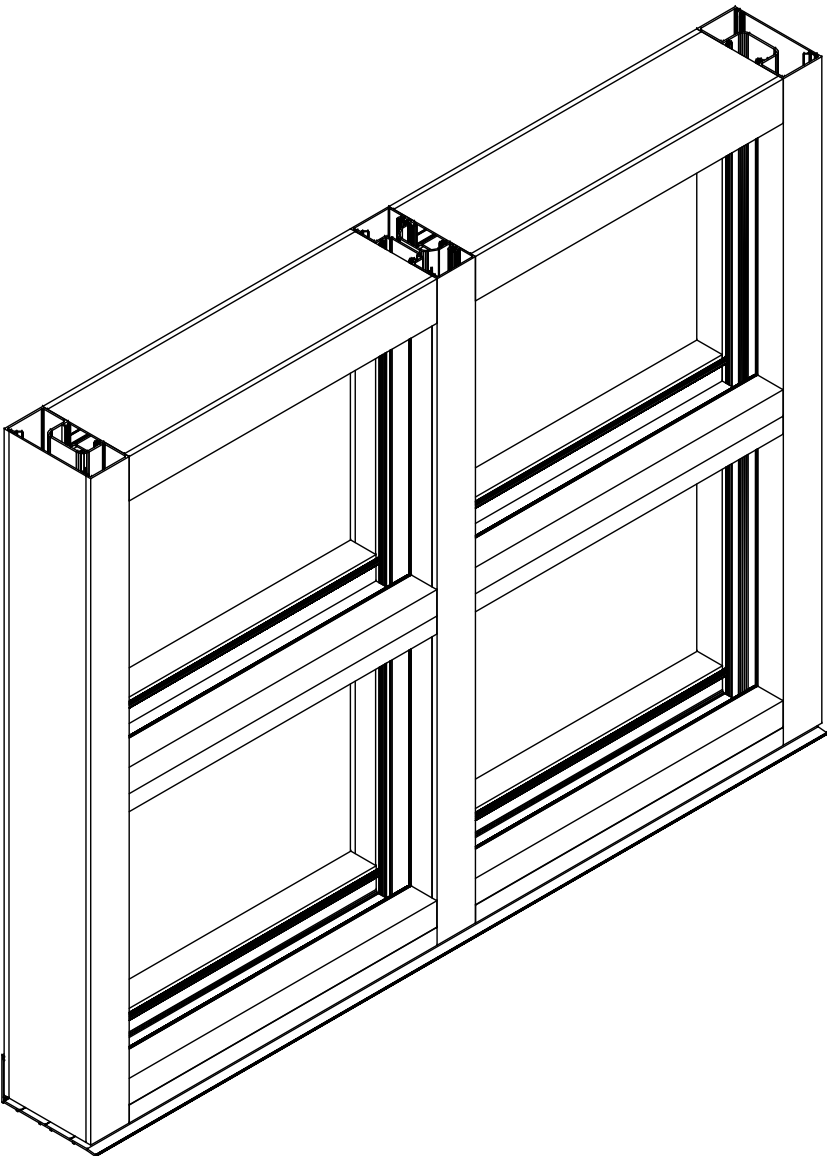


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FG-3000 ALUMINUM STOREFRONT SYSTEM
NON-IMPACT (HVHZ) - NON-THERMAL



TERMINOLOGY:

THE FOLLOWING ABBREVIATIONS APPEAR IN THIS APPROVAL:
"FBC" FOR "FLORIDA BUILDING CODE", "CORP." FOR "CORPORATION", "ALUM" FOR "ALUMINUM", "ASD" FOR "ALLOWABLE STRESS DESIGN", "ASTM" FOR "AMERICAN SOCIETY FOR TESTING AND MATERIALS", "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.

INDEX

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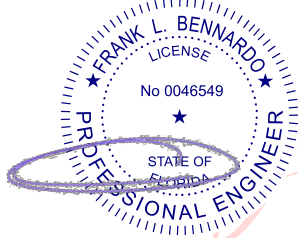
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FOR ADDITIONAL PLANS, REPORTS & RESOURCES



FRANK BENNARDO, PE
PE# 0046549 CA# 9885

AUGUST 12, 2026



Digitally signed by
Frank Bennardo
Date: 2026.08.18
14:49:40 -04'00'

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GENERAL NOTES:

- THE SYSTEM AND GLASS TYPES DESCRIBED HEREIN COMPLY AND HAVE BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE 9TH EDITION (2026) PER
 - ASTM E330
 - TAS 202
 - ANSI Z97.1 (400 ft-lb. IMPACT)
 - ALUMINUM DESIGN MANUAL 2020, ASCE 7-22
- FOR USE **WITHIN AND OUTSIDE** THE HIGH VELOCITY HURRICANE ZONE (HVHZ).
- GLASS UNIT(S) SHALL ME THE REQUIREMENTS OF ASTM E-1300.
- DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.
- 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 THE EXISTING STRUCTURE.
- 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 CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
- 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, INC., & ANY APPLICABLE FEDERAL, STATE, AND/OR LOCAL CODES.
- REFER TO FASTENER MANUFACTURER'S PUBLISHED DATA SHEETS AND RECOMMENDATIONS FOR FASTENER INSTALLATION INSTRUCTIONS.
- 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.
- SAFEGUARDS MUST BE OBSERVED (NOT IN THIS CERTIFICATION)
- IF SLOPED GLAZING IS NEEDED, IT SHALL BE ALLOWED UNDER SITE SPECIFIC ENGINEERING. DESIGN MUST BE CHECKED AND APPROVED BY A PROFESSIONAL ENGINEER AND THE MANUFACTURER(S).
- UNITS SHALL BE LABELED IN ACCORDANCE WITH THE FLORIDA BUILDING COMMISSION AND THE FLORIDA DEPARTMENT OF BUSINESS & PROFESSIONAL REGULATION SPECIFICATION.
- FOR PERMANENT OUTDOOR INSTALLATIONS, ALL EXPOSED ANCHORS, FASTENERS, CONNECTORS, AND METAL PLATES SHALL BE CORROSION RESISTANT. CORROSION RESISTANCE MAY BE PROVIDED BY INHERENT MATERIAL COMPOSITION OR, WHERE PERMITTED BY CODE, BY AN APPROVED PROTECTIVE COATING OR GALVANIZATION. WHERE APPLICABLE NEAR A SALTWATER COASTLINE, SUCH COMPONENTS SHALL COMPLY WITH FBC SECTION 1711, INCLUDING APPLICABLE REQUIREMENTS FOR EXPOSED, PROTECTED, OR ENCLOSED CONDITIONS. MATERIALS, COATINGS, AND FINISHES SHALL BE COMPATIBLE WITH CONNECTED MATERIALS, AND PROTECTIVE COATINGS SHALL BE CONTINUOUS OVER EXPOSED SURFACES. FASTENERS USED WITH ALUMINUM MEMBERS SHALL ALSO COMPLY WITH SECTION J.3.7.2 OF THE ALUMINUM DESIGN MANUAL, "SPECIFICATION FOR ALUMINUM STRUCTURES." SUBSTITUTION OF COMPONENTS FROM ALTERNATE MANUFACTURERS, OR WITH DIFFERENT MATERIALS, COATINGS, OR FINISHES, SHALL NOT BE ASSUMED EQUIVALENT AND MAY REQUIRE ADDITIONAL ENGINEERING REVIEW OR SITE-SPECIFIC ANALYSIS.

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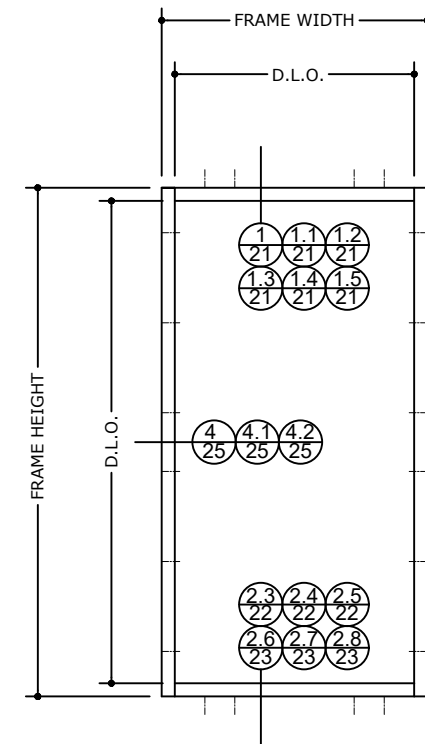
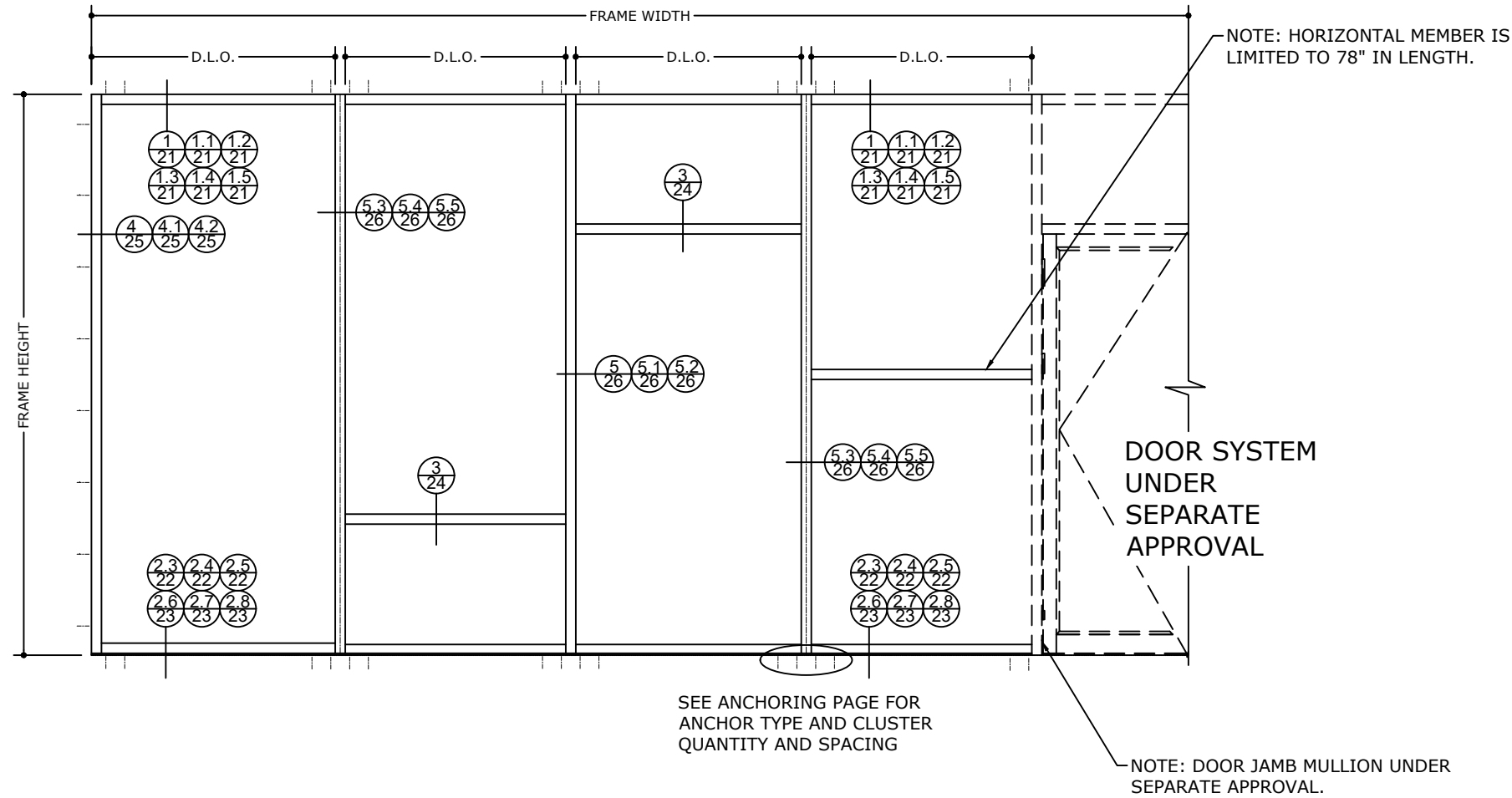
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TYPICAL SINGLE PANEL OPENING

FRAME SIZE FOR SINGLE OPENINGS SHALL
BE GOVERNED BY THE MAXIMUM
ALLOWABLE D.L.O. DIMENSIONS DISPLAYED
ON THE GLASS CHARTS

INSTRUCTIONS TO DETERMINE DESIGN PRESSURE RATING

STEP ①: USE THE GLASS LOADING TABLES TO DETERMINE THE ALLOWABLE PRESSURE OF THE GLASS.

