



# CBUCK Engineering

Specialty Structural Engineering

CBUCK, Inc. Florida Certificate of Authorization # 8064

## Evaluation Report of Streamline Roofing & Construction, Inc. "175 SL"

**Metal Roof Assembly**  
*for*  
**Florida Product Approval**  
**# FL 7207.5 R1**  
**Florida Building Code 2007**  
**Per Rule 9B-72**

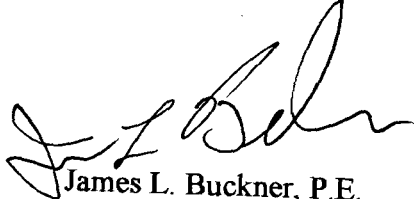
**Method: 1 - D**  
**Category: Roofing**  
**Sub - Category: Metal Roofing**

**Product:** "175 SL" Roof Panel  
**Material:** Steel  
**Panel Thickness:** 24 Gauge  
**Panel Width(s):** 18"  
**Support Type:** Wood Deck

**Prepared for:**  
**Streamline Roofing & Construction, Inc.**  
P.O. Box 2378  
Tallahassee, Florida 32316

**Prepared by:**  
**James L. Buckner, P.E.**  
Florida Professional Engineer # 31242  
Florida Evaluation ANE ID: 1916  
Project Manager: Diana Galloway  
Report No. 08-137-175-SL-18-S4W -ER  
Date: 10 / 10 / 08

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James L. Buckner, P.E.  
Florida, P.E. #31242  
10/23/08

# C-BUCK Engineering

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<b>Manufacturer:</b>	<b>Streamline Roofing &amp; Construction, Inc.</b>
<b>Product Name:</b>	<b>“175 SL”</b>
<b>Product Category:</b>	Roofing
<b>Product Sub-Category</b>	Metal Roofing
<b>Compliance Method:</b>	State Product Approval Rule 9B-72.070 (1) (d)
<b>Panel Description:</b>	“175 SL”, Steel, Snap-Lock, Standing Seam Roof Panel attached to Wood Deck.
<b>Panel Material / Standards:</b>	Material: Steel Yield Strength: 40 ksi minimum Corrosion Resistance: Material shall comply with the Florida Building Code (FBC), 2007 Section 1507.4.3.
<b>Panel Dimension(s)</b>	Thickness: 24 gauge minimum Width: 18” Maximum (Net Coverage Width) Rib Height: 1-3/4”
<b>Support Type:</b>	<b>Wood Deck</b> (Design of support system is not included in this evaluation) All butt and side joints shall be sealed with a one-part urethane caulk sealant applied with a caulking gun and feathered outward from the joint per the tested condition. Self-adhered underlayment may be used as an acceptable alternative to sealing plywood joints. (Sealing the deck is part of the roof system structure resistance evaluation)
<b>Support Description:</b>	<ul style="list-style-type: none"><li>• 19/32” or greater plywood, or</li><li>• Wood plank</li></ul>
<b>Slope Range:</b>	Minimum slope shall comply with FBC 2007, including Sections 1507.4.2, 1504.7 and in accordance with the Manufacturers recommendations.
<b>Underlayment:</b>	Underlayment shall be per manufacturer’s guidelines as required in FBC Section 1507.4.5.
<b>Insulation:</b>	<b>(Optional)</b> Rigid Insulation Board, 3” maximum thickness and shall comply with ASTM C 578 per FBC Section 1508.2.
<b>Fire Classification:</b>	Fire Classification is outside the scope of Rule 9B-72, and is therefore not included in this evaluation. Additional approved substrates may be added for Fire Classification purposes.



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**Attachment Component  
Description:**

**Roof Panel Clips**

Material: Steel  
Thickness: 18 gauge  
Yield Strength: 45 ksi minimum  
Nominal Dimension: 1-7/8" (tall) x 3-1/2" (long)  
Corrosion Resistance: Per FBC Section 1506.7

**Bearing Plates** (To be installed with optional insulation board)

Material: Steel  
Thickness: 16 gauge  
Yield Strength: 45 ksi minimum  
Corrosion Resistance: Per FBC Table 1507.4.3(2)

**Clip Fasteners**

Type: Low profile head self-drilling screws  
Material: Steel  
Size(s):

1. (No insulation board) #10-12 x 7/8" minimum penetration through deck
2. (With insulation board) #12 x 7/8" minimum penetration through deck

Corrosion Resistance: Per FBC Section 1507.4.4 and 1506.6  
Standard: Per ANSI/ASME B18.6.1

**Installation:**

**Streamline "175 SL" Roof Panel Attached to Wood Deck:**

- **Clip Spacing: 36" o.c.** maximum  
(along the length of the panel)
- **TWO** Fasteners per Clip
- Rib Interlock: Snap-Lock  
(Panel ribs shall be fully engaged to form an integral snap-lock.)  
Minimum fastener penetration or embedment into wood deck, 7/8".

