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Product Approval
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[Product Approval Menu](#) > **Application Detail**

OFFICE OF THE
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FL #	FL5499-R6
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	Frank Bennardo P.E. frank@engineeringexpress.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	Panel Walls
Subcategory	Storefronts
Compliance Method	Evaluation Report from a Florida Registered Architect Professional Engineer ☐ Evaluation Report - Hardcopy Received
Florida Engineer or Architect Name who developed the Evaluation Report	Frank L. Bennardo, P.E.
Florida License	PE-0046549
Quality Assurance Entity	QAI Laboratories
Quality Assurance Contract Expiration Date	12/31/2025
Validated By	John Henry Kampmann Jr. ☒ Validation Checklist - Hardcopy Received
Certificate of Independence	FL5499_R6_COI_INDEP.pdf
Referenced Standard and Year (of Standard)	Standard AAMA 501 ASTM E1300

ASTM E283
 ASTM E330
 ASTM E331
 TAS 201
 TAS 202
 TAS 203

Equivalence of Product Standards
 Certified By

Florida Licensed Professional Engineer or Architect
[FL5499_R6_Equiv_EQUIV.pdf](#)

Sections from the Code

Product Approval Method

Method 1 Option D

Date Submitted

08/21/2023

Date Validated

09/04/2023

Date Pending FBC Approval

09/08/2023

Date Approved

10/17/2023

Summary of Products

FL #	Model, Number or Name	Description
5499.1	Elite 2000 Storefront	Aluminum Storefront Glazing System L Impact
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: N/A Other: For use within and outside the HVHZ. Large and Small Missile Impact Resistant.		Installation Instructions FL5499_R6_II_DOC1.pdf Verified By: Frank L. Bennardo, P.E. PE Created by Independent Third Party: Y Evaluation Reports FL5499_R6_AE_EVAL1.pdf Created by Independent Third Party: Y
5499.2	Elite 2000 Storefront	Aluminum Storefront Glazing System N
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: No Design Pressure: N/A Other: For use within and outside the HVHZ. Non-Impact Resistant.		Installation Instructions FL5499_R6_II_DOC2.pdf Verified By: Frank L. Bennardo, P.E. PE Created by Independent Third Party: Y Evaluation Reports FL5499_R6_AE_EVAL2.pdf Created by Independent Third Party: Y

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Product Approval Accepts:





August 29, 2023

Product Approval Administrator
DBPR Codes and Standards
2601 Blair Stone Road
Tallahassee, FL 32399

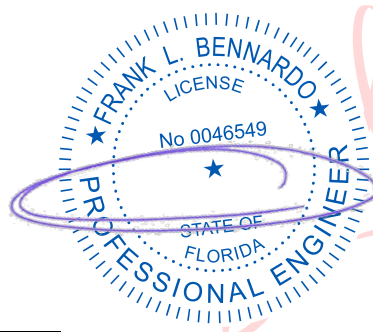
Regarding: Elite Aluminum Corporation
Elite 2000 Aluminum Storefront Glazing System Large/Small Missile
Impact Resistance- FL #5499.1 – EX # 23-59952
Elite 2000 Aluminum Storefront Glazing System Non-Impact
Resistance – FL #5499.2 – EX # 23-59953

To Whom It May Concern:

Please be advised that the below-signed engineer does not have nor will acquire a financial interest in the company manufacturing or distributing the product(s) for which an evaluation report or validation certification has been prepared, as referenced above. This engineer is not owned, operated, nor controlled by the manufacturer or distributor noted above and does not have any financial interest in any other entity involved in the approval process of the above-noted product(s).

Note: "EX #" where used above is an abbreviation for "Engineering Express (EX) Project Number".

Respectfully,



Digitally signed
by Frank
Bennardo
Date: 2023.08.29
15:13:57 -04'00'

Frank Bennardo, P.E.
ENGINEERING EXPRESS®
#PE0046549 | Cert. Auth. 9885



August 29, 2023

Product Approval Administrator
DBPR Codes and Standards
2601 Blair Stone Road
Tallahassee, FL 32399

Regarding: Elite Aluminum Corporation
Elite 2000 Aluminum Storefront Glazing System Large/Small Missile
Impact Resistance- FL #5499.1 – EX # 23-59952
Elite 2000 Aluminum Storefront Glazing System Non-Impact
Resistance – FL #5499.2 – EX # 23-59953

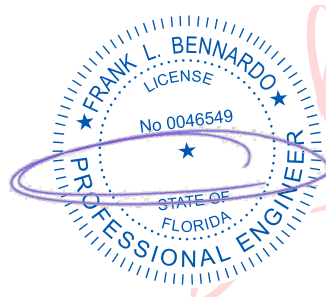
To Whom It May Concern:

This office has reviewed test report(s) showing structural performance of the above-noted product(s). These test report(s) pertain to testing performed in accordance with the referenced standard(s) in the table shown below. The noted standard(s) are not adopted in the Florida Building Code Eighth Edition (2023); however, for the purpose of determining the performance of the product, the standard(s) are equivalent to the corresponding standard(s), which are adopted in the above-referenced building code.

Code Title	Tests Performed according to:	Current Equivalent Standard
Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference	ASTM E330/E330M-02	ASTM E330/E330M-14
Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Difference Across the Specimen	ASTM E283-04	ASTM E283/283M-19
Methods of Test for Exterior Walls	AAMA 501-05	AAMA 501-15

Respectfully,

Frank Bennardo, P.E.
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ELITE 2000 ALUMINUM STOREFRONT GLAZING SYSTEM

NON-IMPACT RESISTANT

VALID FOR USE INSIDE AND OUTSIDE THE HVHZ (SEE LIMITATIONS HEREIN)
NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION. A DESIGN PROFESSIONAL SHALL BE RESPONSIBLE FOR CERTIFYING THE APPLICATION OF THIS INFORMATION TO ANY SITE-SPECIFIC LOCATION.

GENERAL NOTES

- THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE EIGHTH EDITION (2023), FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE (HVHZ),SYSTEM TESTED PER:
- TAS 201-94
- AAMA 501-05
- WIND LOAD DURATION FACTOR Cd=1.6 HAS BEEN USED FOR WOOD ANCHOR DESIGN.
- DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY 1.5 SAFETY FACTOR.
- POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE. SITE SPECIFIC LOAD WIND LOAD REQUIREMENTS SHALL BE DETERMINED IN ACCORDANCE WITH ASCE 7 AND THE FLORIDA BUILDING CODE EIGHTH EDITION (2023) BY SEPARATE ENGINEERING CERTIFICATION AND SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUE LISTED HEREIN FOR ANY ASSEMBLY WITHIN THE LIMITATIONS STATED HEREIN.
- THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
- THE ARCHITECT/ENGINEER OF RECORD FOR THE PROJECT SUPERSTRUCTURE WITH WHICH THIS DESIGN IS USED SHALL BE RESPONSIBLE FOR THE INTEGRITY OF ALL SUPPORTING SURFACES TO THIS DESIGN WHICH SHALL BE COORDINATED BY THE PERMITTING CONTRACTOR. WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO EXISTING STRUCTURE
- ANCHOR EMBEDMENT SPECIFIED IS INTO HOST STRUCTURE MINIMUM.
- ALL EXTRUSIONS SHALL BE 6063-T5 ALUMINUM ALLOY, UNLESS NOTED OTHERWISE.
- EXTERIOR SEAM OF FRAME CORNERS, INSTALLATION SCREWS, AND GLAZING BEAD ENDS SHALL BE SEALED WITH SILICONE.
- FASTENERS SHALL BE CADMIUM-PLATED OR OTHERWISE CORROSION-RESISTANT MATERIAL AND SHALL COMPLY WITH "SPECIFICATIONS FOR ALUMINUM STRUCTURES" SECTION J.3.7.2 BY THE ALUMINUM ASSOCIATION IN.C, AND ANY APPLICABLE FEDERAL, STATE AND OR LOCAL CODES.
- REFER TO FASTENER MANUFACTURER'S PUBLISHED DATA SHEETS AND RECOMMENDATIONS FOR FASTENER INSTALLATION INSTRUCTIONS.
- ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, OR STAINLESS STEEL WITH A MINIMUM TENSILE YIELD STRENGTH OF 60 KSI.

