

CMH Inc.
SHEARWALL DESIGN - HUD



Model # 2600

Box Width =	158 "	Double wide	Minimum Joist Spacing 16 "
Box Length =	60 ft.	99.5" 10" MIN.IBEAM	No Offset Box
No Skylights			No Clerestory
96" Front porch			No Origami Dormer
Joist Size =	#2 spf 2x6	Lags 9Mx3"	No Sunken Floor
			No Parapet Roof

Version R13.20

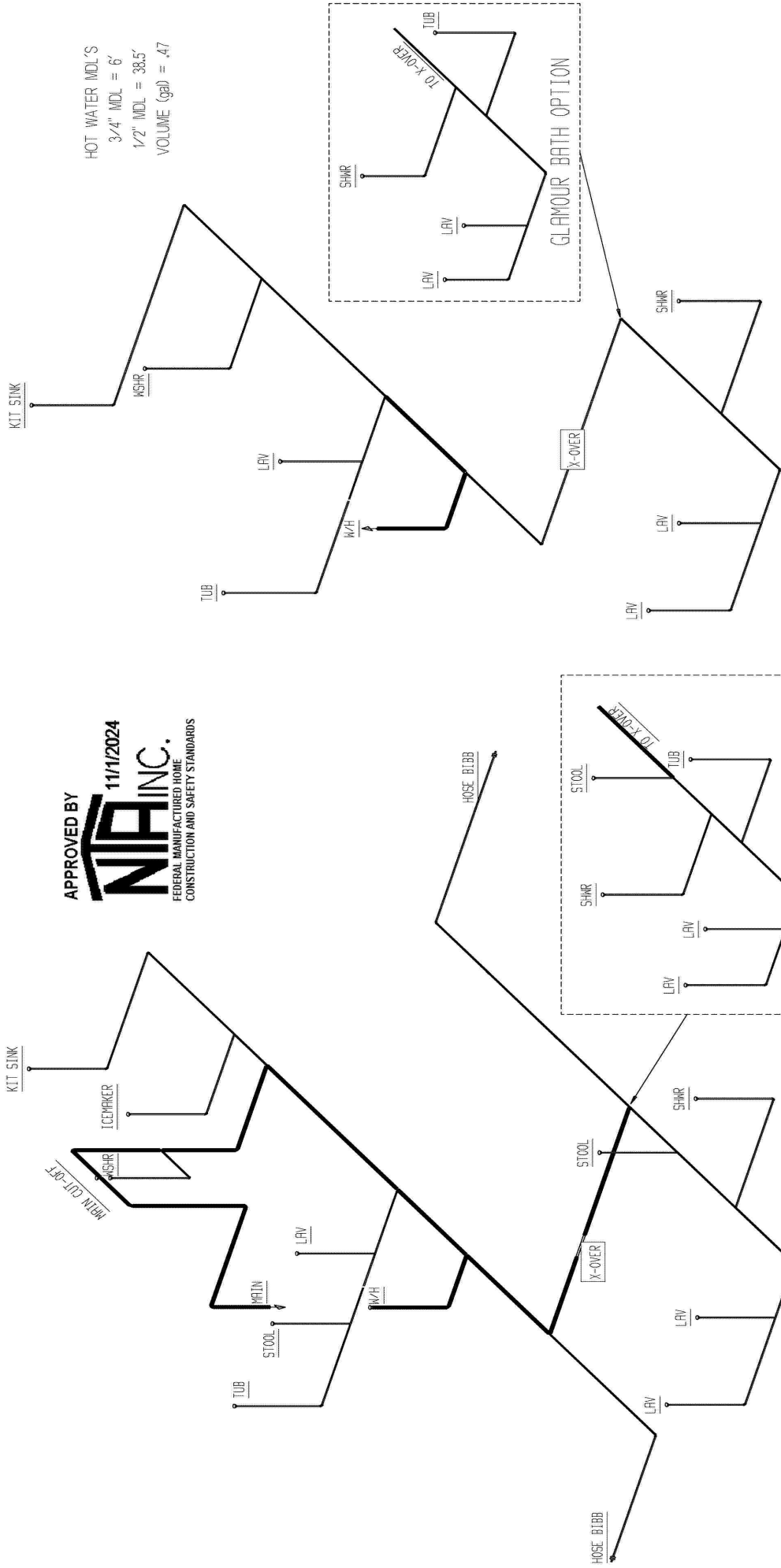
Wind Zone 1 Standard Roof							96 inch sidewall	
Diaphragm Construction:							(3/8" sheathing only with 14ga. @ 6/6 oc) [172 plf] Chords: 2x4 SPF #3 Top Plate & 2x4 Rail. Each spliced w/ 12" glue block.	
Shearwall	Dist./ Hitch	Length	PLF	# of Joists	Lags	Notes	SW1/SW2	
A	0'	71"	420	4	2/2	Split Shearwall	36/35	
B	60'	104"	210	2	2/1			
Wind Zone 2 Standard Roof							96 inch sidewall	
Diaphragm Construction:							(3/8" sheathing w/ceiling with 14ga. @ 6/6 oc) [281 plf] Chords: 2x4 SPF #3 Top Plate & 2x4 Rail. Each spliced w/ 12" glue block.	
Shearwall	Dist./ Hitch	Length	PLF	# of Joists	Lags	Notes	SW1/SW2	
A	0'	71"	420	4	2/2	Split Shearwall	36/35	
B	60'	Full	420	2	4/4			
C	24.5'	Full	420	2	2/2			
Wind Zone 3 Standard Roof							96 inch sidewall	
Diaphragm Construction:							(3/8" sheathing w/ceiling with 14ga. @ 6/6 oc) [281 plf] Chords: 2x4 SPF #3 Top Plate & 2x4 Rail. Each spliced w/ 12" glue block.	
Shearwall	Dist./ Hitch	Length	PLF	# of Joists	Lags	Notes	SW1/SW2	
A	0'	71"	420	4	2/2	Split Shearwall	36/35	
B	60'	124"	210	2	2/1			
C	24.5'	128"	350	2	4/1			
D	37.33'	128"	350	2	4/1			
Wind Zone 4 Standard Roof							96 inch sidewall	
Diaphragm Construction:							(3/8" sheathing only with 14ga. @ 6/6 oc) [172 plf] Chords: 2x4 SPF #3 Top Plate & 2x4 Rail. Each spliced w/ 12" glue block.	
Shearwall	Dist./ Hitch	Length	PLF	# of Joists	Lags	Notes	SW1/SW2	

