

SERIES 8000 ALUMINUM WINDOW WALL SYSTEM

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH EDITION)/2023 (8TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

1BY OR 2BY WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS TO THE BUILDING STRUCTURE.

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2020/2023 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC.

CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

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.

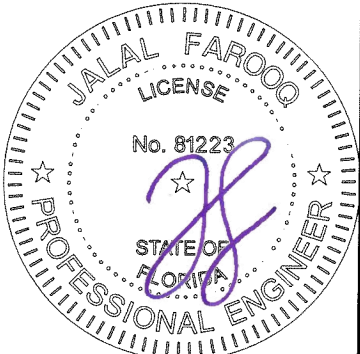
THIS SYSTEM IS RATED FOR SMALL MISSILE IMPACT. F.B.C. APPROVED IMPACT RESISTANT SHUTTERS REQUIRED FOR INSTALLATIONS UP TO 30 FT. OF GRADE. SHUTTERS NOT REQD. FOR INSTALLATIONS ABOVE 30 FT. OF GRADE.

WINDOW WALL SYSTEM WITH GLASS TYPE 'B' ONLY COMPLY WITH REQUIREMENTS OF ANSI Z97.1.

LAMINATED GLASS
SMALL MISSILE IMPACT

Sealed: 7/25/2023 FL #17897

A- CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.
 B- THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
 C- SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.
 D- THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.



INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1** DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2** SEE CHARTS ON SHEET 3 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE.
- STEP 3** CHECK MULLION CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEETS 4 & 5 FOR WINDOW WALL MULLION AND SHEETS 8 THRU 10 FOR DOOR MULLION THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 4** CHECK ANCHOR CAPACITY FOR WINDOW WALL SYSTEM USING CHARTS ON SHEETS 7 FOR DOOR MULLION ANCHOR CAPACITY SEE CHART ON SHEETS 11 & 12. THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 5** THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.



AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 WWW.AFCENG.COM
FBPE #3538

STORE\23-06F-ES

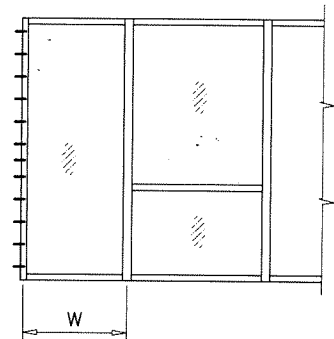
SERIES 8000 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)

E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

no.	date	description
A	04.24.23	CHART SHEET 4.1 & 5.1 REV.
B	07.25.23	UPDATED TO 2023 FBC

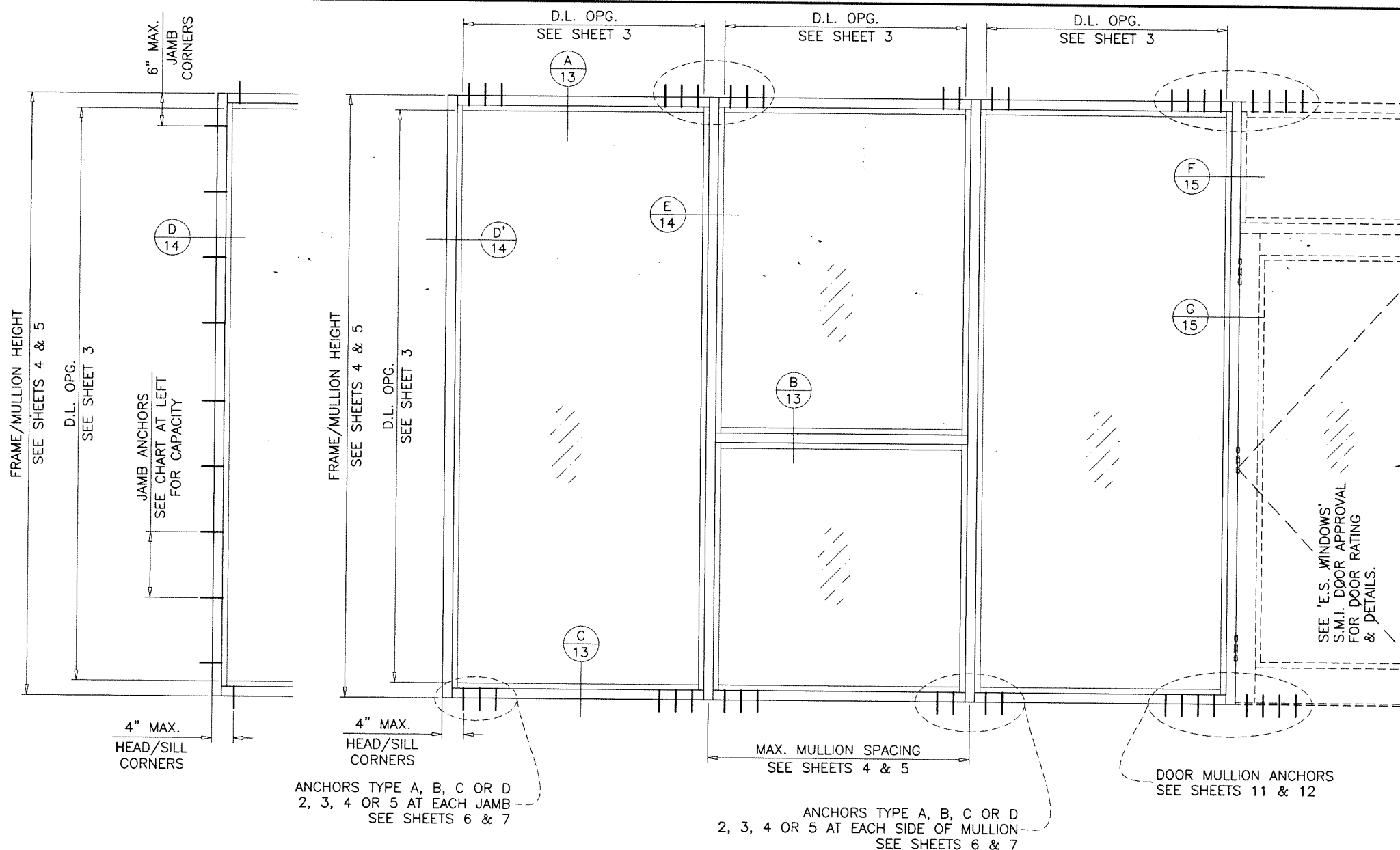
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dr. by: TARIQ
chk. by:

