Susan Manchester

2820 Nela 2020-03-059 Rosselot

From: Susan Manchester
Sent: Friday, April 24, 2020 3:19 PM
To: Angela Rosselot
Cc: CobiPermits
Subject: 2820 Nela Ave - boat dock ROOF 2020-03-059 - need app and PA form
Attachments: COBI Roofing Permit Application.pdf; COBI Product Approval Form.pdf

Hello,

Thank you for sending the shingle info for the boat dock roof. We also need the attached app and PA form completed for the ROOF permit. We need the code for the underlayment filled in as well the metal roof FL 9860.7 product that you just sent us. If you are not using an underlayment – please let me know. Sometimes metal is placed right over existing shingles and underlayment.

Thank you,

Susan Manchester
Permit Administration for the City of Belle Isle
Building Inspections and
Code Compliance Department
407-423-0504 X23309 or 407-581-8161 option permits
3532 Maggie Blvd, Orlando, FL 32811
E-mail: smanchester@universalengineering.com
Website: www.universalengineering.com
UNIVERSAL ENGINEERING SCIENCES

replaced by 2020-038

ROOF 2020-03-059

City of Belle Isle

Universal Engineering Sciences 3532 Maggie Blvd., Orlando, FL 32811
Tel 407-581-8161 * Fax 407-581-0313 * www.universalengineering.com

RECEIVED MAR 18 2020 BY

Product Approval Form

DATE: 3-17-20

PERMIT # 2020-03-059

PROJECT ADDRESS 2820 Nela Ave, Belle Isle, FL X 32809 ___ 32812

As required by Florida Statue 553.842 and Florida Administrative Code 9B-72m, please provide the information and approval numbers of the building components listed below if they will be utilized on the building or structure. FL Approved products are listed online at www.floridabuilding.org or can be obtained from the local product supplier. The following information must be turned in with permit application and available onsite for inspections:

- **NOTE: The Installation instructions must be posted on-site before your first inspection!!**

Product Type	Manufacturer	Model/Series	FL Product Approval #	Product Type	Manufacturer	Model/Series	FL Product Approval #
EXTERIOR DOORS				**WALL PANELS**			
Swinging				Sliding			
Sliding				Soffits			
Sectional/Rollup				Storefront			
Other				Glass Block			
				Other			
WINDOWS				**ROOFING PRODUCTS**			
Single/Dbl Hung				Asphalt Shingles			
Horizontal Slider				Non Struct Metal	Sentrigard	NS10024Gaovel Plywood	FL #9860.7
Casement				Roofing Tiles			
Fixed				Single Ply Roof			
Mullion				Underlayment			
Skylights				Other			
Other							
STRUCTURAL COMPONENTS				**OTHER**			
Wood Connectors							
Wood Anchors							
Truss Plates							
Insulation Forms							
Lintels							
Other							

It is the applicant's responsibility to verify that specific products have been installed in accordance with their limitations and with the minimum required design pressures for the structure. Specific compliance will be verified during field inspections.

Applicant Signature _____ **Date** 3-17-20

FLORIDA DEPARTMENT OF
Business & Professional Regulation

Florida dbpr

Product Approval
USER: Public User

OFFICE OF THE SECRETARY

FL #	FL9860-R5
Application Type	Revision
Code Version	2017
Application Status	Approved
Comments	
Archived	
Product Manufacturer	Sentrigard Metal Roofing Systems Association, In
Address/Phone/Email	65 10th Street Lynchburg, VA 24502 (434) 847-2444 Ext 1028 christopherpayne@nbhandy.com
Authorized Signature	PAYNE CHRIS christopherpayne@nbhandy.com
Technical Representative Address/Phone/Email	
Quality Assurance Representative Address/Phone/Email	
Category	Roofing
Subcategory	Metal Roofing
Compliance Method	Evaluation Report from a Florida Registered Archi Professional Engineer Evaluation Report - Hardcopy Received
Florida Engineer or Architect Name who developed the Evaluation Report	Terrence E. Wolfe
Florida License	PE-44923
Quality Assurance Entity	Keystone Certifications, Inc.
Quality Assurance Contract Expiration Date	08/04/2025
Validated By	Brian Jaks, P.E. Validation Checklist - Hardcopy Received
Certificate of Independence	FL9860_R5_COI_Letter of Certification - Secured.
Referenced Standard and Year (of Standard)	**Standard** TAS 100 TAS 125 UL 1897 UL 580

Equivalence of Product Standards
Certified By

Sections from the Code

Product Approval Method	Method 1 Option D
Date Submitted	09/18/2017
Date Validated	10/13/2017
Date Pending FBC Approval	10/17/2017
Date Approved	12/12/2017

