





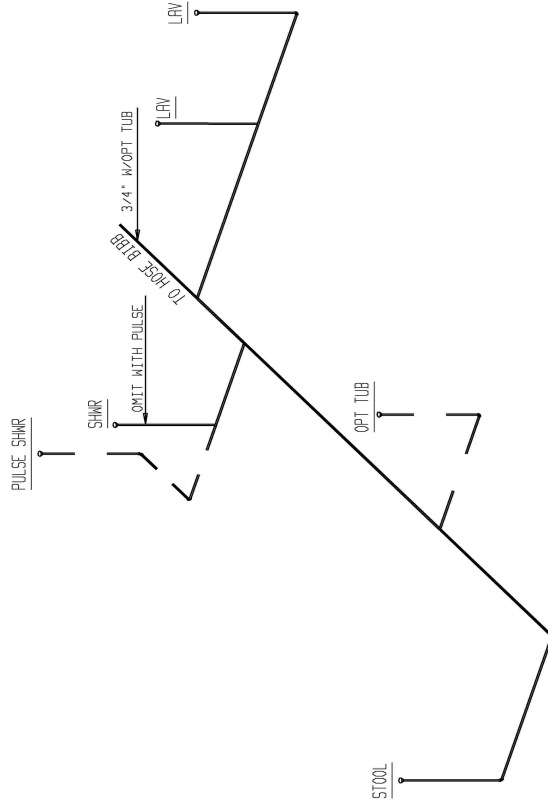




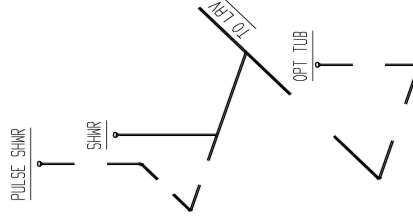


( ) - DENOTES OPTIONAL FIXTURE DIMENSIONS

4872 CERAMIC SHOWER BATH OPTION



4872 CERAMIC SHOWER BATH OPTION



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 FEDERAL MANUFACTURED HOME  
 CONSTRUCTION AND SAFETY STANDARDS

3/28/2024

957-3035.1.1

COLD WATER SUPPLY PLUMBING

HOT WATER SUPPLY PLUMBING

PIPE LEGEND

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

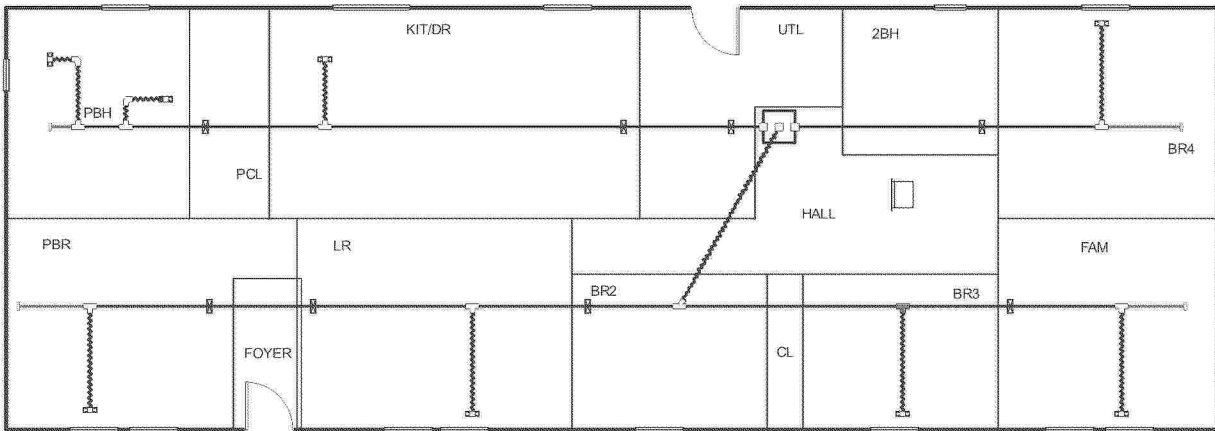
BRAND CLAYTON	SERIES FS28	DRAWING TITLE <b>SUPPLY #2</b>		MODEL NAME 3035	SO. FT. 2001
		GENERAL NOTES HOSE BIBBS PER SPECS		PLANT 957	MODEL NO. 3035
CLAYTON HOME BUILDING GROUP		REVISIONS	DATE	DESCRIPTION 28X76 4BR-2BA	DATE PRINTED 03/26/2024
		BY	DATE	ORIG. DATE 03/18/2024	SHEET NO. 9-2
				DRAWN BY GDB	







Level 1



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CONSTRUCTION AND SAFETY STANDARDS

957-3035.4.1

Job #: 3035(I)  
Performed by CLAYTON ROCKWELL for:  
3035(I)  
ROCKWELL, NC

Scale: 1 : 136  
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Right-Suite® Universal 2023  
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# Manual S Compliance Report

## Entire House

Job: 3035(I)  
 Date: Mar 20, 2024  
 By: CLAYTON ROCKWELL

### Project Information

For: 3035(I), CLAYTON 957  
 ROCKWELL, NC

### Cooling Equipment

#### Design Conditions

Outdoor design DB: 94.7°F	Sensible gain: 23823 Btuh	Entering coil DB: 76.4°F
Outdoor design WB: 75.9°F	Latent gain: 5548 Btuh	Entering coil WB: 63.6°F
Indoor design DB: 75.0°F	Total gain: 29371 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: 23380 Btuh 98% of load  
 Latent capacity: 10020 Btuh 181% of load  
 Total capacity: 33400 Btuh 114% of load SHR: 70%

### Heating Equipment

#### Design Conditions

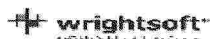
Outdoor design DB: 25.8°F	Heat loss: 27205 Btuh	Entering coil DB: 67.0°F
Indoor design DB: 70.0°F		

#### 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 121% 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: 1113 cfm  
 Output capacity: 10.0 kW 125% of load Temp. rise: 28 °F

Meets all requirements of ACCA Manual S.





**Project Summary**  
**Entire House**

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**NIA INC.** 3/28/2024  
FEDERAL MANUFACTURED HOME  
CONSTRUCTION AND SAFETY STANDARDS

Job: 3035(I)  
Date: Mar 20, 2024  
By: CLAYTON ROCKWELL

**Project Information**

For: 3035(I), CLAYTON 957  
ROCKWELL, NC

Notes: DUCT COOLING CAPACITY = 37,100 BTU/HR  
REFER TO MODEL PLAN 3035 FOR THERMAL ZONE CALCULATIONS

**Design Information**

Weather: Fort Bragg/Simmons, NC, US

**Winter Design Conditions**

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

**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 16974 Btuh  
Ducts 6616 Btuh  
**Central vent (75 cfm)** **3615** Btuh  
**Outside air**  
Humidification 0 Btuh  
Piping 0 Btuh  
Equipment load 27205 Btuh

**Sensible Cooling Equipment Load Sizing**

Structure 16145 Btuh  
Ducts 6067 Btuh  
**Central vent (75 cfm)** **1611** Btuh  
**Outside air**  
Blower 0 Btuh  
Use manufacturer's data n  
Rate/swing multiplier 1.00  
Equipment sensible load 23751 Btuh

