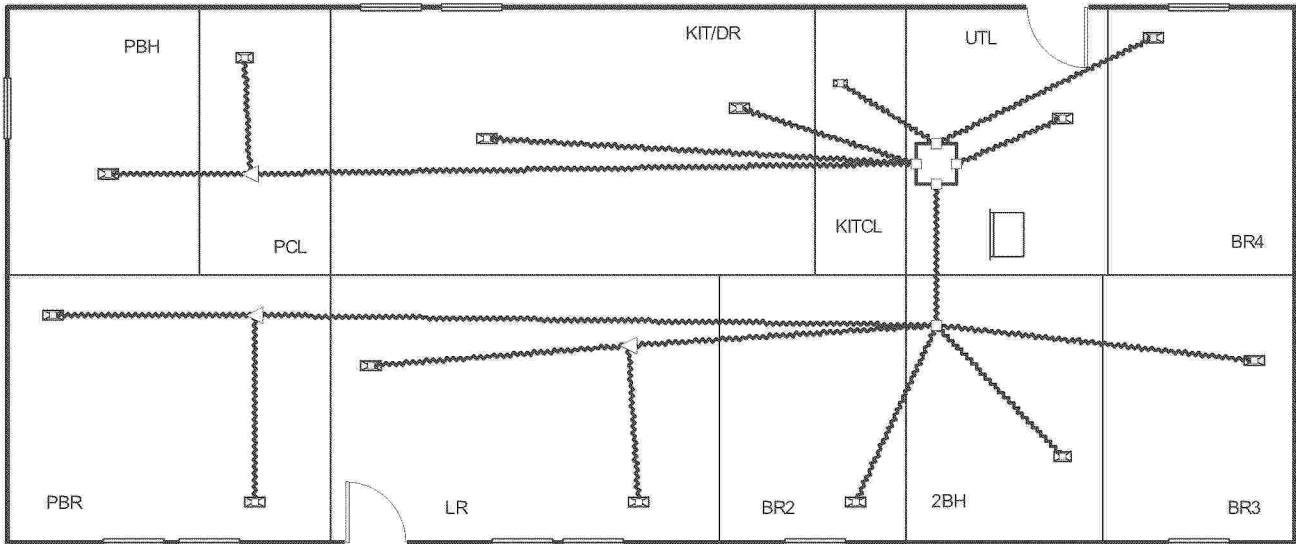
957-3031.4.3

Meets all requirements of ACCA Manual S.



APPROVED BY
NIA INC. 2/18/2025
FEDERAL MANUFACTURED HOME
CONSTRUCTION AND SAFETY STANDARDS

Level 1



957-3031.4.4

Job #: 3031(OVHD)
Performed by CLAYTON ROCKWELL for:
3031(OVHD)
ROCKWELL, NC

Scale: 1 : 114
Page 1
Right-Suite® Universal 2024
24.0.04 RSU59516
2025-Feb-05 12:34:46
...ton Homes\Desktop\3031(OVHD).rup

Project Information

For: 3031(OVHD), CLAYTON 957
ROCKWELL, NC

Notes: DUCT COOLING CAPACITY = 37,100 BTU/HR
REFER TO MODEL PLAN FOR THERMAL ZONE CALCULATIONS

Design Information

Weather: GA50

Winter Design Conditions

Outside db 32 °F
Inside db 70 °F
Design TD 38 °F

Ventilation Method MJ8

Heating Summary

Structure 14025 Btuh
Ducts (R-8.0) 5474 Btuh
Central vent (110 cfm) 4541 Btuh
Outside air
Humidification 0 Btuh
Piping 0 Btuh
Equipment load 24040 Btuh

Infiltration

Method Simplified
Construction quality Average
Fireplaces 0

	Heating	Cooling
Area (ft²)	1689	1689
Volume (ft³)	13515	13515
Air changes/hour	0.38	0.20
Equiv. AVF (cfm)	86	45

Heating Equipment Summary

Make Smart Comfort
Trade 15 SEER2 R SERIES R410A HP
Model R4H5S36*K*AAA*
AHRI ref 210538007
Efficiency 7.5 HSPF2
Heating input
Heating output 33000 Btuh @ 47°F
Temperature rise 27 °F
Actual air flow 1113 cfm
Air flow factor 0.057 cfm/Btuh
Static pressure 0.30 in H2O
Space thermostat
Capacity balance point = 25 °F
Backup: Smart Comfort
Input = 10 kW, Output = 34121 Btuh, 100 AFUE

Summer Design Conditions

Outside db 95 °F
Inside db 75 °F
Design TD 20 °F
Daily range M
Relative humidity 50 %
Moisture difference 38 gr/lb

Sensible Cooling Equipment Load Sizing

Structure 15208 Btuh
Ducts (R-8.0) 5261 Btuh
Central vent (110 cfm) 2384 Btuh
Outside air
Blower 0 Btuh
Use manufacturer's data n
Rate/swing multiplier 1.00
Equipment sensible load 22829 Btuh

Latent Cooling Equipment Load Sizing

Structure 2152 Btuh
Ducts 1251 Btuh
Central vent (110 cfm) 2813 Btuh
Outside air
Equipment latent load 6216 Btuh