drawing no.
23-06F
sheet 1 of 18

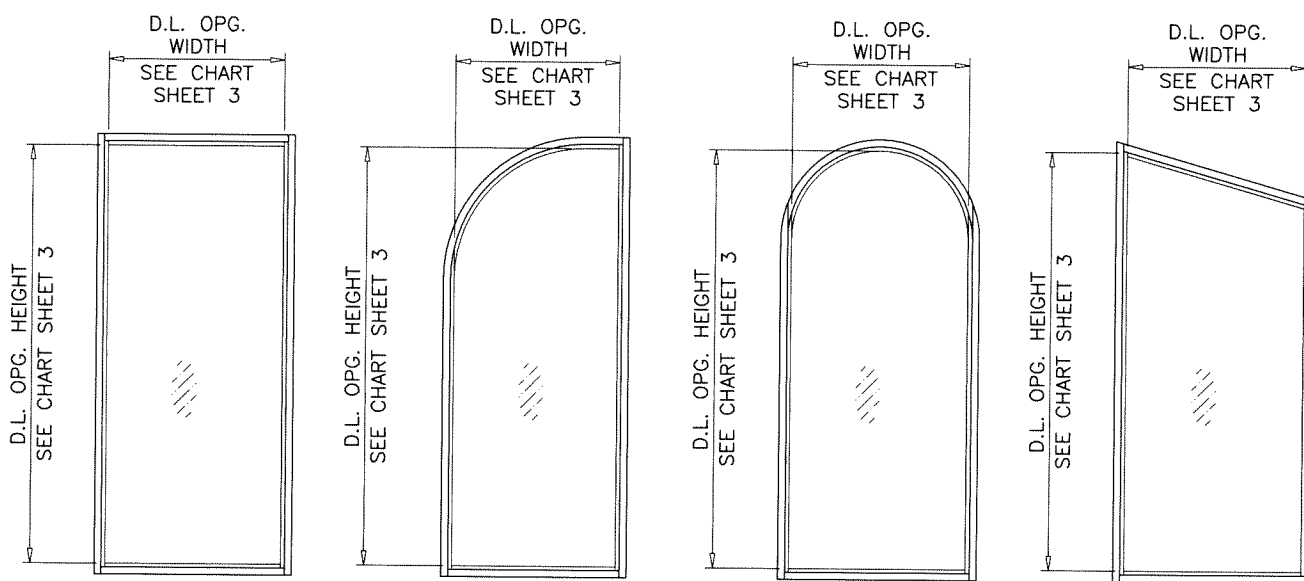


JAMB ANCHORS LOAD CAPACITY					
		12" SPACING		6" SPACING	
		ANCHORS A, B & C	ANCHORS D	ANCHORS A, B & C	ANCHORS D
SHIMS	1/2" MAX.	48"	125.0	138.0	150.0
		60"	100.0	110.0	130.0
		72"	83.0	92.0	130.0
	3/8" MAX.	48"	91.0	130.0	150.0
		60"	73.0	104.0	130.0
		72"	61.0	87.0	122.0
1/4" MAX.	48"	71.0	102.0	142.0	
	60"	56.0	82.0	113.0	
	72"	47.0	68.0	94.0	

LIMIT MAX. EXTERIOR(+) LOADS TO +100.0 PSF
INTERPOLATION BETWEEN WIDTHS ALLOWED

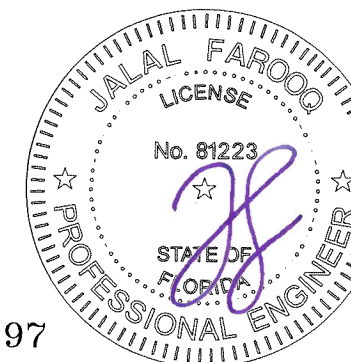


TYPICAL ELEVATION



ALLOWABLE LOADS FOR ALTERNATE SHAPES AS SHOWN ABOVE OR SIMILAR CAN BE VERIFIED BY INSCRIBING PICTURE WINDOW SHAPE WITHIN SQUARE OR RECTANGLE AS SHOWN IN DOTTED LINES AND OBTAINING ALLOWABLE LOADS FROM THOSE SHAPES. SINGLE LITES MAY BE INSTALLED VERTICALLY AS SHOWN ABOVE OR HORIZONTALLY. LIMIT MAX. DESIGN LOADS FOR ALTERNATE SHAPES TO ±130.0 PSF

Sealed: 7/25/2023



FL #17897

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FBPE #9538 STORE 23-06F-ES

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revisions:	no	date	by	description

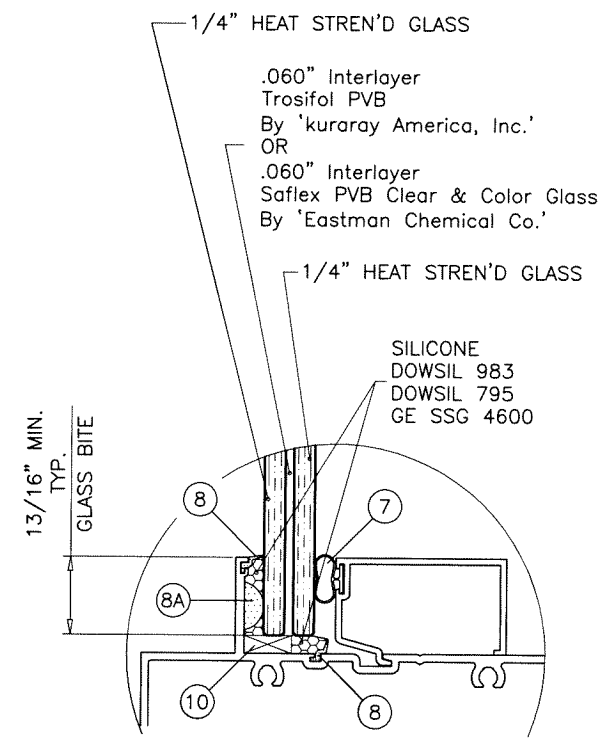
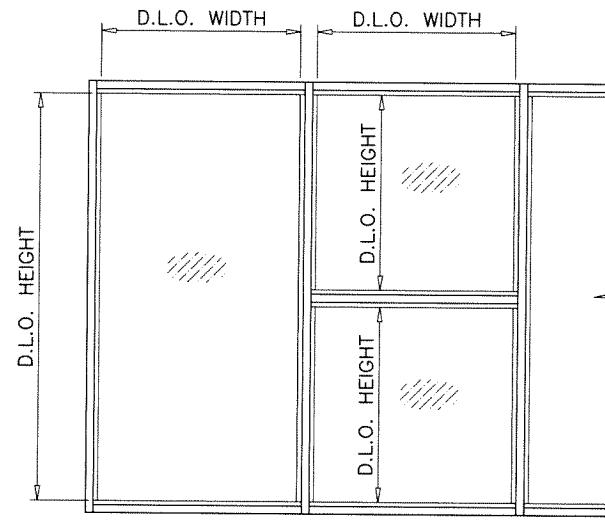
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chk. by:
drawing no.
23-06F
sheet 2 of 18

GLASS LOAD CAPACITY - PSF					
NOMINAL DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
26-1/4"	72-1/2"	100.0	130.0	100.0	150.0
32-1/4"		100.0	130.0	100.0	150.0
38-1/4"		100.0	130.0	100.0	150.0
44-1/4"		100.0	130.0	100.0	150.0
50-1/4"		100.0	130.0	88.9	133.3
56-1/4"		100.0	130.0	80.0	120.0
62-1/4"		90.9	118.2	72.7	109.1
68-1/4"		83.3	108.3	66.7	100.0
26-1/4"	78-1/2"	100.0	130.0	100.0	150.0
32-1/4"		100.0	130.0	100.0	150.0
38-1/4"		100.0	130.0	100.0	150.0
44-1/4"		100.0	130.0	100.0	150.0
50-1/4"		100.0	130.0	88.9	133.3
56-1/4"		100.0	130.0	80.0	120.0
62-1/4"		90.9	118.2	72.7	109.1
68-1/4"		60.0	60.0	-	-
26-1/4"	84-1/2"	100.0	130.0	100.0	150.0
32-1/4"		100.0	130.0	100.0	150.0
38-1/4"		100.0	130.0	100.0	150.0
44-1/4"		100.0	130.0	100.0	150.0
50-1/4"		100.0	130.0	88.9	133.3
56-1/4"		100.0	130.0	80.0	120.0
62-1/4"		65.5	65.5	-	-
68-1/4"		60.0	60.0	-	-
26-1/4"	90-1/2"	100.0	130.0	100.0	150.0
32-1/4"		100.0	130.0	100.0	150.0
38-1/4"		100.0	130.0	100.0	150.0
44-1/4"		100.0	130.0	100.0	150.0
50-1/4"		100.0	130.0	88.9	133.3
56-1/4"		100.0	130.0	80.0	120.0
62-1/4"		65.5	65.5	-	-
68-1/4"		60.0	60.0	-	-
26-1/4"	96-1/2"	100.0	130.0	100.0	150.0
32-1/4"		100.0	130.0	100.0	150.0
38-1/4"		100.0	130.0	100.0	150.0
44-1/4"		100.0	130.0	100.0	150.0
50-1/4"		100.0	130.0	88.9	133.3
56-1/4"		72.0	72.0	-	-
62-1/4"		65.5	65.5	-	-
68-1/4"		-	-	-	-
26-1/4"	102-1/2"	100.0	130.0	100.0	150.0
32-1/4"		100.0	130.0	100.0	150.0
38-1/4"		100.0	130.0	100.0	150.0
44-1/4"		100.0	130.0	100.0	150.0
50-1/4"		80.0	80.0	-	-
56-1/4"		72.0	72.0	-	-
62-1/4"		-	-	-	-
68-1/4"		-	-	-	-
26-1/4"	108-1/2"	100.0	130.0	100.0	150.0
32-1/4"		100.0	130.0	100.0	150.0
38-1/4"		100.0	130.0	100.0	150.0
44-1/4"		100.0	130.0	100.0	150.0
50-1/4"		80.0	80.0	-	-
56-1/4"		72.0	72.0	-	-
62-1/4"		-	-	-	-
68-1/4"		-	-	-	-

