PRODUCT EVALUATION REPORT

Standard Structures, Inc.

R or PBR Through Fastened Wall Panel over Open Framing

Florida Product Approval Number FL 44570.1

Category: Structural Components
Sub Category: Structural Wall

Compliance Method: 61G20-3.005 (1)(D)
NON-HVHZ

<u>Product Manufacturer</u>
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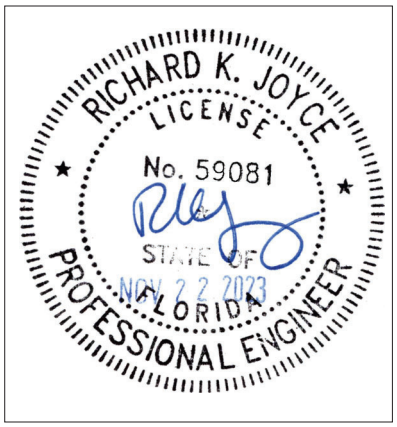
Evaluation Report Pages 1-5 Dated 11-21-2023



Compliance Statement

The product described in this report has demonstrated compliance with the 2023 (8th Edition) Florida Building Code Sections 1404.5

Product Description

Standard Structures, Inc. R or PBR Through Fastened structural panels applied over open framing:

1. PBR 26 Gauge
   (0.0179 Sheet Thickness) with a minimum Fy = 80 ksi and Fu = 82 ksi 12-12 Fastener Spacing
2. PBR 26 Gauge
   (0.0179 Sheet Thickness) with a minimum Fy = 80 ksi and Fu = 82 ksi 5-7-5 Fastener Spacing
3. PBR 24 Gauge
   (0.0209 Sheet Thickness) with a minimum Fy = 50 ksi and Fu = 65 ksi 12-12 Fastener Spacing
4. PBR 24 Gauge
   (0.0209Sheet Thickness) with a minimum Fy = 50 ksi and Fu = 65 ksi 5-7-5 Fastener Spacing

Panel Material Standard

Formed steel in compliance with the 2023 (8th Edition) Florida Building Code Section 1405.2 with optional painted finish.

Panel Fastener

Corrosion Resistant #12 – 14 HWH SD as indicated in the **Load Tables** of this Evaluation Report

Substrate Description

Minimum 16 gauge (0.0584 steel thickness) open framing.
Framing must be designed in accordance with the 2023 (8th Edition) Florida Building Code

Quality Assurance Entity

The manufacturer has established compliance of products in accordance with the 2023 (8th Edition) Florida Building Code as relates to Rule 61G20-3.005(3) for manufacturing under a quality assurance program audited by an approved quality assurance entity.

Insulation

Manufacturer's approved products (optional)

