



Product Evaluation Report
Whirlwind Steel Buildings, Inc.

Weather Lok 16" Steel Roof Panel Over Open Framing

Florida Product Approval # 17700.7 R5

Florida Building Code 2026

Per Rule 61G20-3

Method: 1 -D

Category: Structural Components

Subcategory: Roof Deck

Compliance Method: 61G20-3.005(1)(d)

HVHZ

Product Manufacturer:

Whirlwind Steel Buildings, Inc.

8234 Hansen Road

Houston, Texas 77075

Engineer Evaluator:

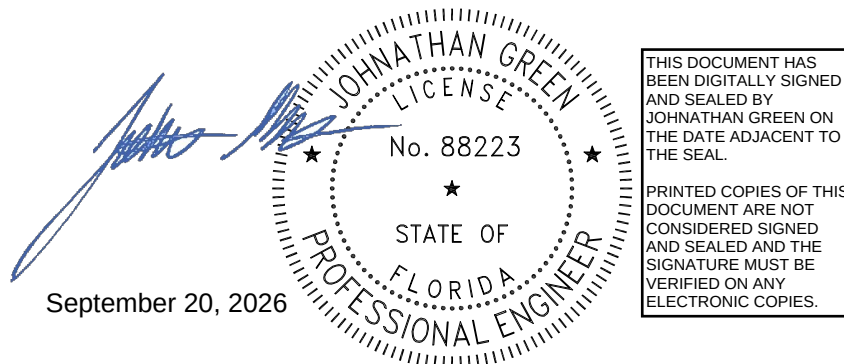
Johnathan Green, P.E. #88223

Florida Evaluation ANE ID: 12901

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Compliance Statement:	The product as described in this report has demonstrated compliance with the Florida Building Code 2026, Sections 1504.3.2, 1504.7, 1518.9, 1523.6.5.2.4.
Product Description:	Weather Lok 24 ga steel roof panel, 16" coverage, standing seam structural roof panel. Structural Application.
Panel Material/Standards:	Material: 24ga steel, ASTM A792 or ASTM A653 G90 Grade 50 steel, conforming to Florida Building Code 2026 Section 1507.4.3. Paint finish is optional. Yield Strength: Minimum 50.0 ksi Corrosion Resistance: Panel Material shall comply with Florida Building Code 2026, Section 1507.4.3
Panel Dimension(s):	Thickness: 0.024" min. Coverage width: 16" nominal coverage Rib: 2" tall Rib Panel Seam: Triple Lock with Mechanical Seamer
Panel Clip:	Product Name: Weather Lok-16 Low Movable Clip Weather Lok-16 High Movable Clip Type: 20ga tab 4-1/4" long; bas 16ga 3-3/8" long Corrosion Resistance: Per Florida Building Code 2026 Section 1506.7 and Section 1711 for installations within 3000 ft. of a saltwater coastline.
Panel Fastener:	(2) ¼-14 x 1 1/4 DP2 HWH SDS per clip or approved equal. Corrosion Resistance: Per Florida Building Code 2026, Section 1517.6. and Section 1711 for installations within 3000 ft. of a saltwater coastline.
Substrate Description:	Min. 16 Ga. Steel Framing. Must be designed in accordance w/ Florida Building Code.



Allowable Design Uplift Pressures: **Maximum Allowable Uplift Pressure for Weather Lok-16 Roof Panel with WL-16 Low/High Movable Clip:**

Clip Spacing	Uplift Pressure
5'-0"	-42.80 psf
4'-0"	-68.19 psf
3'-0"	-89.92 psf
2'-6"	-100.79 psf
2'-0"	-111.66 psf
1'-0"	-133.40 psf

Code Compliance: The product described herein has demonstrated compliance with The Florida Building Code 2026, Sections 1504.3.2, 1504.7, 1518.9, 1523.6.5.2.4.

Evaluation Report Scope: The product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code 2026, as relates to Rule 61G20-3.

Performance Standards: The product described herein has demonstrated compliance with:

- TAS 125-03 – Test method for structural performance of sheet metal roof and siding systems by uniform static air pressure difference.
- ASTM E 1592-05 Test method for structural performance of sheet metal roof and siding systems by uniform static air pressure difference.
- TAS 201-94 - Impact Testing
- FM 4471 Appendix G for roof slopes less than 2:12.
- TAS 100-23 Test Procedure for Wind and Wind Driven Rain Resistance of Discontinuous Roof Systems.
- TAS 110-00 - Accel. Weathering ASTM G155 / Salt Spray ASTM B 117
- FM 4471-92 Foot Traffic Resistance Test.