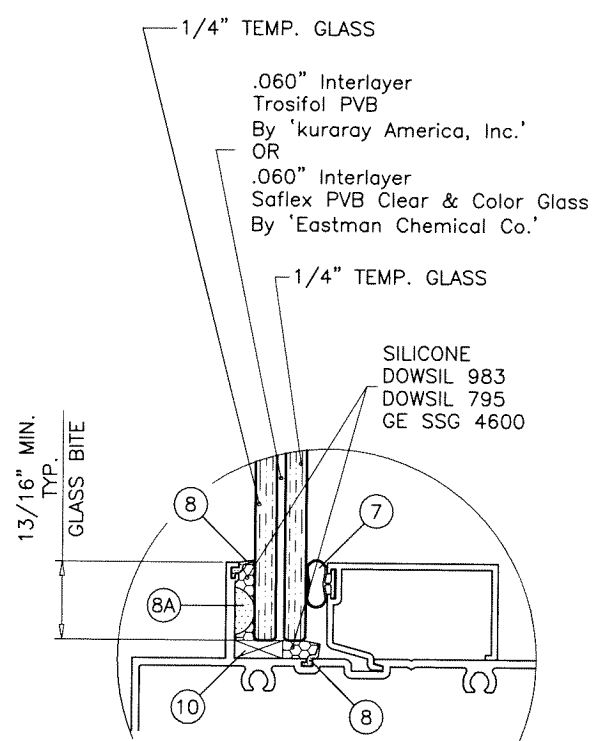
GLASS LOAD CAPACITY - PSF					
NOMINAL DIMS.		GLASS TYPE 'A'		GLASS TYPE 'B'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
26-1/4"	114-1/2"	100.0	130.0	100.0	150.0
32-1/4"		100.0	130.0	100.0	150.0
38-1/4"		100.0	130.0	100.0	150.0
44-1/4"		100.0	130.0	100.0	150.0
50-1/4"		80.0	80.0	-	-
26-1/4"	120-1/2"	100.0	130.0	100.0	150.0
32-1/4"		100.0	130.0	100.0	150.0
38-1/4"		100.0	130.0	100.0	150.0
44-1/4"		90.0	90.0	-	-
50-1/4"		80.0	80.0	-	-
26-1/4"	126-1/2"	100.0	130.0	100.0	150.0
32-1/4"		100.0	130.0	100.0	150.0
38-1/4"		100.0	130.0	100.0	150.0
44-1/4"		90.0	90.0	-	-
26-1/4"	132-1/2"	100.0	130.0	100.0	150.0
32-1/4"		100.0	130.0	100.0	150.0
38-1/4"		90.0	90.0	-	-
26-1/4"	138-1/2"	100.0	130.0	100.0	150.0
32-1/4"		100.0	130.0	100.0	150.0
38-1/4"		90.0	90.0	-	-
44-1/4"	90.0	90.0	-	-	

INTERPOLATION BETWEEN WIDTHS ALLOWED.

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300-09 (3 SEC. GUSTS).



GLASS TYPE 'A'



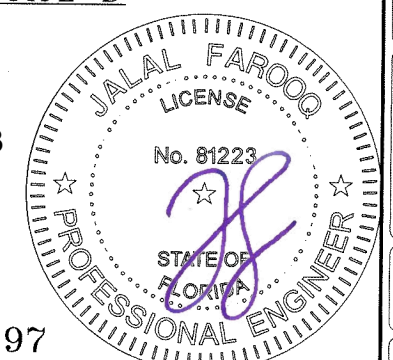
GLASS TYPE 'B'

GLAZING OPTIONS

Sealed: 7/25/2023

GLASS

FL #17897



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no.	date	description

date: 01-25-23
scale: 1/2" = 1"
dr. by: TARIO
chk. by:

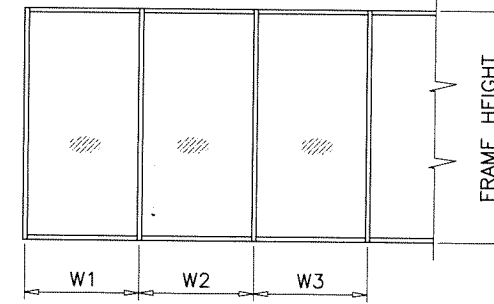
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MULLION LOAD CAPACITY - PSF JAMB & MULLION WITHOUT INTERMEDIATE HORIZONTALS						
NOMINAL DIMS.		JAMB 'J2'	MULL 'M1'	MULL 'M2'	MULL 'M3'	MULL 'M4'
WIDTH (W)	FRAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
30"	90"	130.0	130.0	130.0	130.0	130.0
36"		130.0	130.0	130.0	130.0	130.0
42"		130.0	130.0	130.0	130.0	130.0
48"		130.0	130.0	130.0	130.0	130.0
54"		130.0	122.9	130.0	130.0	130.0
60"		130.0	114.9	130.0	130.0	130.0
66"		-	-	-	-	90.0
72"	-	-	-	-	90.0	
30"	96"	130.0	130.0	130.0	130.0	130.0
36"		130.0	130.0	130.0	130.0	130.0
42"		130.0	121.1	130.0	130.0	130.0
48"		130.0	108.6	130.0	130.0	130.0
54"		130.0	99.4	130.0	125.6	130.0
60"		130.0	92.4	130.0	116.3	130.0
66"		-	-	-	-	90.0
72"	-	-	-	-	90.0	
30"	102"	130.0	130.0	130.0	130.0	130.0
36"		130.0	114.5	130.0	130.0	130.0
42"		130.0	100.0	130.0	130.0	130.0
48"		130.0	89.5	130.0	120.9	130.0
54"		130.0	81.6	130.0	109.8	130.0
56"		130.0	79.4	127.7	106.7	128.2
60"		-	-	-	-	90.0
66"	-	-	-	-	90.0	
30"	108"	130.0	113.5	130.0	130.0	130.0
36"		130.0	95.9	130.0	130.0	130.0
42"		130.0	83.6	130.0	120.3	130.0
48"		130.0	74.6	120.0	107.0	128.5
53"		130.0	68.8	110.7	98.4	118.2
54"		-	-	-	-	90.0
60"		-	-	-	-	90.0
30"	114"	130.0	96.2	130.0	130.0	130.0
36"		130.0	81.2	130.0	123.8	130.0
42"		130.0	70.6	113.6	107.4	129.1
48"		130.0	62.9	101.1	95.3	114.5
50"		130.0	60.8	97.7	92.0	110.5
54"		-	-	-	-	90.0
60"		-	-	-	-	90.0
30"	120"	130.0	82.3	130.0	130.0	130.0
36"		130.0	69.3	111.5	111.4	130.0
42"		130.0	60.2	96.9	96.5	116.0
48"		130.0	53.5	86.1	85.5	102.8
54"		90.0	-	-	77.5	90.0
30"	126"	90.0	-	-	90.0	90.0
36"		90.0	-	-	90.0	90.0
42"		90.0	-	-	87.6	90.0
48"		90.0	-	-	77.5	90.0
54"		90.0	-	-	69.8	83.5