- THE CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
- NOT APPROVED FOR LARGE AND SMALL MISSILE IMPACT APPLICATIONS. SEE GLASS TYPES FOR ANY RESTRICTIONS. AN IMPACT PROTECTION SYSTEM MUST BE ADOPTED IF REQUIRED BY CODE.
- TEST REPORTS: CONSTRUCTION TESTING CORP. REPORT # 00-030
- THIS SYSTEM MAY BE USED IN CONJUNCTION WITH ELITE DOOR SERIES 3000 OUT SWING ENTRY DOOR
- CODE REQUIREMENTS FOR SAFEGUARDS MUST BE OBSERVED AND ARE NOT IN THIS CERTIFICATION.
- WINDOW TO SUBSTRATE WATER PROOFING IS NOT INCLUDED IN THIS DOCUMENT AND MUST BE ADDRESSED ON A SITE SPECIFIC BASIS. NOT BY ELITE ALUMINUM CORP.
- ENGINEER SEAL AFFIXED HERETO VALIDATE STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, & CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.
- EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
- PRESSURE VALUES ON THIS APPROVAL ARE (ASD) ALLOWABLE DESIGN PRESSURES.
- ALTERATIONS ADDITIONS OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.
- PRODUCT SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER SYSTEM CONTAINING THE FOLLOWING:
ELITE ALUMINUM CORPORATION
4650 LYONS TECHNOLOGY PARKWAY
COCONUT CREEK, FLORIDA 33073
TAS 202
APPROVED BY FLORIDA BUILDING COMMISSION
FLORIDA PRODUCT APPROVAL NUMBER FL#5499.2

FRANK BENNARDO, P.E.
PE# 0046549 CA# 9885

AUGUST 29, 2023

FL

NOTE REGARDING USE OF THIS DOCUMENT & USE OUTSIDE FLORIDA:

NON-SITE-SPECIFIC STRUCTURAL PERFORMANCE EVALUATION. THIS PRODUCT EVALUATION IS VALID FOR USE IN **FLORIDA ONLY**. USE OF THIS EVALUATION REQUIRES A REVIEW & CERTIFICATION BY A LOCAL DESIGN PROFESSIONAL WHO SHALL BE RESPONSIBLE FOR THE PROPER ADAPTATION OF THIS GENERAL PERFORMANCE EVALUATION TO ANY SITE-SPECIFIC PROJECT. CONTACT THIS OFFICE AT **ENGINEERINGEXPRESS.COM/QUOTE** FOR ASSISTANCE WITH YOUR PROJECT-SPECIFIC NEEDS & FOR ADAPTATION & CERTIFICATION OF THIS DOCUMENT OUTSIDE OF FLORIDA.

SHEET INDEX	
# SHEET	DESCRIPTION
1	COVER SHEET
2	ELEVATIONS
3-4	DETAILS
5	GLASS LOADING CHARTS
6-8	MULLION LOADING CHARTS
9	ANCHORING SCHEDULE
10	PARTS & PARTS LIST
11	FRAME ASSEMBLY

TERMINOLOGY:

THE FOLLOWING ABBREVIATIONS APPEAR IN THIS APPROVAL: "U.N.O." FOR "UNLESS NOTED OTHERWISE", "FBC" FOR "FLORIDA BUILDING CODE", "CORP." FOR "CORPORATION", "ALUM" FOR "ALUMINUM", "ASD" FOR "ALLOWABLE STRESS DESIGN", "ASTM" FOR "AMERICAN SOCIETY FOR TESTING AND MATERIALS", "CS" FOR "CARBON STEEL", "CONN" FOR "CONNECTION", "EMBED" FOR "EMBEDMENT", "DIST." FOR "DISTANCE", "GA" FOR "GAUGE", "HVHZ" FOR "HIGH-VELOCITY HURRICANE ZONE", "LB" FOR "POUND", "MAX" FOR "MAXIMUM", "N.T.S." FOR "NOT TO SCALE", "PSF" FOR "POUNDS PER SQUARE FOOT (lb/ft²)", "KSI" FOR "KILOPOUNDS PER SQUARE INCH (klb/in²)", "SPECS" FOR "SPECIFICATIONS", "&" FOR "AND", "MAX" FOR "MAXIMUM", "W/" FOR "WITH", "EXIST." FOR "EXISTING", "STRUCT." FOR "STRUCTURE", "SHT" FOR "SHEET", "REF" FOR "REFERENCE", "D.L.O." FOR "DAYLIGHT OPENING". CONTACT ENGINEERING EXPRESS FOR ADDITIONAL ABBREVIATION/TERMINOLOGY CLARIFICATIONS.

VISIT [ECALC.IO/59953](https://ecalculator.com/59953)

FOR SITE-SPECIFIC DEVIATIONS
& MORE INFORMATION ABOUT THIS DOCUMENT
OR SCAN THIS QR CODE

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FOR ADDITIONAL PLANS, REPORTS & RESOURCES



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4650 Lyons Technology Parkway
Coconut Creek, FL 33073

Elite 2000 Storefront Glazing System
Non-Impact Resistance

FBC 8TH ED. (2023) | FLORIDA STATEWIDE APPROVAL

REMARKS	DATE	DRWN	CHKD
PREV. SUBMITTAL (20-28074)	07/13/20	JEM	AJP
2023 FBC UPDATE	08/15/23	MRT	RWN

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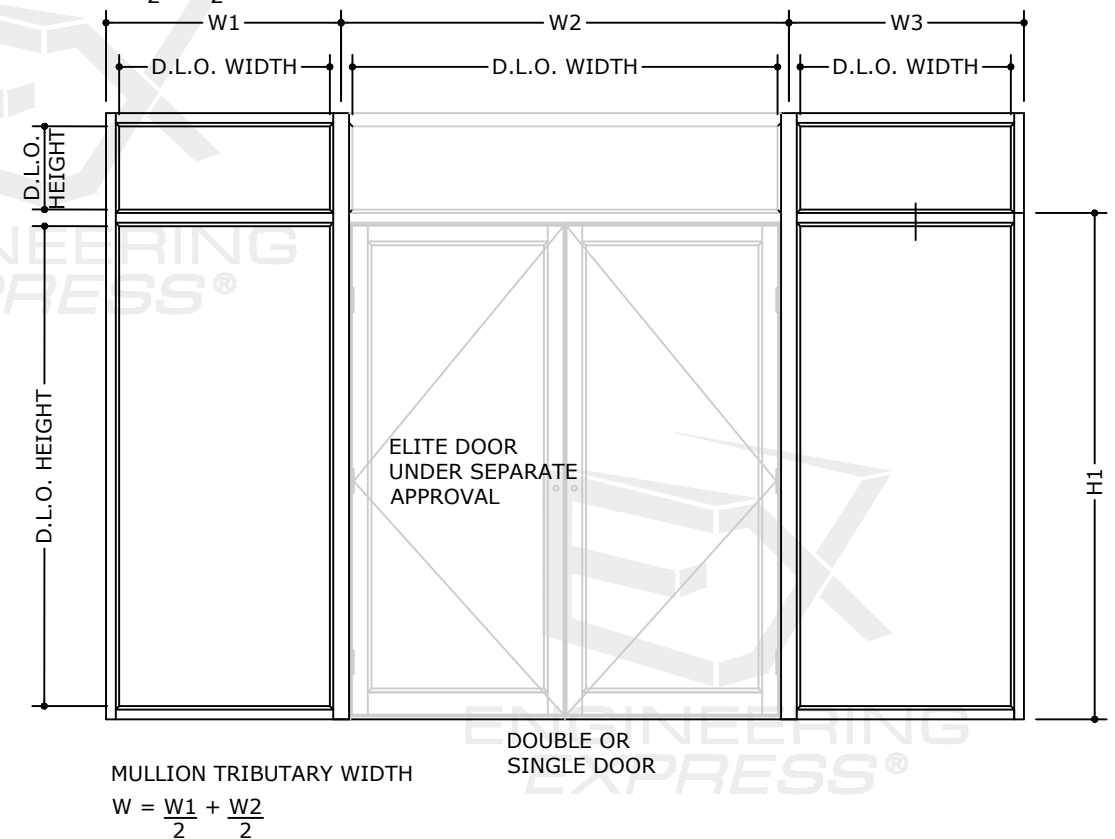
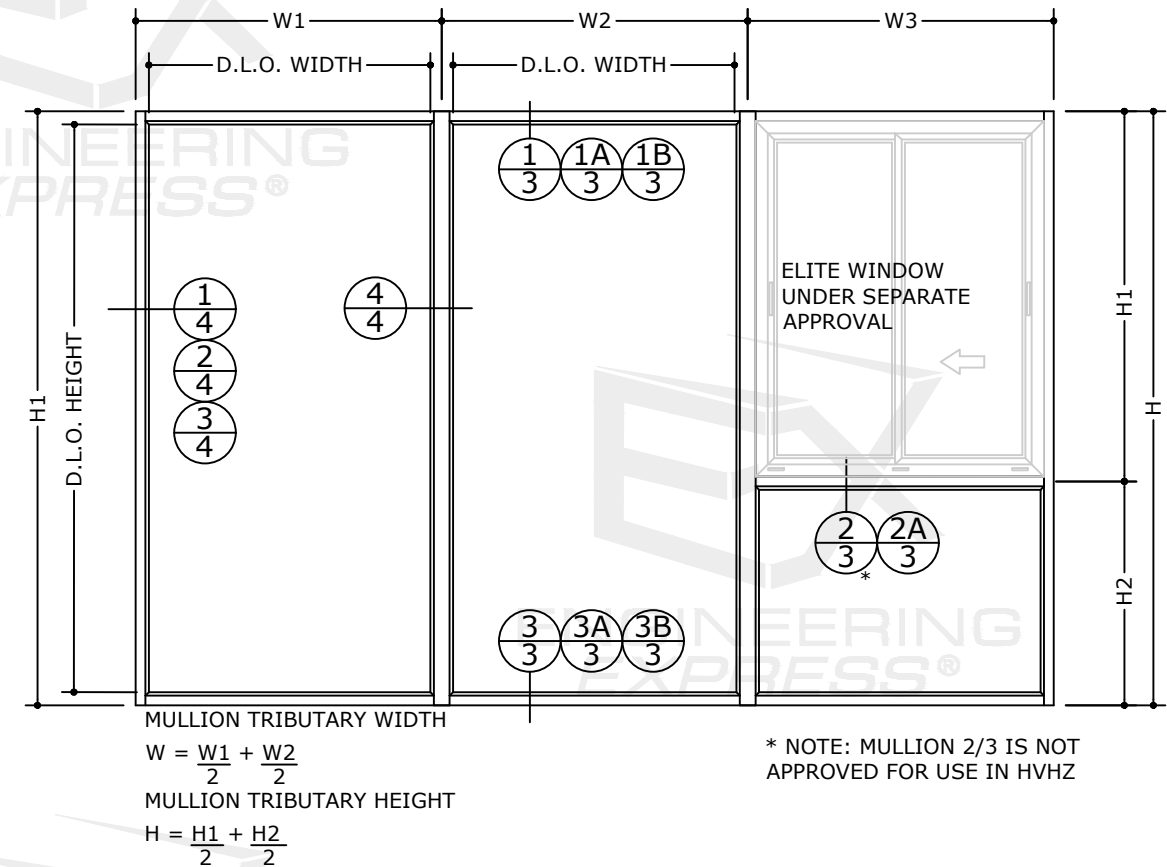
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1 OF 11

