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ADDITIONAL DETAILS:

FOR SPECIAL SITE CONDITION, CONTACT HARTMAN WINDOWS AND DOORS, LLC.

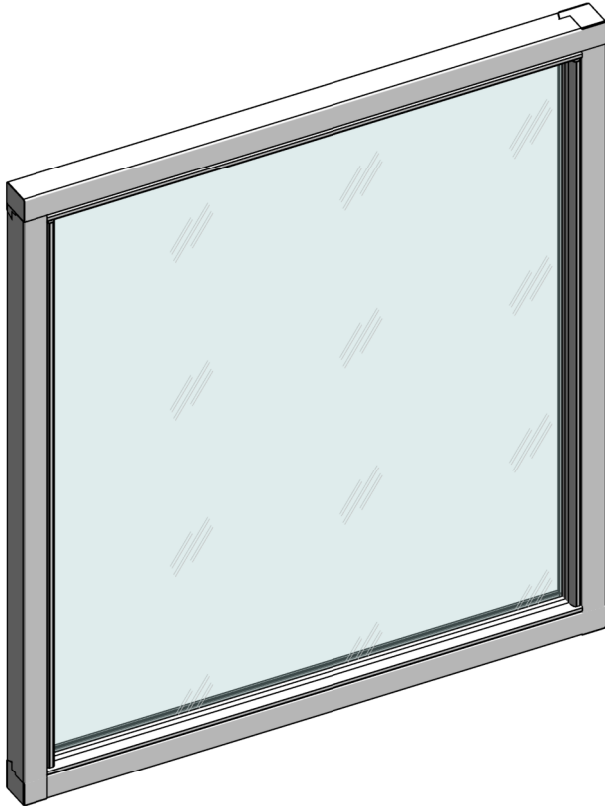
TO OBTAIN AUTOCAD/REVIT COMPATIBLE DETAILS OF THIS PRODUCT, KINDLY GET IN TOUCH WITH US BY SCANNING THE QR CODE PROVIDED BELOW OR CONTACTING US VIA OUR OFFICIAL EMAIL ADDRESS: CONTACT@JA-PE.COM.



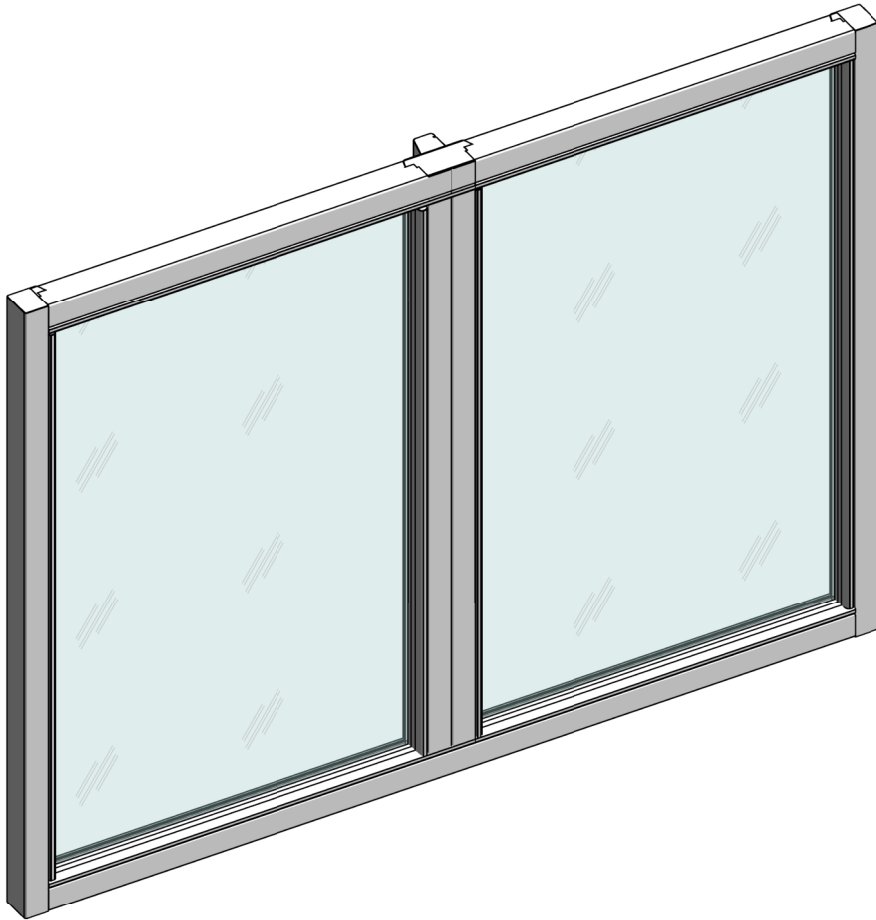
THIS PRODUCT CAN BE COMBINED WITH ANY OTHER FBC APPROVED HARTMAN'S PRODUCTS. PLEASE REFER TO HARTMAN'S FBC APPROVED EUROPEAN MULLIONS TO DETERMINE THE APPROVED MULLION SIZES AND PRESSURES. WHEN MULLED COMBINATIONS ARE USED, THE LOWER DESIGN PRESSURE FROM EACH PRODUCT WILL APPLY TO THE ENTIRE SYSTEM. FINAL APPROVAL OF ALL DESIGNS SHALL BE GRANTED BY THE GOVERNING MUNICIPALITY.

DESIGN PRESSURES:

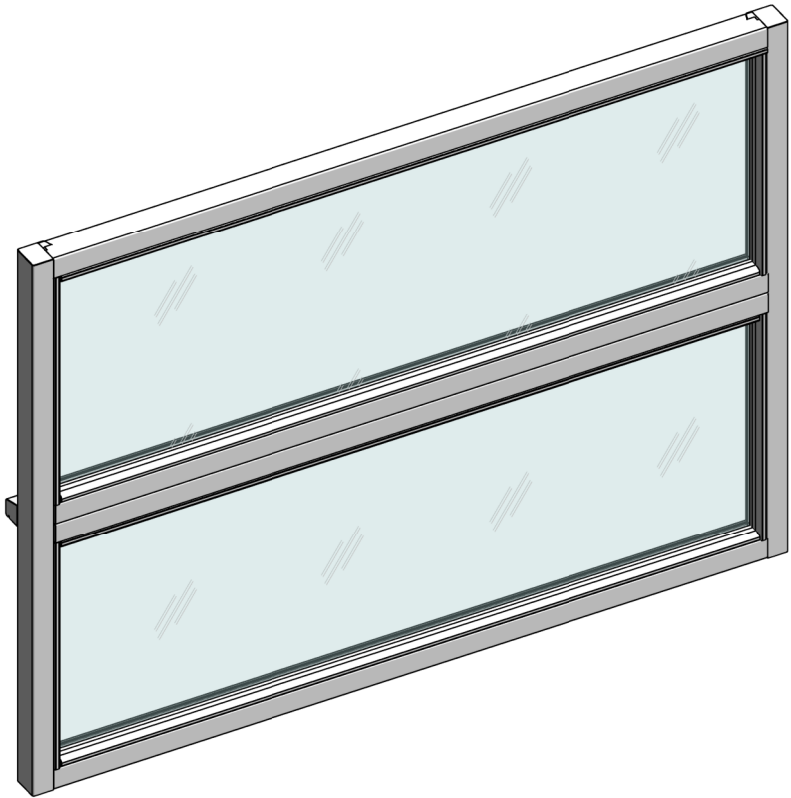
SEE SHEET 104 & 105



SINGLE FIXED (O)



JAMB TO JAMB TYPE 1 (O/O)



JAMB TO JAMB TYPE 2 (O/O)

HARTMAN WINDOWS & DOORS, LLC.

EUROPEAN SERIES DIRECT SET WINDOW

(LARGE AND SMALL MISSILE IMPACT RATED)

FL#19972.1



JAVAD AHMAD PE, inc

7875 NW 12th St., Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com

CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

EUROPEAN SERIES DIRECT SET WINDOW
(LARGE AND SMALL MISSILE IMPACT RATED)

HARTMAN WINDOWS & DOORS, LLC.
2107 W. BLUE HERON BLVD.
WEST PALM BEACH, FL 33404
PHN. (561) 296-9600

GENERAL NOTES:

- THIS SYSTEM PRESENTED HEREIN HAS UNDERGONE DESIGN AND TESTING IN FULL COMPLIANCE WITH THE FLORIDA BUILDING CODE EIGHTH EDITION (2023) AND IS INTENDED FOR USE BOTH WITHIN AND OUTSIDE THE HIGH-VELOCITY HURRICANE ZONE (HVHZ) PER TAS 201/202/203.
- THE GLASS CAPACITIES SPECIFIED IN THE CHARTS OF THIS CERTIFICATION ARE BASED ON ASTM E1300-16, UTILIZING A 3-SECOND GUST WIND SCENARIO.
- THE DESIGN PRESSURES OUTLINED IN THIS DOCUMENT ARE DERIVED FROM MAXIMUM TESTED PRESSURES AND INCORPORATE A 1.5 SAFETY FACTOR.
- THE PRESSURES PROVIDED IN THIS CERTIFICATION ARE DETERMINED USING THE ALLOWABLE STRESS DESIGN METHOD (ASD).
- THIS PRODUCT HAS BEEN RIGOROUSLY TESTED IN ACCORDANCE WITH THE STANDARDS DESCRIBED IN NOTE 1 OF THE GENERAL NOTES. IT IS CONFIRMED TO BE RESISTANT TO LARGE MISSILE IMPACT, THEREBY NOT NECESSITATING THE USE OF IMPACT-RESISTANT SHUTTERS.
- THE DESIGN OF THIS SYSTEM DOES NOT INCORPORATE A 33-1/3% INCREASE IN ALLOWABLE STRESS. FOR WOOD ANCHOR DESIGN, A WIND LOAD DURATION FACTOR OF CD=1.6 HAS BEEN EMPLOYED.
- THE ARCHITECT/ENGINEER OF RECORD RESPONSIBLE FOR THE PROJECT'S SUPERSTRUCTURE, WITH WHICH THIS DESIGN IS ASSOCIATED, SHALL ENSURE THE INTEGRITY OF ALL SUPPORTING SURFACES. COORDINATION WITH THE PERMITTING CONTRACTOR IS REQUIRED, AND PROPER ANCHORING OF WOOD BUCKS (BY OTHERS) MUST FACILITATE LOAD TRANSFER TO THE EXISTING STRUCTURE.

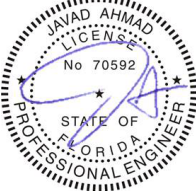
- THE DETAILS OF THE SYSTEM PROVIDED HEREIN ARE OF A GENERIC NATURE AND DO NOT OFFER SPECIFIC SITE INFORMATION. FOR SITE CONDITIONS THAT DIFFER FROM THOSE SPECIFIED HERE, A LICENSED ENGINEER OR REGISTERED ARCHITECT MUST PREPARE SITE-SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS CERTIFICATION.
- THE CONTRACTOR IS ACCOUNTABLE FOR INSULATING ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS (E.G., STEEL WITH ALUMINUM).
- THE SUBSTITUTION OF FASTENERS DESCRIBED IN THIS CERTIFICATION IS PERMISSIBLE, PROVIDED THE ALTERNATIVE ANCHOR EXHIBITS STRENGTH EQUAL TO OR GREATER THAN THE ORIGINALLY SPECIFIED ANCHOR. FINAL APPROVAL OF SUBSTITUTED ANCHORS SHALL BE GRANTED BY RELEVANT AUTHORITIES.
- THE WOOD SCREWS REFERENCED IN THIS CERTIFICATION MUST MEET A MINIMUM GRADE OF 2 (FU = 74,000 PSI).
- FASTENERS MUST BE CADMIUM PLATED OR COMPOSED OF OTHERWISE CORROSION-RESISTANT MATERIAL, CONFORMING TO "SPECIFICATIONS FOR ALUMINUM STRUCTURES" AS OUTLINED IN SECTION J.3 OF THE CURRENT CODE BY THE ALUMINUM ASSOCIATION, INC., IN ADDITION TO ANY APPLICABLE FEDERAL, STATE, AND/OR LOCAL CODES.
- THE ENGINEER'S SEAL AFFIXED HERE VALIDATES THE STRUCTURAL DESIGN AS PRESENTED SOLELY. ANY USE OF THIS SPECIFICATION BY THE CONTRACTOR OR OTHERS INDEMNIFIES AND SAVES THE ENGINEER HARMLESS FROM ALL COSTS AND DAMAGES, INCLUDING LEGAL FEES AND APPELLATE FEES ARISING FROM MATERIAL FABRICATION, SYSTEM ERECTION, AND CONSTRUCTION PRACTICES BEYOND THE SCOPE CALLED FOR BY LOCAL, STATE, AND FEDERAL CODES OR DEVIATIONS FROM THE PLAN.

- NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED BEYOND WHAT IS EXPRESSLY PROVIDED IN THIS DOCUMENT.
- ALTERATIONS, ADDITIONS, OR ANY MARKINGS TO THIS DOCUMENT ARE STRICTLY PROHIBITED AND WILL INVALIDATE THIS CERTIFICATION.
- PROPER SAFETY MEASURES MUST BE OBSERVED DURING THE INSTALLATION AND USE OF THIS SYSTEM, EVEN THOUGH THEY ARE NOT EXPLICITLY LISTED IN THIS CERTIFICATION.
- EACH PRODUCT SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER SYSTEM, CONTAINING THE FOLLOWING REQUIRED INFORMATION:

HARTMAN WINDOWS AND DOORS, LLC
2107 WEST BLUE HERON BLVD
WEST PALM BEACH, FLORIDA 33404
TAS 201/202/203
APPROVED BY FLORIDA BUILDING COMMISSION
FLORIDA PRODUCT APPROVAL NUMBER FL #19972.1

THIS PRODUCT IS APPROVED FOR IMPACT RESISTANCE LEVED 'D'.

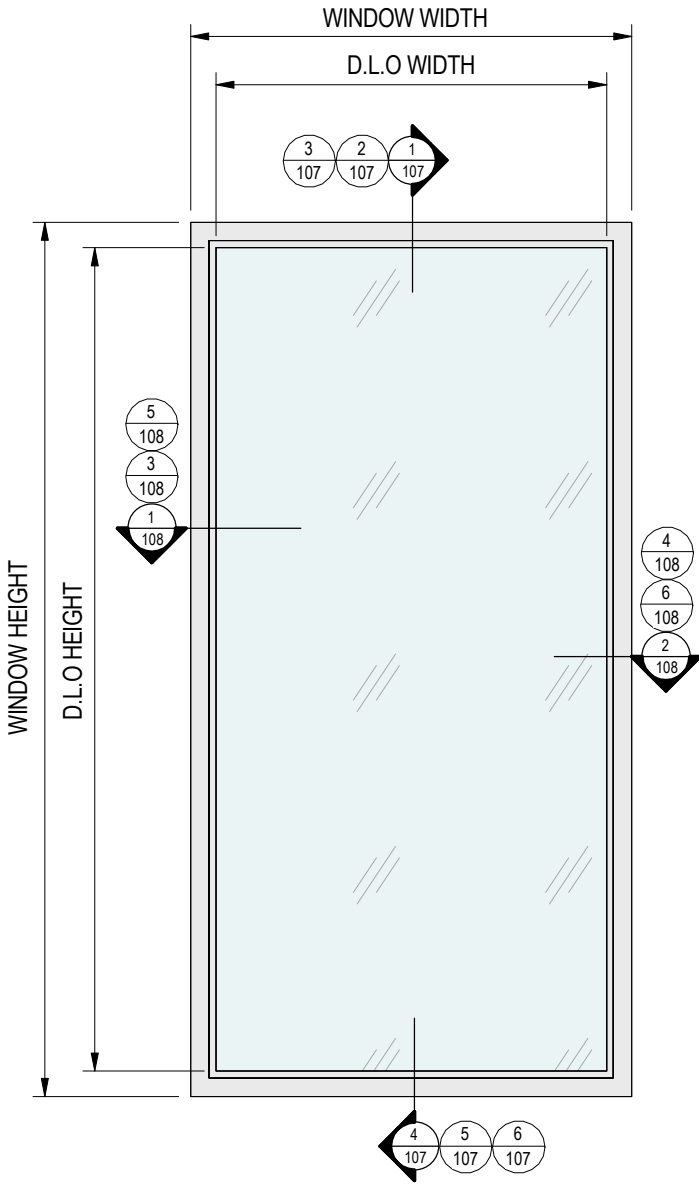
drawing no.	JA-1425-23	drawn by:	SA
date:	04-15-2024	check by:	MK
		REVISION	
		No.	
		DATE	
		BY	
		DESCRIPTION	



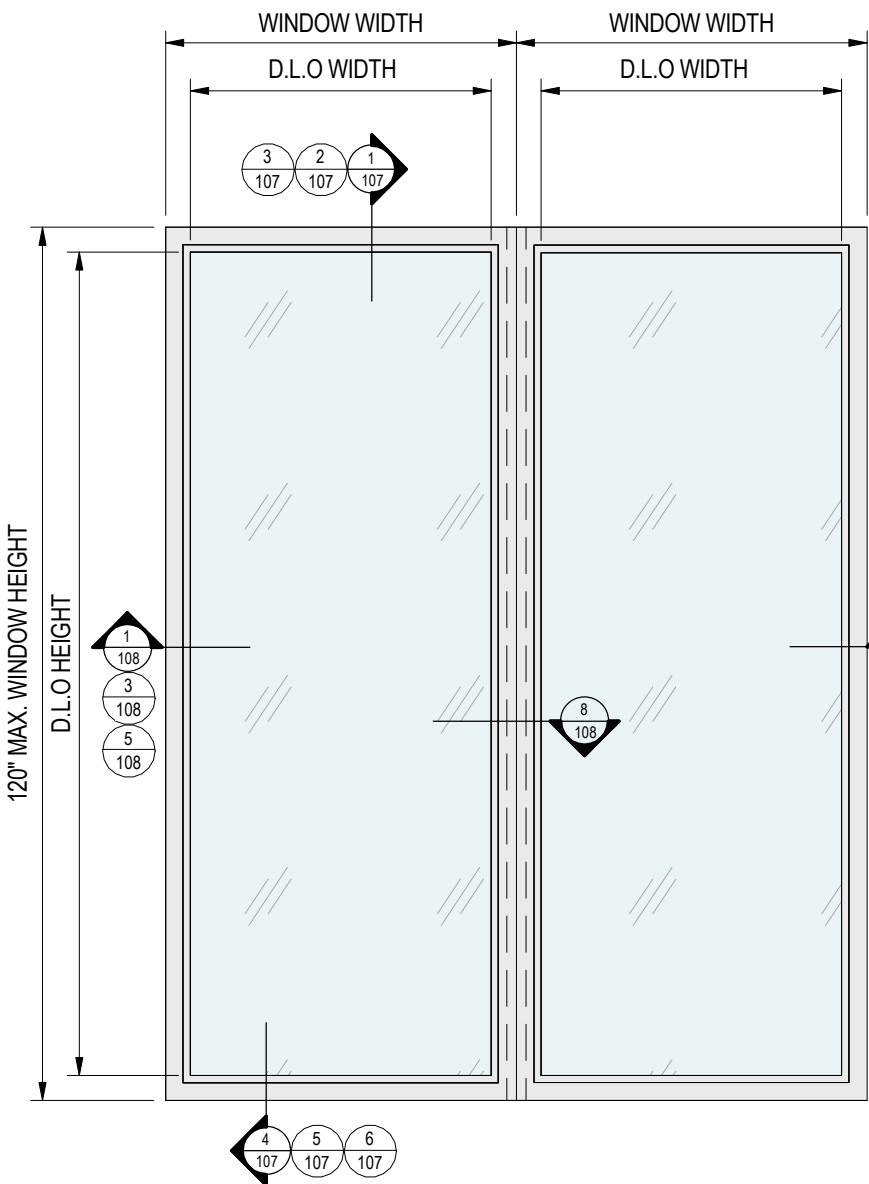
Sealed: 04-15-2024

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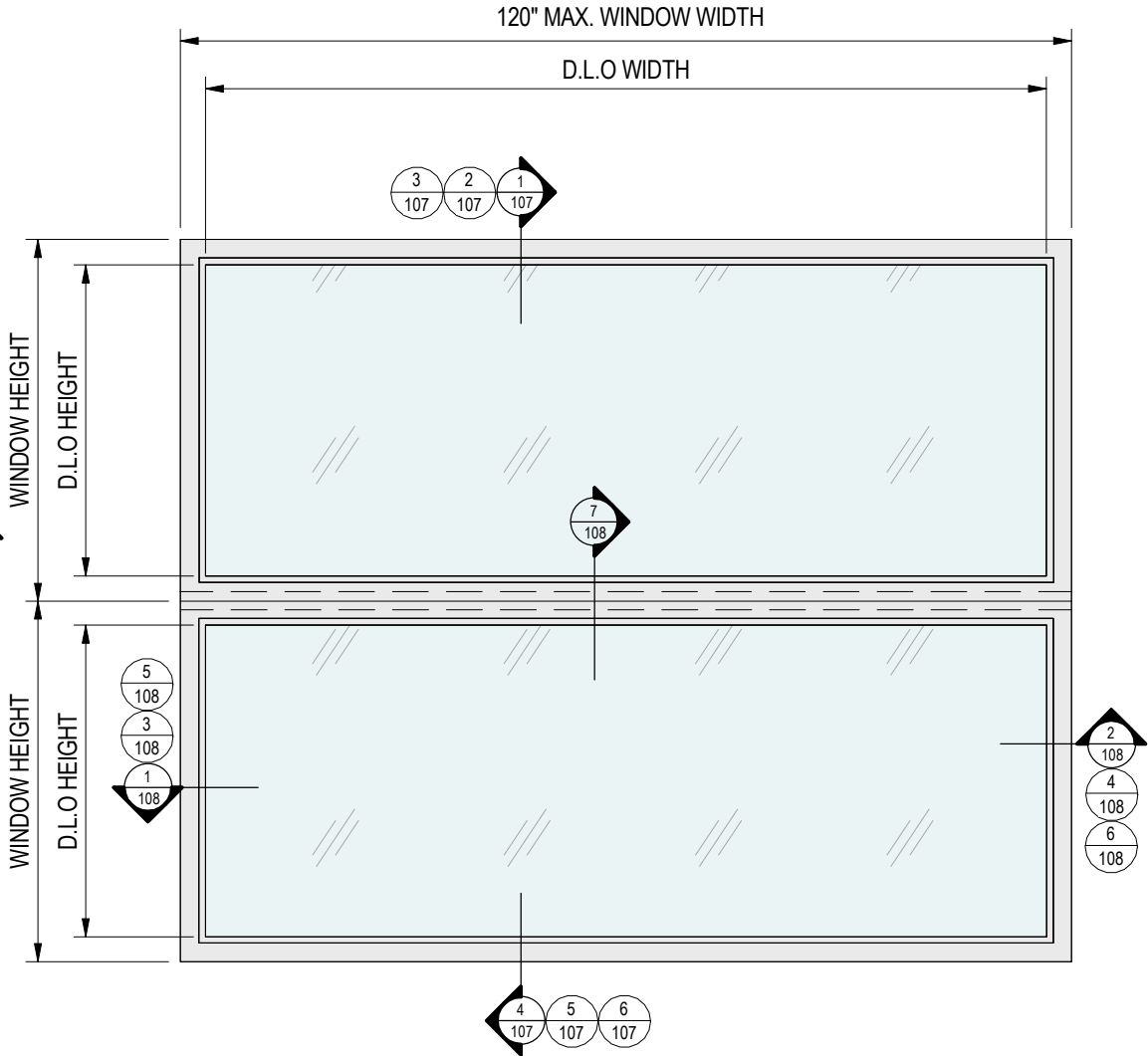
101 OF 112



1 SINGLE FIXED (O)
102 N.T.S.



2 JAMB TO JAMB TYPE 1 (O/O)
102 N.T.S.



3 JAMB TO JAMB TYPE 2 (O/O)
102 N.T.S.

NOTE:
MAX. LENGTH OF MULLION 120". ANY DIMENSIONS THAT DIFFER MAY BE ADDRESSED UNDER
SITE SPECIFIC ENGINEERING.