Designed by KLK

957-2600.0.2

APPROVED BY
NFA INC.
 FEDERAL MANUFACTURED HOME
 CONSTRUCTION AND SAFETY STANDARDS
 11/1/2024

HOT WATER MDL'S
 3/4" MDL = 6'
 1/2" MDL = 38.5'
 VOLUME (gal) = .47



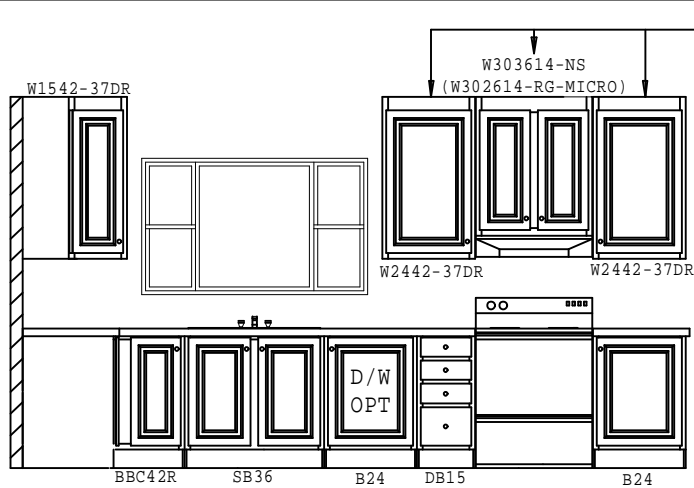
PIPE LEGEND

1"
3/4"
1/2"

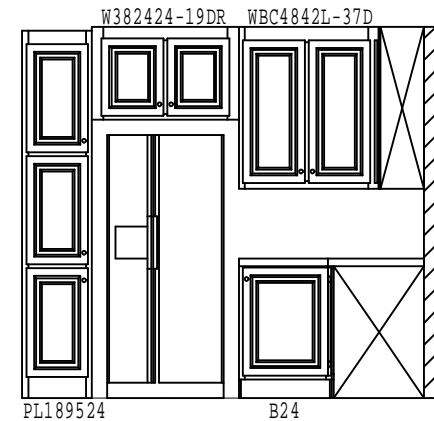
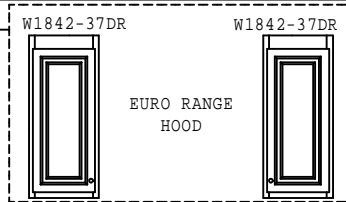
957-2600.1

HOT WATER SUPPLY PLUMBING

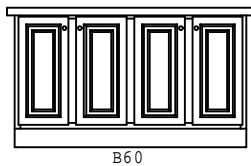
BRAND CLAYTON	SERIES CS28	DRAWING TITLE SUPPLY PLUMBING		MODEL NAME 2600	SQ. FT. 1790
		GENERAL NOTES HOSE BIBBS PER SPECS		PLANT DESCRIPTION 26X68 3BR-2BA	MODEL NO. 2600
CLAYTON HOME BUILDING GROUP		DATE 10/23/2024	DATE PRINTED 10/23/2024	DRAWN BY KJK	SHEET NO. 9-1



