

MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/building

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

EPIC Metals Corp. 11 Talbot Avenue Rankin, PA 15104

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: EPIC Architectural & Sunscreen Perforated Steel Panels - L.M.I.

APPROVAL DOCUMENT: Drawing No. 23-616-Epic-LMI-ER, titled "EPIC Metals EST4 & ESW Series" (L.M.I.) Perforated Steel Sunscreen Panel", sheets 1 through 13 of 13, dated 09/14/2023, prepared by CBuck, Inc., signed and sealed by James L. Buckner, P.E., bearing the Miami-Dade County Product Control renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each panel shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official. This NOA **renews NOA No. 23-0926.10** and consists of page 1 and evidence pages E-1, E-2 and E-3, as well as the approval document mentioned above.

The submitted documentation was reviewed by Carlos M. Utrera, P.E.



NOA No: 24-0311.05 Expiration Date: May 23, 2029 Approval Date: April 18, 2024

Page 2

NOTICE OF ACCEPTANCE: EVIDENCE PAGE

1. EVIDENCE SUBMITTED UNDER NOA # 17-1221.25

A. DRAWINGS

1. Drawing No. 16-148-ER-ES.1, titled "EPIC Metals ESW & EST Series Perforated Steel Sunscreen Panel", sheets 1 through 13 of 13, dated 06/04/19, prepared by CBuck, Inc., signed and sealed by James L. Buckner, P.E.

B. TESTS

	Test Report No.	Test Standard	Date	<u>Signature</u>
1.	T226-17	TAS 202-94	07/31/17	Daniel G. Farabaugh, P.E.
2.	T263-18	TAS 203-94	09/21/18	Daniel G. Farabaugh, P.E.
3.	T225-18	TAS 202-94	06/22/18	Daniel G. Farabaugh, P.E.
4.	T220-18 Rev	TAS 202-94	06/18/18	Daniel G. Farabaugh, P.E.
5.	T224-17	TAS 202-94	07/31/17	Daniel G. Farabaugh, P.E.
6.	T264-18	TAS 203-94	09/18/18	Daniel G. Farabaugh, P.E.
7.	T224-18	TAS 202-94	06/22/18	Daniel G. Farabaugh, P.E.
8.	T225-17	TAS 202-94	07/31/17	Daniel G. Farabaugh, P.E.
9.	T265-18	TAS 203-94	09/18/18	Daniel G. Farabaugh, P.E.
10.	T191-17	AISI S905-13	07/17/17	Daniel G. Farabaugh, P.E.

C. CALCULATION

1. Engineering analysis prepared by CBuck, Inc., dated 03/28/19, signed and sealed by James L. Buckner, P.E.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATION

1. None.

F. STATEMENTS

1. Statement letter of code conformance to the **FBC** 6th **Edition (2017)** and of no financial interest, dated 12/14/17, issued by CBuck, Inc., signed and sealed by James L. Buckner, P.E.

Carlos M. Utrera, P.E. Product Control Examiner NOA No: 24-0311.05 Expiration Date: May 23, 2029

Approval Date: April 18, 2024

EPIC Metals Corp.

NOTICE OF ACCEPTANCE: EVIDENCE PAGE

2. EVIDENCE SUBMITTED UNDER NOA # 21-0830.03

A. DRAWINGS

Drawing No. **16-148-ER-ES.1**, titled "EPIC Metals ESW & EST Series Perforated Steel Sunscreen Panel", sheets 1 through 13 of 13, dated 06/04/19, with revision 20-431-ER-7th dated 08/04/21, prepared by CBuck, Inc., signed and sealed by James L. Buckner, P.E.

B. TESTS

1. None

C. CALCULATIONS

1. None

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Statement letter of code conformance to the **FBC** 7th **Edition (2020)** dated 03/11/21, issued by CBuck, Inc., signed and sealed by James L. Buckner, P.E.

G. OTHERS

1. Notice of Acceptance No. 17-1221.25, issued to EPIC Metals Corp. for their EPIC EST 4 and Series ESW Perforated Steel Sunscreen Panels, approved on 05/23/19 and expiring on 05/23/24.

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Carlos M. Utrera, P.E.
Product Control Examiner
NOA No: 24-0311.05
Expiration Date: May 23, 2029
Approval Date: April 18, 2024

NOTICE OF ACCEPTANCE: EVIDENCE PAGE

3. EVIDENCE SUBMITTED UNDER NOAs # 23-0314.10 AND # 23-0926.10

A. DRAWINGS

1. Drawing No. 23-616-Epic-LMI-ER, titled "EPIC Metals EST4 & ESW Series" (L.M.I.) Perforated Steel Sunscreen Panel", sheets 1 through 13 of 13, dated 09/14/2023, prepared by CBuck, Inc., signed and sealed by James L. Buckner, P.E.

