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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.



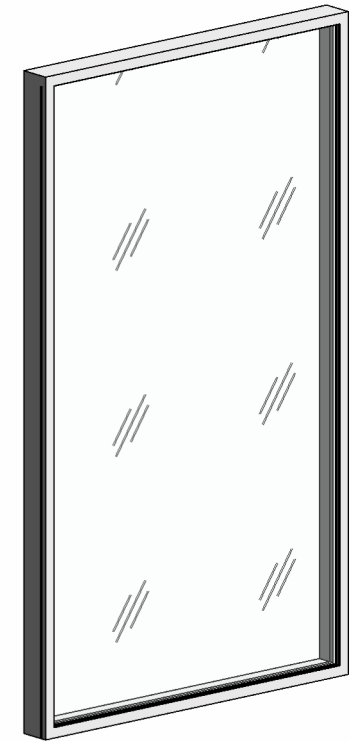
THIS PRODUCT CAN BE COMBINED WITH ANY OTHER FBC APPROVED HARTMAN'S PRODUCTS. PLEASE REFER TO HARTMAN'S FBC APPROVED EUROPEAN MULLIONS TO DETERMINE THE APPROVED MULLION SIZES AND PRESSURES. WHEN MULLED COMBINATIONS ARE USED, THE LOWER DESIGN PRESSURE FROM EACH PRODUCT WILL APPLY TO THE ENTIRE SYSTEM.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

DESIGN PRESSURES:

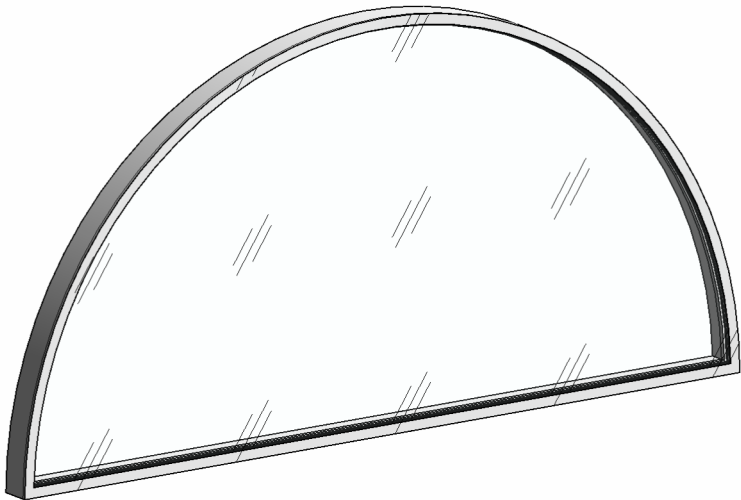
SINGLE FIXED UNIT (O): SEE SHEET 102
SINGLE FIXED ARCHED UNIT (O): SEE SHEET 103
SINGLE FIXED EYEBROW UNIT (O): SEE SHEET 104

GENERAL NOTES:

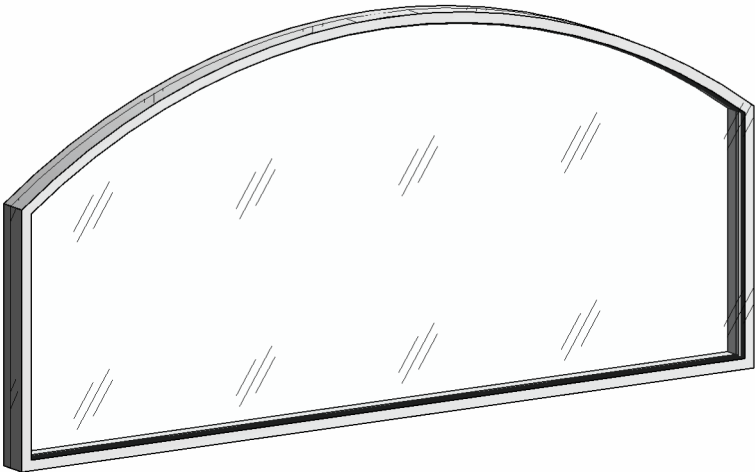
- THIS SYSTEM PRESENTED HEREIN HAS UNDERGONE DESIGN AND TESTING IN FULL COMPLIANCE WITH THE FLORIDA BUILDING CODE EIGHTH EDITION (2023) AND IS INTENDED FOR USE BOTH WITHIN AND OUTSIDE THE HIGH-VELOCITY HURRICANE ZONE (HVHZ) PER TAS 201/202/203.
- THE GLASS CAPACITIES SPECIFIED IN THE CHARTS OF THIS CERTIFICATION 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.



SINGLE FIXED UNIT (O)



SINGLE FIXED ARCHED UNIT (O)



SINGLE FIXED EYEBROW UNIT (O)

HARTMAN WINDOWS & DOORS, LLC.
AMERICAN SERIES DIRECT SET WINDOW
(LARGE AND SMALL MISSILE IMPACT RATED)

FL#19156.1



JAVAD AHMAD PE, inc

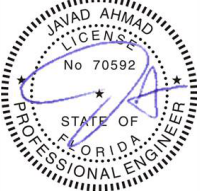
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CONSULTING • STRUCTURAL DESIGN • FACADES • BUILDING ENVELOPE • SYSTEM DESIGN • PRODUCT APPROVALS

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

HARTMAN WINDOWS & DOORS, LLC.
2107 W. BLUE HERON BOULEVARD
WEST PALM BEACH, FL 33404
TELEPHONE: (561) 296-9600
FAX: (561) 296-9601

AG	drawn by:	BS	check by:	REVISION	DESCRIPTION
JA-1425-23	date:	04-15-2024			
drawing no.					
				No.	



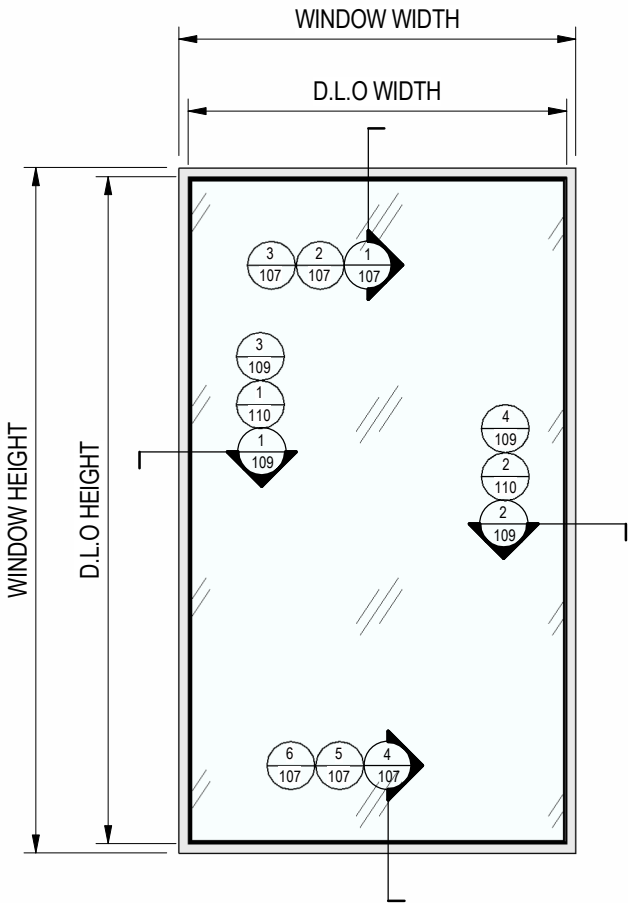
Sealed: 04-15-2024

- 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 #19156.1

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



1
102 SINGLE FIXED UNIT (O) EXTERIOR GLAZED - TYPE 1
N.T.S

LOADING CHART FOR TYPE "1" WINDOW - PRESSURES IN P.S.F. (ASD)																
GLASS TYPES: A, D, HI																
WINDOW WIDTH (IN.)	WINDOW HEIGHT (IN.)															
	24, 30, 36, 42	48	54, 57	66	72	78	84	90, 96	102	108, 113	120	123.25	126	132	138	144
24	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1
30	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1
36	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 45	+ / - 42
42	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 43	+ / - 36
48	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 44	+ / - 42	+ / - 38	-	-
54	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	-	-	-	-	-	-
57	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 46.1	-	-	-	-	-	-
62	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 42	+ / - 42	+ / - 42	+ / - 42	+ / - 42	+ / - 42	-	-	-	-	-	-	-
66	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 39	+ / - 39	+ / - 39	+ / - 39	+ / - 39	-	-	-	-	-	-	-	-
72	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 39	+ / - 36	+ / - 36	+ / - 36	-	-	-	-	-	-	-	-	-
78	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 39	+ / - 36	+ / - 33	-	-	-	-	-	-	-	-	-	-
84	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 39	+ / - 36	-	-	-	-	-	-	-	-	-	-	-
90	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 39	-	-	-	-	-	-	-	-	-	-	-	-
96	+ / - 46.1	+ / - 46.1	+ / - 46.1	+ / - 39	-	-	-	-	-	-	-	-	-	-	-	-
102	+ / - 46.1	+ / - 46.1	+ / - 46.1	-	-	-	-	-	-	-	-	-	-	-	-	-
108	+ / - 46.1	+ / - 46.1	+ / - 46.1	-	-	-	-	-	-	-	-	-	-	-	-	-
113	+ / - 46.1	+ / - 46.1	+ / - 46.1	-	-	-	-	-	-	-	-	-	-	-	-	-
120	+ / - 46.1	+ / - 46.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
123	+ / - 46.1	+ / - 46.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
126	+ / - 46.1	+ / - 46.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
132	+ / - 46.1	+ / - 46.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
138	+ / - 46.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
144	+ / - 46.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LOADING CHART FOR TYPE "1" WINDOW - PRESSURES IN P.S.F. (ASD)																
GLASS TYPES: B, C, E, F, II, JI																
WINDOW WIDTH (IN.)	WINDOW HEIGHT (IN.)															
	24, 30, 36, 42	48	54, 57	66	72	78	84	90, 96	102	108, 113	120	123.25	126	132	138	144
24	+ / - 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
36	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 69	+ / - 63
42	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 65	+ / - 60	+ / - 55
48	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 67	+ / - 64	+ / - 58	-	-
54	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	-	-	-	-	-	-
57	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	-	-	-	-	-	-
62	+ / - 70	+ / - 70	+ / - 70	+ / - 64	+ / - 64	+ / - 64	+ / - 64	+ / - 64	+ / - 64	-	-	-	-	-	-	-
66	+ / - 70	+ / - 70	+ / - 70	+ / - 60	+ / - 60	+ / - 60	+ / - 60	+ / - 60	+ / - 60	-	-	-	-	-	-	-
72	+ / - 70	+ / - 70	+ / - 70	+ / - 60	+ / - 55	+ / - 55	+ / - 55	-	-	-	-	-	-	-	-	-
78	+ / - 70	+ / - 70	+ / - 70	+ / - 60	+ / - 55	+ / - 51	-	-	-	-	-	-	-	-	-	-
84	+ / - 70	+ / - 70	+ / - 70	+ / - 60	+ / - 55	-	-	-	-	-	-	-	-	-	-	-
90	+ / - 70	+ / - 70	+ / - 70	+ / - 60	-	-	-	-	-	-	-	-	-	-	-	-
96	+ / - 70	+ / - 70	+ / - 70	+ / - 60	-	-	-	-	-	-	-	-	-	-	-	-
102	+ / - 70	+ / - 70	+ / - 70	-	-	-	-	-	-	-	-	-	-	-	-	-
108	+ / - 70	+ / - 70	+ / - 70	-	-	-	-	-	-	-	-	-	-	-	-	-
113	+ / - 70	+ / - 70	+ / - 70	-	-	-	-	-	-	-	-	-	-	-	-	-
120	+ / - 70	+ / - 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-
123	+ / - 70	+ / - 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-
126	+ / - 70	+ / - 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-
132	+ / - 70	+ / - 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-
138	+ / - 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
144	+ / - 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



