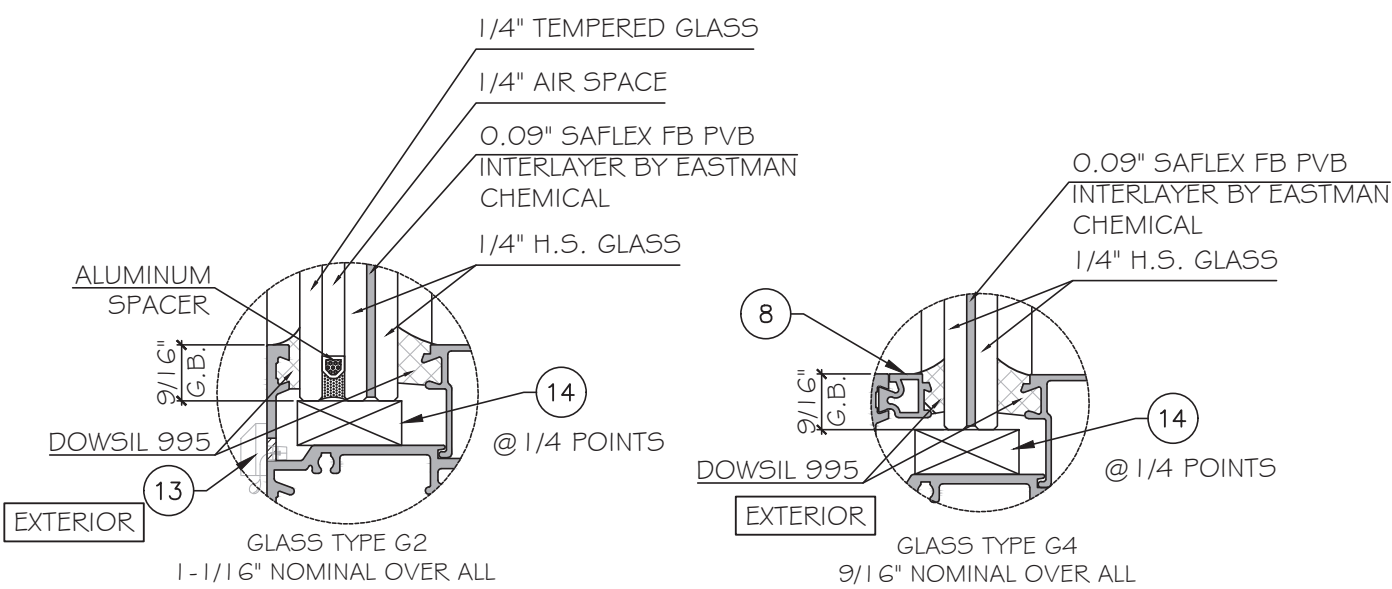


K RESEARCH & DEVELOPMENT, LLC
SPA150 ALUMINUM WINDOW WALL - S.M.I.

GENERAL NOTES:

- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 8TH EDITION OF FLORIDA BUILDING CODE 2023 INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).
- PANELS ARE RATED FOR SMALL MISSILE IMPACT, IMPACT SHUTTERS ARE NOT REQUIRED.
- THESE PANELS ARE APPROVED FOR AIR AND WATER INFILTRATION.
- ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS.
ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
- ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
- MATERIALS INCLUDING BUT NOT LIMITED TO STEEL / METAL SCREWS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 8TH EDITION OF FLORIDA BUILDING CODE 2023 SECTION AS APPLICABLE.
- METAL STRUCTURES BY OTHERS TO BE DESIGNED TO SUPPORT THE LOADS IMPOSED BY THIS GLAZING SYSTEM AND TO TRANSFER SUCH LOADS TO THE BUILDING MAIN STRUCTURE.
- ULTIMATE LOAD OBTAINED FROM ASCE 7-22, MULTIPLY BY 0.6 SHALL BE LESS THAN OR EQUAL TO MAX. DESIGN LOAD IN THIS DOCUMENT. THE DESIGN LOADS SHOWN IN THIS DOCUMENT ARE ALLOWABLE DESIGN LOADS.
- MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE LABELING TO COMPLY WITH SECTION 1709.9.2.
- SEALANT:
ALL FRAME CORNERS, JOINTS, MULLION SEAMS AND PERIMETER GLAZING BEAD TO FRAME INSTALLATION FASTENERS SEALED WITH SILICONE SEALANT.



NOTE:
GLASS COMPLIES WITH ASTM E1300-09
(3 SEC. GUSTS).

USE CHARTS AS FOLLOWS.

- STEP 1: DETERMINE DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7-22 STANDARD OR WIND TUNNEL REPORTS.
- STEP 2: SEE SHEET E1 FOR APPROVED TYPICAL ELEVATION & CONFIGURATION.
- STEP 3: ANCHOR OPTION SEE SHEET A1. ANCHOR LAYOUT SEE SHEET E1. GLASS CAPACITY SEE SHEET E1,
- STEP 4: THE LOWEST VALUE RESULTING FROM STEPS 2 & 3 THAT EXCEED THE DESIGN WIND PRESSURES DETERMINED THRU STEP 1 SHALL APPLY TO ENTIRE SYSTEM.