STEP ②: USE THE MULLION LOADING TABLE TO DETERMINE THE ALLOWABLE PRESSURES FOR THE MULLIONS
NOTE: TO DETERMINE THE LOADS OF THE MULLIONS, SEE DIAGRAM ON PAGE 5

STEP ③: THE MINIMUM VALUE BETWEEN STEP ① AND STEP ② WILL DETERMINE THE DESIGN LOAD PRESSURE FOR THE STOREFRONT SYSTEM.

STEP ④: LESSER OF SILL / HEAD ALLOWABLE PRESSURE (PAGES 21-24) AND FASTENER SCHEDULE (PAGES 12-20) MUST MEET OR EXCEED DESIGN LOAD PRESSURE FOR THE STOREFRONT SYSTEM.

WATER INFILTRATION NOTE:

WATER RESISTANCE PER TAS 202 AND ASTM E331 = 11.07 P.S.F

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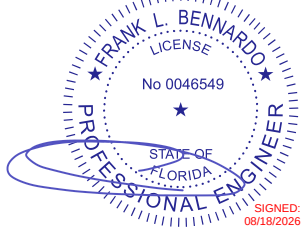
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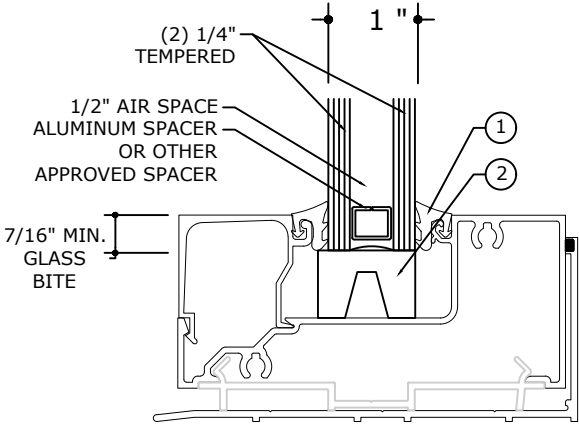
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GLASS TYPE



GLASS TYPE G
GLAZING DETAIL
N.T.S.

NOTE: GLASS SIZE = DLO + 7/8"

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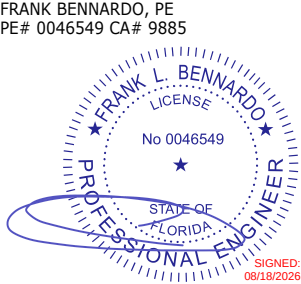
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GLASS LOADING TABLES

MAX. D.L.O WIDTH (in)	MAX. D.L.O HEIGHT (in)	ALLOWABLE DESIGN PRESSURE (P.S.F)
18	312	+/- 65
24	234	
30	186	
36	150	
42	126	
46	116	
54	102	
60	90	
66	78	
72	78	
		+/- 50

NOTE: D.L.O. WIDTH AND HEIGHT DIMENSIONS CAN
BE REVERSED.



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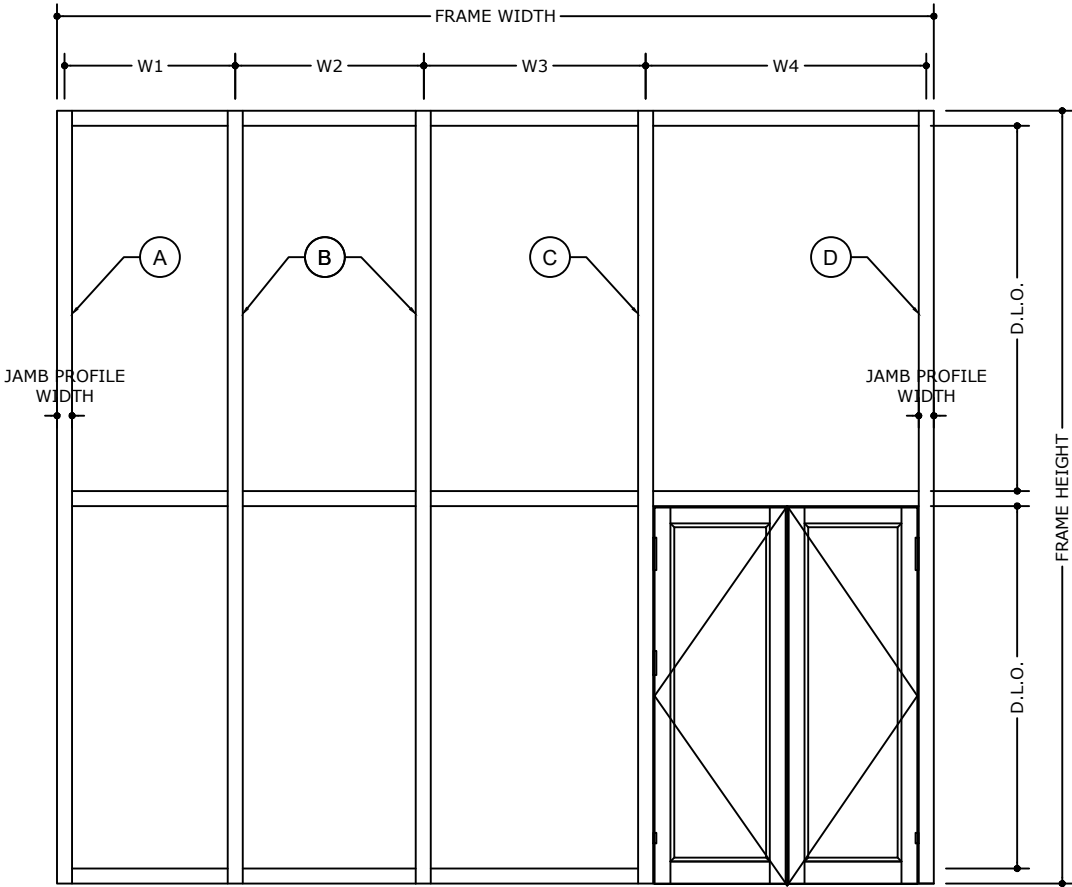
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LOAD DETERMINATION

TRIBUTARY WIDTH A = $\frac{W1}{2} + 1/2"$ JAMB PROFILE WIDTH
(FOR STANDARD JAMB MULLION)

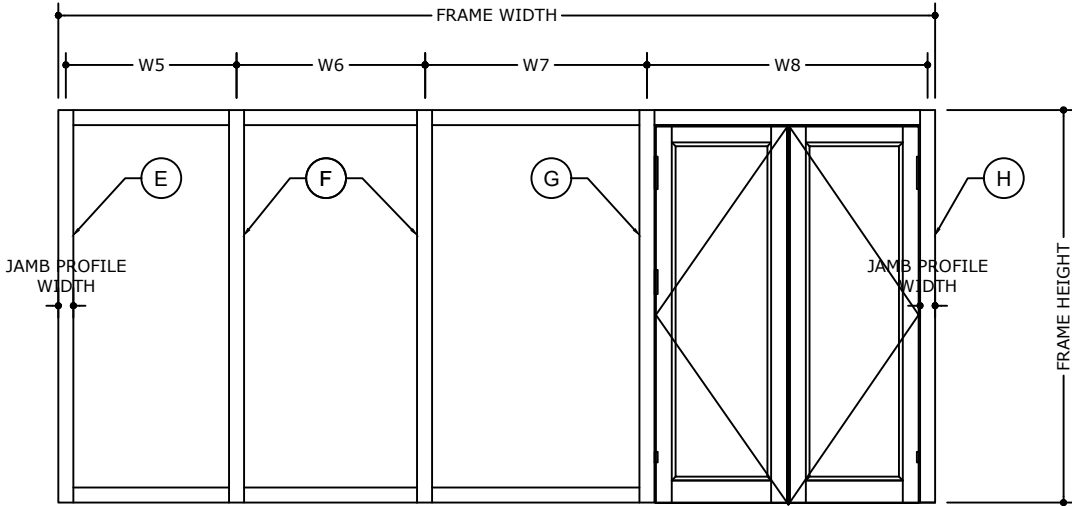
TRIBUTARY WIDTH B = LARGER OF $\frac{W1 + W2}{2}$ OR $\frac{W2 + W3}{2}$
(FOR STANDARD MULLION)

TRIBUTARY WIDTH C = $\frac{W3 + W4}{2}$
(FOR INTERMEDIATE DOOR MULLION)

TRIBUTARY WIDTH D = $\frac{W4}{2} + 1/2"$ JAMB PROFILE WIDTH
(FOR DOOR JAMB MULLION)

A	E	I	JAMB MULLION
B	F		STANDARD MULLION
C	G		DOOR JAMB INTERMEDIATE MULLION
D	H		DOOR JAMB MULLION

MULLION LOAD DETERMINATION



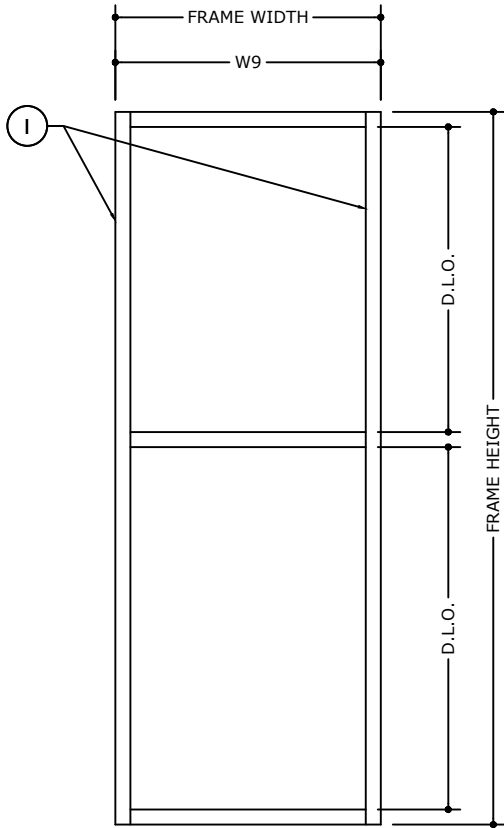
LOAD DETERMINATION

TRIBUTARY WIDTH E = $\frac{W5}{2} + 1/2"$ JAMB PROFILE WIDTH
(FOR STANDARD JAMB MULLION)

TRIBUTARY WIDTH F = LARGER OF $\frac{W5 + W6}{2}$ OR $\frac{W6 + W7}{2}$
(FOR STANDARD MULLION)

TRIBUTARY WIDTH G = $\frac{W7}{2} + \frac{W8}{4}$
(FOR INTERMEDIATE DOOR MULLION)

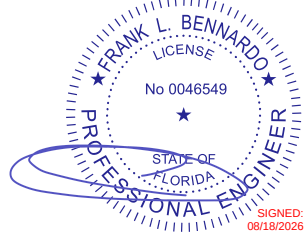
TRIBUTARY WIDTH H = $\frac{W8}{4} + 1/2"$ JAMB PROFILE WIDTH
(FOR DOOR JAMB MULLION)



LOAD DETERMINATION

TRIBUTARY WIDTH I = $\frac{W9}{2}$
(FOR STANDARD JAMB MULLION)

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FG-3000 STOREFRONT CENTER SET -
HIGH PERFORMANCE SINGLE SPAN MULLION

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FRANK L. BENNARDO

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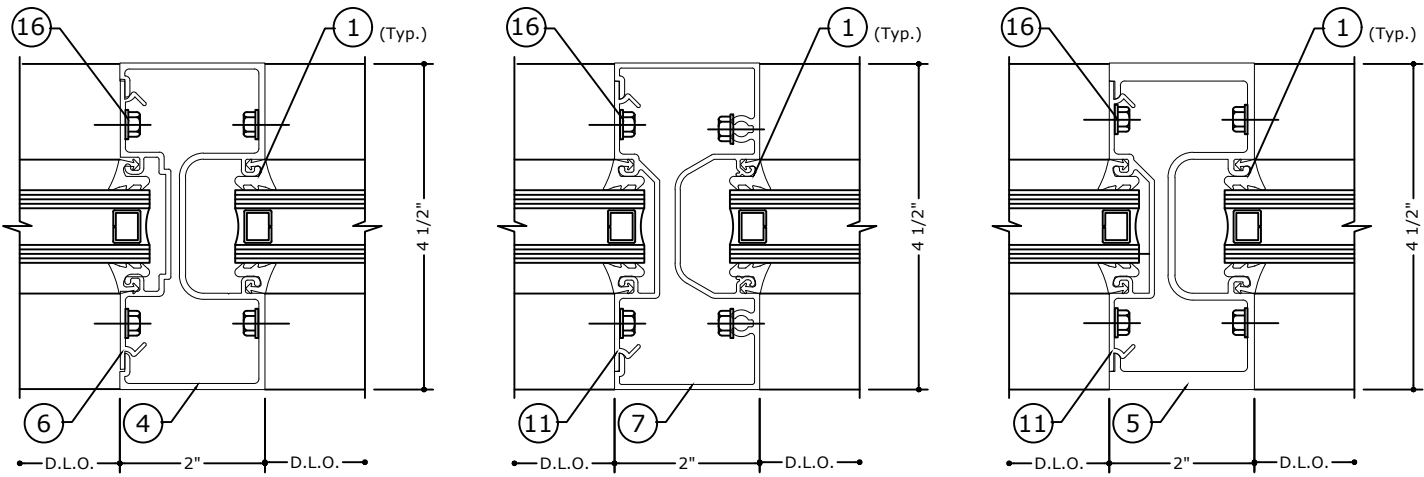
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08/18/2026