**Design Uplift Pressure:** - 52.5 PSF ( Safety Factor of 2:1 )

Install the system in compliance with the attached installation method.  
Refer to manufacturer's installation instructions as a supplemental guide for attachment.

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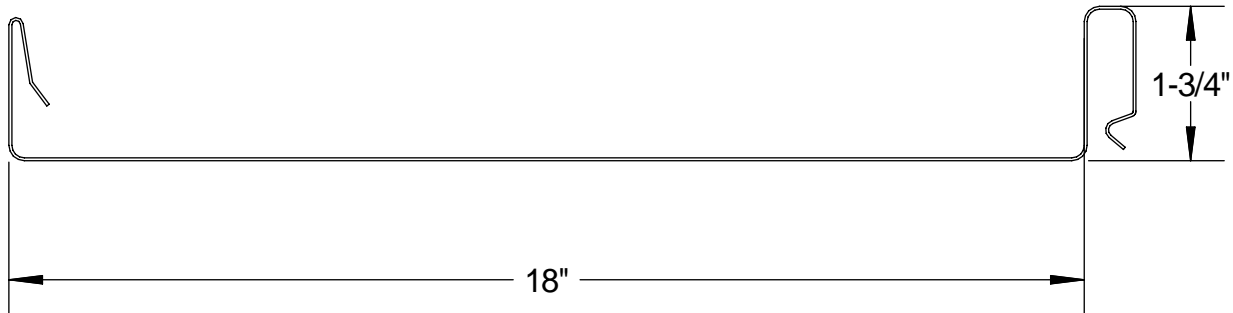
- Quality Assurance:** The manufacturer has demonstrated compliance of roof panel products in accordance with the Florida Building Code and Rule 9B-72.070 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity through **Underwriter's Laboratories, Inc.** (FBC Organization #: QUA 1743)
- Performance Standards:** The product described herein has demonstrated compliance with:
- **UL580-94 – Test for Uplift Resistance of Roof Assemblies – with Revisions through February 1998.**
- Code Compliance:** The product described herein has demonstrated compliance with the Florida Building Code 2007, Section 1504.3.2.
- Evaluation Report Scope:** This product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code, as related to Rule 9B-72.
- System Limitations:** The required design wind loads shall be determined for each project per FBC, 2007, Section 1609. All wood deck butt and side joints shall be sealed. Any rational analysis shall be prepared by a qualified design professional as required by FBC 2007, Sections 104, 105, 106. The maximum fastener/clip spacing listed herein shall not be exceeded. This report does not evaluate use of this product in the High Velocity Hurricane Zone.
- Referenced Data:**
1. UL Uplift Class 90  
By Underwriters Laboratories, Inc., (FBC Organization #CER ID: 1739)  
UL File # TGKX.343  
Based on UL580-94 (with February 1998 Revisions) Uplift Test
  2. Quality Assurance  
Underwriters Laboratories, Inc. (FBC Organization #QUA ID:1743)
  3. Certification of Independence  
By James L. Buckner, P.E. @ CBUCK Engineering  
(FBC Organization# ANE ID: 1916)

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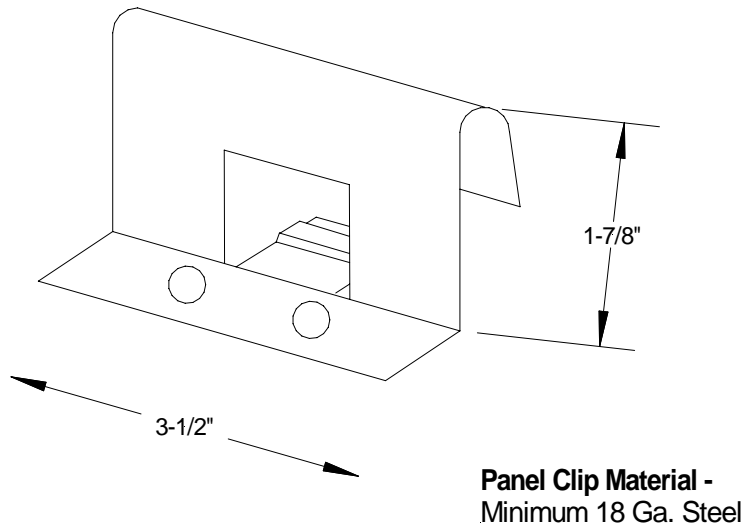
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## Installation Method Streamline Roofing & Construction, Inc. "175 SL" (24 Ga. Steel) Roof Panel Attached to Wood Deck