**Infiltration**

Method Simplified  
Construction quality Average  
Fireplaces 0

**Latent Cooling Equipment Load Sizing**

Structure 2198 Btuh  
Ducts 1295 Btuh  
**Central vent (75 cfm)** **2054** Btuh  
**Outside air**  
Equipment latent load 5548 Btuh

	Heating	Cooling
Area (ft²)	2016	2016
Volume (ft³)	16131	16131
Air changes/hour	0.32	0.16
Equiv. AVF (cfm)	88	44

**Equipment Total Load (Sen+Lat)** 29299 Btuh  
Req. total capacity at 0.70 SHR 2.8 ton

**Heating Equipment Summary**

Make Smart Comfort  
Trade 15 SEER2 R SERIES R410A HP  
Model R4H5S36\*K\*AAA\*  
AHRI ref 0  
Efficiency 7.5 HSPF2  
Heating input  
Heating output 33000 Btuh @ 47°F  
Temperature rise 27 °F  
Actual air flow 1113 cfm  
Air flow factor 0.047 cfm/Btuh  
Static pressure 0.30 in H2O  
Space thermostat  
Capacity balance point = 24 °F

**Cooling Equipment Summary**

Make Smart Comfort  
Trade 15 SEER2 R SERIES R410A HP  
Cond R4H5S36\*K\*AAA\*  
Coil FEVA0036\*\*+NAVA43601CK  
AHRI ref 0  
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 0.050 cfm/Btuh  
Static pressure 0.30 in H2O  
Load sensible heat ratio 0.81

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

957-3035.4.3

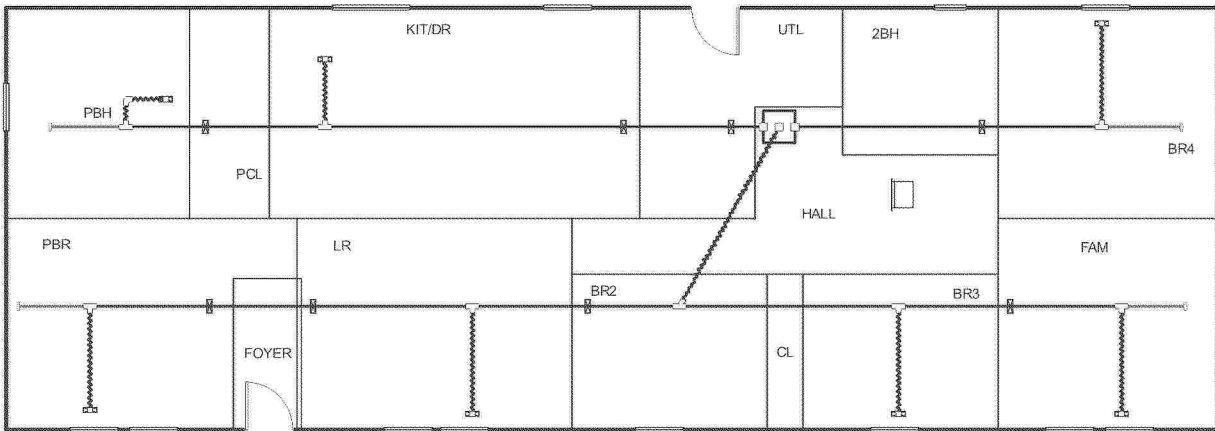
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Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





Level 1



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957-3035.4.4

Job #: 3035(I-OPT PBH)  
Performed by CLAYTON ROCKWELL for:  
3035(I-OPT PBH)  
ROCKWELL, NC

Scale: 1 : 136  
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# Manual S Compliance Report

## Entire House

Job: 3035(I-OPT PBH)  
 Date: Mar 20, 2024  
 By: CLAYTON ROCKWELL

### Project Information

For: 3035(I-OPT PBH), CLAYTON 957  
 ROCKWELL, NC

### Cooling Equipment

#### Design Conditions

Outdoor design DB: 94.7°F	Sensible gain: 23762 Btuh	Entering coil DB: 76.4°F
Outdoor design WB: 75.9°F	Latent gain: 5548 Btuh	Entering coil WB: 63.6°F
Indoor design DB: 75.0°F	Total gain: 29310 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: 23380 Btuh 98% of load  
 Latent capacity: 10020 Btuh 181% of load  
 Total capacity: 33400 Btuh 114% of load SHR: 70%

### Heating Equipment

#### Design Conditions

Outdoor design DB: 25.8°F	Heat loss: 29110 Btuh	Entering coil DB: 67.0°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 113% of load Capacity balance: 26 °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 117% of load Temp. rise: 28 °F

Meets all requirements of ACCA Manual S.





**Project Summary**  
**Entire House**

**Project Information**

For: 3035(I-OPT PBH), CLAYTON 957  
ROCKWELL, NC

Notes: DUCT COOLING CAPACITY = 37,100 BTU/HR  
REFER TO MODEL PLAN 3035 FOR THERMAL ZONE CALCULATIONS

**Design Information**

Weather: Fort Bragg/Simmons, NC, US

**Winter Design Conditions**

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

**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 18879 Btuh  
Ducts 6616 Btuh  
**Central vent (75 cfm)** **3615** Btuh  
**Outside air**  
Humidification 0 Btuh  
Piping 0 Btuh  
Equipment load 29110 Btuh

**Sensible Cooling Equipment Load Sizing**

Structure 16084 Btuh  
Ducts 6067 Btuh  
**Central vent (75 cfm)** **1611** Btuh  
**Outside air**  
Blower 0 Btuh  
Use manufacturer's data n  
Rate/swing multiplier 1.00  
Equipment sensible load 23691 Btuh

**Infiltration**

Method Simplified  
Construction quality Average  
Fireplaces 0

**Latent Cooling Equipment Load Sizing**

Structure 2198 Btuh  
Ducts 1295 Btuh  
**Central vent (75 cfm)** **2054** Btuh  
**Outside air**  
Equipment latent load 5548 Btuh

	Heating	Cooling
Area (ft <sup>2</sup> )	2016	2016
Volume (ft <sup>3</sup> )	16131	16131
Air changes/hour	0.32	0.16
Equiv. AVF (cfm)	88	44

**Equipment Total Load (Sen+Lat)** 29239 Btuh  
Req. total capacity at 0.70 SHR 2.8 ton

**Heating Equipment Summary**

Make Smart Comfort  
Trade 15 SEER2 R SERIES R410A HP  
Model R4H5S36\*K\*AAA\*  
AHRI ref 0  
Efficiency 7.5 HSPF2  
Heating input  
Heating output 33000 Btuh @ 47°F  
Temperature rise 27 °F  
Actual air flow 1113 cfm  
Air flow factor 0.044 cfm/Btuh  
Static pressure 0.30 in H2O  
Space thermostat  
Capacity balance point = 26 °F

**Cooling Equipment Summary**

Make Smart Comfort  
Trade 15 SEER2 R SERIES R410A HP  
Cond R4H5S36\*K\*AAA\*  
Coil FEVA0036\*\*+NAVA43601CK  
AHRI ref 0  
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 0.050 cfm/Btuh  
Static pressure 0.30 in H2O  
Load sensible heat ratio 0.81