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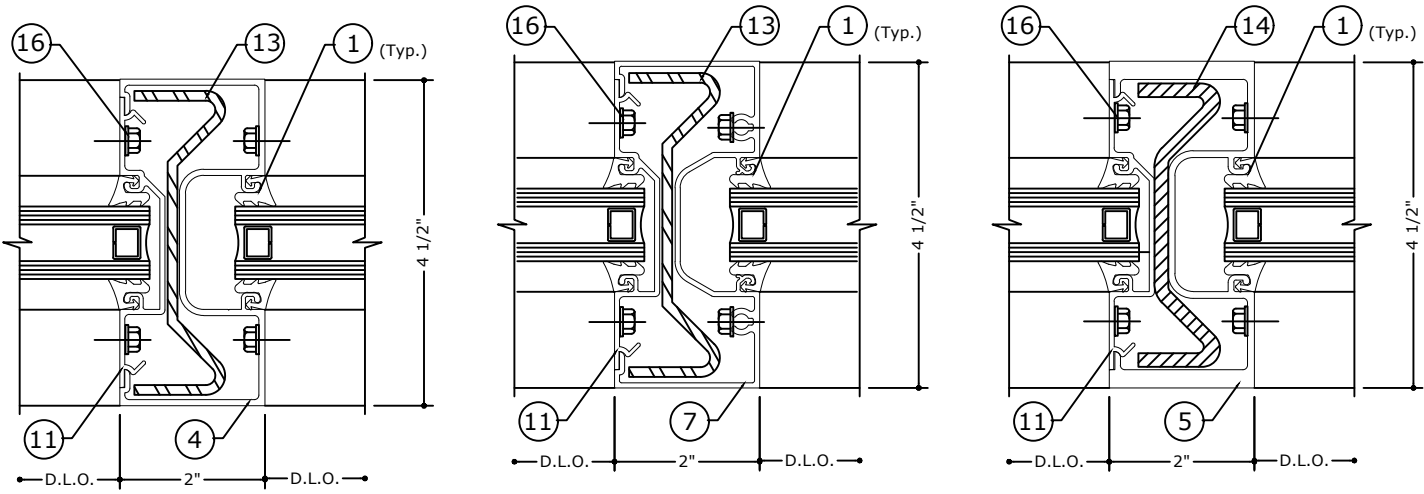
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M1

M2

M3



M4

M5

M6

NOTE:
ALL STEEL REINFORCEMENT
MUST BE SHIMMED TIGHT.

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MAXIMUM A.S.D. DESIGN PRESSURE RATING FOR STANDARD MULLIONS

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MULLION LOADING CHART		MULLION TYPE		MULLION TYPE		MULLION TYPE		MULLION TYPE	
		M1-M2		M4-M5		M3		M6	
FRAME HEIGHT (in)	TRIBUTARY WIDTH (in)	(+) P.S.F	(-) P.S.F	(+) P.S.F	(-) P.S.F	(+) P.S.F	(-) P.S.F	(+) P.S.F	(-) P.S.F
36	24	60	60	60	60	65	65	65	65
	30	60	60	60	60	65	65	65	65
	36	60	60	60	60	65	65	65	65
	42	60	60	60	60	65	65	65	65
	48	60	60	60	60	65	65	65	65
	54	60	60	60	60	65	65	65	65
	60	60	60	60	60	65	65	65	65
	66	60	60	60	60	65	65	65	65
	72	60	60	60	60	65	65	65	65
	78	60	60	60	60	65	65	65	65
	80	60	60	60	60	65	65	65	65
42	24	60	60	60	60	65	65	65	65
	30	60	60	60	60	65	65	65	65
	36	60	60	60	60	65	65	65	65
	42	60	60	60	60	65	65	65	65
	48	60	60	60	60	65	65	65	65
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	72	60	60	60	60	65	65	65	65
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	42	60	60	60	60	65	65	65	65
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	54	60	60	60	60	65	65	65	65
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	66	60	60	60	60	65	65	65	65
	72	60	60	60	60	65	65	65	65
	78	60	60	60	60	65	65	65	65
	80	60	60	60	60	65	65	65	65

MULLION LOADING CHART		MULLION TYPE		MULLION TYPE		MULLION TYPE		MULLION TYPE	
		M1-M2		M4-M5		M3		M6	
FRAME HEIGHT (in)	TRIBUTARY WIDTH (in)	(+) P.S.F	(-) P.S.F	(+) P.S.F	(-) P.S.F	(+) P.S.F	(-) P.S.F	(+) P.S.F	(-) P.S.F
54	24	60	60	60	60	65	65	65	65
	30	60	60	60	60	65	65	65	65
	36	60	60	60	60	65	65	65	65
	42	60	60	60	60	65	65	65	65
	48	60	60	60	60	65	65	65	65
	54	60	60	60	60	65	65	65	65
	60	60	60	60	60	65	65	65	65
	66	60	60	60	60	65	65	65	65
	72	60	60	60	60	65	65	65	65
	78	60	60	60	60	65	65	65	65
	80	60	60	60	60	65	65	65	65
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	72	60	60	60	60	65	65	65	65
	78	-	-	-	-	-	-	65	65
	80	-	-	-	-	-	-	65	65

M1
DETAIL 5

M2
DETAIL 5.1

M3
DETAIL 5.2

M4
DETAIL 5.3

M5
DETAIL 5.4

M6
DETAIL 5.5

REMARKS
INT. ISSUE (19-20209b)
2023 FBC (23-59820b)
2026 FBC UPDATE

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07 OF 28

MAXIMUM A.S.D. DESIGN PRESSURE RATING FOR STANDARD MULLIONS

FRANK BENNARDO, PE
PE# 0046549 CA# 9885

FRANK L. BENNARDO
LICENSE
No 0046549
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

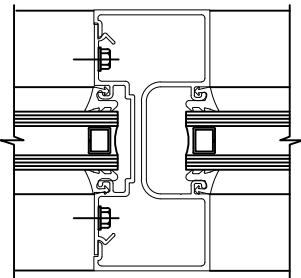
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AUGUST 12, 2026

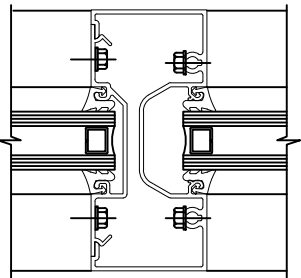
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MULLION LOADING CHART		MULLION TYPE M1-M2		MULLION TYPE M4-M5		MULLION TYPE M3		MULLION TYPE M6	
FRAME HEIGHT (in)	TRIBUTARY WIDTH (in)	(+) P.S.F	(-) P.S.F	(+) P.S.F	(-) P.S.F	(+) P.S.F	(-) P.S.F	(+) P.S.F	(-) P.S.F
72	24	60	60	60	60	65	65	65	65
	30	60	60	60	60	65	65	65	65
	36	60	60	60	60	65	65	65	65
	42	60	60	60	60	65	65	65	65
	48	60	60	60	60	65	65	65	65
	54	56	56	60	60	65	65	65	65
	60	54	54	60	60	65	65	65	65
	66	-	-	-	-	-	-	65	65
	72	-	-	-	-	-	-	65	65
	78	-	-	-	-	-	-	65	65
78	80	-	-	-	-	-	-	65	65
	24	60	60	60	60	65	65	65	65
	30	60	60	60	60	65	65	65	65
	36	60	60	60	60	65	65	65	65
	42	57	57	60	60	65	65	65	65
	48	53	53	60	60	65	65	65	65
	54	50	50	60	60	65	65	65	65
	60	-	-	-	-	-	-	65	65
	66	-	-	-	-	-	-	65	65
	72	-	-	-	-	-	-	65	65
84	78	-	-	-	-	-	-	65	65
	80	-	-	-	-	-	-	65	65
	24	60	60	60	60	65	65	65	65
	30	60	60	60	60	65	65	65	65
	36	58	58	60	60	65	65	65	65
	42	52	52	60	60	65	65	65	65
	48	48	48	60	60	65	65	65	65
	54	44	44	60	60	65	61	65	65
	60	-	-	-	-	-	-	65	65
	66	-	-	-	-	-	-	65	65

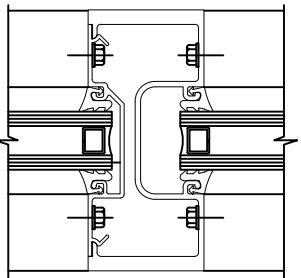
MULLION LOADING CHART		MULLION TYPE M1-M2		MULLION TYPE M4-M5		MULLION TYPE M3		MULLION TYPE M6	
FRAME HEIGHT (in)	TRIBUTARY WIDTH (in)	(+) P.S.F	(-) P.S.F	(+) P.S.F	(-) P.S.F	(+) P.S.F	(-) P.S.F	(+) P.S.F	(-) P.S.F
90	24	60	60	60	60	65	65	65	65
	30	60	60	60	60	65	65	65	65
	36	53	53	60	60	65	65	65	65
	42	47	47	60	60	65	65	65	65
	48	43	43	60	60	65	60	65	65
	54	-	-	-	-	-	-	65	65
	60	-	-	-	-	-	-	65	65
	66	-	-	-	-	-	-	65	65
	72	-	-	-	-	-	-	65	65
	78	-	-	-	-	-	-	65	65
96	80	-	-	-	-	-	-	65	65
	24	60	60	60	60	65	65	65	65
	30	56	56	60	60	65	65	65	65
	36	49	49	60	60	65	65	65	65
	42	43	43	60	60	65	60	65	65
	48	40	40	60	60	65	55	65	65
	54	-	-	-	-	-	-	65	65
	60	-	-	-	-	-	-	65	65
	66	-	-	-	-	-	-	65	65
	72	-	-	-	-	-	-	60	60
102	78	-	-	-	-	-	-	63	63
	80	-	-	-	-	-	-	62	62
	24	60	60	60	60	65	65	65	65
	30	52	52	60	60	65	65	65	65
	36	45	45	60	60	65	62	65	65
	42	39	39	59	59	63	54	65	65
	48	-	-	-	-	-	-	65	65
	54	-	-	-	-	-	-	65	65
	60	-	-	-	-	-	-	65	65
	66	-	-	-	-	-	-	61	61



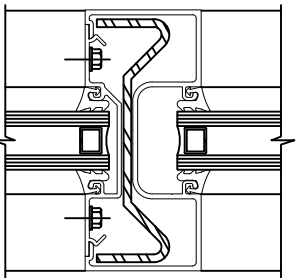
M1
DETAIL 5



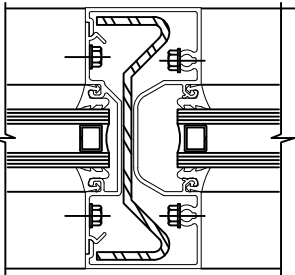
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DETAIL 5.1



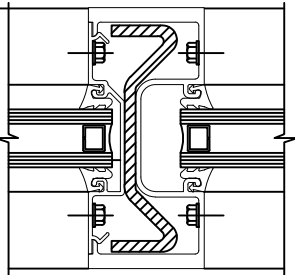
M3
DETAIL 5.2



M4
DETAIL 5.3



M5
DETAIL 5.4



M6
DETAIL 5.5

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803 AIRPORT ROAD
TERRELL, TX 75160
PHN, (972) 551-6100

FG-3000 NON-THERMAL STOREFRONT - NON-IMPACT/HVHZ
FLORIDA BUILDING CODE NINTH EDITION (2026)
FLORIDA STATEWIDE APPROVAL (FSA FL#17688.2)

REMARKS	DRWN	CHKD	DATE
INT. ISSUE (19-20209b)	JEM	AJP	10/22/20
2023 FBC (23-59620b)	SQ	RS	08/29/23
2026 FBC UPDATE	AEG	RS	08/12/26

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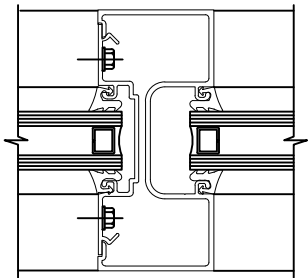
08 OF 28

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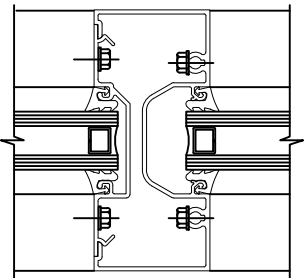
DETAIL 5.5