Panel Profile View



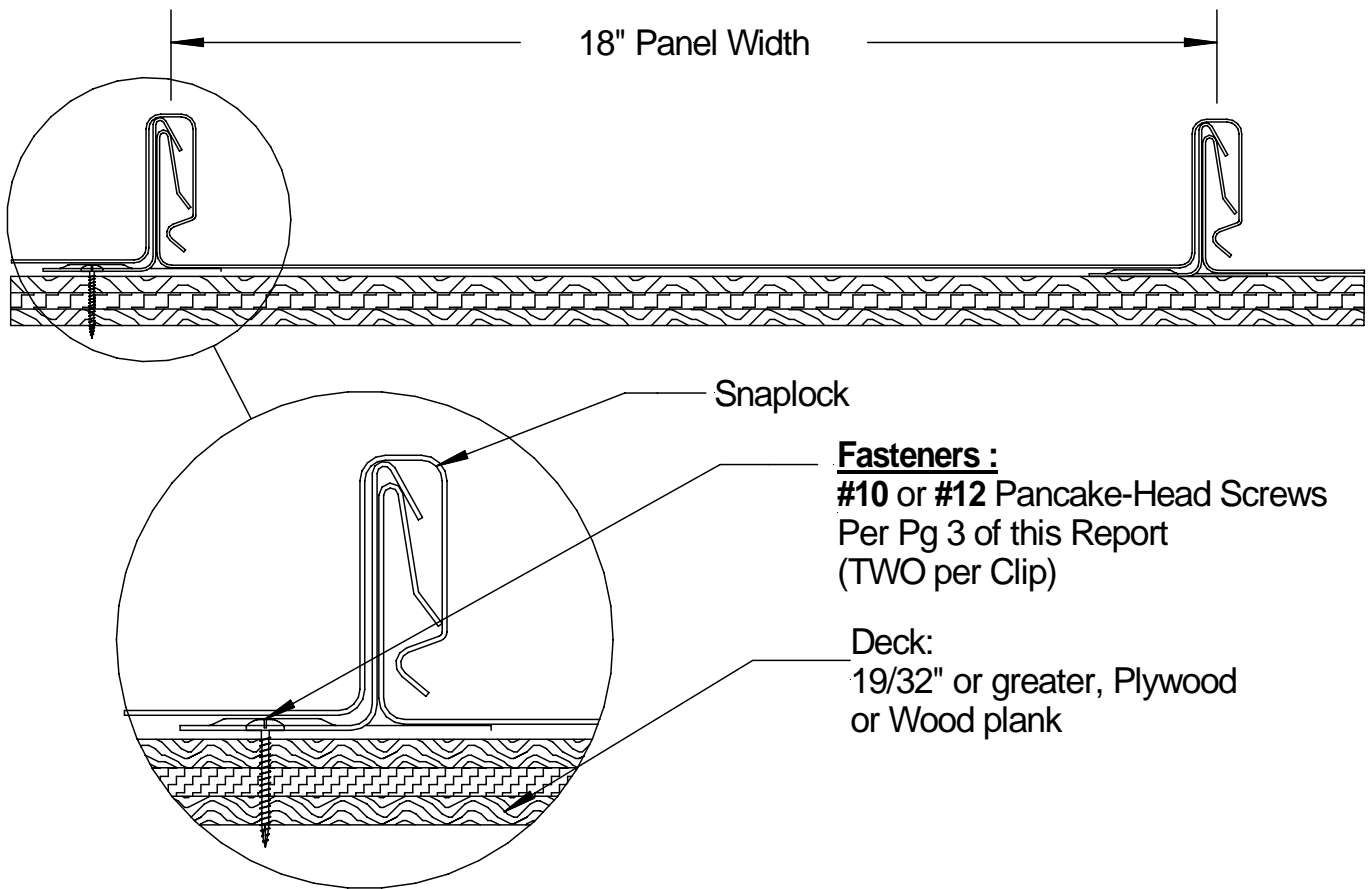
Panel Clip

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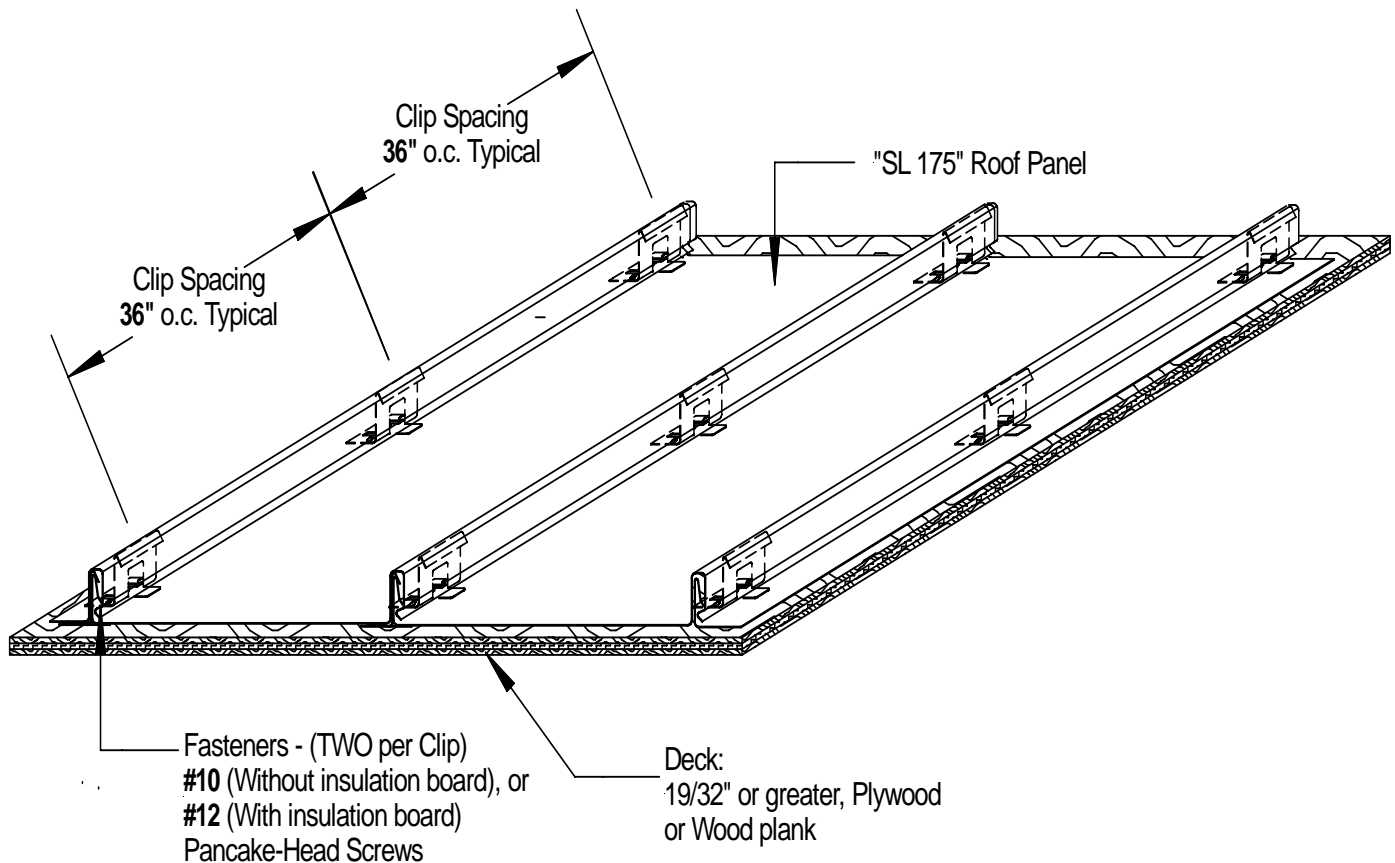
Typical Assembly Profile View

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## Installation Method Streamline Roofing & Construction, Inc. "175 SL" (24 Ga. Steel) Roof Panel Attached to Wood Deck



### Typical Assembly Isometric View

#### Optional Insulation:

Rigid Insulation Board, 3" maximum thickness and shall comply with ASTM C 578 per FBC Section 1508.2.