Force Engineering & Testing
19530 Ramblewood Drive
Humble, Texas 77338
Phone: (281) 540-6603 FAX: (281) 540-9966
Website: www.forceengineeringtesting.com

Product Evaluation Report
GREEN SPAN PROFILES®

RidgeLine Standing Seam Roof Panel over open framing

Florida Product Approval # 21349.1 R3

Florida Building Code 2020
Per Rule 61G20-3
Method: 1 –D

Category: Structural Components
Subcategory: Roof Deck
Compliance Method: 61G20-3.005(1)(d)
NON HVHZ

Product Manufacturer:
Green Span Profiles®
21200 FM 362
Waller, Texas 77484

Engineer Evaluator:
Johnathan Green, P.E. #88223
Florida Evaluation ANE ID: 12901

Validator:
Terrence E. Wolfe, P.E. #49223

Contents:

OCT 07 2020

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Compliance Statement: The product as described in this report has demonstrated compliance with the Florida Building Code 2020, Sections 1504.3.2, 1504.7, 2603.3.

Product Description: Insulated roof panel system with an interior steel facing and exterior steel standing seam facing bonded to an insulating polyisocyanurate foam core. A concealed clip in the interlocking side joint attaches the roof panels to supports. Structural Application.

Panel:

Profiles:	RidgeLine
Panel Thickness:	2 ½", 3", 4", 5", 6"
Panel Coverage:	42" maximum
Interior Side Joint:	Green-Lock interlocking tongue and groove side joint
Exterior Side Joint:	2" Tall, Tee shaped rib with seam cap, mechanically seamed

Panel Interior Face:

Material:	Steel, ASTM A792 coated or ASTM A653 G90 Galvanized
Yield Strength:	Min. 50.0 ksi
Thickness:	26 Ga., 24 Ga., 22 Ga.
Texture:	Embossed or Smooth
Profile:	MesaLine

Panel material shall comply with Florida Building Code 2020, Section 1507.4.3.

Panel Exterior Face:

Material:	Steel, ASTM A792 coated or ASTM A653 G90 Galvanized
Yield Strength:	Min. 50.0 ksi
Thickness:	26 Ga., 24 Ga., 22 Ga.
Texture:	Smooth
Profile:	2" tall standing seam Tee shaped rib with seam cap, mechanically seamed.
Panel seam cap:	24 Ga. steel with factory applied hot melt adhesive sealant

Panel material shall comply with Florida Building Code 2020 Section 1507.4.3.

Panel Core: Polyisocyanurate insulating foam with a 2.5 pcf density (nominal).

Panel Clip:

Material:	Galvanized Steel
Thickness:	0.061", 16 Ga.
Dimensions:	3.375" tall x 4" long with (5) pre punched holes

Corrosion Resistance: Per Florida Building Code 2020, Section 1506.7.

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Panel Clip Fastener:

(3) ¼ - 14 x 2 ¼" HWH SD Shoulder Fastener per clip.
The fasteners shall be long enough to ensure a minimum penetration of 3 pitches of thread through steel girt.
Corrosion Resistance: Per Florida Building Code 2020, Section 1507.4.4.

Substrate Description:

Min. 14 Ga. Steel Framing. Framing must be designed in accordance w/ Florida Building Code 2020.

Allowable Design Uplift Pressures:

Refer to Load/Span Tables (ETB-0014) attached for design pressures and panel spans*.
**Design Pressures include a minimum Safety Factor = 2.0.*

Code Compliance:

The product described herein has demonstrated compliance with
The Florida Building Code 2020, Section 1504.3.2, 1504.7, 2603.3.

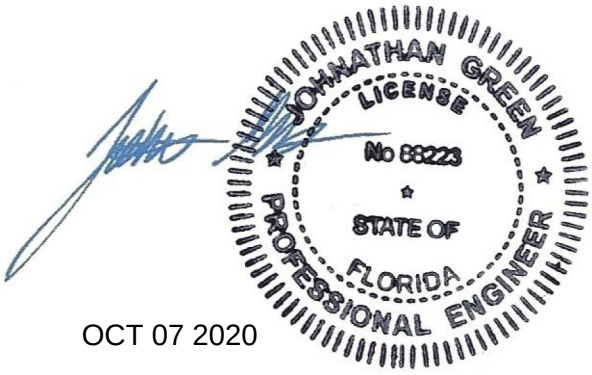
Evaluation Report Scope:

The product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code 2020, as relates to Rule 61G20-3.

Performance Standards:

The product described herein has demonstrated compliance with:

- ASTM E 1592-05 (2012) Test method for structural performance of sheet metal roof and siding systems by uniform static air pressure difference.
- FM 4471-92, Foot Traffic Resistance Test.
- ASTM E84-2016 Standard Test Method for Surface Burning Characteristics of Building Materials.