Summary of Products

FL #	Model, Number or Name	Description
9860.1	SENTRIGARD ML 200	24 Ga. 2" Mechanical Lock 18 7/8" Wi
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** +N/A/-153.5psf **Other:** -54.3 psf @ 36" o.c. Clip Spacing. -153.5 psf @ 6" o.c. Clip Spacing. Install per Manufacturer's details. For use in HVHZ Zones.		**Installation Instructions** FL9860_R5_II_ML 200 24 Ga. over S Verified By: Terrence E. Wolfe, P.E. 4 Created by Independent Third Party: **Evaluation Reports** FL9860_R5_AE_ML 200 24 Ga. over S Secured.pdf Created by Independent Third Party:
9860.2	Sentrigard ML 200 AH	2" Mechanical Lock 0.032" Aluminum Deck
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** +N/A/-138.5 **Other:** -71.0 psf @ 24" o.c. Clip Spacing. -138.5 psf @ 6" o.c. Clip Spacing. Install per Manufacturer's Details. For use in HVHZ Zones.		**Installation Instructions** FL9860_R5_II_ML 200AH Alum over S Secured.pdf Verified By: Terrence E. Wolfe, P.E. 4 Created by Independent Third Party: **Evaluation Reports** FL9860_R5_AE_ML 200AH Alum over Secured.pdf Created by Independent Third Party:
9860.3	SENTRIGARD ML100 AH	1.0 Mechnical Lock 0.032" Aluminum
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** +N/A/-101.0PSF **Other:** -63.5 psf @ 24" o.c. Clip Spacing. -101.0 psf @ 6" o.c. Clip Spacing. Install per Manufacturer's Details. For use in HVHZ Zones.		**Installation Instructions** FL9860_R5_II_ML 100AH Alum over Verified By: TERRENCE WOLFE,P.E. 4 Created by Independent Third Party: **Evaluation Reports** FL9860_R5_AE_ML 100AH Alum over Created by Independent Third Party:
9860.4	SENTRIGARD ML100 H	1.0 Mechanical Lock, 24 Ga. 16 1/2" V
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** +N/A/-138.5PSF **Other:** -71.0 psf @ 24" o.c. Clip Spacing. -138.5 psf @ 6" o.c. Clip Spacing. Install per Manufacturer's Details. For use in HVHZ Zones.		**Installation Instructions** FL9860_R5_II_ML 100H 24 Ga. over Verified By: TERRENCE E. WOLFE, P.E Created by Independent Third Party: **Evaluation Reports** FL9860_R5_AE_ML 100H 24 Ga. over Created by Independent Third Party:

9860.5	SENTRIGARD ML150 H	1.5 Mechanical Lock, 24 Ga. Steel, 16'
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** +N/A/-123.5PSF **Other:** -123.5 psf @ 6" o.c. Clip Spacing. -59.75 psf @ 24" o.c. Clip Spacing. Install per Manufacturer's Details. For use in HVHZ Zones.		**Installation Instructions** FL9860_R5_II_ML 150H 24 Ga. over Verified By: TERRENCE E. WOLFE, P.E Created by Independent Third Party: **Evaluation Reports** FL9860_R5_AE_ML 150H 24 Ga. over Created by Independent Third Party:
9860.6	SENTRIGARD ML150AH	1.5 Mechanical Lock 0.032" Aluminum
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** +N/A/-93.5psf **Other:** -78.5 psf @ 18" o.c. Clip Spacing. -93.5 psf @ 6" o.c. Clip Spacing. Install per Manufacturer's Details. For use in HVHZ Zones		**Installation Instructions** FL9860_R5_II_ML 150AH Aluminum Secured.pdf Verified By: Terrence E. Wolfe, P.E. 4 Created by Independent Third Party: **Evaluation Reports** FL9860_R5_AE_ML 150AH Aluminum Secured.pdf Created by Independent Third Party:
9860.7	SENTRIGARD NS 100	1.0 Nail Strip, 24 Ga. Steel, 16" Wide
Limits of Use **Approved for use in HVHZ:** No **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** +N/A/-153.5PSF **Other:** -153.5 psf @ 6-3/4" o.c. Fastener Spacing in slot and 12" o.c. Fastener Spacing in pan. -101.0 psf @ 6-3/4" o.c. Fastener Spacing in pan. -59.75 psf @ 16 o.c. Fastener Spacing in slot. Install per Manufacturer's Details. Not for use in HVHZ Zones.		**Installation Instructions** FL9860_R5_II_NS 100 24 Ga. over Pl Verified By: Terrence E. Wolfe, P.E. 4 Created by Independent Third Party: **Evaluation Reports** FL9860_R5_AE_NS 100 24 Ga. over Created by Independent Third Party:
9860.8	SENTRIGARD NS150 H	1.5 Nail Strip , 24 Ga., 15 1/2" Wide o
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** +N/A/-116 PSF **Other:** -116.0 psf @ 6-1/2" o.c. Fastener Spacing in slot and 12" o.c. Fastener Spacing in pan -78.5 psf @ 11" o.c. Fastener Spacing in slot. Install per Manufacturer's Details. For use in HVHZ Zones.		**Installation Instructions** FL9860_R5_II_NS 150H 24 Ga. over Verified By: TERRENCE E WOLFE,P.E. Created by Independent Third Party: **Evaluation Reports** FL9860_R5_AE_NS 150H 24 Ga. over Created by Independent Third Party:
9860.9	SENTRIGARD SL 175H	1.75 Snap Lock 17 3/4" Wide over 22
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** +N/A/-108.5psf **Other:** -71.0 psf @ 24" o.c. Clip Spacing. -108.5 psf @ 6" o.c. Clip Spacing.. Install per Manufacturer's Details. For use in HVHZ Zones.		**Installation Instructions** FL9860_R5_II_SL 175H 24 Ga. over Secured.pdf Verified By: Terrence E. Wolfe, P.E. 4 Created by Independent Third Party: **Evaluation Reports** FL9860_R5_AE_SL 175H 24 Ga. over Secured.pdf Created by Independent Third Party:
9860.10	SENTRIGARD SL100 H	1.0 Snap Lock, 24 Ga. Steel, 17" Wide
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** +N/A/-131PSF **Other:** -67.3 psf @ 24" o.c. Clip Spacing. -131.0 psf @ 6" o.c. Clip Spacing. Install per Manufacturer's Details. For use in HVHZ Zones.		**Installation Instructions** FL9860_R5_II_SL 100H 24 Ga. over Verified By: TERRENC E. WOLFE,P.E. Created by Independent Third Party: **Evaluation Reports** FL9860_R5_AE_SL 100H 24 Ga. over Created by Independent Third Party:

