

Evaluation Report Evolution® - Overly Metal Roof System

Manufacturer:
East Coast Metal Systems.

625 Distribution Road
Triadelphia, WV 26059

for

Florida Product Approval

FL 48288.2

Florida Building Code 8th Edition (2023), Florida (Outside HVHZ zone)

Method: 2 - B

Category: Roofing

Sub - Category: Metal Roofing

Product: Evolution® -Overly Metal Roof System

Material: Aluminum

Panel Thickness: 0.050"

Panel Width: 30" max.

Panel Seam: Concealed Compression Clip

Support: Wood Deck

Prepared by:

James L. Buckner, P.E., SECB

Florida Professional Engineer # 31242 Florida

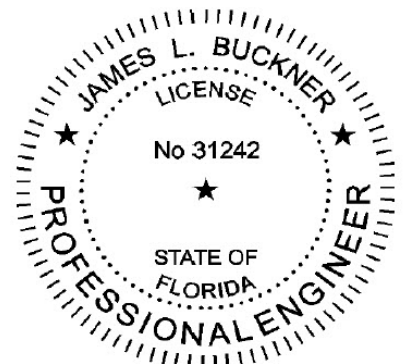
Evaluation ANE ID: 1916

Sr. Project Manager: Diana Galloway Report No.

02_26-834.2.2-Evolu-FL-ER

Date: 6/27/2026

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

Contents:

Evaluation Report

Pages 1 – 13

Manufacturer: East Coast Metal Systems.

625 Distribution Road
Triadelphia, WV 26059
(800)345-6755)

Product Name: "Evolution® - Overly Roof System"

Product Category: Roofing

Product Sub-Category Metal Roofing

Compliance Method: State Product Approval Rule 61G20-3.005 (2) (B)

Product/System Evolution® - Overly Roof System

Description: 0.050" Aluminum roof panel, concealed mechanically attached to Wood Deck with fixed compression cap-clip & screws. A batten type Cover Cap is installed over the panel vertical legs seam and is attached with adhesive and mechanical crimps.

Product Assembly as Evaluated: Refer to Components/Materials page of this report for product assembly components/materials & standards:

1. Roof Panel & Drain Channel
2. Panel compression Clip & Cover Cap
3. Fasteners
4. Underlayment
5. Insulation (Optional)

Support:

Type:

Wood Deck

(Design of support and its attachment to support framing is outside the scope of this evaluation.)

Description: Deck = 2 Layers of APA Plywood

- 15/32" or greater plywood over 23/32 " or greater plywood
- or Wood plank (min. specific gravity of 0.42) of equal Thickness

Slope:

Minimum slope shall be:

1/4 : 12 per FBC section 1507.4.2.3

In compliance with FBC Chapter 15 based on the applicable code sections and in accordance with manufacturer's recommendations.

Performance:**Wind Uplift Resistance:**

- * Design Uplift Pressure: - 131 PSF

* Allowable design pressure for Allowable Stress Design (ASD) with a Margin of Safety of 2 : 1

Performance Standards:

The following test protocols were performed to demonstrate compliance with the intent of the code.

- UL 580 & UL 1897 Test for Uplift Resistance if Roof Assemblies
- Modified TAS 111(B) Edge Metal Pull Off Test

Code Compliance:

The product described herein has demonstrated compliance with the intent of the **Florida Building Code 8th Edition (2023)**, Florida (non HVHZ) per FBC 8th section 1708.2 and Method 2-B per Rule 61G20-3.005 (2) (B) **2021 International Building Code (IBC)** per section 1708.2.2

Evaluation Report Scope:

This product evaluation is limited to compliance with the structural requirements of the Florida Building Code 8th, as related to the scope section to Florida Product Approval Rule 61G20-3.001.

Limitations and Conditions of Use:

- This evaluation report does not evaluate the use of this product for use in the High Velocity Hurricane Zone (HVHZ) code section. (Dade & Broward Counties)
- Design of support system is outside the scope of this report. Support shall be designed by others and shall comply with Chapter 16 for structural loading.
- All metal components and fasteners shall be corrosion resistant in accordance with applicable sections of FBC, including but not limited to Sections 1504.3.2, 1506.6 and 1507.4.4.
- Fire Classification is outside the scope of Rule 61G20-3 and is therefore not included in this evaluation.
- Scope of "Limitations and Conditions of Use" for this evaluation:
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".
- Option for application outside "Limitations and Conditions of Use"
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 roof 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 **Farabough Engineering and Testing**. (FBC Organization ID# QUA 7733).