Equipment Total Load (Sen+Lat) 29045 Btuh
Req. total capacity at 0.70 SHR 2.7 ton

Cooling Equipment Summary

Make Smart Comfort
Trade 15 SEER2 R SERIES R410A HP
Cond R4H5S36*K*AAA*
Coil FEVA0036**+NAVA43601CK
AHRI ref 210538007
Efficiency 12.0 EER2, 15 SEER2
Sensible cooling 23380 Btuh
Latent cooling 10020 Btuh
Total cooling 33400 Btuh
Actual air flow 1113 cfm
Air flow factor 0.054 cfm/Btuh
Static pressure 0.30 in H2O
Load sensible heat ratio 0.79

957-3031.4.5

Bold/italic values have been manually overridden

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

Project Information

For: 3031(OVHD), CLAYTON 957
ROCKWELL, NC

Cooling Equipment

Design Conditions

Outdoor design DB:	94.9°F	Sensible gain:	22852	Btuh	Entering coil DB:	77.0°F
Outdoor design WB:	75.5°F	Latent gain:	6216	Btuh	Entering coil WB:	64.0°F
Indoor design DB:	75.0°F	Total gain:	29068	Btuh		
Indoor RH:	50%	Estimated airflow:	1113	cfm		

Manufacturer's Performance Data at Actual Design Conditions

Equipment type: Split ASHP
Manufacturer: Smart Comfort Model: R4H5S36*K*AAA*+FEVA0036**+NAVA43601CK
Actual airflow: 1113 cfm
Sensible capacity: 25761 Btuh 113% of load
Latent capacity: 6876 Btuh 111% of load
Total capacity: 32637 Btuh 112% of load SHR: 79%

Heating Equipment

Design Conditions

Outdoor design DB:	32.1°F	Heat loss:	24040	Btuh	Entering coil DB:	66.2°F
Indoor design DB:	70.0°F					

Manufacturer's Performance Data at Actual Design Conditions

Equipment type: Split ASHP
Manufacturer: Smart Comfort Model: R4H5S36*K*AAA*+FEVA0036**+NAVA43601CK
Actual airflow: 1113 cfm
Output capacity: 33000 Btuh 137% of load Capacity balance: 25 °F
Supplemental heat required: 0 Btuh Economic balance: -99 °F

Backup equipment type: Elec strip
Manufacturer: Smart Comfort Model:
Actual airflow: 1113 cfm
Output capacity: 10.0 kW 142% of load Temp. rise: 28 °F

957-3031.4.6

Meets all requirements of ACCA Manual S.

CLAYTON HOME BUILDING GROUP

3031 ZN 1 & 2

Model Number	57FWR28643BH24	Drawing Number	3031	Version 17
--------------	----------------	----------------	------	------------

BOX SIZE: 26.33 ft. x 64 ft.

AVG. SIDEWALL HEIGHT = 8 FEET

PERCENTAGE OF CEILING THAT IS VAULTED = 0%

12 INCH DIAMETER XOVER DUCT AREA = 78.5 SQ.FT. MAX. WITH R-8 INSULATION

IN-FLOOR DUCT SYSTEM

	UNHEATED FLOOR	WALL	FLAT ROOF
INSULATION VALUES	R-22 FW	R-13	R-38
DAPIA PAGE	THP-161	THP-552	THP-1484
U VALUE (BTUH/SQ.FT.-F)	0.0445	0.0808	0.0285

THIS INSULATION COMBINATION COMPLIES WITH ZONE 1 PRESCRIPTIVE ZERH REQUIREMENTS

Overhead Duct	
Diameter	Length
4	0
5	0
6	0
7	0
8	0
9	0
12	0
11	0
14	0
Exterior Supply	Length
14	0
16	0
Exterior Return	Length
14	0
16	0



Window Glass Area:

Th. Zone 1:
Th. Zone 2:
Th. Zone 3:
Overhead TZ 1:
Overhead TZ 2:
Overhead TZ 3:

Doors:

	Area	U Value	UA
Front	22.00	0.170	3.74
Rear	22.00	0.280	6.16
Other Door	0.00	0.280	0.00
Other Door	0.00	0.330	0.00
OSB	0.00	0.000	0.00
Skylights	0.00	0.330	0.00
Standard	154.00	0.300	46.20
Option	0.00	0.300	0.00
Floor	1685.33	0.045	75.00
Wall	1247.33	0.081	100.78
Ceiling	1685.33	0.0285	48.03
Ext. Duct	78.50	0.242	18.98
Ext. Duct	78.50	0.223	17.48
Ext. Duct	78.50	0.206	16.14
Supply	0.00	0.000	0.00
Supply	0.00	0.000	0.00
Supply	0.00	0.00	0.00

Energy Star v3 & ZERH Max Glass (sq ft)	
Th. Zone 1	363.3
Th. Zone 2	213.8
Th. Zone 3	19.0

Thermal Zone	Outdoor Design Temp (F)	UA	Uo	EStar v3 & ZERH Compliant	Heatloss BTUH/F
1	11	298.90	0.061	OK	425.40
2	0	297.39	0.061	OK	423.90
3	-14	296.05	0.060	NG	422.50