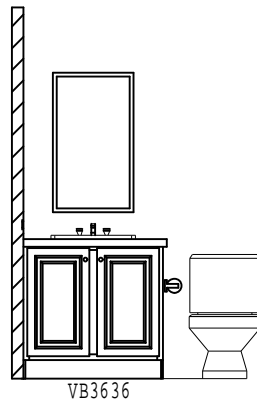
CABINET ELEVATION A



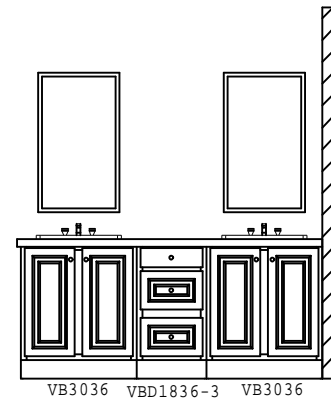
CABINET ELEVATION B



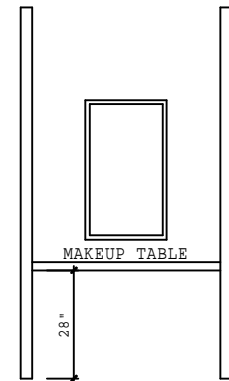
CABINET ELEVATION C
OPTIONAL ISLAND



CABINET ELEVATION D

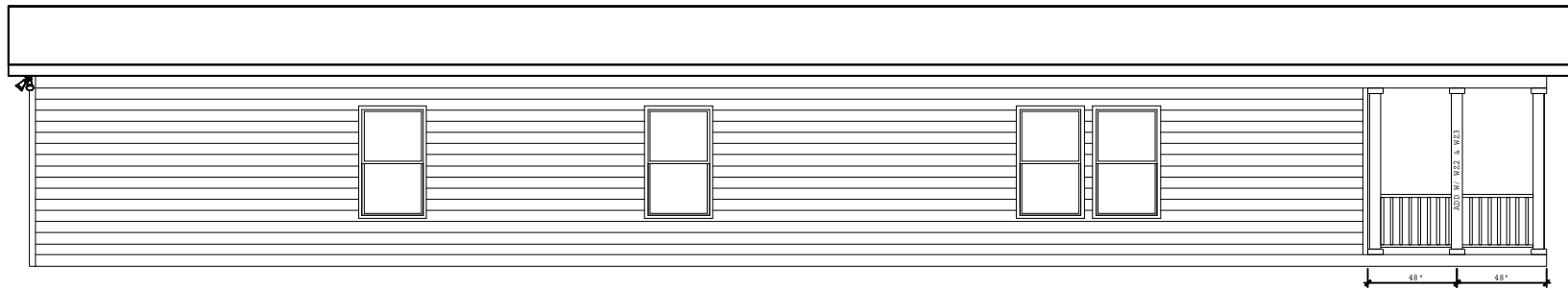


CABINET ELEVATION E
STANDARD & GLAMOUR



CABINET ELEVATION F
STANDARD BATH

BRAND CLAYTON	SERIES CS28	REVISIONS	BY	DATE	GENERAL NOTES CAB TRIM, MIRROR TRIM & MIRROR FASTENING PER SPECS	DRAWING TITLE CABINET ELEVATION-1	MODEL NAME 2600	SQ. FT. 1790		
CLAYTON HOME BUILDING GROUP							PLANT 957	DESCRIPTION 28X68 3BR-2BA	MODEL NO. 2600	
							DRAWN BY KLK	ORIG. DATE 10/21/2024	DATE PRINTED 01/28/2025	SHEET NO. 17-1

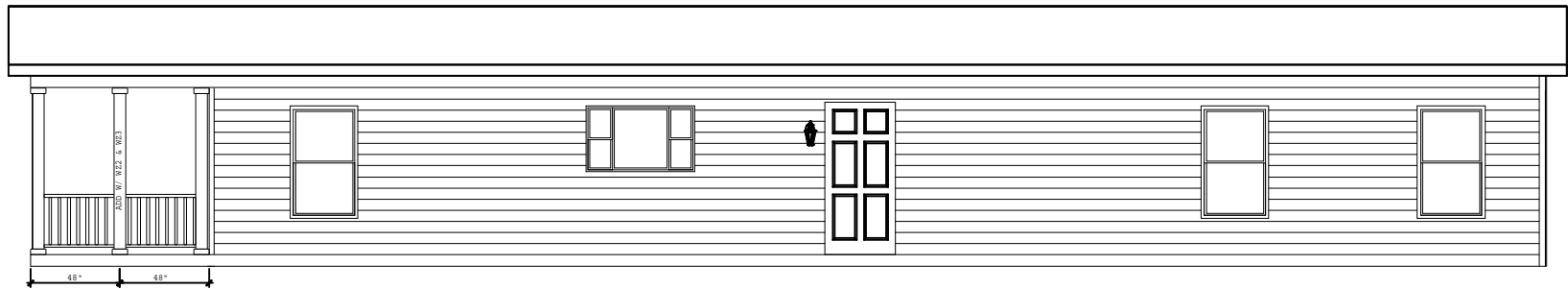


FRONT ELEVATION

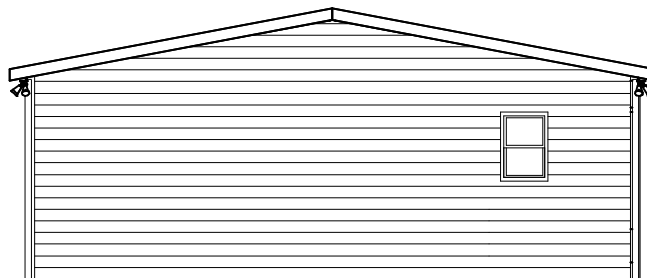


RIGHT SIDE ELEVATION

BRAND CLAYTON	SERIES CS28	REVISIONS	BY	DATE	GENERAL NOTES	DRAWING TITLE EXTERIOR ELEVATION FRONT & RIGHT SIDE	MODEL NAME 2600	SQ. FT. 1790
CLAYTON HOME BUILDING GROUP							PLANT 957	DESCRIPTION 28X68 3BR-2BA
							MODEL NO. 2600	SHEET NO. 20-1
							DRAWN BY KLK	ORIG. DATE 10/21/2024
							DATE PRINTED 03/21/2025	

