### Panel, Beam & Post Attachment Details

**Option 1**

- **2" X 5" X 1/8" 6061-T6 ALUM CARRY BEAM, TYP**
- **ATTACH BEAM TO POST WITH (2) 1/4" 304 SS THRUBOLTS WITH WASHERS EACH LEG, TYP.**
- **3"x3"x5/8" 6061-T6 ALUM POST**
- **2"x2"x2"x5/8" 6061-T6 ALUM COLUMN**
- **ATTACH TO HOST STRUCTURE WITH (1) 1 1/2"x4"x2"x1/8" THICK 6061-T6 ALUM U-CLIP, ATTACHED TO HOST STRUCTURE WITH (3) 3/8" DIA BOLTS THROUGH BEAM PER CLIP**

**Option 2**

- **2" X 5" X 1/8" 6061-T6 ALUM CARRY BEAM, TYP**
- **ATTACH BEAM TO POST WITH (1) 2"x2"x1/8" 6061-T6 ALUM ANGLE EACH SIDE OF POST WITH (4) 1/4" 304 SS THRUBOLTS**
- **21/4"x21/4"x5/8" 6061-T6 ALUM COLUMN BRACKET ATTACHED TO POST WITH (4) 1/4" 304 SS THRUBOLTS**
- **ATTACH TO HOST STRUCTURE WITH (1) 1 1/2"x4"x2"x1/8" THICK 6061-T6 ALUM U-CLIP, ATTACHED TO HOST STRUCTURE WITH (3) 3/8" DIA BOLTS THROUGH BEAM PER CLIP**

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**Panel to Host Structure Attachment**

- **2"x5" CARRY BEAM**
- **ATTACH TO HOST STRUCTURE WITH (3) 3/8" DIA BOLTS THROUGH BEAM PER CLIP**

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**Panel to Fascia Attachment**

- **2"x5" CARRY BEAM**
- **ATTACH TO HOST STRUCTURE WITH (3) 3/8" DIA BOLTS THROUGH BEAM PER CLIP**

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**Concrete or Filled Masonry**

- **0.045" THICK (6063-T6) CONTINUOUS ALUM CHANNEL**
- **0.045" FLASHING (BY OTHERS)**
- **1/2" TAPCON WITH 1 1/2" EMBED, 1/2" EDGE DISTANCE, SPACED 4" FROM ENDS AND 10" MAX. O.C.**
- **#8 SAE GR. 5 SMS AT 8" O.C. (TOP AND BOTTOM) AND 4" FROM ENDS**
- **HEAVY ADHESIVE CAULK TOP AND BOTTOM CONTINUOUS**
- **#8 SAE GR. 5 SMS AT 8" O.C. (TOP AND BOTTOM) AND 4" FROM ENDS**

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**Existing Rafter or Truss**

- **2X WOOD FASCIA**
- **BY OTHERS \( G = 0.55 \) MIN**
- **2X WOOD SCREWS AT 12" O.C. (STAGGERED) AND 6" FROM ENDS, PROVIDE 1 1/2" MIN THREAD PENETRATION AND 1" FROM ANY #WOOD EDGE.**
- **#14 WOOD SCREWS AT 12" O.C. (STAGGERED) AND 6" FROM ENDS, PROVIDE 1 1/2" MIN THREAD PENETRATION AND 1" FROM ANY #WOOD EDGE.**

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**Panel Attachment Details**

- **#10 SMS AT 16" TYP. TOP AND BOTTOM**
- **GUTTER (OPTIONAL)**

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**Product Approval**

- **EPS PANELS PER PRODUCT APPROVAL #FL7561.1**
- **ALUMICENTER INC.**
  2315 NW 107 AVE, SUITE 1M33
  MIAMI, FL 33172
  TEL: 305-969-0264  FAX: 305-328-9668

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**DIY Master Sheet**
## PRODUCT APPROVAL DETAILS:

- **Blog Code:** 5TH EDITION FLORIDA BUILDING CODE (2017 FBC)
- **Limits of Use:** For patio use only (Risk Category I)
  - Conports
  - Patio Covers
  - Awnings
  - Screen Enclosures
  - Awnings
  - Canopies
  - Other similar minor structures