MULLION LOAD CAPACITY - PSF JAMB & MULLION WITHOUT INTERMEDIATE HORIZONTALS						
NOMINAL DIMS.		JAMB 'J2'	MULL 'M1'	MULL 'M2'	MULL 'M3'	MULL 'M4'
WIDTH (W)	FRAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
30"	132"	90.0	-	-	90.0	90.0
36"		90.0	-	-	90.0	90.0
42"		90.0	-	-	79.5	90.0
48"		90.0	-	-	70.3	84.1
30"	138"	90.0	-	-	90.0	90.0
36"		90.0	-	-	84.0	90.0
42"		90.0	-	-	72.6	86.8
48"		90.0	-	-	64.1	76.7
30"	144"	90.0	-	-	90.0	90.0
36"		90.0	-	-	77.0	90.0
42"		90.0	-	-	66.5	79.5
48"		90.0	-	-	58.7	70.2

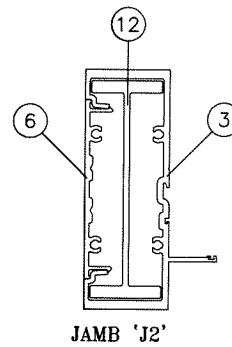
NOTE:
LIMIT MAXIMUM EXTERIOR(+) LOADS TO 100.0 PSF



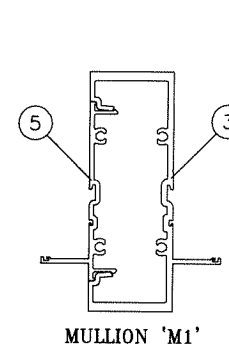
WIDTH (W) = W1
AT FRAME JAMB

WIDTH (W) = $\frac{W2 + W3}{2}$
AT FRAME MULLION

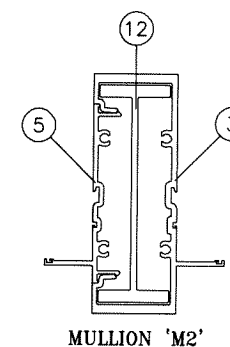
INTERPOLATION BETWEEN WIDTHS ALLOWED.



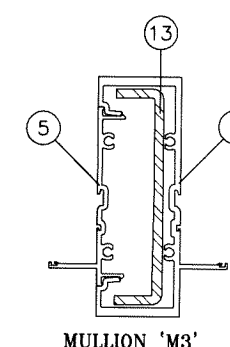
Ix IN ⁴	Sx IN ³
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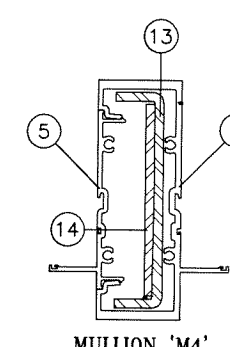
Ix IN ⁴	Sx IN ³
6.7195	2.6757



Ix IN ⁴	Sx IN ³
10.8072	3.7590



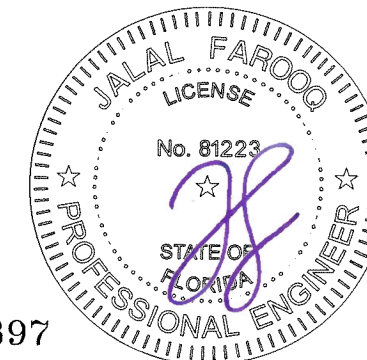
	Ix IN ⁴	Sx IN ³
ALUMINUM	6.7195	2.6757
STEEL	2.7506	1.2225
TOTAL	14.6962	
Ix ALUM + Ix STL X 2.9		



	Ix IN ⁴	Sx IN ³
ALUMINUM	6.7195	2.6757
STEEL	3.7533	1.668
TOTAL	17.6047	
Ix ALUM + Ix STL X 2.9		

Sealed: 7/25/2023

MULLIONS



FL #17897

af c
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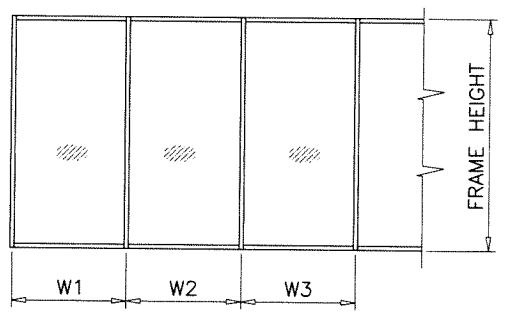
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23-06F
sheet 4 of 18

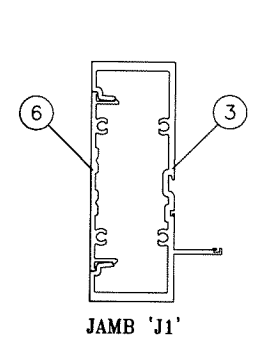
MULLION LOAD CAPACITY - PSF					
JAMB & MULLION WITHOUT INTERMEDIATE HORIZONTALS					
NOMINAL DIMS.		JAMB 'J1'	JAMB 'J3'	MULL 'M5'	MULL 'M6'
WIDTH (W)	FRAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
30"	90"	130.0	150.0	150.0	150.0
36"		130.0	150.0	150.0	150.0
42"		130.0	150.0	150.0	150.0
48"		130.0	150.0	150.0	150.0
54"		130.0	150.0	150.0	150.0
60"		130.0	150.0	150.0	150.0
66"		-	90.0	90.0	90.0
72"	-	90.0	90.0	90.0	
30"	96"	130.0	150.0	150.0	150.0
36"		130.0	150.0	150.0	150.0
42"		130.0	150.0	150.0	150.0
48"		130.0	150.0	150.0	150.0
54"		130.0	150.0	150.0	150.0
60"		130.0	150.0	150.0	150.0
66"		-	90.0	90.0	90.0
72"	-	90.0	90.0	90.0	
30"	102"	130.0	150.0	150.0	150.0
36"		114.5	150.0	150.0	150.0
42"		100.0	150.0	150.0	150.0
48"		89.5	150.0	150.0	150.0
54"		81.6	150.0	150.0	150.0
60"		-	90.0	90.0	90.0
66"		-	90.0	90.0	90.0
72"	-	90.0	90.0	90.0	
30"	108"	113.5	150.0	150.0	150.0
36"		95.9	150.0	150.0	150.0
42"		83.6	150.0	150.0	150.0
48"		74.6	150.0	149.6	150.0
54"		-	90.0	90.0	90.0
60"		-	90.0	90.0	90.0
30"	114"	96.2	150.0	150.0	150.0
36"		81.2	150.0	150.0	150.0
42"		70.6	150.0	150.0	150.0
48"		62.9	150.0	133.3	150.0
54"		-	90.0	90.0	90.0
60"		-	90.0	90.0	90.0
30"	120"	82.3	150.0	150.0	150.0
36"		69.3	150.0	150.0	150.0
42"		60.2	150.0	135.0	150.0
48"		53.5	150.0	119.6	133.3
54"		-	90.0	90.0	90.0
30"	126"	-	90.0	90.0	90.0
36"		-	90.0	90.0	90.0
42"		-	90.0	90.0	90.0
48"		-	90.0	90.0	90.0
54"		-	90.0	90.0	90.0
30"	132"	-	90.0	90.0	90.0
36"		-	90.0	90.0	90.0
42"		-	90.0	90.0	90.0
48"		-	90.0	90.0	90.0
30"	138"	-	90.0	90.0	90.0
36"		-	90.0	90.0	90.0
42"		-	90.0	90.0	90.0
48"		-	90.0	86.2	86.2
30"	144"	-	90.0	90.0	90.0
36"		-	90.0	90.0	90.0
42"		-	90.0	85.5	85.5
48"		-	90.0	75.6	75.6

INTERPOLATION BETWEEN WIDTHS ALLOWED.