9860.11	SENTRIGARD SL150 H	1.5 Snap Lock, 24 Ga. 16" Wide over I
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** N/A **Design Pressure:** +N/A/-108.5PSF **Other:** -108.5 psf @12" o.c. Clip spacing. -86.0 psf @ 24" o.c. Clip Spacing. -116.0 psf @ 6" o.c. Clip Spacing. Install per Manufacturer's Details. For use in HVHZ Zones.		**Installation Instructions** FL9860_R5_II_SL 150H 24 Ga. over I Verified By: TERRENCE E. WOLFE,P.E. Created by Independent Third Party: **Evaluation Reports** FL9860_R5_AE_SL 150H 24 Ga. over Created by Independent Third Party:

Back Next

Force Engineering & Testing Inc.
19530 Ramblewood Drive
Humble,TX 77338

Product Evaluation Report

SENTRIGARD METAL ROOFING SYSTEMS ASSOCIATION, INC., an NB HANDY COMPANY

Sentrigard NS 100, 24 Ga. 16" Wide Roof Panel over 15/32" Plywood

Florida Product Approval # 9860.7 R5

Florida Building Code 2017
Per Rule 61G20-3
Method: 1 –D

Category: Roofing
Subcategory: Metal Roofing
Compliance Method: 61G20-3.005(1)(d)
NON HVHZ

Product Manufacturer:
Sentrigard Metal Roofing Systems Association, Inc.,
an NB Handy Company
65 10th Street
Lynchburg, Virginia 24502

Engineer Evaluator:
Terrence E. Wolfe, P.E. # 44923
Florida Evaluation ANE ID: 1920

Validator:
Brian Jaks P.E. #70159

Contents:
Evaluation Report Pages 1 – 4

TERRENCE E. WOLFE LICENSE No. 44923 STATE OF FLORIDA PROFESSIONAL ENGINEER

State of Florida COA #26778

September 15, 2017

Force Engineering & Testing Inc.
19530 Ramblewood Drive
Humble,TX 77338

Compliance Statement: The product as described in this report has demonstrated compliance with the Florida Building Code 2017, Sections 1504.3.2.

Product Description: Sentrigard NS 100, 1" Nailstrip Roof Panel, 24 Ga. Steel, 16" Wide, Roof Panel attaching to 15/32" APA Plywood decking. Non-structural Application.

Panel Material/Standards: Material: 24 Ga. Steel conforming to Florida Building Code 2017 Section 1507.4.3
Yield Strength: Min. 50.0 ksi
Corrosion Resistance: Panel Material shall comply with Florida Building Code 2017, Section 1507.4.3

Panel Dimension(s):

Thickness:	0.024"
Width:	16" max coverage
Female Rib:	1" tall
Male Rib:	¾" tall rib w/ slotted strip.
Panel Seam:	Snap Lock

Panel Fastener: Through Panel Slot: (1) #10-13 x 1" GP Pancake Type A
In Pan of Panel: (2) #10-11 x 1" Eclipse Head Type A
¼" minimum penetration through plywood
Corrosion Resistance: Per Florida Building Code 2017, Section 1507.4.4.

Substrate Description: Min. 15/32" thick, APA Rated plywood over supports at maximum 24" O.C. Design of plywood and plywood supports are outside the scope of this evaluation. Substrate must be designed in accordance w/ Florida Building Code 2017.

Allowable Design Uplift Pressures:

Table "A"

Maximum Total Uplift Design Pressure:	59.75 psf	101.0 psf	153.5 psf
Panel Slot Fastener Spacing:	16" O.C.	6 ¾" O.C.	6 ¾" O.C.
Panel Pan Fastener Spacing:	NA	NA	12" O.C.

*Design Pressure includes a Safety Factor = 2.0.

TERRENCE E. WOLFE LICENSE No. 44923 STATE OF FLORIDA PROFESSIONAL ENGINEER

State of Florida C.O.A. #26778

FL# 9860.7 R5

September 15, 2017

Force Engineering & Testing Inc.
19530 Ramblewood Drive
Humble,TX 77338

Code Compliance:

The product described herein has demonstrated compliance with The Florida Building Code 2017, Section 1504.3.2.

Evaluation Report Scope:

The product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code 2017, as relates to Rule 61G20-3.

Performance Standards:

The product described herein has demonstrated compliance with:

- UL 580-06 - Test for Uplift Resistance of Roof Assemblies
- UL 1897-2012 - Uplift Test for Roof Covering Systems
- TAS 100-95 - Test Procedure for Wind and Wind Driven Rain Resistance of Discontinuous Roof Systems

Reference Data:

1. UL 580-94 / 1897-98 Uplift Test
   Force Engineering & Testing, Inc. (FBC Organization # TST-5328)
   Report No. 72-0314T-06*, Dated 03/24/2007
2. TAS 100-95
   Farabaugh Engineering & Testing, Inc. (FBC Organization # TST-1654)
   Report No. T158-07*, Dated 04/05/2007
3. Certificate of Independence
   By Terrence E. Wolfe, P.E. (No. 44923) @ Force Engineering & Testing, Inc.
   (FBC Organization # ANE ID: 1920)

Test Standard Equivalency:

1. The UL 580-94 test standard is equivalent to the UL 580-06 test standard.
2. The UL 1897-98 test standard is equivalent to the UL 1897-2012 test standard.

