Product Approval
USER: Public User

FL #	FL7561-R7
Application Type	Revision
Code Version	2023
Application Status	Approved
Comments	
Archived	☐
Product Manufacturer	Elite Aluminum Corporation
Address/Phone/Email	4650 Lyons Technology Parkway Coconut Creek, FL 33073 (954) 949-3200 bpeacock@elitealuminum.com
Authorized Signature	Bruce Peacock bpeacock@elitealuminum.com
Technical Representative	Bruce Peacock
Address/Phone/Email	4650 Lyons Technology Parkway Coconut Creek, FL 33073 (954) 949-3200 bpeacock@elitealuminum.com
Quality Assurance Representative	
Address/Phone/Email	
Category	Roofing
Subcategory	Products Introduced as a Result of New Technology
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer ☐ Evaluation Report - Hardcopy Received
Florida Engineer or Architect Name who developed the Evaluation Report	Do Kim, P.E.
Florida License	PE-49497
Quality Assurance Entity	QAI Laboratories
Quality Assurance Contract Expiration Date	12/31/2026
Validated By	James L. Buckner, P.E. @ CBUCK Engineering ☑ Validation Checklist - Hardcopy Received
Certificate of Independence	FL7561_R7_COI_certificate of independence.pdf
Referenced Standard and Year (of Standard)	
Equivalence of Product Standards Certified By	
Sections from the Code	1708.2

Product Approval Method	Method 2 Option B
Date Submitted	08/16/2023
Date Validated	08/21/2023
Date Pending FBC Approval	08/25/2023
Date Approved	10/17/2023

Summary of Products

FL #	Model, Number or Name	Description
7561.1	Aluminum/Aluminum Composite Panels	3"/4"/6"x0.024"x1lb EPS Composite Panel, 3"/4"/6"x0.032x1lb EPS Composite Panel, 3"/4"/6"x0.024"x2lb EPS Composite Panel, 3"/4"/6"x0.030"x2lb EPS Composite Panel,
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** No **Design Pressure:** +80/-80 **Other:** In HVHZ, not to be used in structures considered living areas per FBC Section 1616 unless impact protection is provided. See installation drawing for nominal allowable design pressures and spans.		**Installation Instructions** FL7561_R7_II_2023 FBC-Elite Aluminum Corp Install Dwg.pdf Verified By: Do Kim, P.E. PE 49497 Created by Independent Third Party: Yes **Evaluation Reports** FL7561_R7_AE_FL 7561 Evaluation Report-2023 FBC.pdf Created by Independent Third Party: Yes

Back Next

Do Kim & Associates, LLC
Consulting Structural Engineers

Florida Board of Engineers Certificate of Authorization No. 26887

Product Evaluation Report

Date: August 15, 2023

Report No.: FL# 7561-R7

Product Category: Roofing

Product sub-category: Products Introduced as a Result of New Technology

Product Name: EPS Foam Core w/ Aluminum Skin Composite Panels

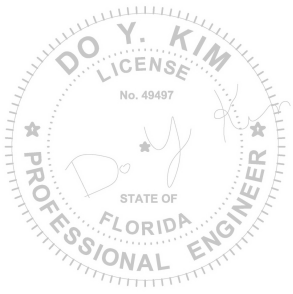
Manufacturer: Elite Aluminum Corporation
4650 Lyons Technology Parkway
Coconut Creek, FL 33073
Phone: 800-421-0682

Scope:

This product evaluation report issued by Do Kim and Associates, LLC and Do Kim, P.E. for Elite Aluminum Corporation is based on Florida Department of Business and Professional Regulation Rule 61G20-3.005 (2) Method 2 (b) of the State of Florida Product Approval. Re-evaluation of this product shall be required following pertinent Florida Building Code modifications or updates.

Do Kim and Associates, LLC and Do Kim, P.E. do not have nor will acquire financial interest in the company manufacturing or distributing the product or in any other entity involved in the approval process of the product named herein.

This product has been evaluated for use in locations adhering to the Florida Building Code, 8th Edition (2023 FBC) and where pressure and deflection requirements, as determined by Chapter 16 of the Florida Building Code, do not exceed the design pressures as shown on the approval.