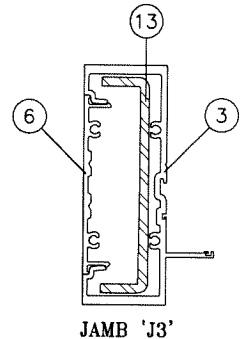


WIDTH (W) = W1
AT FRAME JAMB

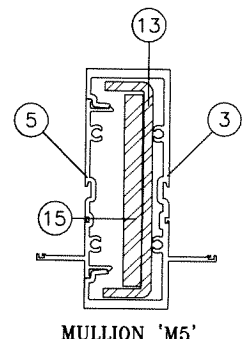
WIDTH (W) = $\frac{W2 + W3}{2}$
AT FRAME MULLION



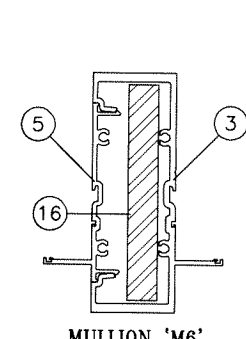
Ix	IN ⁴	Sx	IN ³
6.6509	2.6421		



	Ix	IN ⁴	Sx	IN ³
ALUMINUM	6.6509	2.6421		
STEEL	2.7506	1.2225		
TOTAL				
Ix ALUM + Ix STL X 2.9	14.6276			



	Ix	IN ⁴	Sx	IN ³
ALUMINUM	6.7195	2.6757		
STEEL	4.7506	2.1114		
TOTAL				
Ix ALUM + Ix STL X 2.9	20.3598			

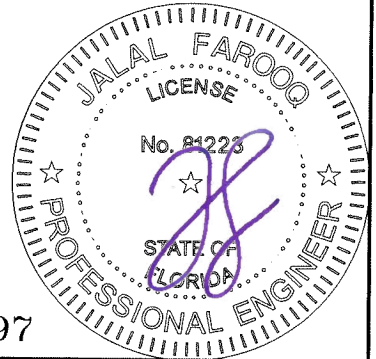


	Ix	IN ⁴	Sx	IN ³
ALUMINUM	6.7195	2.6757		
STEEL	4.746	2.109		
TOTAL				
Ix ALUM + Ix STL X 2.9	20.3464			

NOTE:
LIMIT MAXIMUM EXTERIOR(+) LOADS TO 100.0 PSF

Sealed: 7/25/2023

MULLIONS



FL #17897

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AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
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 STORE 23-06F-ES

SERIES 8000 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

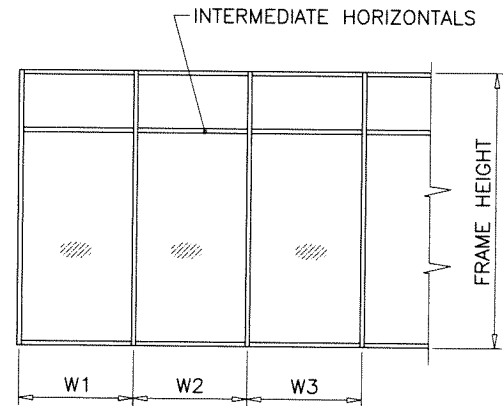
revisions:	no	date	by	description
date:	01-25-23			
scale:	-			
dr. by:	TARIQ			
chk. by:				
drawing no.	23-06F			
sheet	4.1 of 18			

MULLION LOAD CAPACITY - PSF JAMB & MULLION WITH INTERMEDIATE HORIZONTALS						
NOMINAL DIMS.		JAMB 'J2'	MULL 'M1'	MULL 'M2'	MULL 'M3'	MULL 'M4'
WIDTH (W)	FRAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
30"	78"	130.0	130.0	130.0	130.0	130.0
36"		130.0	130.0	130.0	130.0	130.0
42"		130.0	130.0	130.0	130.0	130.0
48"		130.0	130.0	130.0	130.0	130.0
54"		130.0	130.0	130.0	130.0	130.0
60"		130.0	130.0	130.0	130.0	130.0
30"	90"	130.0	130.0	130.0	130.0	130.0
36"		130.0	130.0	130.0	130.0	130.0
42"		130.0	130.0	130.0	130.0	130.0
48"		130.0	119.2	130.0	130.0	130.0
54"		130.0	105.9	130.0	128.1	130.0
60"		130.0	95.3	130.0	115.3	130.0
30"	96"	130.0	130.0	130.0	130.0	130.0
36"		130.0	130.0	130.0	130.0	130.0
42"		130.0	112.2	130.0	130.0	130.0
48"		130.0	98.2	130.0	126.7	130.0
54"		130.0	87.3	130.0	112.6	130.0
60"		130.0	78.5	122.1	101.4	130.0
30"	102"	130.0	130.0	130.0	130.0	130.0
36"		130.0	109.1	130.0	130.0	130.0
42"		130.0	93.6	130.0	128.3	130.0
48"		130.0	81.9	130.0	112.2	130.0
54"		130.0	72.8	117.0	99.8	130.0
56"		130.0	70.2	112.8	96.2	130.0
60"	-	-	-	-	130.0	
30"	108"	130.0	110.3	130.0	130.0	130.0
36"		130.0	91.9	130.0	130.0	130.0
42"		130.0	78.8	126.8	114.4	130.0
48"		130.0	69.0	110.9	100.1	120.3
53"		130.0	62.5	100.4	90.7	108.9
54"		-	-	-	-	90.0
60"	-	-	-	-	90.0	
30"	114"	130.0	93.8	130.0	130.0	130.0
36"		130.0	78.2	125.7	119.8	130.0
42"		130.0	67.0	107.8	102.7	123.4
48"		130.0	58.6	94.3	89.8	108.0
50"		130.0	56.3	90.5	86.2	103.6
54"		-	-	-	-	90.0
60"	-	-	-	-	86.4	
30"	120"	130.0	80.4	129.4	129.7	130.0
36"		130.0	67.0	107.8	108.1	129.9
42"		130.0	57.5	92.4	92.7	111.3
48"		130.0	50.3	80.9	81.1	97.4
54"		90.0	-	-	72.4	86.6
30"	126"	90.0	-	-	90.0	90.0
36"		90.0	-	-	90.0	90.0
42"		90.0	-	-	84.4	90.0
48"		90.0	-	-	73.9	88.4
54"		90.0	-	-	65.6	78.5

MULLION LOAD CAPACITY - PSF JAMB & MULLION WITH INTERMEDIATE HORIZONTALS						
NOMINAL DIMS.		JAMB 'J2'	MULL 'M1'	MULL 'M2'	MULL 'M3'	MULL 'M4'
WIDTH (W)	FRAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
30"	132"	90.0	-	-	90.0	90.0
36"		90.0	-	-	89.7	90.0
42"		90.0	-	-	76.9	90.0
48"		90.0	-	-	67.3	80.5
30"	138"	90.0	-	-	90.0	90.0
36"		90.0	-	-	82.1	90.0
42"		90.0	-	-	70.4	84.2
48"	90.0	-	-	61.6	73.7	
30"	144"	90.0	-	-	90.0	90.0
36"		90.0	-	-	75.4	90.0
42"		90.0	-	-	64.6	77.3
48"		90.0	-	-	56.5	67.7

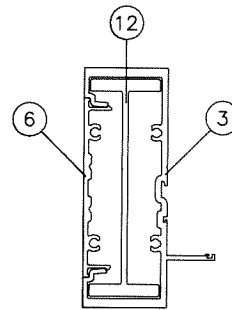
INTERPOLATION BETWEEN WIDTHS ALLOWED.