B. TESTS

- 1. Test reports on 1) Large Missile Impact Test per FBC, TAS 201-94
 2) Cyclic Wind Pressure Loading per FBC, TAS 203-94
 along with marked-up drawings of EST4 Sunscreen Deck Panels, prepared by Farabaugh Engineering and Testing, Inc., Test Report No. **T345-22(1)**, dated 01/05/2023, signed and sealed by Daniel G. Farabaugh, P.E.
- 2. Test reports on 1) Large Missile Impact Test per FBC, TAS 201-94
 2) Cyclic Wind Pressure Loading per FBC, TAS 203-94
 along with marked-up drawings of ESW750 Sunscreen Deck Panels, prepared by Farabaugh Engineering and Testing, Inc., Test Report No. **T346-22(1)**, dated 01/05/2023, signed and sealed by Daniel G. Farabaugh, P.E.

C. CALCULATIONS

1. Engineering analysis prepared by CBuck, Inc., dated 03/10/2023, signed and sealed by James L. Buckner, P.E.

D. **OUALITY ASSURANCE**

1. Miami-Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

- 1. Drawing statements of code conformance to the 8th edition (2023) of the FBC, issued by CBuck, Inc., dated 09/14/2023, signed and sealed by James L. Buckner, P.E.
- 2. Statement of code conformance to the 7th edition (2020) of the FBC and of no financial interest, issued by CBuck, Inc., dated 03/10/2023, signed and sealed by James L. Buckner, P.E.

Carlos M. Utrera, P.E. Product Control Examiner NOA No: 24-0311.05 Expiration Date: May 23, 2029

Approval Date: April 18, 2024

Engineering Report & Drawings

Of

Epic Sunscreen Systems

EST 4 ESW 450 ESW 600 ESW 750

Perforated Sunscreen Panel System

For

Miami-Dade Notice of Acceptance (N.O.A.)

Category:

Panels

Sub - Category:

Sun Shades

Product Type:

Perforated Sunscreen Panel System

Material:

Steel

Prepared by:

James L. Buckner, P.E.

Florida Professional Engineer # 31242

Report No.: 23-616-Epic-LMI-ER

Date: 9/14/2023

PRODUCT RENEWED as complying with the Florid

as complying with the Florida Building Code NOA-No. 24-0311.05

Expiration Date 05/23/2029

By Huns

Miami-Dade Product Control

Contents:

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Product Details Page 2
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Product Components Page 6
Product Drawings & Details Page 7-11

PRODUCT REVISED as complying with the Florida Building Code NOA-No. 23-0926.10

Expiration Date <u>05/23/2024</u>

By Arm

Miami-Dade Product Control



MANUFACTURER: Epic Metals Corporation 11 Talbot Ave Rankin, PA 15104

www.epicmetals.com (412) 351-3913 EPIC METALS "EST4 & ESW SERIES" (LARGE MISSILE IMPACT RAFE)
PERFORATED STEEL SUNSCREEN PANEL ENGINEERING REPORT

DATE: 9/14/23

PAGE #: 1 OF 13

REPORT #: 23-616-Epic-LMI-ER

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REVISES #: 22-489-Epic-LMI-ER PM: DG

REVISIONS: 9/14/23

CBUCK Engineering

CBUCK, Inc. COA #8064 www.cbuckinc.net (561) 491-9927 1374 Community Dr Jupiter, FL 33458 No.31242
STATE OF

1.0 Product:

1.1 Manufacturer:

Epic Metals Corp.

1.2 Product Name:

"EST4 & ESW Series" Perforated Steel Sunscreen Panel

1.3 Category:

Panels

1.4 Subcategory:

Sun Shades

2.0 Evaluation Scope:

2.1 Evaluation Criteria:

2.1.1 Florida Building Code (FBC) 8th Edition (2023)

2.1.2 Code Section:

High Velocity Hurricane Zone (HVHZ)

as complying with the Florida **Building Code** 24-0311.05 NOA-No.

PRODUCT RENEWED

Expiration Date 05/23/2029

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Miami-Dade Product Control

2.1.3 Miami-Dade Department Of Regulatory And Economic Resources, Product Control Section Checklist # 0250

2.2 Properties Evaluated:

2.2.1 **Structural Resistance Properties**

2.2.1.1 Uniform Static Air Pressure per TAS 202

2.2.1.2 Cyclic Wind Pressure Loading per TAS 203

2.2.1.3 Large Missile Impact per TAS 201

Material Properties 2.2.2

2.2.2.1 Tensile Strength per ASTM E8

PRODUCT REVISED as complying with the Florida **Building Code** NOA-No. 23-0926.10

Expiration Date 05/23/2024

Miami-Dade Product Control

2.3 Limits of Evaluation:

This product is limited to compliance with the criteria in section 2.1 and properties in Section 2.2 of this report.