### Note

1. All product performance specifications and construction requirements shall be engineered by a licensed design professional in accordance with the Aluminum Design Manual, Specifications & Guidelines for Aluminum Structures, Washington, DC, for wind resistance in conformance to FBC Chapter 16 for Components and Cladding Loads, ASCE 7-10, Chapter 30 for Roof Components and Cladding for Open and Enclosed Structures. Effective area for wind load calculations based on 50 sq. feet (absolute value of controlling design wind pressure is shown on span tables). Span schedule show maximum roof/panel spans between two side clear supports as shown.
2. Wind load design pressures in span tables are calculated in accordance to ASCE 7-10, Components & Cladding loads as required in FBC Table 2002.4. Mean roof height of structure shall not exceed 15 feet above grade. Span tables for open structures based on 7.5” max. roof slope and used the avg. of free flow and obstructed flow net pressure coefficients. Span tables for enclosed and partially enclosed structures based on 27” max. and 7” roof slope, respectively.
3. Each roof panel shall be connected per design professional’s instructions, but may use min. per details shown on this dwg. at each support (or other approved connections by design professional)
4. Wind load design pressures in span tables are calculated in accordance to ASCE 7-10, Components & Cladding loads as required in FBC Table 2002.4. Mean roof height of structure shall not exceed 15 feet above grade. Span tables for open structures based on 7.5” max. roof slope and used the avg. of free flow and obstructed flow net pressure coefficients. Span tables for enclosed and partially enclosed structures based on 27” max. and 7” roof slope, respectively.
5. Each roof panel shall be connected per design professional’s instructions, but may use min. per details shown on this dwg. at each support (or other approved connections by design professional)
6. Composite panels shall be constructed using type 3105-H144 aluminum facings, 1 or 2 PCP ASTM C-578 Imperial Foam & Insulation Manufacturing brand EPS adhered to aluminum facings with Mural 5640 Series adhesive (by Rohm and Haas Company). Fabrication to be by Structural panel products only in accordance with approved fabrication methods.
7. Structural roof panels maintain a UL 1715 (int) class ‘B’ (ext) rating and are NER-501 approved.
8. This specification has been designed and shall be fabricated in accordance with the requirements of the Florida Building Code 6th edition (2017 FBC), composite panels comply with Chapter 7, Section 720, Chapter 8 Section 805, Class A interior finish, and Chapter 26 Section 2605. All local building code amendments shall be adhered to as required.
9. The designer shall determine by accepted engineering practice the load design for site specific load conditions (including load combinations) using the data from the loads tables and spans in this approval.
10. Deflection limits and allowable spans have been listed to meet FBC including the HIVZ. In HIVZ, the product shall be used in structures meeting the requirements of Section 1632.1, unless impact resistance in accordance to the HIVZ requirements are met.
11. Safety factor of 2.0 has been used to develop allowable loads and spans from testing to conformance to the Guidelines for Aluminum Structures Part 1 and conforms to the FBC Chapter 16 and 20.
12. Testing has been conducted in accordance to ASTM E72-05: Strength Test of Panels for Building Construction.
13. Linear interpolation shall be allowed for figures within the tables shown.
14. Panels with fan beams shall be considered equivalent to similar panels without fan beams. Design professionals may include the strength of the fan beam to exceed shown figures as part of site-specific engineering.
15. Reference test reports: Certified test reports STRL-002-03-01, STRL-002-03-02, STRL-004-03-01 by PRL-Construction Materials Technologies LLC.
Product Evaluation Report

Date: September 26, 2017

Report No.: FL# 21443-R1

Product Category: Roofing

Product sub-category: Products Introduced as a Result of New Technology

Product Name: Snap-N-Lock 3” Thick EPS Foam Core w/ Aluminum Skin Composite Panels

Manufacturer: Structall Building Systems, Inc.
350 Burbank Rd.
Oldsmar, FL 34677
Phone: 813-855-2627

Scope:

This product evaluation report issued by Do Kim & Associates, LLC and Do Kim, P.E. for Structall Building Systems, Inc. (Structall) is based on Florida Department of Business and Professional Regulation Rule 61G20-3, Method (2) (b) of the State of Florida Product Approval. Re-evaluation of this product shall be required following pertinent Florida Building Code modifications or updates.