NOTE:
LIMIT MAXIMUM EXTERIOR(+) LOADS TO 100.0 PSF

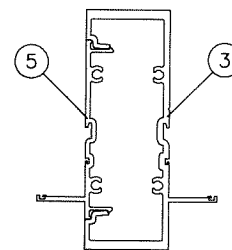


WIDTH (W) = W1
AT FRAME JAMB

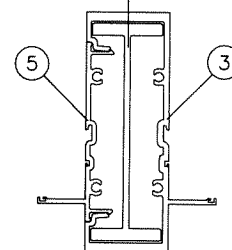
WIDTH (W) = $\frac{W2 + W3}{2}$
AT FRAME MULLION



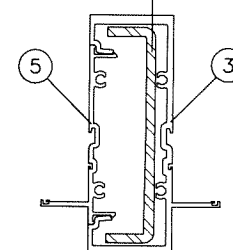
Ix IN ⁴	Sx IN ³
10.6486	4.4452



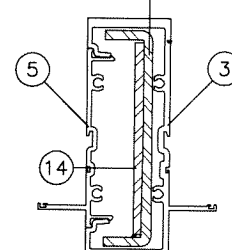
Ix IN ⁴	Sx IN ³
6.7195	2.6757



Ix IN ⁴	Sx IN ³
10.8072	3.7590



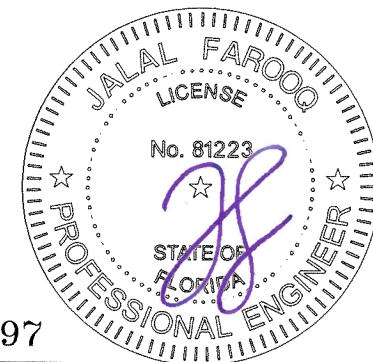
	Ix IN ⁴	Sx IN ³
ALUMINUM	6.7195	2.6757
STEEL	2.7506	1.2225
TOTAL	14.6962	
Ix ALUM + Ix STL X 2.9		



	Ix IN ⁴	Sx IN ³
ALUMINUM	6.7195	2.6757
STEEL	3.7533	1.668
TOTAL	17.6047	
Ix ALUM + Ix STL X 2.9		

Sealed: 7/25/2023

MULLIONS



FL #17897

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 9360 SUNSET DRIVE, SUITE 220
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 STORE 23-06F-ES
 FBPE #8538

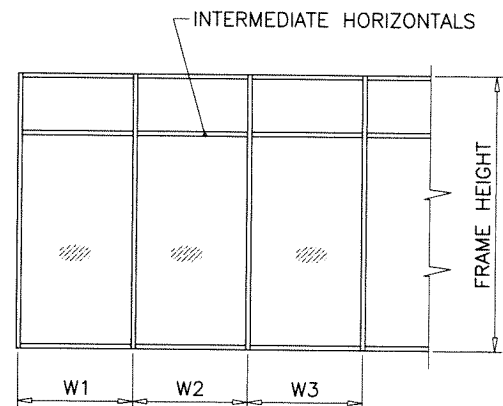
SERIES 8000 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:	no.	date	by	description
date:	01-25-23			
scale:	-			
dr. by:	TARIO			
chk. by:				
drawing no.	23-06F			
sheet	5 of 18			

MULLION LOAD CAPACITY - PSF					
JAMB & MULLION WITH INTERMEDIATE HORIZONTALS					
NOMINAL DIMS.		JAMB 'J1'	JAMB 'J3'	MULL 'M5'	MULL 'M6'
WIDTH (W)	FRAME HEIGHT	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
30"	90"	130.0	150.0	150.0	150.0
36"		130.0	150.0	150.0	150.0
42"		130.0	150.0	150.0	150.0
48"		130.0	150.0	150.0	150.0
54"		130.0	150.0	150.0	150.0
60"		130.0	150.0	150.0	150.0
30"	96"	130.0	150.0	150.0	150.0
36"		130.0	150.0	150.0	150.0
42"		130.0	150.0	150.0	150.0
48"		130.0	150.0	150.0	150.0
54"		130.0	150.0	150.0	150.0
60"		130.0	150.0	141.8	150.0
30"	102"	130.0	150.0	150.0	150.0
36"		109.1	150.0	150.0	150.0
42"		93.6	150.0	150.0	150.0
48"		81.9	150.0	150.0	150.0
54"		72.8	150.0	139.5	150.0
60"		-	90.0	90.0	90.0
30"	108"	110.3	150.0	150.0	150.0
36"		91.9	150.0	150.0	150.0
42"		78.8	150.0	150.0	150.0
48"		69.0	150.0	140.0	150.0
54"		-	90.0	90.0	90.0
60"		-	90.0	90.0	90.0
30"	114"	93.8	150.0	150.0	150.0
36"		78.2	150.0	150.0	150.0
42"		67.0	150.0	143.6	150.0
48"		58.6	150.0	125.7	146.0
54"		-	90.0	90.0	90.0
60"		-	90.0	90.0	90.0
30"	120"	80.4	150.0	150.0	150.0
36"		67.0	150.0	150.0	150.0
42"		57.5	150.0	129.6	143.1
48"		50.3	150.0	113.4	125.2
54"		-	90.0	90.0	90.0
60"		-	90.0	90.0	90.0
30"	126"	-	90.0	90.0	90.0
36"		-	90.0	90.0	90.0
42"		-	90.0	90.0	90.0
48"		-	90.0	90.0	90.0
54"		-	90.0	90.0	90.0
60"		-	90.0	90.0	90.0
30"	132"	-	90.0	90.0	90.0
36"		-	90.0	90.0	90.0
42"		-	90.0	90.0	90.0
48"		-	90.0	90.0	90.0
30"	138"	-	90.0	90.0	90.0
36"		-	90.0	90.0	90.0
42"		-	90.0	90.0	90.0
48"		-	90.0	82.3	82.3
30"	144"	-	90.0	90.0	90.0
36"		-	90.0	90.0	90.0
42"		-	90.0	82.8	82.8
48"		-	90.0	72.4	72.4

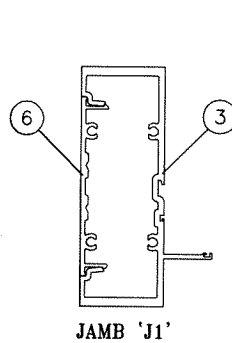
INTERPOLATION BETWEEN WIDTHS ALLOWED.