ABBREVIATIONS AND SYMBOLS	
G.B. - GLASS BITE	OPP. - OPPOSITE
D.L.O. - DAYLITE OPENING	
F.H. - FRAME HEIGHT	
F.W. - FRAME WIDTH	
W/ - WITH	
W/O - WITHOUT	
O.C. - ON CENTER	

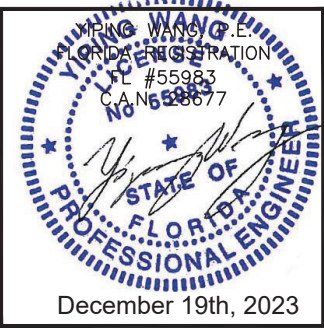
SECTION NUMBER

C

7

SHEET NUMBER

FLORIDA APPROVAL:
FL#45990.3



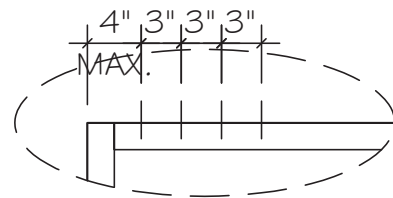
MCY ENGINEERING, INC.
GLAZING CONSULTANTS

12781 MIRAMAR PKWY, STE. 301
MIRAMAR, FL 33027
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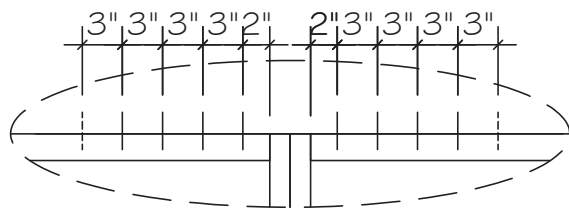
SPA150 ALUMINUM WINDOW WALL - S.M.I.

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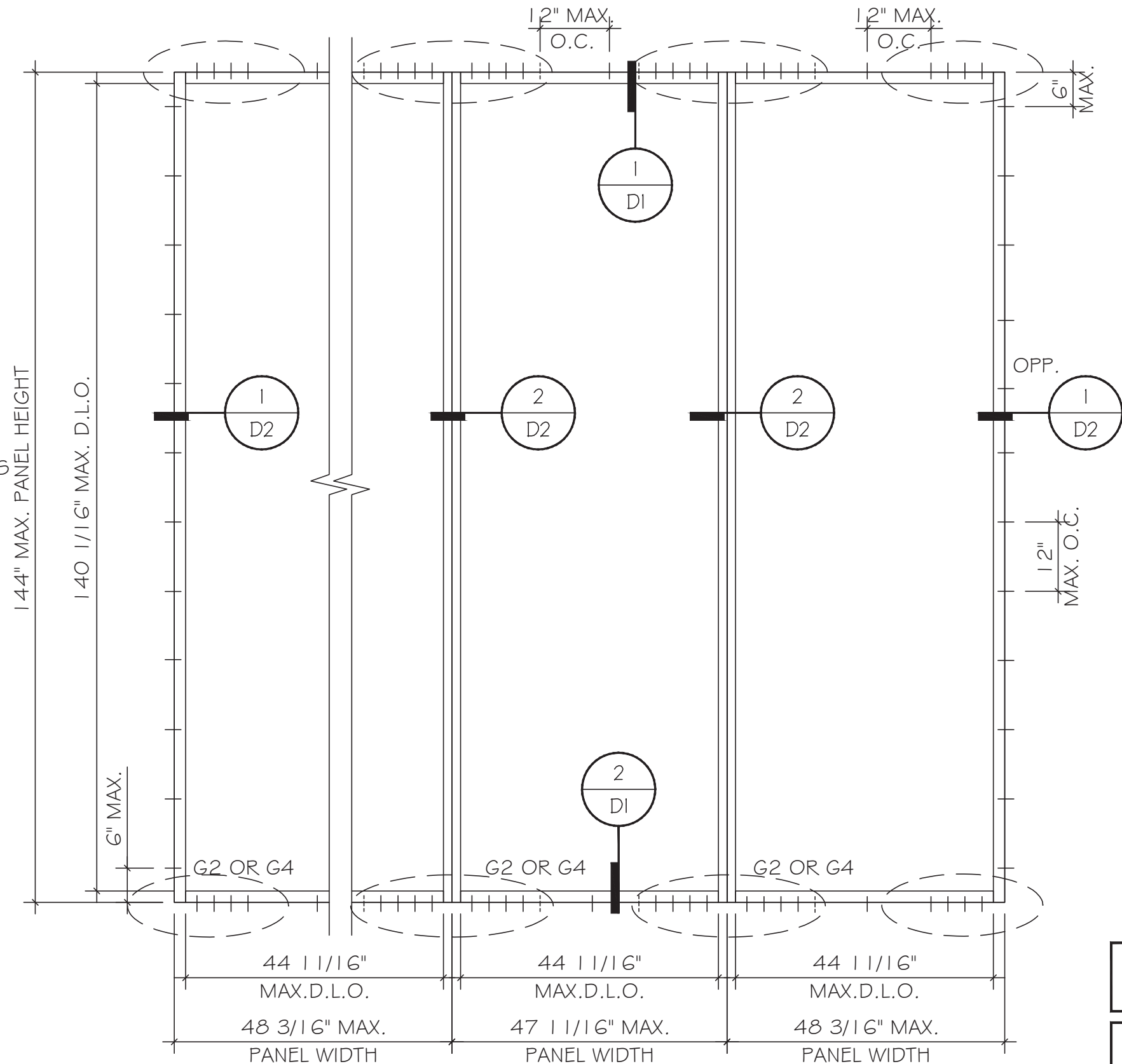