3.0 Evaluated Uses:

Epic Metals "EST4 & ESW Series" Perforated Steel Sunscreen Panels are evaluated for use as exterior Sunshades. They are attached to steel girts as exterior cladding.

4.0 Assembly Description:

4.1 General:

EST4, ESW450, ESW600 and ESW750 panels are made from steel conforming to ASTM A653 SS grade 40, with a minimum G90 galvanized steel with coating designation per section 12.0. As an option, the panels can be coated with an Epishield paint on all surfaces. The EST4 panels are made from 16, or 18 gage steel. The ESW450, ESW600 and ESW750 panels are made from 14, or 16 gage steel.

- 1. EST4: 4-inch deep panel, 24-inch width with perforations in the widest flange.
- 2. ESW450: 4.5-inch deep panel, 18-inch width with perforations in the widest flange and webs.
- 3. ESW600: 6.0-inch deep panel, 18-inch width with perforations in the widest flange and webs.
- 4. ESW750: 7.5-inch deep panel, 18-inch width with perforations in the widest flange and webs.

The standard perforation pattern contains 3/8-inch diameter round holes on a 1/2-inch staggered pattern. The perforation pattern is designated by the Industrial Perforators Association as pattern # 124. The percent open area is 51%. The load tables are valid for other perforation pattern configurations provided that the round hole diameter, spacing and percent open are less than the standard. Solid panels without perforations are acceptable.



MANUFACTURER: **Epic Metals Corporation** 11 Talbot Ave Rankin, PA 15104

(412) 351-3913

EPIC METALS "EST4 & ESW SERIES" (LARGE MISSILE IMPACT RATED) PERFORATED STEEL SUNSCREEN PANEL ENGINEERING REPORT

DATE: 9/14/23 PAGE #: 2 OF 13 REPORT #: 23-616-Epic-LMI-ER

REVISES #: 22-489-Epic-LMI-ER PM: DG

REVISIONS: 9/14/23

CBUCK Engineering Specialty Structural Engineering CBUCK, Inc. COA #8064 www.cbuckinc.net (561) 491-9927 1374 Community Dr

Jupiter, FL 33458

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4.2 Panel Dimensions:

4.2.1 Refer to panel drawings.

4.3 **Section Properties**

Deck Type	Gage	Weight (psf)	Moment of Inertia, I (in4/ft)	Section Modulus, S (in3/ft)
FCTA	18	3.4	1.71	0.58
EST4	16	4.3	2.13	0.75
ECMAFO	16	3.1	1.95	0.56
ESW450	14	3.9	2.49	0.75
ESW600	16	3.4	4.00	0.75
	14	4.3	5.09	1.10
ESW750	16	3.8	6.49	0.92
	14	4.7	8.80	1.39

Note: Values based on a steel yield strength of 40,000 psi

5.0 Support:

The Support assembly is designed by others and shall have the following minimum Characteristics:

5.1 Type:

Horizontal or Vertical framing members

5.2 Material:

Steel

5.3 Thickness:

3/16 in. Minimum Structural Steel (Flange Thickness)

5.4 Yield Strength:

46 ksi Minimum

5.5 Support Spacing:

Refer to Table Below

PRODUCT RENEWED

as complying with the Florida Building Code 24-0311.05 NOA-No.

Expiration Date 05/23/2029

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as complying with the Florida Building Code 23-0926.10 NOA-No.

Expiration Date 05/23/2024

Miami-Dade Product Control Manning Comments

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MANUFACTURER: **Epic Metals Corporation** 11 Talbot Ave Rankin, PA 15104

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EPIC METALS "EST4 & ESW SERIES" (LARGE MISSILE IMPACT RATED) PERFORATED STEEL SUNSCREEN PANEL ENGINEERING REPORT

DATE: 9/14/23 PAGE #: 3 OF 13 REPORT #: 23-616-Epic-LMI-ER REVISES #: 22-489-Epic-LMI-ER

PM: DG **REVISIONS: 9/14/23**

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PRODUCT RENEWED as complying with the Florida Building Code

24-0311.05

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PRODUCT REVISED as complying with the Florida Building Code 23-0926.10 NOA-No.