This item has been digitally signed and sealed by Do Y. Kim on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Do Kim, P.E.
FL #49497

Supporting Documents

1. Code Compliance
    a. The product assembly described herein has demonstrated compliance with the Florida Building Code 8th Edition (FBC), Section 1708.2.
2. Drawings:
    a. Drawing No. FL-1001 titled "EPS Foam Core Composite Panels", Sheets 1 and 2 prepared by Do Kim and Associates, LLC., signed and sealed by Do Kim, P.E.
3. Testing
    a. Testing per ASTM E72 as performed by Hurricane Engineering & Testing, Inc. (HETI), and reported in test report numbers HETI-05-1988, HETI-06-2104, HETI-06-2066, HETI-06-2105, HETI-06-2067, HETI-05-1002, HETI-06-2107, HETI-05-1987, HETI-06-2069, HETI-06-2070, HETI-06-2071, HETI-05-1994, HETI-05-1991, HETI-06-2072, HETI-06-2073, HETI-06-2074, HETI-05-1996, HETI-05-1989, HETI-05-1993, HETI-05-1985, HETI-05-1995, HETI-05-1990, HETI-05-1997, HETI-05-2037, HETI-05-2029, HETI-05-2039, HETI-05-2030, HETI-05-2041, HETI-05-2048, HETI-05-2036, HETI-05-2031, HETI-05-2038, HETI-05-2065, HETI-05-2040, HETI-05-2042.
4. Calculations
    a. Panel performance engineering analysis for tested loading conditions have been prepared based on comparative and/or rational analysis, prepared, and submitted by Do Kim, P.E.
5. Other
    a. Quality Assurance Agreement verified with Quality Auditing-Institute, LTD. (QAI Laboratories, LTD.) (FBC Organization #QUA7628).

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Tampa, FL 33679

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Limitations and Condition of Use

1. Code Compliance
    a. The product assembly described herein has demonstrated compliance with the Florida Building Code 8th Edition (FBC), Section 1708.2.
2. Large and small missile impact resistance has NOT been tested to or evaluated for in this approval. In HVHZ, this product shall be used in structures "not to be considered living areas" per Section 1616 unless impact resistance in accordance to the HVHZ requirements are met.
3. Each product listed above shall be installed in strict compliance with its respective Product Evaluation Document and site-specific engineering along with all components noted herein.
4. Use of each product shall be in strict accordance with its Product Approval Evaluation and Limitations of Use.
6. Composite panels shall be constructed using type 3003-H154 or 3105-H154 aluminum facings, 2 PCF ASTM C-578 Kingspan Insulation LLC brand EPS foam insulation (NOA No. 22-0627.04) or Imperial Foam & Insulation MFG. CO. adhered to aluminum facings with Ashland Chemical 2020D ISO grip. Fabrication to be by Elite panel products only in accordance with approved fabrication methods.
7. Elite roof panels maintain a UL 1715 (int) class 'B' (ext) rating and are NER-501 approved.
8. This specification has been designed and shall be fabricated in accordance with the requirements of the FBC, composite panels comply with Chapter 7 Section 720, Chapter 8 Section 803, Class A interior finish, and Chapter 26 Section 2603. All local building code amendments shall be adhered to as required.
9. The designer shall determine by accepted engineering practice the allowable loads for site specific load conditions (including load combinations) using the data from the allowable load tables and spans in this approval.
10. Deflection limits and allowable spans have been listed to meet FBC including the HVHZ (L/80 for spans $\leq$ 12'-0" and L/180 for spans > 12'-0").
11. All supporting host structures shall be designed to resist all superimposed loads.
12. All components which are permanently installed shall be protected against corrosion, contamination, and other such damage.
13. Size and Span Limitations:
    a. Composite panels shall be limited to those specific panels listed in the DWG. FL-1001.
    b. Panel spans shall not exceed those listed in the tables of DWG. FL-1001.
14. **ELITE ALUMINUM PANELS ARE LABELED WITH A FL7561 LABEL TO ENSURE BUILDING INSPECTOR THAT THE INSULATED PANELS INSTALLED ARE APPROVED FOR USE IN THE STATE OF FLORIDA.**

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ELITE PANEL SPAN TABLES:

1. Net allowable loads are permitted to be multiplied by 1.67 to derive ultimate loads (psf).

ELITE ALUMINUM PANELS ARE LABELED WITH A FL7561 LABEL TO ENSURE BUILDING INSPECTOR THAT THE INSULATED PANELS INSTALLED ARE APPROVED FOR USE IN THE STATE OF FLORIDA.