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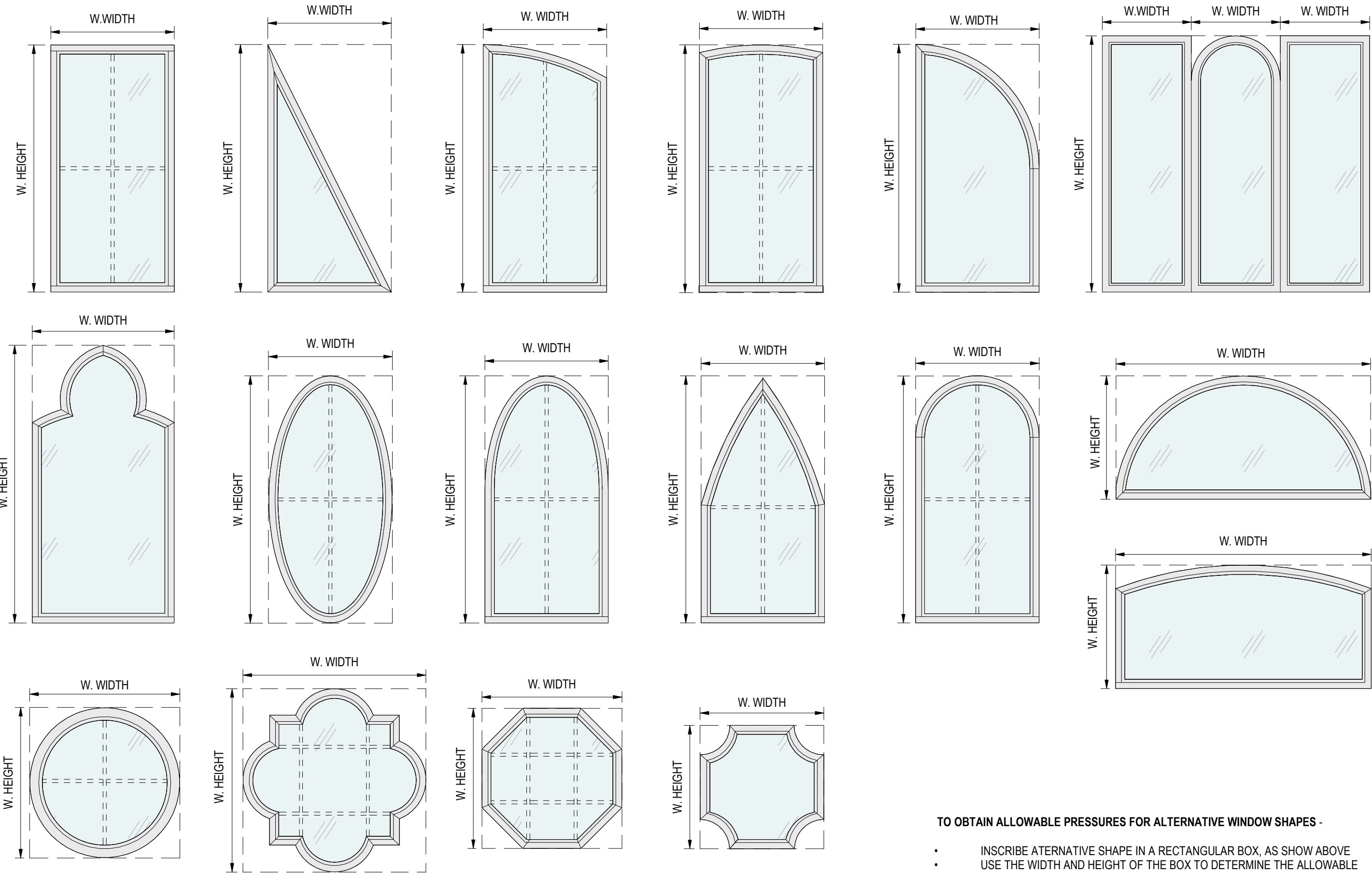
drawing no.	JA-1425-23	date:	drawn by:	check by:	REVISION			
					No.	DATE	BY	DESCRIPTION



Sealed: 04-15-2024

ALTERNATIVE WINDOW SHAPES

FL#19972.1



TO OBTAIN ALLOWABLE PRESSURES FOR ALTERNATIVE WINDOW SHAPES -

- INSCRIBE ALTERNATIVE SHAPE IN A RECTANGULAR BOX, AS SHOW ABOVE
- USE THE WIDTH AND HEIGHT OF THE BOX TO DETERMINE THE ALLOWABLE PRESSURE



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LOADING CHART FOR SINGLE FIXED (O) PRESSURE IN PSF (ASD)																					
GLASS TYPES: A, D, GI, HI																					
WINDOW WIDTH (IN.)	WINDOW HEIGHT (IN.)																				
	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	126	132	138	144
24	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 67	± 64	± 58	± 52	± 48	± 44
30	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 68	± 61	± 54	± 51	± 46	± 42	± 38	± 35
36	± 70	± 70	± 66	± 66	± 66	± 66	± 66	± 66	± 66	± 66	± 66	± 66	± 66	± 49	± 44	± 44	± 43	± 39	± 35	± 32	± 29
42	± 70	± 70	± 66	± 56	± 56	± 56	± 56	± 56	± 56	± 56	± 49	± 49	± 49	± 38	± 38	± 38	± 37	± 34	± 30	-	-
48	± 70	± 70	± 66	± 56	± 49	± 49	± 49	± 49	± 49	± 42	± 42	± 33	± 33	± 33	± 33	± 33	± 33	-	-	-	-
54	± 70	± 70	± 66	± 56	± 49	± 44	± 44	± 38	± 38	± 29	± 29	± 29	± 29	± 29	-	-	-	-	-	-	-
60	± 70	± 70	± 66	± 56	± 49	± 44	± 34	± 34	± 26	± 26	± 26	± 26	± 26	-	-	-	-	-	-	-	-
66	± 70	± 70	± 66	± 56	± 49	± 38	± 34	± 24	± 24	± 24	± 24	-	-	-	-	-	-	-	-	-	-
72	± 70	± 70	± 66	± 56	± 49	± 38	± 26	± 24	± 22	± 22	-	-	-	-	-	-	-	-	-	-	-
78	± 70	± 70	± 66	± 56	± 42	± 29	± 26	± 24	± 22	-	-	-	-	-	-	-	-	-	-	-	-
84	± 70	± 70	± 66	± 49	± 42	± 29	± 26	± 24	-	-	-	-	-	-	-	-	-	-	-	-	-
90	± 70	± 70	± 66	± 49	± 33	± 29	± 26	-	-	-	-	-	-	-	-	-	-	-	-	-	-
96	± 70	± 70	± 66	± 49	± 33	± 29	± 26	-	-	-	-	-	-	-	-	-	-	-	-	-	-
102	± 70	± 70	± 57	± 38	± 33	± 29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
108	± 70	± 70	± 57	± 38	± 33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
114	± 70	± 70	± 44	± 38	± 33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
120	± 70	± 68	± 44	± 38	± 33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
126	± 70	± 68	± 44	± 38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
132	± 70	± 68	± 44	± 38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
138	± 70	±53	± 44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
144	± 70	±53	± 44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LOADING CHART FOR SINGLE FIXED (O) PRESSURE IN PSF (ASD)																					
GLASS TYPES: B, C, F, JI																					
WINDOW WIDTH (IN.)	WINDOW HEIGHT (IN.)																				
	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	126	132	138	144
24	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70
30	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 67	± 61
36	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 68	± 62	± 56	± 51
42	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 66	± 66	± 66	± 65	± 59	± 53	-	-
48	± 70	± 70	± 70	± 70	± 61	± 61	± 61	± 61	± 61	± 61	± 61	± 58	± 58	± 58	± 58	± 58	± 58	-	-	-	-
54	± 70	± 70	± 70	± 70	± 61	± 54	± 54	± 54	± 54	± 51	± 51	± 51	± 51	± 51	-	-	-	-	-	-	-
60	± 70	± 70	± 70	± 70	± 61	± 54	± 49	± 49	± 46	± 46	± 46	± 46	± 46	-	-	-	-	-	-	-	-
66	± 70	± 70	± 70	± 70	± 61	± 54	± 49	± 42	± 42	± 42	± 42	-	-	-	-	-	-	-	-	-	-
72	± 70	± 70	± 70	± 70	± 61	± 54	± 46	± 42	± 38	± 38	-	-	-	-	-	-	-	-	-	-	-
78	± 70	± 70	± 70	± 70	± 61	± 51	± 46	± 42	± 38	-	-	-	-	-	-	-	-	-	-	-	-
84	± 70	± 70	± 70	± 70	± 61	± 51	± 46	± 42	-	-	-	-	-	-	-	-	-	-	-	-	-
90	± 70	± 70	± 70	± 70	± 58	± 51	± 46	-	-	-	-	-	-	-	-	-	-	-	-	-	-
96	± 70	± 70	± 70	± 70	± 58	± 51	± 46	-	-	-	-	-	-	-	-	-	-	-	-	-	-
102	± 70	± 70	± 70	± 66	± 58	± 51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
108	± 70	± 70	± 70	± 66	± 58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
114	± 70	± 70	± 70	± 66	± 58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
120	± 70	± 70	± 70	± 66	± 58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
126	± 70	± 70	± 70	± 66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
132	± 70	± 70	± 70	± 66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
138	± 70	±70	± 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
144	± 70	±70	± 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



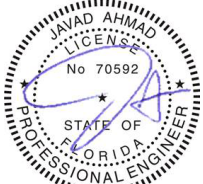
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LOADING CHART FOR SINGLE FIXED (O) - PRESSURES IN PSF (ASD)																								
GLASS TYPES: E, II																								
WINDOW WIDTH (IN)	WINDOW HEIGHT (IN.)																							
	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	126	132	138	144	150	156	162
24	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75
30	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75
36	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75
42	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75
48	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75
54	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75
60	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75
66	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±70
72	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±70	-
76.375	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	-	-
84	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±68	±68	±68	±68	±68	±68	±68	±68	±68	-	-	-	-	-
90	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±68	±63	±63	±63	±63	±63	±63	-	-	-	-	-	-	-
96	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±68	±63	±59	±59	±59	±59	-	-	-	-	-	-	-	-
102	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±68	±63	±59	±56	±56	-	-	-	-	-	-	-	-	-
108	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±68	±63	±59	±56	-	-	-	-	-	-	-	-	-	-
114	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±68	±63	±59	-	-	-	-	-	-	-	-	-	-	-
120	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±68	±63	-	-	-	-	-	-	-	-	-	-	-	-
126	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±68	-	-	-	-	-	-	-	-	-	-	-	-	-
132	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	±68	-	-	-	-	-	-	-	-	-	-	-	-	-
138	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	-	-	-	-	-	-	-	-	-	-	-	-	-	-
144	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	-	-	-	-	-	-	-	-	-	-	-	-	-	-
148.25	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	-	-	-	-	-	-	-	-	-	-	-	-	-	-
156	±75	±75	±75	±75	±75	±75	±75	±75	±75	±75	-	-	-	-	-	-	-	-	-	-	-	-	-	-
162	±75	±75	±75	±75	±75	±75	±75	±75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LOADING CHART FOR SINGLE FIXED (O) PRESSURE IN PSF (ASD)																						
GLASS TYPES: K, L																						
WINDOW WIDTH (IN.)	WINDOW HEIGHT (IN.)																					
	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	126	132	138	144	
24	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	
30	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	
36	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 68	
42	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 64	-	
48	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	± 70	-	-	-	
54	± 70	± 70	± 70	± 70	± 70	± 62	± 62	± 62	± 62	± 62	± 62	± 62	± 62	± 62	-	-	-	-	-	-	-	
60	± 70	± 70	± 70	± 70	± 70	± 62	± 56	± 56	± 56	± 56	± 56	± 56	± 56	-	-	-	-	-	-	-	-	
66	± 70	± 70	± 70	± 70	± 70	± 62	± 56	± 50	± 50	± 50	± 50	-	-	-	-	-	-	-	-	-	-	
72	± 70	± 70	± 70	± 70	± 70	± 62	± 56	± 50	± 46	± 46	-	-	-	-	-	-	-	-	-	-	-	
78	± 70	± 70	± 70	± 70	± 70	± 62	± 56	± 50	± 46	-	-	-	-	-	-	-	-	-	-	-	-	
84	± 70	± 70	± 70	± 70	± 70	± 62	± 56	± 50	-	-	-	-	-	-	-	-	-	-	-	-	-	
90	± 70	± 70	± 70	± 70	± 70	± 62	± 56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
96	± 70	± 70	± 70	± 70	± 70	± 62	± 56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
102	± 70	± 70	± 70	± 70	± 70	± 62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
108	± 70	± 70	± 70	± 70	± 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
114	± 70	± 70	± 70	± 70	± 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
120	± 70	± 70	± 70	± 70	± 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
126	± 70	± 70	± 70	± 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
132	± 70	± 70	± 70	± 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
138	± 70	±70	± 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
144	± 70	±70	± 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



