

Evaluation Report "B4000" Panel Wall/Soffit Panel Assembly

Manufacturer

Englert, Inc.

1200 Amboy Avenue
Perth Amboy, NJ 08862
(732) 826-8614

for

Florida Product Approval

FL 17209.6 R6

Florida Building Code 8th Edition (2023)

Method: 2 - B

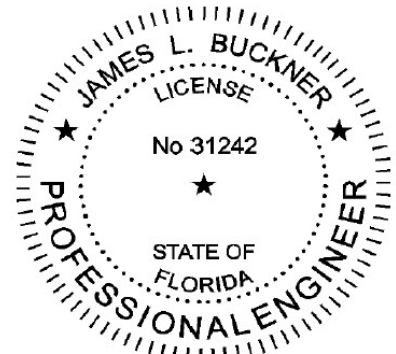
Category: Structural Components

Sub - Category: Structural Wall

Prepared by:

James L. Buckner, P.E., S.E.C.B.
Florida Professional Engineer # 31242
Florida Evaluation ANE ID: 1916
Project Manager: Diana Galloway
Report No. 23-555-B4000-ER
(Revises Report No. 22-469-B4000-ER, FL17209.8 R5)
Date: 08/16/2023

This item has been digitally signed and sealed by James L. Buckner, P.E., on this date below. Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.



James L. Buckner, P.E.
FL31242

Date: 2023.09.01
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Contents:

Evaluation Report

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Manufacturer:	Englert, Inc. 1200 Amboy Avenue Perth Amboy, NJ 08862 (732) 826-8614 http://www.englertinc.com/
Product Name:	"B4000" Wall/Soffit Panel
Product Category:	Structural Components
Product Sub-Category	Structural Wall
Compliance Method:	State Product Approval Rule 61G20-3.005 (2) (b)
Product/System Description:	"B4000" concealed fastener panels are 1" deep, 12" wide flush seam Wall/Soffit panels attached to steel supports with screws. Panel interlocks may be attached with or without pop rivets.
Product Assembly as Evaluated:	Refer to Page 4 of this report for product assembly components/materials & standards: 1. Wall/Soffit Panel 2. Fasteners
Support:	Type: Steel Supports (Design of support and its attachment to support framing is outside the scope of this evaluation.) Description: Steel Supports Thickness: 20 Gauge minimum (0.034") Yield Strength: 33 ksi minimum Size: 3" wide x 1-1/2" high Steel Support Spacing: 48" or 16" per Table A
Performance:	Wind Resistance: Design Pressure: (Refer to "Table A" attachment details herein) Refer to Table "A"
Performance Standards:	The product described herein has demonstrated compliance with: • ASTM E330-14 – Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference

Standard Equivalency:	The ASTM E330- 02 standard version used to test the product meets the prescribed standards in ASTM E330-14 standard version adopted by the Florida Building Code 8th Edition (2023) for use as evaluated in this report.
Code Compliance:	The product described herein has demonstrated compliance with Florida Building Code 8th Edition (2023), Section 1708.2.
Evaluation Report Scope:	This product evaluation is limited to compliance with the structural requirements of the Florida Building Code, as related to the scope section to Florida Product Approval Rule 61G20-3.001.
Limitations and Conditions of Use:	• Diaphragm and axial load capacity is outside the scope of this evaluation. • <u>Scope of "Limitations and Conditions of Use" for this evaluation:</u> This evaluation report for "Optional Statewide Approval" contains technical documentation, specifications and installation method(s) which include "Limitations and Conditions of Use" throughout the report in accordance with Rule 61G20-3.005. Per Rule 61G20-3.004, the Florida Building Commission is the authority to approve products under "Optional Statewide Approval". • Soffit panels shall comply with labeling requirements per FBC Section 1709.1. • Design of support system is outside the scope of this report. Support shall be designed by others and shall comply with the FBC Chapters 22 for steel and Chapter 16 for structural loading. • Fire Classification is outside the scope of Rule 61G20-3 and is therefore not included in this evaluation. • This evaluation report does not evaluate the use of this product for use in the High Velocity Hurricane Zone code section. (Dade & Broward Counties) • <u>Option for application outside "Limitations and Conditions of Use"</u> Rule 61G20-3.005(1)(e) allows engineering analysis for "project specific approval by the local authorities having jurisdiction in accordance with the alternate methods and materials authorized in the Code". Any modification of the product as evaluated in this report and approved by the Florida Building Commission is outside the scope of this evaluation and will be the responsibility of others.
Quality Assurance:	The manufacturer has demonstrated compliance of Wall/Soffit panel products in accordance with the Florida Building Code and Rule 61G20-3.0005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity through Keystone Certifications, Inc. (FBC Organization ID# QUA 1824).