3" x 0.024 x 1 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)

NET ALLOWABLE LOAD (PSF)[1]	MAX. ALLOWABLE SPAN (FT)			
	L/80	L/120	L/180	L/240
10	16.17	15.76	15.03	14.10
20	13.44	13.44	12.22	10.35
30	10.78	10.78	9.41	6.60
40	9.22	9.22	6.60	2.85
50	8.17	8.17	3.79	-
60	7.40	6.39	0.98	-
70	6.81	4.51	-	-
80	6.33	2.64	-	-

3" x 0.032 x 1 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)

NET ALLOWABLE LOAD (PSF)[1]	MAX. ALLOWABLE SPAN (FT)			
	L/80	L/120	L/180	L/240
10	17.50	17.50	16.91	15.96
20	16.64	15.96	14.06	12.16
30	15.17	14.06	11.21	8.36
40	13.69	12.16	8.36	4.56
50	12.22	10.26	5.51	0.76
60	10.75	8.36	2.66	-
70	9.27	6.46	-	-
80	7.80	4.56	-	-

3" x 0.024 x 2 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)

NET ALLOWABLE LOAD (PSF)[1]	MAX. ALLOWABLE SPAN (FT)			
	L/80	L/120	L/180	L/240
10	19.33	18.95	18.31	17.66
20	18.11	17.66	16.36	15.06
30	16.80	16.36	14.41	12.46
40	15.49	15.06	12.46	9.86
50	14.18	13.76	10.51	7.26
60	12.87	12.46	8.57	4.67
70	11.57	11.16	6.62	2.07
80	10.26	9.86	4.67	-

3" x 0.030 x 2 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)

NET ALLOWABLE LOAD (PSF)[1]	MAX. ALLOWABLE SPAN (FT)			
	L/80	L/120	L/180	L/240
10	20.11	20.03	19.42	18.81
20	19.02	18.81	17.58	16.35
30	17.93	17.58	15.73	13.89
40	16.83	16.35	13.89	11.43
50	15.74	15.12	12.05	8.97
60	14.64	13.89	10.21	6.52
70	13.55	12.66	8.36	4.06
80	12.46	11.43	6.52	1.60

4" x 0.024 x 1 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)

NET ALLOWABLE LOAD (PSF)[1]	MAX. ALLOWABLE SPAN (FT)			
	L/80	L/120	L/180	L/240
10	19.00	19.00	17.17	16.53
20	15.01	15.01	15.01	13.95
30	12.50	12.50	12.50	11.38
40	10.97	10.97	10.97	8.80
50	9.92	9.92	9.44	6.22
60	9.13	9.13	7.51	3.64
70	8.52	8.52	5.58	1.07
80	8.02	8.02	3.64	-

4" x 0.032 x 1 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)

NET ALLOWABLE LOAD (PSF)[1]	MAX. ALLOWABLE SPAN (FT)			
	L/80	L/120	L/180	L/240
10	20.50	20.50	20.11	19.24
20	19.61	19.24	17.49	15.74
30	18.17	17.49	14.87	12.24
40	16.72	15.74	12.24	8.74
50	15.28	13.99	9.62	5.25
60	13.84	12.24	7.00	1.75
70	12.40	10.49	4.38	-
80	10.95	8.74	1.75	-

4" x 0.024 x 2 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)

NET ALLOWABLE LOAD (PSF)[1]	MAX. ALLOWABLE SPAN (FT)			
	L/80	L/120	L/180	L/240
10	21.97	21.97	21.52	20.97
20	20.77	20.77	19.86	18.76
30	19.57	19.57	18.21	16.55
40	18.36	18.36	16.55	14.34
50	17.16	17.16	14.89	12.13
60	15.96	15.96	13.24	9.93
70	14.75	14.75	11.58	7.72
80	13.55	13.55	9.93	5.51

4" x 0.030 x 2 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)

NET ALLOWABLE LOAD (PSF)[1]	MAX. ALLOWABLE SPAN (FT)			
	L/80	L/120	L/180	L/240
10	24.17	24.17	24.17	24.17
20	23.64	23.64	23.41	23.11
30	22.57	22.57	21.90	21.01
40	21.51	21.51	20.39	18.91
50	20.45	20.45	18.88	16.80
60	19.39	19.39	17.37	14.70
70	18.33	18.33	15.86	12.59
80	17.26	17.26	14.35	10.49