NOTE:
LIMIT MAXIMUM EXTERIOR(+) LOADS TO 100.0 PSF

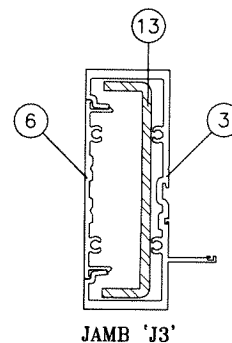


WIDTH (W) = W1
AT FRAME JAMB

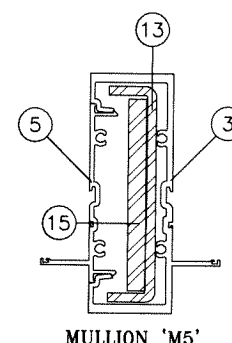
WIDTH (W) = $\frac{W2 + W3}{2}$
AT FRAME MULLION



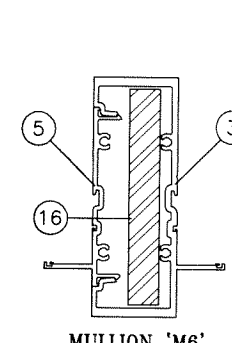
Ix IN ⁴	Sx IN ³
6.6509	2.6421



	Ix IN ⁴	Sx IN ³
ALUMINUM	6.6509	2.6421
STEEL	2.7506	1.2225
TOTAL Ix ALUM + Ix STL X 2.9	14.6276	



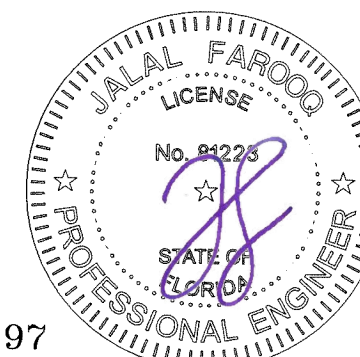
	Ix IN ⁴	Sx IN ³
ALUMINUM	6.7195	2.6757
STEEL	4.7506	2.1114
TOTAL Ix ALUM + Ix STL X 2.9	20.3598	



	Ix IN ⁴	Sx IN ³
ALUMINUM	6.7195	2.6757
STEEL	4.746	2.109
TOTAL Ix ALUM + Ix STL X 2.9	20.3464	

Sealed: 7/25/2023

MULLIONS



FL #17897

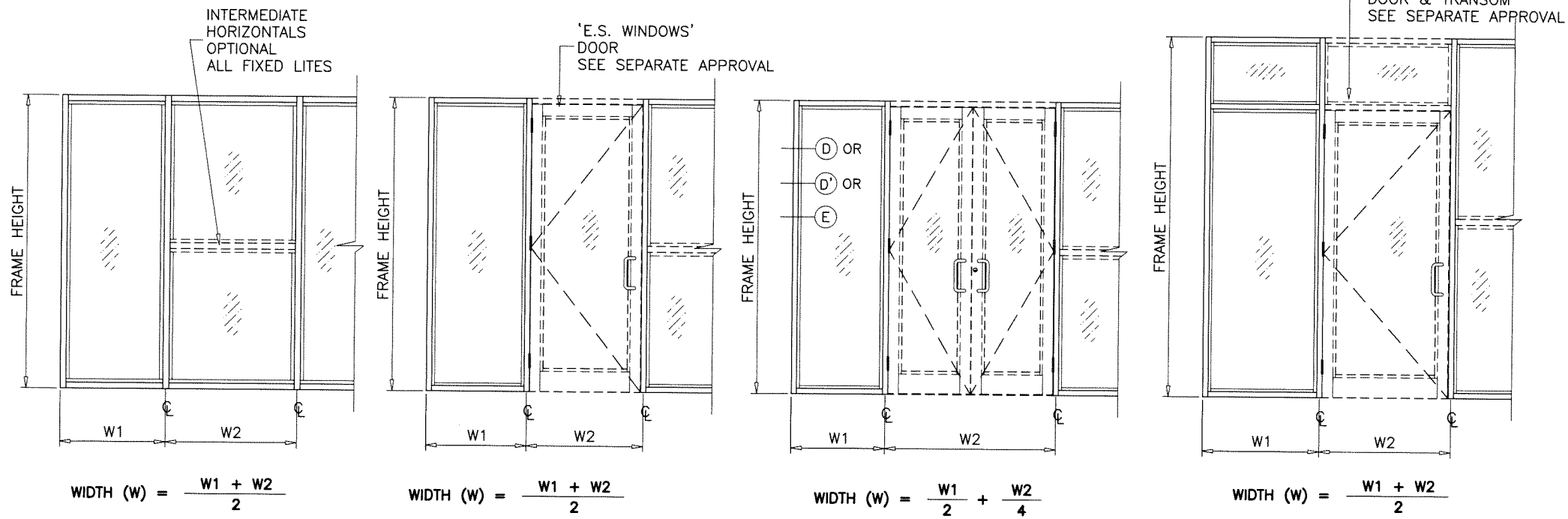
af c
AL-FAROOQ CORPORATION
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revisions:	no	date	by	description

date: 01-25-23
 scale: -
 dr. by: TARIQ
 chk. by:
 drawing no.
23-06F
 sheet 5.1 of 18

STORE 23-06F-ES

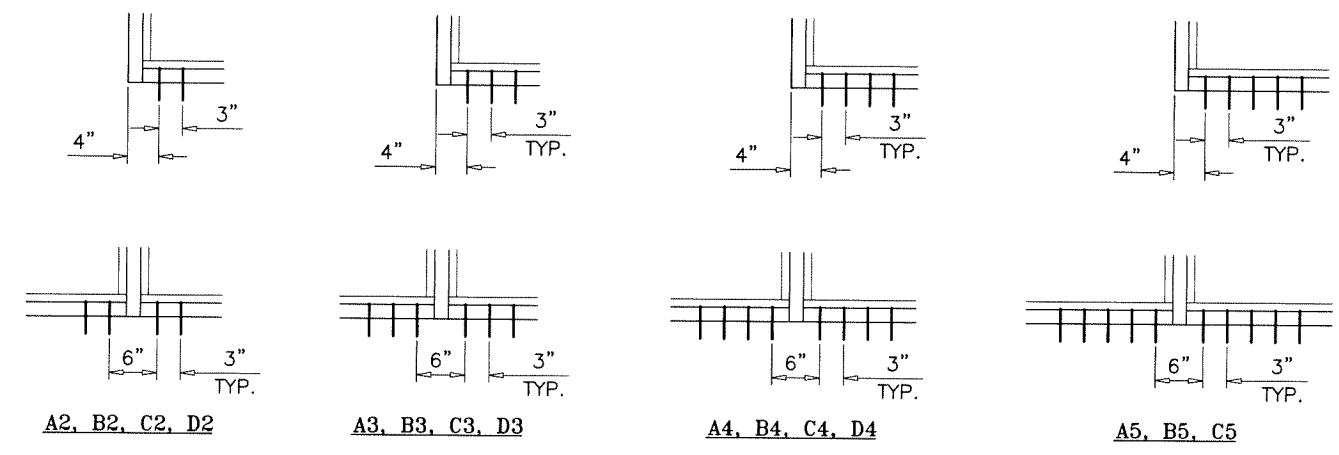


$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$

$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$

$$\text{WIDTH (W)} = \frac{W1}{2} + \frac{W2}{4}$$

$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$

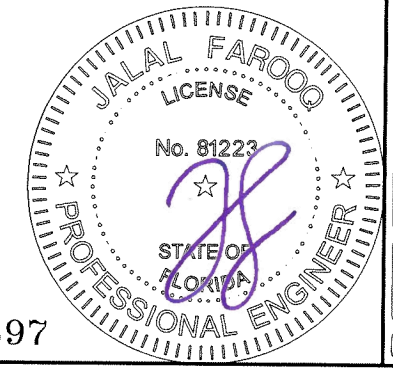


- ANCHORS TYPES:** SEE SHEET 13 FOR DESCRIPTION
- A2 = (2) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
 - B2 = (2) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
 - C2 = (2) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION
 - D2 = (2) ANCHORS TYPE 'D' AT EACH SIDE OF JAMB AND MULLION
 - A3 = (3) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
 - B3 = (3) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
 - C3 = (3) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION
 - D3 = (3) ANCHORS TYPE 'D' AT EACH SIDE OF JAMB AND MULLION
 - A4 = (4) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
 - B4 = (4) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
 - C4 = (4) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION
 - D4 = (4) ANCHORS TYPE 'D' AT EACH SIDE OF JAMB AND MULLION
 - A5 = (5) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
 - B5 = (5) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
 - C5 = (5) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION

ALL OTHER ANCHORS TO BE SPACED AS PER ELEVATION.
SEE SHEETS 7 FOR ANCHOR CAPACITY CHART.