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

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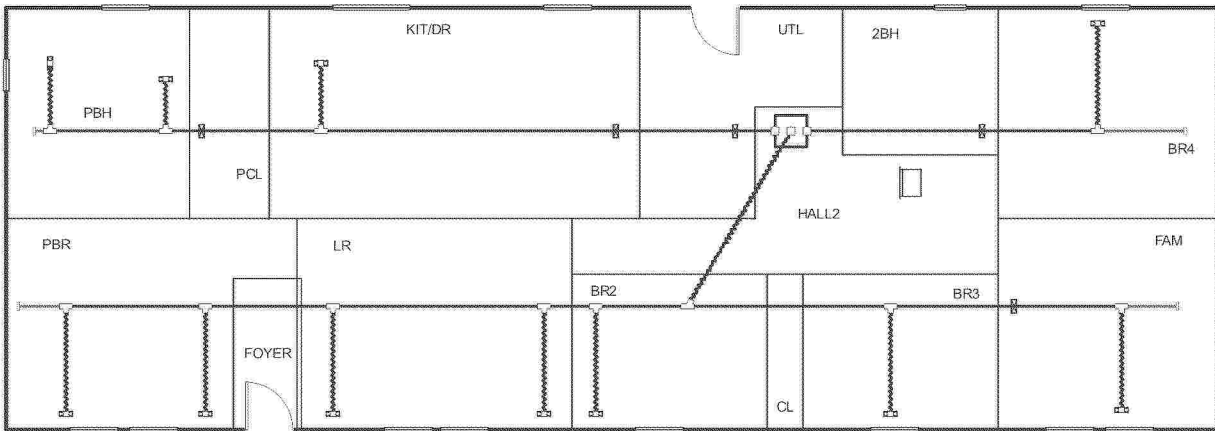
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Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





Level 1



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FEDERAL MANUFACTURED HOME  
CONSTRUCTION AND SAFETY STANDARDS

957-3035.4.7

Job #: 3035(P)  
Performed by CLAYTON ROCKWELL for:  
3035(P)  
ROCKWELL, NC

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### Project Information

For: 3035(P), CLAYTON 957  
ROCKWELL, NC

### Cooling Equipment

#### Design Conditions

Outdoor design DB: 94.7°F	Sensible gain: 23823 Btuh	Entering coil DB: 76.4°F
Outdoor design WB: 75.9°F	Latent gain: 5548 Btuh	Entering coil WB: 63.6°F
Indoor design DB: 75.0°F	Total gain: 29371 Btuh	
Indoor RH: 50%	Estimated airflow: 1113 cfm	

#### Manufacturer's Performance Data at Actual Design Conditions

Equipment type: Split ASHP	Model: R4H5S36*K*AAA*+FEVA0036**+NAVA43601CK
Manufacturer: Smart Comfort	
Actual airflow: 1113 cfm	
Sensible capacity: 23380 Btuh	98% of load
Latent capacity: 10020 Btuh	181% of load
Total capacity: 33400 Btuh	114% of load SHR: 70%

### Heating Equipment

#### Design Conditions

Outdoor design DB: 25.8°F	Heat loss: 29166 Btuh	Entering coil DB: 67.0°F
Indoor design DB: 70.0°F		

#### Manufacturer's Performance Data at Actual Design Conditions

Equipment type: Split ASHP	Model: R4H5S36*K*AAA*+FEVA0036**+NAVA43601CK	
Manufacturer: Smart Comfort		
Actual airflow: 1113 cfm		
Output capacity: 33000 Btuh	113% of load	Capacity balance: 26 °F
Supplemental heat required: 0 Btuh		Economic balance: -99 °F

Backup equipment type: Elec strip	Model:	
Manufacturer: Smart Comfort		
Actual airflow: 1113 cfm		
Output capacity: 10.0 kW	117% of load	Temp. rise: 28 °F

Meets all requirements of ACCA Manual S.





**Project Summary**  
**Entire House**



Job: 3035(P)  
Date: Mar 21, 2024  
By: CLAYTON ROCKWELL

**Project Information**

For: 3035(P), CLAYTON 957  
ROCKWELL, NC

Notes: DUCT COOLING CAPACITY = 37,100 BTU/HR  
REFER TO MODEL PLAN 3035 FOR THERMAL ZONE CALCULATIONS

**Design Information**

Weather: Fort Bragg/Simmons, NC, US

**Winter Design Conditions**

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

**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 18935 Btuh  
Ducts 6616 Btuh  
**Central vent (75 cfm)** **3615** Btuh  
**Outside air**  
Humidification 0 Btuh  
Piping 0 Btuh  
Equipment load 29166 Btuh

**Sensible Cooling Equipment Load Sizing**

Structure 16145 Btuh  
Ducts 6067 Btuh  
**Central vent (75 cfm)** **1611** Btuh  
**Outside air**  
Blower 0 Btuh  
Use manufacturer's data n  
Rate/swing multiplier 1.00  
Equipment sensible load 23751 Btuh

**Infiltration**

Method Simplified  
Construction quality Average  
Fireplaces 0

**Latent Cooling Equipment Load Sizing**

Structure 2198 Btuh  
Ducts 1295 Btuh  
**Central vent (75 cfm)** **2054** Btuh  
**Outside air**  
Equipment latent load 5548 Btuh

	Heating	Cooling
Area (ft <sup>2</sup> )	2016	2016
Volume (ft <sup>3</sup> )	16131	16131
Air changes/hour	0.32	0.16
Equiv. AVF (cfm)	88	44

**Equipment Total Load (Sen+Lat)** 29299 Btuh  
Req. total capacity at 0.70 SHR 2.8 ton

**Heating Equipment Summary**

Make Smart Comfort  
Trade 15 SEER2 R SERIES R410A HP  
Model R4H5S36\*K\*AAA\*  
AHRI ref 0  
Efficiency 7.5 HSPF2  
Heating input  
Heating output 33000 Btuh @ 47°F  
Temperature rise 27 °F  
Actual air flow 1113 cfm  
Air flow factor 0.044 cfm/Btuh  
Static pressure 0.30 in H2O  
Space thermostat  
Capacity balance point = 26 °F

**Cooling Equipment Summary**

Make Smart Comfort  
Trade 15 SEER2 R SERIES R410A HP  
Cond R4H5S36\*K\*AAA\*  
Coil FEVA0036\*\*+NAVA43601CK  
AHRI ref 0  
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 0.050 cfm/Btuh  
Static pressure 0.30 in H2O  
Load sensible heat ratio 0.81

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

957-3035.4.9

*Bold/italic values have been manually overridden*

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

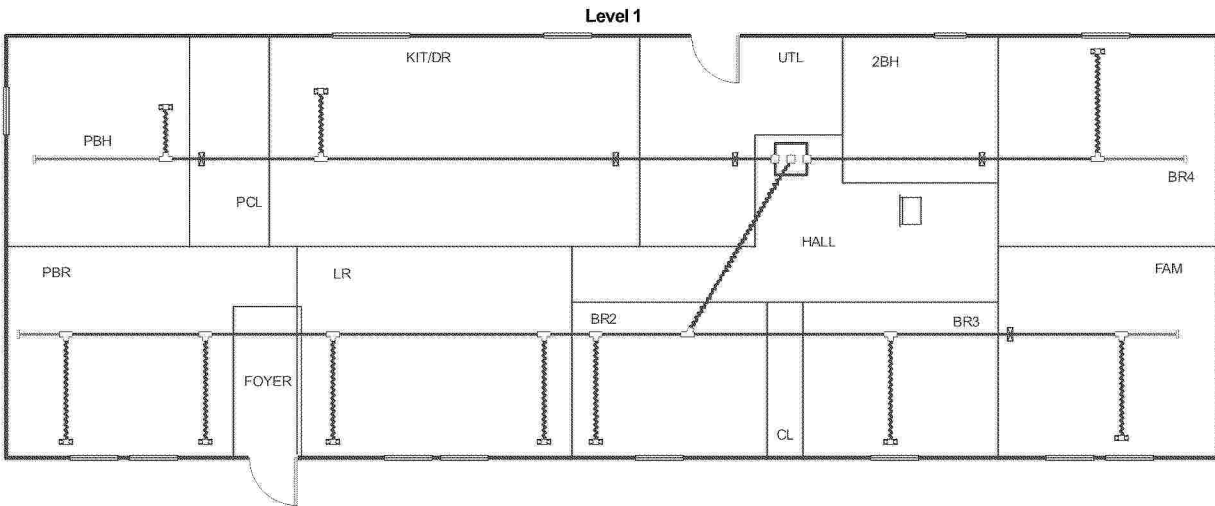


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Page 1



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CONSTRUCTION AND SAFETY STANDARDS