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TYPICAL ELEVATIONS

Technical drawing of a double window unit. The drawing shows two adjacent window frames. The left frame is a single-pane window, and the right frame is a double-pane window. A dimension line labeled $W1$ indicates the width of the double-pane window unit. Another dimension line labeled $D.I.O. \text{ WIDTH}$ indicates the depth of the window frame.



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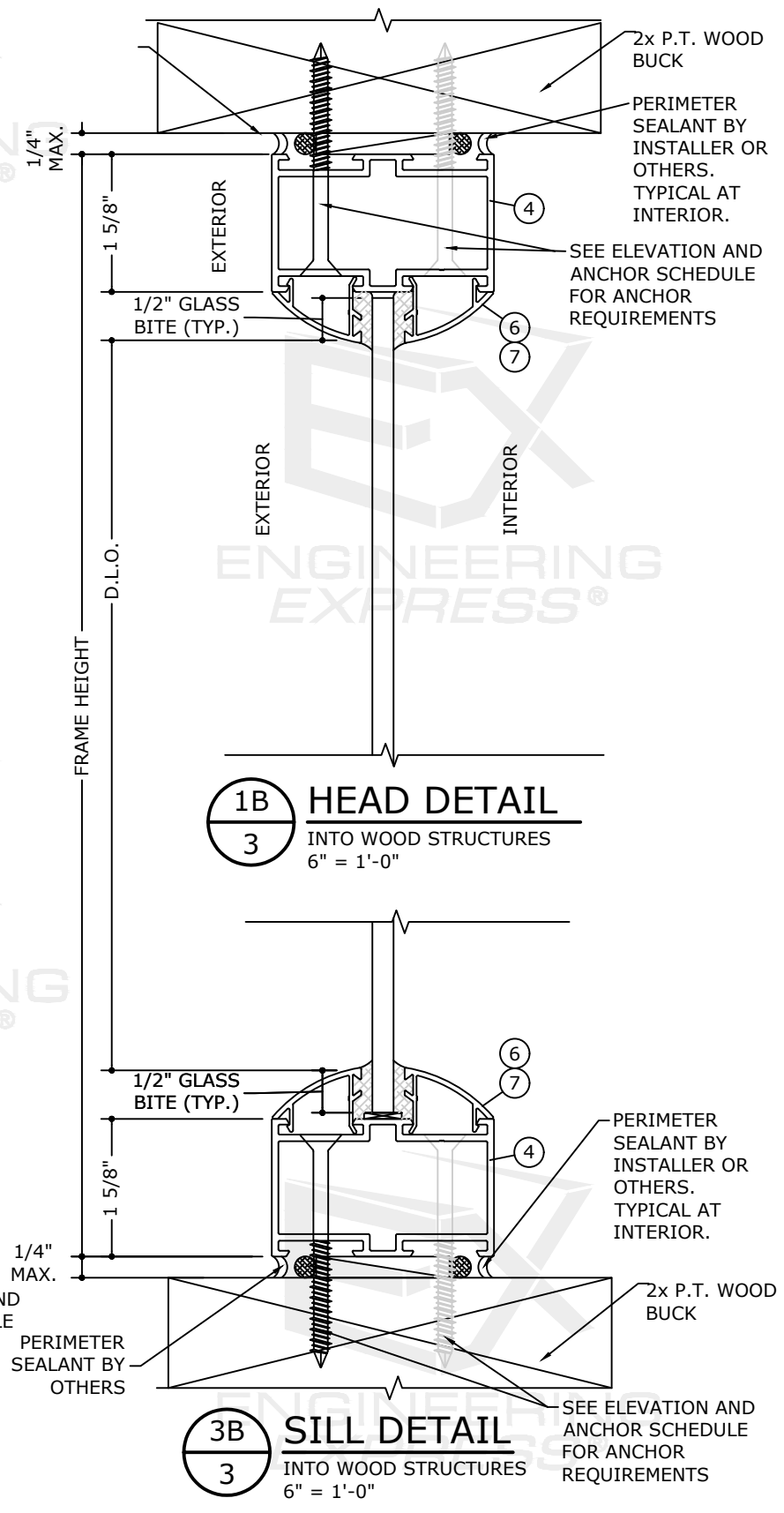