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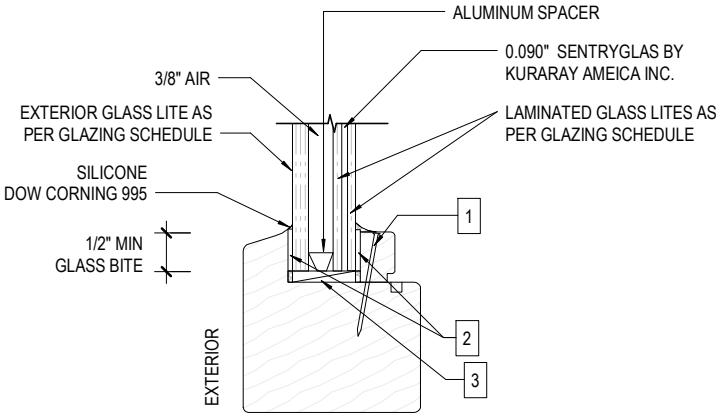
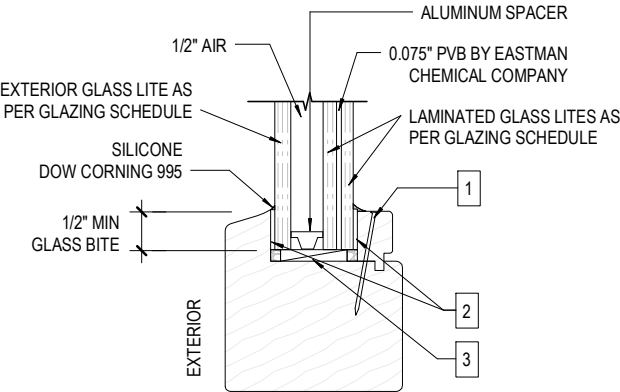
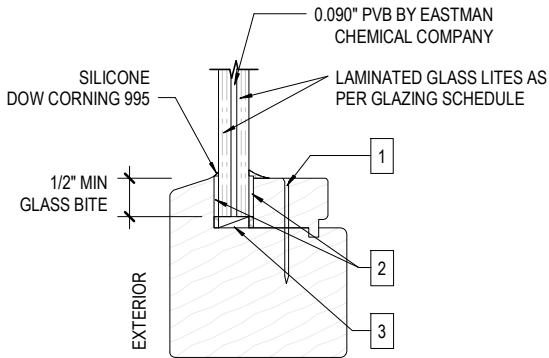
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	date:	04-15-2024							
		DATE		BY		DESCRIPTION			
		No.							



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- 1

18 GA. X 1 1/2" BRAD NAILS AT 3" FROM ENDS AND 8" O.C. MAX
- 2

GLAZING TAPE 1/16" X 1/2" NORTON HPF970
- 3

NEOPRENE SETTING BLOCK 80 ± 5 DUROMETER AT 1/4 POINTS

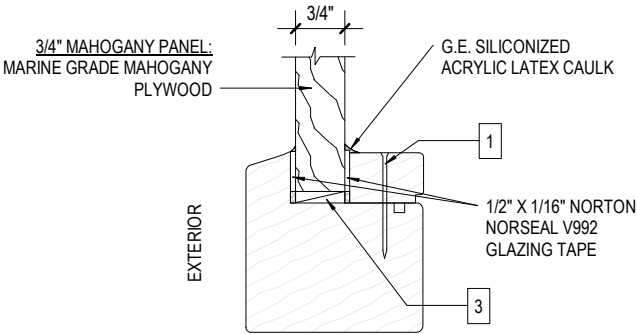
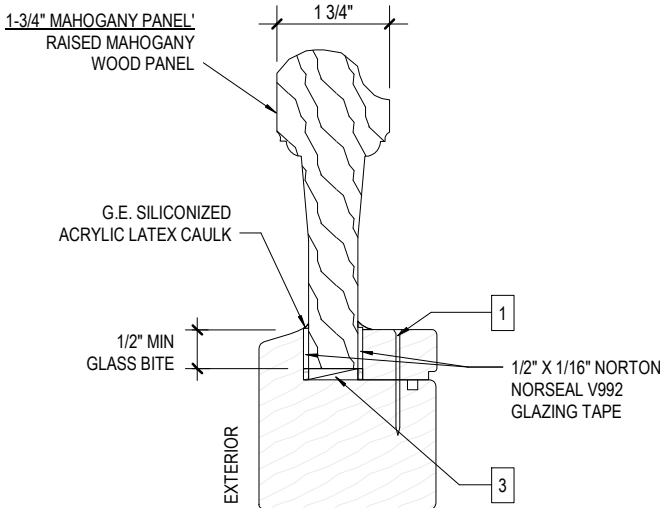
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106
GLAZING DETAIL FOR GLASS TYPE A, B ,C ,D, E, F
N.T.S.

2
106
GLAZING DETAIL FOR GLASS TYPE GI, JI
N.T.S.

3
106
GLAZING DETAILS FOR GLASS TYPE HI, II
N.T.S.

GLAZING SCHEDULE

GLASS TYPE	LAMINATED GLASS LITE	INTERLAYER	REF. DETAIL
A	3/16" ANNEALED GLASS	0.09" PVB INTERLAYER BY EASTMAN CHEMICAL COMPANY	
B	3/16" HEAT STREN'D GLASS	0.09" PVB INTERLAYER BY EASTMAN CHEMICAL COMPANY	
C	3/16" HEAT STREN'D GLASS	0.09" SENTRYGLASS INTERLAYER BY KURARAY AMERICA INC.	
D	3/16" ANNEALED GLASS	0.09" SENTRYGLASS INTERLAYER BY KURARAY AMERICA INC.	1/ 106
E	1/4" HEAT STREN'D GLASS	0.09" SENTRYGLAS INTERLAYER BY KURARAY AMERICA INC.	
F	1/4" HEAT STREN'D GLASS	0.075" PVB INTERLAYER	



4
106
GLAZING DETAIL FOR WOOD PANEL TYPE K
N.T.S.

5
106
GLAZING DETAILS FOR WOOD PANEL TYPE L
N.T.S.

GLASS TYPE	EXTERIOR GLASS LITE	LAMINATED GLASS LITE	INTERLAYER	REF. DETAIL
GI	1/4" TEMPERED GLASS	3/16" HEAT STREN'D GLASS	0.075" PVB INTERLAYER BY EASTMAN CHEMICAL COMPANY	2/ 106
HI	1/4" TEMPERED GLASS	1/8" ANNEALED GLASS	0.09" SENTRYGLAS INTERLAYER BY KURARAY AMERICA INC.	3/ 106
II	1/4" TEMPERED GLASS	1/4" HEAT STREN'D GLASS	0.09" SENTRYGLAS INTERLAYER BY KURARAY AMERICA INC.	3/ 106
JI	3/16" TEMPERED GLASS	3/16" HEAT STREN'D GLASS	0.09" SENTRYGLAS INTERLAYER BY KURARAY AMERICA INC.	2/ 106



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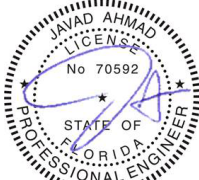
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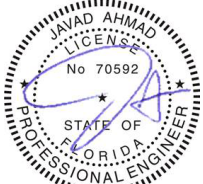


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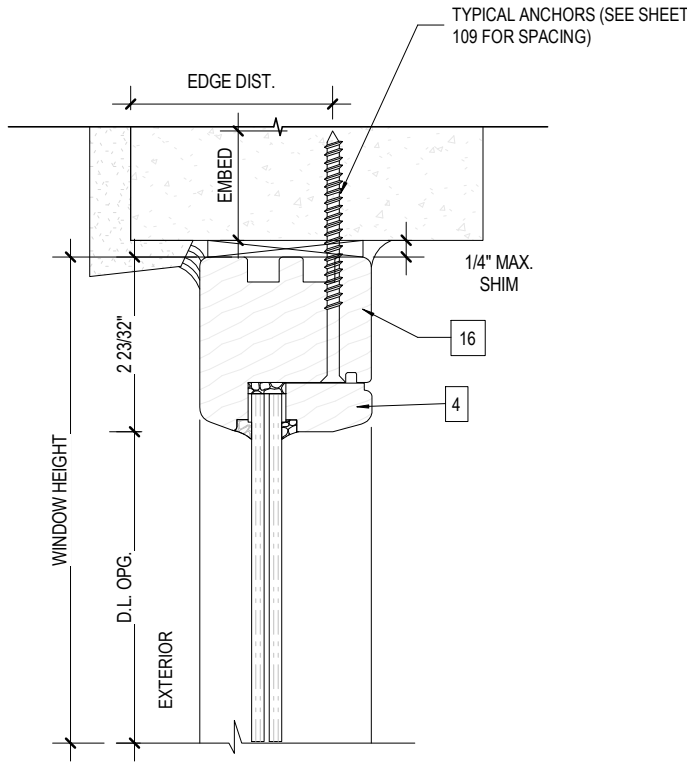
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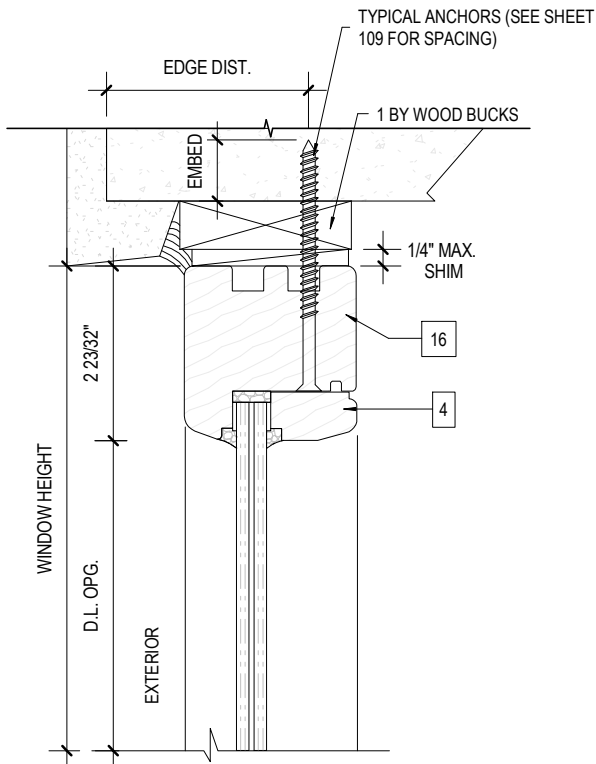
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							No.	DATE	BY	DESCRIPTION