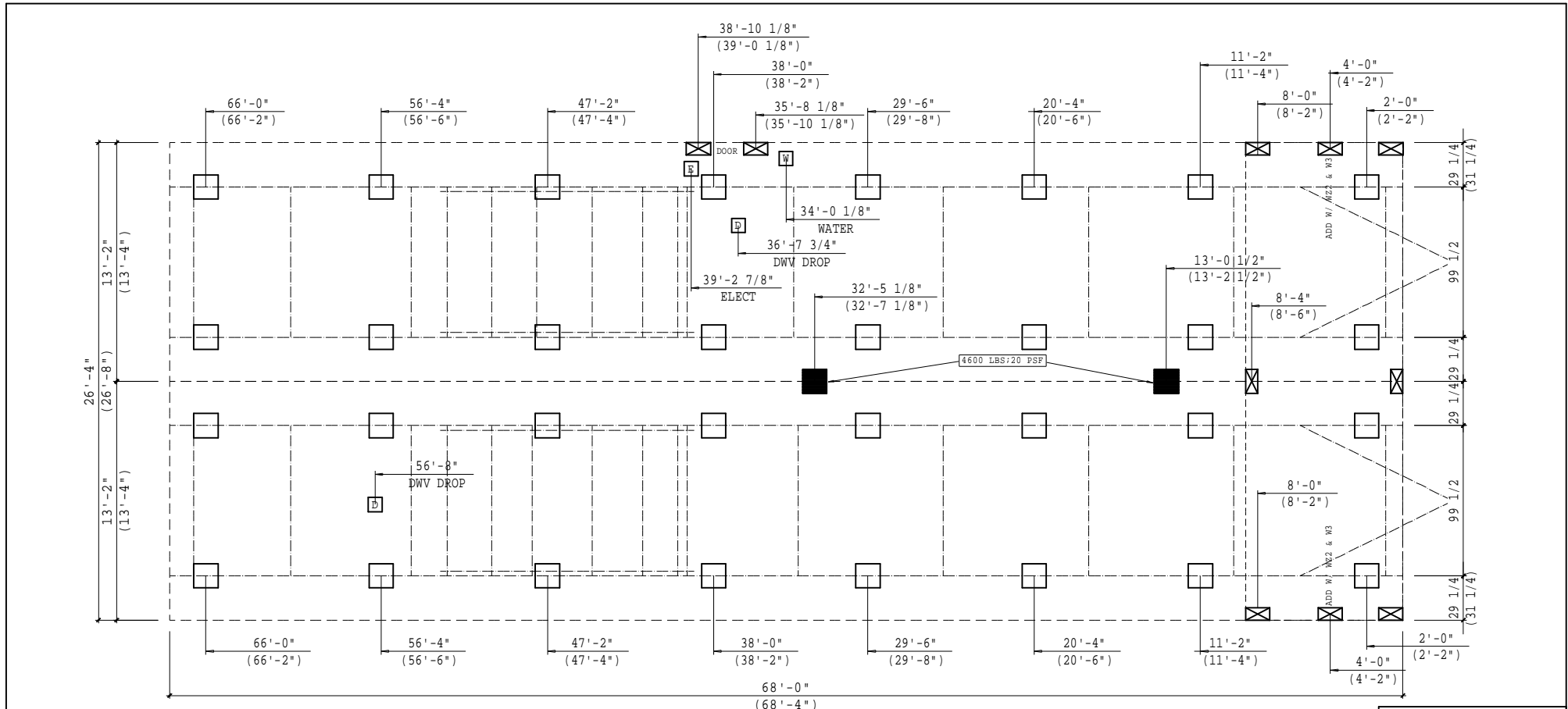


BACK ELEVATION



LEFT SIDE ELEVATION

BRAND CLAYTON	SERIES CS28	REVISIONS	BY	DATE	GENERAL NOTES	DRAWING TITLE EXTERIOR ELEVATION BACK & LEFT SIDE	MODEL NAME 2600	SQ. FT. 1790
CLAYTON HOME BUILDING GROUP							PLANT 957	DESCRIPTION 28X68 3BR-2BA
							MODEL NO. 2600	
							DRAWN BY KLK	ORIG. DATE 10/21/2024
							DATE PRINTED 01/28/2025	SHEET NO. 20-2



SERVICE ENTRANCE LEGEND

E = ELECTRICAL DROP
W = WATER INLET
D = DWV PLUMBING DROP
G = GAS INLET

NOTE:
 ALL LOCATIONS ARE APPROXIMATE

PIER LEGEND

■ = SUPPORT AT MATING COLUMN
▨ = SUPPORT UNDER MATING WALL
□ = SUPPORT UNDER MATING OPENING
■ = SUPPORT AT PORCH/RECESSED ENTRY
□ = SUPPORT UNDER MAIN I-BEAM
⊗ = SUPPORT UNDER PERIMETER WALL
● = SUPPORT AT CROSS I-BEAM BASEMENT

CRAMPSPACE VENTILATION 1790 SQ. FT. OF CRAMPSPACE AREA
 VENTILATION IS BASED ON 144 SQ. IN. OF VENT FOR EVERY 1500 SQ. FT. 172 SQ. IN. OF VENT REQUIRED
 OF CRAMPSPACE AREA WITH APPROVED VAPOR RETARDER MATERIAL. ONE SUCH 4 VENTS NEEDED @ 52 SQ. IN. EACH
 VENT MUST BE WITHIN 3 FT. OF EACH CORNER 208 SQ. IN. VENTILATION INSTALLED MINIMUM

NOTE: THE FOUNDATION WIDTH SHOWN 26'-4"
 IS IDENTICAL TO THE OVERALL FLOOR WIDTH OF THE HOME.
 THE FOUNDATION MAY BE CONSTRUCTED UP TO 1 1/2" WIDER
 TO COMPENSATE FOR PRODUCTION AND ASSEMBLY TOLERANCES.

BRAND CLAYTON
 SERIES CS28

CLAYTON
 HOME BUILDING GROUP

REVISIONS	BY	DATE

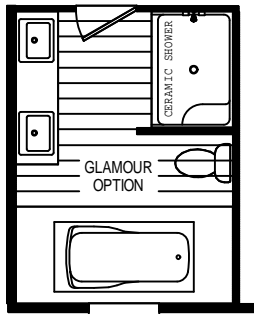
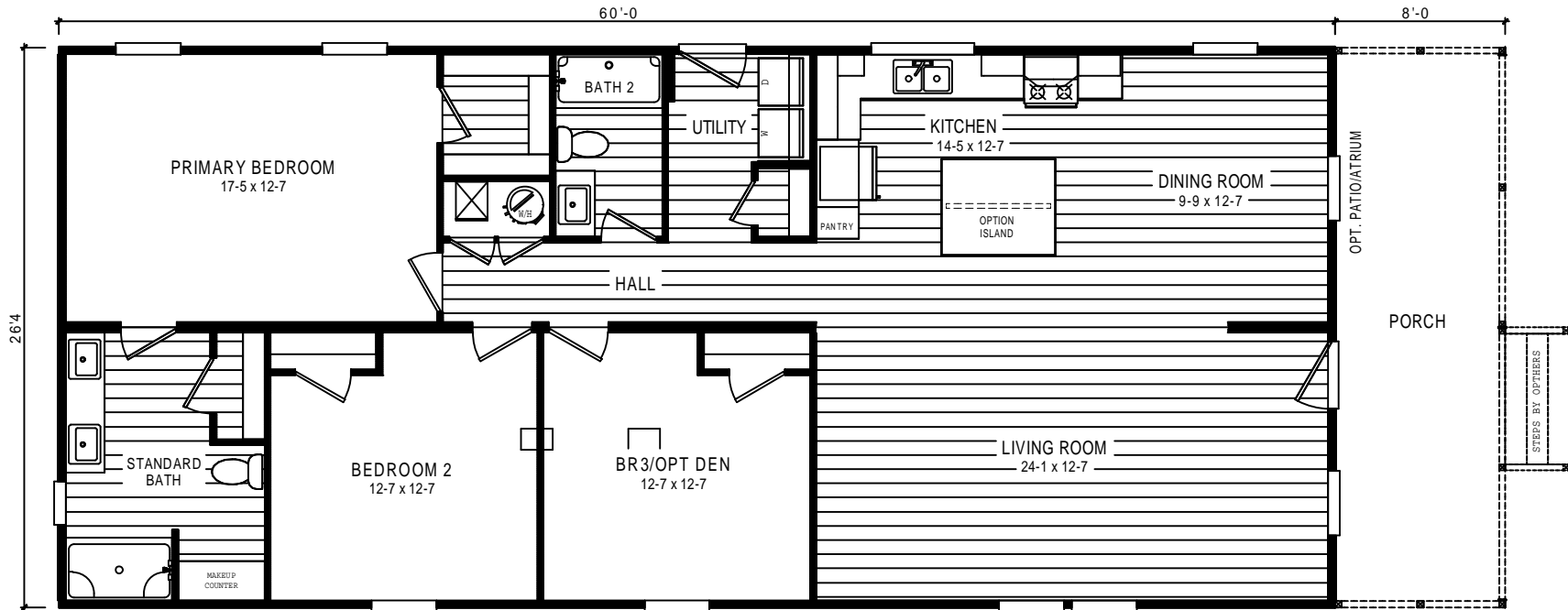
GENERAL NOTES