Fire Classification

Fire Classification is outside the scope of this evaluation

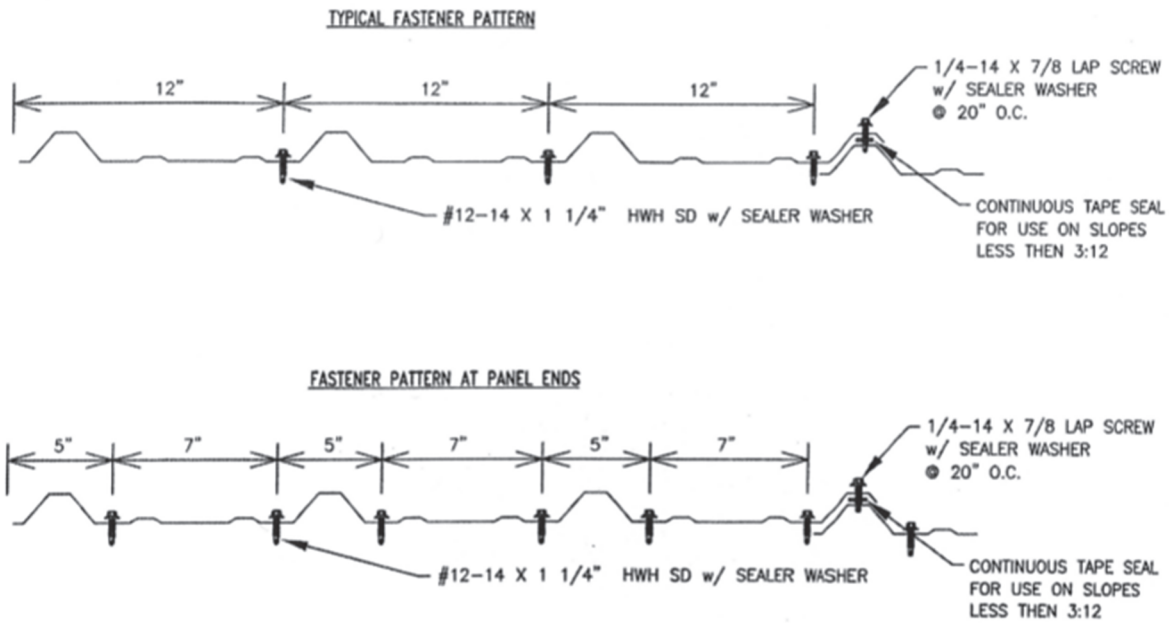
Shear Diaphragm

Shear Diaphragm is outside the scope of this evaluation

Design Procedure

Based on dimensions of the structure, appropriate wind loads are determined using chapter 16 of the 2023 (8th Edition) Florida Building Code for component loading of roof cladding. These component wind loads are compared to the allowable load listed in the **Load Tables** of this evaluation report. The design professional shall select appropriate fastener pattern and panel gauge to reference in the construction documents for proper installation. Design of support framing must be in compliance with the 2023 (8th Edition) Florida Building Code.

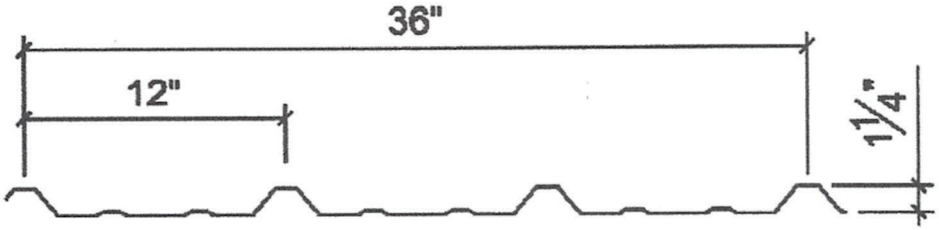
R or PBR Panel Fastener Diagram



Notes:

1. Fastener Pattern 5-7-5 is to be used at the ends of all panels
2. Fastener Pattern 12-12 and 5-7-5 are to be used at the intermediate supports as indicated in the span load tables to achieve the required uplift load capacity.

Standard Structures, Inc. (PBR)



Standard Structure, Inc. (PBR) Panel (26 Gauge)									Section Properties
Panel Gauge	Fy	Fu	Weight	Negative Bending			Positive Bending		
				Ixe	Sxe	Maxo	Ixe	Sxe	Maxo
	ksi	Ksi	Psf	In^4	In^3	Kip-in	In^4	In^3	Kip-in
26	60*	61.5*	0.83	0.0347	0.0395	1.419	0.0390	0.0328	1.179
24	50	60	1.01	0.0457	0.0590	1.766	0.0533	0.0547	1.637

*= Fy is 80 ksi, Fu is 82 ksi reduced to Fy = 60 ksi and Fy = 61.5 ksi in accordance with the 2016 North American Specification for Cold-Formed Steel Structural Members with Supplement 2 (2020) Section A2.3.2.