Design Temperatures		
Furnace Heating Temp (F)	Economy Outdoor Temp (F)	
-10	14	10kW
-26	3	12kW
-50	-14	15kW
-24	4	40k Gas
-71	-29	60k Gas
-118	-62	80k Gas

Thermal Zone	U-Value	Thermal Zone	U-Value	Thermal Zone	U-Value
Energy Star Version 2					
1-EHP-S	0.080	2-EHP-S	0.080	3-EHP-S	0.079
1-GAS-S	0.080	2-GAS-S	0.080	3-GAS-S	0.071
1-ENV-S	0.076	2-ENV-S	0.067	3-ENV-S	0.059
1-EHP-M	0.074	2-EHP-M	0.074	3-EHP-M	0.074
1-GAS-M	0.074	2-GAS-M	0.074	3-GAS-M	0.065
1-ENV-M	0.071	2-ENV-M	0.064	3-ENV-M	0.056

Energy Star Version 3 & ZERH					
1 Single	0.076	2 Single	0.065	3 Single	0.057
1 Double	0.070	2 Double	0.063	3 Double	0.054

957-3031.5

CLAYTON HOME BUILDING GROUP

3031 ZN 3

Model Number	57FWR28643BH24	Drawing Number	3031	Version 17
--------------	----------------	----------------	------	------------

BOX SIZE: 26.33 ft. x 64 ft.

AVG. SIDEWALL HEIGHT = 8 FEET

PERCENTAGE OF CEILING THAT IS VAULTED = 0%

12 INCH DIAMETER XOVER DUCT AREA = 78.5 SQ.FT. MAX. WITH R-8 INSULATION

IN-FLOOR DUCT SYSTEM

	UNHEATED FLOOR	WALL	FLAT ROOF
INSULATION VALUES	(2) R-11 OR / R-33 BIB	R-21	R-38
DAPIA PAGE	THP-3001	THP-560	THP-1484
U VALUE (BTUH/SQ.FT.-F)	0.0371	0.0541	0.0285

THIS INSULATION COMBINATION COMPLIES WITH ZONE 2 PRESCRIPTIVE ZERH REQUIREMENTS

Overhead Duct	
Diameter	Length
4	0
5	0
6	0
7	0
8	0
9	0
12	0
11	0
14	0
Exterior Supply	Length
14	0
16	0
Exterior Return	Length
14	0
16	0



Window Glass Area:

Doors:
 Net:
 Th. Zone 1:
 Th. Zone 2:
 Th. Zone 3:
 Overhead TZ 1:
 Overhead TZ 2:
 Overhead TZ 3:

	Area	U Value	UA
Front	22.00	0.170	3.74
Rear	22.00	0.280	6.16
Other Door	0.00	0.280	0.00
Other Door	0.00	0.330	0.00
OSB	0.00	0.000	0.00
Skylights	0.00	0.330	0.00
Standard	154.00	0.300	46.20
Option	0.00	0.300	0.00
Floor	1685.33	0.037	62.53
Wall	1247.33	0.054	67.48
Ceiling	1685.33	0.0285	48.03
Ext. Duct	78.50	0.242	18.98
Ext. Duct	78.50	0.223	17.48
Ext. Duct	78.50	0.206	16.14
Supply	0.00	0.000	0.00
Supply	0.00	0.000	0.00
Supply	0.00	0.00	0.00

Energy Star v3 & ZERH Max Glass (sq ft)	
Th. Zone 1	526.7
Th. Zone 2	393.5
Th. Zone 3	219.8

Thermal Zone	Outdoor Design Temp (F)	UA	Uo	EStar v3 & ZERH Compliant	Heatloss BTUH/F
1	11	253.12	0.052	OK	379.60
2	0	251.62	0.051	OK	378.10
3	-14	250.27	0.051	OK	376.70

Design Temperatures		
Furnace Heating Temp (F)	Economy Outdoor Temp (F)	
-20	7	10kW
-38	-6	12kW
-65	-24	15kW
-35	-4	40k Gas
-88	-41	60k Gas
-141	-78	80k Gas

Thermal Zone	U-Value	Thermal Zone	U-Value	Thermal Zone	U-Value
Energy Star Version 2					
1-EHP-S	0.080	2-EHP-S	0.080	3-EHP-S	0.079
1-GAS-S	0.080	2-GAS-S	0.080	3-GAS-S	0.071
1-ENV-S	0.076	2-ENV-S	0.067	3-ENV-S	0.059
1-EHP-M	0.074	2-EHP-M	0.074	3-EHP-M	0.074
1-GAS-M	0.074	2-GAS-M	0.074	3-GAS-M	0.065
1-ENV-M	0.071	2-ENV-M	0.064	3-ENV-M	0.056

Energy Star Version 3 & ZERH					
1 Single	0.076	2 Single	0.065	3 Single	0.057
1 Double	0.070	2 Double	0.063	3 Double	0.054

957-3031.5.1

CLAYTON HOME BUILDING GROUP

3031 ZN 1 WITH OVERHEAD HVAC

Model Number	57FWR28643BH24	Drawing Number	3031	Version 17
--------------	----------------	----------------	------	------------