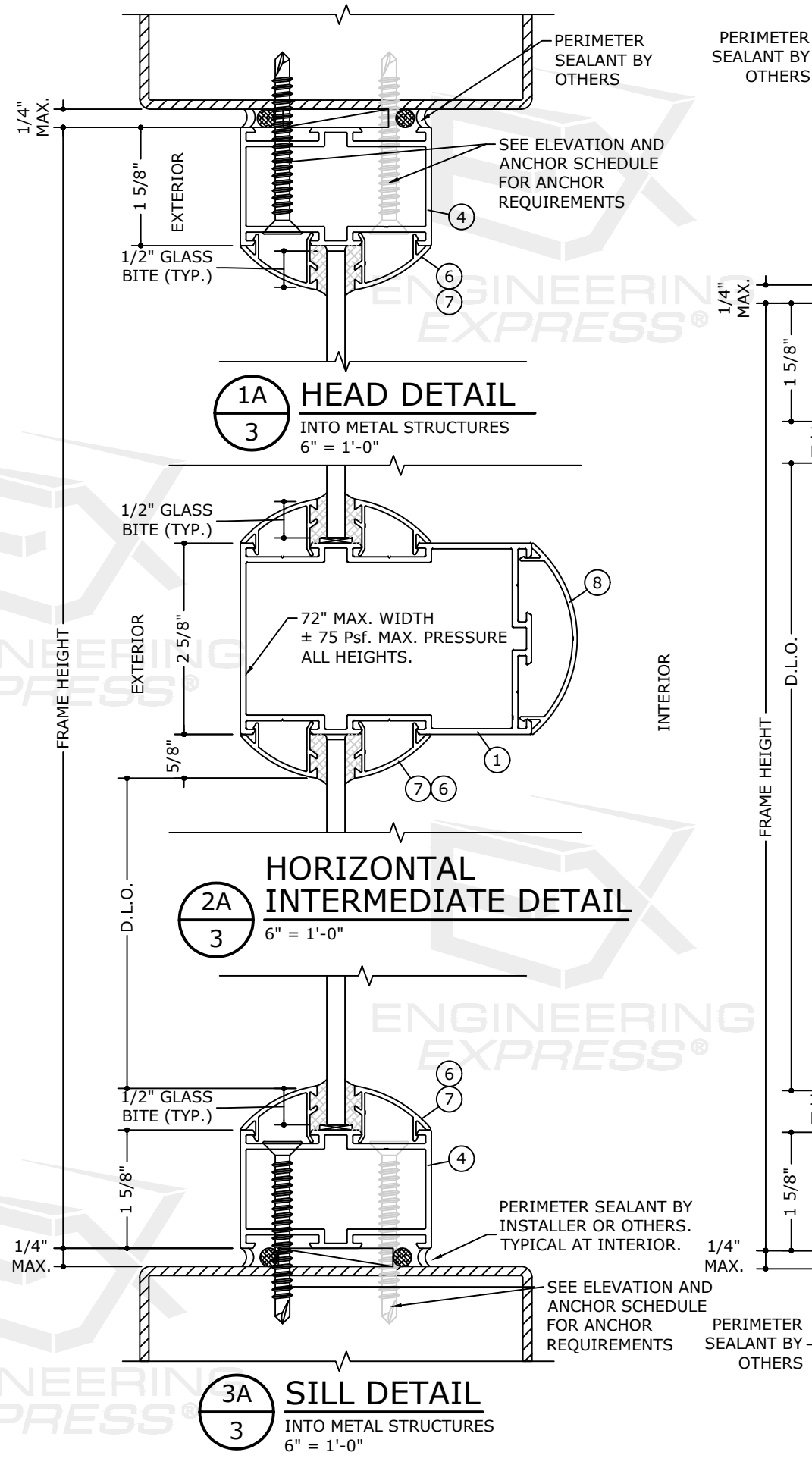
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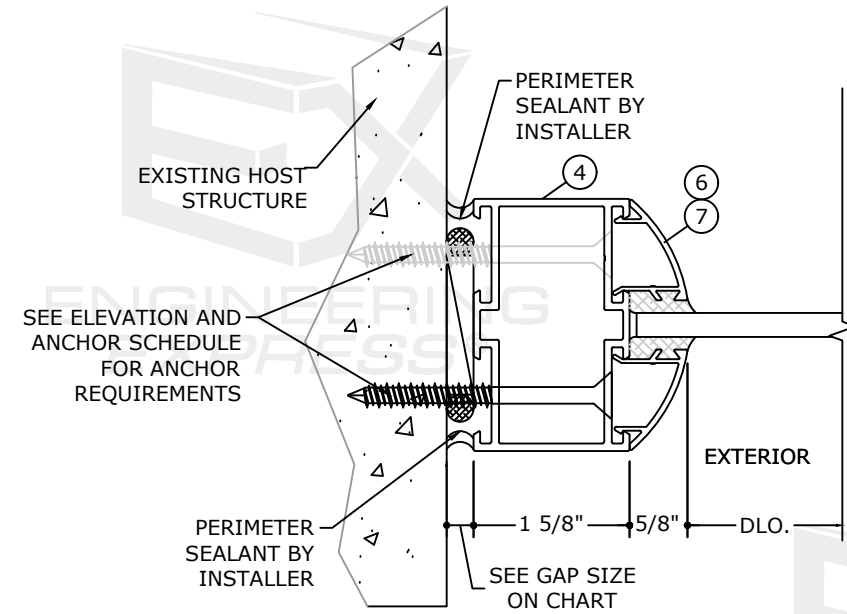
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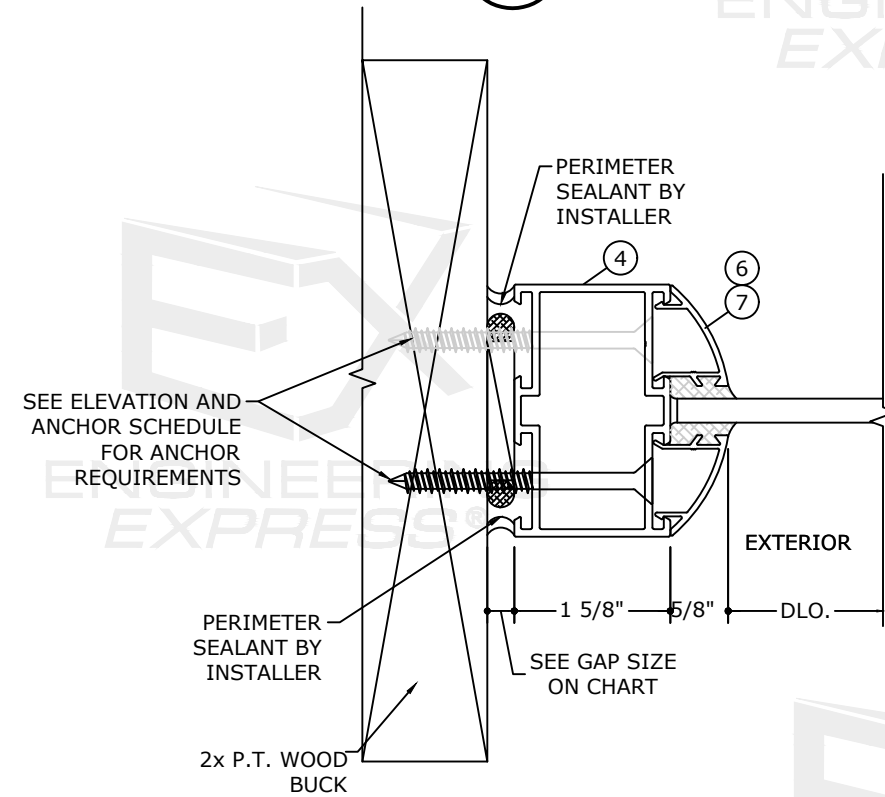
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PE# 0046549 CA# 9885

AUGUST 29, 2023

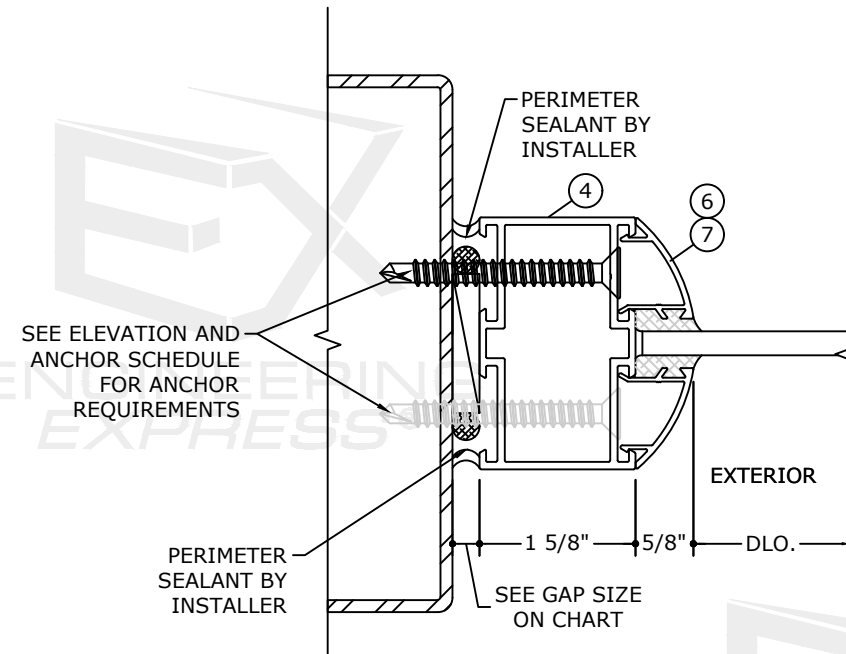
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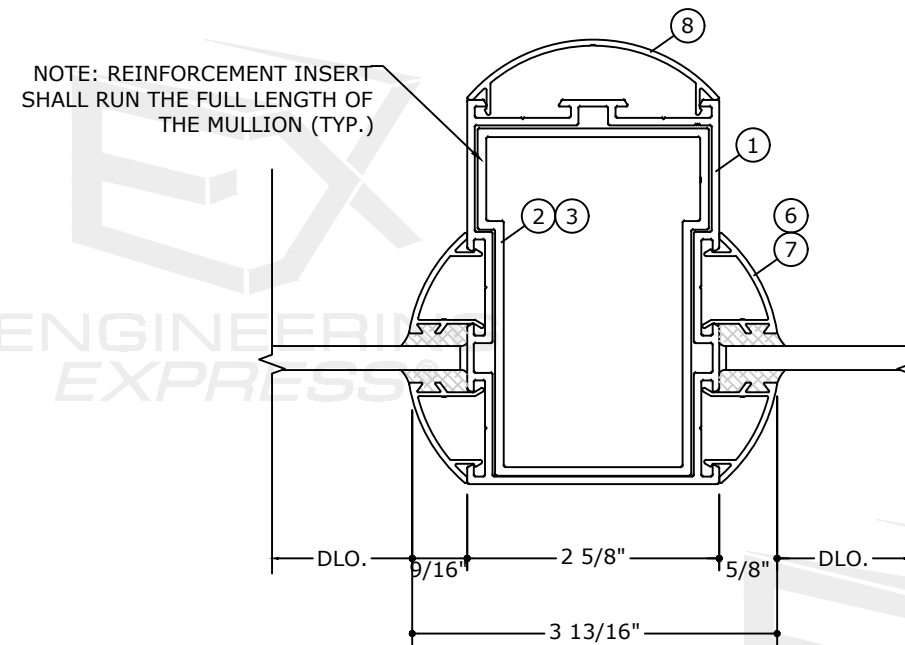
1
4 JAMB DETAIL
6" = 1'-0"