Do Kim & Associates, LLC and Do Kim, P.E. do not have nor will acquire financial interest in the company manufacturing or distributing the product or in any other entity involved in the approval process of the product named herein.

This product has been evaluated for use in locations adhering to the Florida Building Code, 6th Edition (FBC) and where pressure and deflection requirements, as determined by Chapter 16 of the Florida Building Code, do not exceed the design pressures as shown on the approval.

Do Kim, P.E.
FL #49497
Supporting Documents

1. Code Compliance
   a. The product assembly described herein has demonstrated compliance with the Florida Building Code 6th Edition (FBC), Section 1708.2.

2. Drawings:
   a. Drawing No. 161027 titled “3”x0.024”x1 LB EPS Foam Core Composite Aluminum Skin Panels, Florida Statewide Product Approval”, Sheets 1 & 2, prepared by Do Kim & Associates, LLC., signed and sealed by Do Kim, P.E.
   b. Drawing No. 161027 titled “3”x0.030”x1 LB EPS Foam Core Composite Aluminum Skin Panels, Florida Statewide Product Approval”, Sheets 1 & 2, prepared by Do Kim & Associates, LLC., signed and sealed by Do Kim, P.E.

3. Testing
   a. Testing per ASTM E72-05/ASTM E330-02 as performed by PRI Construction Materials Technologies LLC (PRI), and reported in test report numbers STRL-002-03-01, STRL-002-03-02, STRL-004-03-01, STRL-005-03-01, STRL-005-03-02, and STRL-006-03-01.
   b. Testing per ASTM E-84 per test reports 15328-97939 by Omega Point Laboratories for 3” aluminum skin composite panel with Smoke Developed Index = 170 and Flame Spread Index = 5.

4. Calculations
   a. Panel performance engineering analysis for tested loading conditions have been prepared based on comparative and/or rational analysis, prepared, and submitted by Do Kim, P.E.

5. Other
Limitations and Condition of Use

1. Code Compliance
   a. The product assembly described herein has demonstrated compliance with the Florida Building Code 6th Edition (FBC), Section 1708.2.

2. Large and small missile impact resistance has NOT been tested to or evaluated for in this approval. In HVHZ, this product shall be used in structures meeting the requirements of Section 1626.1, unless impact resistance in accordance to the HVHZ requirements are met.

3. Each product listed above shall be installed in strict compliance with its respective Product Evaluation Document and site specific engineering along with all components noted herein.

4. Use of each product shall be in strict accordance with its Product Approval Evaluation and Limitations of Use.

5. Composite panels shall be constructed using type 3105-H154 aluminum facings, 1 PCF ASTM C-578 Imperial Foam & Insulation Manufacturing brand EPS adhere to aluminum facings with Morad M640 Series adhesive (by Rohm and Haas Company). Fabrication of Structall panel products shall be only in accordance with approved fabrication methods.

6. Flame spread (5) and smoke density rating (170) are in accordance to FBC Section 2603.3.

7. This specification has been designed and shall be fabricated in accordance with the requirements of the FBC, composite panels comply with Chapter 7 Section 720, Chapter 8 Section 803, Class A interior finish, and Chapter 26 Section 2603. All local building code amendments shall be adhered to as required.

8. The designer shall determine by accepted engineering practice the allowable loads for site specific load conditions (including load combinations) using the data from the allowable loads tables and spans in this approval.

9. Deflection limits and allowable spans have been listed to meet FBC including the HVHZ (L/80 for spans ≤ 12'-0” and L/180 for spans > 12'-0”).

10. All supporting host structures shall be designed to resist all superimposed loads.

11. All components which are permanently installed shall be protected against corrosion, contamination, and other such damage.

12. Size and Span Limitations:
   a. Composite panels shall be limited to those specific panels listed in the DWG. No. 161027.
   b. Panel spans shall not exceed those listed in the tables of DWG. No. 161027, unless otherwise allowed by a licensed design professional for site specific conditions.