BOX SIZE: 26.33 ft. x 64 ft.
 AVG. SIDEWALL HEIGHT = 8 FEET
 PERCENTAGE OF CEILING THAT IS VAULTED = 0%

OVERHEAD DUCT SYSTEM

	UNHEATED FLOOR	WALL	FLAT ROOF
INSULATION VALUES	R-22 FW	R-13	R-38
DAPIA PAGE	THP-161	THP-552	THP-1484
U VALUE (BTUH/SQ.FT.-F)	0.0445	0.0808	0.0285

THIS INSULATION COMBINATION COMPLIES WITH ZONE 1 PRESCRIPTIVE ZERH REQUIREMENTS

Overhead Duct	
Diameter	Length
4	0
5	32
6	100
7	41
8	46
9	0
12	6
11	0
14	0
Exterior Supply	Length
14	0
16	0
Exterior Return	Length
14	0
16	0

APPROVED BY

 2/18/2025

FEDERAL MANUFACTURED HOME
 CONSTRUCTION AND SAFETY STANDARDS

Window Glass Area:

Doors:

	Area	U Value	UA
Front	22.00	0.170	3.74
Rear	22.00	0.280	6.16
Other Door	0.00	0.280	0.00
Other Door	0.00	0.330	0.00
OSB	0.00	0.000	0.00
Skylights	0.00	0.330	0.00
Standard	154.00	0.300	46.20
Option	0.00	0.300	0.00
Net: Floor	1685.33	0.045	75.00
Wall	1247.33	0.081	100.78
Ceiling	1685.33	0.0285	48.03
Ext. Duct	0.00	0.000	0.00
Th. Zone 1: Ext. Duct	0.00	0.000	0.00
Th. Zone 2: Ext. Duct	0.00	0.000	0.00
Th. Zone 3: Ext. Duct	0.00	0.000	0.00
Overhead TZ 1: Supply	20.48	0.242	4.95
Overhead TZ 2: Supply	20.48	0.223	4.56
Overhead TZ 3: Supply	20.48	0.21	4.21

Energy Star v3 & ZERH Max Glass (sq ft)	
Th. Zone 1	402.1
Th. Zone 2	250.0
Th. Zone 3	53.9

Thermal Zone	Outdoor Design Temp (F)	UA	Uo	EStar v3 & ZERH Compliant	Heatloss BTUH/F
1	11	284.87	0.059	OK	411.30
2	0	284.47	0.059	OK	410.90
3	-14	284.12	0.059	NG	410.60

Design Temperatures		
Furnace Heating Temp (F)	Economy Outdoor Temp (F)	
-13	12	10kW
-30	0	12kW
-54	-17	15kW
-27	2	40k Gas
-76	-32	60k Gas
-125	-66	80k Gas

Thermal Zone	U-Value	Thermal Zone	U-Value	Thermal Zone	U-Value
Energy Star Version 2					
1-EHP-S	0.080	2-EHP-S	0.080	3-EHP-S	0.079
1-GAS-S	0.080	2-GAS-S	0.080	3-GAS-S	0.071
1-ENV-S	0.076	2-ENV-S	0.067	3-ENV-S	0.059
1-EHP-M	0.074	2-EHP-M	0.074	3-EHP-M	0.074
1-GAS-M	0.074	2-GAS-M	0.074	3-GAS-M	0.065
1-ENV-M	0.071	2-ENV-M	0.064	3-ENV-M	0.056

Energy Star Version 3 & ZERH					
1 Single	0.076	2 Single	0.065	3 Single	0.057
1 Double	0.070	2 Double	0.063	3 Double	0.054

957-3031.5.2

CLAYTON HOME BUILDING GROUP

3031 ZN 1 AND PATIO ATRIUM OPT WITH OVERHEAD HVAC

Model Number	57FWR28643BH24	Drawing Number	3031
			Version 17

BOX SIZE: 26.33 ft. x 64 ft.
 AVG. SIDEWALL HEIGHT = 8 FEET
 PERCENTAGE OF CEILING THAT IS VAULTED = 0%

OVERHEAD DUCT SYSTEM

	UNHEATED FLOOR	WALL	FLAT ROOF
INSULATION VALUES	R-22 FW	R-13	R-38
DAPIA PAGE	THP-161	THP-552	THP-1484
U VALUE (BTUH/SQ.FT.-F)	0.0445	0.0808	0.0285

THIS INSULATION COMBINATION COMPLIES WITH ZONE 1 PRESCRIPTIVE ZERH REQUIREMENTS

Overhead Duct	
Diameter	Length
4	0
5	32
6	100
7	41
8	46
9	0
12	6
11	0
14	0
Exterior Supply	Length
14	0
16	0
Exterior Return	Length
14	0
16	0



Window Glass Area:

Net:

Th. Zone 1:

Th. Zone 2:

Th. Zone 3:

Overhead TZ 1:

Overhead TZ 2:

Overhead TZ 3:

	Area	U Value	UA
Doors:			
Front	22.00	0.170	3.74
Rear	22.00	0.280	6.16
Other Door	43.00	0.280	12.04
Other Door	0.00	0.330	0.00
OSB	0.00	0.000	0.00
Skylights	0.00	0.330	0.00
Standard	123.00	0.300	36.90
Option	0.00	0.300	0.00
Floor	1685.33	0.045	75.00
Wall	1235.33	0.081	99.81
Ceiling	1685.33	0.0285	48.03
Ext. Duct	0.00	0.000	0.00
Ext. Duct	0.00	0.000	0.00
Ext. Duct	0.00	0.000	0.00
Supply	20.48	0.242	4.95
Supply	20.48	0.223	4.56
Supply	20.48	0.21	4.21