2
4 JAMB DETAIL
6" = 1'-0"



3
4 JAMB DETAIL
6" = 1'-0"



4
4 VERTICAL INTERMEDIATE DETAIL
6" = 1'-0"

FL 5499.2

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11

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D.L.O. WIDTH (in.)	D.L.O. HEIGHT (in.)	NEGATIVE (Psf)	POSITIVE (Psf)
24	162	72	64
30		58	51



NOTE:
AN ALUMINUM SKIN PLYWOOD PANEL CONSISTING OF 3/4" PLYWOOD
AND 0.032" THICK 3105H154 ALUMINUM ON INTERIOR AND EXTERIOR
IN LIEU OF GLASS 13 SQ. FT. MAX AREA.

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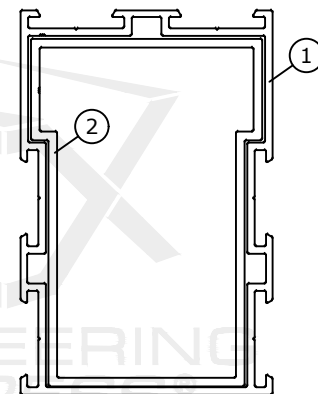
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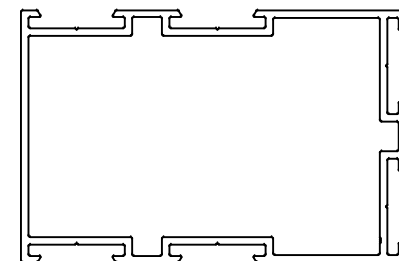
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OF
11

NOMINAL DIMS		PRESSURES	
WIDTH (in.)	HEIGHT (in.)	NEGATIVE (Psf)	POSITIVE (Psf)
24	54	61.9	61.9
30		61.9	61.9
36		61.9	61.9
42		61.9	61.9
48		61.9	61.9
51		61.9	61.9
54		61.9	61.9
58 ⅜		61.9	61.9
66		61.9	61.9
72		61.9	61.9
78		61.9	61.9
84		61.9	61.9
90	61.9	61.9	

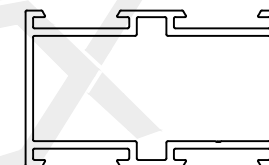


21013 VERTICAL MULLION
WITH REINFORCEMENT
TYPE 1



72" MAX. WIDTH
± 75 Psf MAX. PRESSURE
ALL HEIGHTS.

21013 HORIZONTAL MULLION



55" MAX. WIDTH
± 56 Psf MAX. PRESSURE
ALL HEIGHTS.

21013 HORIZONTAL MULLION



FL 5499.2

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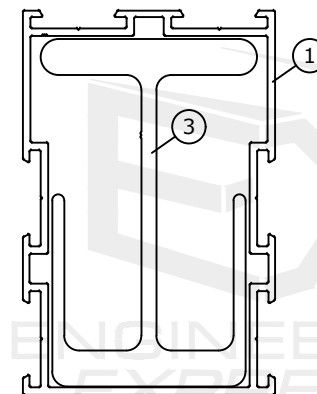
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NOMINAL DIMS		PRESSURES	
WIDTH (in.)	HEIGHT (in.)	NEGATIVE (Psf)	POSITIVE (Psf)
24	30	85	75
30		85	75
36		85	75
42		85	75
48		85	75
51		85	75
54		85	75
58 5/8		85	75
66		85	75
72		85	75
78		85	75
84		85	75
90		85	75
96		85	75
99		85	75
102		85	75
108		85	75
109 3/8		85	75
132		85	75
138		85	75
144	85	75	
150	85	75	
156	85	75	
162	85	75	

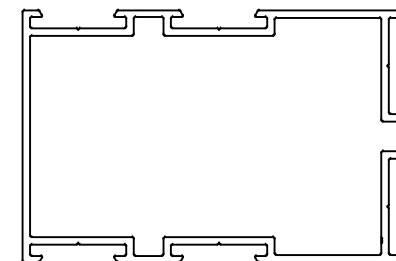
NOMINAL DIMS		PRESSURES	
WIDTH (in.)	HEIGHT (in.)	NEGATIVE (Psf)	POSITIVE (Psf)
24	42	85	75
30		85	75
36		85	75
42		85	75
48		85	75
51		85	75
54		85	75
58 ⅝		85	75
66		85	75
72		85	75
78		85	75
84		85	75
90		85	75
96		85	75
99		85	75
102		85	75
108		85	75
109 ⅝		85	75
132		85	75
138		85	75
144	85	75	
150	85	75	

NOMINAL DIMS		PRESSURES	
WIDTH (in.)	HEIGHT (in.)	NEGATIVE (Psf)	POSITIVE (Psf)
24	51	85	75
30		85	75
36		85	75
42		85	75
48		85	75
51		85	75
54		85	75
58 ⁵ / ₈		85	75
66		85	75
72		85	75
78		85	75
84		85	75
90		85	75
96		85	75
99		85	75
102		85	75
108	85	75	
109 ⁵ / ₈	85	75	

NOMINAL DIMS		PRESSURES	
WIDTH (in.)	HEIGHT (in.)	NEGATIVE (Psf)	POSITIVE (Psf)
24	58 5/8	85	75
30		85	75
36		85	75
42		85	75
48		85	75
51		85	75
54		85	75
58 5/8		85	75
66		85	75
72		85	75
78		85	75
84		85	75
90		85	75
96		85	75
99		85	75
102		85	75
108	85	75	
109 5/8	85	75	

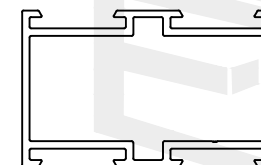


21013 VERTICAL MULLION
WITH REINFORCEMENT
TYPE 2



72" MAX. WIDTH
± 75 Psf MAX. PRESSURE
ALL HEIGHTS.

21013 HORIZONTAL MULLION



55" MAX. WIDTH
± 56 Psf MAX. PRESSURE
ALL HEIGHTS.