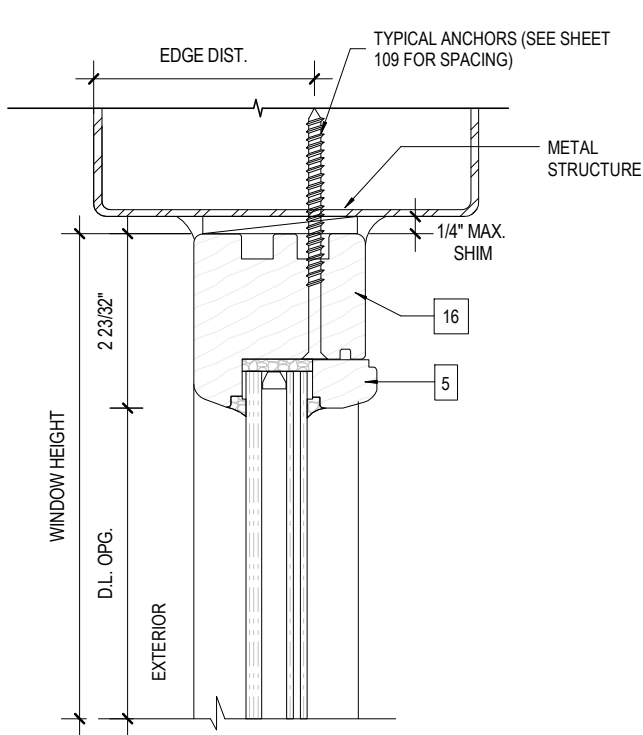
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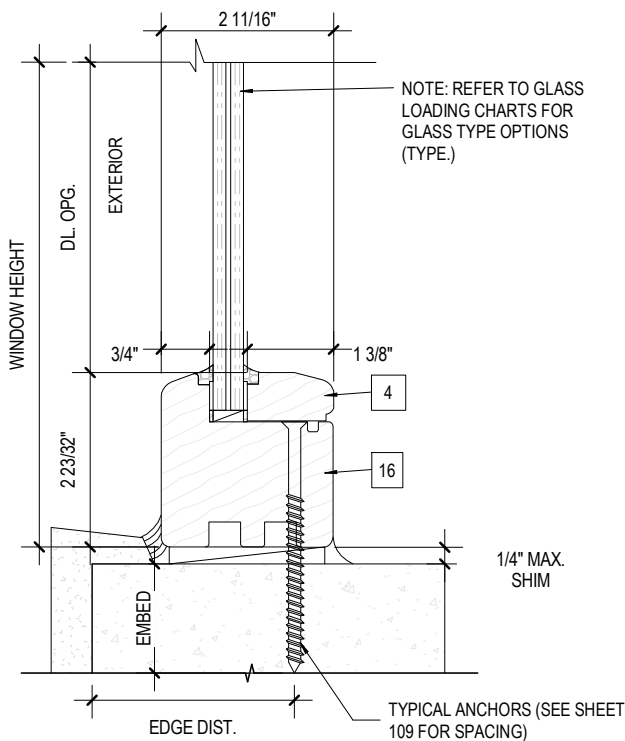
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107 HEAD DETAIL 1
INTO CONCRETE



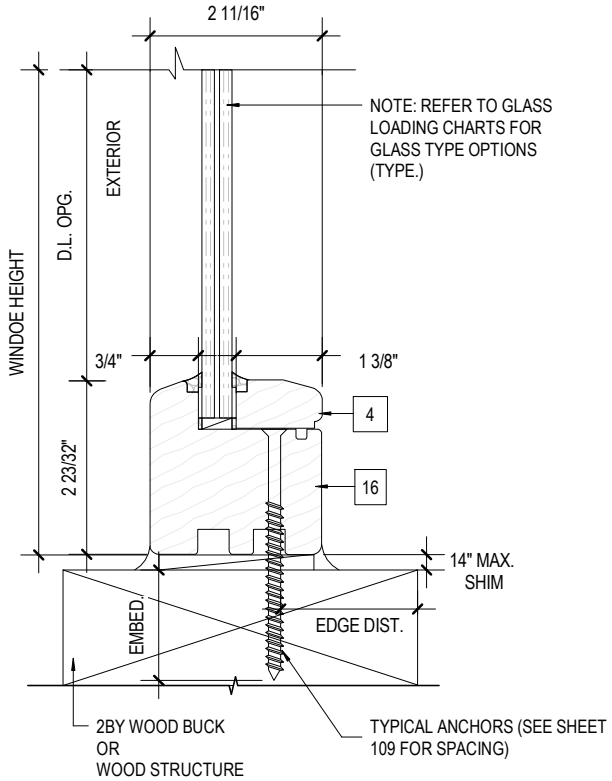
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107 HEAD DETAILS 2
INTO CONCRETE



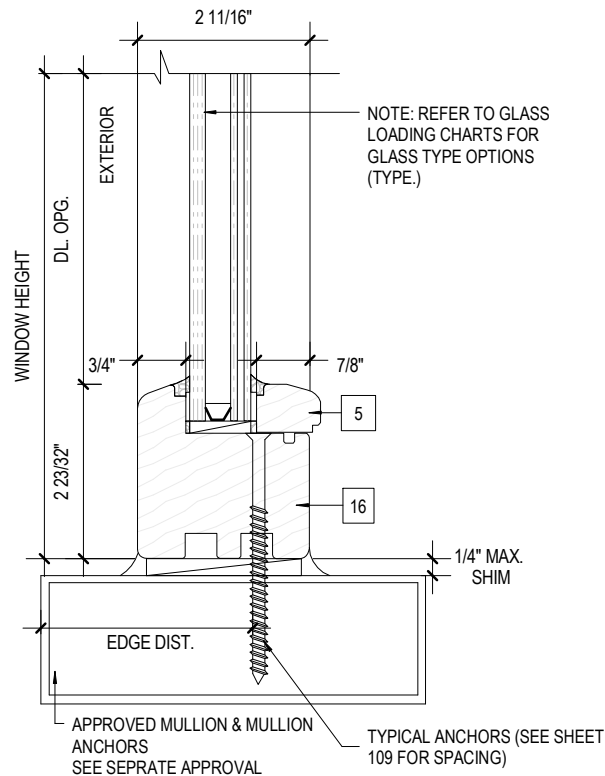
3
107 HEAD DETAIL 3
INTO METAL STRUCTURE



4
107 SILL DETAILS 1
INTO CONCRETE



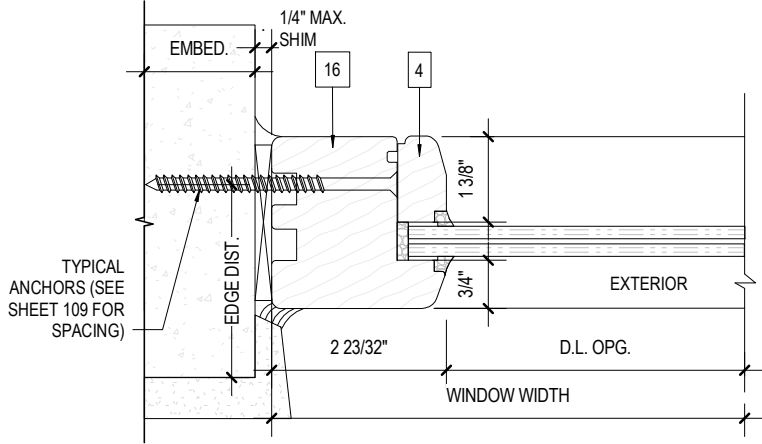
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107 SILL DETAIL 2
INTO WOOD STRUCTURES



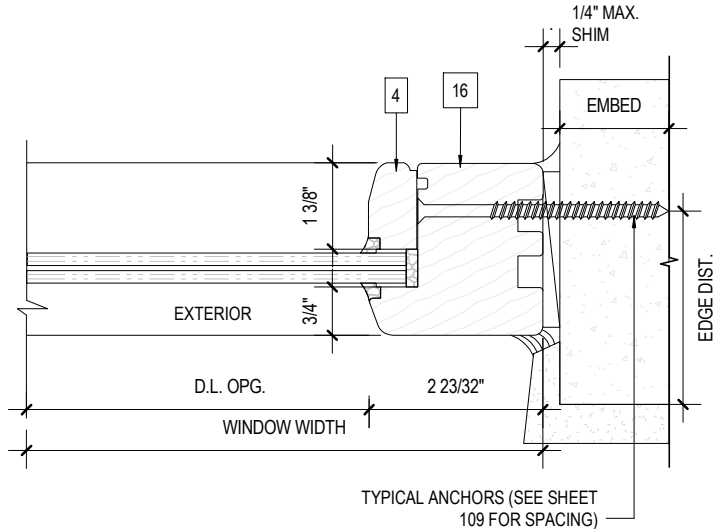
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107 SILL DETAIL 3
INTO MULLION

SECTIONAL DETAILS

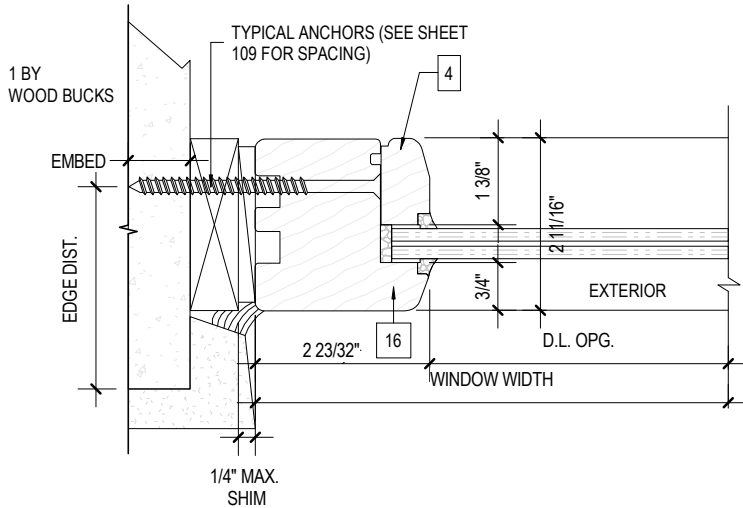
FL#19972.1



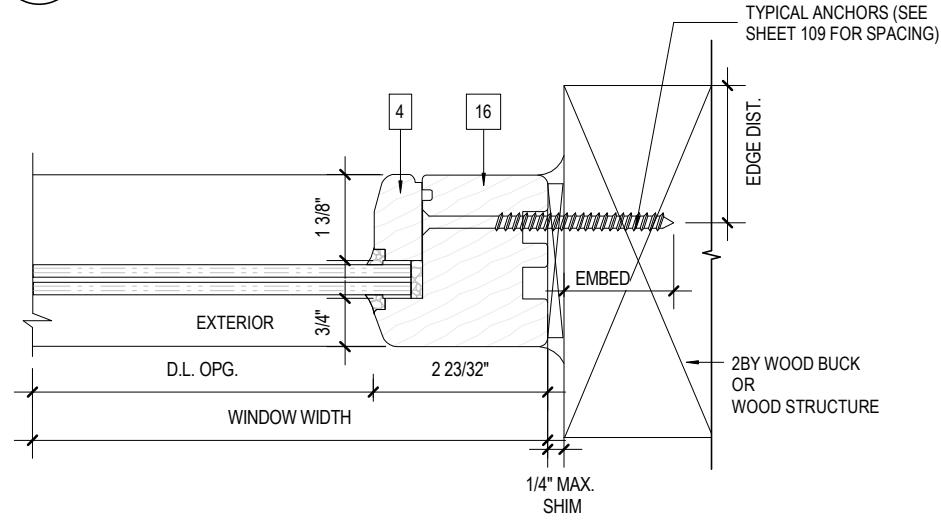
1
108 JAMB DETAIL 1A
INTO CONCRETE



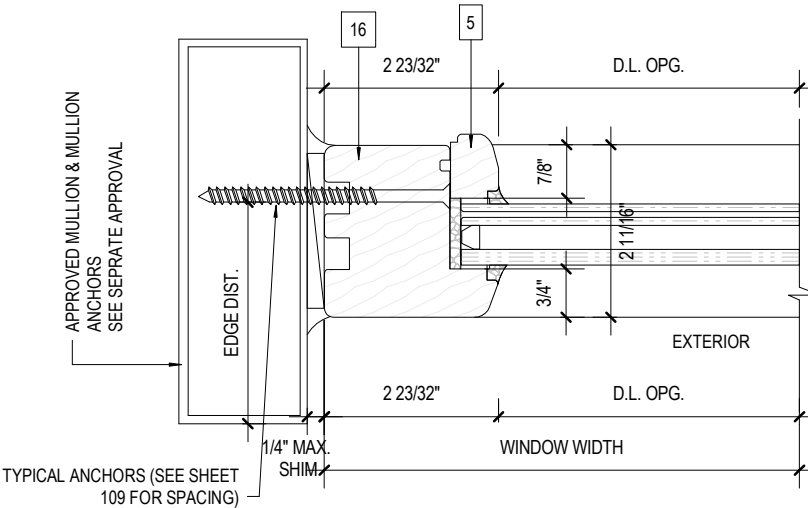
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108 JAMB DETAIL 2A
INTO CONCRETE