**Components/Materials
(by Manufacturer):**

Wall/Soffit Panel:

Material: "B4000"
Thickness: Steel or Aluminum per Table A
Panel Width: Per Table A
Rib Height: 12" (max.) Coverage
Steel Yield Strength: 1"
Alum Alloy Type: 50 ksi min.
Corrosion Resistance: 3105-H24, in compliance with ASTM B 209
Per FBC Section 1405.2

Fasteners:

FASTENER 1:

Type: Panel to Support
Size: Pancake-Head Screw
Corrosion Resistance: #10 – 16 x 1"
Standard: Per FBC Section 1405.17
SAE J78-1979

FASTENER 2:

Type: Panel to Support
Size: Hex-Head SD Screw w/WSW
Corrosion Resistance: 1/4" – 14 x 1"
Standard: Per FBC Section 1405.17
SAE J78-1979

FASTENER 3:

Type: Panel Interlock
Size: Pop Rivet
Material: 1/8" diameter
Corrosion Resistance: Stainless Steel
Standard: Per FBC Section 1405.17
SAE J78-1979

Adhesive:

Product Name: Bostik Chem-Caulk 915
Type: One component, polyurethane adhesive
Application Size: 3/8" continuous bead
Application Location: Along flange at every female interlock and vertical seam

Sealant:

Type: Gunable Non-curing Butyl Sealant
Size: 1/2" wide bead
Location: All panel interlocks

Installation:

Installation Method:

(Refer to "TABLE A" below and drawings at the end of this report.)

- Support Spacing/Span: **Refer to "TABLE A" Below**
- One (1) fastener at each girt/stud and panel lap intersection
- Rib Interlock: Interlocking Ribs
- Pop Rivet spacing: **Per Table A**
(through the panel interlock)
- Seam Adhesive: **Per Table A**
(At every female interlock and vertical seam)
- Minimum fastener penetration thru bottom of support, 3/4".
(through flange of steel supports)
- For panel construction at the end of panels, refer to manufacturer's instructions and any site specific design.

TABLE A ENGLERT B4000 WALL/SOFFIT PANEL ALLOWABLE LOADS								
#	PANEL MAT'L	PANEL THICKNESS	MAX. SPAN/ SUPPORT SPACING	FASTENER USED	SPAN CONDITION	ADHESIVE USED	POP RIVET SPACING	DESIGN PRESSURE (PSF)
1.	ALUM	0.032"	48" (4'- 0")	FASTENER #1 #10-16 x 1"	DOUBLE	NOT REQUIRED	NOT REQUIRED	+ 33.3 - 13.3
2.	ALUM	0.032"	48" (4'- 0")	FASTENER #1 #10-16 x 1"	DOUBLE	NOT REQUIRED	24" o.c.	+ 33.3 - 23.3
3.	ALUM	0.032"	16" (1'- 4")	FASTENER #2 1/4"-14 x 1"	3 or MORE	YES	NOT REQUIRED	± 70.18
4.	STEEL	24 ga.	48" (4'- 0")	FASTENER #1 #10-16 x 1"	DOUBLE	NOT REQUIRED	NOT REQUIRED	+ 33.3 - 16.67
5.	STEEL	24 ga.	48" (4'- 0")	FASTENER #1 #10-16 x 1"	DOUBLE	NOT REQUIRED	24" o.c.	+ 35.09 - 60.15
6.	STEEL	24 ga.	16" (1'- 4")	FASTENER #2 1/4"-14 x 1"	3 or MORE	YES	NOT REQUIRED	± 70.18
Notes: - Negative Pressure Outward/Positive Pressure Inward - Allowable design pressure(s) for allowable stress design (ASD). - Fastener Attachment to Steel Supports and Steel Support Framing May Be Designed By A Qualified Design Professional As Required By The Florida Building Code For Site Specific Projects. - Diaphragm and axial load capacity are not included in this evaluation. - Panels may be installed horizontally or vertically.								

Install the "B4000" Wall/Soffit panel assembly in compliance with the installation method listed in this report and applicable code sections of FBC 8th Edition (2023). The installation method described herein is in accordance with the scope of this evaluation report. Refer to manufacturer's installation instructions as a supplemental guide for attachment.