ANCHOR AT JAMB END



ANCHOR AT MULLION END

100 PSF < WIND LOAD ≤ 110 PSF, (10) ANCHORS
WIND LOAD ≤ 100 PSF, (8) ANCHORS

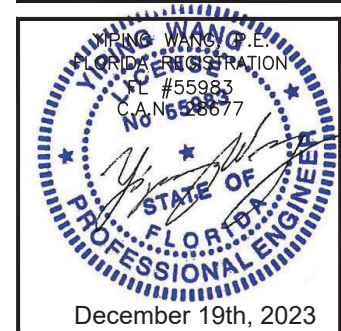


TYPICAL EXTERIOR ELEVATIONS

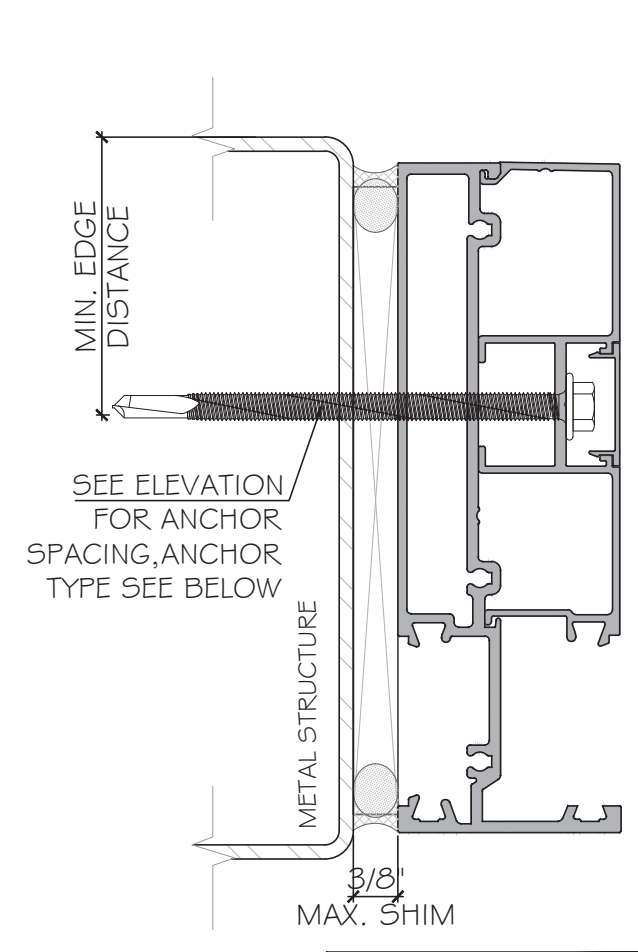