Reference Data:

1. PA-125-95; ASTM E 1592-98
Farabaugh Engineering and Testing, Inc.
Report No. T191-01 dated 11/17/01
PA-125-95; ASTM E 1592-98
Farabaugh Engineering and Testing, Inc.
Report No. T190-01 dated 11/17/01
2. Large Missile Impact Test SFBC PA 201-94
Farabaugh Engineering and Testing, Inc.
Report No. T209-01 dated 11/17/01
3. P100-95 Wind Driven Rain Resistance of Discontinuous Roof Systems
Asphalt Technologies, Inc.
Report No. DDI-001-02-01 dated 12/11/01
4. TAS 114 Appendix G
Farabaugh Engineering and Testing, Inc.
Report No. T178-04 dated 05/03/05
5. TAS 110-00 Akzo Nobel Coatings, Inc. coating on metal panel testing
(A) ASTM G 26 by Asphalt Coating Technologies, Akzo Nobel Coatings, Inc.
(B) ASTM B 117 by Asphalt Coating Technologies, Akzo Nobel Coatings, Inc.
6. FM 4471-10, Section 4.4 Foot Traffic Resistance Test
Force Engineering and Testing, Inc (FBC Organization #TST-5328)
7. Miami-Dade County NOA No. 21-0419.12
8. Certificate of Independence
By Johnathan Green, P.E. (No. 88223) @ Force Engineering & Testing
(FBC Organization # ANE ID: 12901)

Quality Assurance Entity:

The manufacturer has established compliance of roof panel products in accordance with the Florida Building Code and Rule 61G20-3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity.



Test Standard Equivalency:

1. The ASTM E 1592-98 test standard is equivalent to the ASTM E 1592-05 (2017) test standard.
2. PA-125-95 test standard is equivalent to the TAS 125-03 test standard.
3. SFBC PA 201-94 test standard is equivalent to the TAS 201-94 test standard.
4. P 100-95 test standard is equivalent to TAS 100-23 test standard.
5. TAS 114 Appendix G test standard is equivalent to FM 4471 Appendix G test Standard.
6. The ASTM G 36 test standard was superseded by ASTM G 155 and is an Equivalent test standard.
7. The FM 4471-10, foot traffic Resistance test standard is equivalent to the FM 4471-92, Foot Traffic Resistance test standard.

Minimum Slope Range:

1/2: 12 Minimum Slope shall comply with Florida Building Code 2026, including Section 1515.2.2 and in accordance with Manufacturers recommendations. For slopes less than 3:12, lap sealant must be used in the panel side laps.

Installation:

Install per manufacturer's recommended details and RAS 133.

Limitation:

Metal hip and ridge covers are outside the scope of this evaluation report and must be in compliance with FBC 2026 Section 1504.3.1.1 through other product approval.

Insulation:

Manufacturer's approved product (Optional).

Fire Barrier:

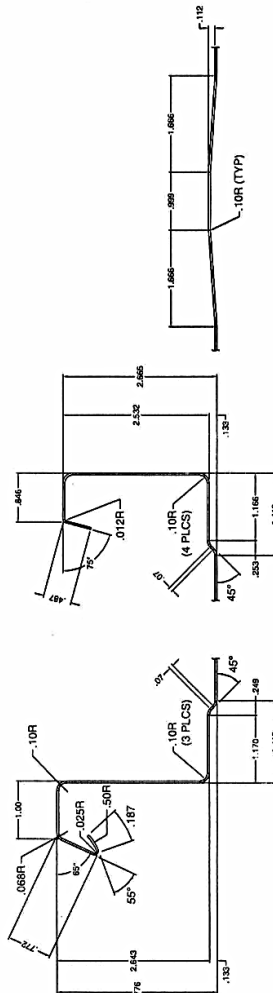
Fire classification is not part of this acceptance.

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 2026 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 2026 Chapter 22 for steel, Chapter 23 for wood and Chapter 16 for structural loading.