Quality Assurance Entity:

The Report Holder has demonstrated compliance with Florida Building Code and Rule 61G20-3.005 (3) for manufacturing locations audited by an approved quality assurance entity (Keystone Certifications, Inc – FBC OrgID QUA 1824). A listing of manufacturers authorized by the Report Holder to employ the Florida Product Approvals qualified by this report can be found at
http://www.keystonecerts.com/qa-assoc/sentrigard
or by scanning the following QR Code:

TERRENCE E. WOLFE
LICENSE
No. 44923
STATE OF
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PROFESSIONAL ENGINEER

State of Florida
C.O.A.
#26778

FL# 9860.7 R5

September 15, 2017

Force Engineering & Testing Inc.
19530 Ramblewood Drive
Humble,TX 77338

Minimum Slope Range:	Minimum Slope shall comply with Florida Building Code 2017, including Sections 1507.4.2 and in accordance with Manufacturers recommendations.
Installation:	Install per manufacturer's recommended details.
Underlayment:	Self-adhered roofing underlayment minimum 40 mil thickness. Per Florida Building Code 2017 Section 1507.1.1 and manufacturer's installation guidelines per
Roof Panel Fire Classification:	Fire classification is not part of this acceptance.
Shear Diaphragm:	Shear diaphragm values are outside the scope of this report.
Design Procedure:	Based on the dimensions of the structure, appropriate wind loads are determined using Chapter 16 of the Florida Building Code 2017 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 and pullover. Support framing must be in compliance with Florida Building Code 2017 Chapter 22 for steel, Chapter 23 for wood and Chapter 16 for structural loading.

*The Test Reports are owned by Metalforming, Inc. Metalforming, Inc. gives the above manufacturer permission to use these test reports.

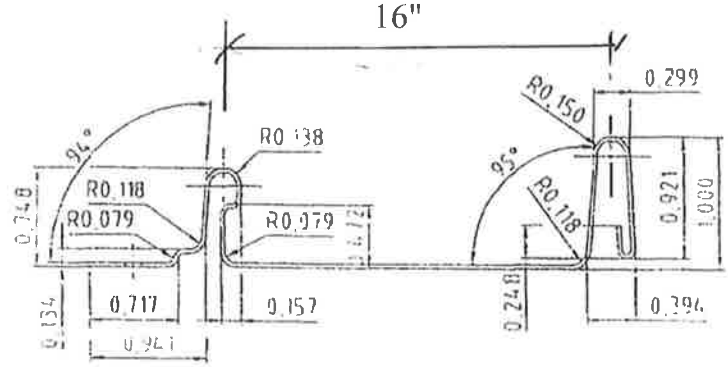
FL# 9860.7 R5

September 15, 2017

1 | 2 | 3 | 4

A

Nailstrip 1"



B

C

D

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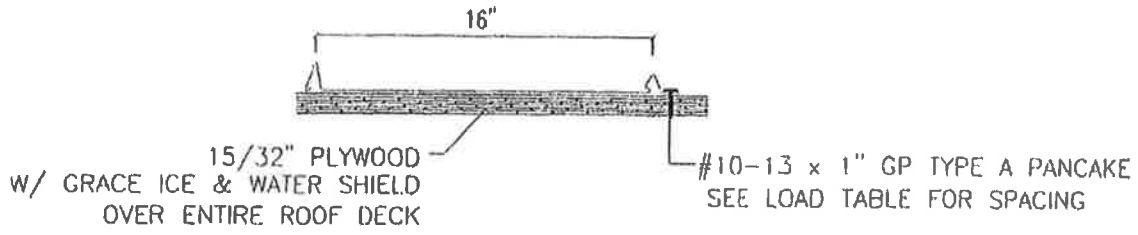
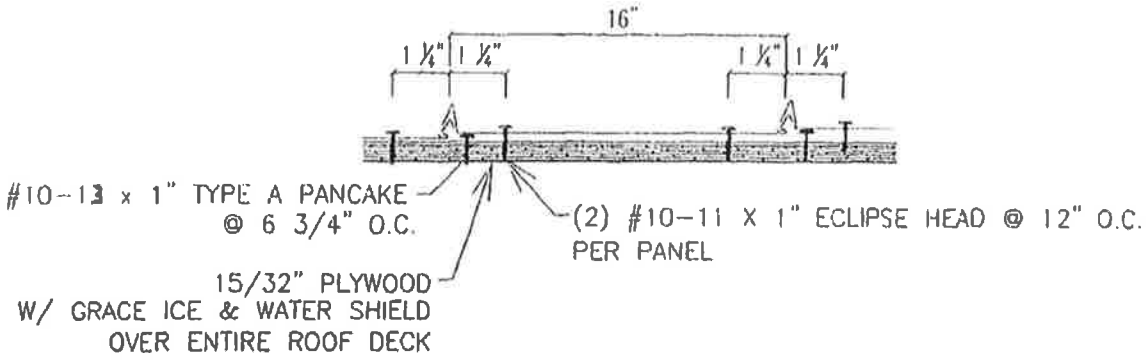
September 15, 2017

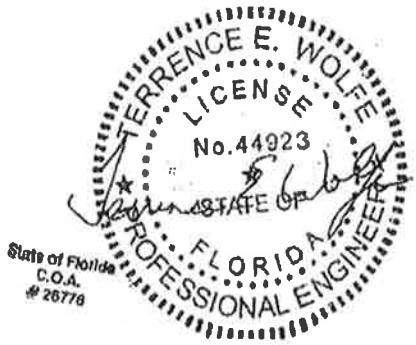
	Zul Abweichung Maße ohne Toleranzangabe nach DIN 7168-m	Oberfläche	Maßstab	Position	Menge
		Datum	Name	NAILSTRIP 1"	
	Bearb.	13.11.2001	BOCKOR		
	Gepr.	13.11.2001	BOCKOR		
	Norm				
	Maschinenfabrik GmbH Schloßstrasse 1 D-47320 Friedewald			00590015	Blatt / Bl
Zust. Änderung Datum Name	Dateiname				

TYPE 1 FASTENER PATTERN (SEE LOAD TABLE)