957-3035.4.10

**Job #: 3035(P-OPT PBH)**  
Performed by **CLAYTON ROCKWELL** for:  
3035(P-OPT PBH)  
ROCKWELL, NC

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### Project Information

For: 3035(P-OPT PBH), CLAYTON 957  
ROCKWELL, NC

### Cooling Equipment

#### Design Conditions

Outdoor design DB: 94.7°F	Sensible gain: 23614 Btuh	Entering coil DB: 76.4°F
Outdoor design WB: 75.9°F	Latent gain: 5548 Btuh	Entering coil WB: 63.6°F
Indoor design DB: 75.0°F	Total gain: 29162 Btuh	
Indoor RH: 50%	Estimated airflow: 1113 cfm	

#### Manufacturer's Performance Data at Actual Design Conditions

Equipment type: Split ASHP	Model: R4H5S36*K*AAA*+FEVA0036**+NAVA43601CK
Manufacturer: Smart Comfort	
Actual airflow: 1113 cfm	
Sensible capacity: 23380 Btuh	99% of load
Latent capacity: 10020 Btuh	181% of load
Total capacity: 33400 Btuh	115% of load SHR: 70%

### Heating Equipment

#### Design Conditions

Outdoor design DB: 25.8°F	Heat loss: 28906 Btuh	Entering coil DB: 67.0°F
Indoor design DB: 70.0°F		

#### Manufacturer's Performance Data at Actual Design Conditions

Equipment type: Split ASHP	Model: R4H5S36*K*AAA*+FEVA0036**+NAVA43601CK	
Manufacturer: Smart Comfort		
Actual airflow: 1113 cfm		
Output capacity: 33000 Btuh	114% of load	Capacity balance: 26 °F
Supplemental heat required: 0 Btuh		Economic balance: -99 °F

Backup equipment type: Elec strip	Model:
Manufacturer: Smart Comfort	
Actual airflow: 1113 cfm	
Output capacity: 10.0 kW	118% of load Temp. rise: 28 °F

Meets all requirements of ACCA Manual S.





**Project Summary**  
**Entire House**

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3/28/2024

Job: 3035(P-OPT PBH)  
Date: Mar 21, 2024  
By: CLAYTON ROCKWELL

FEDERAL MANUFACTURED HOME  
CONSTRUCTION AND SAFETY STANDARDS

**Project Information**

For: 3035(P-OPT PBH), CLAYTON 957  
ROCKWELL, NC

Notes: DUCT COOLING CAPACITY = 37,100 BTU/HR  
REFER TO MODEL PLAN 3035 FOR THERMAL ZONE CALCULATIONS

**Design Information**

Weather: Fort Bragg/Simmons, NC, US

**Winter Design Conditions**

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

**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 18675 Btuh  
Ducts 6616 Btuh  
**Central vent (75 cfm)** **3615** Btuh  
**Outside air**  
Humidification 0 Btuh  
Piping 0 Btuh  
Equipment load 28906 Btuh

**Sensible Cooling Equipment Load Sizing**

Structure 15936 Btuh  
Ducts 6067 Btuh  
**Central vent (75 cfm)** **1611** Btuh  
**Outside air**  
Blower 0 Btuh  
Use manufacturer's data n  
Rate/swing multiplier 1.00  
Equipment sensible load 23543 Btuh

**Infiltration**

Method Simplified  
Construction quality Average  
Fireplaces 0

**Latent Cooling Equipment Load Sizing**

Structure 2198 Btuh  
Ducts 1295 Btuh  
**Central vent (75 cfm)** **2054** Btuh  
**Outside air**  
Equipment latent load 5548 Btuh

	Heating	Cooling
Area (ft <sup>2</sup> )	2016	2016
Volume (ft <sup>3</sup> )	16131	16131
Air changes/hour	0.32	0.16
Equiv. AVF (cfm)	88	44

**Equipment Total Load (Sen+Lat)** 29091 Btuh  
Req. total capacity at 0.70 SHR 2.8 ton

**Heating Equipment Summary**

Make Smart Comfort  
Trade 15 SEER2 R SERIES R410A HP  
Model R4H5S36\*K\*AAA\*  
AHRI ref 0  
Efficiency 7.5 HSPF2  
Heating input  
Heating output 33000 Btuh @ 47°F  
Temperature rise 27 °F  
Actual air flow 1113 cfm  
Air flow factor 0.044 cfm/Btuh  
Static pressure 0.30 in H2O  
Space thermostat  
Capacity balance point = 26 °F

**Cooling Equipment Summary**

Make Smart Comfort  
Trade 15 SEER2 R SERIES R410A HP  
Cond R4H5S36\*K\*AAA\*  
Coil FEVA0036\*\*+NAVA43601CK  
AHRI ref 0  
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 0.051 cfm/Btuh  
Static pressure 0.30 in H2O  
Load sensible heat ratio 0.81

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

957-3035.4.12

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



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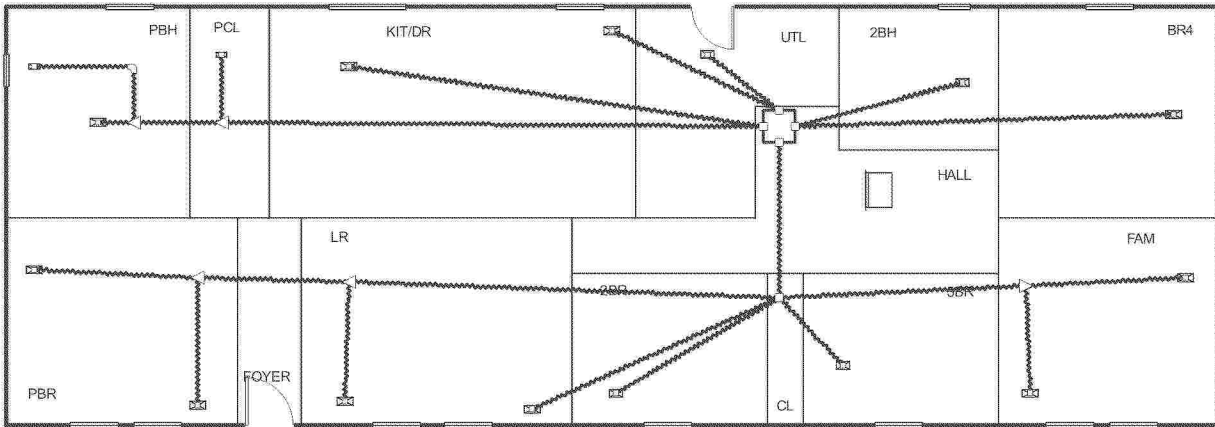
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Level 1