FOOTING SIZES VARY BASED ON SOIL BEARING CAPACITY AND PIER LOADS
 REFER TO INSTALLATION MANUAL FOR PROPER FOOTING SIZING

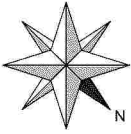
() - DIMENSIONS DENOTES 2X6 WALLS OPTION

DRAWING TITLE
PIER SET
99 1/2 BEAM SPACING

MODEL NUMBER	2600	SQ. FT.	1790
PLANT	957	DESCRIPTION	28X68 3BR-2BA
MODEL NO.	2600	DATE PRINTED	03/21/2025
DRAWN BY	KLK	SHEET NO.	21-PS-99

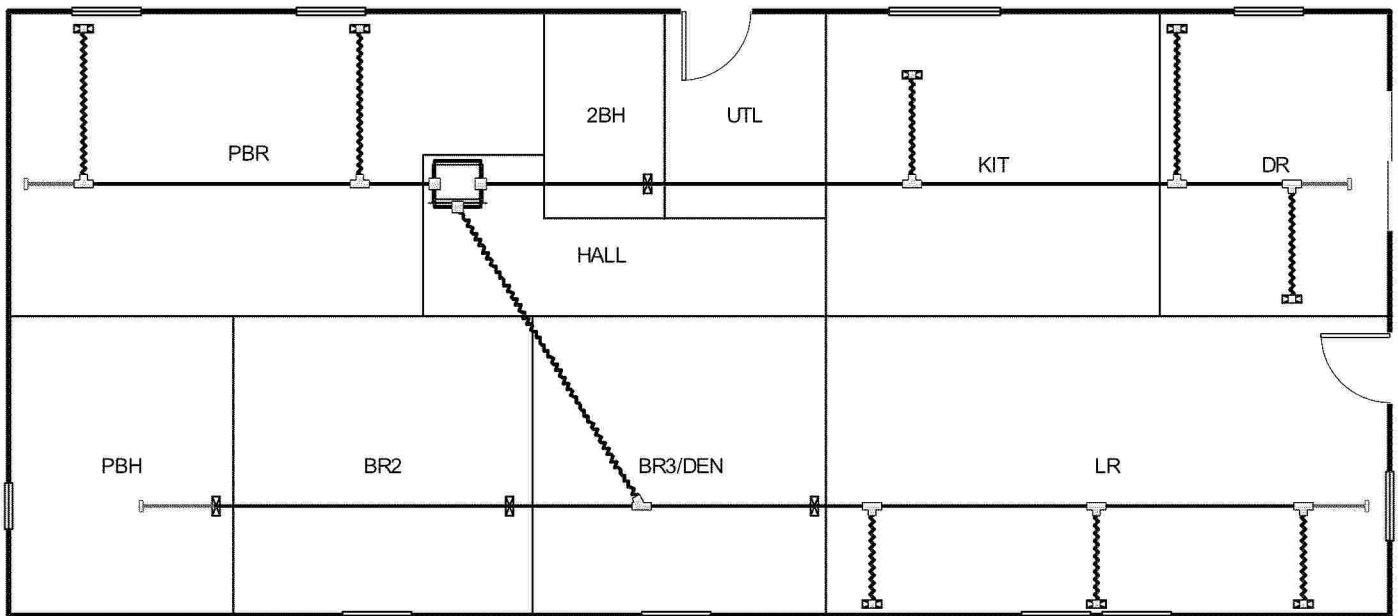


BRAND CLAYTON	SERIES CS28	REVISIONS	BY	DATE	GENERAL NOTES	DRAWING TITLE <i>LITERATURE</i>	MODEL NAME 2600	SQ. FT. 1790
CLAYTON HOME BUILDING GROUP							PLANT 957	DESCRIPTION 28X68 3BR-2BA
							MODEL NO. 2600	SHEET NO. 22-1
							DRAWN BY KLK	ORIG. DATE 10/21/2024
							DATE PRINTED 01/28/2025	



APPROVED BY
NIA INC. 11/1/2024
FEDERAL MANUFACTURED HOME
CONSTRUCTION AND SAFETY STANDARDS

Level 1



957-2600.4.1

Job #: 2600 (INLINE)
Performed by CLAYTON ROCKWELL for:
2600 (INLINE)
ROCKWELL, NC

Scale: 1 : 100
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Project Information