PANEL PROPERTIES						
Panel Gage	Painted Panel Thickness	Yield Strength*	Tensile Strength*	Elongation*	Steel Coating*	Paint Coatings
24	0.0240"	50 KSI	65 KSI	26.5	AZ 55	Kynar 500
Conform to ASTM A792 Structural Quality Grade 50						

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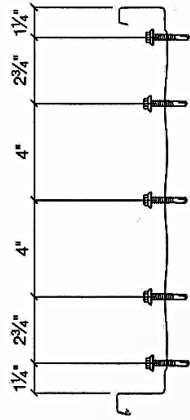
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- | Maximum Panel Span | Maximum Uplift Pressure (psf) |
|--------------------|-------------------------------|
| 10 | 10 |
| 15 | 15 |
| 20 | 20 |
| 25 | 25 |
| 30 | 30 |
| 35 | 35 |
| 40 | 40 |
| 45 | 45 |
| 50 | 50 |
| 55 | 55 |
| 60 | 60 |
| 65 | 65 |
| 70 | 70 |
| 75 | 75 |
| 80 | 80 |
| 85 | 85 |
| 90 | 90 |
| 95 | 95 |
| 100 | 100 |

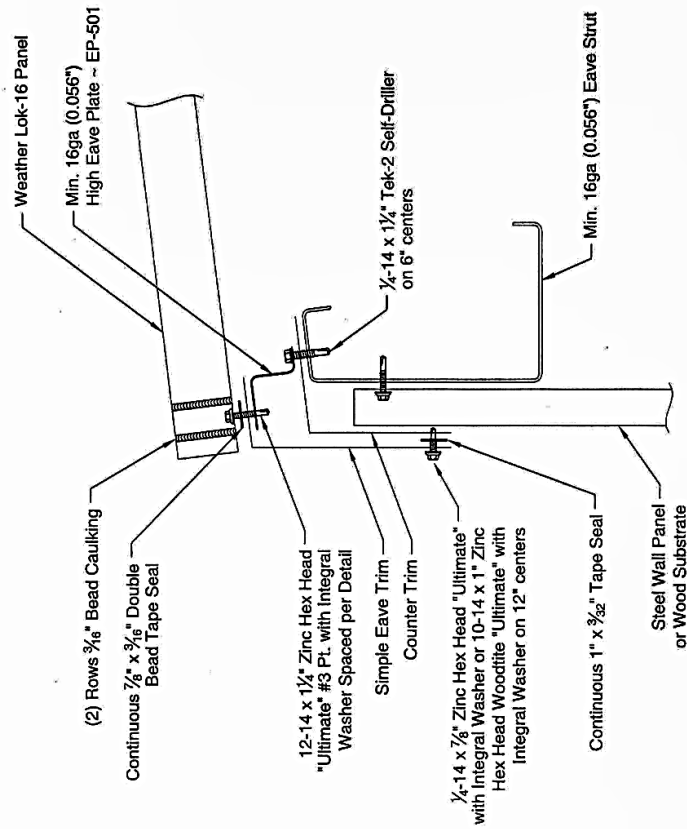
1'1'-0"	133.40
1'1'-6"	122.53
2'-0"	111.66
2'-6"	100.79
3'-0"	89.92
3'-6"	79.06
4'-0"	68.19
4'-6"	57.32
5'-0"	42.80

3. All panel submembers shall be minimum 16 gage (.056"). They are not part of this approval and they shall be reviewed structurally by the structural plans examiner of the corresponding building department for each job.

MANUFACTURING ENGINEER: RONALD H. MAYES, P.E.		54340	
FLORIDA REGISTRATION NO:		WHIRLWIND STEEL BUILDINGS WEATHER LOK-16 24GA	
	STEEL BUILDINGS, INC.		REL. BY: _____ DESCRIPTION: _____ DATE: _____
	P.O. BOX 75259 • 8234 HANSEN ROAD		
	HOUSTON, TX 77254 - (713) 946-7140		
	PROJECT: PRODUCT APPROVAL		
	SHEET TITLE: WEATHER LOK-16 24GA DETAILS		
LOCATION: FLORIDA	DWG BY: CHAD BY:	DATE: 3-25-02	
	PROJECT NUMBER:	SCALE: N.T.S.	
		DWG NO: 14003502	SHEET NO: 1 of 8