21013 HORIZONTAL MULLION

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WITH AND WITHOUT HORIZONTALS

MULLION W/ REINFORCEMENT TYPE 2			
NOMINAL DIMS		PRESSURES	
WIDTH (in.)	HEIGHT (in.)	NEGATIVE (Psf)	POSITIVE (Psf)
24	66	85	75
30		85	75
36		85	75
42		85	75
48		85	75
51		85	75
54		85	75
58 5/8		85	75
66		85	75
72		85	75
78		85	75
84		85	75
90		85	75
96		85	75
99		85	75

NOMINAL DIMS			
NOMINAL DIMS		PRESSURES	
WIDTH (in.)	HEIGHT (in.)	NEGATIVE (Psf)	POSITIVE (Psf)
24	72	85	75
30		85	75
36		85	75
42		85	75
48		85	75
51		85	75
54		85	75
58 5/8		85	75
66		85	75
72		85	75
78		85	75
84		85	75

NOMINAL DIMS			
NOMINAL DIMS		PRESSURES	
WIDTH (in.)	HEIGHT (in.)	NEGATIVE (Psf)	POSITIVE (Psf)
24	78	85	75
30		85	75
36		85	75
42		85	75
48		85	75
51		85	75
54		85	75
58 5/8		85	75
66		85	75
72		85	75
78		85	75

MULLION W/ REINFORCEMENT TYPE 2			
NOMINAL DIMS		PRESSURES	
WIDTH (in.)	HEIGHT (in.)	NEGATIVE (Psf)	POSITIVE (Psf)
24	84	85	75
30		85	75
36		85	75
42		85	75
48		85	75
51		85	75
54		85	75
58 5/8		85	75
66		85	75
72		85	75

NOMINAL DIMS			
NOMINAL DIMS		PRESSURES	
WIDTH (in.)	HEIGHT (in.)	NEGATIVE (Psf)	POSITIVE (Psf)
24	90	85	75
30		85	75
36		85	75
42		85	75
48		85	75
51		85	75
54		85	75
58 5/8		85	75
66		85	75
72		85	75

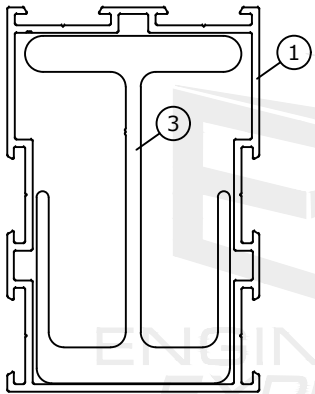
NOMINAL DIMS			
NOMINAL DIMS		PRESSURES	
WIDTH (in.)	HEIGHT (in.)	NEGATIVE (Psf)	POSITIVE (Psf)
24	96	85	75
30		85	75
36		85	75
42		85	75
48		85	75
51		85	75
54		85	75
58 5/8		85	75
66		85	75
72		85	75

NOMINAL DIMS			
NOMINAL DIMS		PRESSURES	
WIDTH (in.)	HEIGHT (in.)	NEGATIVE (Psf)	POSITIVE (Psf)
24	99	85	75
30		85	75
36		85	75
42		85	75
48		85	75
51		85	75
54		85	75
58 5/8		85	75

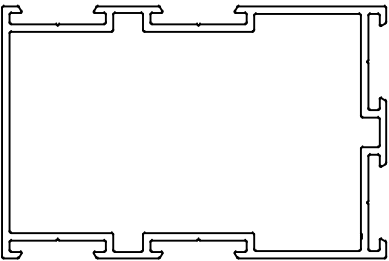
MULLION W/ REINFORCEMENT TYPE 2			
NOMINAL DIMS		PRESSURES	
WIDTH (in.)	HEIGHT (in.)	NEGATIVE (Psf)	POSITIVE (Psf)
24	102	85	75
30		85	75
36		85	75
42		85	75
48		85	75
51		85	75
54		85	75
58 5/8		85	75

NOMINAL DIMS			
NOMINAL DIMS		PRESSURES	
WIDTH (in.)	HEIGHT (in.)	NEGATIVE (Psf)	POSITIVE (Psf)
24	108	85	75
30		85	75
36		85	75
42		85	75
48		85	75
51		85	75
54		85	75
58 5/8		85	75

NOMINAL DIMS			
NOMINAL DIMS		PRESSURES	
WIDTH (in.)	HEIGHT (in.)	NEGATIVE (Psf)	POSITIVE (Psf)
24	109 1/2	85	75
30		85	75
36		85	75
42		85	75
48		85	75
51		85	75
54		85	75
58 5/8		85	75

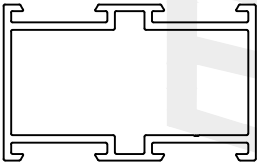


21013 VERTICAL MULLION
WITH REINFORCEMENT
TYPE 2



72" MAX. WIDTH
± 75 Psf MAX. PRESSURE
ALL HEIGHTS.

21013 HORIZONTAL MULLION



55" MAX. WIDTH
± 56 Psf MAX. PRESSURE
ALL HEIGHTS.

21013 HORIZONTAL MULLION

FRANK BENNARDO, P.E.
PE# 0046549 CA# 9885

AUGUST 29, 2023

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FL 5499.2

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4650 Lyons Technology Parkway
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Elite 2000 Storefront Glazing System
Non-Impact Resistance

FBC 8TH ED. (2023) | FLORIDA STATEWIDE APPROVAL

REMARKS	DRWN	CHKD	DATE
PREV. SUBMITTAL (20-28074)	JEM	AJP	07/13/20
2023 FBC UPDATE	MRT	RWN	08/15/23

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OF
11

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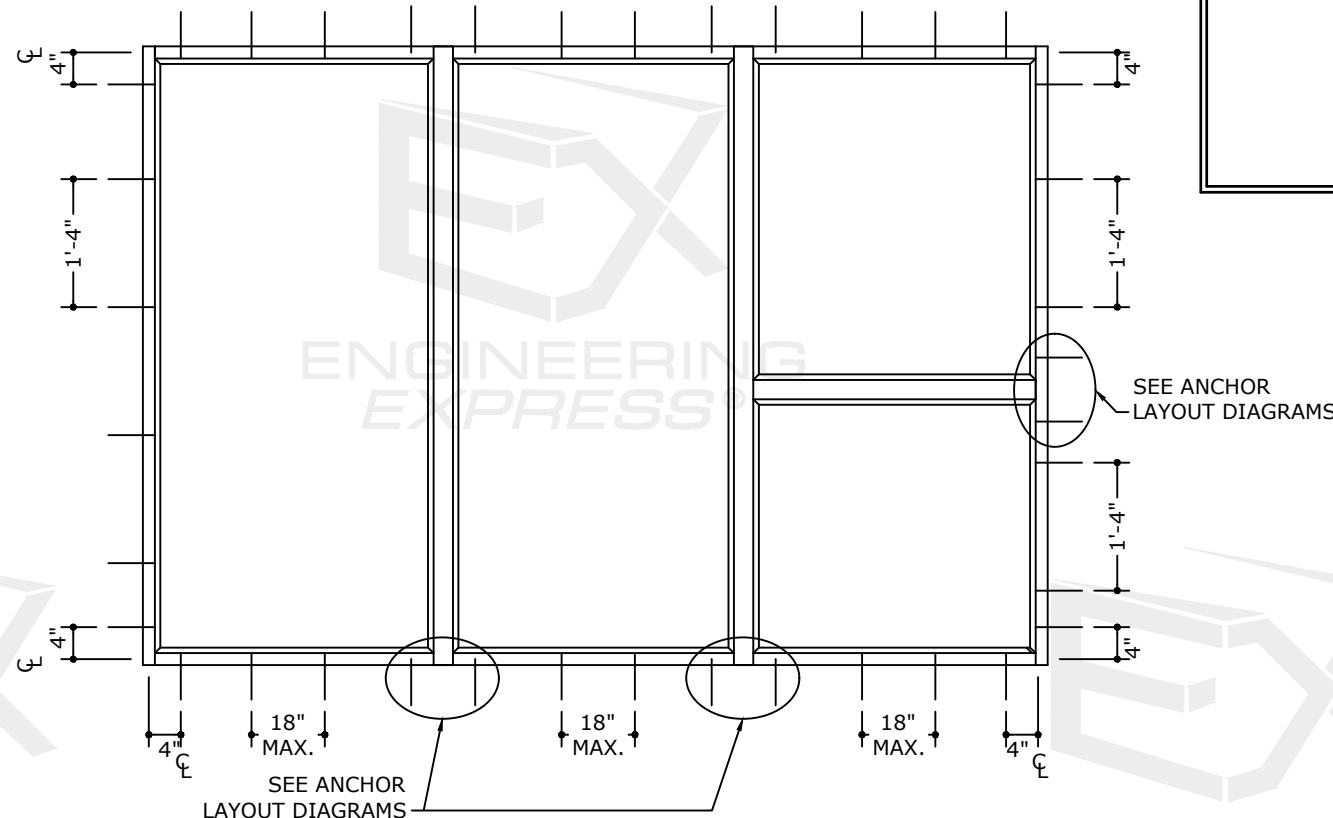
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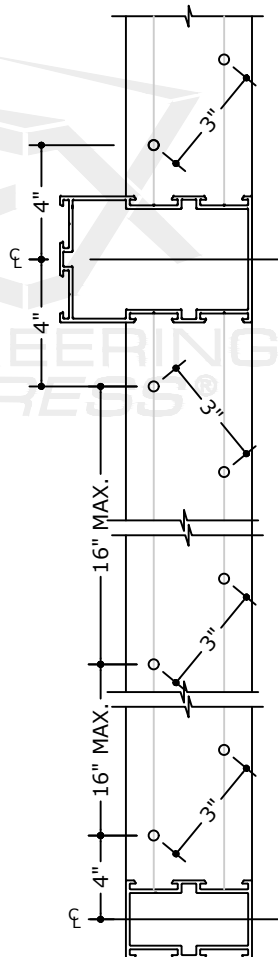
OF
11