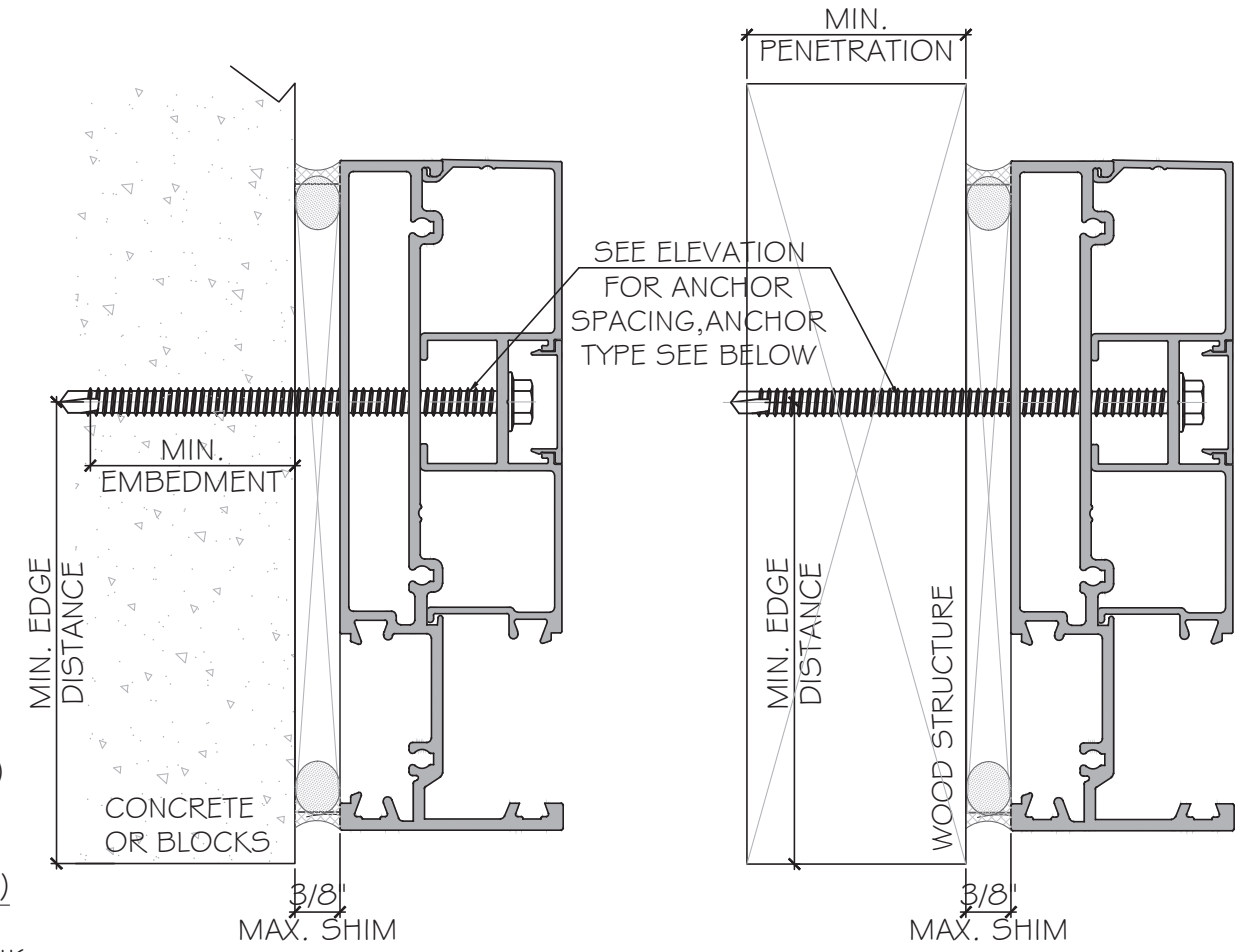
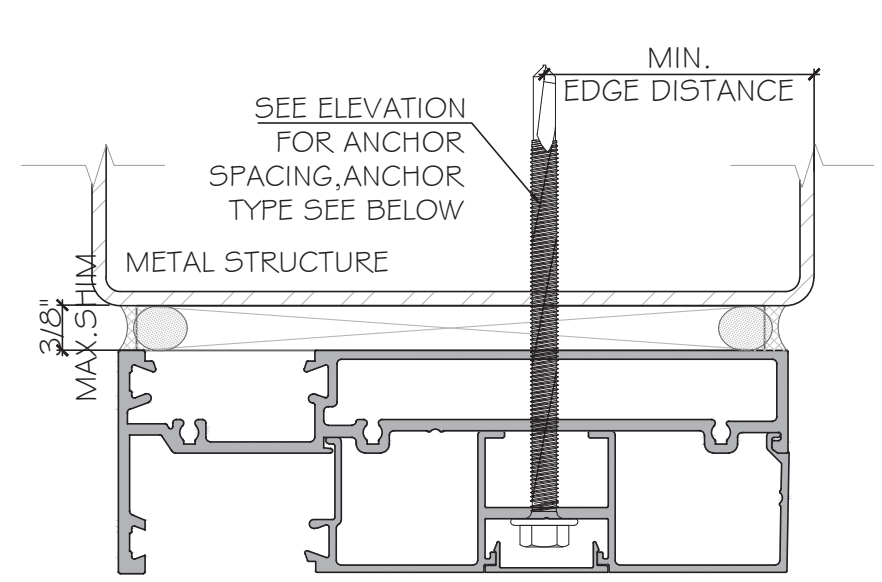
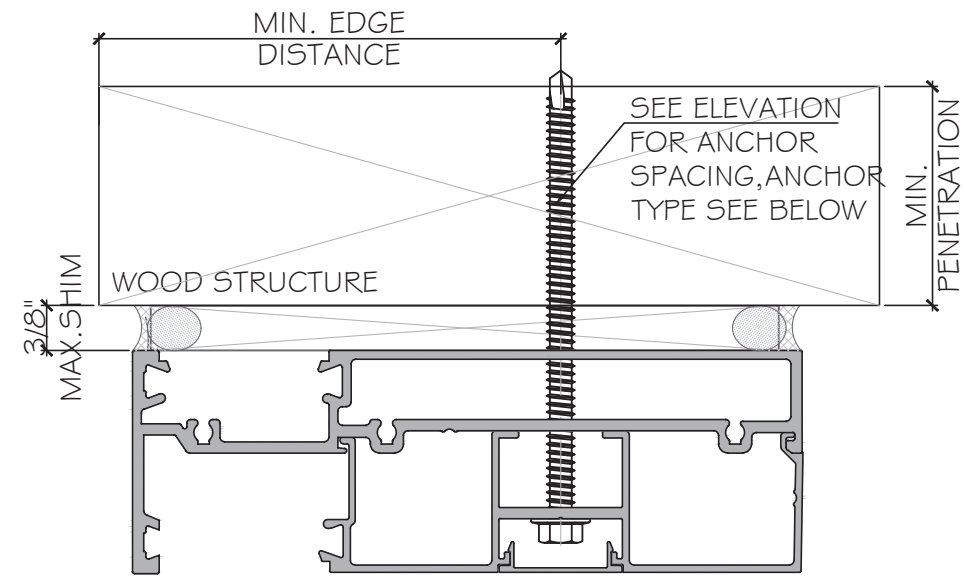
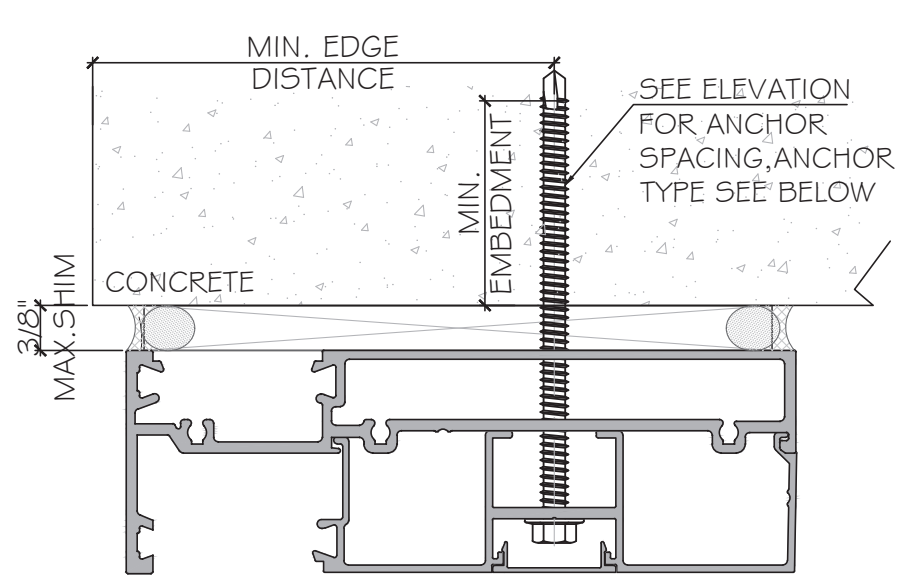
ALLOWABLE DESIGN LOAD FOR
SIZE SHOWN ABOVE OR
SMALLER AS PERMITTED BY FBC
+96/-110 PSF