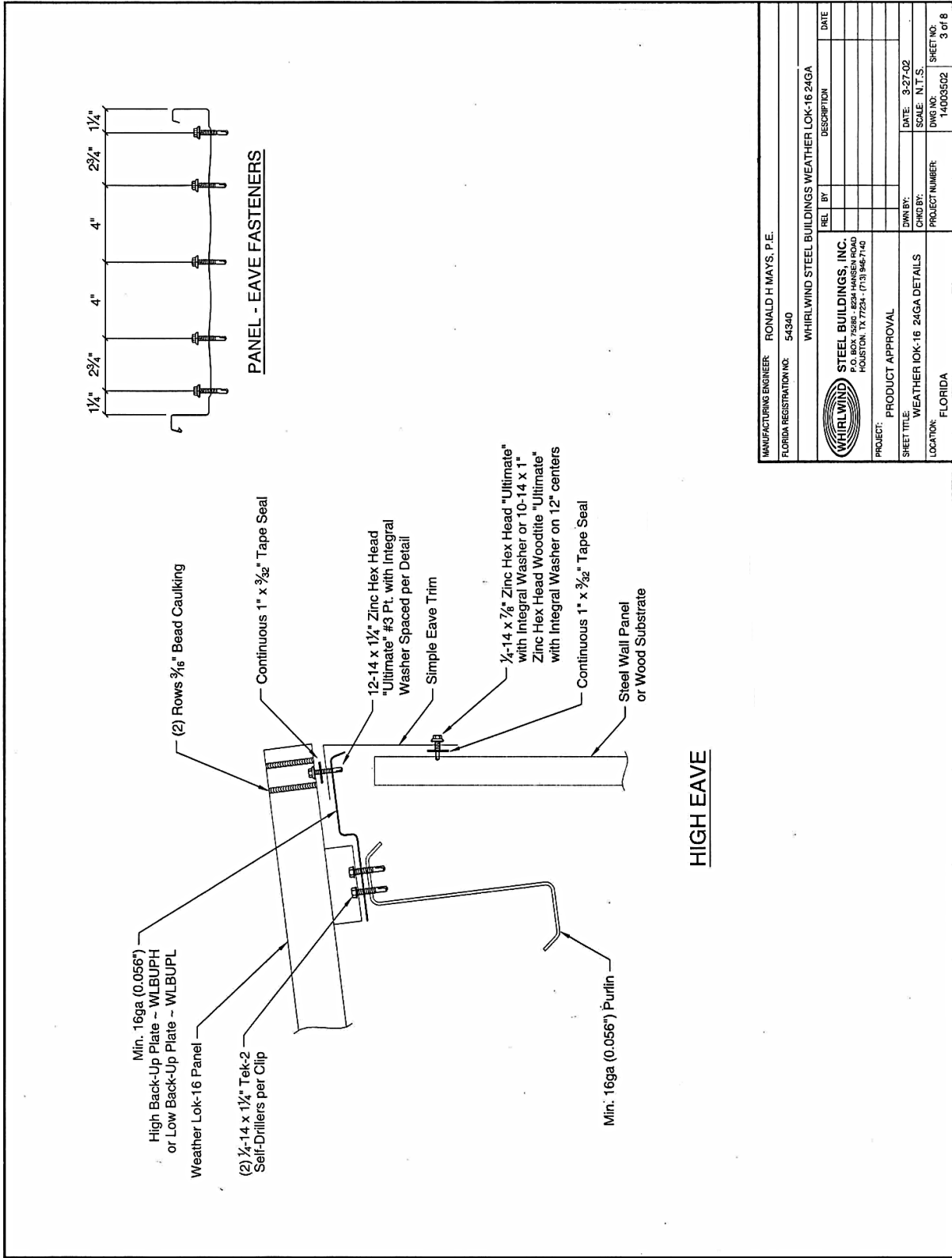


PANEL - EAVE FASTENERS

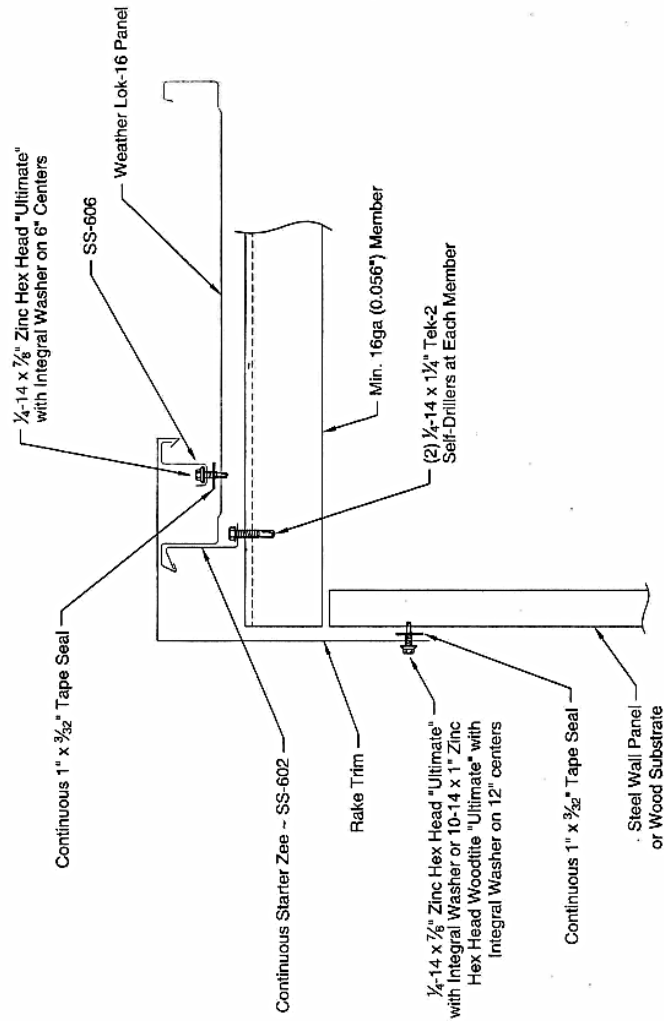


LOW EAVE

MANUFACTURING ENGINEER: RONALD H. MAYS, P.E.		FLORIDA REGISTRATION NO: 54340	
WHIRLWIND STEEL BUILDINGS WEATHER LOK-16 24GA		DATE	
REL	BY	DESCRIPTION	DATE
PROJECT: PRODUCT APPROVAL		DWN BY:	DATE: 3-27-02
SHEET TITLE: WEATHER LOK-16 24GA DETAILS		CHKD BY:	SCALE: N.T.S.
LOCATION: FLORIDA		PROJECT NUMBER:	PWG NO: 14003502