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

Material:
Thickness:
Panel Widths:
Alloy Type:
Corrosion Resistance:

Evolution® Roof Panels

Aluminum
0.050" (min.)
30" (max.) Coverage
3105 H14
Per FBC Section 1507.4.3

Evolution® Extrusions**Drain Chanel****Compression Cap****Cover Cap**

Material:
Thickness:
Alloy Type
Corrosion Resistance:

Aluminum
Extruded
6063-T5
Per FBC Section 1506.7

Evolution Extruded Gaskets

Material:

EDPM

Evolution® Infil Boards

Material
Density
Thickness

High-Density Polyisocyanurate
90 PSF minimum
1/2 inch

**Components &
Materials:
(by Others)****Fasteners:**

Type:
Material
Size :
Corrosion Resistance:
Standard:

Hex Head & Flat head Wood Screw
Stainless Steel
12 x 2" minimum
Per FBC Section 1506.6 and 1507.4.4
Per ANSI/ASME B18.6.1

Bostic 915 Sealant & Adhesive : Miami-Dade NOA No 25-0125.04

Material: Polyurethane

Underlayment:

One of the following per FBC 8th Edition (2023), Section 1518.2.

ASTM D226, D1970, D4869, D6757, D8257

Installation shall comply with FBC including Sections 1518.2, 1518.2.1, Table, 1518.2.1, 1518.2.2, 1518.2.3, 1518.2.4 where applicable and in accordance with roof manufacturer's recommendations.

Barrier Fire or Thermal Board:

Any approved barrier with current approval.

Used as non load chain structural component in roof assembly or under roof panels.

Maximum combined thickness = 2 inches.

(Fire classification is outside the scope of this evaluation. Refer to current fire listings for installation of fire barrier & fire rating of this system.)

Installation Method:

The metal panels are laid over the infill board. Each side of the panel sits on top of a continuous Evolution® Drain Channel. The panel is secured down to the Drain Channel using a top Evolution® Compression Cap, with EDPM gaskets. The Compression Cap is attached into both layers of wood deck substrate using #12 – 14 X 2 inch minimum hex head, wood screws located 12 inches on center. Refer to the insulation pages in this report and refer to the manufacturer's instructions that complement this evaluation.

Prior to installing the Cover Cap a bead of Bostic 915 Polyurethane Sealant & Adhesive is applied to the top of each side of the Compression Cap.

The Cover Cap is snapped over the Compression Cap. Then on each vertical leg of the Cover Cap, a 1/4 inch crimp is made, located 12 inches on center.

Installation:

Referenced Data:

UL 580 & UL 1897 Test for Uplift Resistance of Roof Assemblies

By Farabaugh Engineering and Testing Inc (FBC Organization ID# TST 1654)
Report No. T276-25, Date: 7/30/25

Modified TAS 111 (B) Metal Pull Uplift Test

By Farabaugh Engineering and Testing Inc (FBC Organization ID# TST 1654)
Report No. T295-25, Date: 9/29/25

Product Quality Assurance Entity

Farabaugh Engineering and Testing Inc (FBC Organization ID# QUA7733)