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CONSTRUCTION AND SAFETY STANDARDS

957-3035.4.13

<p>Job #: 3035(OHVD) Performed by <b>CLAYTON ROCKWELL</b> for: 3035(OHVD) ROCKWELL, NC</p>		<p>Scale: 1 : 136 Page 1 Right-Suite® Universal 2023 23.0.04 RSU28036 2024-Mar-21 13:50:07 ...ton Homes\Desktop\3035(OHVD).rup</p>
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# Manual S Compliance Report

## Entire House

Job: 3035(OHVD)  
 Date: Mar 21, 2024  
 By: CLAYTON ROCKWELL

### Project Information

For: 3035(OHVD), CLAYTON 957  
 ROCKWELL, NC

### Cooling Equipment

#### Design Conditions

Outdoor design DB: 92.2°F	Sensible gain: 21608 Btuh	Entering coil DB: 76.2°F
Outdoor design WB: 75.8°F	Latent gain: 6123 Btuh	Entering coil WB: 63.6°F
Indoor design DB: 75.0°F	Total gain: 27731 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: 23380 Btuh 108% of load  
 Latent capacity: 10020 Btuh 164% of load  
 Total capacity: 33400 Btuh 120% of load SHR: 70%

### Heating Equipment

#### Design Conditions

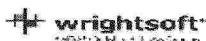
Outdoor design DB: 33.2°F	Heat loss: 24362 Btuh	Entering coil DB: 67.5°F
Indoor design DB: 70.0°F		

#### 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 135% of load Capacity balance: 27 °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 140% of load Temp. rise: 28 °F

Meets all requirements of ACCA Manual S.





**Project Summary**  
**Entire House**

APPROVED BY  
**NIA** 3/28/2024  
**INC.**  
FEDERAL MANUFACTURED HOME  
CONSTRUCTION AND SAFETY STANDARDS

Job: 3035(OHVD)  
Date: Mar 21, 2024  
By: CLAYTON ROCKWELL

**Project Information**

For: 3035(OHVD), CLAYTON 957  
ROCKWELL, NC

Notes: DUCT COOLING CAPACITY = 37,100 BTU/HR  
REFER TO MODEL PLAN 3035 FOR THERMAL ZONE CALCULATIONS

**Design Information**

Weather: Gainesville Regional, FL, US

**Winter Design Conditions**

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

**Summer Design Conditions**

Outside db 92 °F  
Inside db 75 °F  
Design TD 17 °F  
Daily range M  
Relative humidity 50 %  
Moisture difference 44 gr/lb

**Heating Summary**

Structure 16141 Btuh  
Ducts 5198 Btuh  
**Central vent (75 cfm)** **3023** Btuh  
**Outside air**  
Humidification 0 Btuh  
Piping 0 Btuh  
Equipment load 24362 Btuh

**Sensible Cooling Equipment Load Sizing**

Structure 15318 Btuh  
Ducts 4878 Btuh  
**Central vent (75 cfm)** **1413** Btuh  
**Outside air**  
Blower 0 Btuh  
Use manufacturer's data n  
Rate/swing multiplier 0.97  
Equipment sensible load 21003 Btuh

**Infiltration**

Method Simplified  
Construction quality Average  
Fireplaces 0

**Latent Cooling Equipment Load Sizing**

Structure 2606 Btuh  
Ducts 1293 Btuh  
**Central vent (75 cfm)** **2224** Btuh  
**Outside air**  
Equipment latent load 6123 Btuh

	Heating	Cooling
Area (ft <sup>2</sup> )	1995	1995
Volume (ft <sup>3</sup> )	15960	15960
Air changes/hour	0.38	0.20
Equiv. AVF (cfm)	103	54

**Equipment Total Load (Sen+Lat)** 27126 Btuh  
Req. total capacity at 0.70 SHR 2.5 ton

**Heating Equipment Summary**

Make Smart Comfort  
Trade 15 SEER2 R SERIES R410A HP  
Model R4H5S36\*K\*AAA\*  
AHRI ref 0  
Efficiency 7.5 HSPF2  
Heating input  
Heating output 33000 Btuh @ 47°F  
Temperature rise 27 °F  
Actual air flow 1113 cfm  
Air flow factor 0.052 cfm/Btuh  
Static pressure 0.30 in H2O  
Space thermostat  
Capacity balance point = 27 °F

**Cooling Equipment Summary**

Make Smart Comfort  
Trade 15 SEER2 R SERIES R410A HP  
Cond R4H5S36\*K\*AAA\*  
Coil FEVA0036\*\*+NAVA43601CK  
AHRI ref 0  
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 0.055 cfm/Btuh  
Static pressure 0.30 in H2O  
Load sensible heat ratio 0.78

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

957-3035.4.15

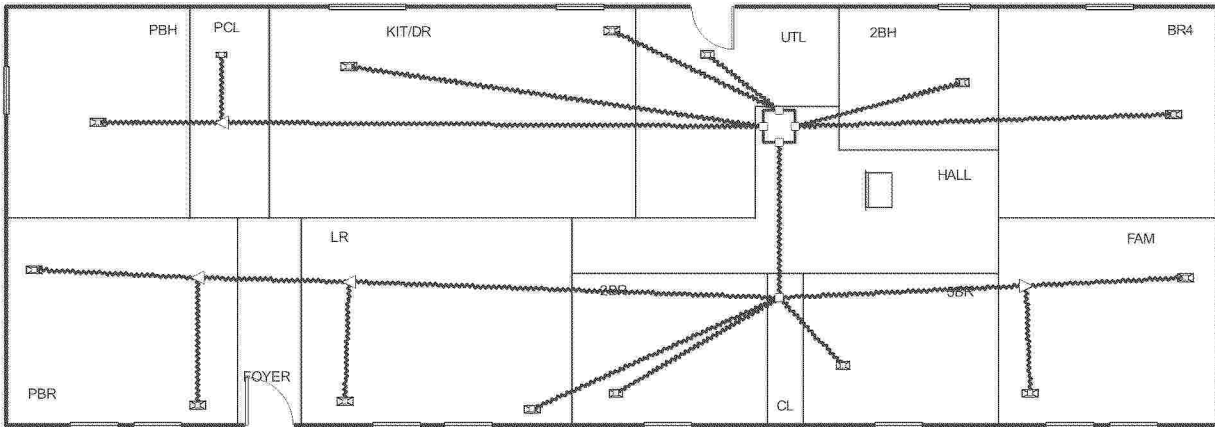
*Bold/italic values have been manually overridden*

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





Level 1



APPROVED BY  
**NIA** INC. 3/28/2024  
FEDERAL MANUFACTURED HOME  
CONSTRUCTION AND SAFETY STANDARDS

957-3035.4.16

<p>Job #: 3035(OHVD-OPT PBH) Performed by CLAYTON ROCKWELL for: 3035(OHVD-OPT PBH) ROCKWELL, NC</p>		<p>Scale: 1 : 136 Page 1 Right-Suite® Universal 2023 23.0.04 RSU28036 2024-Mar-21 15:06:22 ...s\Desktop\3035(OHVD-OPT PBH).r...</p>
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# Manual S Compliance Report

## Entire House

Job: 3035(OHVD-OPT PBH)  
 Date: Mar 21, 2024  
 By: CLAYTON ROCKWELL

### Project Information

For: 3035(OHVD-OPT PBH), CLAYTON 957  
 ROCKWELL, NC

### Cooling Equipment

#### Design Conditions

Outdoor design DB: 92.2°F	Sensible gain: 21549 Btuh	Entering coil DB: 76.2°F
Outdoor design WB: 75.8°F	Latent gain: 6123 Btuh	Entering coil WB: 63.6°F
Indoor design DB: 75.0°F	Total gain: 27672 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: 23380 Btuh 108% of load  
 Latent capacity: 10020 Btuh 164% of load  
 Total capacity: 33400 Btuh 121% of load SHR: 70%

### Heating Equipment

#### Design Conditions

Outdoor design DB: 33.2°F	Heat loss: 24315 Btuh	Entering coil DB: 67.5°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 136% of load Capacity balance: 27 °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 140% of load Temp. rise: 28 °F

Meets all requirements of ACCA Manual S.