JAVAD AHMAD PE, inc

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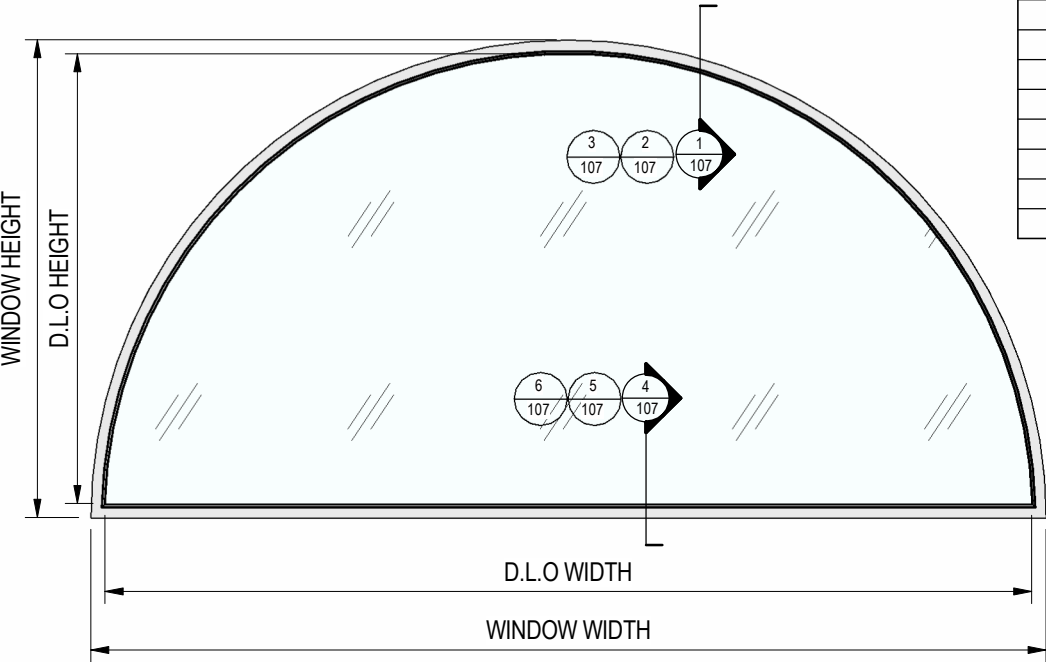
AMERICAN SERIES DIRECT SET
WINDOW
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HARTMAN WINDOWS & DOORS, LLC.
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WEST PALM BEACH, FL 33404
TELEPHONE: (561) 296-9600
FAX: (561) 296-9601

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



Sealed: 04-15-2024



1 SINGLE FIXED ARCHED UNIT (O) EXTERIOR GLAZED - TYPE 2
103 N.T.S

LOADING CHART FOR TYPE "2" WINDOW - PRESSURES IN P.S.F. (ASD)																	
WINDOW WIDTH (IN.)	GLASS TYPES: A, D, HI																
	WINDOW HEIGHT (IN.)																
	24, 30, 36, 42, 48	54	61.625	66	72	78	84	90	96	102	108, 114	120, 123.25	126	132	138	144	
24	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	
30	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	
36	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	
42	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	
48	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 39	+/- 36	
54	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 38	+/- 35	-	
60	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 39	-	-	-	
62	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	+/- 40.3	-	-	-	-	
66	+/- 40.3	+/- 40.3	+/- 40.3	+/- 37	+/- 37	+/- 37	+/- 37	+/- 37	+/- 37	+/- 37	+/- 37	+/- 37	-	-	-	-	
72	+/- 40.3	+/- 40.3	+/- 40.3	+/- 37	+/- 34	+/- 34	+/- 34	+/- 34	+/- 34	+/- 34	-	-	-	-	-	-	
78	+/- 40.3	+/- 40.3	+/- 40.3	+/- 37	+/- 34	+/- 31	+/- 31	+/- 31	+/- 31	-	-	-	-	-	-	-	
84	+/- 40.3	+/- 40.3	+/- 40.3	+/- 37	+/- 34	+/- 31	+/- 29	+/- 29	-	-	-	-	-	-	-	-	
90	+/- 40.3	+/- 40.3	+/- 40.3	+/- 37	+/- 34	+/- 31	+/- 29	-	-	-	-	-	-	-	-	-	
96	+/- 40.3	+/- 40.3	+/- 40.3	+/- 37	+/- 34	+/- 31	-	-	-	-	-	-	-	-	-	-	
102	+/- 40.3	+/- 40.3	+/- 40.3	+/- 37	+/- 34	-	-	-	-	-	-	-	-	-	-	-	
108	+/- 40.3	+/- 40.3	+/- 40.3	+/- 37	-	-	-	-	-	-	-	-	-	-	-	-	
114	+/- 40.3	+/- 40.3	+/- 40.3	+/- 37	-	-	-	-	-	-	-	-	-	-	-	-	
120	+/- 40.3	+/- 40.3	+/- 40.3	-	-	-	-	-	-	-	-	-	-	-	-	-	
123	+/- 40.3	+/- 40.3	+/- 40.3	-	-	-	-	-	-	-	-	-	-	-	-	-	
126	+/- 40.3	+/- 40.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
132	+/- 40.3	+/- 40.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
138	+/- 40.3	+/- 40.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
144	+/- 40.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

LOADING CHART FOR TYPE "2" WINDOW - PRESSURES IN P.S.F. (ASD)																		
WINDOW WIDTH (IN.)	GLASS TYPES: B, C, E, F, II, JI																	
	WINDOW HEIGHT (IN.)																	
	24, 30, 36, 42, 48	54	61.625	66	72	78	84	90	96	102	108	114	120	123.5	126	132	138	144
24	+/- 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
36	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70
42	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70
48	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 68	+/- 62
54	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 67	+/- 61	-
60	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 68	-	-	-
61.6	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	+/- 70	-	-	-	-
66	+/- 70	+/- 70	+/- 70	+/- 65	+/- 65	+/- 65	+/- 65	+/- 65	+/- 65	+/- 65	+/- 65	+/- 65	-	-	-	-	-	-
72	+/- 70	+/- 70	+/- 70	+/- 65	+/- 59	+/- 59	+/- 59	+/- 59	+/- 59	+/- 59	-	-	-	-	-	-	-	-
78	+/- 70	+/- 70	+/- 70	+/- 65	+/- 59	+/- 55	+/- 55	+/- 55	+/- 55	-	-	-	-	-	-	-	-	-
84	+/- 70	+/- 70	+/- 70	+/- 65	+/- 59	+/- 55	+/- 51	+/- 51	-	-	-	-	-	-	-	-	-	-
90	+/- 70	+/- 70	+/- 70	+/- 65	+/- 59	+/- 55	+/- 51	-	-	-	-	-	-	-	-	-	-	-
96	+/- 70	+/- 70	+/- 70	+/- 65	+/- 59	+/- 55	-	-	-	-	-	-	-	-	-	-	-	-
102	+/- 70	+/- 70	+/- 70	+/- 65	+/- 59	-	-	-	-	-	-	-	-	-	-	-	-	-
108	+/- 70	+/- 70	+/- 70	+/- 65	-	-	-	-	-	-	-	-	-	-	-	-	-	-
114	+/- 70	+/- 70	+/- 70	+/- 65	-	-	-	-	-	-	-	-	-	-	-	-	-	-
120	+/- 70	+/- 70	+/- 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
123	+/- 70	+/- 70	+/- 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
126	+/- 70	+/- 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
132	+/- 70	+/- 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
138	+/- 70	+/- 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
144	+/- 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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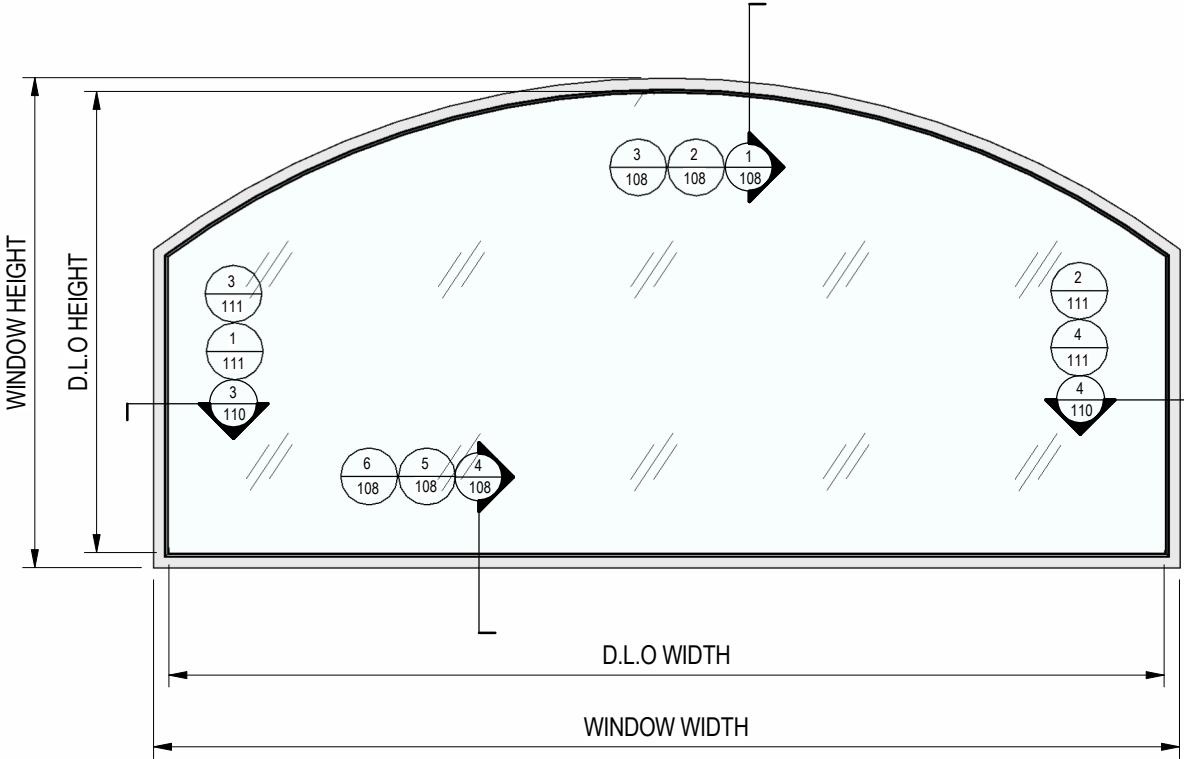
AMERICAN SERIES DIRECT SET WINDOW
(LARGE AND SMALL MISSILE IMPACT RATED)

HARTMAN WINDOWS & DOORS, LLC.
2107 W. BLUE HERON BOULEVARD
WEST PALM BEACH, FL 33404
TELEPHONE: (561) 296-9600
FAX: (561) 296-9601