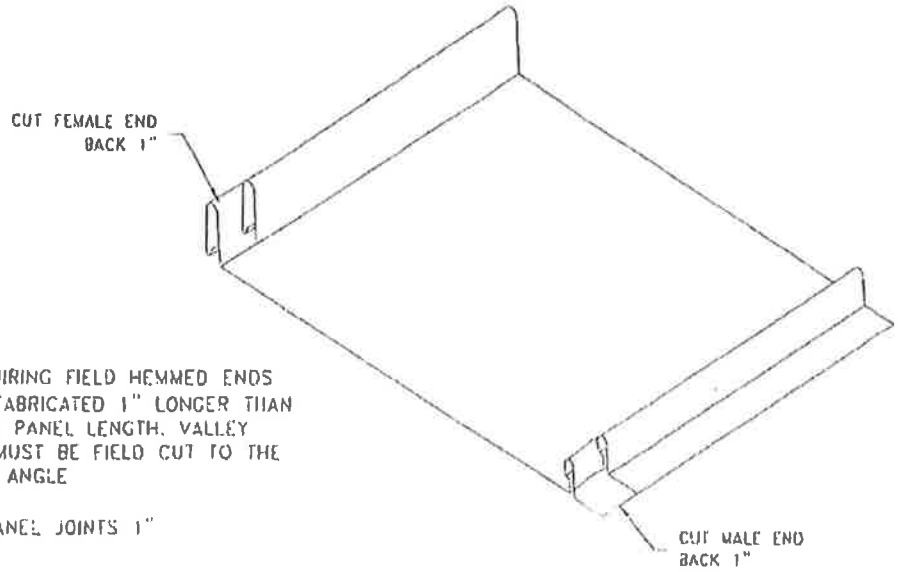
TYPE 2 FASTENER PATTERN (SEE LOAD TABLE)





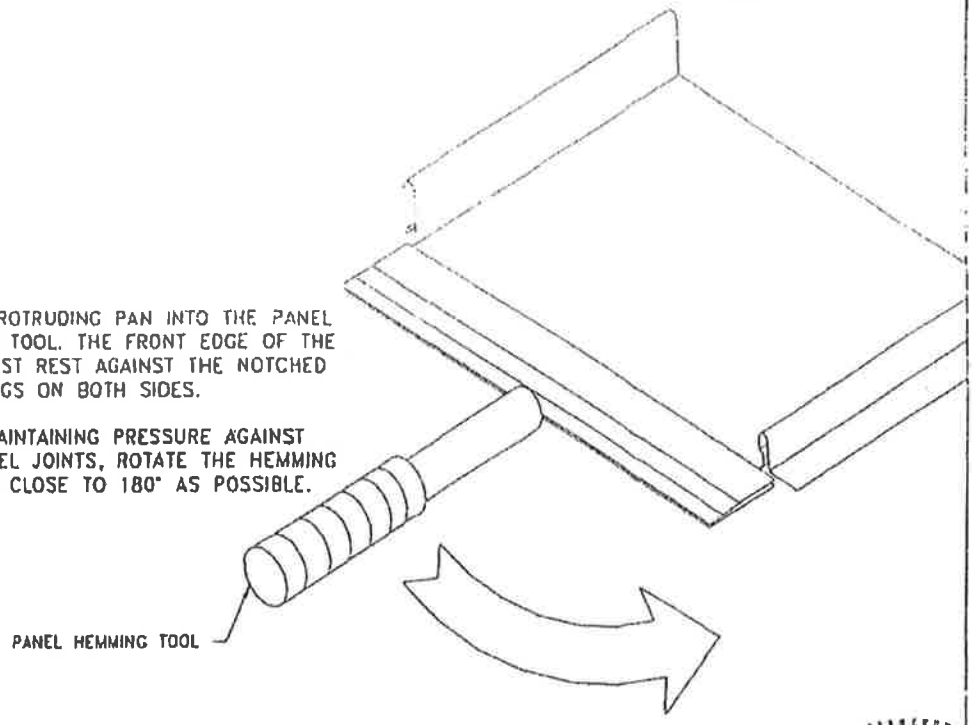
September 15, 2017

FIELD HEMMED PANEL END



1. PANELS REQUIRING FIELD HEMMED ENDS SHOULD BE FABRICATED 1" LONGER THAN THE FINISHED PANEL LENGTH. VALLEY CONDITIONS MUST BE FIELD CUT TO THE APPROPRIATE ANGLE

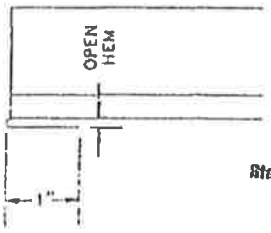
2. CUT BACK PANEL JOINTS 1"



3. PLACE PROTRUDING PAN INTO THE PANEL HEMMING TOOL. THE FRONT EDGE OF THE TOOL MUST REST AGAINST THE NOTCHED JOINT LEGS ON BOTH SIDES.

4. WHILE MAINTAINING PRESSURE AGAINST THE PANEL JOINTS, ROTATE THE HEMMING TOOL AS CLOSE TO 180° AS POSSIBLE.

5. INSPECT COMPLETED HEM TO INSURE THAT THE HEM IS OPENED AND CAPABLE OF RECEIVING THE CLEAT (SEE ERECTION DETAILS).



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C.O.A.
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September 15, 2017

HIGH PROFILE RAKE

1.) Turn cut edge of panel up 1".