**Project Summary**  
**Entire House**

APPROVED BY



Job: 3035(OHVD-OPT PBH)  
Date: Mar 21, 2024  
By: CLAYTON ROCKWELL

**Project Information**

For: 3035(OHVD-OPT PBH), CLAYTON 957  
ROCKWELL, NC

Notes: DUCT COOLING CAPACITY = 37,100 BTU/HR  
REFER TO MODEL PLAN 3035 FOR THERMAL ZONE CALCULATIONS

**Design Information**

Weather: Gainesville Regional, FL, US

**Winter Design Conditions**

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

**Summer Design Conditions**

Outside db 92 °F  
Inside db 75 °F  
Design TD 17 °F  
Daily range M  
Relative humidity 50 %  
Moisture difference 44 gr/lb

**Heating Summary**

Structure 16095 Btuh  
Ducts 5198 Btuh  
**Central vent (75 cfm)** **3023** Btuh  
**Outside air**  
Humidification 0 Btuh  
Piping 0 Btuh  
Equipment load 24315 Btuh

**Sensible Cooling Equipment Load Sizing**

Structure 15259 Btuh  
Ducts 4878 Btuh  
**Central vent (75 cfm)** **1413** Btuh  
**Outside air**  
Blower 0 Btuh  
Use manufacturer's data n  
Rate/swing multiplier 0.97  
Equipment sensible load 20946 Btuh

**Infiltration**

Method Simplified  
Construction quality Average  
Fireplaces 0

**Latent Cooling Equipment Load Sizing**

Structure 2606 Btuh  
Ducts 1293 Btuh  
**Central vent (75 cfm)** **2224** Btuh  
**Outside air**  
Equipment latent load 6123 Btuh  
**Equipment Total Load (Sen+Lat)** 27069 Btuh  
Req. total capacity at 0.70 SHR 2.5 ton

	Heating	Cooling
Area (ft <sup>2</sup> )	1995	1995
Volume (ft <sup>3</sup> )	15960	15960
Air changes/hour	0.38	0.20
Equiv. AVF (cfm)	103	54

**Heating Equipment Summary**

Make Smart Comfort  
Trade 15 SEER2 R SERIES R410A HP  
Model R4H5S36\*K\*AAA\*  
AHRI ref 0  
Efficiency 7.5 HSPF2  
Heating input  
Heating output 33000 Btuh @ 47°F  
Temperature rise 27 °F  
Actual air flow 1113 cfm  
Air flow factor 0.052 cfm/Btuh  
Static pressure 0.30 in H2O  
Space thermostat  
Capacity balance point = 27 °F

**Cooling Equipment Summary**

Make Smart Comfort  
Trade 15 SEER2 R SERIES R410A HP  
Cond R4H5S36\*K\*AAA\*  
Coil FEVA0036\*\*+NAVA43601CK  
AHRI ref 0  
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 0.055 cfm/Btuh  
Static pressure 0.30 in H2O  
Load sensible heat ratio 0.78

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

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*Bold/italic values have been manually overridden*

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



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Page 1

# CLAYTON HOME BUILDING GROUP

3035 ZN 1 & 2

Model Number	57FWY28764AH24	Drawing Number	3035	Version 17
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BOX SIZE: 26.33 ft. x 76 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
<b>INSULATION VALUES</b>	R-22 FW	R-13	R-38
<b>DAPIA PAGE</b>	THP-161	THP-552	THP-1484
<b>U VALUE (BTUH/SQ.FT.-F)</b>	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
10	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
<b>Front</b>	22.00	0.210	4.62
<b>Rear</b>	22.00	0.260	5.72
<b>Other Door</b>	0.00	0.300	0.00
<b>Other Door</b>	0.00	0.330	0.00
<b>OSB</b>	0.00	0.000	0.00
<b>Skylights</b>	0.00	0.330	0.00
<b>Standard</b>	196.00	0.300	58.80
<b>Option</b>	0.00	0.300	0.00
<b>Floor</b>	2001.33	0.045	89.06
<b>Wall</b>	1397.33	0.081	112.90
<b>Ceiling</b>	2001.33	0.0285	57.04
<b>Ext. Duct</b>	78.50	0.242	18.98
<b>Ext. Duct</b>	78.50	0.223	17.48
<b>Ext. Duct</b>	78.50	0.206	16.14
<b>Supply</b>	0.00	0.000	0.00
<b>Supply</b>	0.00	0.000	0.00
<b>Supply</b>	0.00	0.00	0.00

Energy Star v3 & ZERH Max Glass (sq ft)	
Th. Zone 1	450.0
Th. Zone 2	274.3
Th. Zone 3	45.6

Thermal Zone	Outdoor Design Temp (F)	UA	Uo	EStar v3 & ZERH Compliant	Heatloss BTUH/F
1	11	347.13	0.061	OK	490.40
2	0	345.62	0.060	OK	488.90
3	-14	344.28	0.060	NG	487.50

Design Temperatures		
Furnace Heating Temp (F)	Economy Outdoor Temp (F)	
0	21	10kW
-13	12	12kW
-34	-3	15kW
-12	13	40k Gas
-52	-16	60k Gas
-93	-44	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

3035 ZN 3

Model Number	57FWY28764AH24	Drawing Number	3035	Version 17
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BOX SIZE: 26.33 ft. x 76 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
10	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	0.210	4.62
Rear	22.00	0.260	5.72
Other Door	0.00	0.300	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	196.00	0.300	58.80
Option	0.00	0.300	0.00
Floor	2001.33	0.037	74.25
Wall	1397.33	0.054	75.60
Ceiling	2001.33	0.0285	57.04
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	634.4
Th. Zone 2	477.7
Th. Zone 3	273.9

Thermal Zone	Outdoor Design Temp (F)	UA	Uo	EStar v3 & ZERH Compliant	Heatloss BTUH/F
1	11	295.01	0.052	OK	438.30
2	0	293.50	0.051	OK	436.80
3	-14	292.16	0.051	OK	435.40

Design Temperatures		
Furnace Heating Temp (F)	Economy Outdoor Temp (F)	
-8	16	10kW
-23	5	12kW
-47	-12	15kW
-21	6	40k Gas
-67	-26	60k Gas
-113	-58	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