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Reference Data:

1. ASTM E 1592-05
   Force Engineering & Testing, Inc. (FBC Organization # TST-5328)
   Report No. 438-0191T-16
2. FM 4471-10, Foot Traffic Resistance Test
   Force Engineering & Testing, Inc. (FBC Organization # TST-5328)
   Report No. 438-0189T-16
3. ASTM E 84-11a
   FM Approvals
   Project ID: 3044381
4. Certificate of Independence
   By Johnathan Green, P.E. (No. 88223) @ Force Engineering & Testing
   (FBC Organization # ANE ID: 12901)

Test Standard Equivalency:

The ASTM E 1592-05 test standard is equivalent to the ASTM E 1592-05 (2012) test standard.

The FM 4471-10, Foot Traffic Resistance test standard is equivalent to the FM 4471-92, Foot Traffic Resistance test standard

The ASTM E84-11a test standard is equivalent to ASTM E84-2016.

Quality Assurance Entity:

The manufacturer has established compliance of roof panel products in accordance with the Florida Building Code and Rule 61G20-3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity.

Minimum Slope Range:

Minimum Slope shall comply with Florida Building Code 2020, including Section 1507.4.2 and in accordance with Manufacturers recommendations.

Installation:

Install per manufacturer's recommended details.

Roof Panel Fire Classification:

Fire classification is not part of this evaluation.

Shear Diaphragm:

Shear diaphragm values are outside the scope of this report.

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Design Procedure:

Based on the dimensions of the structure, appropriate wind loads are determined using Chapter 16 of the Florida Building Code 2020 for roof cladding wind loads. These component wind loads for roof cladding are compared to the allowable pressure listed above. The design professional shall select the appropriate erection details to reference in his drawings for proper fastener attachment to his structure and analyze the panel fasteners for pullout. Support framing must be in compliance with Florida Building Code 2020 Chapter 22 for steel, and Chapter 16 for structural loading.

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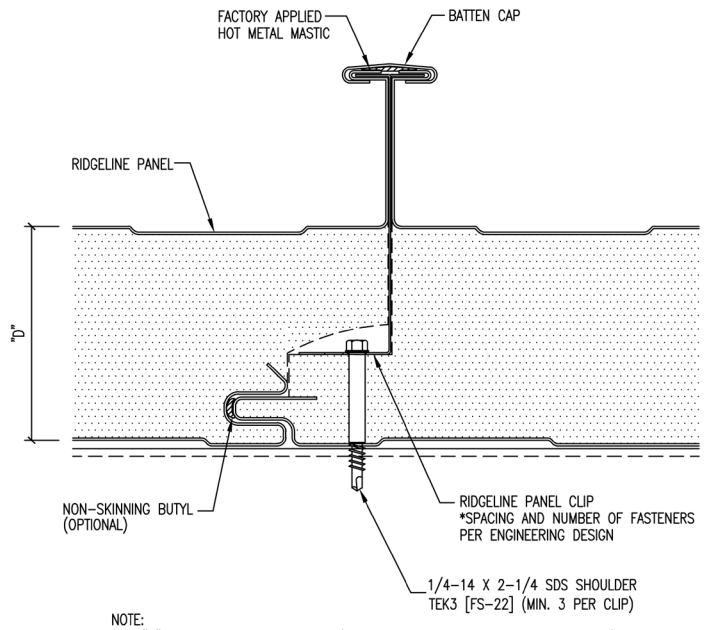
RL–SL–001

FASTENING SCHEDULE WILL VARY DEPENDING ON SPECIFIC APPLICATION



NOTE:
1. "D" = ROOF PANEL THICKNESS (AVAILABLE THICKNESS = 2.5, 3, 4, 5 OR 6)

GREEN SPAN PROFILES®
INSULATED PANEL TECHNOLOGIES

ROOF PANEL SIDE LAP		
APPLICATION: SSR	NOTES:	
SCALE: NTS	REVISION: 3	DATE: 6–3–16
DRAWN: JC	DATE: 10–20–13	
CHECK:	DATE:	
21200 FM362, WALLER, TEXAS 77484	281–807–7400	WWW.GREENSPANPROFILES.COM