Expiration Date <u>05</u>/23/2024

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6.1.1 Table 2-1: EST 4 Uniform Allowable Design Pressures - (PSF)

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Sunscreen	Panel	Sunscreen	Number of Fasteners	Uniform Allowable Design Pressures, PS				
Panel	Span	Panel	Per Panel Flute	Span Len	gth, Cente	r to Cente	r of Suppo	rts (ft.)
Model	Condition	Gage	Per Support	8	10	12	14	16
	Simple or Multiple	18	1	146	119	97	73	48
EST 4		16	1	149	119	100	85	71
2314		18	2	146	122	97	73	48
		16	2	188	159	129	100	71

6.1.2 Table 2-2: ESW 450 Uniform Allowable Design Pressures – (PSF)

Sunscreen	Panel	Sunscreen	Number of Fasteners	Unit	form Allo	owable D	esign Pr	essures,	PSF
Panel	Span	Panel	Per Panel Flute	Span L	ength, C	enter to	Center c	of Suppo	rts (ft.)
Model	Condition	Gage	Per Support	8	10	12	14	16	18
	Simple	16	1	67	53	44	38	-	1
ESW450	or	14	1	73	58	49	42	37	32
	Multiple	16	2	120	95	74	57	-	-
		14	2	146	117	97	83	70	48

6.1.3 Table 2-3: ESW 600 Uniform Allowable Design Pressures – (PSF)

Sunscreen	Panel	Sunscreen	Number of Fasteners	Uni	form Allo	wable [esign Pr	essures,	PSF
Panel	Span	Panel	Per Panel Flute	Span L	ength, C	enter to	Center o	of Suppo	rts (ft.)
Model	Condition	Gage	Per Support	8	10	12	14	16	18
	Simple Or Multiple	16	1	67	53	44	38		
ESW600		14	1	73	58	49	42	37	32
		16	2	120	95	74	57	-	-
		14	2	146	117	97	83	70	48

6.1.4 Table 2-4: ESW 750 Uniform Allowable Design Pressures – (PSF)

Sunscreen	Panel	Sunscreen	Number of Fasteners	Uniform Allowable Design Pressures, PS			iros DSE	
				Span Length, Center to Center of Supports (ft.				
Panel	Span	Panel	Per Panel Flute	Span Lengt	h, Center to	Center of Su	pports (ft.)	
Model	Condition	Gage	Per Support	14	16	18	19	
	Simple or Multiple	16	1	38	33	30	28	
ESW750		14	1	42	37	32	31	
		16	2	64	55	47	43	
		14	2	83	73	65	61	

Notes for Tables 2-1 thru 2-4:

- 1. Design Pressures are based on ASD design.
- 2. See Table 2-5 for the allowable loads for fastening the panels to the steel supports.
- 3. Use linear interpolation to obtain load values for unlisted spans within ranges provided in above tables. Alliano. _

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6.0 Performance:

6.1 Span Tables:

MANUFACTURER: **Epic Metals Corporation** 11 Talbot Ave

Rankin, PA 15104 (412) 351-3913

EPIC METALS "EST4 & ESW SERIES" (LARGE MISSILE IMPACT RATED) PERFORATED STEEL SUNSCREEN PANEL ENGINEERING REPORT

DATE: 9/14/23 PAGE #: 4 OF 13 REPORT #: 23-616-Epic-LMI-ER REVISES #: 22-489-Epic-LMI-ER PM: DG

REVISIONS: 9/14/23

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Jupiter, FL 33458

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6.1.5 Table 2-3: Design Loads for Fasteners Through Solid Material (lbs)

	Substrate
	3/16" Structural Steel
Deck Gauge	R _n /Ω
20	710
18	795
16	796
14	871

Screw = 12-24 x 1-1/2" Elco Part# EAJ320 Bi-Flex w/ 9/16" outside diameter & neoprene-backed washer.

Note: $\Omega = 3.0$ (Per AISI for pullout in steel)

Tension Capacity values for connections based on FET Test T191-17 Assumes panel properties of Fy = 40 ksi, Fu = 55 ksi.

7.0 Installation:

7.1 Attaching to Structural Steel Substrate: Each panel is fastened at each end to steel supports with (1) or (2) #12-24 X 1-1/2" ELCO Bi-Flex 300 Series SS Self Drilling Fasteners (P/N EAJ 320 Bi-Flex) w/9/16" diameter neoprenebacked washers per Tables 2-1 thru 2-4. Connection patterns are shown on pages 10-13.

8.0 Limitations of Use:

- 8.1 The panel supports shall be 3/16" thick minimum structural steel.
- 8.2 Maximum support spacing shall not be exceeded.
- 8.3 The panels shall be supported by structural framing members complying with the The Florida Building Code, Chapter 22, including Florida High velocity zone.
- 8.4 Panel shall not be used as axial load bearing components and shall not be intended / designed to act as a diaphragm.
- 8.5 The engineer of record or architect shall verify that the supporting structure is capable of resisting the superimposed loads from the wall panel system and that the supporting structure is capable of providing lateral stability to carry the wind loads to the building foundation.

9.0 Code Compliance

9.1 Product meets the High Velocity Hurricane Zone (HVHZ) Requirements of the Florida Building Code, 8th Edition (2023) for the properties evaluated.

10.0 Identification:

10.1 Each Panel shall bear a permanent label with the manufacturer's name or logo, manufacturing plant's city, state and the statement reading "Miami-Dade County Product Control Approved" is to be located on each panel.