3035 ZN 1 WITH OVERHEAD HVAC

Model Number	57FWY28764AH24	Drawing Number	3035	Version 17
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BOX SIZE: 26.33 ft. x 76 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	48
6	138
7	53
8	0
9	27
12	8
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	0.210	4.62
Doors: 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	196.00	0.300	58.80
Option	0.00	0.300	0.00
Net: Floor	2001.33	0.045	89.06
Wall	1397.33	0.081	112.90
Ceiling	2001.33	0.0285	57.04
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	29.91	0.242	7.23
Supply	29.91	0.223	6.66
Supply	29.91	0.21	6.15

Energy Star v3 & ZERH Max Glass (sq ft)	
Th. Zone 1	478.4
Th. Zone 2	300.9
Th. Zone 3	71.7

Thermal Zone	Outdoor Design Temp (F)	UA	Uo	EStar v3 & ZERH Compliant	Heatloss BTUH/F
1	11	335.37	0.059	OK	478.60
2	0	334.80	0.059	OK	478.10
3	-14	334.29	0.059	NG	477.60

Design Temperatures	
Furnace Heating Temp (F)	Economy Outdoor Temp (F)
-1	20
-16	10
-37	-5
-14	11
-55	-18
-97	-47

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

3035 ZN 1 & 2 WITH PATIO/ATRIUM

Model Number	57FWY28764AH24	Drawing Number	3035	Version 17
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BOX SIZE: 26.33 ft. x 76 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
10	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	0.210	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	180.00	0.300	54.00
Option	0.00	0.300	0.00
Floor	2001.33	0.045	89.06
Wall	1370.33	0.081	110.72
Ceiling	2001.33	0.0285	57.04
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	411.0
Th. Zone 2	235.2
Th. Zone 3	6.5

Thermal Zone	Outdoor Design Temp (F)	UA	Uo	EStar v3 & ZERH Compliant	Heatloss BTUH/F
1	11	352.18	0.062	OK	495.50
2	0	350.68	0.061	OK	493.90
3	-14	349.34	0.061	NG	492.60

Design Temperatures	
Furnace Heating Temp (F)	Economy Outdoor Temp (F)
1	22
-13	12
-33	-2
-11	13
-51	-15
-91	-43

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

3035 ZN 3 WITH PATIO/ATRIUM

Model Number	57FWY28764AH24	Drawing Number	3035	Version 17
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BOX SIZE: 26.33 ft. x 76 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
10	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	0.210	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	180.00	0.300	54.00
Option	0.00	0.300	0.00
Floor	2001.33	0.037	74.25
Wall	1370.33	0.054	74.14
Ceiling	2001.33	0.0285	57.04
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	594.9
Th. Zone 2	438.2
Th. Zone 3	234.4

Thermal Zone	Outdoor Design Temp (F)	UA	Uo	EStar v3 & ZERH Compliant	Heatloss BTUH/F
1	11	300.79	0.053	OK	444.10
2	0	299.28	0.052	OK	442.50
3	-14	297.94	0.052	OK	441.20

Design Temperatures		
Furnace Heating Temp (F)	Economy Outdoor Temp (F)	
-7	16	10kW
-22	5	12kW
-45	-11	15kW
-20	7	40k Gas
-65	-25	60k Gas
-110	-56	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

## 3035 ZN 1 WITH PATIO/ATRIUM & OVERHEAD HVAC

Model Number	57FWY28764AH24	Drawing Number	3035	Version 17
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BOX SIZE: 26.33 ft. x 76 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	48
6	138
7	53
8	0
9	27
12	8
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	0.210	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			
Standard	180.00	0.300	54.00
Option	0.00	0.300	0.00
Net:			
Floor	2001.33	0.045	89.06
Wall	1370.33	0.081	110.72
Ceiling	2001.33	0.0285	57.04
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	29.91	0.242	7.23
Overhead TZ 2:			
Supply	29.91	0.223	6.66
Overhead TZ 3:			
Supply	29.91	0.21	6.15

Energy Star v3 & ZERH Max Glass (sq ft)	
Th. Zone 1	439.3
Th. Zone 2	261.8
Th. Zone 3	32.6

Thermal Zone	Outdoor Design Temp (F)	UA	Uo	EStar v3 & ZERH Compliant	Heatloss BTUH/F
	1	11	340.43	0.060	OK
2	0	339.86	0.060	OK	483.10
3	-14	339.35	0.060	NG	482.60

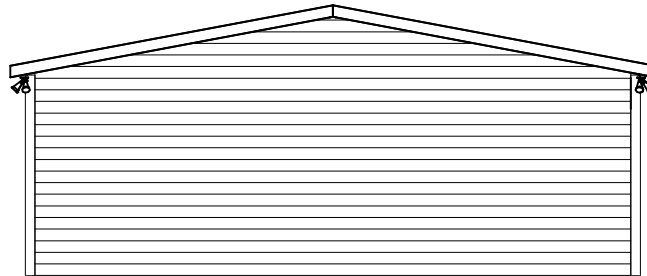
Design Temperatures		
Furnace Heating Temp (F)	Economy Outdoor Temp (F)	
-1	21	10kW
-15	11	12kW
-36	-4	15kW
-13	12	40k Gas
-54	-17	60k Gas
-95	-46	80k Gas

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

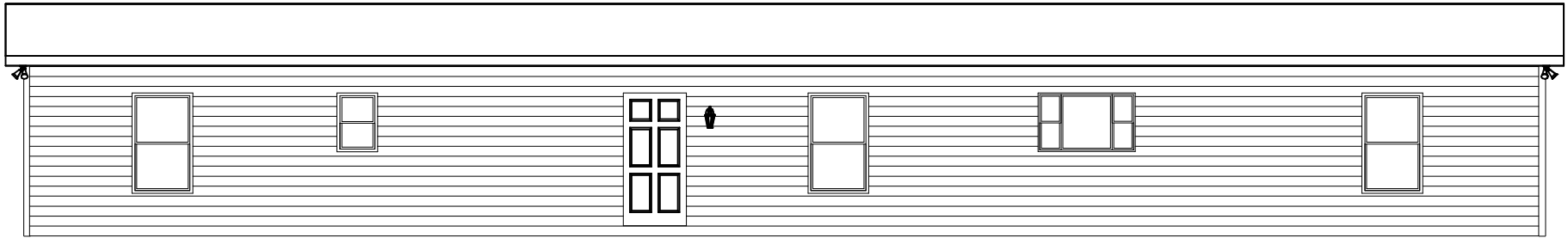


FRONT ELEVATION

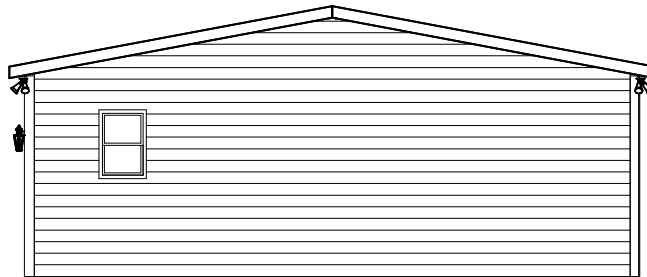


RIGHT SIDE ELEVATION

BRAND CLAYTON	SERIES FS28	REVISIONS	BY	DATE	GENERAL NOTES	DRAWING TITLE <b>EXTERIOR ELEVATION FRONT &amp; RIGHT SIDE</b>	MODEL NAME 3035	SQ. FT. 2001
CLAYTON HOME BUILDING GROUP							PLANT 957	DESCRIPTION 28X76 4BR-2BA
							MODEL NO. 3035	
							DRAWN BY GDB	ORIG. DATE 03/18/2024
							DATE PRINTED 03/28/2024	SHEET NO. 20-1