MAXIMUM A.S.D. DESIGN PRESSURE RATING FOR STANDARD MULLIONS

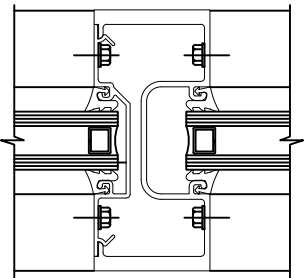
MULLION LOADING CHART		MULLION TYPE		MULLION TYPE		MULLION TYPE		MULLION TYPE	
		M1-M2		M3-M4		M5		M6	
FRAME HEIGHT (in)	TRIBUTARY WIDTH (in)	(+) P.S.F	(-) P.S.F	(+) P.S.F	(-) P.S.F	(+) P.S.F	(-) P.S.F	(+) P.S.F	(-) P.S.F
144	24	-	-	49	49	45	45	65	65
	30	-	-	39	39	36	36	65	65
	36	-	-	-	-	-	-	57	57
	42	-	-	-	-	-	-	49	49
	48	-	-	-	-	-	-	43	43
	54	-	-	-	-	-	-	38	38



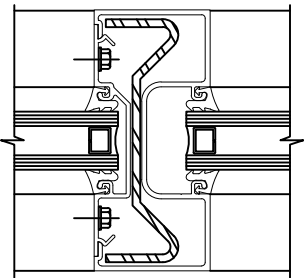
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DETAIL 5



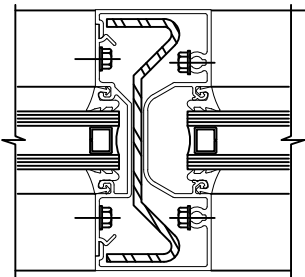
M2
DETAIL 5.1



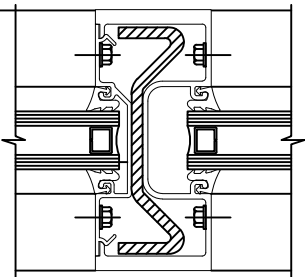
M3
DETAIL 5.2



M4
DETAIL 5.3

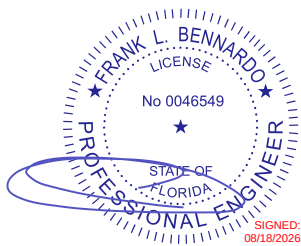


M5
DETAIL 5.4



M6
DETAIL 5.5

FRANK BENNARDO, PE
PE# 0046549 CA# 9885



AUGUST 12, 2026

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PHN, (972) 551-6100

FG-3000 NON-THERMAL STOREFRONT - NON-IMPACT/HVHZ
FLORIDA BUILDING CODE NINTH EDITION (2026)
FLORIDA STATEWIDE APPROVAL (FSA FL#17688.2)

REMARKS	DRWN	CHKD	DATE
INT. ISSUE (19-20209b)	JEM	AJP	10/22/20
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	-	-	-
	-	-	-

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FASTENER SCHEDULE

FRANK BENNARDO, PE
PE# 0046549 CA# 9885

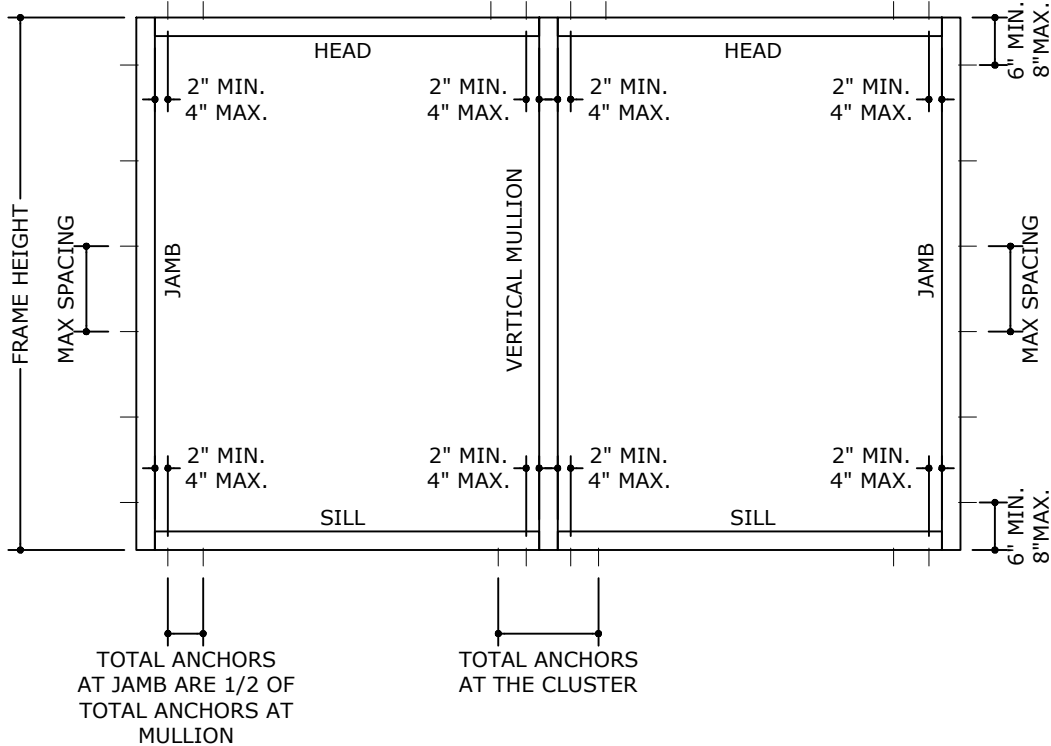
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FASTENER SCHEDULE							
ANCHOR TYPE	ANCHOR DIAMETER	TYPE	MANUFACTURER	SUBSTRATE	MIN EMBEDMENT (IN)	MIN EDGE DISTANCE (IN)	SPACING (IN)
A	1/4"	ULTRACON ANCHOR	DEWALT	POURED CONCRETE 3000 PSI MIN	1-3/4	2-1/2	3" MIN. 4" MAX.
B	1/4"-14	DRIL-FLEX HEX WASHER HEAD SELF DRILLING SCREW	DEWALT	16 GA MIN. STUD ASTM A-653 GRADE 33 STEEL	FULL	1-1/2	3" MIN. 4" MAX.
				1/8" STEEL-A36			
				1/8" ALUMINUM-6063-T6			
C	1/4"	ULTRACON ANCHOR OR LAG SCREW	DEWALT	2X WOOD BUCK G=0.55	1-1/2	1-1/2	3" MIN. 4" MAX.

NOTE: REFER TO PAGE 5 FOR TRIBUTARY WIDTH CALCULATIONS FOR USE WITH ANCHOR TABLES.

OLDCASTLE BUILDING ENVELOPE®

803 AIRPORT ROAD
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FG-3000 NON-THERMAL STOREFRONT - NON-IMPACT/HVHZ
FLORIDA BUILDING CODE NINTH EDITION (2026)
FLORIDA STATEWIDE APPROVAL (FSA FL#17688.2)

REMARKS	DRWN	CHKD	DATE
INT. ISSUE (19-20209b)	JEM	AJP	10/22/20
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OF 28

MAXIMUM ALLOWABLE STRESS DESIGN PRESSURE RATING FOR STANDARD MULLIONS
WITH HEAD&SILL CONNECTIONS-ANCHOR TYPE A

FRANK BENNARDO, PE
PE# 0046549 CA# 9885

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FG-3000 NON-THERMAL STOREFRONT - NON-IMPACT/HVHZ
FLORIDA BUILDING CODE NINTH EDITION (2026)
FLORIDA STATEWIDE APPROVAL (FSA FL#17688.2)

REMARKS	DRWN	CHKD	DATE
INT. ISSUE (19-202009b)	JEM	AJP	10/22/20
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2026 FBC UPDATE	AEG	RS	08/12/26
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OF 28

FRAME HEIGHT (IN)	TRIBUTARY WIDTH (IN)	TOTAL NUMBER OF ANCHORS AT THE CLUSTER-ANCHOR TYPE A					
		2		4		6	
		MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)
36	24	65	18"O.C.	65	18"O.C.	65	18"O.C.
	36	65	18"O.C.	65	18"O.C.	65	18"O.C.
	48	65	18"O.C.	65	18"O.C.	65	18"O.C.
	60	60	18"O.C.	65	18"O.C.	65	18"O.C.
	72	50	18"O.C.	65	18"O.C.	65	18"O.C.
	80	45	18"O.C.	65	18"O.C.	65	18"O.C.
48	24	65	24"O.C.	65	24"O.C.	65	24"O.C.
	36	65	24"O.C.	65	24"O.C.	65	24"O.C.
	48	56	24"O.C.	65	24"O.C.	65	24"O.C.
	60	45	24"O.C.	65	24"O.C.	65	24"O.C.
	72	37	24"O.C.	65	24"O.C.	65	24"O.C.
	80	33	24"O.C.	65	24"O.C.	65	24"O.C.
60	24	65	30"O.C.	65	30"O.C.	65	30"O.C.
	36	60	30"O.C.	65	30"O.C.	65	30"O.C.
	48	45	30"O.C.	65	30"O.C.	65	30"O.C.
	60	36	30"O.C.	65	30"O.C.	65	30"O.C.
	72	30	30"O.C.	60	30"O.C.	65	20"O.C.
	80	27	30"O.C.	54	30"O.C.	65	20"O.C.
72	24	65	36"O.C.	65	36"O.C.	65	36"O.C.
	36	50	36"O.C.	65	36"O.C.	65	36"O.C.
	48	37	36"O.C.	65	36"O.C.	65	36"O.C.
	60	30	36"O.C.	60	36"O.C.	65	24"O.C.
	72	25	36"O.C.	50	36"O.C.	65	24"O.C.
	80	22	36"O.C.	45	36"O.C.	65	24"O.C.

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FRANK BENNARDO, PE
PE# 0046549 CA# 9885

August 12, 2026

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FRANK L. BENNARDO
LICENSE
No 0046549
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

SIGNED:
08/18/2026

				FL 17688.2			
OLDCASTLE BUILDING ENVELOPE® 803 AIRPORT ROAD TERRELL, TX 75160 PHN, (972) 551-6100				POSTAL ADDRESS: 2234 NORTH FEDERAL HWY #7664 BOCA RATON, FL 33431 ENGINEERINGEXPRESS.COM			
FG-3000 NON-THERMAL STOREFRONT - NON-IMPACT/HVHZ FLORIDA BUILDING CODE NINTH EDITION (2026) FLORIDA STATEWIDE APPROVAL (FSA FL#17688.2)							
REMARKS	DRWN	CHKD	DATE				
INT. ISSUE (19-20209b)	JEM	AJP	10/22/20				
2023 FBC (23-59820b)	SQ	RS	08/29/23				
2026 FBC UPDATE	AEG	RS	08/12/26				
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13				OF 28			

MAXIMUM ALLOWABLE STRESS DESIGN PRESSURE RATING FOR STANDARD MULLIONS
WITH HEAD&SILL CONNECTIONS-ANCHOR TYPE A

FRANK BENNARDO, PE
PE# 0046549 CA# 9885

FL

AUGUST 12, 2026

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FRAME HEIGHT (IN)	TRIBUTARY WIDTH (IN)	TOTAL NUMBER OF ANCHORS AT THE CLUSTER-ANCHOR TYPE A											
		2		4		6		8		10		12	
		MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)
132	24	40	66"O.C.	65	66"O.C.	65	66"O.C.	65	66"O.C.	65	66"O.C.	65	66"O.C.
	36	27	66"O.C.	54	66"O.C.	65	44"O.C.	65	44"O.C.	65	44"O.C.	65	44"O.C.
	48	20	66"O.C.	40	66"O.C.	61	44"O.C.	65	33"O.C.	65	33"O.C.	65	33"O.C.
	60	16	66"O.C.	32	66"O.C.	49	44"O.C.	65	33"O.C.	65	33"O.C.	65	33"O.C.
	72	13	66"O.C.	27	66"O.C.	40	44"O.C.	54	33"O.C.	65	26"O.C.	65	26"O.C.
	80	12	66"O.C.	24	66"O.C.	36	44"O.C.	49	33"O.C.	61	26"O.C.	65	22"O.C.
144	24	37	72"O.C.	65	72"O.C.	65	72"O.C.	65	72"O.C.	65	72"O.C.	65	72"O.C.
	36	25	72"O.C.	50	72"O.C.	65	48"O.C.	65	48"O.C.	65	48"O.C.	65	48"O.C.
	48	18	72"O.C.	37	72"O.C.	56	48"O.C.	65	36"O.C.	65	36"O.C.	65	36"O.C.
	60	15	72"O.C.	30	72"O.C.	45	48"O.C.	60	36"O.C.	65	29"O.C.	65	29"O.C.
	72	12	72"O.C.	25	72"O.C.	37	48"O.C.	50	36"O.C.	62	29"O.C.	65	24"O.C.
	80	11	72"O.C.	22	72"O.C.	33	48"O.C.	45	36"O.C.	56	29"O.C.	65	24"O.C.