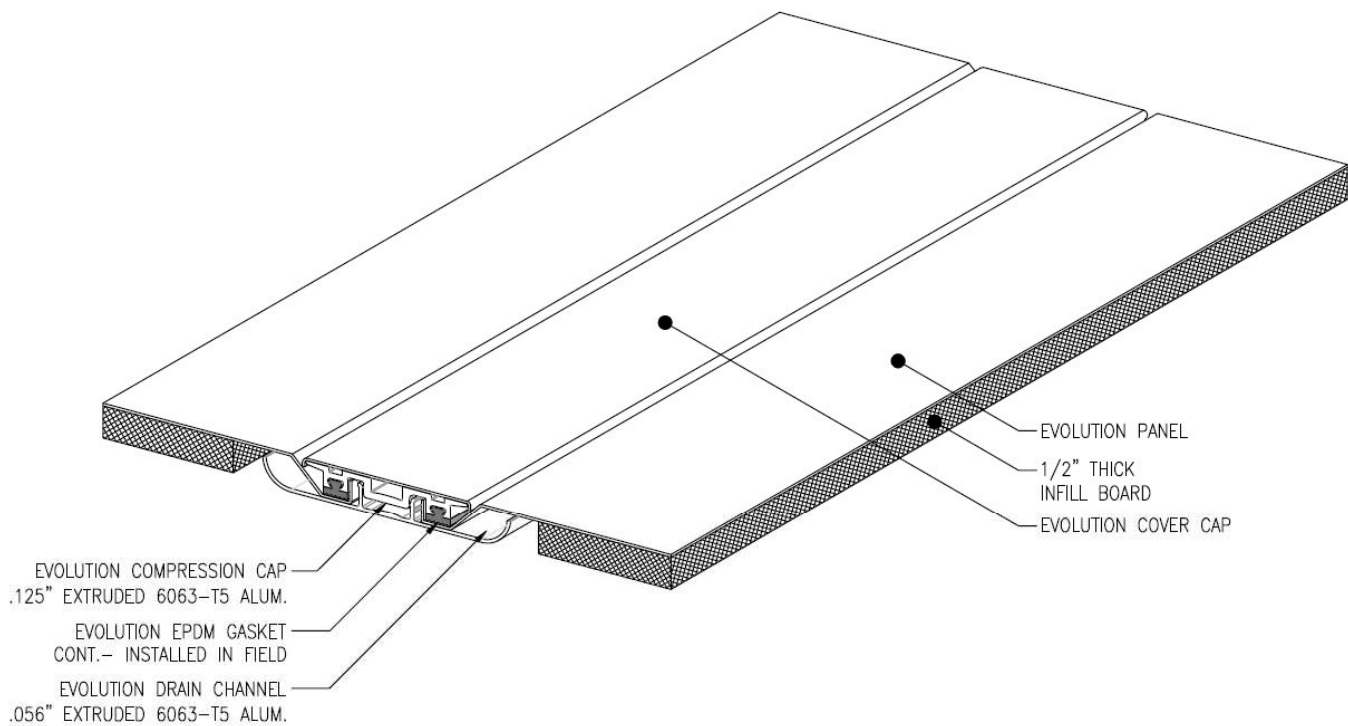
Engineering Analysis

By CBUCK Engineering

Certification of Independence

By James L. Buckner, P.E. @ CBUCK Engineering
(FBC Organization # ANE 1916)

Installation Method EVOLUTION® Overly Metal Roof System



REFER TO 1.1
 FOR DETAIL

OVERLY
 PANEL SYSTEMS
 A.D. BY EAST COAST
EAST COAST METAL SYSTEMS
 625 Distribution Road, Triadelphia, WV 26059
 P. 681-327-2445 W. overlybyecms.net
 Email: overlyestimating@ecmsinc.net

PROJECT:

EVOLUTION CATALOG DETAILS
 U.S. PATENT No. 9,181,692

SHEET TITLE:

ASSEMBLY ISOMETRIC

TITLE: EVOLUTION SYSTEM CATALOG

DATE: 2024

DWN. BY: ECMS CADD TECH

CHK. BY: ECMS

SCALE: NTS

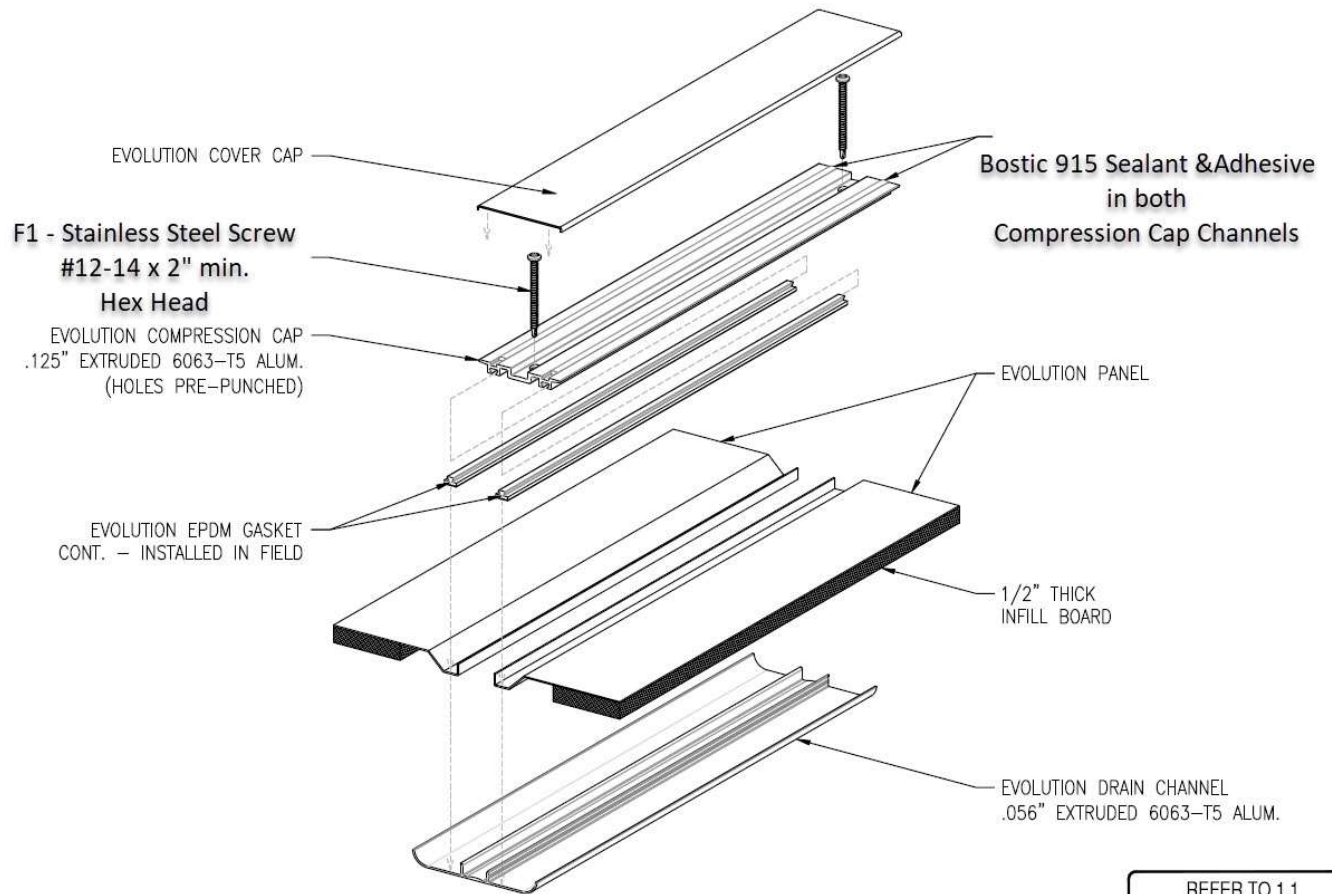
REV:

SHEET #:

0

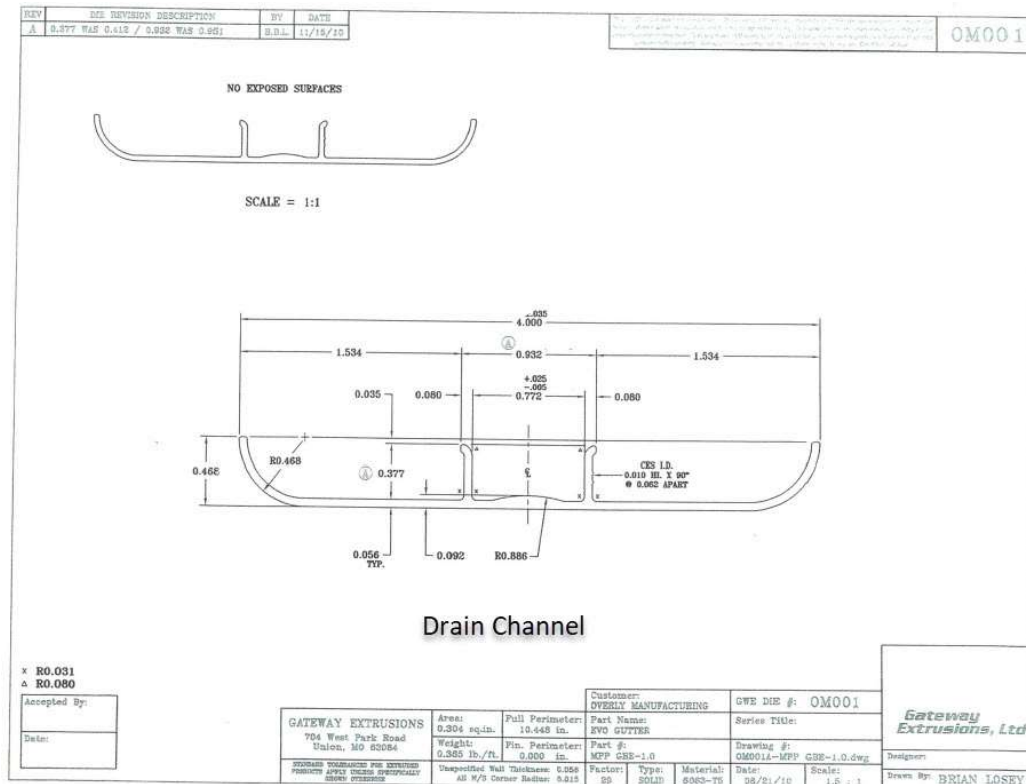
A

Installation Method EVOLUTION® Overly Metal Roof System

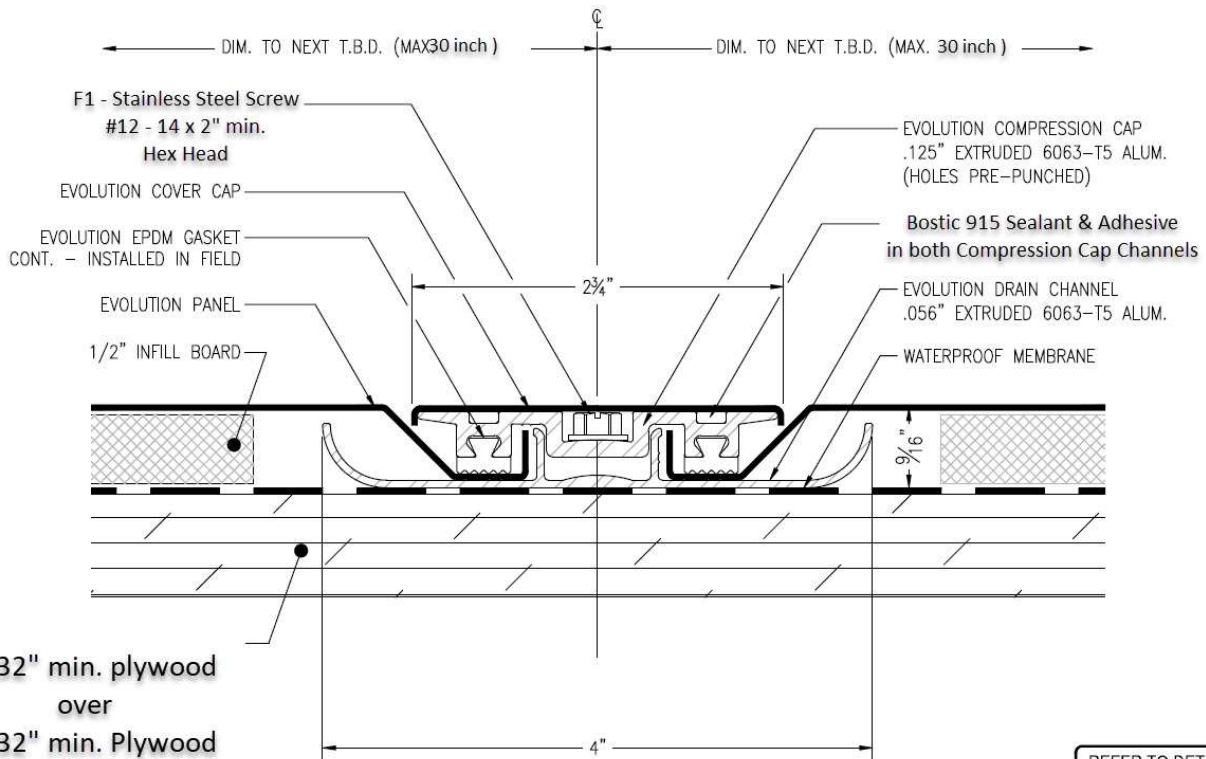


REFER TO 1.1
FOR DETAIL

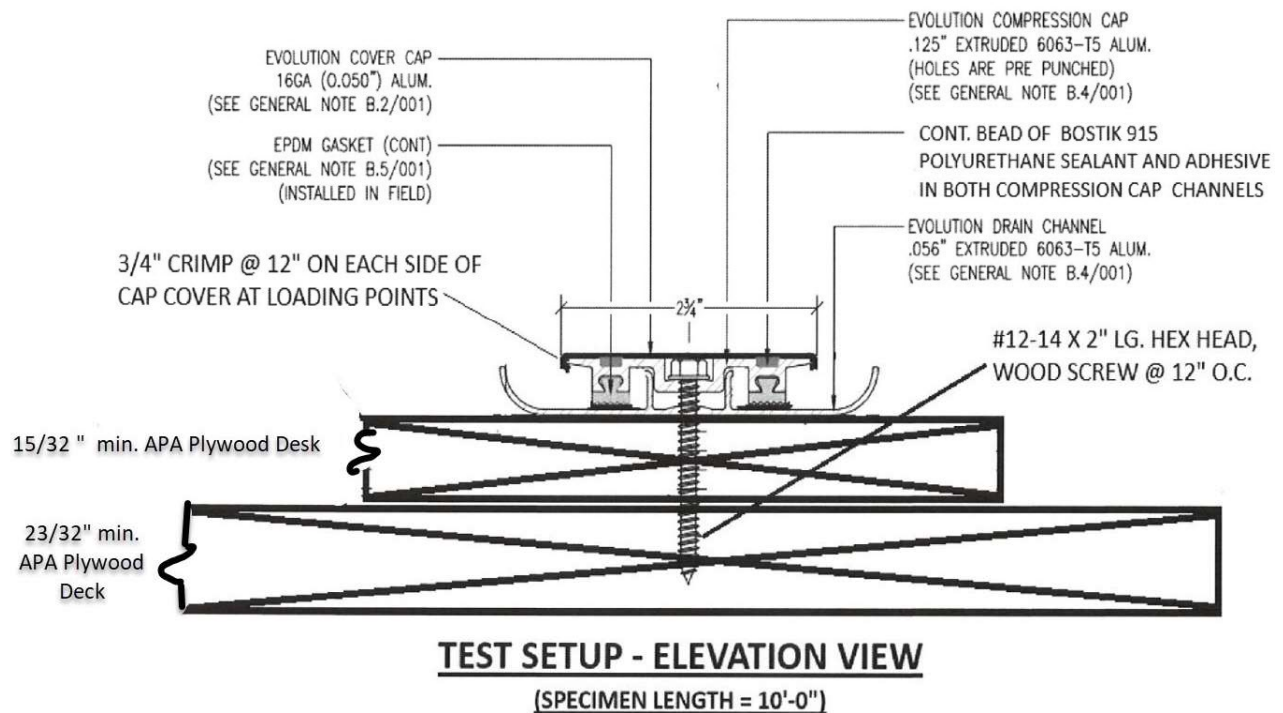
Installation Method EVOLUTION® Overly Metal Roof System



Installation Method EVOLUTION® Overlay Metal Roof System



Installation Method EVOLUTION® Overly Metal Roof System



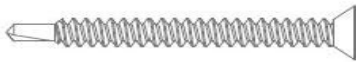
Installation Method EVOLUTION® Overly Metal Roof System

FASTENER TYPES



(F1) PRESSURE CAP/DRAIN CHANNEL
FASTENER (INTO WOOD)

- #12-14 X 2"
- STN. STL.
- HWH
- 'A' POINT



(F2) ROOF PANEL & CLEAT FASTENER
(INTO WOOD)