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No.	DATE	BY	DESCRIPTION		



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LOADING CHART FOR TYPE "3" WINDOW - PRESSURES IN P.S.F. (ASD)																
WINDOW WIDTH (IN.)	GLASS TYPES: A, D, HI															
	WINDOW HEIGHT (IN.)															
	24, 30, 36, 42, 48, 54	63.5	66	72	78	84	90	96	102	108	114	120	127.5	132	138	144
24	+ / - 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
36	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70
42	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70
48	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 38
54	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 37	+ / - 34
60	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 37	-	-
63.5	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	-	-	-
66	+ / - 70	+ / - 70	+ / - 37	+ / - 37	+ / - 37	+ / - 37	+ / - 37	+ / - 37	+ / - 37	+ / - 37	+ / - 37	+ / - 37	-	-	-	-
72	+ / - 70	+ / - 70	+ / - 37	+ / - 34	+ / - 34	+ / - 34	+ / - 34	+ / - 34	+ / - 34	+ / - 34	-	-	-	-	-	-
78	+ / - 70	+ / - 70	+ / - 37	+ / - 34	+ / - 31	+ / - 31	+ / - 31	+ / - 31	+ / - 31	-	-	-	-	-	-	-
84	+ / - 70	+ / - 70	+ / - 37	+ / - 34	+ / - 31	+ / - 29	+ / - 29	+ / - 29	-	-	-	-	-	-	-	-
90	+ / - 70	+ / - 70	+ / - 37	+ / - 34	+ / - 31	+ / - 29	-	-	-	-	-	-	-	-	-	-
96	+ / - 70	+ / - 70	+ / - 37	+ / - 34	+ / - 31	+ / - 29	-	-	-	-	-	-	-	-	-	-
102	+ / - 70	+ / - 70	+ / - 37	+ / - 34	+ / - 31	-	-	-	-	-	-	-	-	-	-	-
108	+ / - 70	+ / - 70	+ / - 37	+ / - 34	-	-	-	-	-	-	-	-	-	-	-	-
114	+ / - 70	+ / - 70	+ / - 37	-	-	-	-	-	-	-	-	-	-	-	-	-
120	+ / - 70	+ / - 70	+ / - 37	-	-	-	-	-	-	-	-	-	-	-	-	-
123	+ / - 70	+ / - 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-
126	+ / - 70	+ / - 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-
132	+ / - 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
138	+ / - 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
144	+ / - 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LOADING CHART FOR TYPE "3" WINDOW - PRESSURES IN P.S.F. (ASD)																
WINDOW WIDTH (IN.)	GLASS TYPES: B, C, E, F, II, JI															
	WINDOW HEIGHT (IN.)															
	24, 30, 36, 42, 48, 54	63.5	66	72	78	84	90	96	102	108	114	120	127.5	132	138	144
24	+ / - 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
36	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70
42	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70
48	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 69
54	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 67	+ / - 32
60	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 68	-	-
64	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	+ / - 70	-	-	-
66	+ / - 70	+ / - 70	+ / - 67	+ / - 67	+ / - 67	+ / - 67	+ / - 67	+ / - 67	+ / - 67	+ / - 37	+ / - 67	+ / - 67	-	-	-	-
72	+ / - 70	+ / - 70	+ / - 67	+ / - 61	+ / - 61	+ / - 61	+ / - 61	+ / - 61	+ / - 61	+ / - 61	-	-	-	-	-	-
78	+ / - 70	+ / - 70	+ / - 67	+ / - 61	+ / - 56	+ / - 56	+ / - 56	+ / - 56	+ / - 56	-	-	-	-	-	-	-
84	+ / - 70	+ / - 70	+ / - 67	+ / - 61	+ / - 56	+ / - 52	+ / - 52	+ / - 52	-	-	-	-	-	-	-	-
90	+ / - 70	+ / - 70	+ / - 67	+ / - 61	+ / - 56	+ / - 52	-	-	-	-	-	-	-	-	-	-
96	+ / - 70	+ / - 70	+ / - 67	+ / - 61	+ / - 56	+ / - 52	-	-	-	-	-	-	-	-	-	-
102	+ / - 70	+ / - 70	+ / - 67	+ / - 61	+ / - 56	-	-	-	-	-	-	-	-	-	-	-
108	+ / - 70	+ / - 70	+ / - 67	+ / - 61	-	-	-	-	-	-	-	-	-	-	-	-
114	+ / - 70	+ / - 70	+ / - 67	-	-	-	-	-	-	-	-	-	-	-	-	-
120	+ / - 70	+ / - 70	+ / - 67	-	-	-	-	-	-	-	-	-	-	-	-	-
123	+ / - 70	+ / - 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-
128	+ / - 70	+ / - 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-
132	+ / - 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
138	+ / - 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
144	+ / - 70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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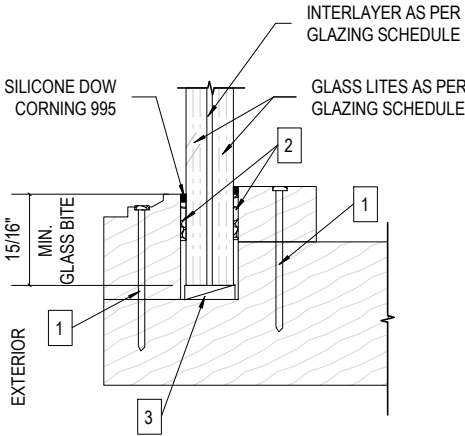
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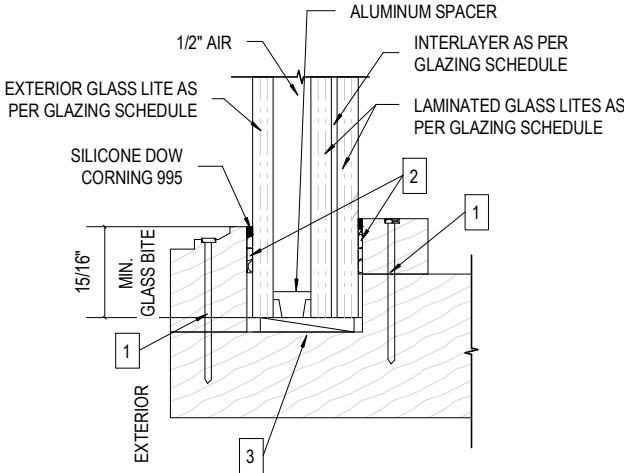
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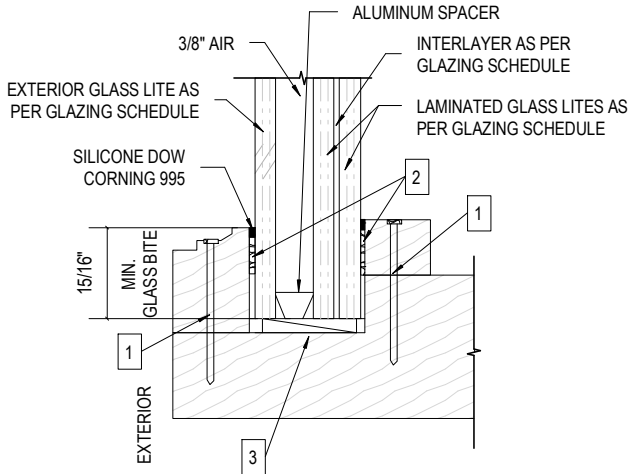
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GLAZING DETAIL FOR GLASS TYPE A, B, C, D, E, F



GLAZING DETAIL FOR GLASS TYPE GI, JI



GLAZING DETAIL FOR GLASS TYPE HI, II

- 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

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

ALTERNATE WINDOW SHAPES

(REFER WINDOW TYPE 1 ONLY FOR MAX. SIZE)

FL#19156.1



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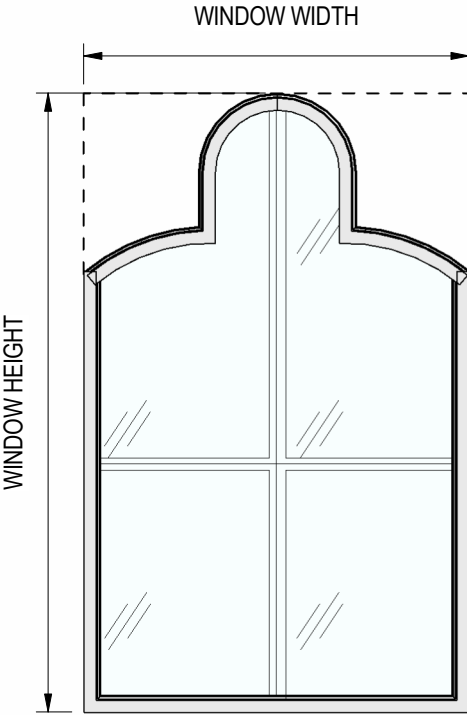
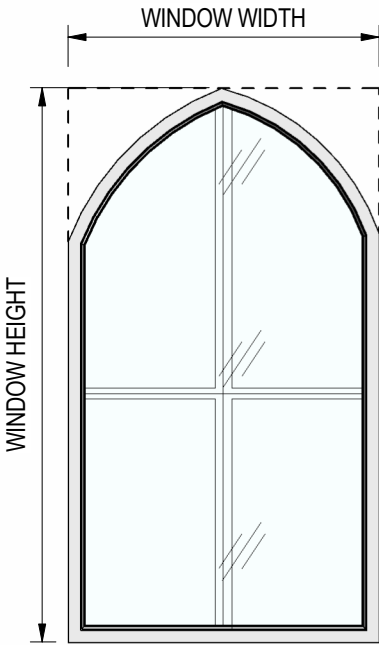
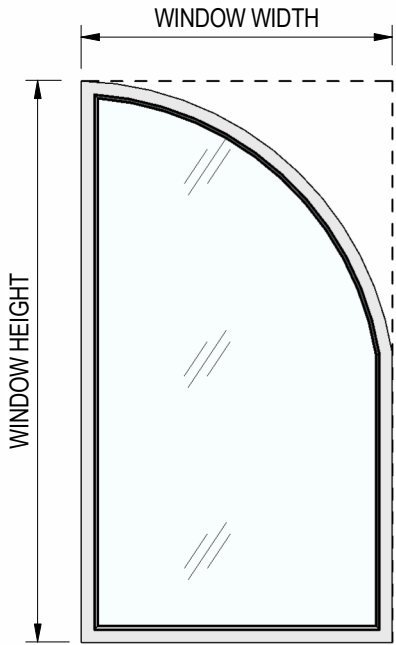
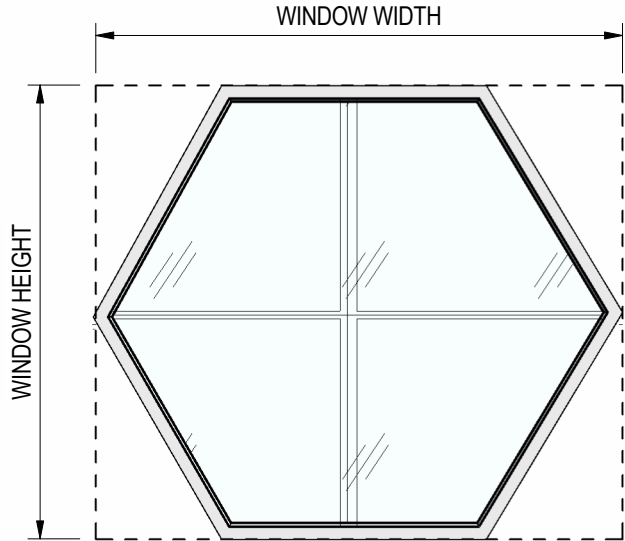
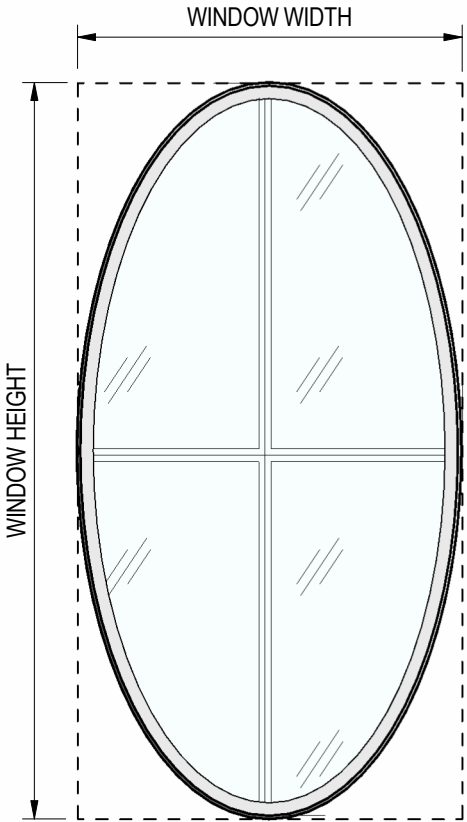
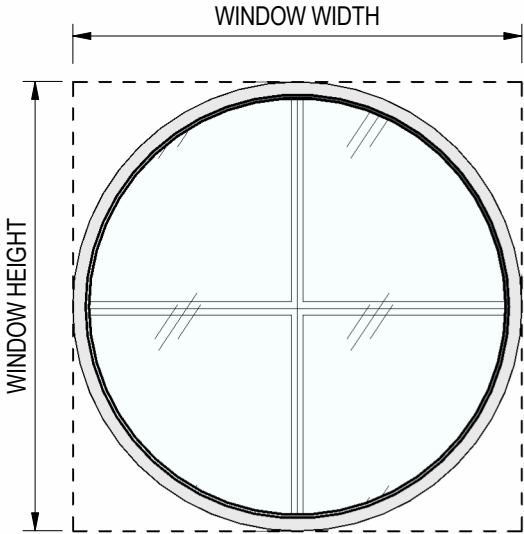
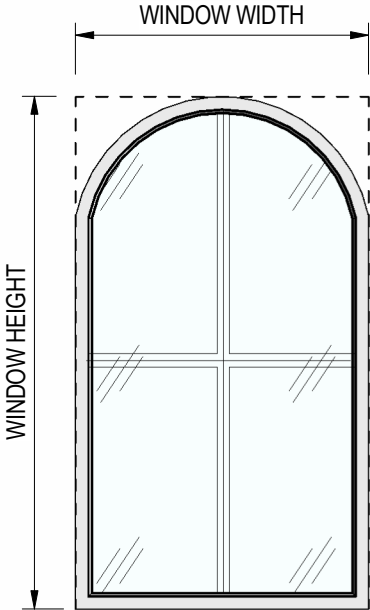
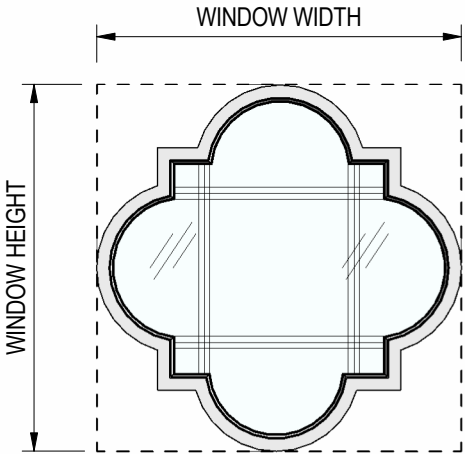
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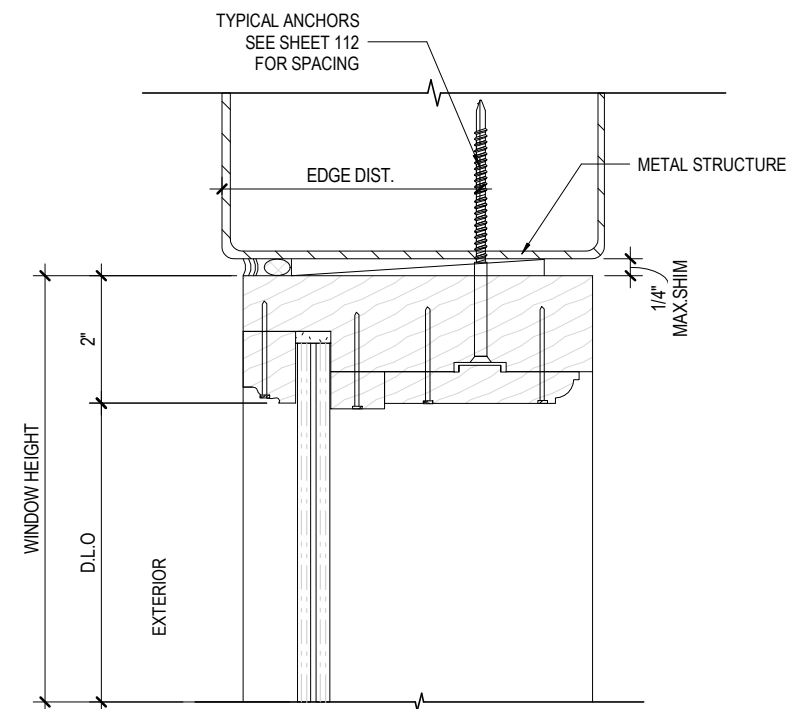
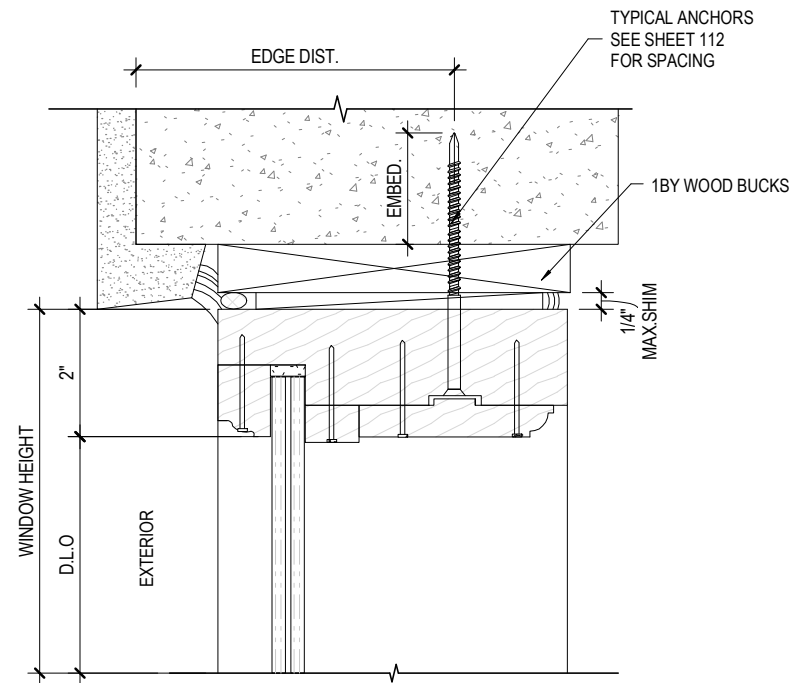
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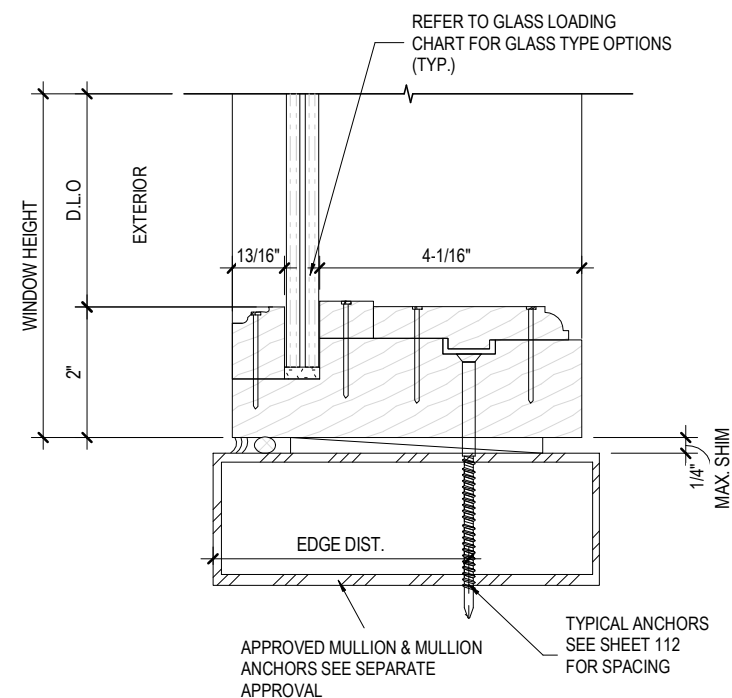
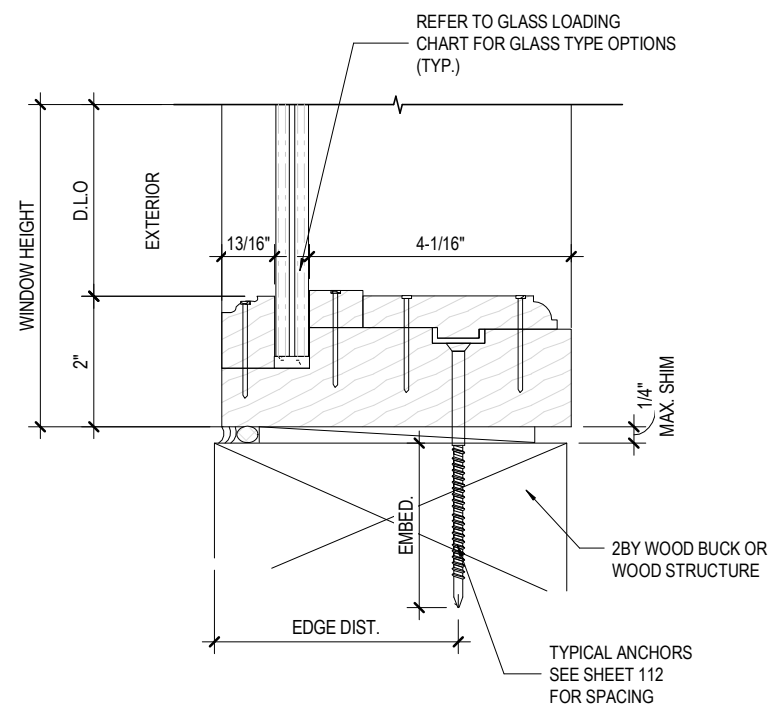