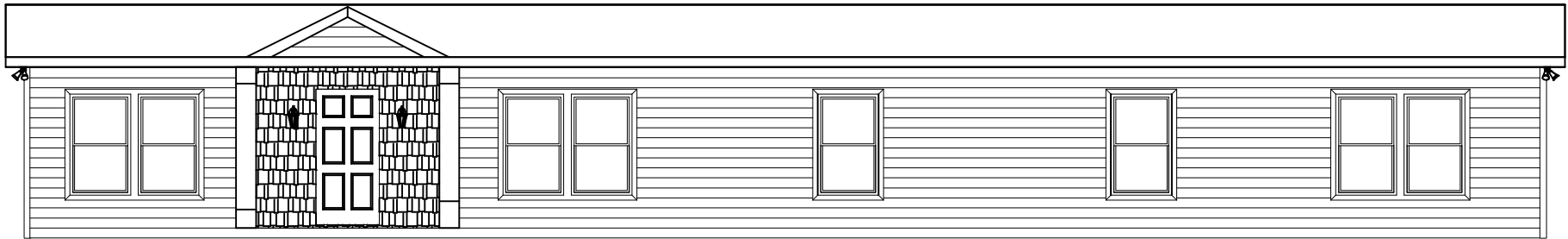


BACK ELEVATION



LEFT SIDE ELEVATION

BRAND CLAYTON	SERIES FS28	REVISIONS	BY	DATE	GENERAL NOTES	DRAWING TITLE <b>EXTERIOR ELEVATION BACK &amp; LEFT SIDE</b>	MODEL NAME 3035	SQ. FT. 2001		
CLAYTON HOME BUILDING GROUP							PLANT 957	DESCRIPTION 28X76 4BR-2BA	MODEL NO. 3035	
							DRAWN BY GDB	ORIG. DATE 03/18/2024	DATE PRINTED 03/28/2024	SHEET NO. 20-2



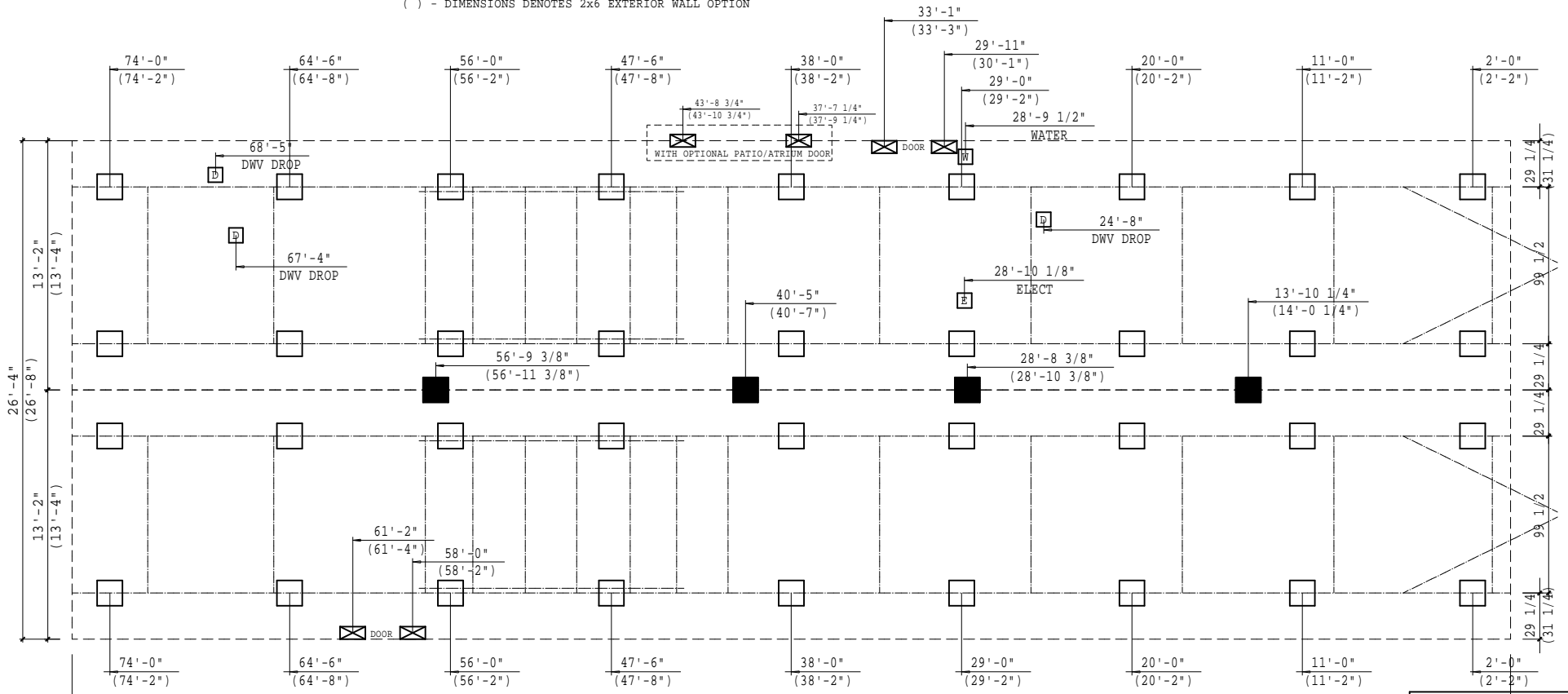
FRONT ELEVATION



RIGHT SIDE ELEVATION

BRAND CLAYTON	SERIES FS28	REVISIONS	BY	DATE	GENERAL NOTES	DRAWING TITLE <b>EXTERIOR ELEVATION OPTION 3</b>	MODEL NAME 3035	SQ. FT. 2001
CLAYTON HOME BUILDING GROUP							PLANT 957	DESCRIPTION 28X76 4BR-2BA
							MODEL NO. 3035	
							DRAWN BY GDB	ORIG. DATE 03/18/2024
							DATE PRINTED 03/28/2024	SHEET NO. 20-5

( ) - DIMENSIONS DENOTES 2x6 EXTERIOR WALL OPTION



**SERVICE ENTRANCE LEGEND**

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

NOTE:  
ALL LOCATIONS ARE APPROXIMATE

**CRAWLSPACE VENTILATION**  
VENTILATION IS BASED ON 144 SQ. IN. OF VENT FOR EVERY 300 SQ. FT. OF CRAWLSPACE AREA WITH APPROVED VAPOR RETARDER MATERIAL. ONE SUCH VENT MUST BE WITHIN 3 FT. OF EACH CORNER

2001 SQ. FT. OF CRAWLSPACE AREA  
961 SQ. IN. OF VENT REQUIRED  
19 VENTS NEEDED @ 52 SQ. IN. EACH  
988 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.

**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

BRAND	SERIES
CLAYTON	FS28
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 NAME	3035	SQ. FT.	2001
PLANT	DESCRIPTION	MODEL NO.	
957	28X76 4BR-2BA	3035	
DRAWN BY	ORIG. DATE	DATE PRINTED	SHEET NO.
GDB	03/18/2024	03/28/2024	21-PS-99