ANCHOR SPACING LAYOUT

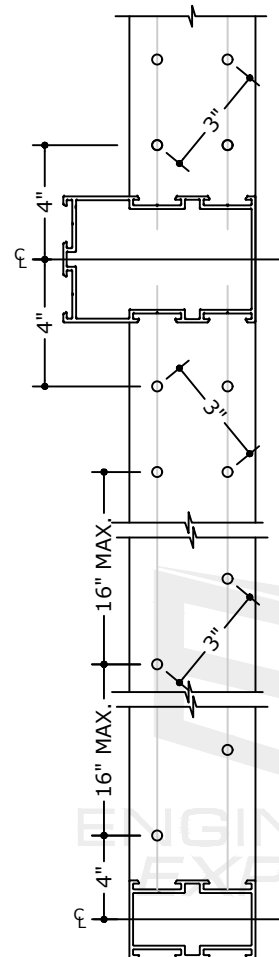


TYPICAL ANCHORS:

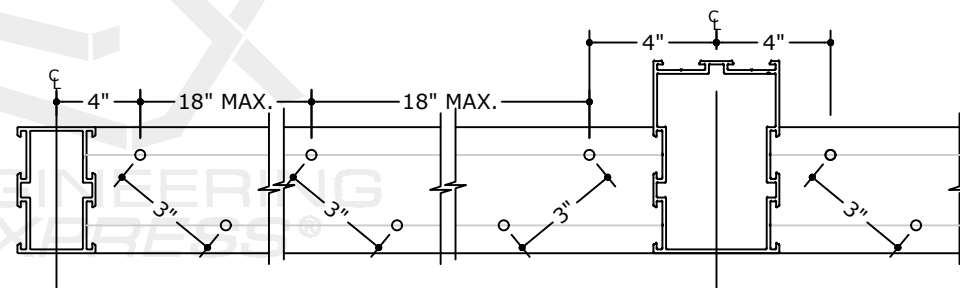
TYPE 'A'	
CONCRETE	DIRECTLY INTO CONCRETE OR GROUT FILLED BLOCK (3000 PSI. MIN. / f'm=2000 Psi MIN.) 5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI) 1-1/2" MIN. EMBEDMENT
TYPE 'B'	
WOOD	INTO 2BY WOOD BUCKS OR WOOD STRUCTURES (SYP#2 G=0.55 MIN. 1 1/2" MIN. THICKNESS) 5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI) 1-1/2" MIN. PENETRATION
TYPE 'C'	
METAL	INTO METAL STRUCTURES (3 PINCHES PASS THE THREAD PLANE MIN.) STEEL: 1/8" THK MIN. (Fy=36 KSI MIN) ALUMINUM: 1/8" THK MIN. (6063-T5 MIN) 5/16-24 DIA. DRIL-FLEX BY 'DEWALT' (GRADE 5 MIN) (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)
TYPICAL EDGE DISTANCE INTO CONCRETE/HOLLOW BLOCK/GROUT FILLED BLOCK= 2-1/2" MIN. INTO WOOD STRUCTURE = 1" MIN. INTO METAL STRUCTURE = 3/4" MIN.	



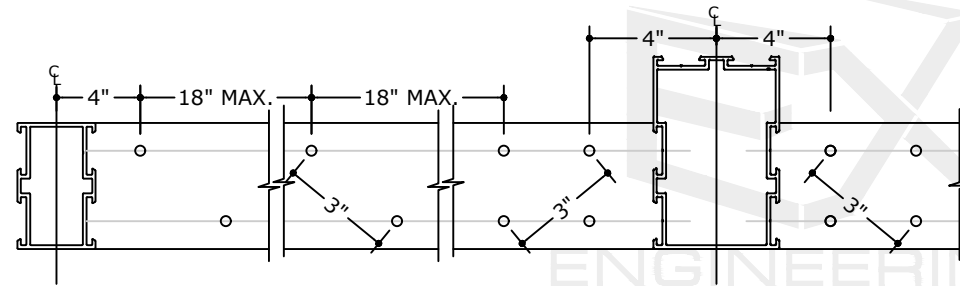
JAMB ANCHOR LAYOUT
(INTO CONCRETE OR METAL)



JAMB ANCHOR LAYOUT
(INTO WOOD)



HEAD/ SILL ANCHOR LAYOUT
(INTO CONCRETE OR METAL)



HEAD/ SILL ANCHOR LAYOUT
(INTO WOOD)



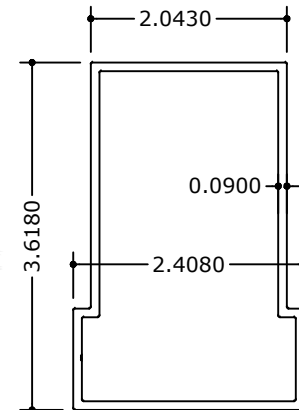
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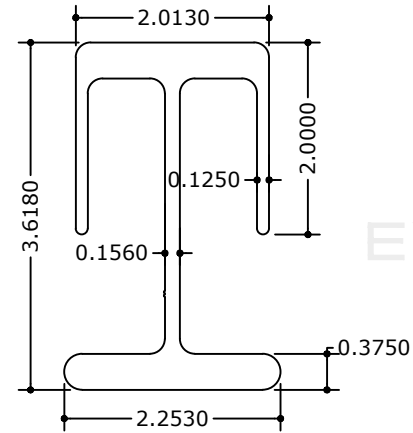
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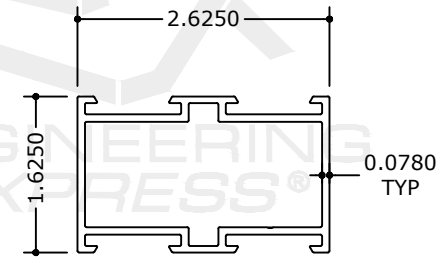
① VERTICAL MULLION



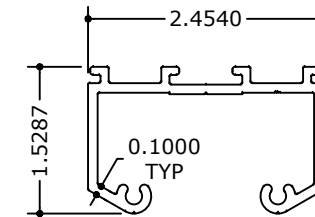
2 VERTICAL MULLION
INSERT (REINF.)



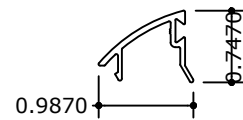
3 VERTICAL MULLION REINFORCEMENT



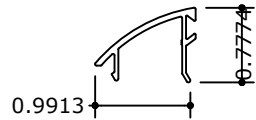
4 PERIMETER EXTRUSION



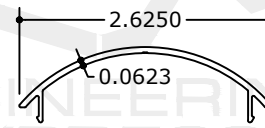
5 CONNECTION BRACKET



6 GLAZING CLIP
(ROUNDED)



7 GLAZING CLIP
(ROUNDED)



8 SNAP TRIM (ROUNDED)

PARTS LIST			
	PART	MATERIAL	PART No.
1	VERTICAL MULLION	ALU 6063-T5	21013
2	VERTICAL MULLION INSERT	ALU 6063-T6	API-2510
3	VERTICAL MULLION REINFORCEMENT	ALU 6063-T5	22056
4	HEAD/ SILL/ JAMB / HORIZ. INTERMEDIATE	ALU 6063-T5	21002
5	CONNECTION BRACKET	ALU 6063-T6	22001
6	GLAZING STOP	ALU 6063-T5	22119
7	GLAZING STOP	ALU 6063-T5	22107
8	SNAP TRIM	ALU 6063-T5	-