6" x 0.024 x 1 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)

NET ALLOWABLE LOAD (PSF)[1]	MAX. ALLOWABLE SPAN (FT)			
	L/80	L/120	L/180	L/240
10	23.00	21.24	21.47	20.85
20	18.06	18.06	18.06	18.06
30	15.13	15.13	15.13	15.13
40	13.34	13.34	13.34	13.34
50	12.10	12.10	12.10	10.91
60	11.17	11.17	11.17	8.43
70	10.44	10.44	10.30	5.95
80	9.85	9.85	8.43	3.47

6" x 0.032 x 1 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)

NET ALLOWABLE LOAD (PSF)[1]	MAX. ALLOWABLE SPAN (FT)			
	L/80	L/120	L/180	L/240
10	24.00	24.00	24.00	23.42
20	23.34	23.21	21.82	20.22
30	22.10	21.63	19.42	17.02
40	20.86	20.05	17.02	13.82
50	19.62	18.47	14.62	10.62
60	18.38	16.89	12.22	7.42
70	17.14	15.30	9.82	4.22
80	15.91	13.72	7.42	1.02

6" x 0.024 x 2 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)

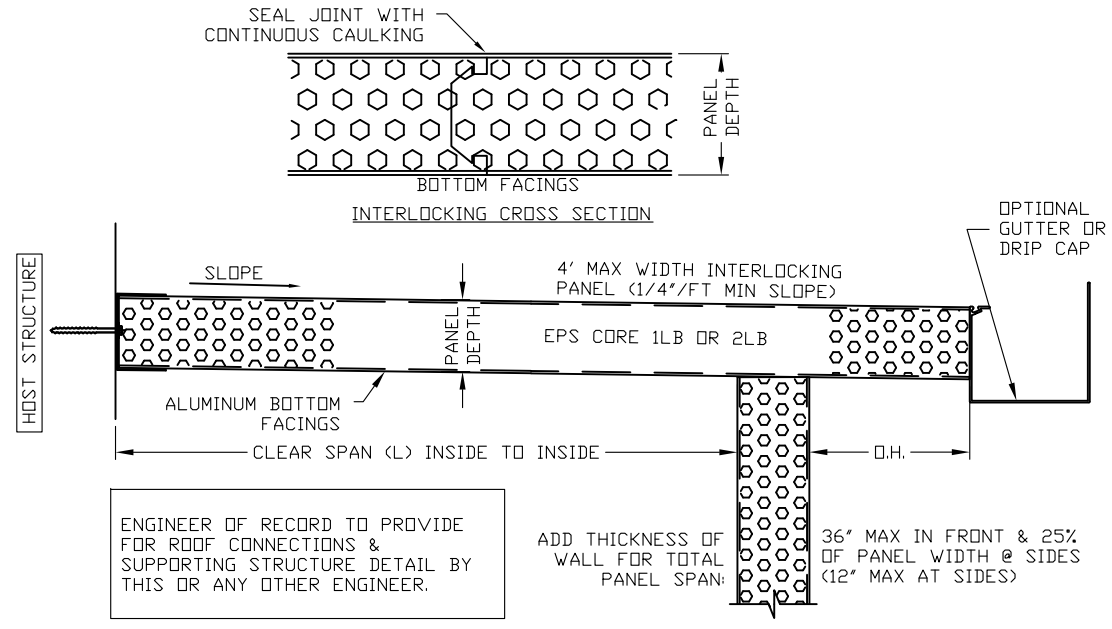
NET ALLOWABLE LOAD (PSF)[1]	MAX. ALLOWABLE SPAN (FT)			
	L/80	L/120	L/180	L/240
10	23.93	23.93	23.88	23.60
20	23.20	23.20	23.03	22.46
30	22.47	22.47	22.18	21.33
40	21.75	21.75	21.33	20.20
50	21.02	21.02	20.49	19.07
60	20.29	20.29	19.64	17.94
70	19.57	19.57	18.79	16.81
80	18.84	18.84	17.94	15.68

6" x 0.030 x 2 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)

NET ALLOWABLE LOAD (PSF)[1]	MAX. ALLOWABLE SPAN (FT)			
	L/80	L/120	L/180	L/240
10	24.00	24.00	24.00	23.84
20	23.65	23.65	23.34	22.84
30	22.94	22.94	22.59	21.85
40	22.23	22.23	21.85	20.85
50	21.53	21.53	21.10	19.86
60	20.82	20.82	20.36	18.87
70	20.11	20.11	19.61	17.87
80	19.40	19.40	18.87	16.88