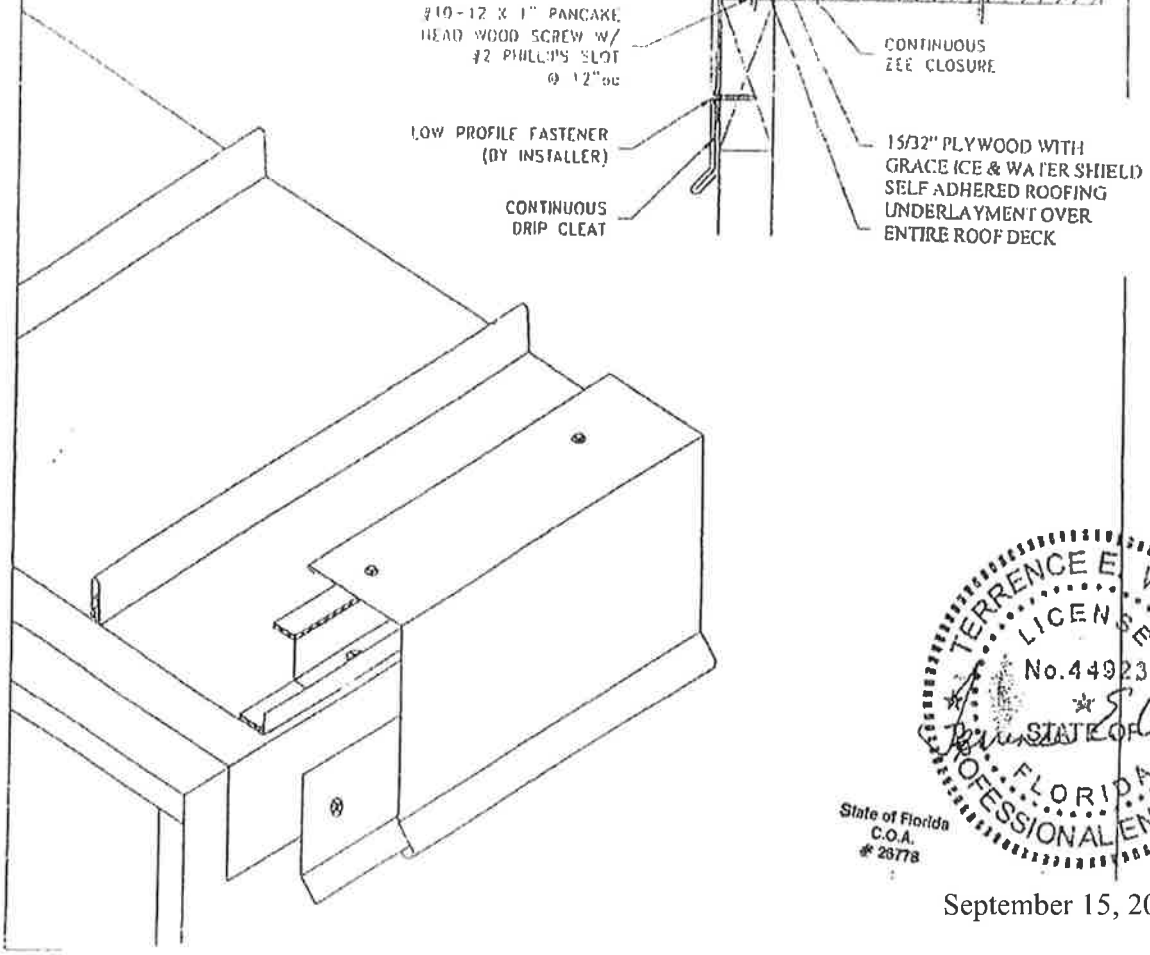
2.) Determine location off zee closure. Apply sealant tape to flat of panel.

3.) Place closure on top of sealant tape. Secure through tape and panel with #10-12 x 1" HWH wood screws @ 12"oc.

4.) Apply a continuous strip of sealant tape to the top of the zee closure. Seal between ends of tape with butyl sealant.

5.) Install panels so that the the field cut end is engaged into the open hem of the receiver trim, and fully embedded into the urethane sealant.

6.) Install the rake trim. Secure to closure zee with 1/4-14 x 7/8" HWH Tek/1 fasteners at 12"oc.