GLASS TYPE	MAX. GLASS SIZE		MAX. GLASS D.L.O.W X D.L.O.H AREA (FT²)	DESIGN LOADS (PSF)	
	D.L.O.W.	D.L.O.H.		EXT. (+)	INT. (-)
	IN.	IN.			
G2	44 11/16"	140 1/16"	43.47	96	110
G4	44 11/16"	140 1/16"	43.47	96	110

FLORIDA APPROVAL:
FL#45990.3



Drawn Date	12.18.2023	Scale	AS SHOWN
Rev. No.	1.	Date	12.18.2023
NEW APPROVAL	JAMES	Drawn By	
AD23-51			
E1			
Sheet No. 2 OF 7			



ANCHOR TYPES: (SEE ELEVATIONS FOR SPACING)

ANCHOR TYPE 'A' - 1/4" DIA. ULTRACON+ BY 'DEWALT'
(Fu= 164KSI, Fy= 148KSI)
INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
1-1/2" MIN. PENETRATION INTO WOOD (HEAD/ SILL/ JAMB)

THRU 1 BY WOOD BUCK INTO CONCRETE OR BLOCKS
1-3/4" MIN. EMBED INTO CONCRETE (HEAD/ SILL/ JAMB)
1-3/4" MIN. EMBED INTO CONCRETE OR BLOCKS (JAMB ONLY)

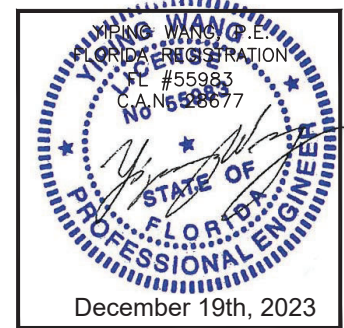
ANCHOR TYPE 'B' - 1/4" TEKS/ SELF DRILLING SCREW (GRADE 5)
(Fu= 120KSI, Fy= 92KSI)
INTO FBC APPROVED MULLIONS (ALUM.6063-T5 MIN. 1/8" THK. MIN.)
OR INTO METAL STRUCTURES, STEEL: 1/8" THK. MIN. (A36 MIN.)
(3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

TYPICAL EDGE DISTANCE

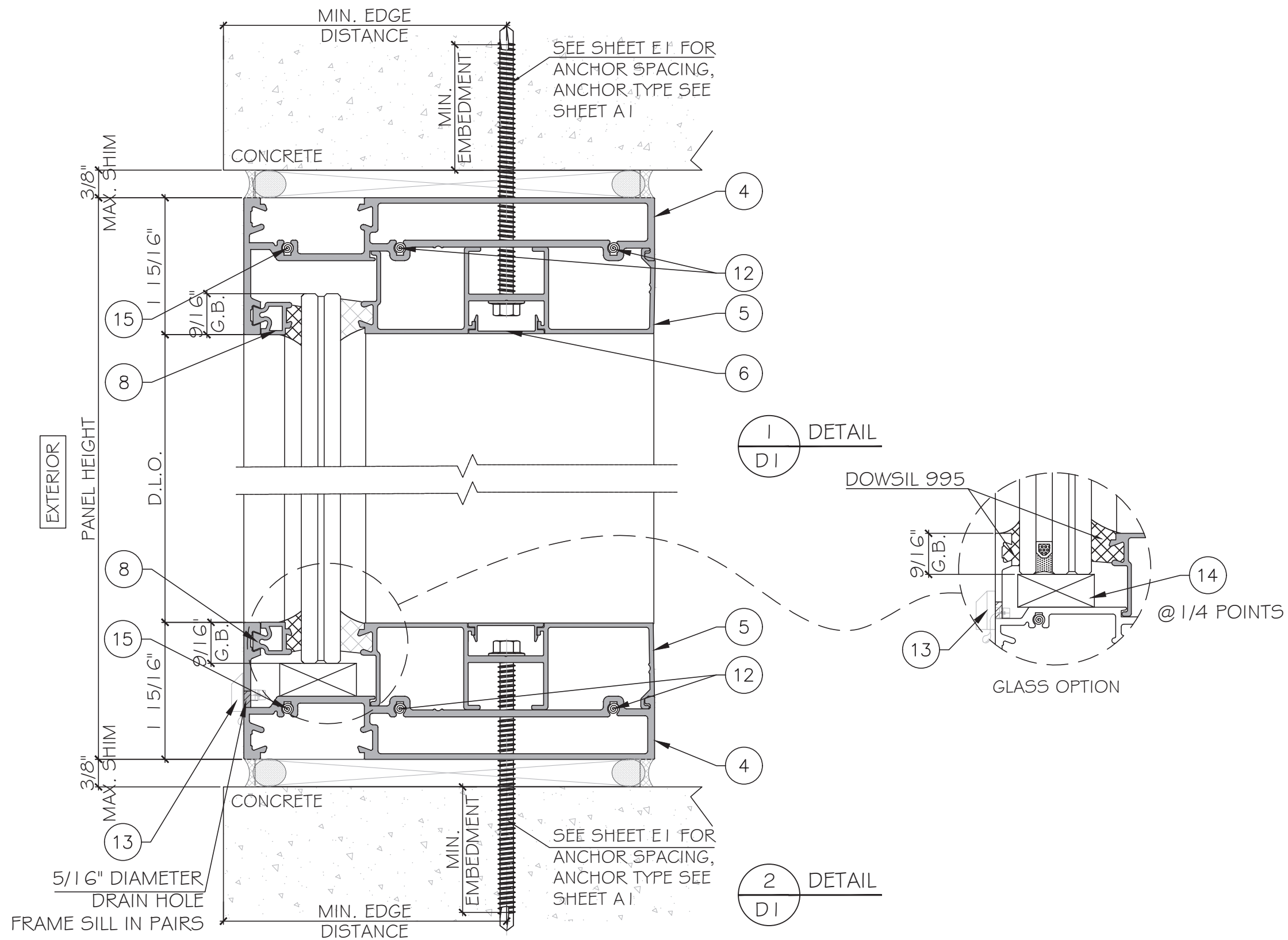
INTO CONCRETE (3000 PSI MIN.) OR MASONRY = 2-1/2" MIN.
INTO METAL STRUCTURE = 3/4" MIN.
INTO WOOD STRUCTURE = 1" MIN.