GENERAL NOTES

1. Composite panels shall be constructed using type 3003-H154 aluminum facings, 1 or 2 PCF ASTM C-578 Kingspan Insulation LLC or Imperial Foam & Insulation MFG. CO. brand EPS adhered to aluminum facings with Ashland Chemical 2020D ISO grip. Fabrication to be by Elite panel products only in accordance with approved fabrication methods.
2. Elite roof panels maintain a UL 1715 (int) class 'B' (ext) rating and are NER-501 approved.
3. This specification has been designed and shall be fabricated in accordance with the requirements of the Florida Building Code 8th Edition (FBC), composite panels comply with Chapter 7 Section 720, Chapter 8 Section 803, Class A interior finish, and Chapter 26 Section 2603. All local building code amendments shall be adhered to as required.
4. The designer shall determine by accepted engineering practice the allowable loads for site specific load conditions (including load combinations) using the data from the allowable load tables and spans in this approval.
5. Deflection limits and allowable spans have been listed to meet FBC including the HVHZ. In HVHZ, this product shall be used in structures "not to be considered living areas" per Section 1616 unless impact resistance in accordance to the HVHZ requirements are met.
6. Safety factor of 2.0 has been used to develop allowable loads and spans from testing in accordance to the Guidelines for Aluminum Structures Part 1 and conforms to the FBC Chapter 16 and 20.
7. Testing has been conducted in accordance to ASTM E72: Strength Test of Panels for Building Construction.
8. Reference test reports: HETI-05-1988, HETI-06-2104, HETI-06-2066, HETI-06-2105, HETI-06-2067, HETI-05-1002, HETI-06-2107, HETI-05-1987, HETI-06-2069, HETI-06-2070, HETI-06-2071, HETI-05-1994, HETI-05-1991, HETI-06-2072, HETI-06-2073, HETI-06-2074, HETI-05-1996, HETI-05-1989, HETI-05-1993, HETI-05-1985, HETI-05-1995, HETI-05-1990, HETI-05-1997, HETI-05-2037, HETI-05-2029, HETI-05-2039, HETI-05-2030, HETI-05-2041, HETI-05-2048, HETI-05-2036, HETI-05-2031, HETI-05-2038, HETI-05-2065, HETI-05-2040, HETI-05-2042.
9. Linear interpolation shall be allowed for figures within the tables shown.
10. Panels with fan beams shall be considered equivalent to similar panels without fan beams. Design professionals may include the strength of the fan beam to exceed shown figures as part of site-specific engineering.



EPS ROOF PANEL/ SPAN DESCRIPTION

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Rev./Date		Description
0	8/12 2017	ISSUED FOR FBC 6th Edition PRODUCT APPROVAL
1	8/8 2020	ISSUED FOR FBC 7th Edition PRODUCT APPROVAL
2	6/15 2022	ADDED LABELING STATEMENT
3	8/15 2023	ISSUED FOR FBC 8th Edition PRODUCT APPROVAL