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September 15, 2017

VALLEY

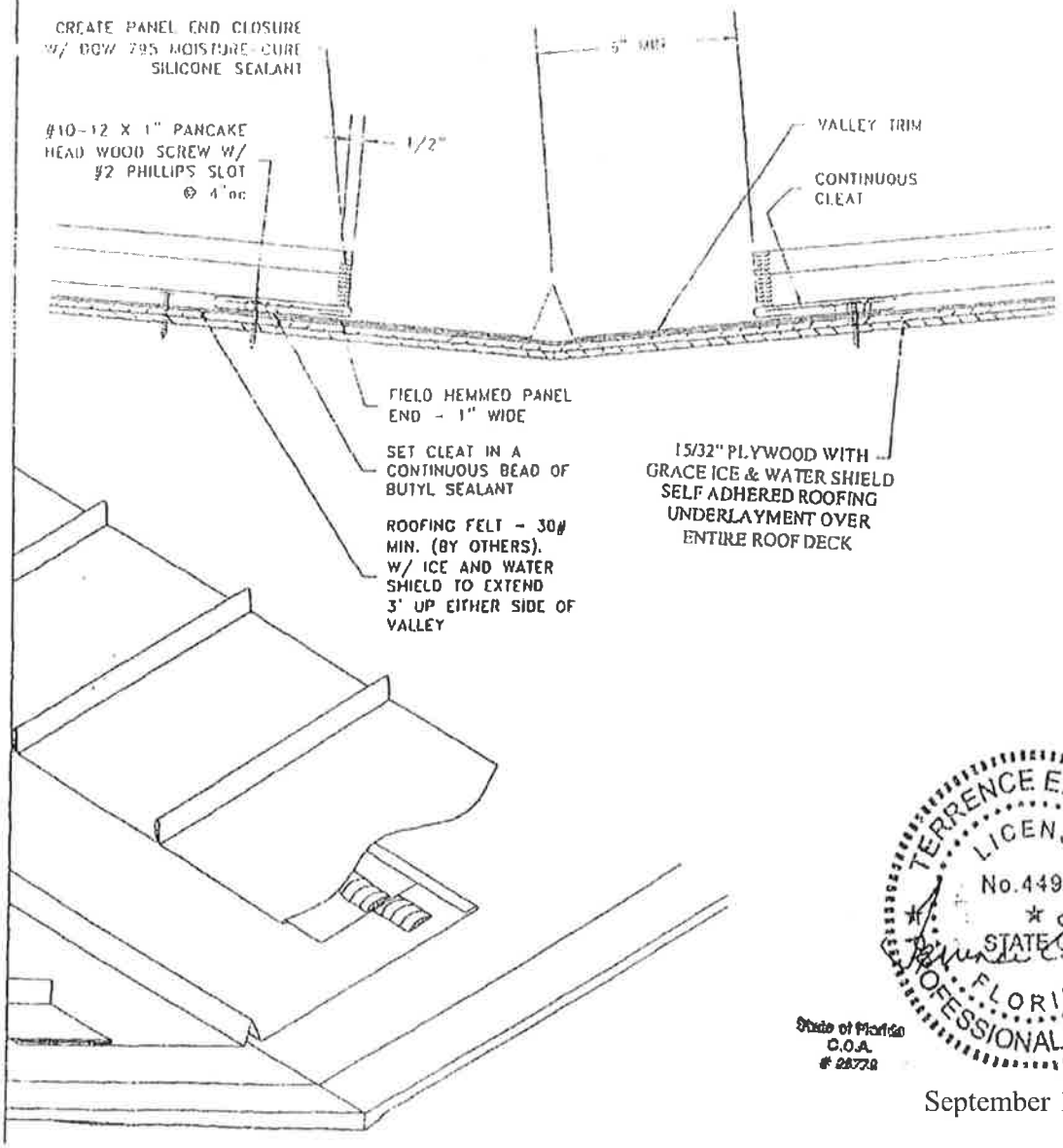
1.) Temporarily attach valley trim at ends w/ #10-12 x 1" pancake head wood screws.

2.) Apply butyl sealant across top of valley trim as shown.

3.) Attach cleat through sealant w/ #10-12 x 1" pancake head wood screws @ 4"oc.

4.) Apply a second bead of butyl sealant across the top of the cleat, and over the fastener heads.

5.) Install panels so that the cleat is engaged into the field applied hem.



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September 15, 2017

LOW EAVE

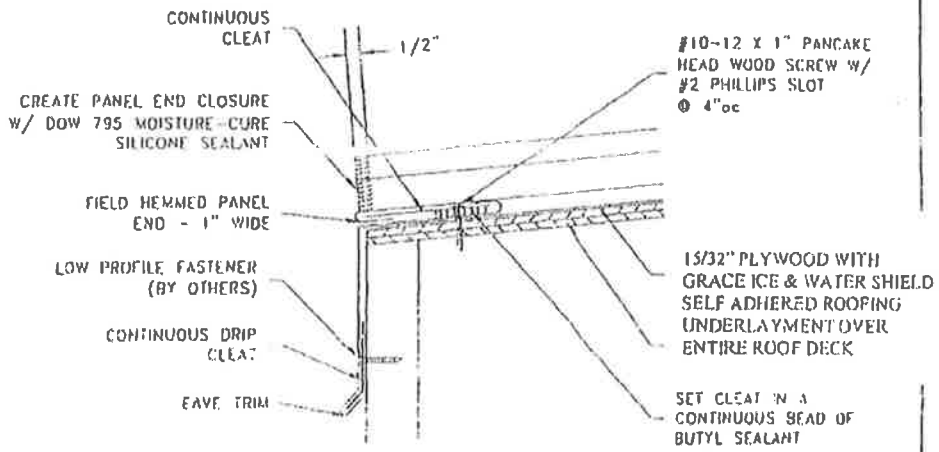
1.) Temporarily attach eave trim at ends w/ #10-12 x 1" pancake head wood screws

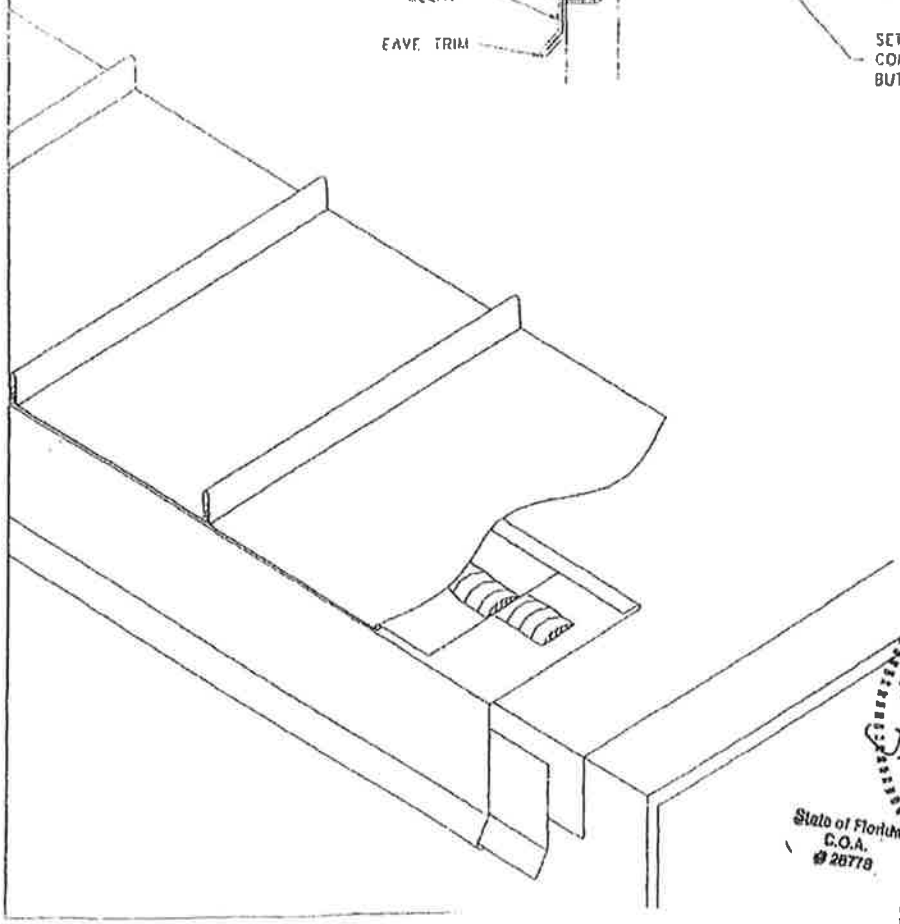
2.) Apply butyl sealant across top of eave trim as shown.