NOTE:
METAL STRUCTURE BY OTHERS MUST BE DESIGNED
AND ANCHORED PROPERLY TO SUSTAIN LOADS
IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM
TO THE BUILDING STRUCTURE.

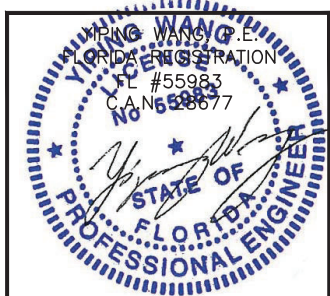
FLORIDA APPROVAL:
FL#45990.3



Rev. No.	Date	Drawn By	Description
1.	12.18.2023	JAMES	NEW APPROVAL
Drawn Date 12.18.2023 Scale AS SHOWN			
DRAWING NO. AD23-51			
A1			
Sheet No. 3 OF 7			



FLORIDA APPROVAL:
FL#45990.3



December 19th, 2023

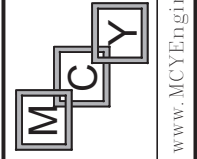
SPA150 ALUMINUM WINDOW WALL - S.M.I.
K RESEARCH & DEVELOPMENT, LLC
202 RINGLING BOULEVARD SUITE 301
SARASOTA, FLORIDA
TEL. (941) 266-0300

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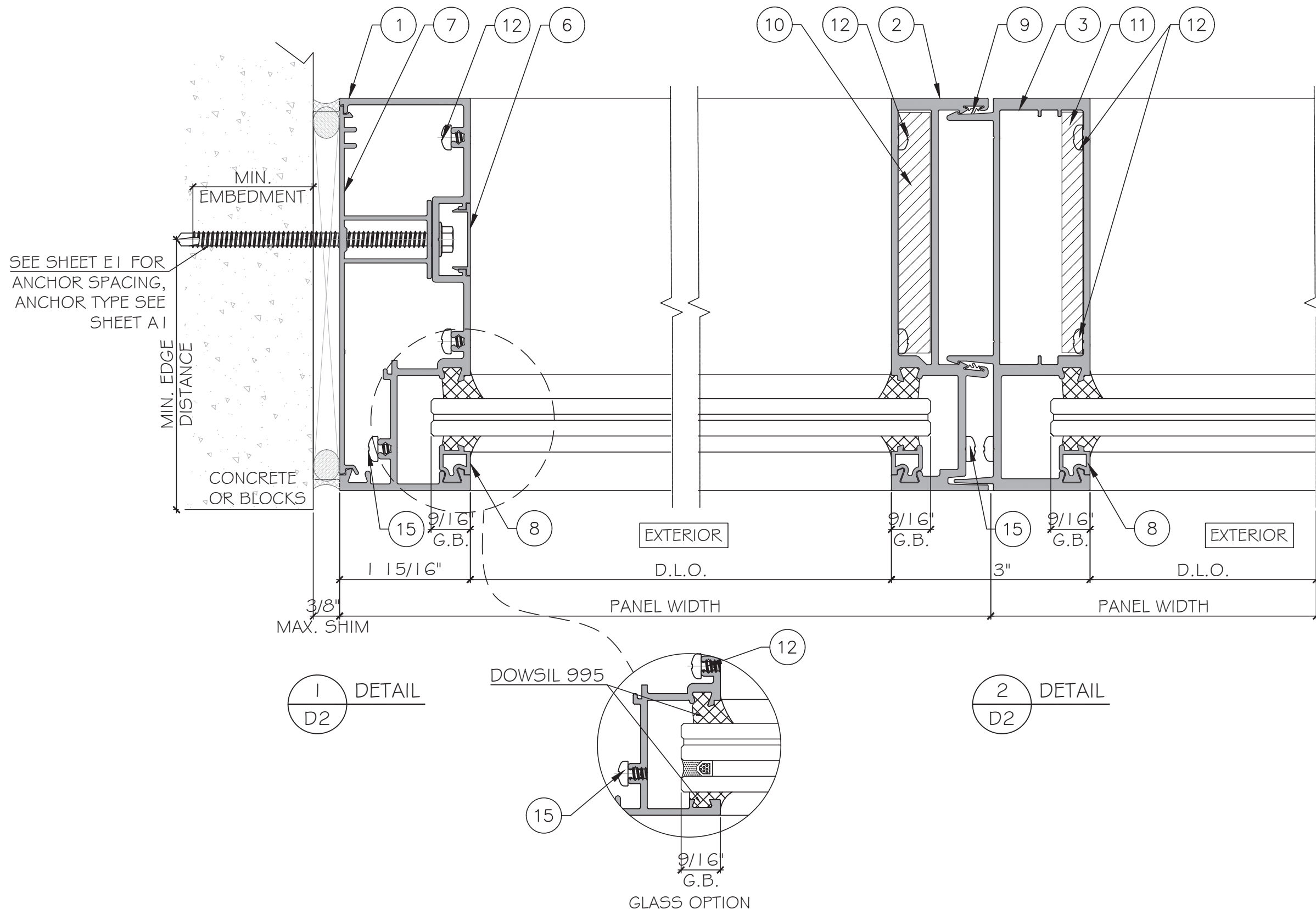
Drawn Date 12.18.2023 Scale AS SHOWN