			SHEET NO: 2 of 8

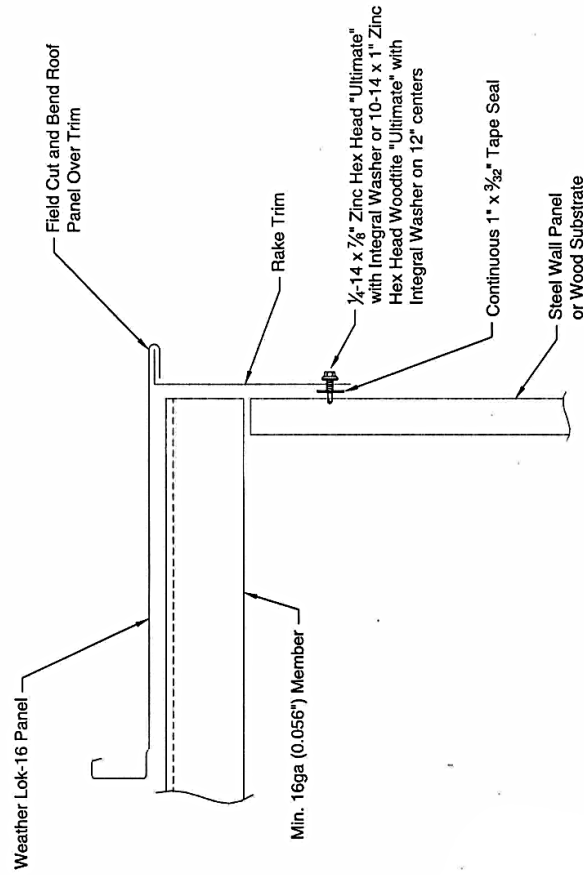


MANUFACTURING ENGINEER: RONALD H. MAYS, P.E.	
FLORIDA REGISTRATION NO: 54340	
WHIRLWIND STEEL BUILDINGS WEATHER LOK-16 24GA	
REL BY	DESCRIPTION
	DATE
STEEL BUILDINGS, INC.	
P.O. BOX 75280 - 8224 HANSEN ROAD	
HOUSTON, TX 77254 - (713) 946-7140	
PROJECT: PRODUCT APPROVAL	
SHEET TITLE: WEATHER LOK-16 24GA DETAILS	DATE: 3-27-02
LOCATION: FLORIDA	SCALE: N.T.S.
	DWG NO: 14003502
	SHEET NO: 3 of 8