3.) Attach cleat through sealant w/ #10-12 x 1" pancake head wood screws @ 4"oc.

4.) Apply a second bead of butyl sealant across the top of the cleat, and over the fastener heads.

5.) Install panels so that the cleat is engaged into the field applied hem.





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September 15, 2017

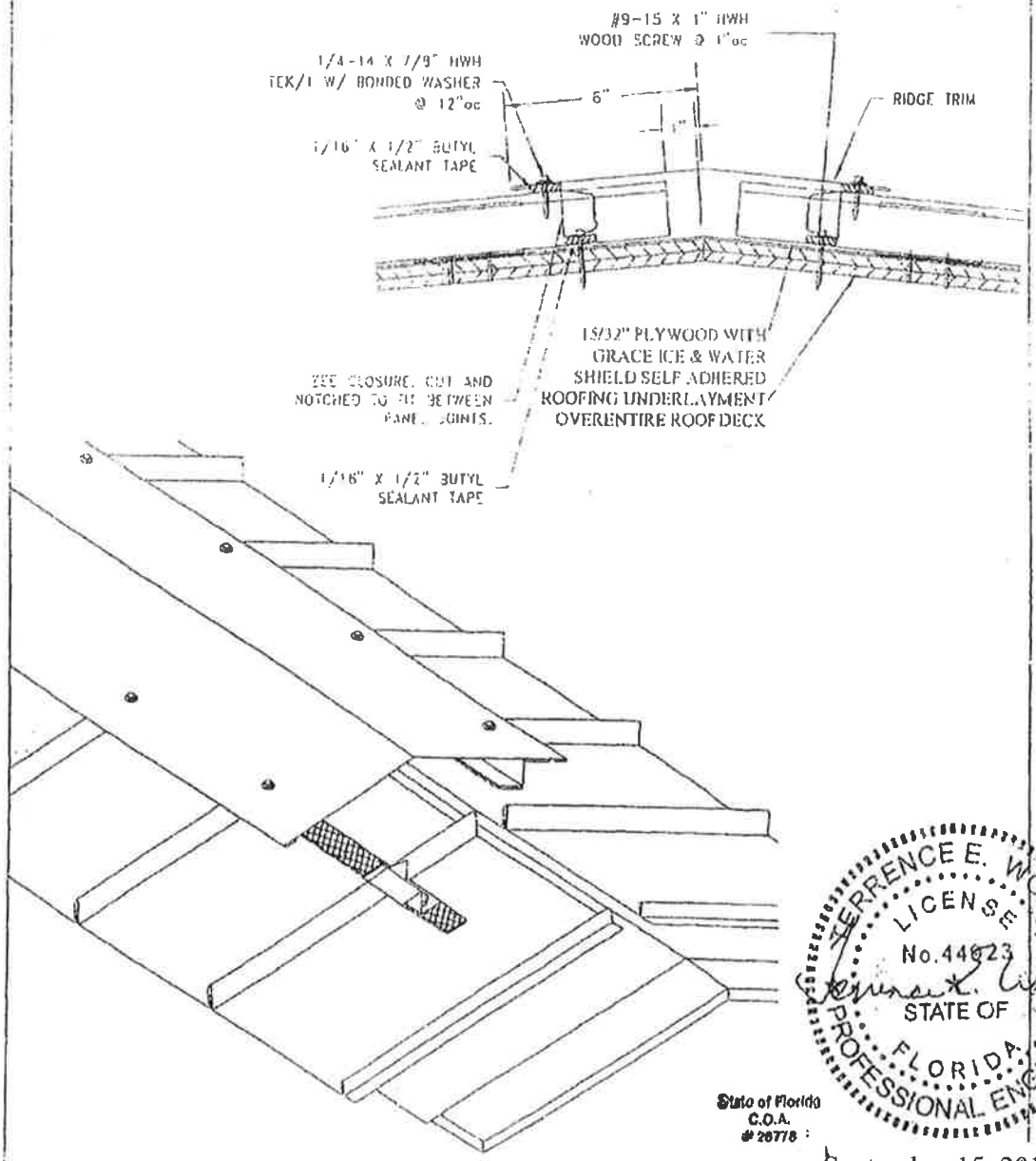
RIDGE / HIP

1.) Determine location of zee closure. Apply sealant tape to flat of panel.

2.) Place closure on top of sealant tape. Secure through tape and panel with #9-16 x 1" HWH wood screws @ 4"oc. Seal the tab of the closure to the side joints with butyl sealant.

3.) Apply a continuous strip of sealant tape to the top of the zee closure. Seal between ends of tape with butyl sealant.

4.) Install the ridge trim. Secure to closure zee with 1/4-14 x 7/8" HWH Tek/1 fasteners at 12"oc.



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