DRAWING NO.
AD23-51

D1
Sheet No.
4 OF 7



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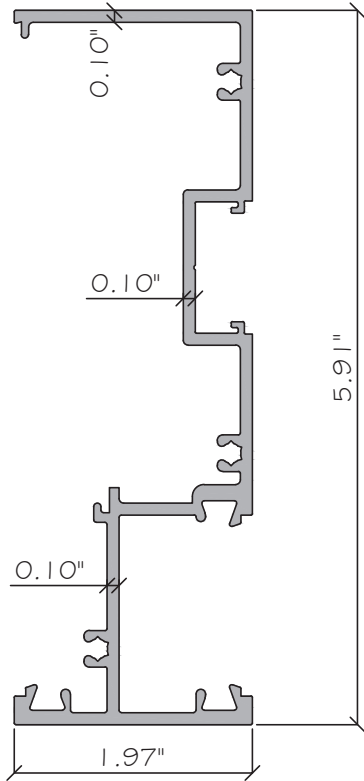


Rev. No.	Date	Drawn By	Description
1.	12.18.2023	JAMES	NEW APPROVAL
Drawn Date	12.18.2023	Scale	AS SHOWN
DRAWING NO.	AD23-51		
Sheet No.	5 OF 7		

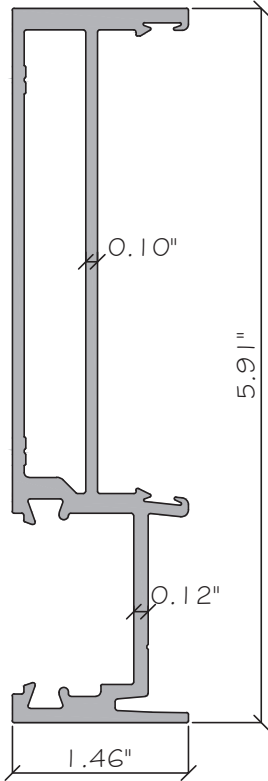
FLORIDA APPROVAL:
FL#45990.3

YOUNG WANG
Professional Engineer
FL #55983
C.A. No. 26877

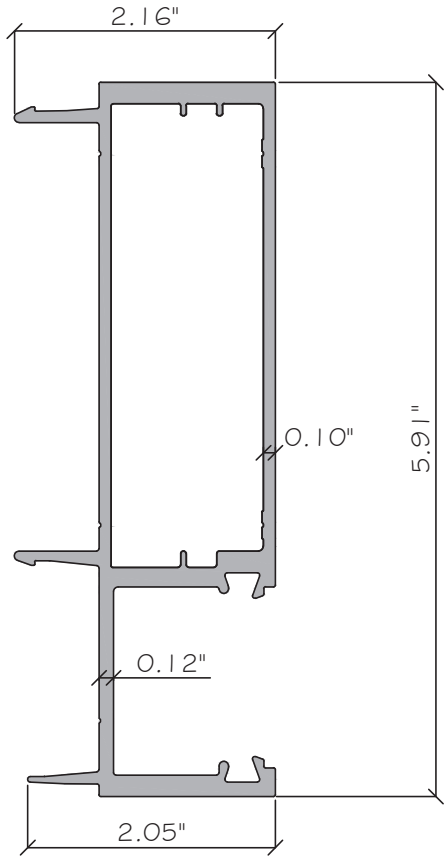
December 19th, 2023



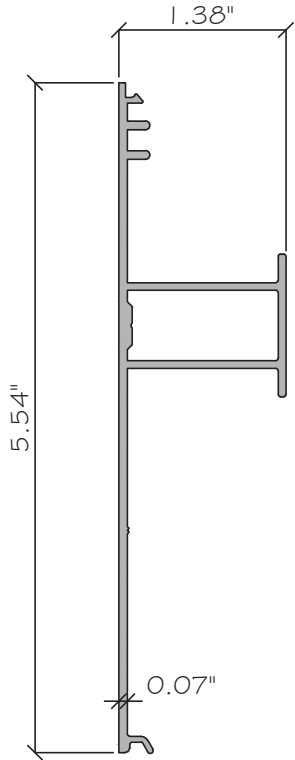
① FRAME SPA15001A
ALUM. 6063-T5



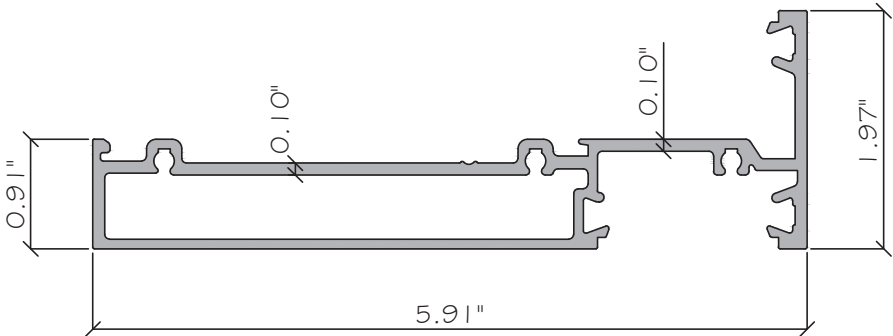
② FEMALE MULLION SPA15002B
ALUM. 6063-T6



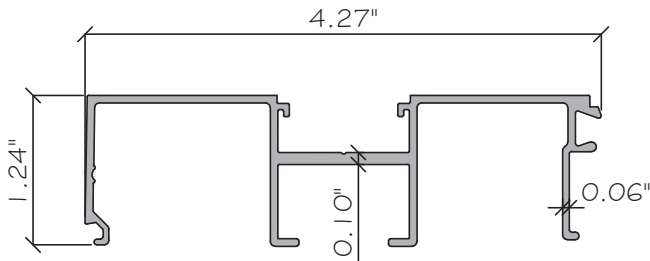
③ MALE MULLION SPA15003A
ALUM. 6063-T6



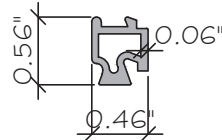
⑦ JAMB FILLER SPA15007A
ALUM. 6063-T5



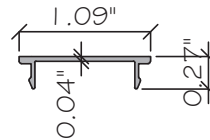
④ HEAD SILL FRAME SPA15004
ALUM. 6063-T5



⑤ GLASS STOP SPA15015
ALUM. 6063-T5

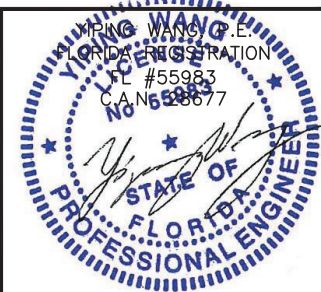


⑧ LAM. GLASS POCKET SPA10016
ALUM. 6063-T5



⑥ COVER SPA13006
ALUM. 6063-T5

FLORIDA APPROVAL:
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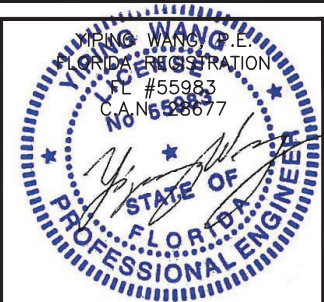
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GLAZING CONSULTANTS
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MIRAMAR, FL 33027 P: 305.271.0117
www.MCYEngineering.com mcy@mcyengineering.com