- #12-14 X 2"
- STN. STL.
- FLAT HD.
- DRILL POINT

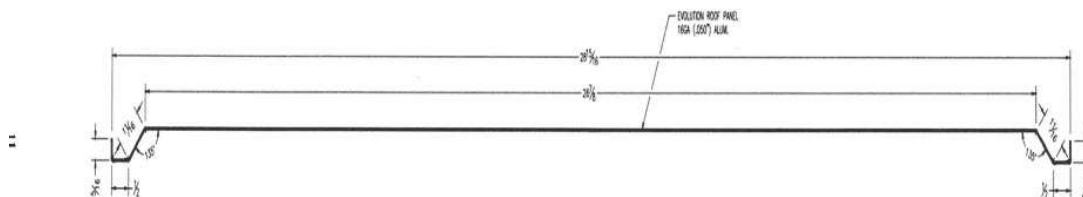
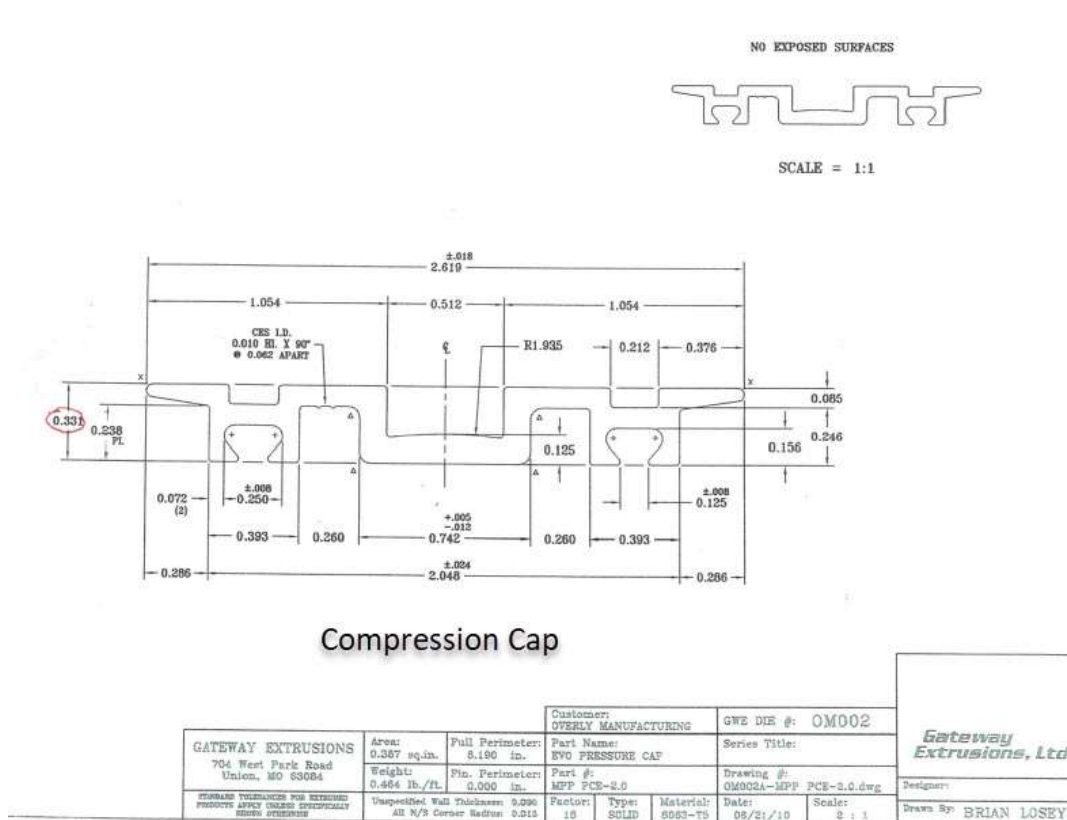


(F3) STARTER FLASHING, CLEAT, CLIP FASTENER
(INTO WOOD)

- #10-9 X 1"
- STN. STL.
- ULTRA LOW HD.
- GIMLET POINT

NOTES:

Installation Method EVOLUTION® Overly Metal Roof System



Cover Cap