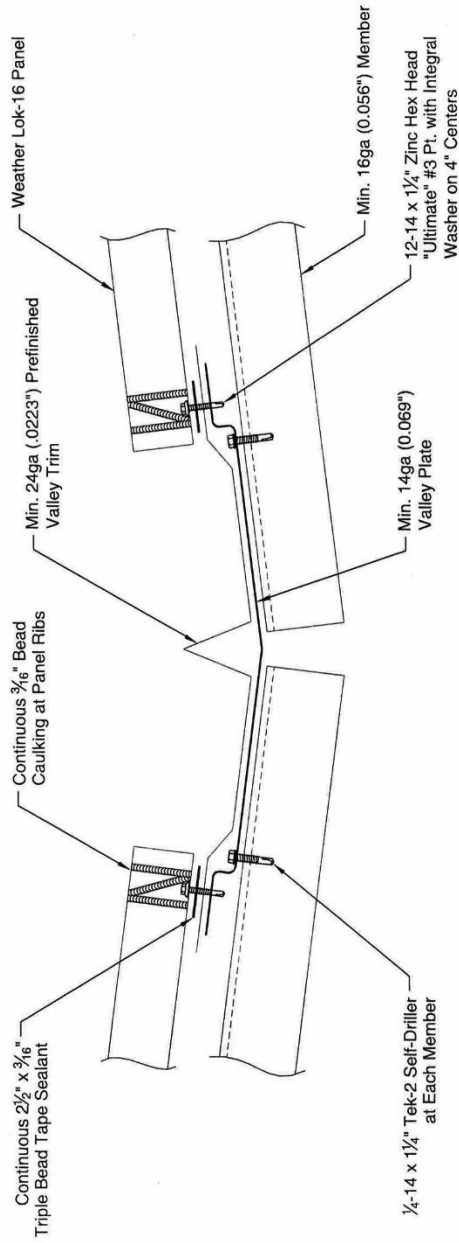
RAKE 1

MANUFACTURING ENGINEER: RONALD H. MAYS, P.E.		FLORIDA REGISTRATION NO: 54340		WHIRLWIND STEEL BUILDINGS WEATHER LOK-16 24GA	
PROJECT: PRODUCT APPROVAL		DATE: 3-27-02		SHEET NO: 4 of 8	
SHEET TITLE: WEATHER LOK-16 24GA DETAILS		SCALE: N.T.S.		DRAWING NO: 14003502	
LOCATION: FLORIDA		PROJECT NUMBER: 14003502		SHEET NO: 4 of 8	
WHIRLWIND STEEL BUILDINGS, INC.		P.O. BOX 75280 • 8224 HANSEN ROAD		HOUSTON, TX 77234 • (713) 946-7140	
PROJECT: PRODUCT APPROVAL		DATE: 3-27-02		SHEET NO: 4 of 8	
SHEET TITLE: WEATHER LOK-16 24GA DETAILS		SCALE: N.T.S.		DRAWING NO: 14003502	
LOCATION: FLORIDA		PROJECT NUMBER: 14003502		SHEET NO: 4 of 8	



RAKE 2

MANUFACTURING ENGINEER: RONALD H. MAYS, P.E.	
FLORIDA REGISTRATION NO: 54340	
WHIRLWIND STEEL BUILDINGS WEATHER LOK-16 24GA	
REL. BY	DATE
DESCRIPTION	DATE
 STEEL BUILDINGS, INC. P.O. BOX 75280 - 8224 HANSEN ROAD HOUSTON, TX 77244 - (713) 846-7140	
PROJECT: PRODUCT APPROVAL	
DWN BY:	DATE: 9-27-02
CHKD BY:	SCALE: N.T.S.
PROJECT NUMBER:	DWG NO: 14003502
LOCATION: FLORIDA	SHEET NO: 5 of 8