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1.	12.18.2023	JAMES	NEW APPROVAL
Drawn Date 12.18.2023 Scale AS SHOWN			
DRAWING NO. AD23-51			
PARTS			
Sheet No. 6 OF 7			

BILL OF MATERIALS

ITEM	PART NUMBER	DESCRIPTION	MATERIAL	MANUFACTURER
1	SPA15001A	FRAME	ALUM. 6063-T5	SUPERHOUSE
2	SPA15002B	FEMALE MULLION	ALUM. 6063-T6	SUPERHOUSE
3	SPA15003A	MALE MULLION	ALUM. 6063-T6	SUPERHOUSE
4	SPA15004	HEAD SILL FRAME	ALUM. 6063-T5	SUPERHOUSE
5	SPA15015	GLASS STOP	ALUM. 6063-T5	SUPERHOUSE
6	SPA13006	COVER	ALUM. 6063-T5	SUPERHOUSE
7	SPA15007A	JAMB FILLER	ALUM. 6063-T5	SUPERHOUSE
8	SPA10016	LAM. GLASS POCKET	ALUM. 6063-T5	SUPERHOUSE
9	SBWG-26162	EPDM GASKET, ADUROMETER, 70±5 SHORE A	EPDM	SUPERHOUSE
10		REINFFORCING BAR 3 5/8" X 1/2"	STEEL A36 MIN.	SUPERHOUSE
11		REINFORCING BAR 3 5/8" X 5/16"	STEEL A36 MIN.	SUPERHOUSE
12		FRAME ASSEMBLY SCREWS, DIA.3/16" X 1 1/4"	410 STAINLESS STEEL	VARIES
13	WHCO1	WEEP HOLE COVER	-	SUPERHOUSE
14		EPDM SETTING BLOCKS, 1 5/32" X 1", ADUROMETER 80±5 SHORE A	EPDM	SUPERHOUSE
15		FRAME ASSEMBLY SCREWS, DIA.3/16" X 2 3/8"	410 STAINLESS STEEL	VARIES
16		STRUCTURAL SILICONE DOWSIL 995	SILICONE	DOWSIL

FLORIDA APPROVAL:
FL#45990.3



December 19th, 2023



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Drawn Date	Scale
12.18.2023	AS SHOWN

DRAWING NO.
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