TO OBTAIN ALLOWABLE PRESSURE FOR ALTERNATIVE WINDOW SHAPES
- INSCRIBE ALTERNATIVE SHAPE IN A RECTANGULAR BOX, AS SHOWN
- USE THE WIDTH AND HEIGHT OF THE BOX TO DETERMINE THE ALLOWABLE PRESSURES

FL#19156.1

2 HEAD DETAIL INTO CONCRETE
107 N.T.S

3 HEAD DETAIL INTO METAL STRUCTURES
107 N.T.S



5 SILL DETAIL INTO WOOD STRUCTURE
107 N.T.S

6
107



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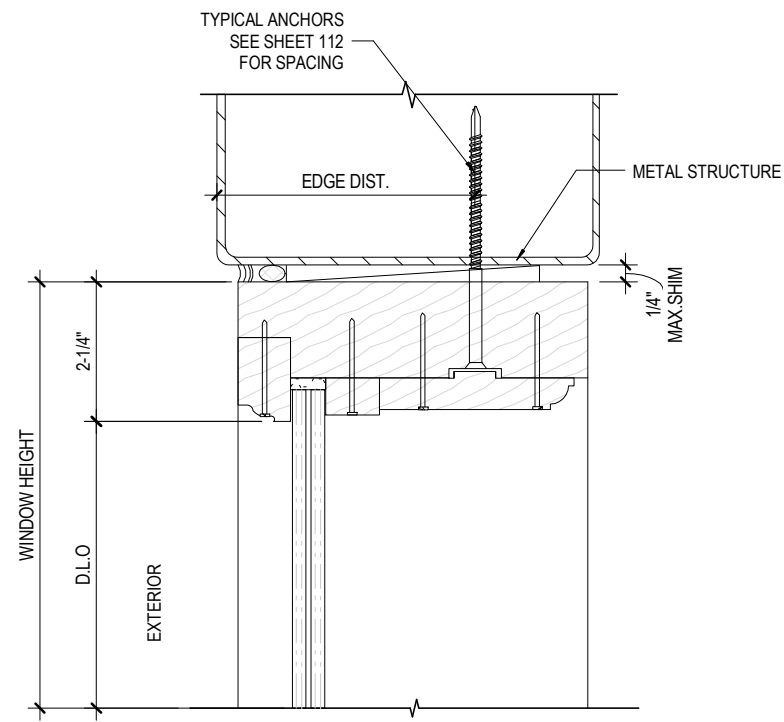
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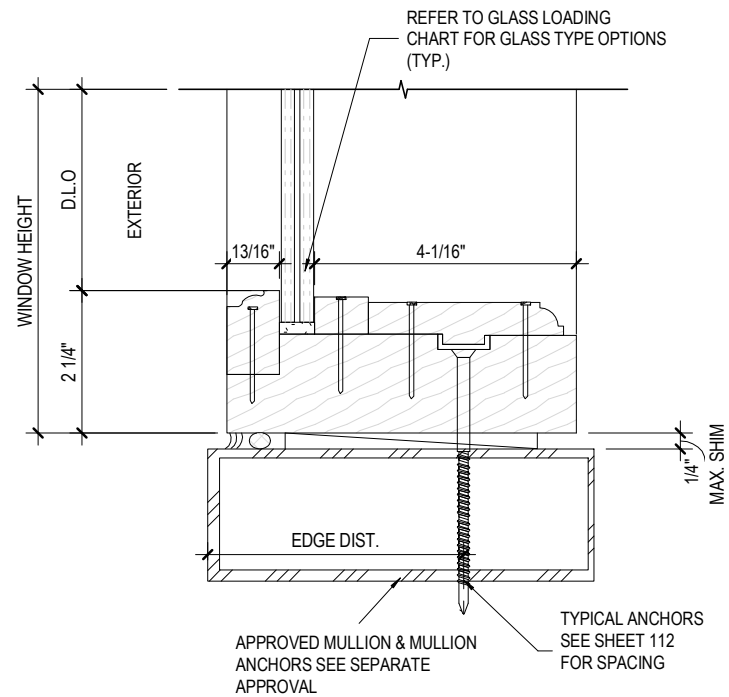