> **PRODUCT RENEWED** as complying with the Florida **Building Code** 24-0311.05 NOA-No.

Expiration Date 05/23/2029

Miami-Dade Product Control

PRODUCT REVISED as complying with the Florida **Building Code** 23-0926.10 NOA-No.

Expiration Date 05/23/2024

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EPIC METALS "EST4 & ESW SERIES" (LARGE MISSILE IMPACT RAFE) PERFORATED STEEL SUNSCREEN PANEL ENGINEERING REPORT

DATE: 9/14/23 PAGE #: 5 OF 13 REPORT #: 23-616-Epic-LMI-ER REVISES #: 22-489-Epic-LMI-ER

REVISIONS: 9/14/23

CBUCK Engineering Specialty Structural Engineering CBUCK, Inc. COA #8064 www.cbuckinc.net (561) 491-9927 1374 Community Dr Jupiter, FL 33458

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11.0 Reference Data:

- 11.1 TAS 202 Uniform Static Air Pressure Test.
 Report No.: T224-17 Report Date: 7/31/17
 By: Farabaugh Engineering & Testing, Inc.
- 11.2 TAS 202 Uniform Static Air Pressure Test.
 Report No.: T225-17 Report Date: 7/31/17
 (ESW 750, 14 ga @ 14' & 18 ga @ 19')
 By: Farabaugh Engineering & Testing, Inc.
- 11.3 TAS 202 Uniform Static Air Pressure Test.

 Report No.: T226-17 Report Date: 7/31/17

 (EST 4, 16 ga @ 8', 16 ga @ 19', 20 ga. @ 16')

 By: Farabaugh Engineering & Testing, Inc.
- 11.4 TAS 202 Uniform Static Air Pressure Test.
 Report No.: T194-18 Report Date: 5/25/18
 (ESW 750, 18 ga @ 14')
 By: Farabaugh Engineering & Testing, Inc.
- 11.5 TAS 202 Uniform Static Air Pressure Test.
 Report No.: T220-18Rev Report Date: 10/26/18
 By: Farabaugh Engineering & Testing, Inc.
- 11.6 TAS 202 Uniform Static Air Pressure Test.
 Report No.: T224-18 Report Date: 6/22/18
 By: Farabaugh Engineering & Testing, Inc.
- 11.7 TAS 202 Uniform Static Air Pressure Test.
 Report No.: T225-18 Report Date: 6/22/18
 (EST 4, 20 ga @ 8')
 By: Farabaugh Engineering & Testing, Inc.
- 11.8 TAS 203 Cyclic Wind Pressure Loading Test
 Report No.: T263-18 Report Date: 9/21/18, Rev 1/26/19
 (EST 4, 16 ga @ 8', 20 ga @ 8', 20 ga @ 16')
 By: Farabaugh Engineering & Testing, Inc.
- 11.9 TAS 203 Cyclic Wind Pressure Loading Test
 Report No.: T264-18 Report Date: 10/31/18
 By: Farabaugh Engineering & Testing, Inc.
- 11.10 TAS 203 Cyclic Wind Pressure Loading Test
 Report No.: T265-18 Report Date: 9/18/18
 (ESW 750, 14 ga @ 14', 18 ga @ 14', 18 ga @ 19')
 By: Farabaugh Engineering & Testing, Inc.
- 11.11 ASTM-E8-09 Tensile Test
 Report No.: T246-18 Report Date: 7/24/18
 (EST 4 20 ga, ESW 450- 14 ga & 18 ga, ESW 750 14 ga & 18 ga)
 By: Farabaugh Engineering & Testing, Inc.
- 11.12 TAS 201-94 Large Missile Impact Test & TAS 203 Cyclic Wind Pressure Loading Test Report No.: T345-22(1) Report Date: 1/5/23 (EST 4, 18 ga, 18 ga @ 16')

 By: Farabaugh Engineering & Testing, Inc.

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MANUFACTURER: Epic Metals Corporation 11 Talbot Ave Rankin, PA 15104 www.epicmetals.com

www.epicmetals.com (412) 351-3913 EPIC METALS "EST4 & ESW SERIES" (LARGE MISSILE IMPACT RATED)
PERFORATED STEEL SUNSCREEN PANEL ENGINEERING REPORT

DATE: 9/14/23

PAGE #: 6 OF 13

REPORT #: 23-616-Epic-LMI-ER

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REVISIONS: 9/14/23

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Miami-Dade Product Control



11.13 TAS 201-94 Large Missile Impact Test & TAS 203 – Cyclic Wind Pressure Loading Test

Report No.: T346-22(1) Report Date: 1/5/23

(ESW 750, 16 ga, 16 ga @ 19')

By: Farabaugh Engineering & Testing, Inc.

11.14 Engineering Analysis/Calculations

Report Number: 22-489-Epic-LMI-EA Report Date: 3/06/23

By: James L Buckner, P.E.