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OLDCASTLE BUILDING ENVELOPE®

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FG-3000 NON-THERMAL STOREFRONT - NON-IMPACT/HVHZ
FLORIDA BUILDING CODE NINTH EDITION (2026)
FLORIDA STATEWIDE APPROVAL (FSA FL#17688.2)

REMARKS
INT. ISSUE (19-20209b)
2023 FBC (23-59820b)
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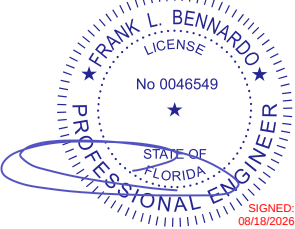
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14 OF 28

MAXIMUM ALLOWABLE STRESS DESIGN PRESSURE RATING FOR STANDARD MULLIONS
WITH HEAD&SILL CONNECTIONS-ANCHOR TYPE B

FRANK BENNARDO, PE
PE# 0046549 CA# 9885



SIGNED:
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AUGUST 12, 2026

FRAME HEIGHT (IN)	TRIBUTARY WIDTH (IN)	TOTAL NUMBER OF ANCHORS AT THE CLUSTER-ANCHOR TYPE B			
		2		4	
		MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)
36	24	65	18"O.C.	65	18"O.C.
	36	65	18"O.C.	65	18"O.C.
	48	65	18"O.C.	65	18"O.C.
	60	65	18"O.C.	65	18"O.C.
	72	65	18"O.C.	65	18"O.C.
	80	65	18"O.C.	65	18"O.C.
48	24	65	24"O.C.	65	24"O.C.
	36	65	24"O.C.	65	24"O.C.
	48	65	24"O.C.	65	24"O.C.
	60	65	24"O.C.	65	24"O.C.
	72	65	24"O.C.	65	24"O.C.
	80	65	24"O.C.	65	24"O.C.
60	24	65	30"O.C.	65	30"O.C.
	36	65	30"O.C.	65	30"O.C.
	48	65	30"O.C.	65	30"O.C.
	60	65	30"O.C.	65	30"O.C.
	72	65	30"O.C.	65	30"O.C.
	80	60	30"O.C.	65	30"O.C.
72	24	65	36"O.C.	65	36"O.C.
	36	65	36"O.C.	65	36"O.C.
	48	65	36"O.C.	65	36"O.C.
	60	65	36"O.C.	65	36"O.C.
	72	55	36"O.C.	65	36"O.C.
	80	50	36"O.C.	65	36"O.C.

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TERRELL, TX 75160
PHN, (972) 551-6100

FG-3000 NON-THERMAL STOREFRONT - NON-IMPACT/HVHZ
FLORIDA BUILDING CODE NINTH EDITION (2026)
FLORIDA STATEWIDE APPROVAL (FSA FL#17688.2)

REMARKS	DRWN	CHKD	DATE
INT. ISSUE (19-20209b)	JEM	AJP	10/22/20
2023 FBC (23-59820b)	SQ	RS	08/29/23
2026 FBC UPDATE	AEG	RS	08/12/26
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15

OF 28

MAXIMUM ALLOWABLE STRESS DESIGN PRESSURE RATING FOR STANDARD MULLIONS
WITH HEAD&SILL CONNECTIONS-ANCHOR TYPE B

FRANK BENNARDO, PE
PE# 0046549 CA# 9885

FL

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FLORIDA BUILDING CODE NINTH EDITION (2026)
FLORIDA STATEWIDE APPROVAL (FSA FL#17688.2)

REMARKS	DRWN	CHKD	DATE	TOTAL NUMBER OF ANCHORS AT THE CLUSTER-ANCHOR TYPE B					
				2		4		6	
				MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)
84			24	65	42"O.C.	65	42"O.C.	65	42"O.C.
			36	65	42"O.C.	65	42"O.C.	65	42"O.C.
			48	65	42"O.C.	65	42"O.C.	65	42"O.C.
			60	57	42"O.C.	65	42"O.C.	65	42"O.C.
			72	47	42"O.C.	65	42"O.C.	65	42"O.C.
			80	42	42"O.C.	65	42"O.C.	65	42"O.C.
96			24	65	48"O.C.	65	48"O.C.	65	48"O.C.
			36	65	48"O.C.	65	48"O.C.	65	48"O.C.
			48	62	48"O.C.	65	48"O.C.	65	48"O.C.
			60	50	48"O.C.	65	48"O.C.	65	48"O.C.
			72	41	48"O.C.	65	48"O.C.	65	48"O.C.
			80	37	48"O.C.	65	48"O.C.	65	48"O.C.
108			24	65	54"O.C.	65	54"O.C.	65	54"O.C.
			36	65	54"O.C.	65	54"O.C.	65	54"O.C.
			48	55	54"O.C.	65	54"O.C.	65	54"O.C.
			60	44	54"O.C.	65	54"O.C.	65	54"O.C.
			72	37	54"O.C.	65	54"O.C.	65	54"O.C.
			80	33	54"O.C.	65	54"O.C.	65	54"O.C.
120			24	65	60"O.C.	65	60"O.C.	65	60"O.C.
			36	65	60"O.C.	65	60"O.C.	65	60"O.C.
			48	50	60"O.C.	65	60"O.C.	65	60"O.C.
			60	40	60"O.C.	65	60"O.C.	65	60"O.C.
			72	33	60"O.C.	65	60"O.C.	65	60"O.C.
			80	30	60"O.C.	60	60"O.C.	65	40"O.C.

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16 OF 28

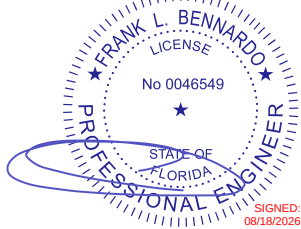
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MAXIMUM ALLOWABLE STRESS DESIGN PRESSURE RATING FOR STANDARD MULLIONS
WITH HEAD&SILL CONNECTIONS-ANCHOR TYPE B

FRAME HEIGHT (IN)	TRIBUTARY WIDTH (IN)	TOTAL NUMBER OF ANCHORS AT THE CLUSTER-ANCHOR TYPE B					
		2		4		6	
		MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)
132	24	65	66"O.C.	65	66"O.C.	65	66"O.C.
	36	60	66"O.C.	65	66"O.C.	65	66"O.C.
	48	45	66"O.C.	65	66"O.C.	65	66"O.C.
	60	36	66"O.C.	65	66"O.C.	65	66"O.C.
	72	30	66"O.C.	60	66"O.C.	65	44"O.C.
	80	27	66"O.C.	54	66"O.C.	65	44"O.C.
144	24	65	72"O.C.	65	72"O.C.	65	72"O.C.
	36	55	72"O.C.	65	72"O.C.	65	72"O.C.
	48	41	72"O.C.	65	72"O.C.	65	72"O.C.
	60	33	72"O.C.	65	72"O.C.	65	72"O.C.
	72	27	72"O.C.	55	72"O.C.	65	48"O.C.
	80	25	72"O.C.	50	72"O.C.	65	48"O.C.

FRANK BENNARDO, PE
PE# 0046549 CA# 9885

AUGUST 12, 2026



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PHN, (972) 551-6100

FG-3000 NON-THERMAL STOREFRONT - NON-IMPACT/HVHZ
FLORIDA BUILDING CODE NINTH EDITION (2026)
FLORIDA STATEWIDE APPROVAL (FSA FL#17688.2)

REMARKS	DRWN	CHKD	DATE
INT. ISSUE (19-20209b)	JEM	AJP	10/22/20
2023 FBC (23-59820b)	SQ	RS	08/29/23
2026 FBC UPDATE	AEG	RS	08/12/26
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-	-	-	-
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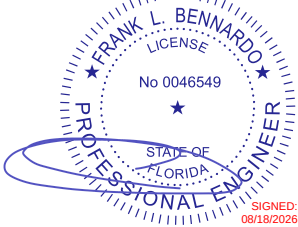
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MAXIMUM ALLOWABLE STRESS DESIGN PRESSURE RATING FOR STANDARD MULLIONS
WITH HEAD&SILL CONNECTIONS-ANCHOR TYPE C

FRANK BENNARDO, PE
PE# 0046549 CA# 9885



SIGNED:
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FG-3000 NON-THERMAL STOREFRONT - NON-IMPACT/HVHZ
FLORIDA BUILDING CODE NINTH EDITION (2026)
FLORIDA STATEWIDE APPROVAL (FSA FL#17688.2)

REMARKS	DRWN	CHKD	DATE
INT. ISSUE (19-20209b)	JEM	AJP	10/22/20
2023 FBC (23-59820b)	SQ	RS	08/29/23
2026 FBC UPDATE	AEG	RS	08/12/26
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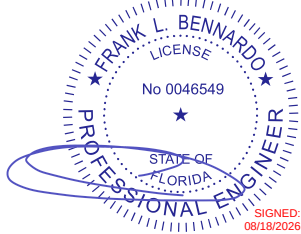
18 OF 28

FRAME HEIGHT (IN)	TRIBUTARY WIDTH (IN)	TOTAL NUMBER OF ANCHORS AT THE CLUSTER-ANCHOR TYPE C							
		2		4		6		8	
		MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)
36	24	65	18"O.C.	65	18"O.C.	65	18"O.C.	65	18"O.C.
	36	65	18"O.C.	65	18"O.C.	65	18"O.C.	65	18"O.C.
	48	56	18"O.C.	65	18"O.C.	65	18"O.C.	65	18"O.C.
	60	45	18"O.C.	65	18"O.C.	65	18"O.C.	65	18"O.C.
	72	37	18"O.C.	65	18"O.C.	65	18"O.C.	65	18"O.C.
	80	34	18"O.C.	65	18"O.C.	65	18"O.C.	65	18"O.C.
48	24	65	24"O.C.	65	24"O.C.	65	24"O.C.	65	24"O.C.
	36	56	24"O.C.	65	24"O.C.	65	24"O.C.	65	24"O.C.
	48	42	24"O.C.	65	24"O.C.	65	24"O.C.	65	24"O.C.
	60	34	24"O.C.	65	24"O.C.	65	24"O.C.	65	24"O.C.
	72	28	24"O.C.	56	24"O.C.	65	16"O.C.	65	16"O.C.
	80	25	24"O.C.	51	24"O.C.	65	16"O.C.	65	16"O.C.
60	24	65	30"O.C.	65	30"O.C.	65	30"O.C.	65	30"O.C.
	36	45	30"O.C.	65	30"O.C.	65	30"O.C.	65	30"O.C.
	48	34	30"O.C.	65	30"O.C.	65	30"O.C.	65	30"O.C.
	60	27	30"O.C.	54	30"O.C.	65	20"O.C.	65	20"O.C.
	72	22	30"O.C.	45	30"O.C.	65	20"O.C.	65	20"O.C.
	80	20	30"O.C.	40	30"O.C.	61	20"O.C.	65	15"O.C.
72	24	56	36"O.C.	65	36"O.C.	65	36"O.C.	65	36"O.C.
	36	37	36"O.C.	65	36"O.C.	65	36"O.C.	65	36"O.C.
	48	28	36"O.C.	56	36"O.C.	65	24"O.C.	65	24"O.C.
	60	22	36"O.C.	45	36"O.C.	65	24"O.C.	65	24"O.C.
	72	18	36"O.C.	37	36"O.C.	56	24"O.C.	65	18"O.C.
	80	17	36"O.C.	34	36"O.C.	51	24"O.C.	65	18"O.C.