Energy Star v3 & ZERH Max Glass (sq ft)	
Th. Zone 1	363.0
Th. Zone 2	211.0
Th. Zone 3	14.8

Thermal Zone	Outdoor Design Temp (F)	UA	Uo	EStar v3 & ZERH Compliant	Heatloss BTUH/F
	1	11	286.64	0.060	OK
2	0	286.24	0.059	OK	412.70
3	-14	285.89	0.059	NG	412.40

Design Temperatures		
Furnace Heating Temp (F)	Economy Outdoor Temp (F)	
-13	12	10kW
-29	1	12kW
-54	-17	15kW
-27	2	40k Gas
-75	-32	60k Gas
-124	-66	80k Gas

Thermal Zone	U-Value	Thermal Zone	U-Value	Thermal Zone	U-Value
Energy Star Version 2					
1-EHP-S	0.080	2-EHP-S	0.080	3-EHP-S	0.079
1-GAS-S	0.080	2-GAS-S	0.080	3-GAS-S	0.071
1-ENV-S	0.076	2-ENV-S	0.067	3-ENV-S	0.059
1-EHP-M	0.074	2-EHP-M	0.074	3-EHP-M	0.074
1-GAS-M	0.074	2-GAS-M	0.074	3-GAS-M	0.065
1-ENV-M	0.071	2-ENV-M	0.064	3-ENV-M	0.056

Energy Star Version 3 & ZERH					
1 Single	0.076	2 Single	0.065	3 Single	0.057
1 Double	0.070	2 Double	0.063	3 Double	0.054

957-3031.5.3

CLAYTON HOME BUILDING GROUP

3031 ZN 1 2 AND PATIO ATRIUM OPT

Model Number	57FWR28643BH24	Drawing Number	3031	Version 17
--------------	----------------	----------------	------	------------

BOX SIZE: 26.33 ft. x 64 ft.

AVG. SIDEWALL HEIGHT = 8 FEET

PERCENTAGE OF CEILING THAT IS VAULTED = 0%

12 INCH DIAMETER XOVER DUCT AREA = 78.5 SQ.FT. MAX. WITH R-8 INSULATION

IN-FLOOR DUCT SYSTEM

	UNHEATED FLOOR	WALL	FLAT ROOF
INSULATION VALUES	R-22 FW	R-13	R-38
DAPIA PAGE	THP-161	THP-552	THP-1484
U VALUE (BTUH/SQ.FT.-F)	0.0445	0.0808	0.0285

THIS INSULATION COMBINATION COMPLIES WITH ZONE 1 PRESCRIPTIVE ZERH REQUIREMENTS

Overhead Duct	
Diameter	Length
4	0
5	0
6	0
7	0
8	0
9	0
12	0
11	0
14	0
Exterior Supply	Length
14	0
16	0
Exterior Return	Length
14	0
16	0

APPROVED BY



Window Glass Area:

Doors:
 Net:
 Th. Zone 1:
 Th. Zone 2:
 Th. Zone 3:
 Overhead TZ 1:
 Overhead TZ 2:
 Overhead TZ 3:

	Area	U Value	UA
Front	22.00	0.170	3.74
Rear	22.00	0.280	6.16
Other Door	43.00	0.280	12.04
Other Door	0.00	0.330	0.00
OSB	0.00	0.000	0.00
Skylights	0.00	0.330	0.00
Standard	123.00	0.300	36.90
Option	0.00	0.300	0.00
Floor	1685.33	0.045	75.00
Wall	1235.33	0.081	99.81
Ceiling	1685.33	0.0285	48.03
Ext. Duct	78.50	0.242	18.98
Ext. Duct	78.50	0.223	17.48
Ext. Duct	78.50	0.206	16.14
Supply	0.00	0.000	0.00
Supply	0.00	0.000	0.00
Supply	0.00	0.00	0.00

Energy Star v3 & ZERH Max Glass (sq ft)	
Th. Zone 1	324.2
Th. Zone 2	174.7
Th. Zone 3	0.0

Thermal Zone	Outdoor Design Temp (F)	UA	Uo	EStar v3 & ZERH Compliant	Heatloss BTUH/F
1	11	300.67	0.061	OK	427.10
2	0	299.16	0.061	OK	425.60
3	-14	297.82	0.061	NG	424.30

Design Temperatures		
Furnace Heating Temp (F)	Economy Outdoor Temp (F)	
-10	14	10kW
-26	3	12kW
-50	-14	15kW
-24	4	40k Gas
-70	-28	60k Gas
-117	-61	80k Gas

Thermal Zone	U-Value	Thermal Zone	U-Value	Thermal Zone	U-Value
Energy Star Version 2					
1-EHP-S	0.080	2-EHP-S	0.080	3-EHP-S	0.079
1-GAS-S	0.080	2-GAS-S	0.080	3-GAS-S	0.071
1-ENV-S	0.076	2-ENV-S	0.067	3-ENV-S	0.059
1-EHP-M	0.074	2-EHP-M	0.074	3-EHP-M	0.074
1-GAS-M	0.074	2-GAS-M	0.074	3-GAS-M	0.065
1-ENV-M	0.071	2-ENV-M	0.064	3-ENV-M	0.056

Energy Star Version 3 & ZERH					
1 Single	0.076	2 Single	0.065	3 Single	0.057
1 Double	0.070	2 Double	0.063	3 Double	0.054

957-3031.5.4

CLAYTON HOME BUILDING GROUP

3031 ZN 3 AND PATIO ATRIUM OPT

Model Number	57FWR28643BH24	Drawing Number	3031	Version 17
--------------	----------------	----------------	------	------------

BOX SIZE: 26.33 ft. x 64 ft.