FL 5499.2



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-			-
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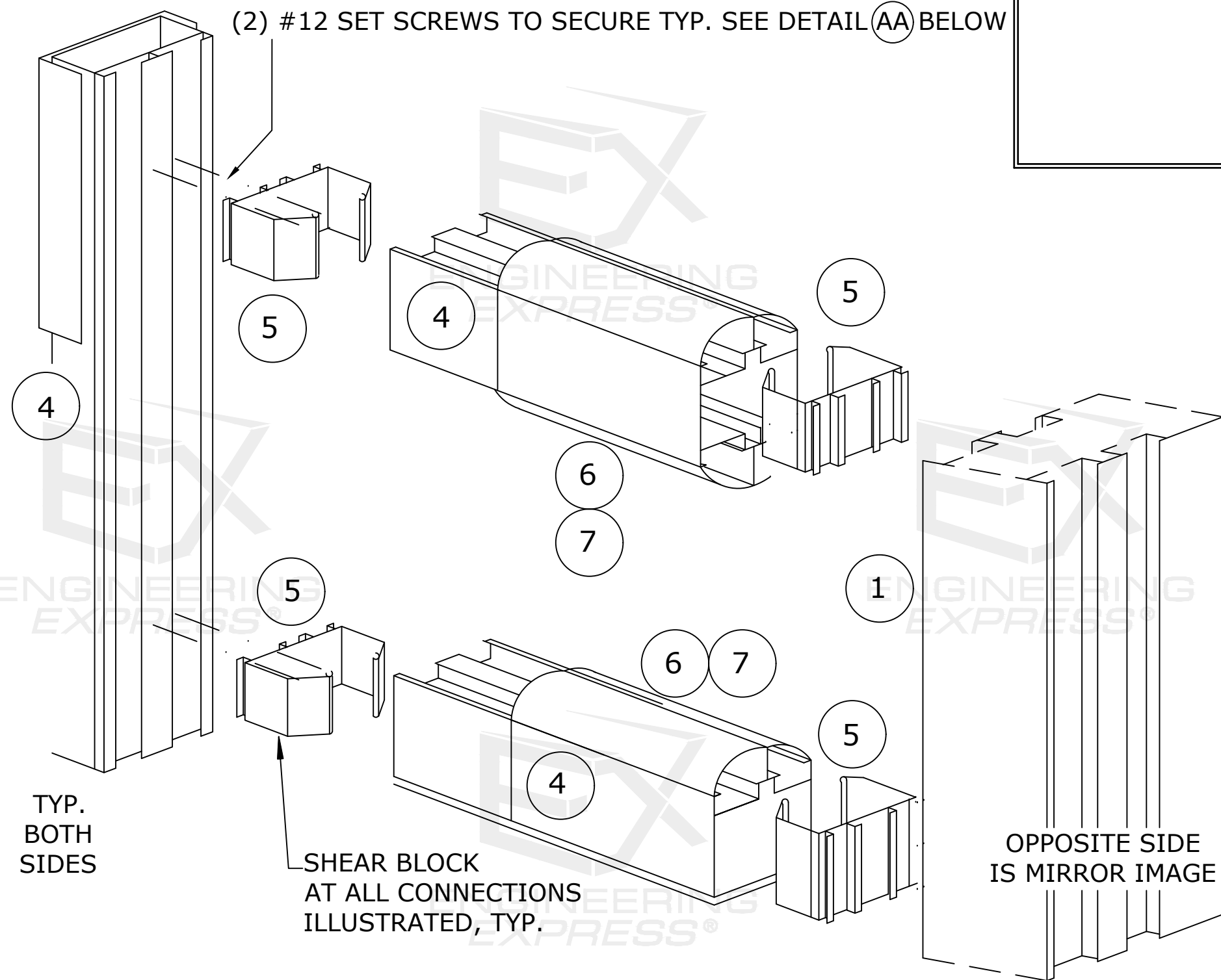
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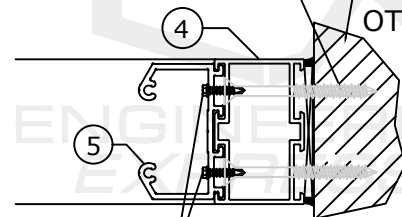
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SEE ELEVATION AND
ANCHOR SCHEDULE
FOR ANCHOR
REQUIREMENTS.

EXISTING HOST
STRUCTURE BY
OTHERS, TYP.



(2) #12 SMS PER
CONNECTION
BRACKET TO
PERIMETER
EXTRUSION

CONNECTION BRACKET DETAIL

N.T.S.

SECTION

NOTE:

SEAL ALL CORNERS WITH
DOWSIL 795 SILICONE OR
C.R. LAURENCE SJ88
NARROW JOINT SEALER.

ENGINEERING EXPRESS® (EX) PRODUCT EVALUATION REPORT

August 29, 2023

Application Number: FL 5499.2
EX Project Number: 23-59953

Product Manufacturer: Elite Aluminum Corporation
Manufacturer Address: 4650 Lyons Technology Parkway
Coconut Creek, FL 33073

Product Name & Description: Elite 2000 Aluminum Storefront Glazing System
Non-Impact Resistance

Scope of Evaluation:

This Product Evaluation Report is being issued in accordance with the requirements of the Florida Department of Business and Professional Regulation (Florida Building Commission) Rule Chapter 61G20-3.005, F.A.C., for statewide acceptance per Method 1 (d). The product noted above has been tested and/or evaluated as summarized herein to show compliance with standard ASCE 7-22 (ASD) and the Florida Building Code Eighth Edition (2023) and is, for the purpose intended, at least equivalent to that required by the Standard and Code. Re-evaluation of this product shall be required following pertinent Florida Building Code or ASCE Standard modifications or revisions.

Substantiating Data:

- **PRODUCT EVALUATION DOCUMENTS**

EX Performance Evaluation document # 23-59953 titled "Elite 2000 Aluminum Storefront Glazing System Non-Impact Resistance", prepared by Engineering Express, Inc., signed & sealed by Frank Bennardo, P.E. is an integral part of this Evaluation Report, pages 1 through 11.

- **TEST REPORTS**

Uniform static structural performance has been tested in accordance with TAS 202 test standards per test report(s) #00-030 by Construction Testing Corporation (CTC). Signed by Yamil G. Kuri, P.E.

- **STRUCTURAL ENGINEERING CALCULATIONS**

Structural engineering calculations have been prepared which evaluate the product based on comparative and/or rational analysis to qualify the following design criteria:

1. Maximum Allowable Spans
2. Minimum Allowable Pressures
3. Anchor Spacing
4. Glass Capacity

Elite Aluminum Corporation - Elite 2000 Aluminum Storefront Glazing System
Non-Impact Resistance

Impact Resistance:

Large/Small missile Impact Resistance has NOT been demonstrated as evidenced in previously listed test reports, and is NOT accounted for in the engineering design of this product.

Wind Load Resistance:

This product has been designed to resist wind loads as indicated on its respective Performance Evaluation document (i.e. engineering document).

Installation:

The product listed above shall be installed in strict compliance with the Performance Evaluation document (i.e. engineering document), along with all components noted therein.

The product components shall be of the material specified in the Performance Evaluation document (i.e. engineering document).

Limitations & Conditions of Use:

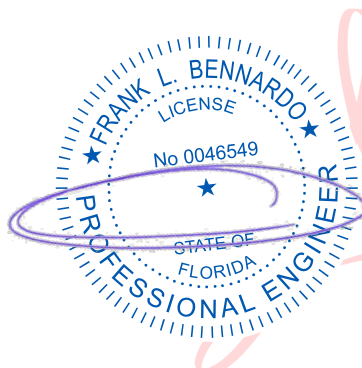
Use of each product shall be in strict accordance with its respective Performance Evaluation document (i.e. engineering document) as noted herein.

All supporting host structures shall be designed to resist all superimposed loads and shall be of a material listed in each product's respective anchor schedule. Host structure conditions which are not accounted for in each product's respective anchor schedule shall be designed for on a site-specific basis by a registered professional engineer.

All components which are permanently installed shall be protected against corrosion, contamination, and other such damage at all times. Any alteration to the respective Performance Evaluation document will invalidate it. This product has been designed for use inside and outside of the High Velocity Hurricane Zone (HVHZ & NON-HVHZ).

Respectfully,

Frank Bennardo, P.E.
ENGINEERING EXPRESS®
#PE0046549 | Cert. Auth. 9885



Digitally signed
by Frank
Bennardo
Date: 2023.08.29
15:15:23 -04'00'