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MANUFACTURER: Epic Metals Corporation 11 Talbot Ave Rankin, PA 15104

www.epicmetals.com (412) 351-3913 EPIC METALS "EST4 & ESW SERIES" (LARGE MISSILE IMPACT RATED)
PERFORATED STEEL SUNSCREEN PANEL ENGINEERING REPORT

DATE: 9/14/23

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REPORT #: 23-616-Epic-LMI-ER

CBUCK,

REVISES #: 22-489-Epic-LMI-ER PM: DG

REVISIONS: 9/14/23

CBUCK Engineering

CBUCK, Inc. COA #8064 www.cbuckinc.net (561) 491-9927 1374 Community Dr Jupiter, FL 33458



12.0 Product Components:

12.1 **EST 4** Series Perforated Steel Sunscreen Panel

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 24-0311.05

Expiration Date 05/23/2029

Miami-Dade Product Control

The panel is a 4" deep perforated steel panel.

Material:

Steel

Thickness: 16 0

16 Gauge Max - 18 Gauge Min

(t = 0.0600 in Max. - t = 0.0358 in Min)

Yield Strength:

40.0 ksi Minimum

Corrosion Resistance:

Galvanized Steel per ASTM A653 G-90

12.2 **ESW 450** Series Perforated Steel Sunscreen Panel

The panel is a 4.5" deep perforated steel panel.

Material:

Steel

Thickness:

14 Gauge Max - 16 Gauge Min

(t = 0.0747 in Max. - t = 0.0474 in Min)

Yield Strength:

40.0 ksi Minimum

Corrosion Resistance:

Galvanized Steel per ASTM A653 G-90

12.3 **ESW 600** Series Perforated Steel Sunscreen Panel

The panel is a 6" deep perforated steel panel.

Material:

Steel

Thickness:

14 Gauge Max - 16 Gauge Min

(t = 0.0747 in Max. - t = 0.0474 in Min)

Ultimate Yield Strength:

40.0 ksi Minimum

Corrosion Resistance:

Galvanized Steel per ASTM A653 G-90

12.4 ESW 750 Series Perforated Steel Sunscreen Panel

The panel is a 7.5" deep perforated steel panel.

Material:

Steel

Thickness:

14 Gauge Max - 16 Gauge Min

(t = 0.0747 in Max. - t = 0.0474 in Min)

Yield Strength:

40.0 ksi Minimum

Corrosion Resistance:

Galvanized Steel per ASTM A653 G-90

12.5 Fasteners:

Specification/standard for fasteners to be used at intermediate and end steel supports.

PRODUCT REVISED as complying with the Florida Building Code

NOA-No. 23-0926.10

Material:

Stainless Steel

Name:

ELCO Bi-Flex 300 Series SS Self Drilling Fasteners

Type:

ELCO P/N EAJ 320 Bi-Flex

Diameter:

Fastener: #12-24 Washer: 9/16" diameter

Expiration Date 05/23/2024 Let

Length:

1-1/2" minimum (Must penetrate steel support min 3/4")

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Corrosion Resistance:

Stainless Steel per ASTM A240

Miami-Dade Product Control

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PM: DG REVISIONS: 9/14/23 CBUCK, Inc. COA #8064 www.cbuckinc.net (561) 491-9927 1374 Community Dr Jupiter, FL 33458

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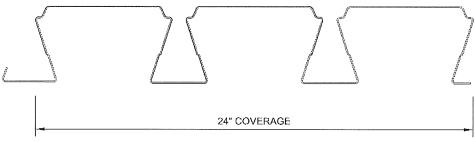
CBUCK Engineering

No.31242

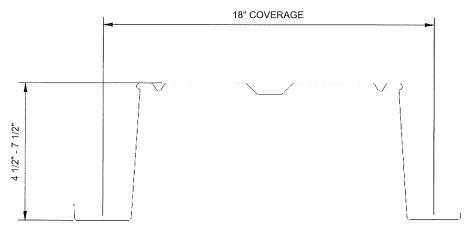
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EPIC METALS CORP."EST 4" & "ESW Series" PROFILE DRAWINGS



"EST 4" TYPICAL PANEL PROFILE



"ESW 450", "ESW 600" AND "ESW 750" TYPICAL PANEL PROFILES

PRODUCT RENEWED

as complying with the Florida Building Code NOA-No. 24-0311.05

Expiration Date 05/23/2029

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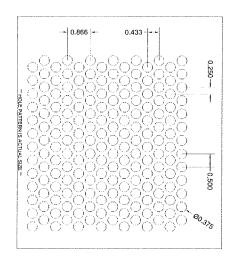
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PRODUCT REVISED
as complying with the Florida
Building Code

NOA-No. 23-0926.10

Expiration Date 05/23/2024

By Miami-Dade Product Control



STANDARD PERFORATED PATTERN (PATTERN #124) - ROUND HOLE 3/8" DIAMETER (1/2" STAGGERED)