Product 1

Standard Structures, Inc. (PBR) Panel (26 Gauge)										Span Load Table
26 Gauge (Fy = 60 ksi) #12-14 Fasteners on 12" Centers for attachment to supporting members (16 gauge supporting members minimum)										
Span Type	Load Type	SPAN IN FEET								
		2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
Single Span	Negative Wind Load	236	151	105	77.2	59.1	46.7	37.8	31.3	26.3
	Live Load / Deflection	140	112	87.3	64.1	49.1	38.8	31.4	26.0	21.8
2-Span	Negative Wind Load	102	82.7	68.5	58.8	47.3	37.7	30.7	25.5	21.5
	Live Load / Deflection	187	133	95.9	72.1	56.0	44.8	35.5	30.4	25.6
3-Span	Negative Wind Load	116	93.5	77.9	66.8	58.2	46.5	38.0	31.5	26.6
	Live Load / Deflection	176	140	115	87.7	68.5	55.0	45.0	37.5	31.7

Product 2

Standard Structures, Inc. (PBR) Panel (26 Gauge)										Span Load Table
26 Gauge (Fy = 60 ksi) #12-14 Fasteners on 5"-7"-5" Centers for attachment to supporting members (16 gauge supporting members minimum)										
Span Type	Load Type	SPAN IN FEET								
		2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
Single Span	Negative Wind Load	427	273	190	139	95.6	67.1	48.9	36.8	28.3
	Live Load / Deflection	224	179	149	128	112	83.1	60.6	45.5	35.1
2-Span	Negative Wind Load	205	164	137	117	102	88.2	71.7	59.4	50.0
	Live Load / Deflection	299	239	184	136	105	83.3	67.6	56.0	47.1
3-Span	Negative Wind Load	233	186	155	133	116	103	89.1	69.4	53.5
	Live Load / Deflection	281	224	187	160	130	103	84.1	69.7	58.7

Product 3

Standard Structures, Inc. (PBR) Panel (24 Gauge)						**Span Load Table**				
24 Gauge (Fy = 50 ksi) #12-14 Fasteners on 12" Centers for attachment to supporting members (16 gauge supporting members minimum)										
Span Type	Load Type	SPAN IN FEET								
		2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
Single Span	Negative Wind Load	257	188	130	96.0	73.5	58.1	47.0	38.9	32.7
	Live Load / Deflection	171	137	114	89.1	68.2	53.9	43.6	36.1	30.3
2-Span	Negative Wind Load	102	82.3	68.5	58.8	51.4	45.7	41.1	35.5	29.9
	Live Load / Deflection	228	174	123	92.1	71.2	56.6	46.1	38.2	32.2
3-Span	Negative Wind Load	116	93.5	77.9	66.8	58.4	51.9	46.7	42.5	37.2
	Live Load / Deflection	214	171	142	113	87.8	70.0	57.1	47.4	40.0

Product 4

Standard Structures, Inc. (PBR) Panel (24 Gauge)						**Span Load Table**				
24 Gauge (Fy = 50 ksi) #12-14 Fasteners on 5"-7"-5" Centers for attachment to supporting members (16 gauge supporting members minimum)										
Span Type	Load Type	SPAN IN FEET								
		2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
Single Span	Negative Wind Load	293	188	130	96.0	73.5	58.1	47.0	38.9	32.7
	Live Load / Deflection	171	137	114	89.1	68.2	53.9	43.6	36.1	30.3
2-Span	Negative Wind Load	205	163	115	86.0	66.4	52.7	42.9	35.5	29.9
	Live Load / Deflection	228	174	123	92.1	71.2	56.6	46.1	38.2	32.2
3-Span	Negative Wind Load	233	186	141	105	82.0	65.3	53.2	44.2	37.2
	Live Load / Deflection	214	171	142	113	87.8	70.0	57.1	47.4	40.0

Notes:

1. Allowable loads are based on uniform span length and uniformly distributed load.
2. Allowable gravity load is limited by bending, shear or deflection.
3. Allowable gravity loads are computed for a maximum total load deflection of L/60.
4. Weight of the panel must be included with gravity load combinations as appropriate.
5. This material is subject to change without notice.
6. This material has been developed in accordance with the 2016 North American Specification for Cold-Formed Structural Steel Members with Supplement 2 (2020).

The engineering data contained herein is for the express use of the customers of Standard Structures, Inc. and qualified design professionals.