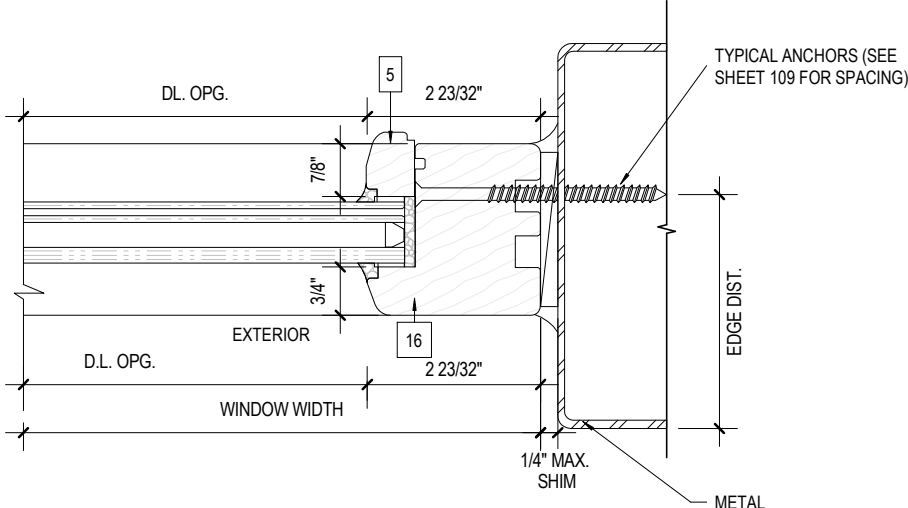
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108 JAMB DETAIL 1B
INTO CONCRETE



4
108 JAMB DETAIL 2B
INTO WOOD STRUCTURES

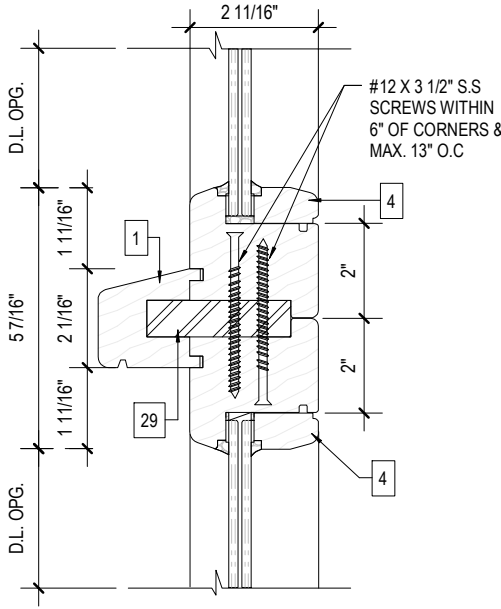


5
108 JAMB DETAIL 1C
INTO MULLION

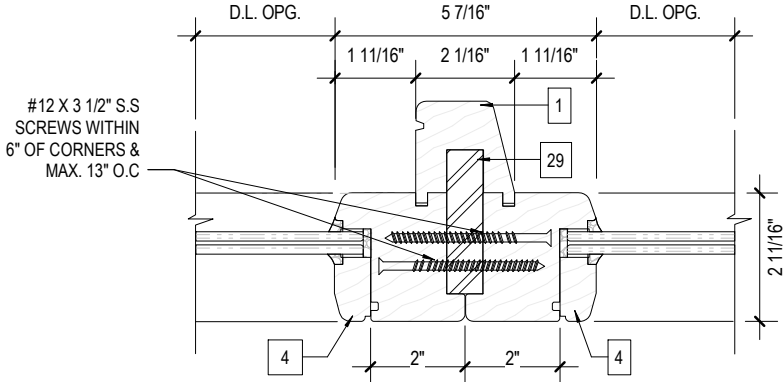


6
108 JAMB DETAIL 2C
INTO METAL STRUCTURES

NOTE:
REFER TO GLASS LOADING CHARTS FOR
GLASS TYPE OPTIONS



7
108 MULLION JAMB DETAILS 1
N.T.S.



8
108 MULLION JAMB DETAILS 2
N.T.S.



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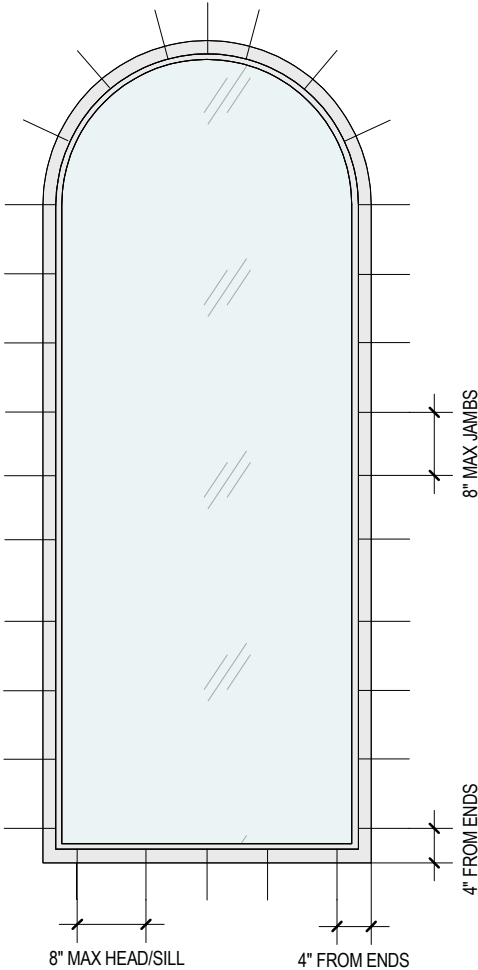


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ANCHORING SCHEDULE

(THROUGH THE FRAME)

FL#19972.1



1
109 TYP. ANCHORAGE LAYOUT
N.T.S.

TYPICAL ANCHOR TYPES

(APPLIES TO ANCHOR GOING THRU THE WINDOW FRAME):

TYPE A - 1/4" DEWALT ULTRAICON (Fu = 177,000 PSI, Fy = 155,000 PSI)
INTO 2BY WOOD* WITH 1-1/2" MIN ENGAGEMENT, AND 1-1/4" MIN EDGE
DISTANCE

THRU 1BY WOOD INTO CONCRETE, OR HOLLOW/GROUT FILLED MASONRY*
WITH 1-3/4" EMBEDMENT, AND 2-1/2" MIN EDGE DISTANCE

DIRECTLY INTO CONCRETE, OR HOLLOW/GROUT FILLED MASONRY* WITH
1-3/4" EMBEDMENT, AND 2-1/2" MIN EDGE DISTANCE

TYPE B-1/4" "TEK" SCREWS* SMS OR SDS (GRADE 5 MIN)
INTO ALUMINUM / STEEL ★ WITH 5 PITCHES PASSED THE THREAD PLANE, AND
1" MIN EDGE DISTANCE

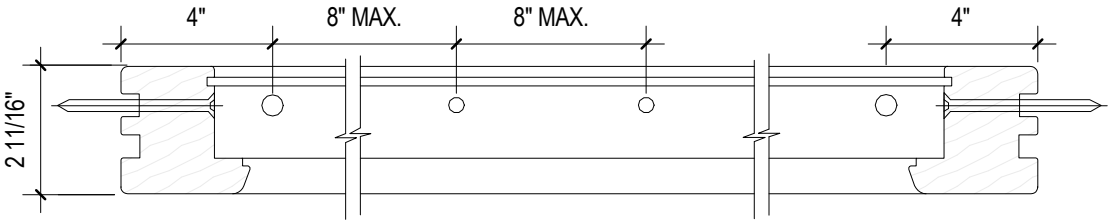
INTO FSA APPROVED MULLIONS* WITH 5 PITCHES PASSED THE THREAD PLANE,
AND 1" MIN EDGE DISTANCE

ANCHOR / SUBSTRATE NOTES:

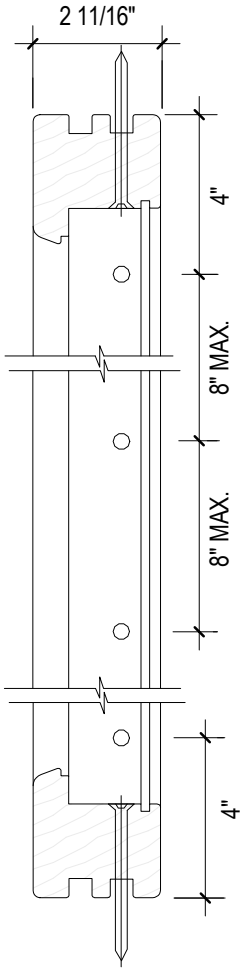
- WOOD AT HEAD SILL OR JAMBS IS SOUTHERN YELLOW PINE
#2 (SG=0.55 MIN.)
- CONCRETE AT HEAD, SILL OR JAMBS f'c= 300 PSI
- HOLLOW/GROUT FILLED MASONRY UNITS AT JAMBS f'm=200 PSI
- STEEL (1/8" THICK A36 MIN) AT HEAD SILL OR JAMBS
- ALUMINUM (1/8" THICK, 6063-T6 MIN) AT HEAD, SILL OR JAMBS
- #14 316 SS SMS OR SDS IS PERMITTED TO BE SUBSTITUTED WITH
TEK SCREWS

NOTE:

FOR INSTRUCTIONS ON HOW TO ANCHOR THIS PRODUCT USING
CLIPS STRAPS, OR ANGLES, PLEASE REFER TO PAGE 110
FOR DETAILS REGARDING THE ANCHOR TYPE AND SPACING



HEAD/ SILL ANCHOR LAYOUT



JAMB ANCHOR LAYOUT



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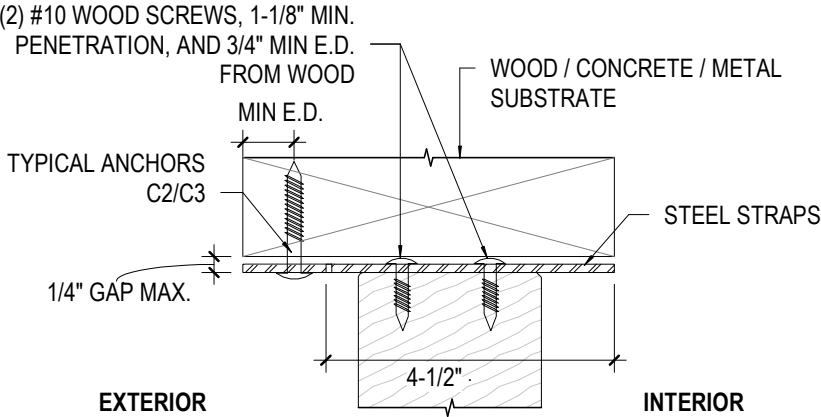
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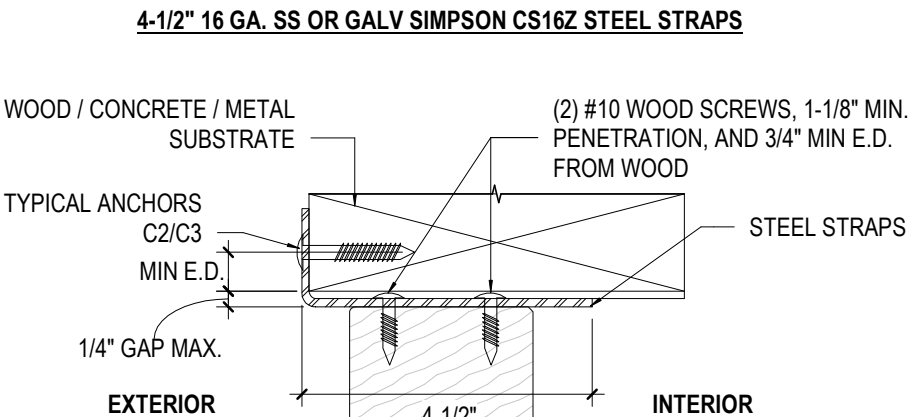