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MAXIMUM ALLOWABLE STRESS DESIGN PRESSURE RATING FOR STANDARD MULLIONS
WITH HEAD&SILL CONNECTIONS-ANCHOR TYPE C

FRANK BENNARDO, PE
PE# 0046549 CA# 9885



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FRAME HEIGHT (IN)	TRIBUTARY WIDTH (IN)	TOTAL NUMBER OF ANCHORS AT THE CLUSTER-ANCHOR TYPE C													
		2		4		6		8		10		12		16	
		MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)
84	24	48	42"O.C.	65	42"O.C.	65	42"O.C.	65	42"O.C.	65	42"O.C.	65	42"O.C.	65	42"O.C.
	36	32	42"O.C.	64	42"O.C.	65	28"O.C.	65	28"O.C.	65	28"O.C.	65	28"O.C.	65	28"O.C.
	48	24	42"O.C.	48	42"O.C.	65	28"O.C.	65	28"O.C.	65	28"O.C.	65	28"O.C.	65	28"O.C.
	60	19	42"O.C.	38	42"O.C.	58	28"O.C.	65	21"O.C.	65	21"O.C.	65	21"O.C.	65	21"O.C.
	72	16	42"O.C.	32	42"O.C.	48	28"O.C.	64	21"O.C.	65	17"O.C.	65	17"O.C.	65	17"O.C.
	80	14	42"O.C.	29	42"O.C.	43	28"O.C.	58	21"O.C.	65	17"O.C.	65	17"O.C.	65	17"O.C.
96	24	42	48"O.C.	65	48"O.C.	65	48"O.C.	65	48"O.C.	65	48"O.C.	65	48"O.C.	65	48"O.C.
	36	28	48"O.C.	56	48"O.C.	65	32"O.C.	65	32"O.C.	65	32"O.C.	65	32"O.C.	65	32"O.C.
	48	21	48"O.C.	42	48"O.C.	63	32"O.C.	65	24"O.C.	65	24"O.C.	65	24"O.C.	65	24"O.C.
	60	17	48"O.C.	34	48"O.C.	51	32"O.C.	65	24"O.C.	65	24"O.C.	65	24"O.C.	65	24"O.C.
	72	14	48"O.C.	28	48"O.C.	42	32"O.C.	56	24"O.C.	65	19"O.C.	65	19"O.C.	65	19"O.C.
	80	12	48"O.C.	25	48"O.C.	38	32"O.C.	51	24"O.C.	63	19"O.C.	65	16"O.C.	65	16"O.C.
108	24	37	54"O.C.	65	54"O.C.	65	54"O.C.	65	54"O.C.	65	54"O.C.	65	54"O.C.	65	54"O.C.
	36	25	54"O.C.	50	54"O.C.	65	36"O.C.	65	36"O.C.	65	36"O.C.	65	36"O.C.	65	36"O.C.
	48	18	54"O.C.	37	54"O.C.	56	36"O.C.	65	27"O.C.	65	27"O.C.	65	27"O.C.	65	27"O.C.
	60	15	54"O.C.	30	54"O.C.	45	36"O.C.	60	27"O.C.	65	22"O.C.	65	22"O.C.	65	22"O.C.
	72	12	54"O.C.	25	54"O.C.	37	36"O.C.	50	27"O.C.	62	22"O.C.	65	18"O.C.	65	18"O.C.
	80	11	54"O.C.	22	54"O.C.	34	36"O.C.	45	27"O.C.	56	22"O.C.	65	18"O.C.	65	18"O.C.
120	24	34	60"O.C.	65	60"O.C.	65	60"O.C.	65	60"O.C.	65	60"O.C.	65	60"O.C.	65	60"O.C.
	36	22	60"O.C.	45	60"O.C.	65	40"O.C.	65	40"O.C.	65	40"O.C.	65	40"O.C.	65	40"O.C.
	48	17	60"O.C.	34	60"O.C.	51	40"O.C.	65	30"O.C.	65	30"O.C.	65	30"O.C.	65	30"O.C.
	60	13	60"O.C.	27	60"O.C.	40	40"O.C.	54	30"O.C.	65	24"O.C.	65	24"O.C.	65	24"O.C.
	72	11	60"O.C.	22	60"O.C.	34	40"O.C.	45	30"O.C.	56	24"O.C.	65	20"O.C.	65	20"O.C.
	80	10	60"O.C.	20	60"O.C.	30	40"O.C.	40	30"O.C.	51	24"O.C.	61	20"O.C.	65	17"O.C.

FL 17688.2

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PHN, (972) 551-6100

FG-3000 NON-THERMAL STOREFRONT - NON-IMPACT/HVHZ
FLORIDA BUILDING CODE NINTH EDITION (2026)
FLORIDA STATEWIDE APPROVAL (FSA FL#17688.2)

REMARKS	DRWN	CHKD	DATE
INT. ISSUE (19-20209b)	JEM	AJP	10/22/20
2023 FBC (23-59820b)	SQ	RS	08/29/23
2026 FBC UPDATE	AEG	RS	08/12/26

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MAXIMUM ALLOWABLE STRESS DESIGN PRESSURE RATING FOR STANDARD MULLIONS
WITH HEAD&SILL CONNECTIONS-ANCHOR TYPE C

FRANK BENNARDO, PE
PE# 0046549 CA# 9885

FL

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FG-3000 NON-THERMAL STOREFRONT - NON-IMPACT/HVHZ
FLORIDA BUILDING CODE NINTH EDITION (2026)
FLORIDA STATEWIDE APPROVAL (FSA FL#17688.2)

REMARKS	DRWN	CHKD	DATE
INT. ISSUE (19-20209b)	JEM	AJP	10/22/20
2023 FBC (23-59820b)	SQ	RS	08/29/23
2026 FBC UPDATE	AEG	RS	08/12/26
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	-	-	-

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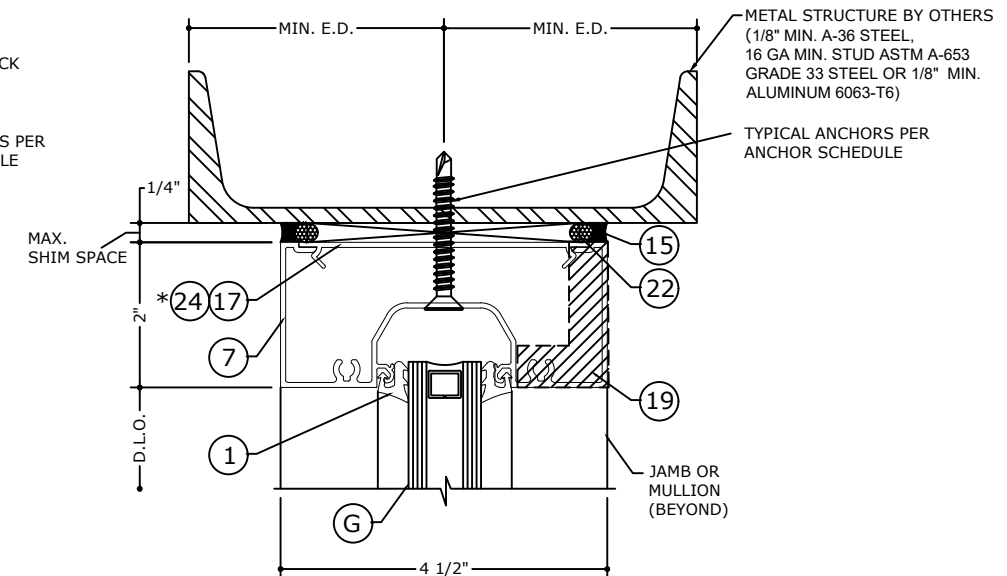
20 OF 28

FRAME HEIGHT (IN)	TRIBUTARY WIDTH (IN)	TOTAL NUMBER OF ANCHORS AT THE CLUSTER-ANCHOR TYPE C													
		2		4		6		8		10		12		16	
		MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)	MAX PRESSURE (PSF)	JAMBS MAX ANCHOR SPACING (IN)
132	24	30	66"O.C.	61	66"O.C.	65	44"O.C.	65	44"O.C.	65	44"O.C.	65	44"O.C.	65	44"O.C.
	36	20	66"O.C.	41	66"O.C.	61	44"O.C.	65	33"O.C.	65	33"O.C.	65	33"O.C.	65	33"O.C.
	48	15	66"O.C.	30	66"O.C.	46	44"O.C.	61	33"O.C.	65	26"O.C.	65	26"O.C.	65	26"O.C.
	60	12	66"O.C.	24	66"O.C.	37	44"O.C.	49	33"O.C.	61	26"O.C.	65	22"O.C.	65	22"O.C.
	72	10	66"O.C.	20	66"O.C.	30	44"O.C.	41	33"O.C.	51	26"O.C.	61	22"O.C.	65	19"O.C.
	80	9	66"O.C.	18	66"O.C.	27	44"O.C.	37	33"O.C.	46	26"O.C.	55	22"O.C.	65	17"O.C.
144	24	28	72"O.C.	56	72"O.C.	65	48"O.C.	65	48"O.C.	65	48"O.C.	65	48"O.C.	65	48"O.C.
	36	18	72"O.C.	37	72"O.C.	56	48"O.C.	65	36"O.C.	65	36"O.C.	65	36"O.C.	65	36"O.C.
	48	14	72"O.C.	28	72"O.C.	42	48"O.C.	56	36"O.C.	65	29"O.C.	65	29"O.C.	65	29"O.C.
	60	11	72"O.C.	22	72"O.C.	34	48"O.C.	45	36"O.C.	56	29"O.C.	65	24"O.C.	65	24"O.C.
	72	9	72"O.C.	18	72"O.C.	28	48"O.C.	37	36"O.C.	47	29"O.C.	56	24"O.C.	65	21"O.C.
	80	8	72"O.C.	17	72"O.C.	25	48"O.C.	34	36"O.C.	42	29"O.C.	51	24"O.C.	65	18"O.C.

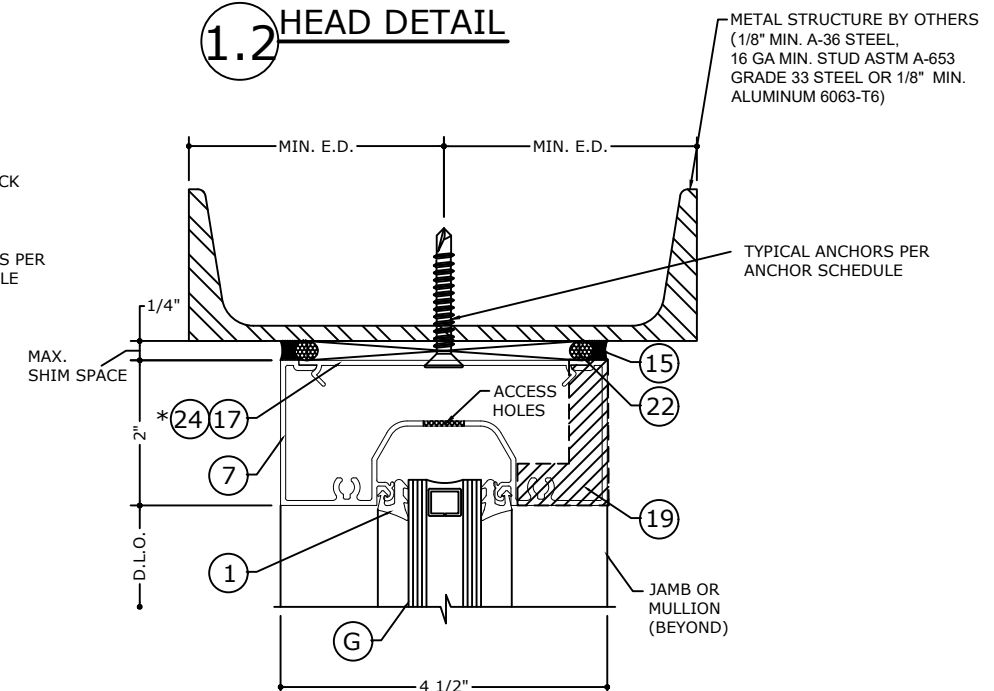
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NOTES:
* PART 17 AT ANCHORS & PART 24 BETWEEN ANCHOR LOCATIONS.



1.2 HEAD DETAIL



1.5 HEAD DETAIL

NOTE:
MAX. WATER PENETRATION PER ASTM E331= 10 P.S.F
MAX. DESIGN PRESSURE = ± 45 P.S.F.
MAX. WIDTH FOR SINGLE PANEL OPENING = 60"