For: 2600 (INLINE), CLAYTON 957
 ROCKWELL, NC

Cooling Equipment

Design Conditions

Outdoor design DB:	94.7°F	Sensible gain:	16955	Btuh	Entering coil DB:	76.8°F
Outdoor design WB:	75.9°F	Latent gain:	3594	Btuh	Entering coil WB:	63.7°F
Indoor design DB:	75.0°F	Total gain:	20550	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:	19320	Btuh	114%	of load
Latent capacity:	8280	Btuh	230%	of load
Total capacity:	27600	Btuh	134%	of load SHR: 70%

Heating Equipment

Design Conditions

Outdoor design DB:	25.8°F	Heat loss:	20230	Btuh	Entering coil DB:	66.5°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	138%	of load
Supplemental heat required:	0	Btuh		
			Capacity balance:	20 °F
			Economic balance:	-99 °F

Backup equipment type:	Elec strip			
Manufacturer:	Smart Comfort	Model:		
Actual airflow:	920	cfm		
Output capacity:	10.0	kW	169%	of load Temp. rise: 34 °F

Meets all requirements of ACCA Manual S.

957-2600.4.2

Project Information

For: 2600 (INLINE), CLAYTON 957
ROCKWELL, NC

Notes: DUCT COOLING CAPACITY = 30,667 = BTU/HR

APPROVED BY



Design Information

Weather: Fort Bragg/Simmons, NC, US

Winter Design Conditions

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

Ventilation Method MJ8

Summer Design Conditions

Outside db 95 °F
Inside db 75 °F
Design TD 20 °F
Daily range M
Relative humidity 50 %
Moisture difference 41 gr/lb

Heating Summary

Structure 15762 Btuh
Ducts 1576 Btuh
Central vent (60 cfm) 2892 Btuh
Outside air
Humidification 0 Btuh
Piping 0 Btuh
Equipment load 20230 Btuh

Infiltration

Method Simplified
Construction quality Average
Fireplaces 0

	Heating	Cooling
Area (ft ²)	1575	1575
Volume (ft ³)	12600	12600
Air changes/hour	0.38	0.20
Equiv. AVF (cfm)	80	42

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 0.053 cfm/Btuh
Static pressure 0.30 in H2O
Space thermostat
Capacity balance point = 20 °F

Backup: Smart Comfort
Input = 10 kW, Output = 34121 Btuh, 100 AFUE

Sensible Cooling Equipment Load Sizing

Structure 14242 Btuh
Ducts 1424 Btuh
Central vent (60 cfm) 1289 Btuh
Outside air
Blower 0 Btuh
Use manufacturer's data n
Rate/swing multiplier 1.00
Equipment sensible load 16905 Btuh

Latent Cooling Equipment Load Sizing

Structure 1950 Btuh
Ducts 0 Btuh
Central vent (60 cfm) 1644 Btuh
Outside air
Equipment latent load 3594 Btuh
Equipment Total Load (Sen+Lat) 20499 Btuh
Req. total capacity at 0.70 SHR 2.0 ton

Cooling Equipment Summary

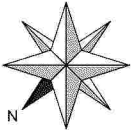
Make Smart Comfort
Trade 15 SEER2 R SERIES R410A HP
Cond R4H5S30*K*AAA*
Coil FEVA0036**+NAVA43601CK
AHRI ref 210537970

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 0.83

957-2600.4.3

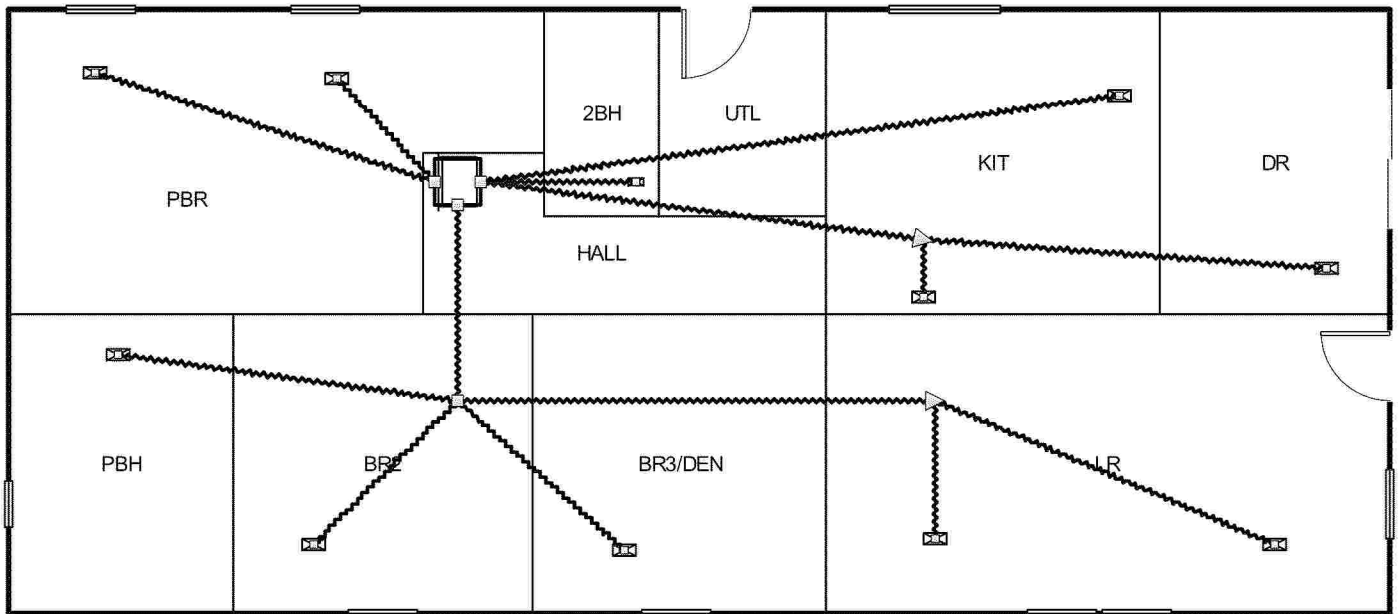
Bold/italic values have been manually overridden