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FL#19156.1



3 HEAD DETAIL INTO METAL STRUCTURES
108 N.T.S



6	SILL DETAIL
108	N.T.S



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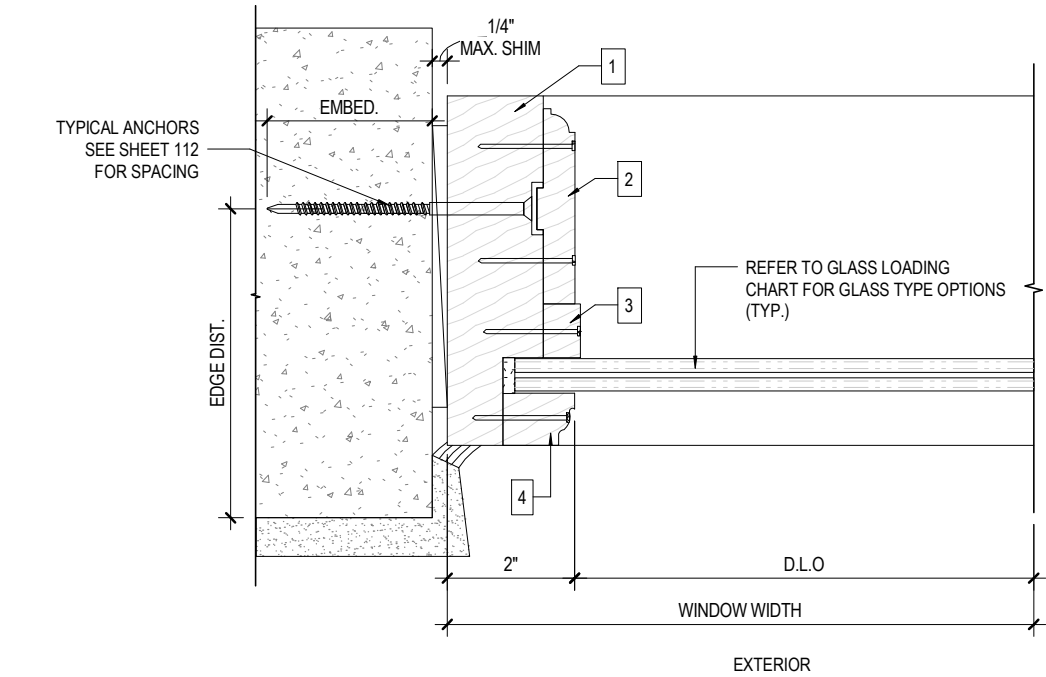
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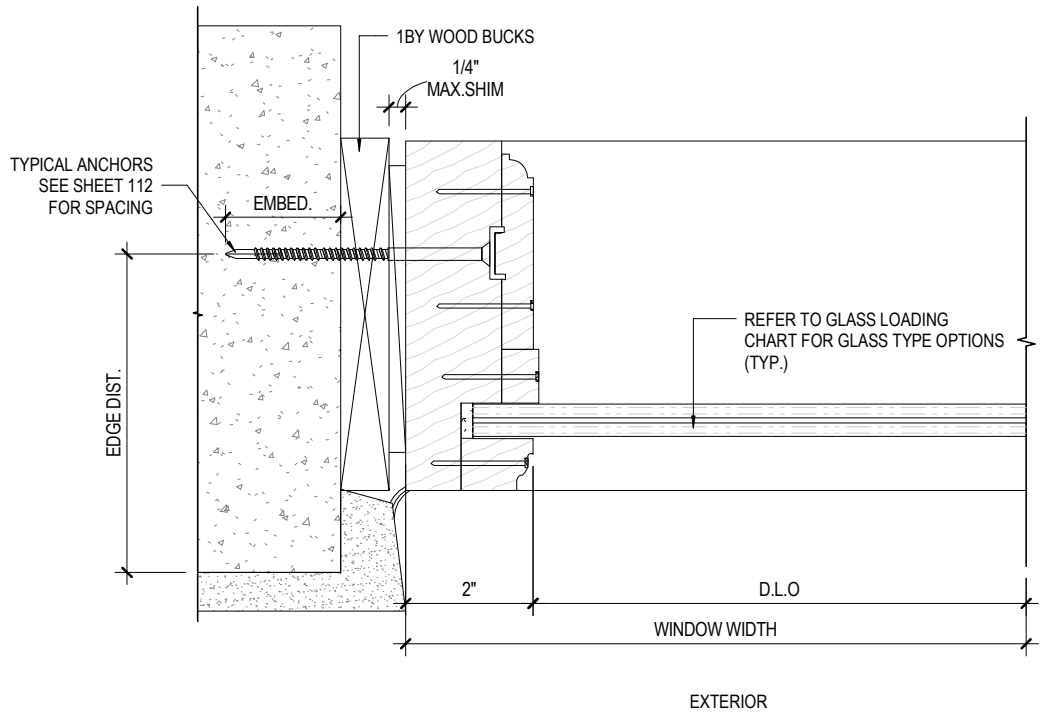
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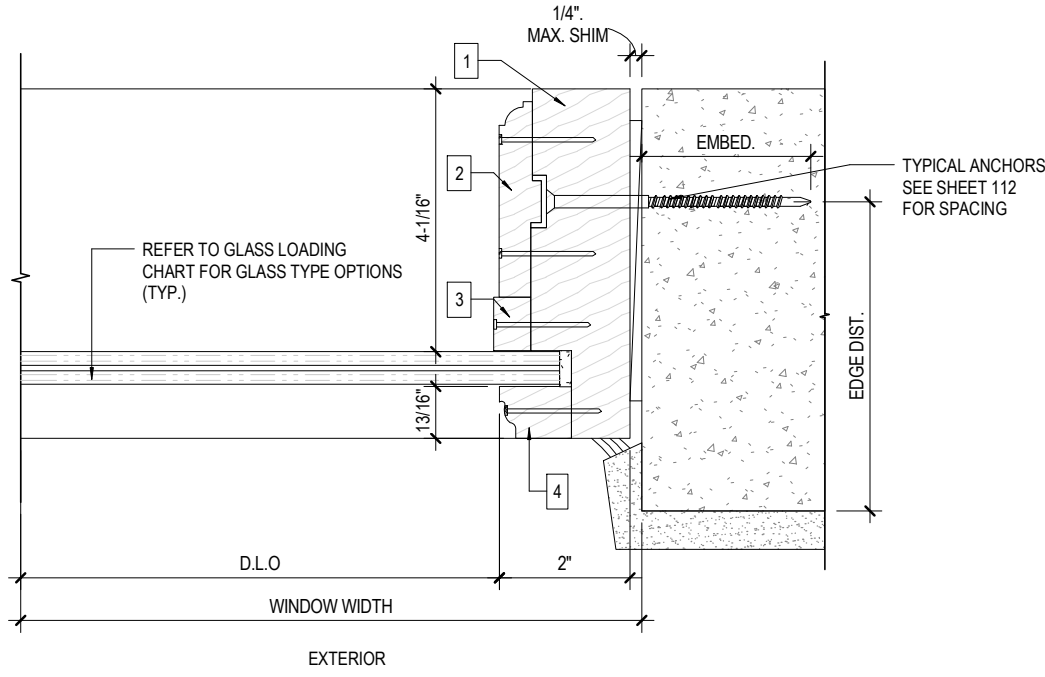
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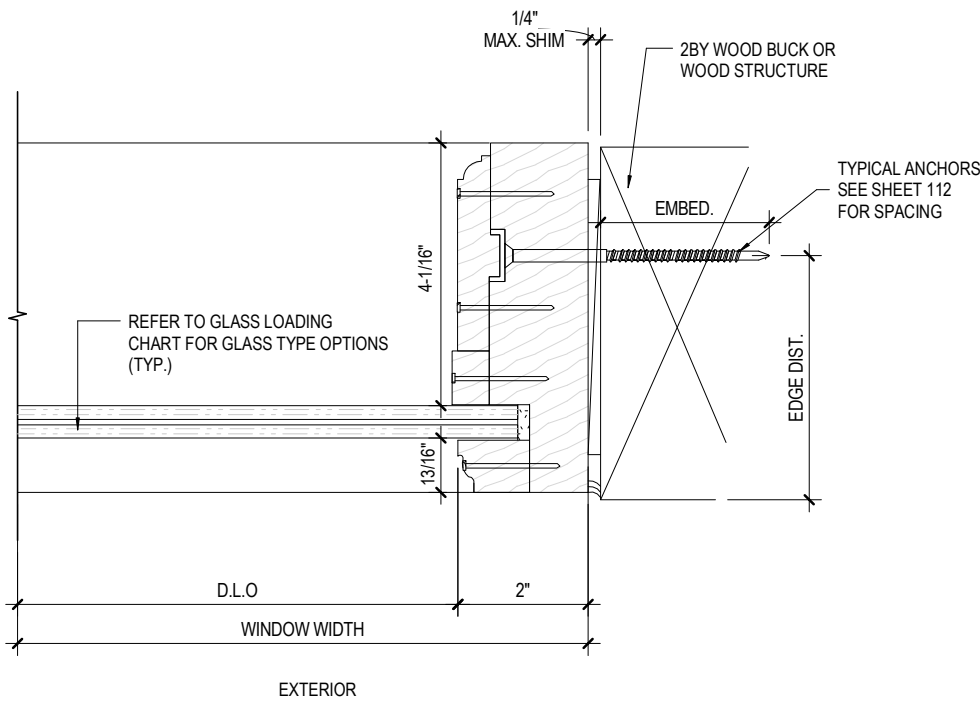
1
109 JAMB DETAIL INTO CONCRETE
N.T.S



3
109 JAMB DETAIL INTO CONCRETE
N.T.S



2
109 JAMB DETAIL INTO CONCRETE
N.T.S



4
109 JAMB DETAIL INTO WOOD STRUCTURE
N.T.S



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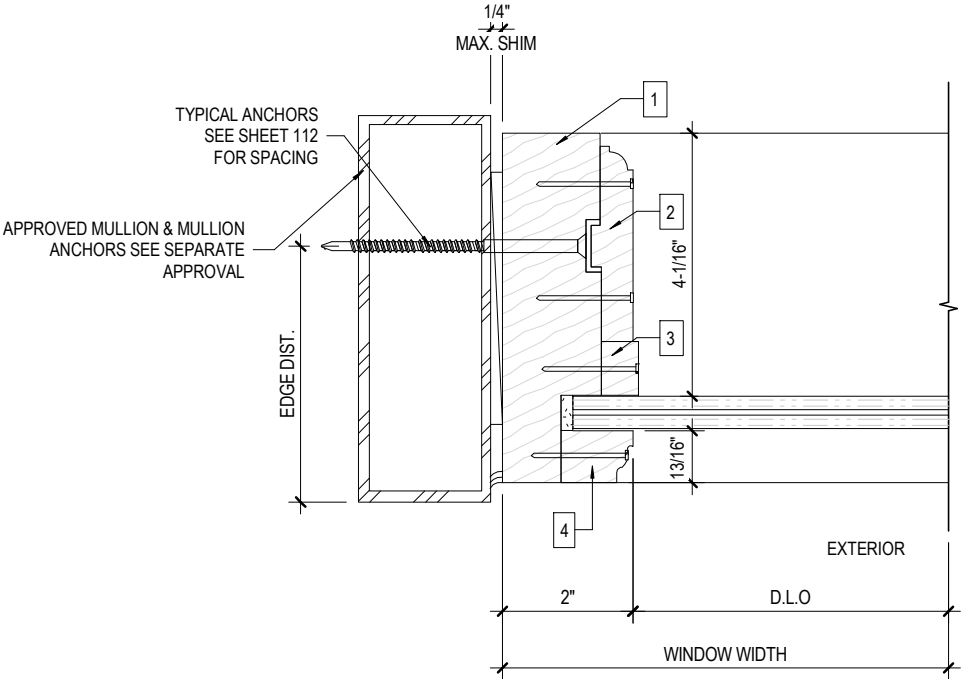
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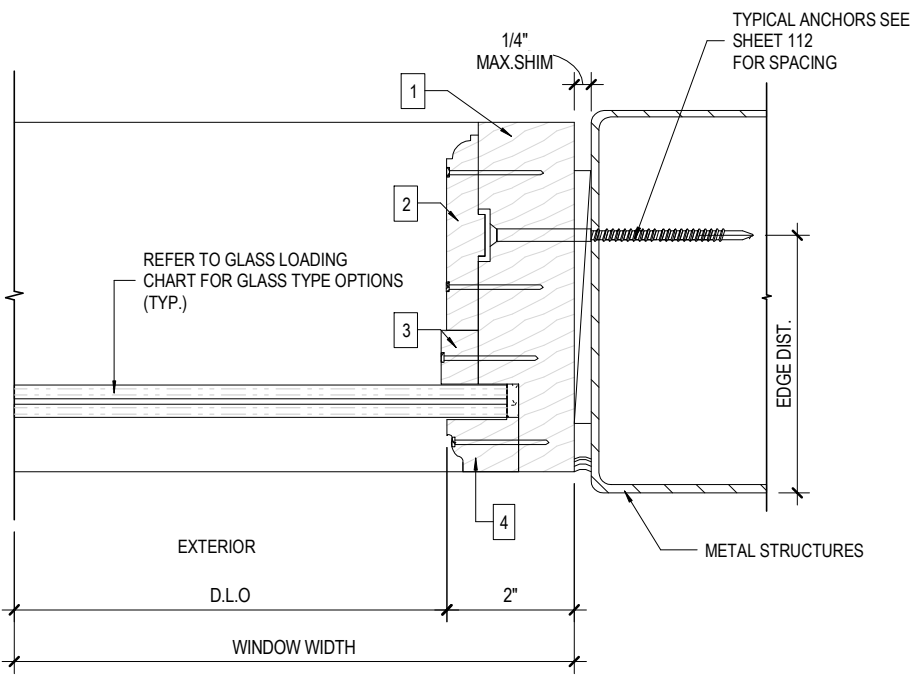
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					No.			

JAVAD AHMAD
LICENSE
No 70592
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

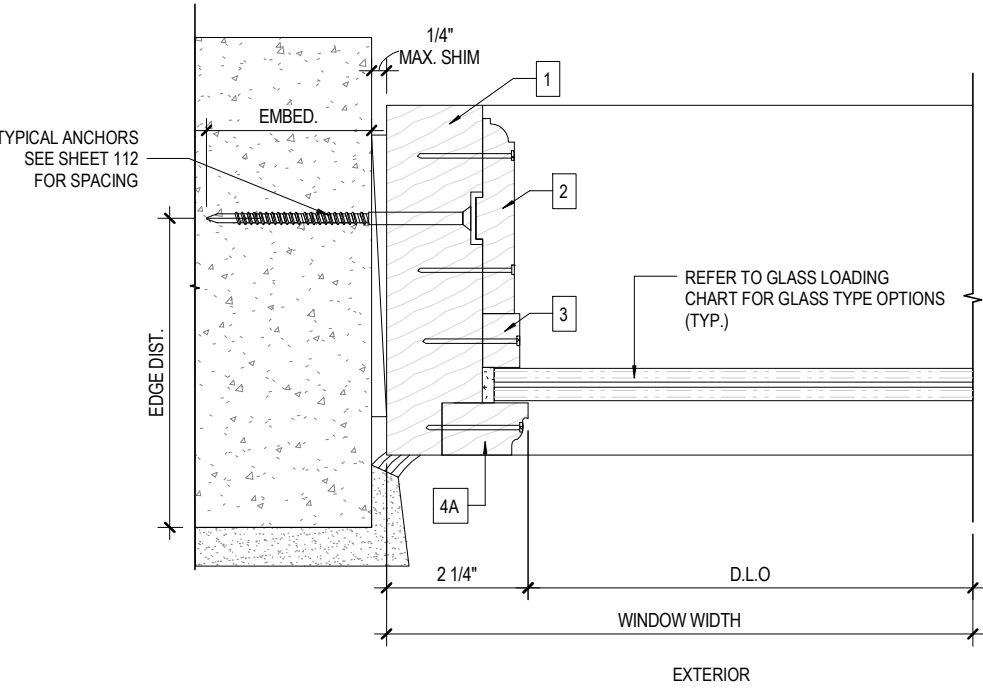
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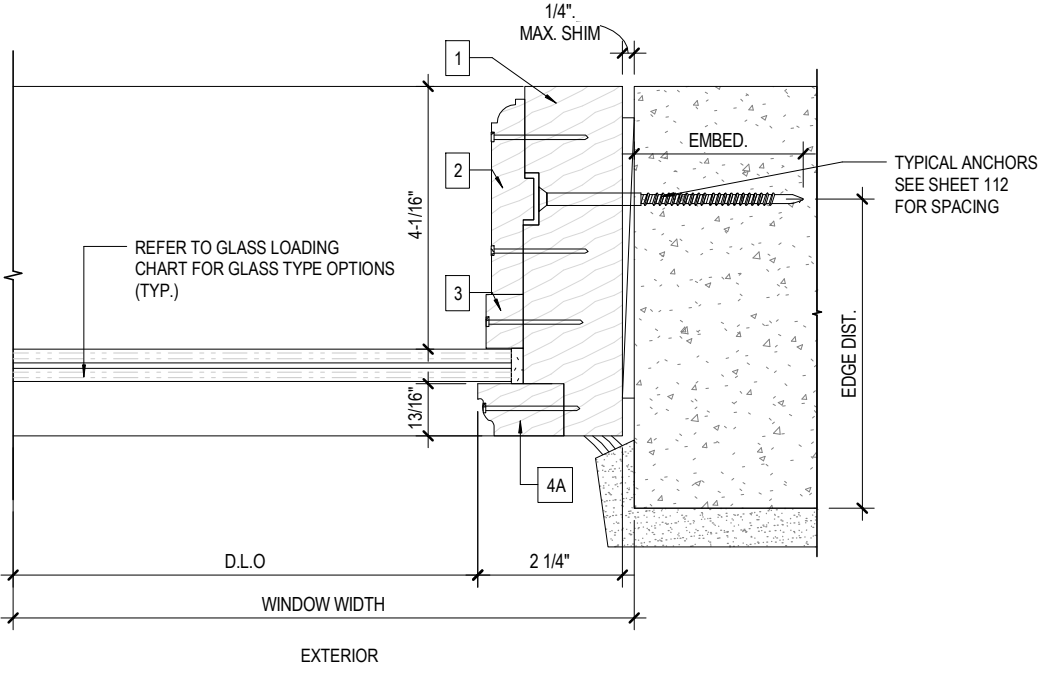
1 JAMB DETAIL
110 N.T.S