EPIC METALS

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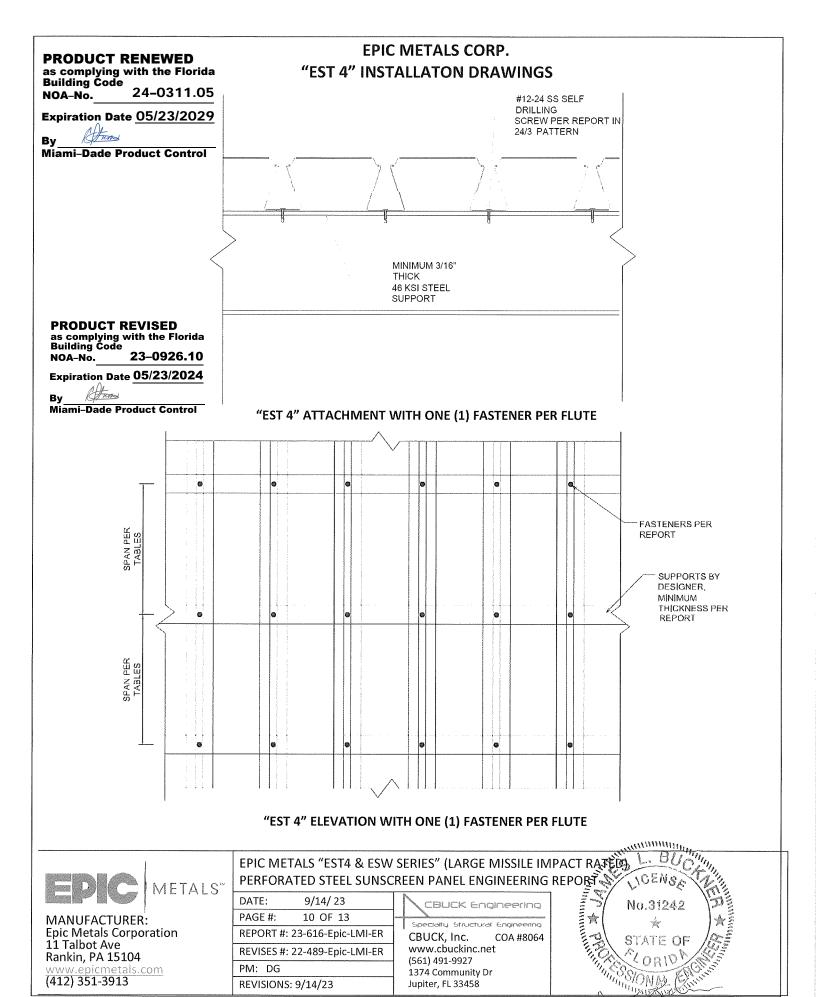
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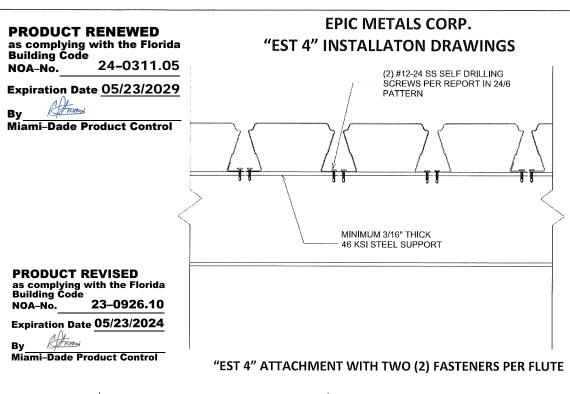
REVISIONS: 9/14/23

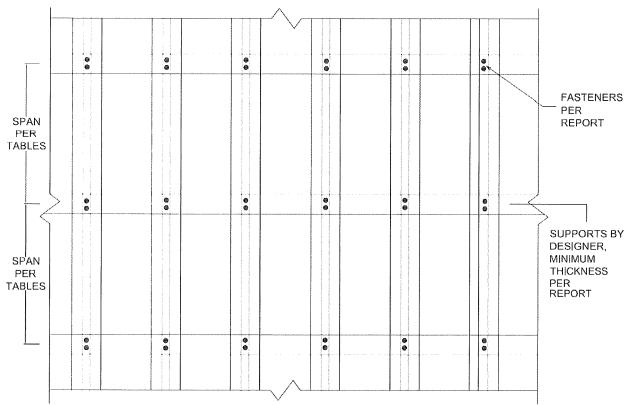
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MANUFACTURER: **Epic Metals Corporation** 11 Talbot Ave Rankin, PA 15104

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EPIC METALS "EST4 & ESW SERIES" (LARGE MISSILE IMPACT RATE) PERFORATED STEEL SUNSCREEN PANEL ENGINEERING REPORT