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



APPROVED BY
NIA INC. 11/1/2024
FEDERAL MANUFACTURED HOME
CONSTRUCTION AND SAFETY STANDARDS

Level 1



957-2600.4.4

Job #: 2600 (OVERHEAD HVAC)
Performed by CLAYTON ROCKWELL for:
2600 (OVERHEAD HVAC)
ROCKWELL, NC

Scale: 1 : 100
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Project Information

For: 2600 (OVERHEAD HVAC), CLAYTON 957
ROCKWELL, NC

Notes: DUCT COOLING CAPACITY = 30,667 = BTU/HR

APPROVED BY



Design Information

Weather: FL 50

Winter Design Conditions

Outside db 33 °F
Inside db 70 °F
Design TD 37 °F

Ventilation Method MJ8

Heating Summary

Structure 12981 Btuh
Ducts (R-8.0) 4455 Btuh
Central vent (60 cfm) 2411 Btuh
Outside air
Humidification 0 Btuh
Piping 0 Btuh
Equipment load 19847 Btuh

Infiltration

Method Simplified
Construction quality Average
Fireplaces 0

	Heating	Cooling
Area (ft ²)	1575	1575
Volume (ft ³)	12600	12600
Air changes/hour	0.38	0.20
Equiv. AVF (cfm)	80	42

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 0.053 cfm/Btuh
Static pressure 0.30 in H2O
Space thermostat
Capacity balance point = 26 °F

Backup: Smart Comfort
Input = 10 kW, Output = 34121 Btuh, 100 AFUE

Summer Design Conditions

Outside db 92 °F
Inside db 75 °F
Design TD 17 °F
Daily range M
Relative humidity 50 %
Moisture difference 43 gr/lb

Sensible Cooling Equipment Load Sizing

Structure 13280 Btuh
Ducts (R-8.0) 4190 Btuh
Central vent (60 cfm) 1143 Btuh
Outside air
Blower 0 Btuh
Use manufacturer's data n
Rate/swing multiplier 0.97
Equipment sensible load 18130 Btuh

Latent Cooling Equipment Load Sizing

Structure 2036 Btuh
Ducts 1121 Btuh
Central vent (60 cfm) 1766 Btuh
Outside air
Equipment latent load 4922 Btuh
Equipment Total Load (Sen+Lat) 23052 Btuh
Req. total capacity at 0.70 SHR 2.2 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 0.053 cfm/Btuh
Static pressure 0.30 in H2O
Load sensible heat ratio 0.79

Bold/italic values have been manually overridden

957-2600.4.5

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

Project Information

For: 2600 (OVERHEAD HVAC), CLAYTON 957
 ROCKWELL, NC

Cooling Equipment

Design Conditions

Outdoor design DB:	92.4°F	Sensible gain:	18614	Btuh	Entering coil DB:	76.2°F
Outdoor design WB:	75.8°F	Latent gain:	4922	Btuh	Entering coil WB:	63.5°F
Indoor design DB:	75.0°F	Total gain:	23536	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:	19320	Btuh	104%	of load		
Latent capacity:	8280	Btuh	168%	of load		
Total capacity:	27600	Btuh	117%	SHR:	70%	

Heating Equipment

Design Conditions

Outdoor design DB:	33.3°F	Heat loss:	19847	Btuh	Entering coil DB:	67.6°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	141%	of load		
Supplemental heat required:	0	Btuh				
			Capacity balance:	26 °F		
			Economic balance:	-99 °F		

Backup equipment type:	Elec strip					
Manufacturer:	Smart Comfort	Model:				
Actual airflow:	920	cfm				
Output capacity:	10.0	kW	172%	Temp. rise:	34 °F	

Meets all requirements of ACCA Manual S.

957-2600.4.6

CLAYTON HOME BUILDING GROUP

ZONE 1 & 2

Model Number	2600	Drawing Number	2600	Version 17
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BOX SIZE: 26.33 ft. x 60 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:

Net:

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	0.210	4.62
Rear	22.00	0.260	5.72
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	167.00	0.300	50.10
Option	0.00	0.300	0.00
Floor	1580.00	0.045	70.31
Wall	1170.33	0.081	94.56
Ceiling	1580.00	0.0285	45.03
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	331.7
Th. Zone 2	191.0
Th. Zone 3	7.4

Thermal Zone	Outdoor Design Temp (F)	UA	Uo	EStar v3 & ZERH Compliant	Heatloss BTUH/F
	1	11	289.33	0.063	OK
2	0	287.82	0.062	OK	408.70
3	-14	286.48	0.062	NG	407.30

Design Temperatures		
Furnace Heating Temp (F)	Economy Outdoor Temp (F)	
-13	12	10kW
-30	0	12kW
-55	-17	15kW
-28	2	40k Gas
-76	-32	60k Gas
-125	-67	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

CLAYTON HOME BUILDING GROUP

ZONE 1 & 2 OVERHEAD HVAC

Model Number	2600	Drawing Number	2600
			Version 17

BOX SIZE: 26.33 ft. x 60 ft.
 AVG. SIDEWALL HEIGHT = 8 FEET
 PERCENTAGE OF CEILING THAT IS VAULTED = 0%
 12 INCH DIAMETER XOVER DUCT AREA = 0 SQ.FT. MAX. WITH R-8 INSULATION
 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	43
6	55
7	45
8	40
9	0
12	7
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:

Doors:

	Area	U Value	UA
Front	22.00	0.210	4.62
Rear	22.00	0.260	5.72
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	167.00	0.300	50.10
Option	0.00	0.300	0.00
Floor	1580.00	0.045	70.31
Wall	1170.33	0.081	94.56
Ceiling	1580.00	0.0285	45.03
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	20.40	0.242	4.93
Supply	20.40	0.223	4.54
Supply	20.40	0.21	4.19

Energy Star v3 & ZERH Max Glass (sq ft)	
Th. Zone 1	370.5
Th. Zone 2	227.3
Th. Zone 3	42.4