2 JAMB DETAIL INTO METAL STRUCTURE
110 N.T.S



3 JAMB DETAIL INTO CONC.
110 N.T.S



4 JAMB DETAIL INTO CONC.
110 N.T.S



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WINDOW
(LARGE AND SMALL MISSILE IMPACT RATED)

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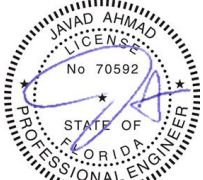
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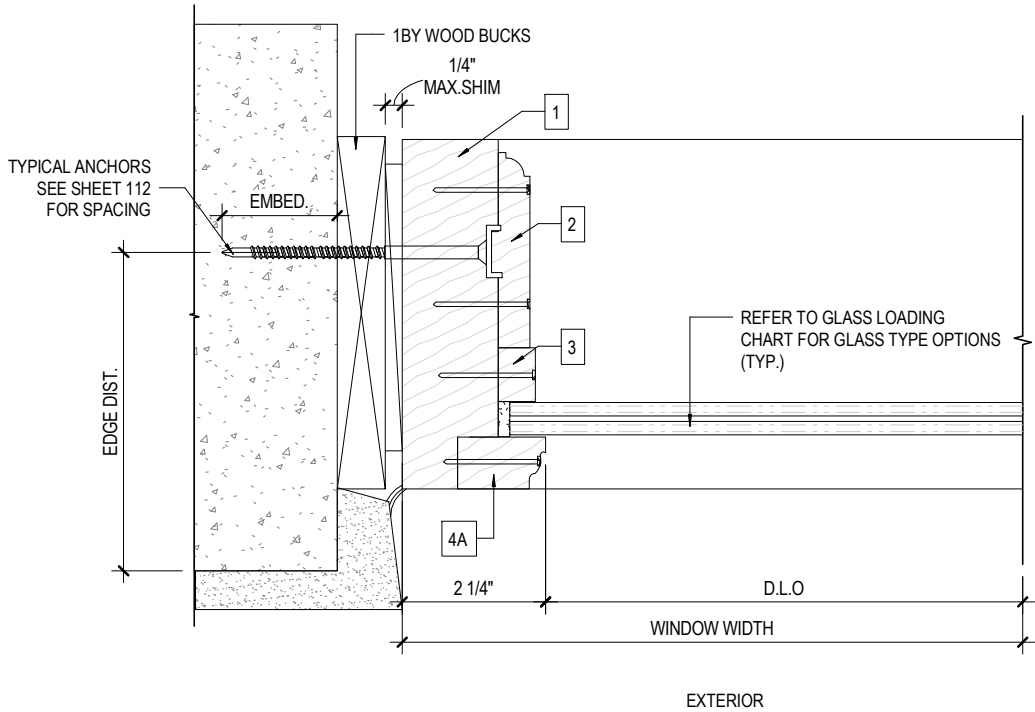
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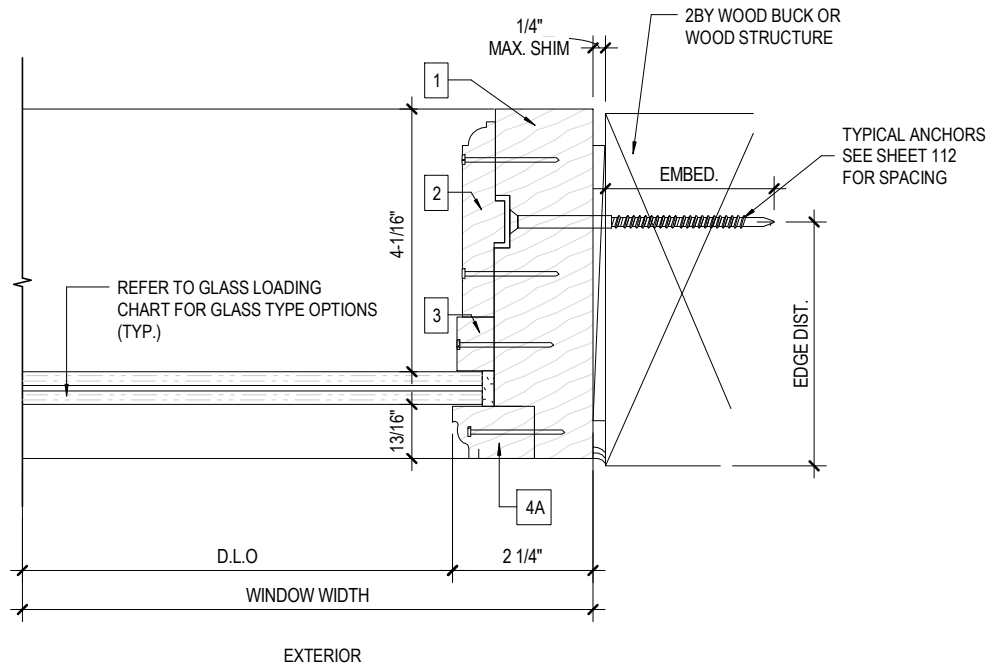
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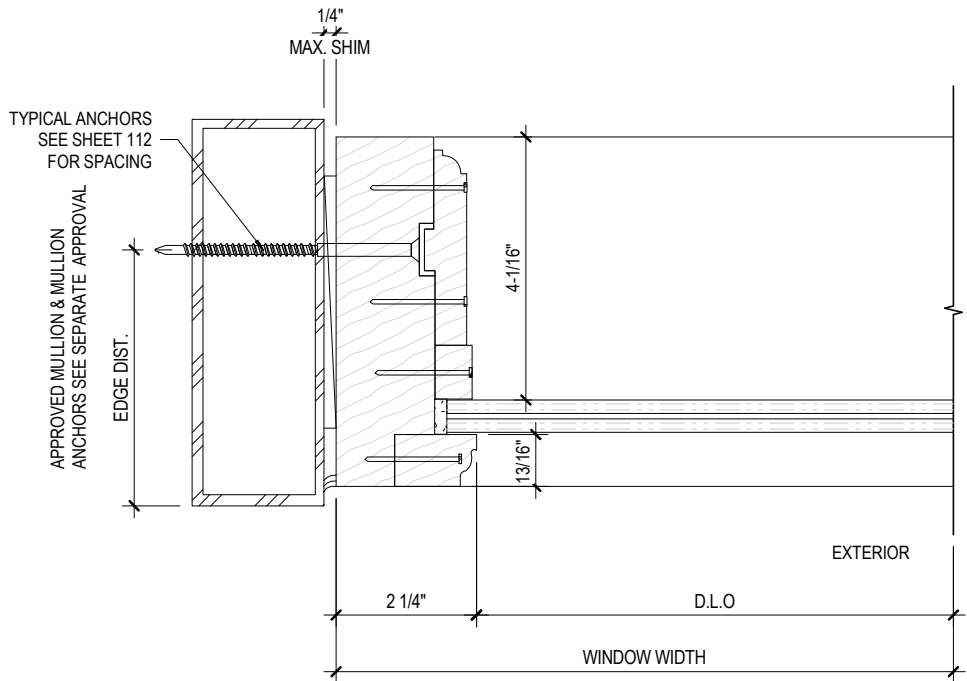
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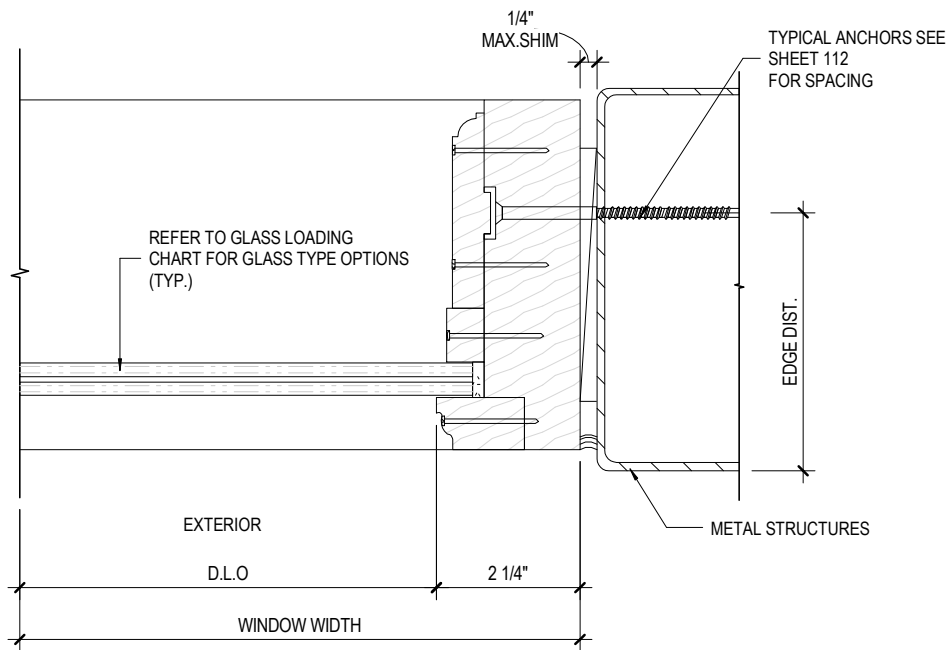
1
111 JAMB DETAIL INTO CONC.
N.T.S