AVG. SIDEWALL HEIGHT = 8 FEET

PERCENTAGE OF CEILING THAT IS VAULTED = 0%

12 INCH DIAMETER XOVER DUCT AREA = 78.5 SQ.FT. MAX. WITH R-8 INSULATION

IN-FLOOR DUCT SYSTEM

	UNHEATED FLOOR	WALL	FLAT ROOF
INSULATION VALUES	(2) R-11 OR / R-33 BIB	R-21	R-38
DAPIA PAGE	THP-3001	THP-560	THP-1484
U VALUE (BTUH/SQ.FT.-F)	0.0371	0.0541	0.0285

THIS INSULATION COMBINATION COMPLIES WITH ZONE 2 PRESCRIPTIVE ZERH REQUIREMENTS

Overhead Duct	
Diameter	Length
4	0
5	0
6	0
7	0
8	0
9	0
12	0
11	0
14	0
Exterior Supply	Length
14	0
16	0
Exterior Return	Length
14	0
16	0

APPROVED BY



FEDERAL MANUFACTURED HOME CONSTRUCTION AND SAFETY STANDARDS

Window Glass Area:

Doors:
 Net:
 Th. Zone 1:
 Th. Zone 2:
 Th. Zone 3:
 Overhead TZ 1:
 Overhead TZ 2:
 Overhead TZ 3:

	Area	U Value	UA
Front	22.00	0.170	3.74
Rear	22.00	0.280	6.16
Other Door	43.00	0.280	12.04
Other Door	0.00	0.330	0.00
OSB	0.00	0.000	0.00
Skylights	0.00	0.330	0.00
Standard	123.00	0.300	36.90
Option	0.00	0.300	0.00
Floor	1685.33	0.037	62.53
Wall	1235.33	0.054	66.83
Ceiling	1685.33	0.0285	48.03
Ext. Duct	78.50	0.242	18.98
Ext. Duct	78.50	0.223	17.48
Ext. Duct	78.50	0.206	16.14
Supply	0.00	0.000	0.00
Supply	0.00	0.000	0.00
Supply	0.00	0.00	0.00

Energy Star v3 & ZERH Max Glass (sq ft)	
Th. Zone 1	487.2
Th. Zone 2	354.0
Th. Zone 3	180.3

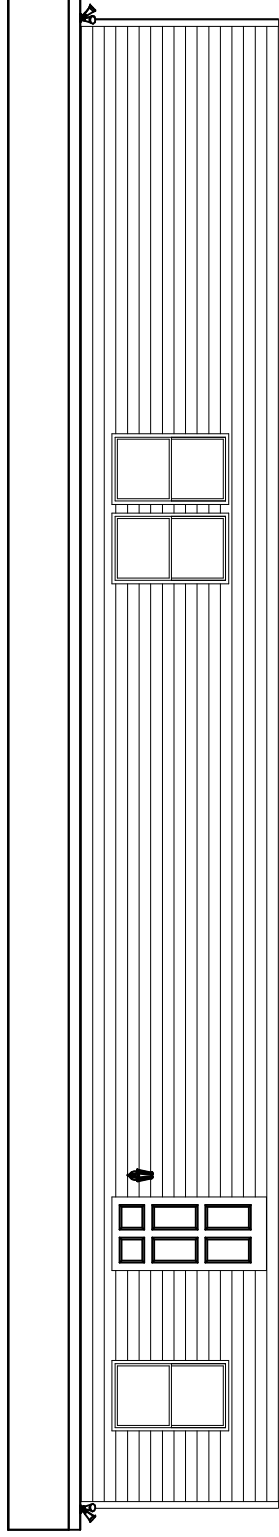
Thermal Zone	Outdoor Design Temp (F)	UA	Uo	EStar v3 & ZERH Compliant	Heatloss BTUH/F
1	11	255.21	0.052	OK	381.70
2	0	253.71	0.052	OK	380.20
3	-14	252.37	0.052	OK	378.80

Design Temperatures		
Furnace Heating Temp (F)	Economy Outdoor Temp (F)	
-19	7	10kW
-37	-5	12kW
-64	-24	15kW
-35	-3	40k Gas
-87	-40	60k Gas
-140	-77	80k Gas