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RL–CC–001

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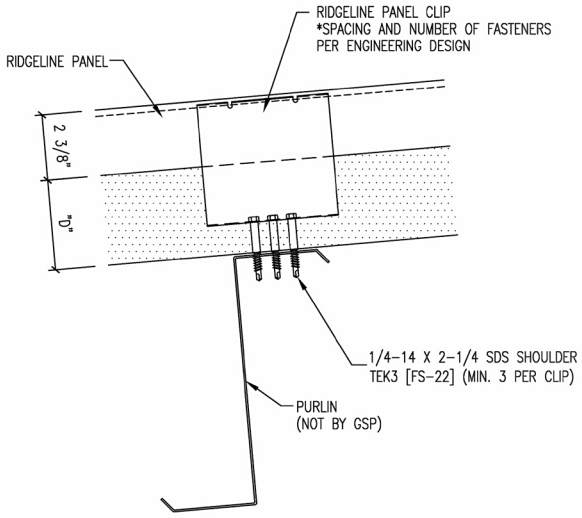

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ROOF PANEL CLIP CONNECTION		
APPLICATION: SSR	NOTES:	
SCALE: NTS	REVISION: 3	DATE: 6–3–16
DRAWN: JC	DATE: 10–20–13	
CHECK:	DATE:	
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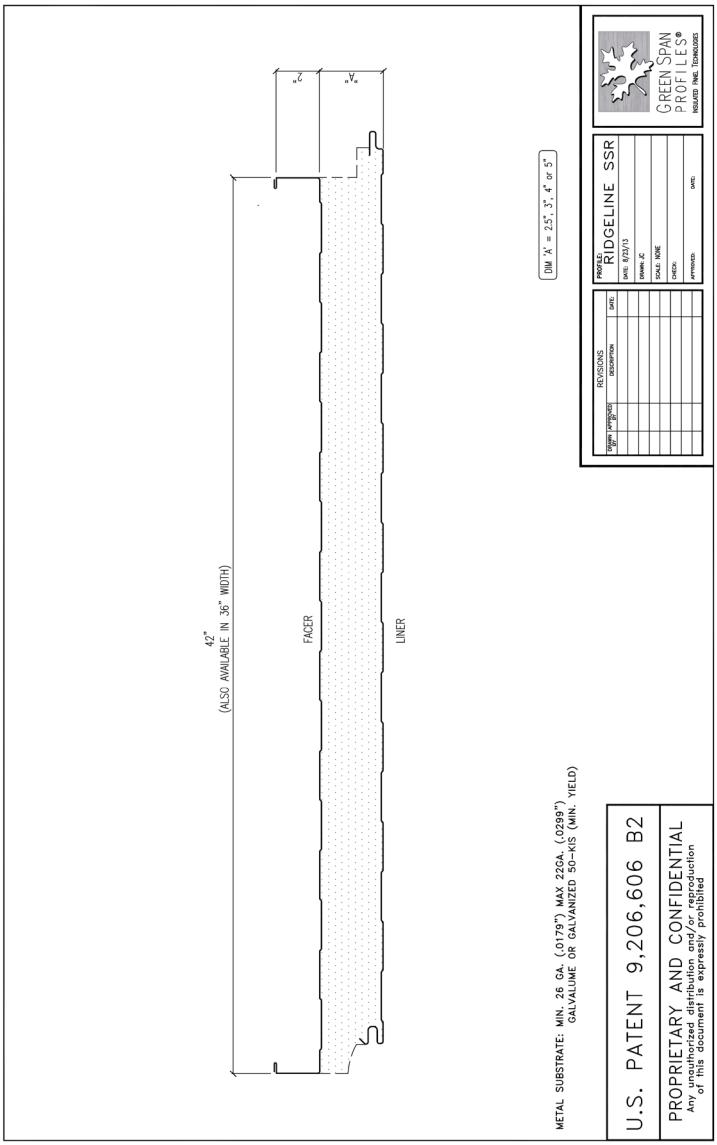

JOHNATHAN GREEN
LICENSE
No 88223
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

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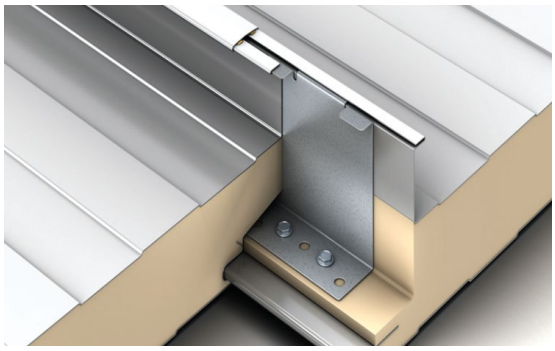
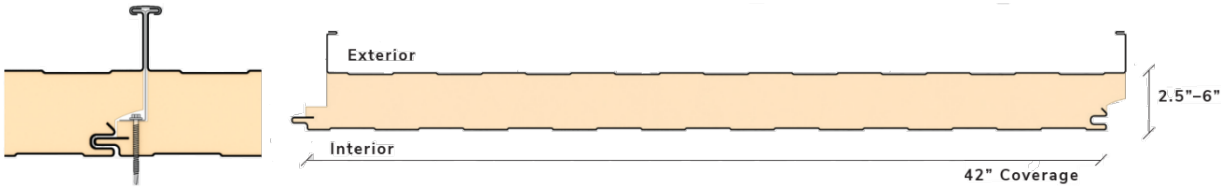