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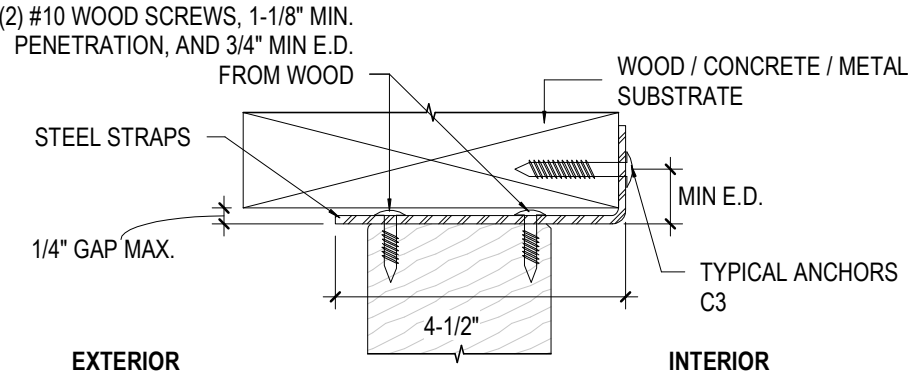
ALTERNATE ANCHORING



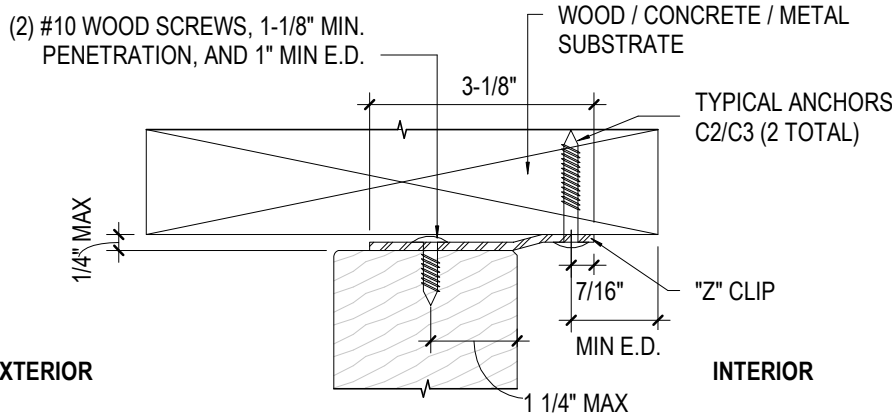
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110
EXTERIOR FLAT STRAP
N.T.S



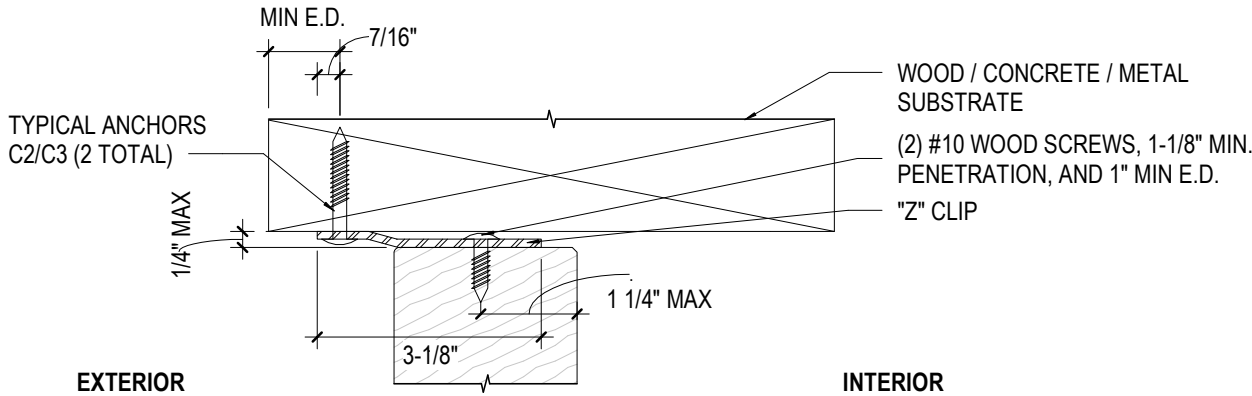
2
110
EXTERIOR BENT STRAP
N.T.S



3
110
INTERIOR BENT STRAP
N.T.S



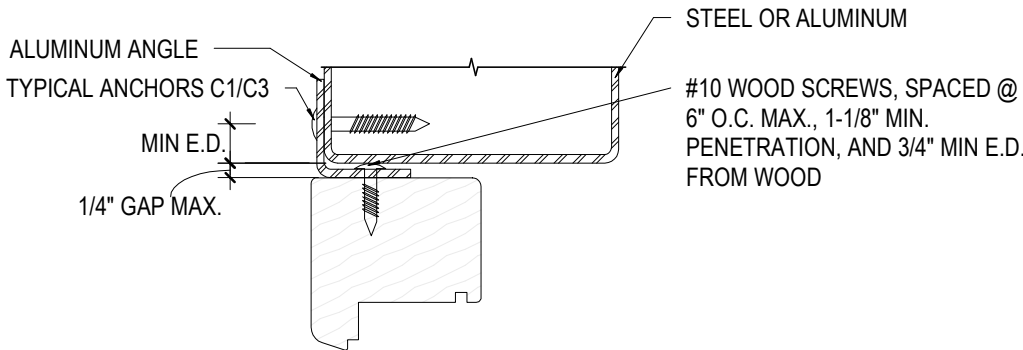
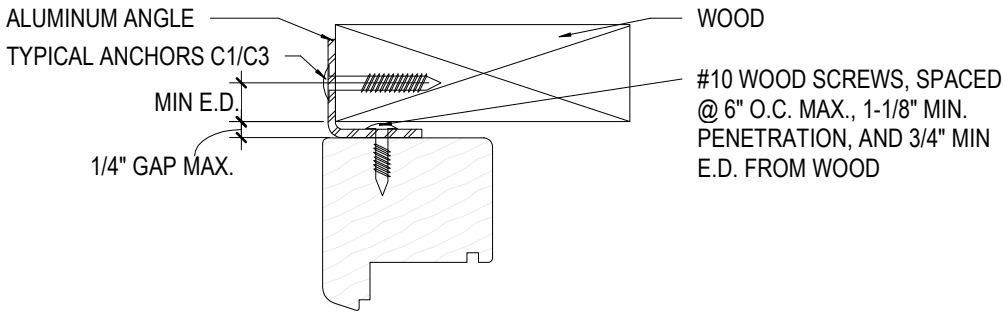
4
110
INTERIOR Z-CLIP STRAP
N.T.S



5
110
EXTERIOR Z-CLIP STRAP
N.T.S

GALVANIZED STEEL "Z" CLIP (14 GA)

1-1/2" X 1-1/2" X 1/8" ALUMINUM ANGLE (CONT.)



TYPICAL ANCHOR TYPES

- TYPE C1 - 1/4" DEWALT ULTRACON (Fu = 177,000 PSI, Fy = 155,000 PSI)**
- INTO 2BY WOOD WITH 1-1/2" MIN EMBEDMENT, AND 3/4" MIN EDGE DISTANCE
- TYPE C2 - 1/4" DEWALT ULTRACON (Fu = 177,000 PSI, Fy = 155,000 PSI)**
- INTO 2BY WOOD WITH 1-1/2" MIN EMBEDMENT, AND 3/4" MIN EDGE DISTANCE
 - DIRECTLY INTO CONCRETE, OR HOLLOW/GROUT FILLED MASONRY* WITH 1-3/4" EMBEDMENT, AND 2-1/2" MIN EDGE DISTANCE
- TYPE C3 - #12 SMS OR SDS (GRADE 5 MIN/316 SS)**
- INTO ALUMINUM / STEEL WITH 5 PITCHES PASSED THE THREAD PLANE, AND 3/4" MIN EDGE DISTANCE
 - INTO APPROVED MULLIONS WITH 5 PITCHES PASSED THE THREAD PLANE, AND 3/4" MIN EDGE DISTANCE
 - INTO 2BY WOOD WITH 1-1/2" MIN ENGAGEMENT, AND 3/4" MIN EDGE DISTANCE

SUBSTRATE NOTES:

- WOOD AT HEAD, SILL OR JAMBS IS SOUTHERN YELLOW PINE #2 (SG=0.55 MIN.)
- CONCRETE AT HEAD, SILL OR JAMBS f'c= 3000 PSI
- HOLLOW/GROUT FILLED MASONRY UNITS AT JAMBS f'm= 2000 PSI
- STEEL (1/8" THICK, A36 MIN) AT HEAD, SILL OR JAMBS
- ALUMINUM (1/8" THICK, 6063-T6 MIN) AT HEAD, SILL OR JAMBS

NOTE:

CONTRACTOR SHALL BE RESPONSIBLE FOR INSULATING ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS (EXAMPLE: STEEL WITH ALUMINUM)

ANCHOR LAYOUT / SPACING:

- FOR 1-1/2" X 1-1/2" X 1/8" ALUMINUM ANGLE (CONT.):
- ANCHORS C1/C2/C3 SHALL BE PLACED AT-
- MAX. 6" O.C. SPACING
 - MAX. 3" FROM UNIT CORNER FOR HEAD
 - MAX. 4" FROM UNIT CORNER FOR JAMB

FOR GALVANIZED STEEL "Z" CLIP (14 GA) OR 4-1/2" 16 GA. SS OR GALV SIMPSON CS16Z STEEL STRAPS-

ANCHORS C1/C2/C3 SHALL BE PLACED AS PER ANCHOR LAYOUT SHOWN ON SHEET 109

- THE STEEL CLIPS SHALL BE PLACED AT-
- MAX. 8" O.C. SPACING
 - MAX. 3" FROM UNIT CORNER FOR HEAD
 - MAX. 4" FROM UNIT CORNER FOR JAMB