Elite Aluminum Corporation
4650 Lyons Technology Parkway
Coconut Creek, FL 33073

EPS FOAM CORE COMPOSITE PANELS
ALUMINUM/ALUMINUM SKIN
FLORIDA STATEWIDE PRODUCT APPROVAL

DRAWN BY:	DYK
CHECKED BY:	DYK
SCALE:	AS SHOWN
DATE:	2/19/12

DO Y. KIM
LICENSE NUMBER
FLA. REG. NUMBER 49497
No. 49497
STATE OF FLORIDA
PROFESSIONAL ENGINEER
DO KIM & ASSOCIATES, LLC
CA# 26887
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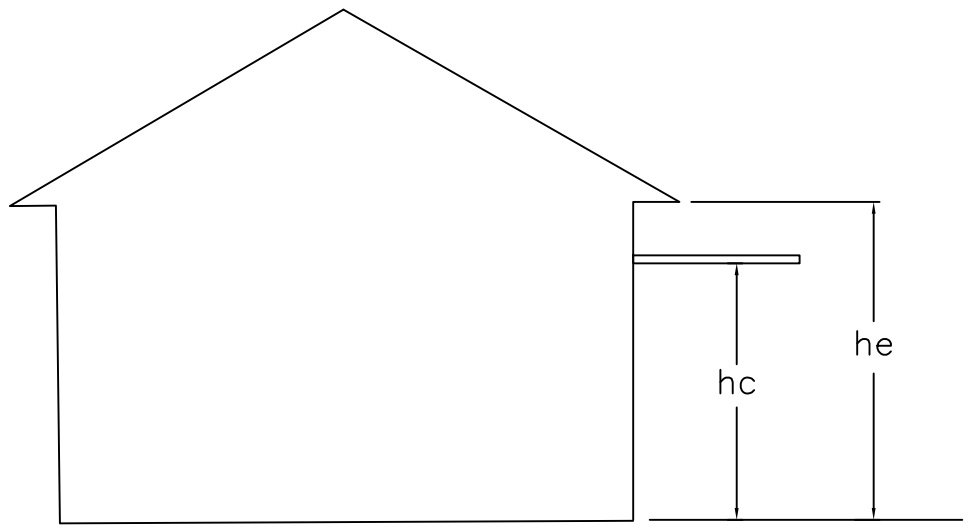
This item has been digitally signed and sealed by Do Y. Kim on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Drawing No. - FL-1001

ELITE ALUMINUM PANELS ARE LABELED WITH A FL7561 LABEL TO ENSURE BUILDING INSPECTOR THAT THE INSULATED PANELS INSTALLED ARE APPROVED FOR USE IN THE STATE OF FLORIDA.

8th Edition FBC Basic Design Wind Speed and Allowable Design Wind Pressure for Attached Covers (canopies) on Buildings.



Attached Covers (canopies) on Buildings

1. Per 8th Edition FBC Chapter 16 for Components and Cladding Loads, ASCE/SEI 7-22 Chapter 30 for Components and Cladding for Attach Canopies on Buildings. Effective area for wind load calculations based on 10 sq. feet (absolute value of controlling design wind pressure is shown on span tables).
2. Use the wind load design pressures in the tables below for OPEN and ATTACHED covers (canopies) on buildings as a guide to determine allowable wind load design pressures. Use the design pressure selected to determine the allowable spans for the various panel types listed on Sheet 1.
2. The tables below ONLY applies to open and attached covers (canopies) on buildings per ASCE/SEI 7-22 Section 30.9 ATTACHED CANOPIES ON BUILDINGS and shall not be used for any other types of structures such as Enclosed, Freestanding Open, Partially Open, or Partially enclosed Buildings.
3. Roof covers attached to fascia are deemed $0.9 \leq hc/he \leq 1$.
4. Roof covers attached to the host structure underneath the fascia and overhang at deemed $0.5 \leq hc/he < 0.9$.

ASCE 7-22 Allowable Design Pressures			
ATTACHED TO FASCIA CANOPIES (Open Wind Flow), 0.9≤hc/he≤1			
Wind Speed	Exposure B	Exposure C	Exposure D
110	10.7	15.98	19.36
120	12.8	19.02	23.04
130	15.0	22.32	27.04
140	17.4	25.88	31.37
150	19.9	29.71	36.01
160	22.7	33.81	40.97

ASCE 7-22 Allowable Design Pressures			
ATTACHED TO WALL CANOPIES (Open Wind Flow), 0.5<hc/he<0.9			
Wind Speed	Exposure B	Exposure C	Exposure D
110	6.9	10.27	12.45
120	8.2	12.23	14.81
130	9.6	14.35	17.39
140	11.2	16.64	20.16
150	12.8	19.10	23.15
160	14.6	21.73	26.34

Notes:

1. The allowable design pressures listed in the tables are the absolute value of the controlling design pressure (± dp).

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3	8/15 2023	ISSUED FOR FBC 8th Edition PRODUCT APPROVAL

Elite Aluminum Corporation
4650 Lyons Technology Parkway
Coconut Creek, FL 33073

EPS FOAM CORE COMPOSITE PANELS
ALUMINUM/ALUMINUM SKIN
FLORIDA STATEWIDE PRODUCT APPROVAL

DRAWN BY:	DYK
CHECKED BY:	DYK
SCALE:	AS SHOWN
DATE:	2/19/12

DO YEON KIM, P.E.
FLA. REG. NUMBER 49497
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Drawing No. - FL-1001