RidgeLine Clip Attachment



RidgeLine Panel Profile

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GREEN SPAN PROFILES®
INSULATED PANEL TECHNOLOGIES

ENGINEERING TECHNICAL BULLETIN

PRODUCT:

IRP Series – Insulated Metal Roof Panel
Profiles: RidgeLine
Width: 42-inch or narrower
Thickness: 2.5, 3, 4, 5 and 6-inch
Gauge: 26-gauge or heavier (facer and liner)
Finish: embossed or smooth

ALLOWABLE UNIFORM LOADS (PSF):

Panel Thickness (in)	Load Type	Span (ft)										
		2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5
2.5	Positive	170.63	140.52	118.99	102.86	90.37	80.43	72.35	65.69	60.10	55.35	51.28
	Deflection*	132.45	108.50	91.28	78.29	68.15	60.03	53.38	47.84	43.16	39.16	35.70
	Negative (wind uplift)	78.05	69.38	63.19	58.55	53.65	48.29	43.90	40.24	37.14	34.49	32.19
3	Positive	201.27	165.96	140.67	121.71	106.99	95.27	85.73	77.83	71.21	65.58	60.75
	Deflection*	165.94	136.22	114.83	98.71	86.11	76.00	67.73	60.82	54.99	49.99	45.67
	Negative (wind uplift)	78.05	69.38	63.19	58.55	53.65	48.29	43.90	40.24	37.14	34.49	32.19
4	Positive	256.75	212.19	180.26	156.26	137.58	122.66	110.48	100.37	91.86	84.60	77.15
	Deflection*	215.85	177.85	150.52	129.90	113.77	100.83	90.20	81.33	73.81	67.37	61.79
	Negative (wind uplift)	78.05	69.38	63.19	58.55	53.65	48.29	43.90	40.24	37.14	34.49	32.19
5	Positive	303.53	251.26	213.79	185.61	163.65	146.07	131.70	119.74	109.65	101.03	93.60
	Deflection*	260.70	215.32	182.71	158.10	138.87	123.40	110.71	100.09	91.09	83.37	76.67
	Negative (wind uplift)	78.05	69.38	63.19	58.55	53.65	48.29	43.90	40.24	37.14	34.49	32.19
6	Positive	341.71	283.20	241.26	209.71	185.12	165.40	149.27	135.82	124.46	114.74	106.34
	Deflection*	300.47	248.58	211.32	183.22	161.25	143.60	129.09	116.96	106.66	97.82	90.14
	Negative (wind uplift)	78.05	69.38	63.19	58.55	53.65	48.29	43.90	40.24	37.14	34.49	32.19

NOTES:

1. Allowable loads were derived from test conducted in accordance with ASTM E1592 and ASTM E72.
2. All loads reflects standard fastening – RidgeLine clip with (2) ¼ - 14 self-drilling shoulder fasteners.
3. The above loads reflect attachment to 14-ga. steel supports. Attachment to other substrates must be designed separately.
4. Allowable loads assume a minimum bearing surface of 1.5".
5. Allowable loads are for uniform span lengths.
6. Allowable loads reflect a deflection limit of L/240.
7. The panel self-weight was not added or subtracted from the allowable loads.
8. Above load table does not consider thermal effects.

ETB-0014 MARCH 10, 2017

SUBJECT TO CHANGE WITHOUT NOTICE – Please visit our website for the most current information

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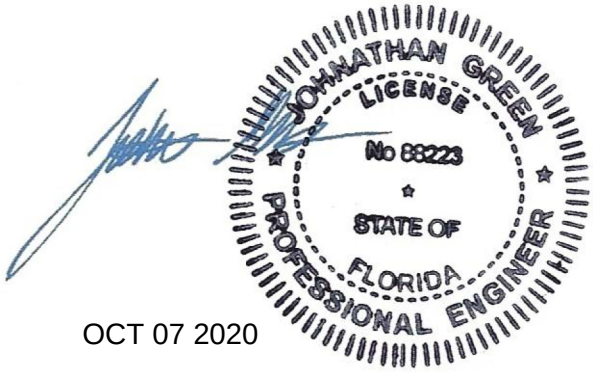

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