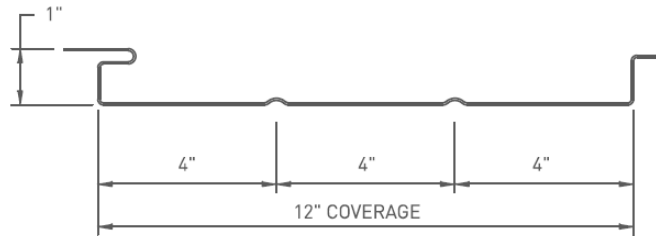
**Evaluation
Reference Data:**

1. ASTM E330-02 Test Report
By Architectural Testing, Inc.(FBC Organization ID# TST 1558)
Report #D6554.02-109-44-R1, Date: 6/6/14 (Alum)
2. ASTM E330-02 Test Report
By Architectural Testing, Inc.(FBC Organization ID# TST 1558)
Report #D6555.01-109-44-R1, Date: 6/6/14 (Steel)
3. ASTM E330/E330M-14 Test Report
By Architectural Testing, Inc.(FBC Organization ID# TST 1558)
Report #p7883.01-109-44, Date: 5/24/23 (Alum)
4. ASTM E330/E330M-14 Test Report
By Architectural Testing, Inc.(FBC Organization ID# TST 1558)
Report # p7882.01-109-44, Date: 5/24/23 (Steel)
5. Quality Assurance
Keystone Certifications, Inc. (FBC Organization ID# QUA 1824)
Englert, Inc. Licensee #420
6. Certification of Independence
By James L. Buckner, P.E. @ CBUCK Engineering
(FBC Organization # ANE 1916)

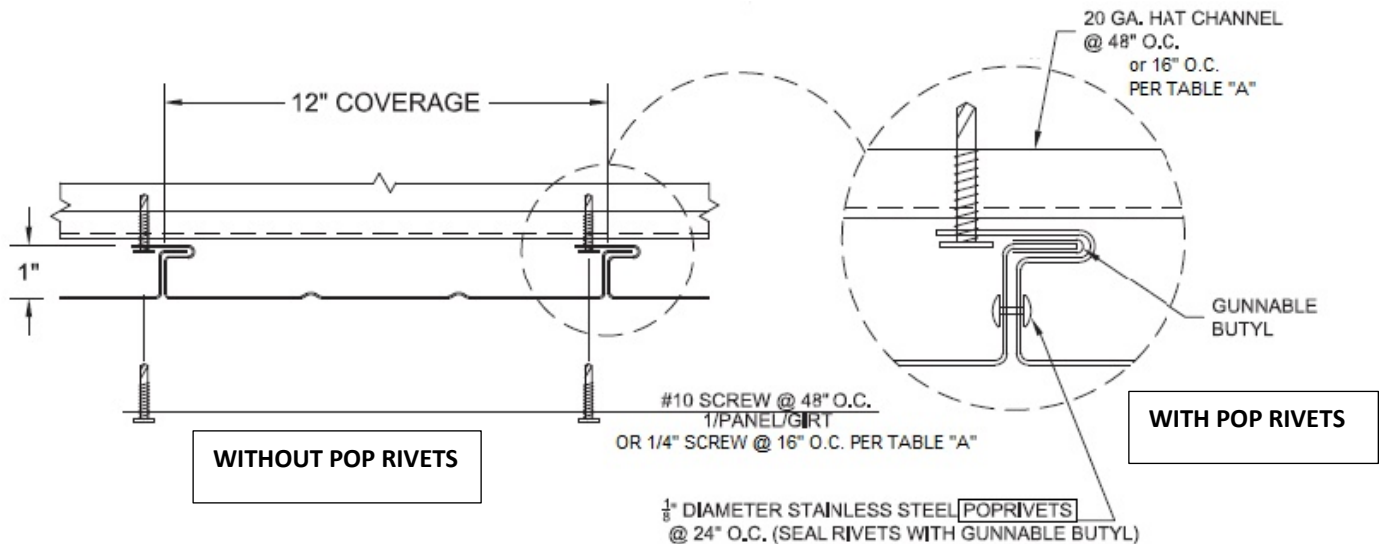
**Additional
Standards Tests:**

- (Performed but not evaluated in this report.)
1. ASTM E331-00 Water Penetration Test & ASTM E283-04 Air Leakage Test
By Architectural Testing, Inc. (FBC Organization ID# TST 1558)
Report #D6554.02-109-44-R1, Date: 6/6/14 (Alum)
 2. ASTM E331-00 Water Penetration Test & ASTM E283-04 Air Leakage Test
By Architectural Testing, Inc. (FBC Organization ID# TST 1558)
Report #D6555.01-109-44-R1, Date: 6/6/14 (Steel)
 3. ASTM E331-00(2016) Water Penetration Test & ASTM E283/E283-19 Air Leakage Test
By Architectural Testing, Inc. (FBC Organization ID# TST 1558)
Report p7883.01-109-44, Date: 5/24/23 (Alum)
 4. ASTM E331-00(2016) Water Penetration Test & ASTM E283/E283-19 Air Leakage Test
By Architectural Testing, Inc. (FBC Organization ID# TST 1558)
Report p7882.01-109-44, Date: 5/24/23 (Steel)

Installation Method Englert, Inc. "B4000" Wall/Soffit Panel



TYPICAL PROFILE VIEW



TYPICAL ASSEMBLY PROFILE VIEW
(TYPICAL FASTENING PATTERN ALONG SUPPORTS)

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