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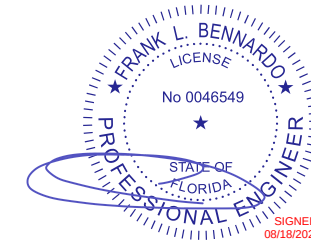
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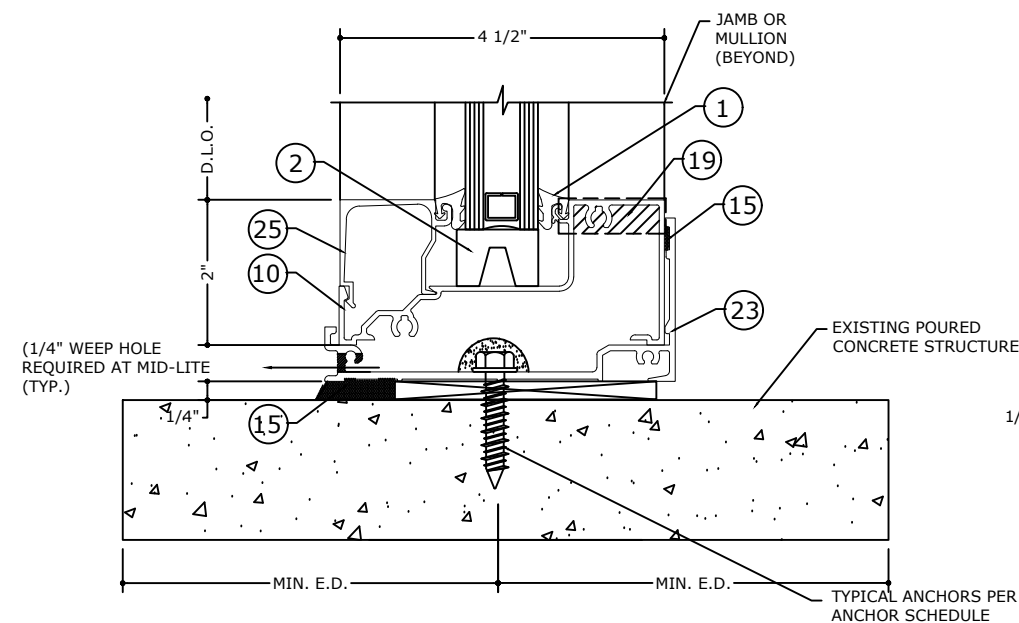
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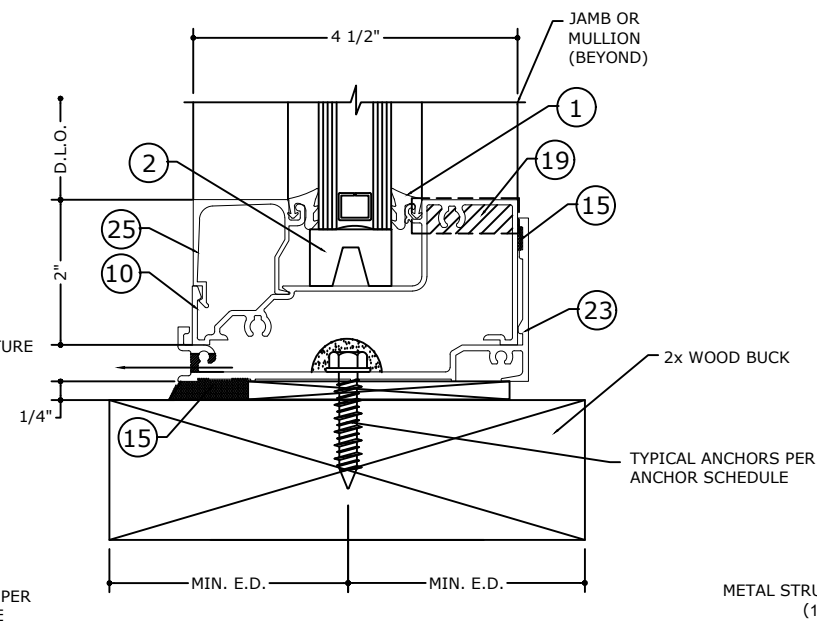
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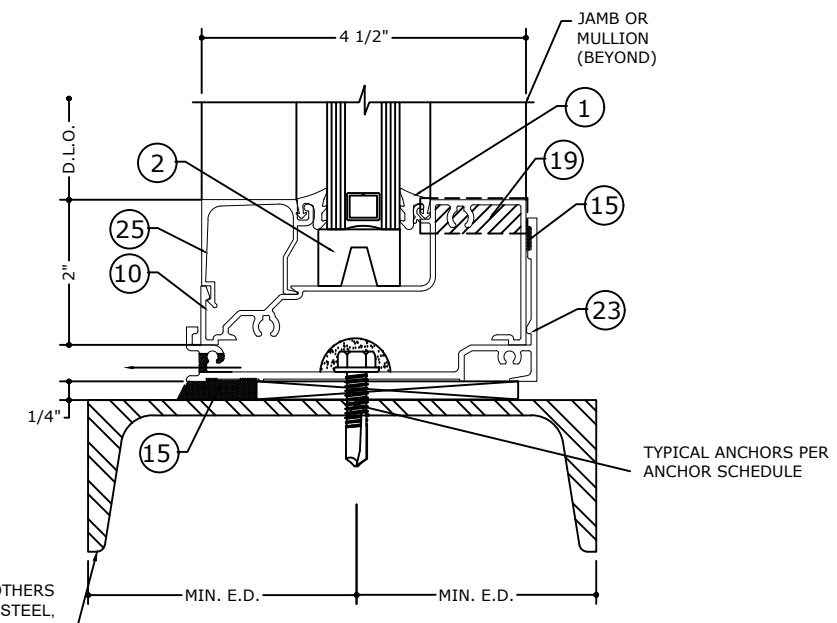
ALTERNATE SILL DETAILS



2.3 SILL DETAIL



2.4 SILL DETAIL



2.5 SILL DETAIL

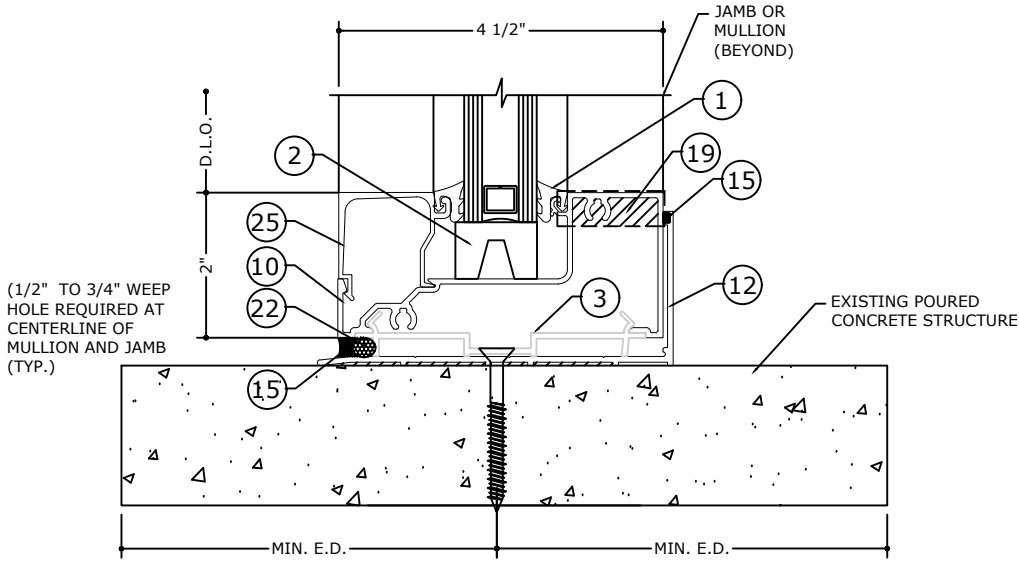
NOTE: REFER TO SYSTEM INSTALLATION MANUAL
FOR FABRICATION AND ASSEMBLY INSTRUCTIONS.

ALTERNATE SILL DETAILS

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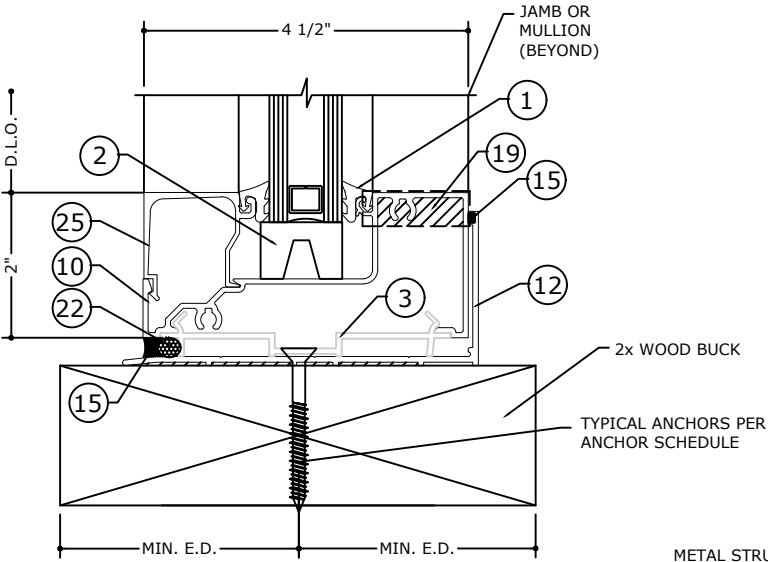
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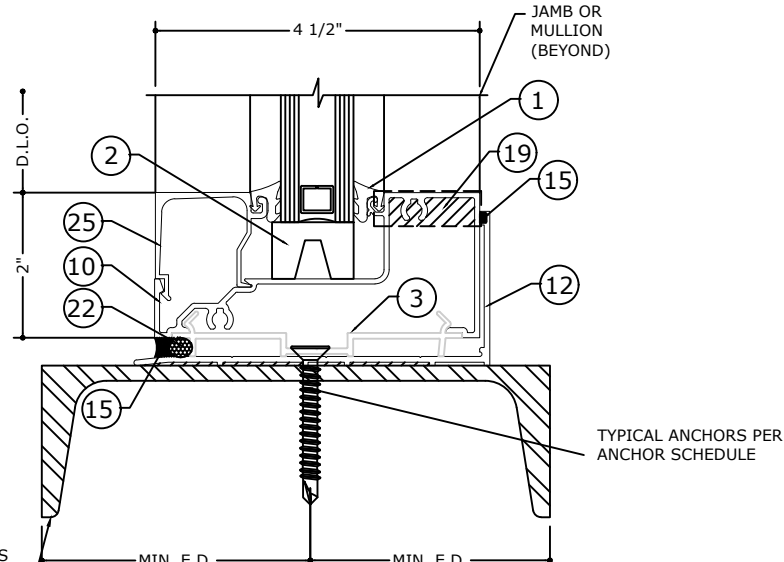
2.6 SILL DETAIL

NOTE:
MAX. WATER PENETRATION PER ASTM E331= 10 P.S.F
MAX. DESIGN PRESSURE = ± 45 P.S.F.
MAX. WIDTH FOR SINGLE PANEL OPENING = 60"



2.7 SILL DETAIL

NOTE:
MAX. WATER PENETRATION PER ASTM E331= 10 P.S.F
MAX. DESIGN PRESSURE = ± 45 P.S.F.
MAX. WIDTH FOR SINGLE PANEL OPENING = 60"



2.8 SILL DETAIL

NOTE:
MAX. WATER PENETRATION PER ASTM E331= 10 P.S.F
MAX. DESIGN PRESSURE = ± 45 P.S.F.
MAX. WIDTH FOR SINGLE PANEL OPENING = 60"

NOTE: REFER TO SYSTEM INSTALLATION MANUAL
FOR FABRICATION AND ASSEMBLY INSTRUCTIONS.

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2023 FBC (23-59820b)	SQ	RS	08/29/23
2026 FBC UPDATE	AEG	RS	08/12/26

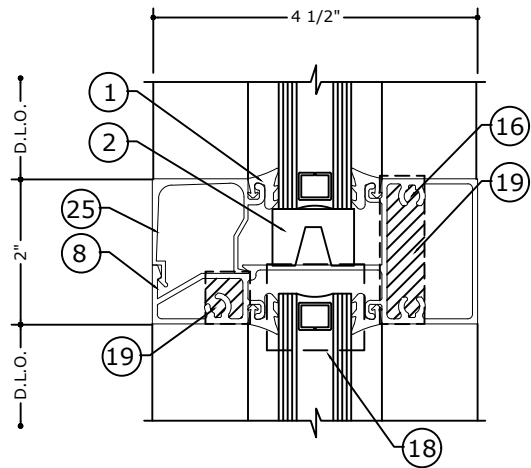
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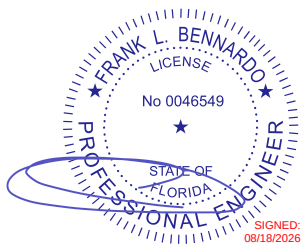
HORIZONTAL DETAILS



NOTE: HORIZONTAL DETAIL ③ IS LIMITED TO 78" MAX. IN LENGTH.

NOTE: REFER TO SYSTEM INSTALLATION MANUAL FOR FABRICATION AND ASSEMBLY INSTRUCTIONS.