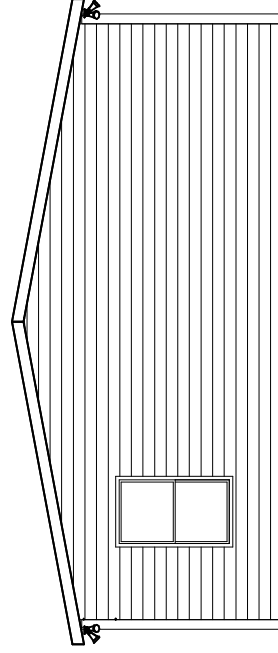
Thermal Zone	U-Value	Thermal Zone	U-Value	Thermal Zone	U-Value
Energy Star Version 2					
1-EHP-S	0.080	2-EHP-S	0.080	3-EHP-S	0.079
1-GAS-S	0.080	2-GAS-S	0.080	3-GAS-S	0.071
1-ENV-S	0.076	2-ENV-S	0.067	3-ENV-S	0.059
1-EHP-M	0.074	2-EHP-M	0.074	3-EHP-M	0.074
1-GAS-M	0.074	2-GAS-M	0.074	3-GAS-M	0.065
1-ENV-M	0.071	2-ENV-M	0.064	3-ENV-M	0.056

Energy Star Version 3 & ZERH					
1 Single	0.076	2 Single	0.065	3 Single	0.057
1 Double	0.070	2 Double	0.063	3 Double	0.054

957-3031.5.5

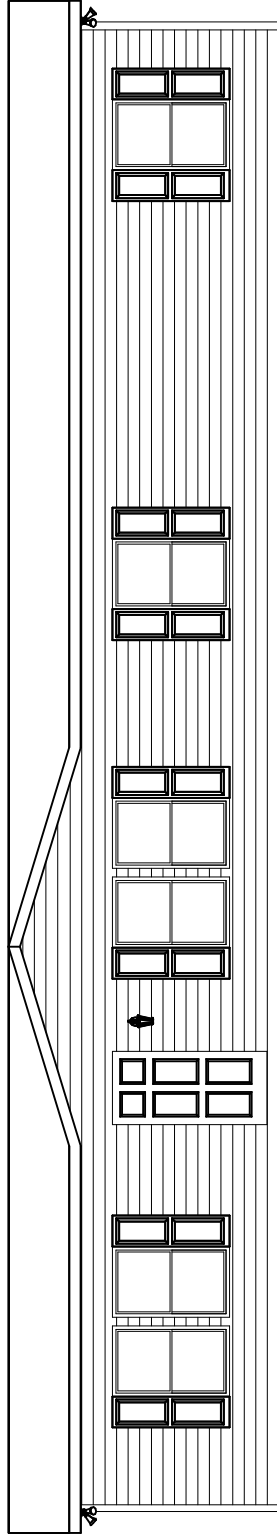


BACK ELEVATION

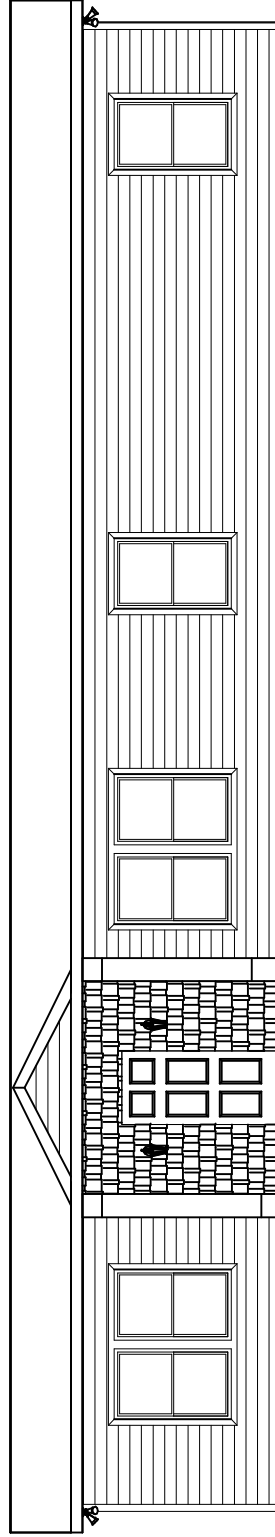


LEFT SIDE ELEVATION

BRAND	CLAYTON	SERIES	FS28	REVISIONS	REV	DATE	GENERAL NOTES	MODEL NAME	3031	NO. FT.	1685		
							EXTERIOR ELEVATION BACK & LEFT SIDE	PLANT	957	MODEL NO.	3031		
								DESCRIPTION	28X64 4BR-2BA	DATE PRINTED	02/19/2025	SHEET NO.	20-2
								DRAWN BY	GDB	DATE	01/20/2025		