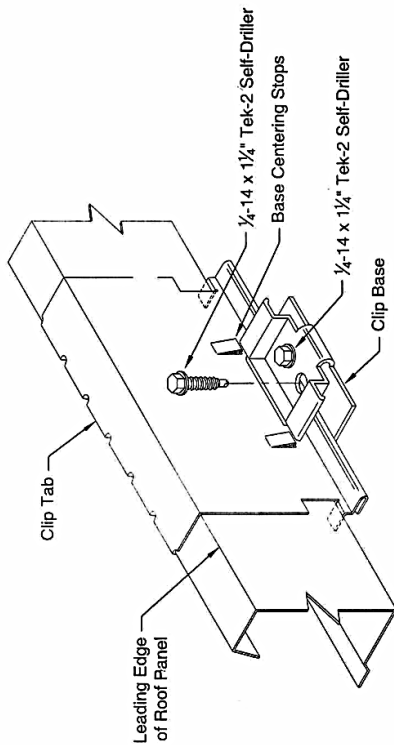


VALLEY

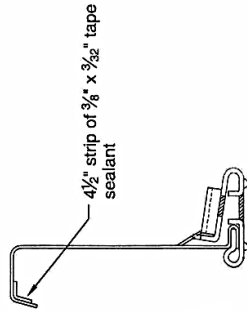
MANUFACTURING ENGINEER: RONALD H. MAYS, P.E.	
FLORIDA REGISTRATION NO: 54340	
WHIRLWIND STEEL BUILDINGS WEATHER LOK-16 24GA	
REL.	BY
DATE	
DESCRIPTION	
STEEL BUILDINGS, INC.	
P.O. BOX 168000	
HOUSTON, TX 77244-0700	
PROJECT: PRODUCT APPROVAL	
SHEET TITLE: WEATHER LOK-16 24GA DETAILS	
LOCATION: FLORIDA	
DWN BY:	DATE: 3-27-02
CHKD BY:	SCALE: N.T.S.
PROJECT NUMBER:	DWG NO: 14005502
SHEET NO: 6 of 8	

NOTES:

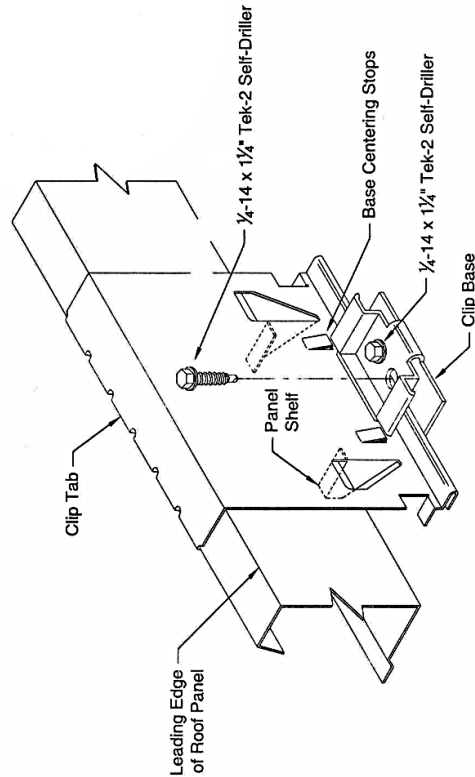
1. There are two types of clips that can be furnished with this roof system, the $\frac{3}{8}$ " stand-off and the $1\frac{3}{8}$ " stand-off. Both of these are floating clips.
2. Thermal spacers are required with the $1\frac{3}{8}$ " stand-off clip.
3. Apply a $4\frac{1}{2}$ " strip of $\frac{3}{8}$ " x $\frac{3}{32}$ " tape sealant to the underside of the clip before installation per Detail "A".
4. Install panel clips along the male edge of the panel at each purlin location.
5. Attach clip to purlin with (2) $\frac{1}{4}$ "-14 x $1\frac{1}{4}$ " Tek-2 self-drilling screws per clip.



$\frac{3}{8}$ " Stand-Off Clip
WL-16 Low Clip
(MC 120310)



Detail "A"



$1\frac{3}{8}$ " Stand-Off Clip
WL-16 High Clip
(MC 121310)

MANUFACTURING ENGINEER: RONALD H. MAYS, P.E.		FLORIDA REGISTRATION NO: 54340	
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REL. BY		DESCRIPTION	
STEEL BUILDINGS, INC.		DATE	
P.O. BOX 75280 - 8224 HANSEN ROAD		CHKD BY:	
HOUSTON, TX 77254 - (713) 946-7140		PROJECT NUMBER	
PROJECT: PRODUCT APPROVAL		DWN BY:	
SHEET TITLE: WEATHER LOK-16 24GA DETAILS		DATE: 3-27-02	
LOCATION: FLORIDA		SCALE: N.T.S.	
		DWG NO: 14003502	
		SHEET NO: 7 of 8	