"EST 4" ELEVATION WITH TWO (2) FASTENERS PER FLUTE

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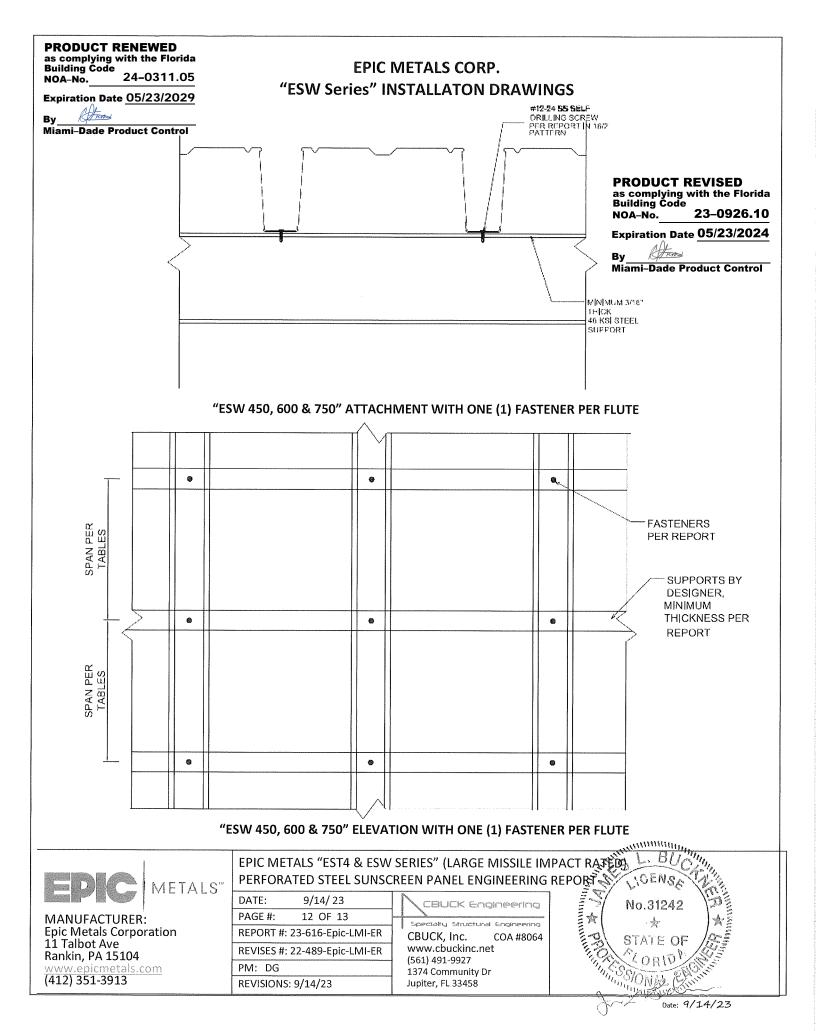
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CBUCK Engineering

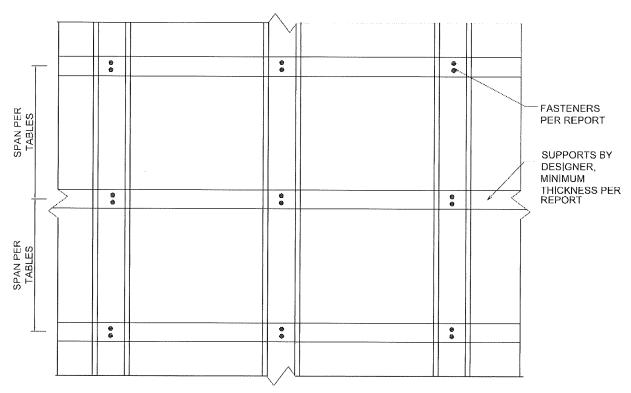
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PRODUCT RENEWED EPIC METALS CORP. as complying with the Florida Building Code "ESW Series" INSTALLATON DRAWINGS 24-0311.05 NOA-No. Expiration Date 05/23/2029 #12-24 SS SELF DRILLING SCREW PER REPORT IN 18/2 PATTERN Huns Miami-Dade Product Control PRODUCT REVISED as complying with the Florida Building Code 23-0926.10 NOA-No. Expiration Date 05/23/2024 Hum Miami-Dade Product Control MINIMUM 3/16" THICK 46 KSI STEEL SUPPORT

"ESW 450, 600 & 750" ATTACHMENT WITH TWO (2) FASTENERS PER FLUTE



"ESW 450, 600 & 750" ELEVATION WITH TWO (2) FASTENERS PER FLUTE TE BUONNING

METALS"

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EPIC METALS "EST4 & ESW SERIES" (LARGE MISSILE IMPACT RATE) PERFORATED STEEL SUNSCREEN PANEL ENGINEERING REPORT

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