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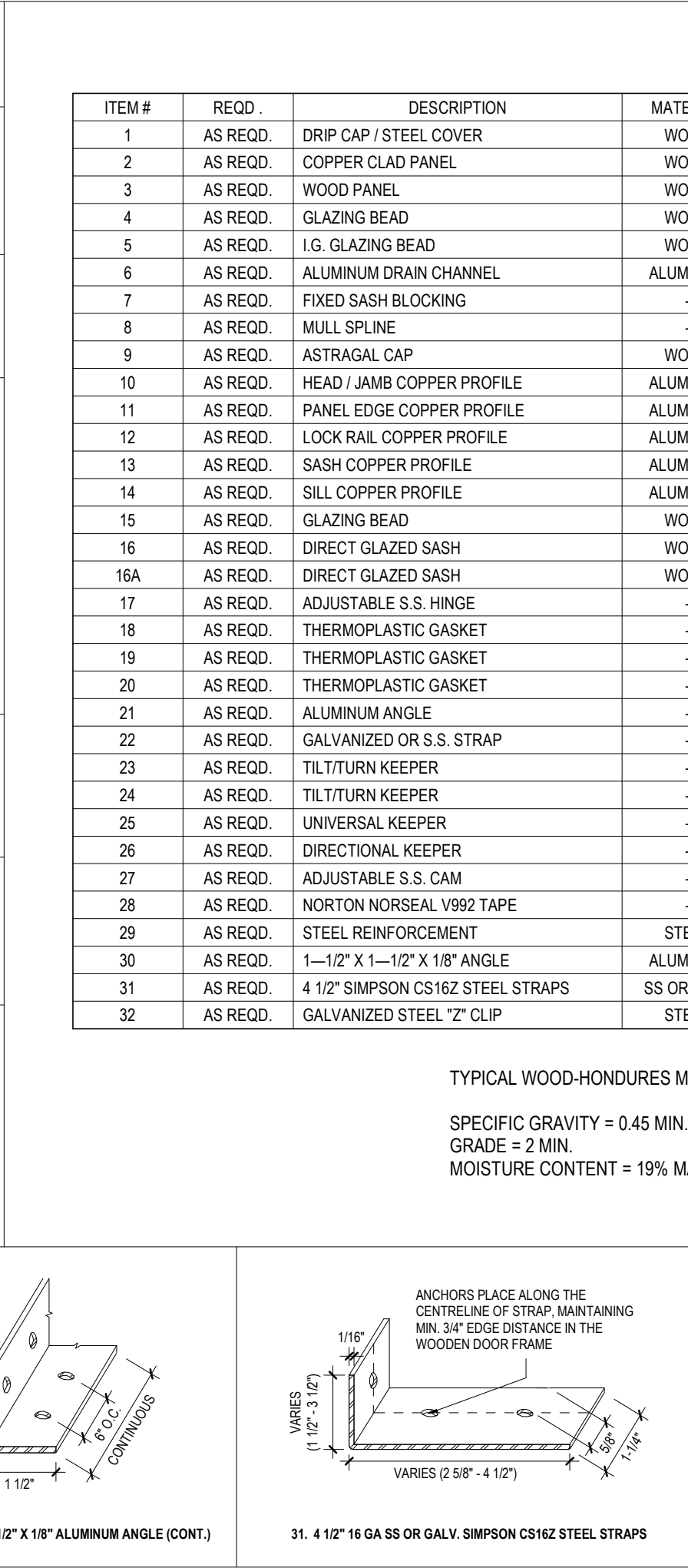
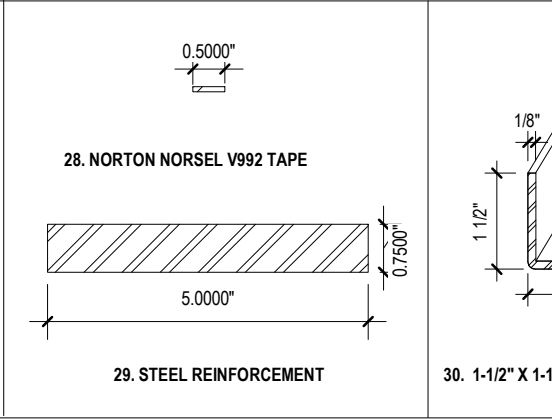
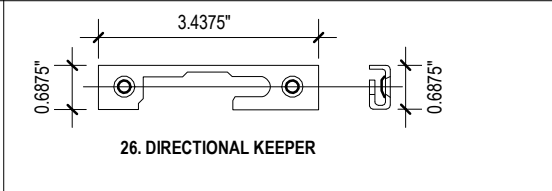
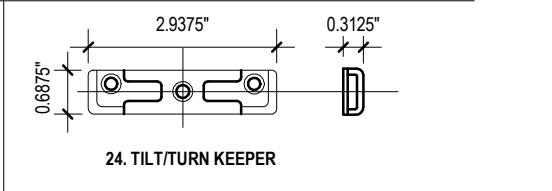
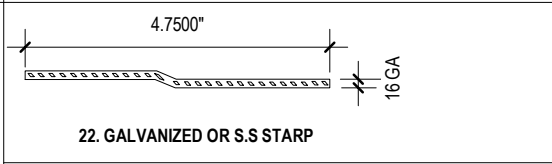
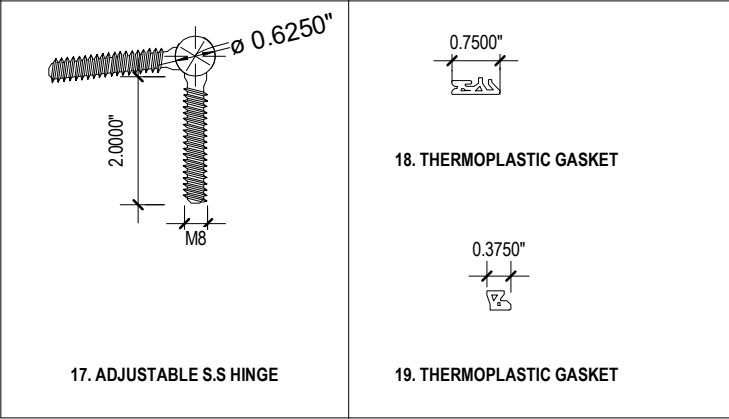
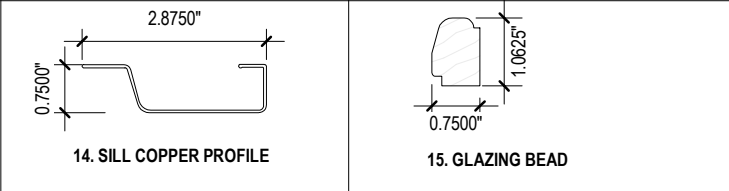
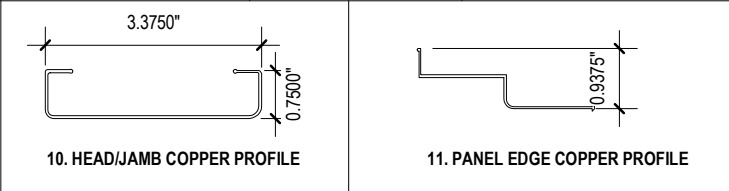
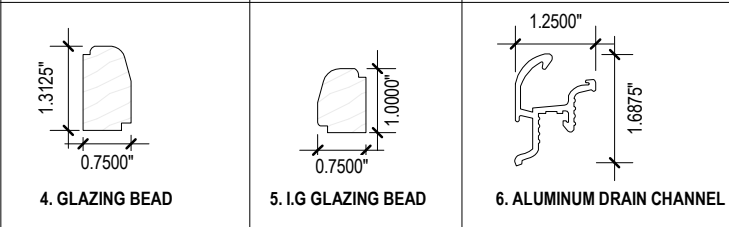
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2107 W. BLUE HERON BLVD.
WEST PALM BEACH, FL 33404
PHN. (561) 296-9600

drawing no.	date:	JA-1425-23	drawn by:	SA	check by:	MK	REVISION	DESCRIPTION	BY	DATE	No.				



Sealed: 04-15-2024

PARTS LIST



SERIAL	MANF./SUPPLIER/REMARKS
MOD	MAHOGANY OR EQUAL
MOD	MAHOGANY OR EQUAL
MOD	MAHOGANY OR EQUAL
MOD	MAHOGANY OR EQUAL
MOD	MAHOGANY OR EQUAL
INUM	6063 - T5 MIN .
-	-
-	-
MOD	MAHOGANY OR EQUAL
INUM	6063 - T5 MIN .
INUM	6064 - T5 MIN .
INUM	6065 - T5 MIN .
INUM	6066 - T5 MIN .
INUM	6067 - T5 MIN .
MOD	MAHOGANY OR EQUAL
MOD	MAHOGANY OR EQUAL
MOD	MAHOGANY OR EQUAL
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
HEEL	-
INUM	6063-T5 MIN.
GALV	(16 GA)
HEEL	(14 GA)

FL#19972.1

JAVAD AHMAD PE, inc

7875 NW 12th St., Suite 102

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support@ja-pe.com

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EUROPEAN SERIES DIRECT

SET WINDOW
(LARGE AND SMALL MISSILE IMPACT RATED)

HARTMAN WINDOWS & DOORS, LLC.

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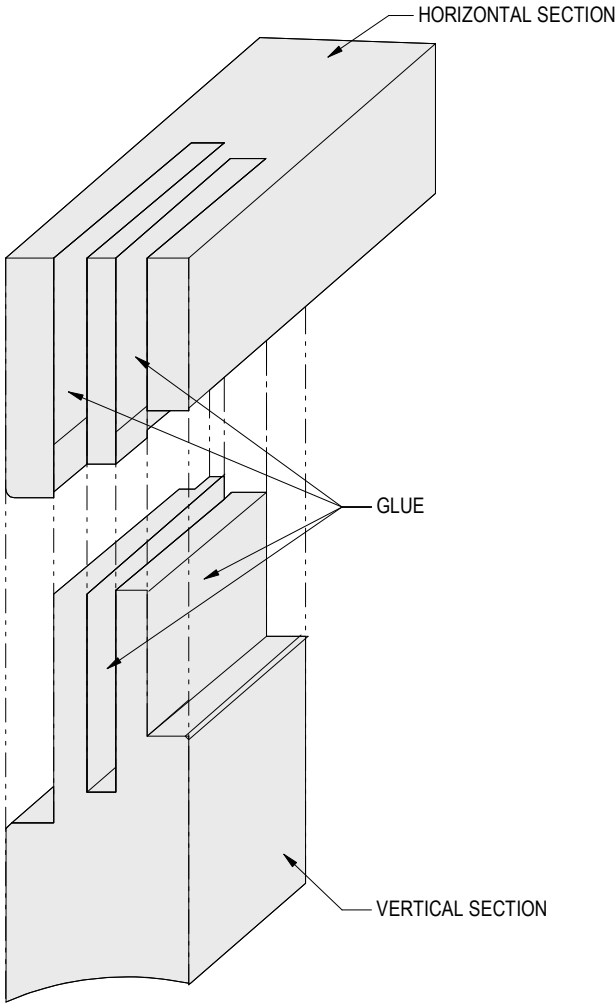
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Sealed: 04-15-2024					
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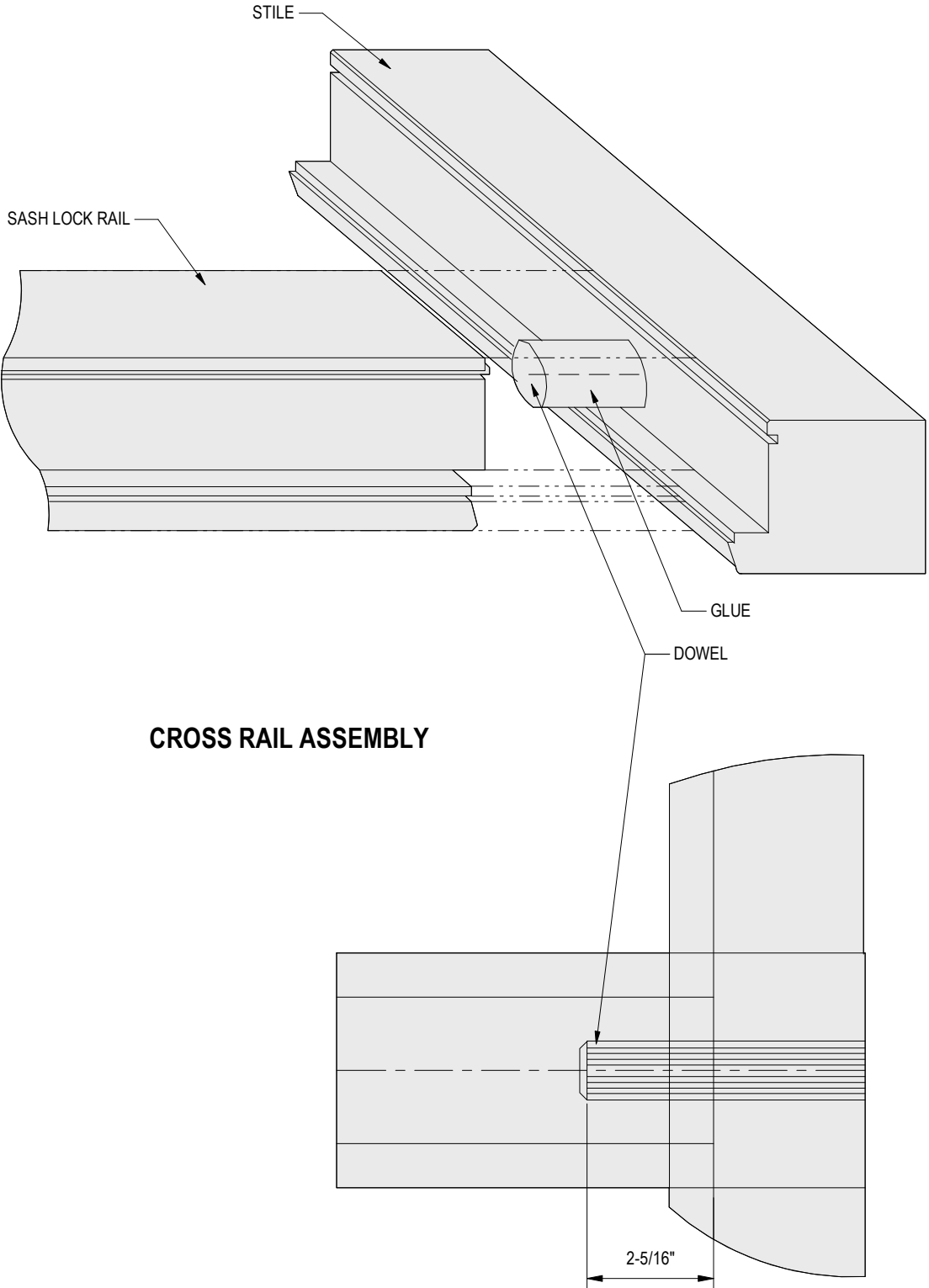
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MULTI-FORK FRAME AND VENT
CORNER ASSEMBLY

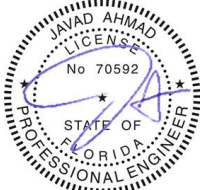


CROSS RAIL ASSEMBLY

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