2
111 JAMB DETAIL INTO WOOD STRUCTURE
N.T.S

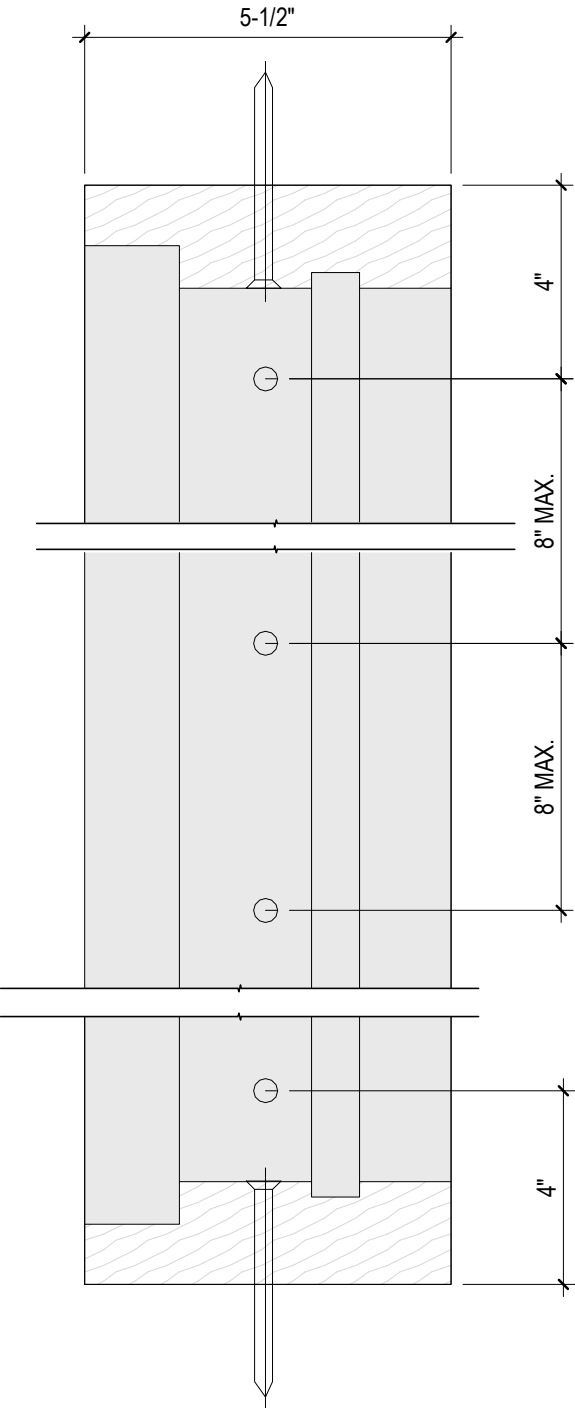


3
111 JAMB DETAIL
N.T.S

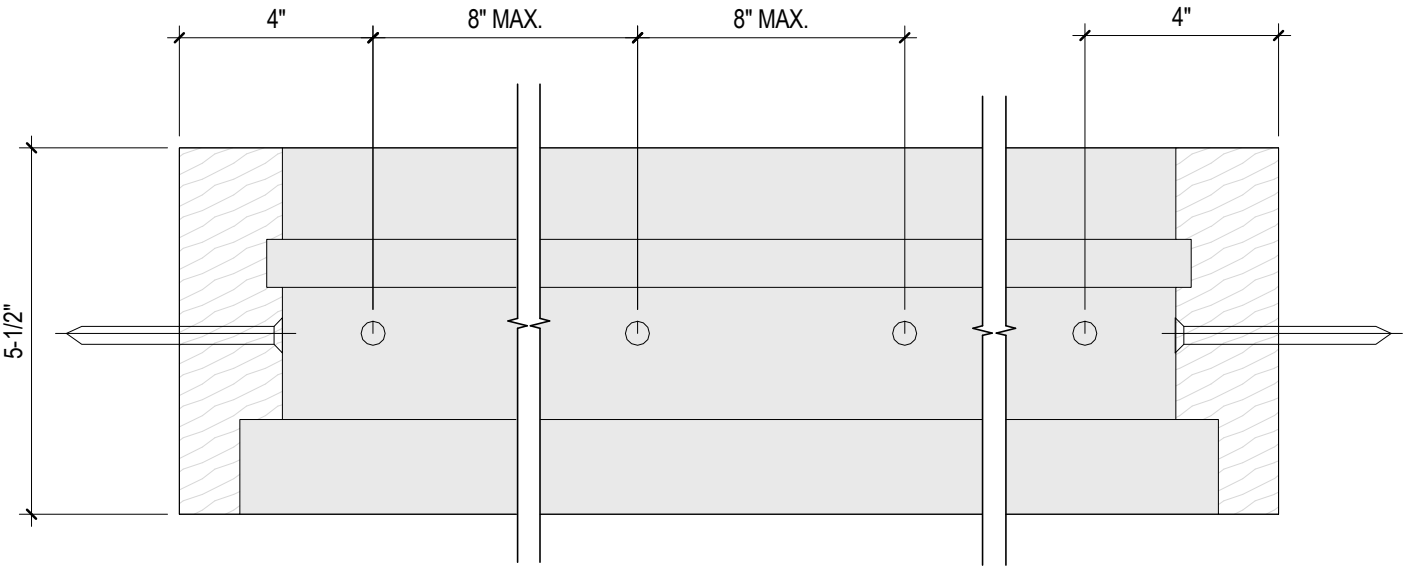


4
111 JAMB DETAIL INTO METAL STRUCTURE
N.T.S

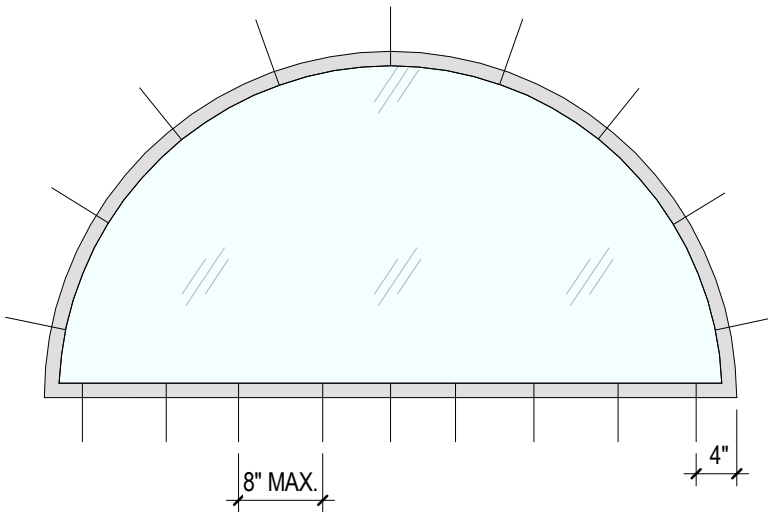
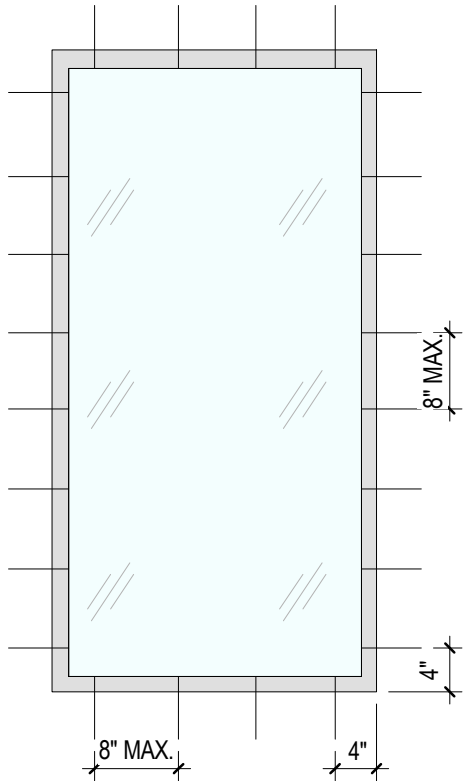
ANCHOR SPACING LAYOUT



JAMB ANCHOR LAYOUT



HEAD/SILL ANCHOR LAYOUT



FL#19156.1

TYPICAL ANCHOR TYPES
(APPLIES TO ANCHOR GOING THRU THE WINDOW FRAME)

TYPE A - 1/4" DEWALT ULTRACON (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" "TEKS" 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= 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

- #14 316 SS SMS OR SDS IS PERMITTED TO BE SUBSTITUTED WITH TEKS SCREWS

NOTE:
FOR INSTRUCTIONS ON HOW TO ANCHOR THIS PRODUCT USING CLIPS, STRAPS, OR ANGLES, PLEASE REFER TO PAGES 113 FOR DETAILS REGARDING THE ANCHOR TYPE AND SPACING.



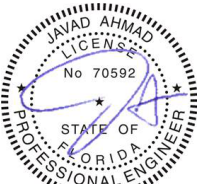
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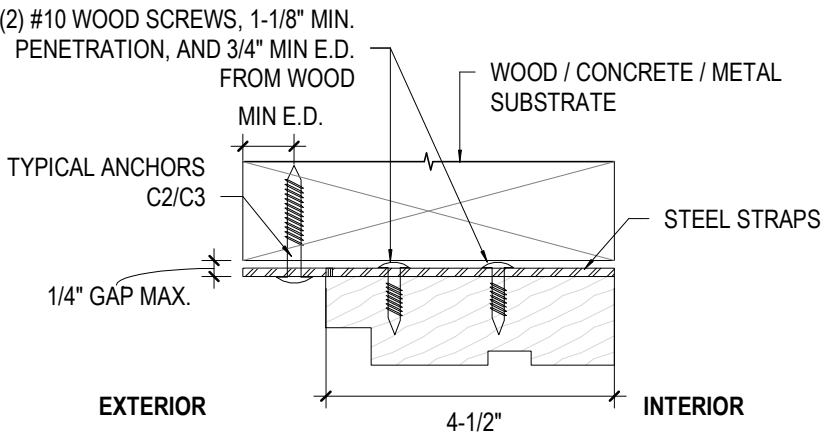
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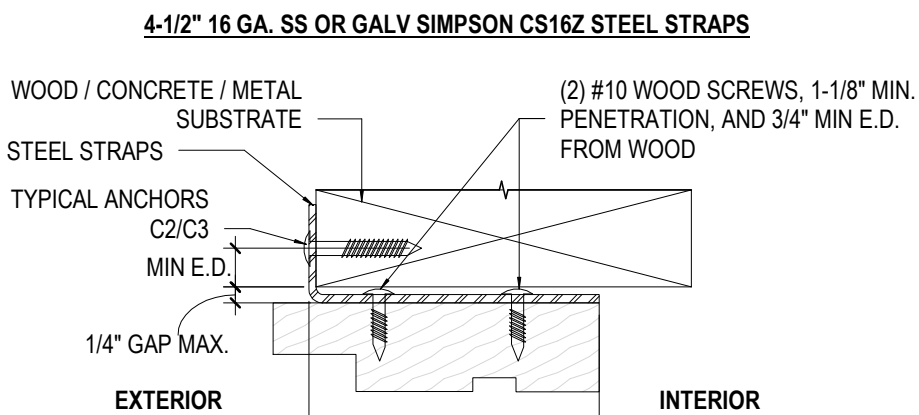


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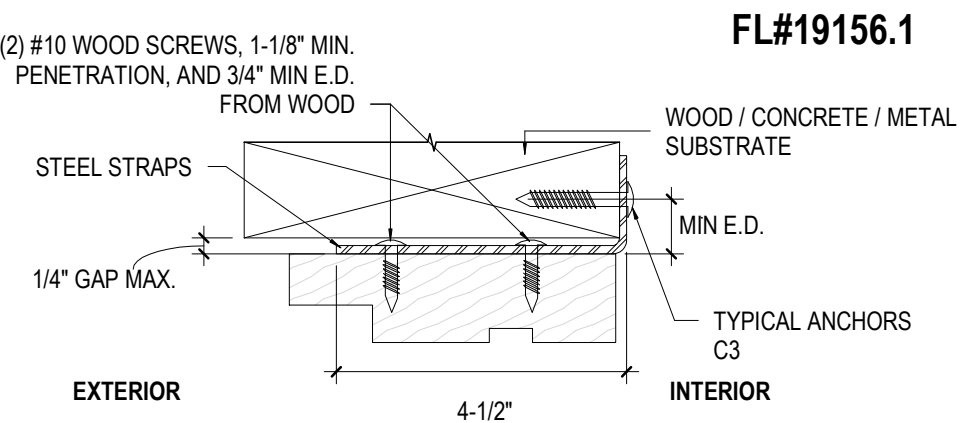
ALTERNATE ANCHORING