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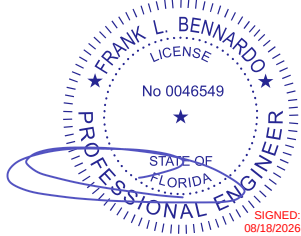
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JAMB DETAILS

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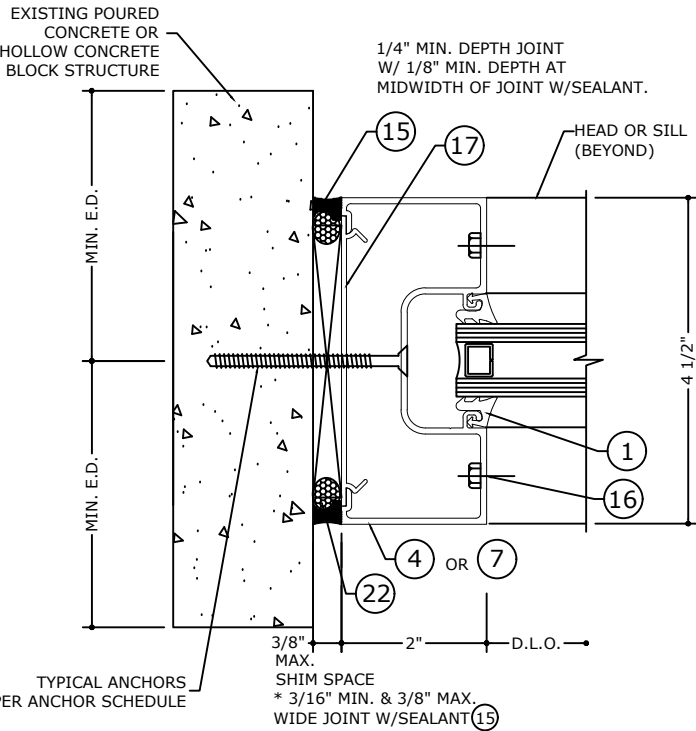
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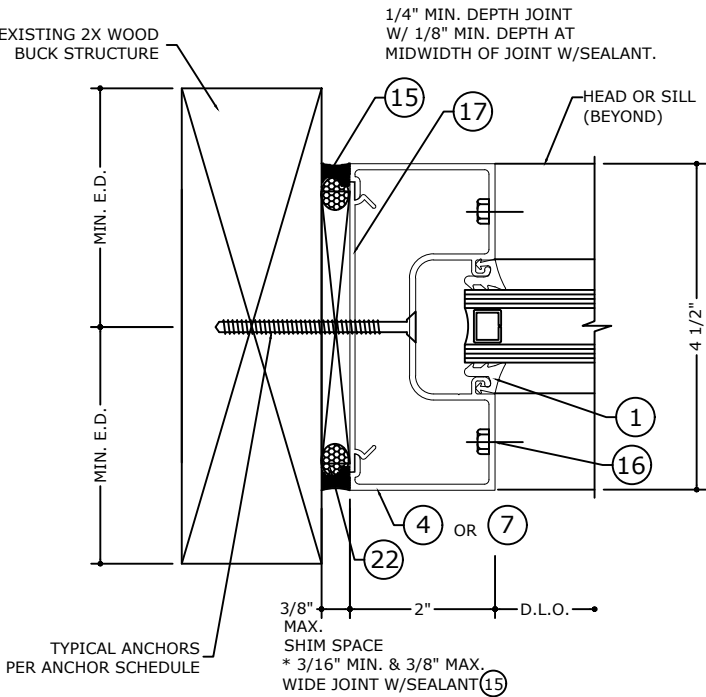
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TO POURED CONCRETE OR HOLLOW CONCRETE BLOCK STRUCTURE



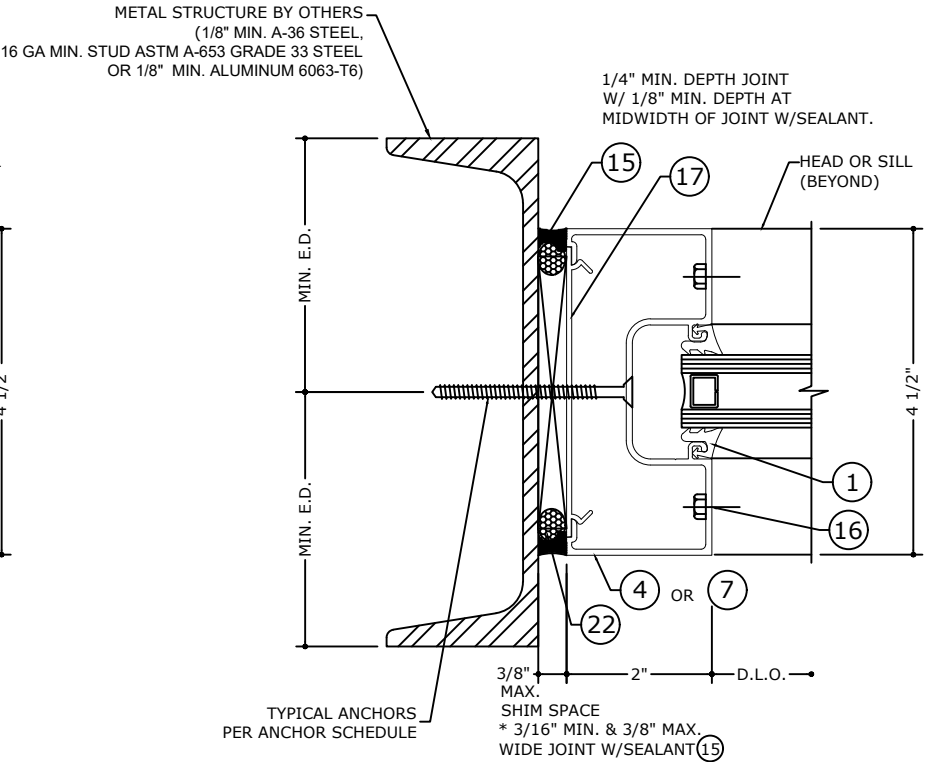
4 JAMB DETAIL

TO WOOD STRUCTURE



4.1 JAMB DETAIL

TO STEEL STRUCTURE



4.2 JAMB DETAIL

NOTE: REFER TO SYSTEM INSTALLATION MANUAL
FOR FABRICATION AND ASSEMBLY INSTRUCTIONS.

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STANDARD MULLIONS DETAILS

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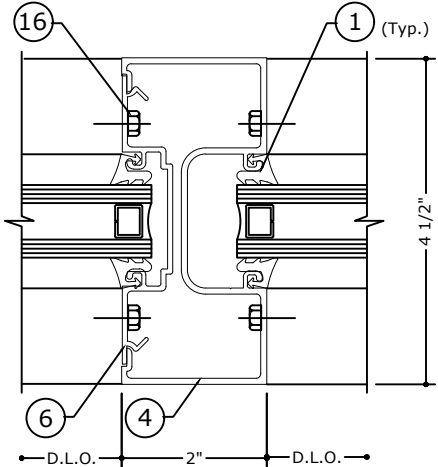
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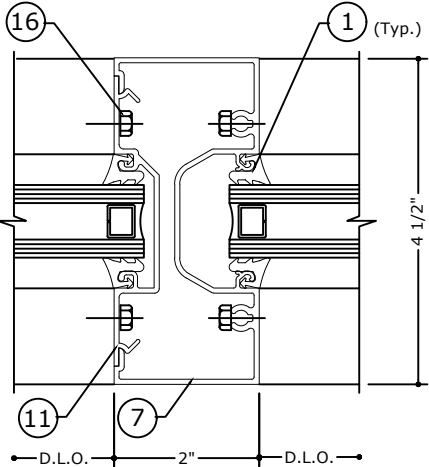
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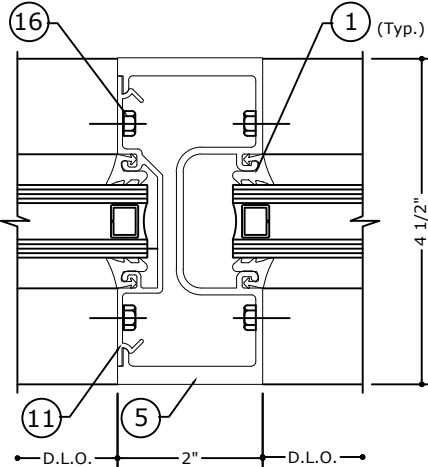
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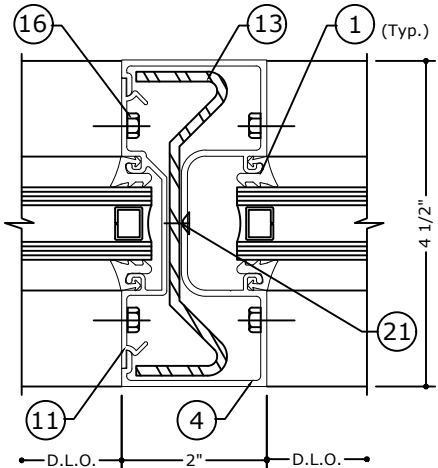
5 MULLION DETAIL
SCALE: 6" = 1'-0"
M1



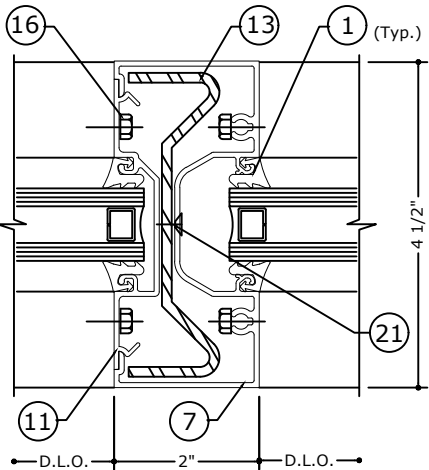
5.1 MULLION DETAIL
SCALE: 6" = 1'-0"
M2



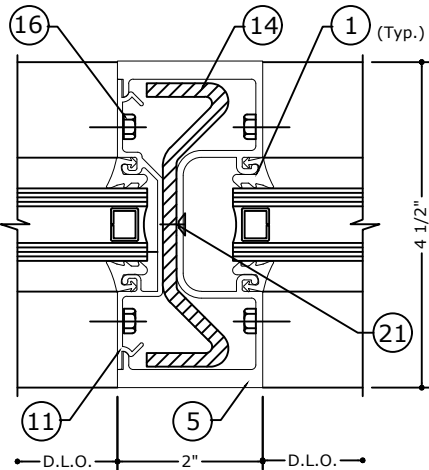
5.2 MULLION DETAIL
SCALE: 6" = 1'-0"
M3



5.3 MULLION DETAIL
SCALE: 6" = 1'-0"
M4



5.4 MULLION DETAIL
SCALE: 6" = 1'-0"
M5



5.5 MULLION DETAIL
SCALE: 6" = 1'-0"
M6

NOTE: REFER TO SYSTEM INSTALLATION MANUAL
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PE# 0046549 CA# 9885

SIGNED:
08/18/2026

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AUGUST 12, 2026

BILL OF MATERIALS					
ITEM NO.	PART NUMBER	DESCRIPTION	DIMENSIONS	MATERIAL	NOTES
1	FG-1133	GLAZING GASKET	0.501" x 0.548"	EPDM	
2	FG-3146	SETTING BLOCK	1.125" x 0.781" x 4" LONG	EPDM	
3	FG-2000-FP-3	SILL ANCHOR	4.000" x 0.615" x 0.078" x 4" LONG	6063-T6 ALUMINUM	LOCATED CENTER WITH ANCHOR'S LOCATION
4	FG-3100	MULLION & JAMB	4.500" x 2.000" x 0.084"	6063-T6 ALUMINUM	
5	FG-3101	MULLION	4.500" x 2.000" x 0.094"	6063-T6 ALUMINUM	
6	FG-3102	MULLION FILLER	4.000" x 0.695" x 0.070"	6063-T6 ALUMINUM	
7	FG-3103	MULLION, HEAD & JAMB	4.500" x 2.000" x 0.070"	6063-T6 ALUMINUM	
8	FG-3142	HORIZONTAL	4.480" x 2.000" x 0.070"	6063-T6 ALUMINUM	
9	FG-3210	GLASS STOP	1.317" x 1.488" x 0.055"	6063-T5 ALUMINUM	USE WITH FG-3142
10	FG-3161	SILL	4.480" x 2.000" x 0.070"	6063-T6 ALUMINUM	
11	FG-3164	FILLER	4.00" x .622" x .070"	6063-T5 ALUMINUM	
12	FG-2169	SUB SILL	4.390" x 2.125" x 0.078"	6063-T5 ALUMINUM	
13	RS-1	STEEL REINFORCEMENT	4.187" x 1.250" x 0.135"	A-36 STEEL	
14	RS-10	STEEL REINFORCEMENT	3.904" x 1.250" x .188"	A-36 STEEL	
15	DOWSIL 795	PERIMETER SEALANT & VINYL JOINTS		SILICONE	LOCATED AT EACH EXTERIOR FRAME CORNER
16	FS-8	SPLINE ASSEMBLY SCREW	#14 x 1" HHSTS	STEEL	
17	FG-2122-01	HEAD & JAMB FILLER	4.000" x 0.357" x 0.070" x 4" LONG	6063-T6 ALUMINUM	LOCATED CENTER WITH ANCHOR'S LOCATION
18	FG-1000-FP-2	WATER DIVERTER SET IN SEALANT	1.187" x 1.187" x 0.062" x 1.343" LONG	PVC	LOCATED AT EACH END OF (8) & SEALED w (15)
19	SM-5601	JOINT SEALANT TAPE	.125" x .50" VARIES	ISOCRYL	LOCATED AT EACH END OF HORIZONTAL BETWEEN JOINTS
20	FG-2000-FP-4	END DAM	0.625" x 2.125" x 0.062" x 4.25" LONG	6063-T6 ALUMINUM	USE WITH FG-2169
21	FS-22	SCREW FOR STEEL REINFORCEMENT	#12-24X1/2 PFH	STEEL	TOP, BOTT & CTR.
22	-	BACKER ROD	.500"	POLYETHYLENE	
23	FG-2246	SUB-SILL	4.827" x 2.250" x 0.078"	6063-T5 ALUMINUM	
24	FG-2188	FLAT FILLER	4.000" x 0.365" x 0.070"	PVC	TO BE USED BETWEEN ANCHORS / (3) FG-2000-FP-3.
25	FG-3144	GLASS STOP	1.317" x 1.491" x 0.055"	6063-T5 ALUMINUM	USE WITH FG-3161

NOTE: SETTING BLOCK SHALL BE COMPLIANT WITH THE FLORIDA BUILDING CODE NINTH EDITION (2026)

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