Thermal Zone	Outdoor Design Temp (F)	UA	Uo	EStar v3 & ZERH Compliant	Heatloss BTUH/F
	1	11	275.28	0.061	OK
2	0	274.88	0.061	OK	395.80
3	-14	274.54	0.060	NG	395.40

Design Temperatures		
Furnace Heating Temp (F)	Economy Outdoor Temp (F)	
-16	10	10kW
-33	-2	12kW
-59	-20	15kW
-31	-1	40k Gas
-81	-36	60k Gas
-132	-71	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

CLAYTON HOME BUILDING GROUP

ZONE 1 & 2 OVERHEAD HVAC PATIO/ATRIUM

Model Number	2600	Drawing Number	2600	Version 17
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BOX SIZE: 26.33 ft. x 60 ft.
 AVG. SIDEWALL HEIGHT = 8 FEET
 PERCENTAGE OF CEILING THAT IS VAULTED = 0%
 12 INCH DIAMETER XOVER DUCT AREA = 0 SQ.FT. MAX. WITH R-8 INSULATION
 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	43
6	55
7	45
8	40
9	0
12	7
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	0.210	4.62
Rear	22.00	0.260	5.72
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	151.00	0.300	45.30
Option	0.00	0.300	0.00
Net: Floor	1580.00	0.045	70.31
Wall	1143.33	0.081	92.38
Ceiling	1580.00	0.0285	45.03
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	20.40	0.242	4.93
Supply	20.40	0.223	4.54
Supply	20.40	0.21	4.19

Energy Star v3 & ZERH Max Glass (sq ft)	
Th. Zone 1	331.5
Th. Zone 2	188.2
Th. Zone 3	3.4

Thermal Zone	Outdoor Design Temp (F)	UA	Uo	EStar v3 & ZERH Compliant	Heatloss BTUH/F
1	11	280.33	0.062	OK	401.20
2	0	279.94	0.062	OK	400.80
3	-14	279.59	0.062	NG	400.50

Design Temperatures		
Furnace Heating Temp (F)	Economy Outdoor Temp (F)	
-15	10	10kW
-32	-1	12kW
-58	-19	15kW
-30	0	40k Gas
-80	-35	60k Gas
-129	-70	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

CLAYTON HOME BUILDING GROUP

2600/PATIO/ATRIUM ZONES 1 & 2

Model Number	2600	Drawing Number	2600	Version 17
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BOX SIZE: 26.33 ft. x 60 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:

Net:

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	0.210	4.62
Rear	22.00	0.260	5.72
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	151.00	0.300	45.30
Option	0.00	0.300	0.00
Floor	1580.00	0.045	70.31
Wall	1143.33	0.081	92.38
Ceiling	1580.00	0.0285	45.03
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	292.6
Th. Zone 2	151.9
Th. Zone 3	0.0

Thermal Zone	Outdoor Design Temp (F)	UA	Uo	EStar v3 & ZERH Compliant	Heatloss BTUH/F
1	11	294.39	0.064	OK	415.30
2	0	292.88	0.063	OK	413.70
3	-14	291.54	0.063	NG	412.40

Design Temperatures	
Furnace Heating Temp (F)	Economy Outdoor Temp (F)
-12	12
-29	1
-53	-16
-26	3
-74	-31
-123	-65

10kW
12kW
15kW
40k Gas
60k Gas
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

CLAYTON HOME BUILDING GROUP

ZONE 3

Model Number	2600	Drawing Number	2600	Version 17
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BOX SIZE: 26.33 ft. x 60 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:

Net:

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	0.210	4.62
Rear	22.00	0.260	5.72
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	167.00	0.300	50.10
Option	0.00	0.300	0.00
Floor	1580.00	0.037	58.62
Wall	1170.33	0.054	63.32
Ceiling	1580.00	0.0285	45.03
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	488.4
Th. Zone 2	363.0
Th. Zone 3	199.4

Thermal Zone	Outdoor Design Temp (F)	UA	Uo	EStar v3 & ZERH Compliant	Heatloss BTUH/F
	1	11	246.39	0.053	OK
2	0	244.88	0.053	OK	365.80
3	-14	243.54	0.053	OK	364.40

Design Temperatures	
Furnace Heating Temp (F)	Economy Outdoor Temp (F)
-23	5
-41	-8
-69	-28
-39	-6
-93	-44
-148	-82

10kW
12kW
15kW
40k Gas
60k Gas
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

CLAYTON HOME BUILDING GROUP

2600/PATIO/ATRIUM ZONES 3

Model Number	2600	Drawing Number	2600	Version 17
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BOX SIZE: 26.33 ft. x 60 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:

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	0.150	3.30	
Rear	22.00	0.260	5.72	
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	151.00	0.300	45.30	
Option	0.00	0.300	0.00	
Net:	Floor	1580.00	0.037	58.62
	Wall	1143.33	0.054	61.85
	Ceiling	1580.00	0.0285	45.03
Th. Zone 1:	Ext. Duct	78.50	0.242	18.98
Th. Zone 2:	Ext. Duct	78.50	0.223	17.48
Th. Zone 3:	Ext. Duct	78.50	0.206	16.14
Overhead TZ 1:	Supply	0.00	0.000	0.00
Overhead TZ 2:	Supply	0.00	0.000	0.00
Overhead TZ 3:	Supply	0.00	0.00	0.00

Energy Star v3 & ZERH Max Glass (sq ft)	
Th. Zone 1	454.3
Th. Zone 2	328.9
Th. Zone 3	165.3

Thermal Zone	Outdoor Design Temp (F)	UA	Uo	EStar v3 & ZERH Compliant	Heatloss BTUH/F
	1	11	250.85	0.054	OK
2	0	249.34	0.054	OK	370.20
3	-14	248.00	0.054	OK	368.90

Design Temperatures		
Furnace Heating Temp (F)	Economy Outdoor Temp (F)	
-22	6	10kW
-40	-7	12kW
-68	-26	15kW
-38	-5	40k Gas
-91	-43	60k Gas
-145	-81	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