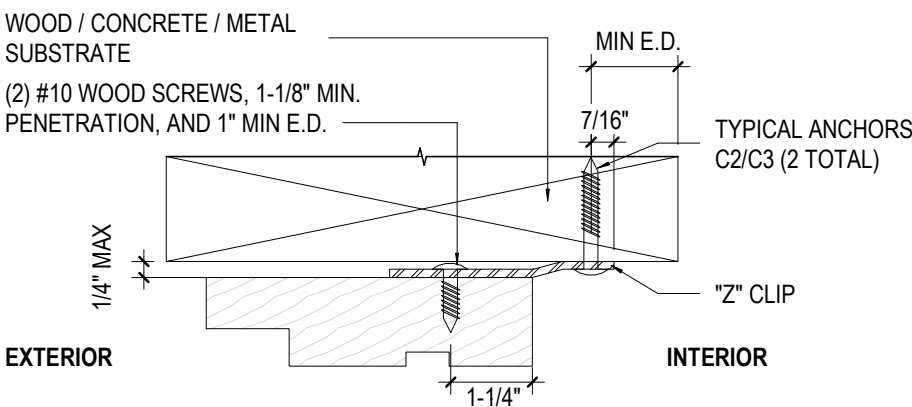
1
113
EXTERIOR FLAT STRAP
N.T.S



2
113
EXTERIOR BENT STRAP
N.T.S

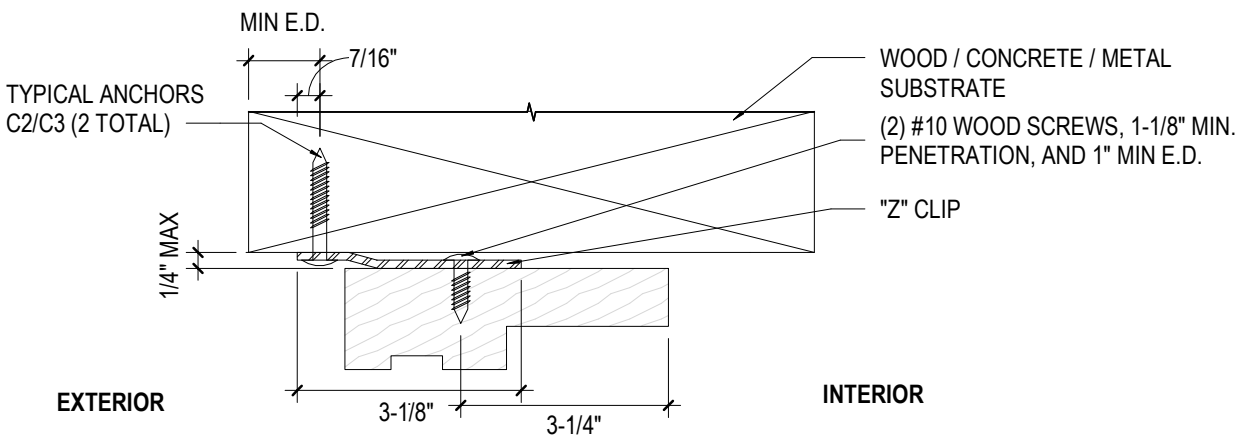


3
113
INTERIOR BENT STRAP
N.T.S



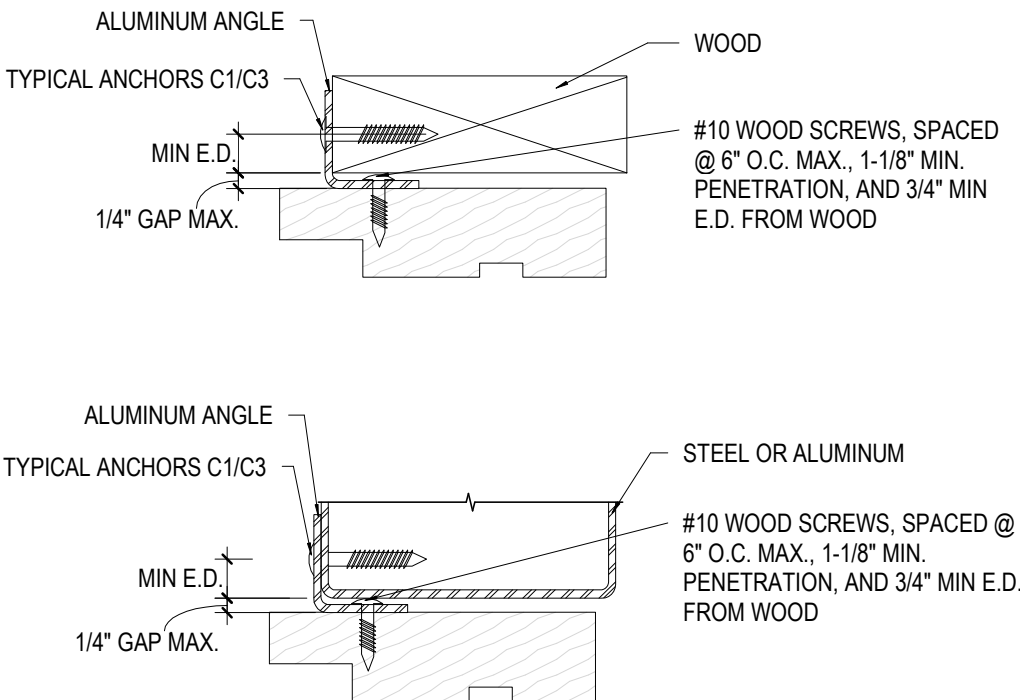
4
113
INTERIOR Z-CLIP STRAP
N.T.S

GALVANIZED STEEL "Z" CLIP (14 GA)



5
113
EXTERIOR Z-CLIP STRAP
N.T.S

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.)-

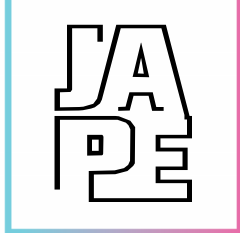
- ANCHORS C1/C2/C3 SHALL BE PLACED AT-
- MAX. 6" O.C. SPACING
- MAX. 3" FROM UNIT CORNER FOR HEAD
- MAX. 4" FROM UNIT CORNER FOR JAMB

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 112

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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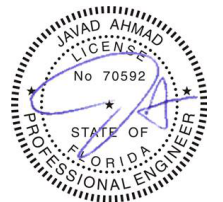
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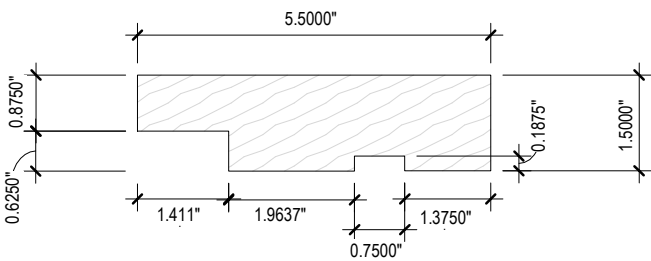
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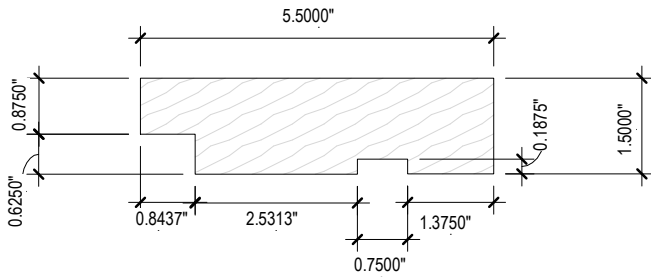
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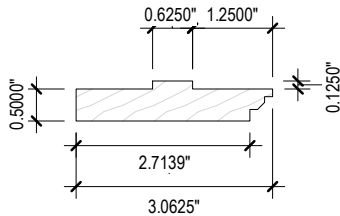


1 HEAD, JAMB AND SILL
(EXTERIOR GLAZED)

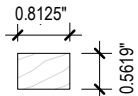


1A HEAD, JAMB AND SILL
(INTERIOR GLAZED)

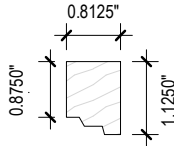
ITEM #	REQD.	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	-	HEAD, JAMB AND SILL (EXTERIOR GLAZED)	WOOD	MAHOGANY OR EQUAL
1A	-	HEAD, JAMB AND SILL (INTERIOR GLAZED)	WOOD	MAHOGANY OR EQUAL
2	-	PRIMARY TRIM	WOOD	MAHOGANY OR EQUAL
3	-	GLAZING BEAD	WOOD	MAHOGANY OR EQUAL
4	-	GLASS STOP (EXTERIOR GLAZED)	WOOD	MAHOGANY OR EQUAL
4A	-	GLASS STOP (INTERIOR GLAZED)	WOOD	MAHOGANY OR EQUAL
5	-	MUNTIN BAR	WOOD	MAHOGANY OR EQUAL
6	-	1-1/2" X 1-1/2" X 1/8" ANGLE	ALUMINUM	6063-T5 MIN.
7	-	4 1/2" SIMPSON CS16Z STEEL STRAPS	SS OR GALV	(16GA)
8	-	GALVANIZED STEEL "Z" CLIP	STEEL	(14GA)



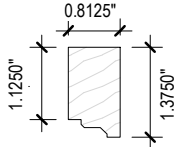
2 PRIMARY TRIM



3 GLAZING BEAD



4 GLASS STOP
(EXTERIOR GLAZED)



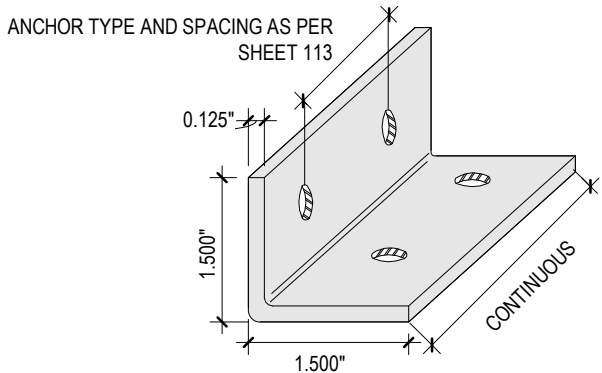
4A GLASS STOP
(INTERIOR GLAZED)



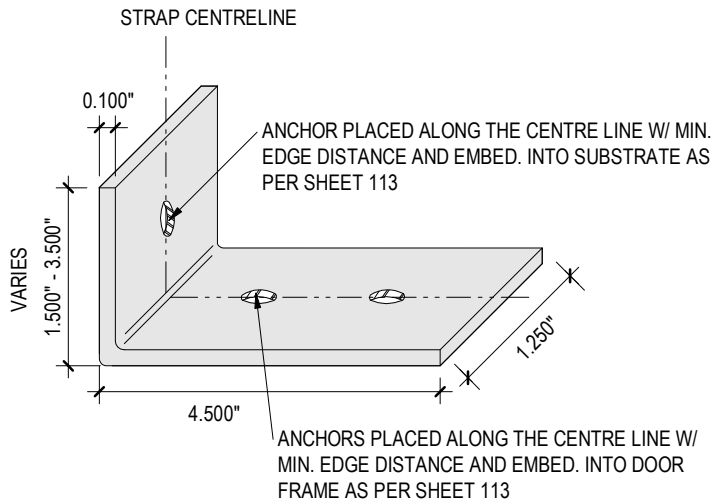
5 MUNTIN BAR

TYPICAL WOOD-HONDURES MAHOGANY LUMBER

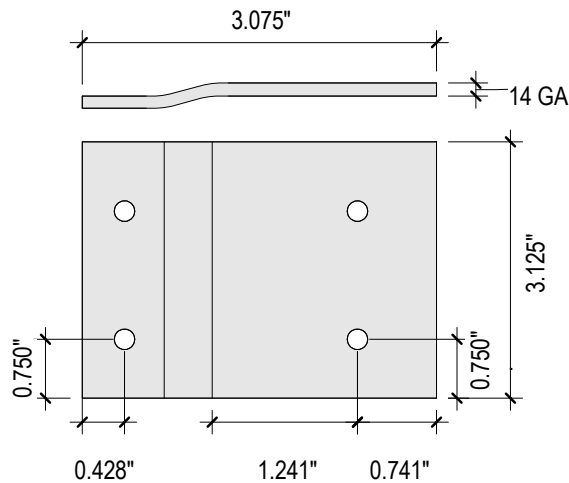
SPECIFIC GRAVITY = 0.45 MIN.
GRADE = 2 MIN.
MOISTURE CONTENT = 19% MAX.



6 1-1/2" X 1-1/2" X 1/8"
ALUMINUM ANGLE (CONT.)



7 4-1/2" 16GA SS OR GALV SIMPSON
CS16Z STEEL STRAPS



8 GALVANIZED STEEL "Z" CLIP (14GA)



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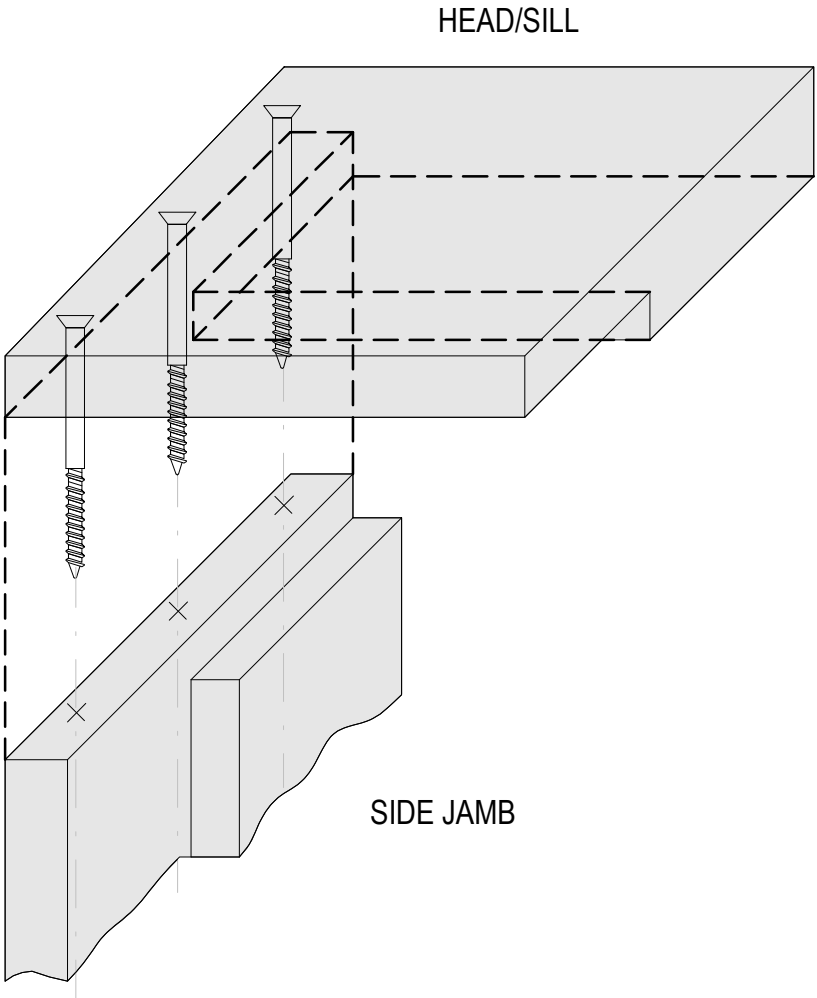
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FRAME CORNER DETAILS

FRAME CORNER HAVE HALF LAP JOINT TYPICAL AT HEAD AND SILL WITH (3) #12 BY 3 1/2" SS SCREWS AND GLUED WITH NP1



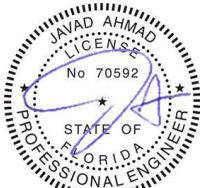
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