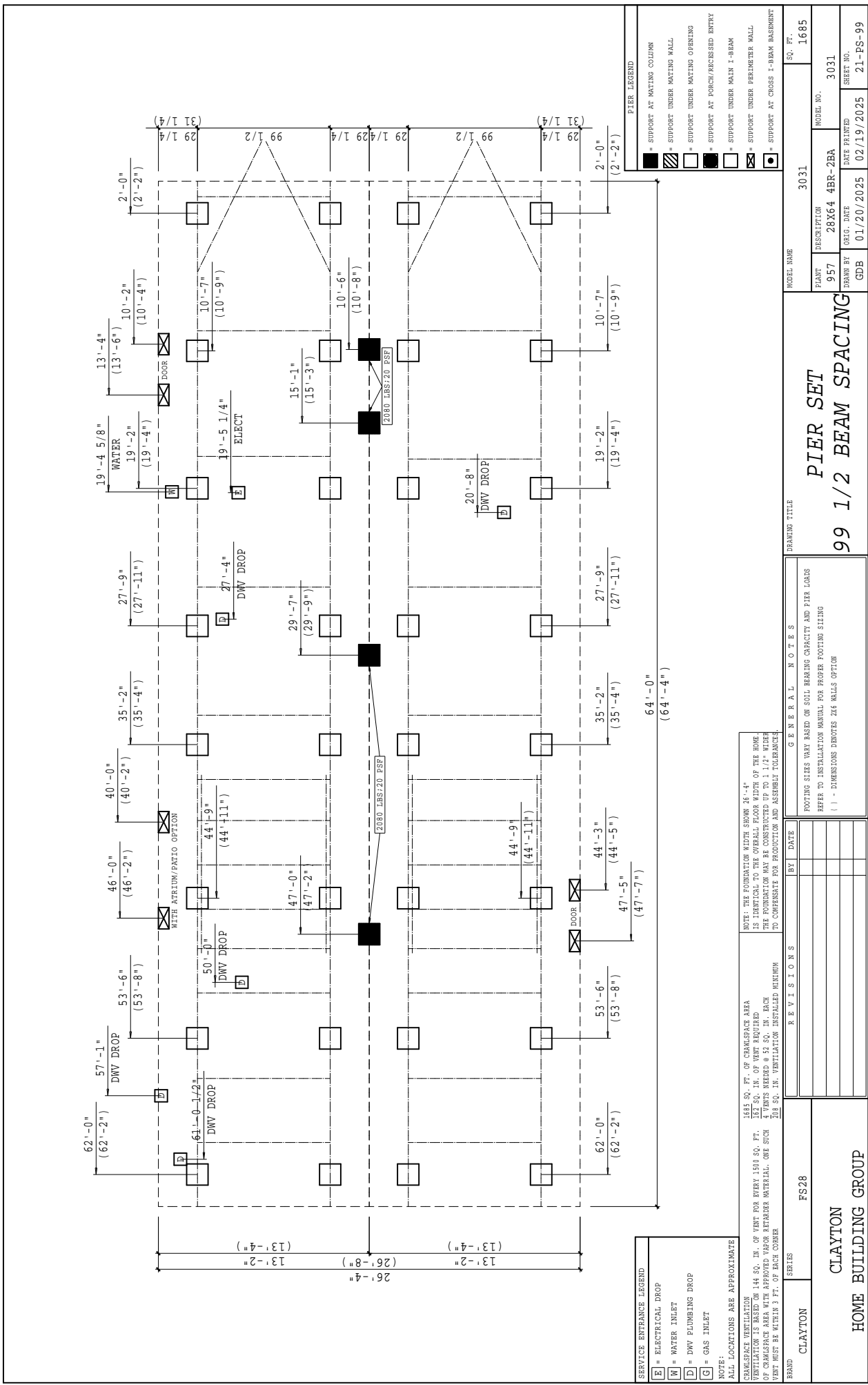


FRONT ELEVATION
OPTION 16' DORMER



FRONT ELEVATION
OPTION 10' DORMER

BRAND CLAYTON HOME BUILDING GROUP	SERIES FS28	REVISIONS		REV. DATE	GENERAL NOTES	DRAWING TITLE EXTERIOR ELEVATION OPTION 3	MODEL NAME 3031	NO. FT. 1685
	CLAYTON HOME BUILDING GROUP		PLANT 957	DESCRIPTION 28X64 4BR-2BA	MODEL NO. 3031	DRAWN BY GDB	DATE PRINTED 02/19/2025	SHEET NO. 20-5



SERVICE ENTRANCE LEGEND	
[E]	ELECTRICAL DROP
[W]	WATER INLET
[D]	DWV PLUMBING DROP
[G]	GAS INLET
NOTE: ALL LOCATIONS ARE APPROXIMATE	
CHAMSPACE VENTILATION CHAMSPACE VENTILATION IS BASED ON 144 SQ. IN. OF VENT FOR EVERY 1500 SQ. FT. NET SQ. IN. OF VENT REQUIRED OF CHAMSPACE AREA WITH APPROVED VAPOR BARRIER MATERIAL. ONE SUCH VENT MUST BE WITHIN 3 FT. OF EACH CORNER	
CLAYTON	FS28
CLAYTON HOME BUILDING GROUP	

PIER SET		3031		3031	
99 1/2 BEAM SPACING		3031		3031	
DRAWING TITLE		MODEL NAME		MODEL NO.	
FOOTING SIZES VARY BASED ON SOIL BEARING CAPACITY AND PIER LOADS REFER TO INSTALLATION MANUAL FOR PROPER FOOTING SIZING - DIMENSIONS DENOTES 2x6 WALLS OPTION		DESCRIPTION		DATE PRINTED	
GENERAL NOTES		PLANT		DATE	
REVISIONS		957		01/20/2025	
DATE		28X64 4BR-2BA		02/19/2025	
BY		GDB		SHEET NO.	
DATE		GDB		21-PS-99	
DATE		GDB		1685	