Sealed: 7/25/2023

ANCHORS



FL #17897

af c
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173
 TEL. (305) 264-8100
 WWW.AFCENG.COM
 FBPE #3538
 STORE\23-06F-ES

SERIES 8000 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

no.	date	by	description

date: 01-25-23
 scale: -
 dr. by: TARIO
 chk. by: -

drawing no.
23-06F
 sheet 6 of 18

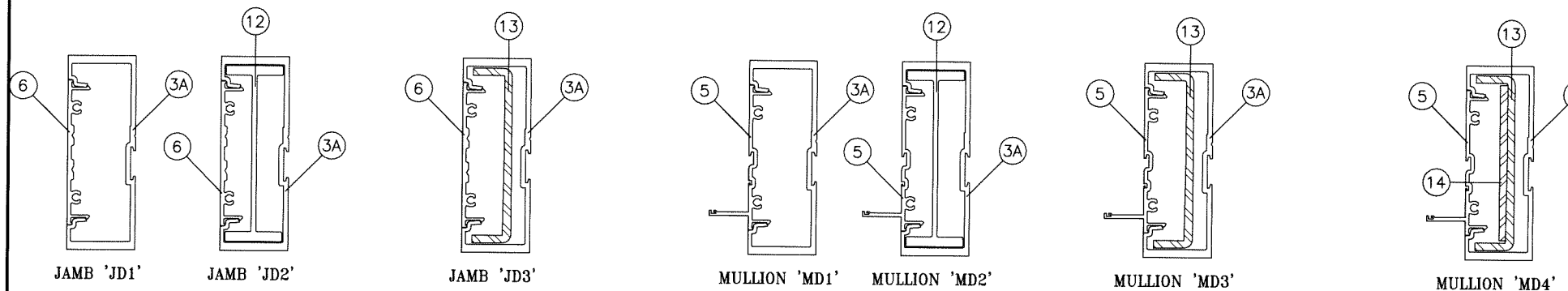
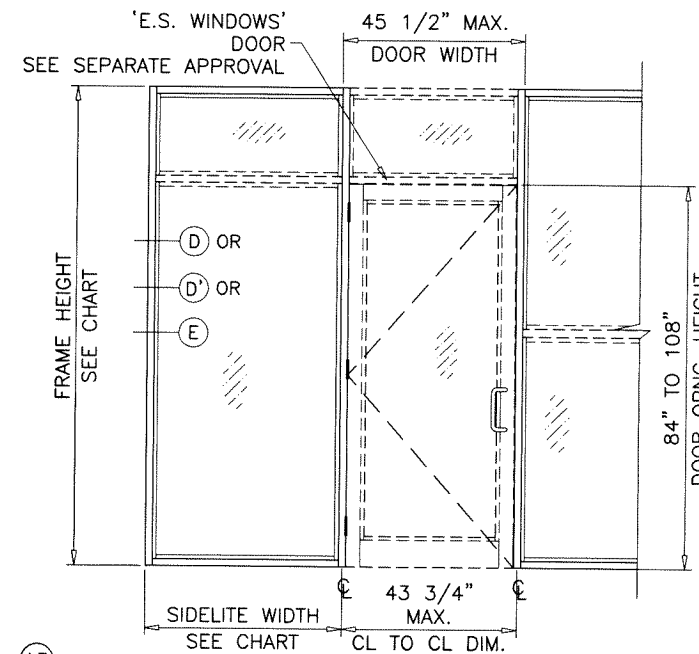
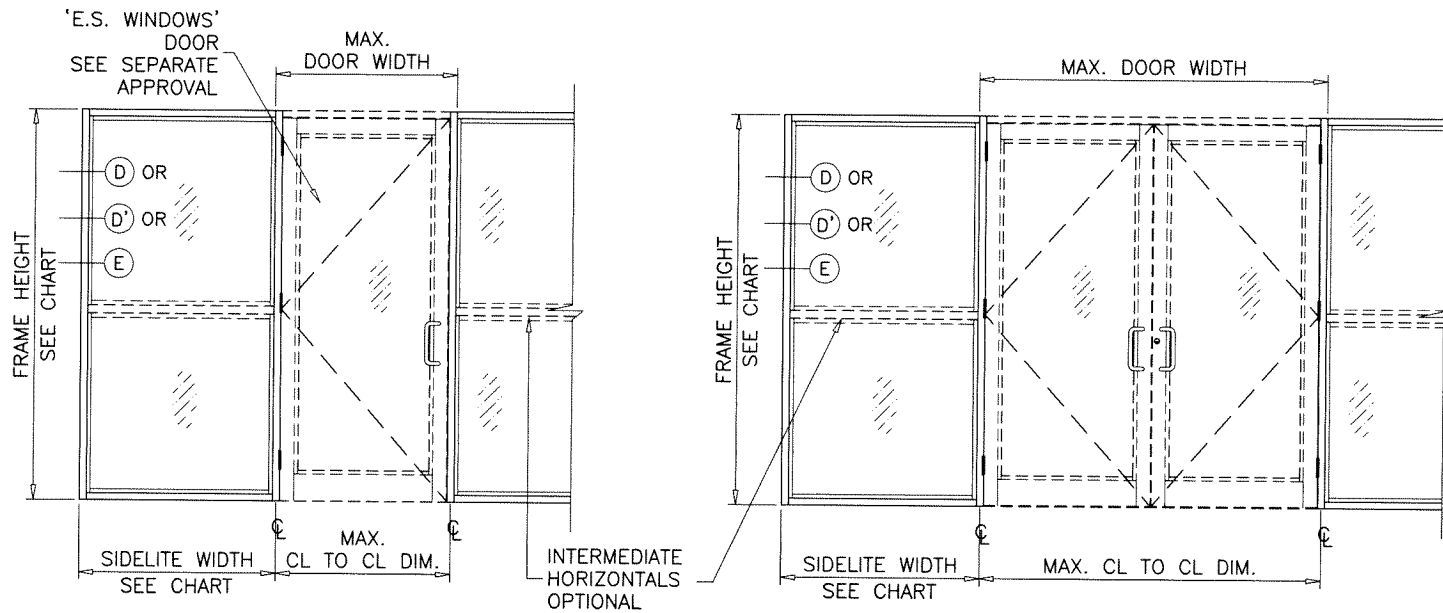
ANCHOR LOAD CAPACITY - PSF
EXT.(+) & INT.(-)

NOMINAL DIMS.		3/8" MAX. SHIM SPACE												1/2" MAX. SHIM SPACE										1/4" SHIM SPACE				
		ANCHORS TYPE 'A'				ANCHORS TYPE 'B'				ANCHORS TYPE 'C'				ANCHORS TYPE 'A'				ANCHORS TYPE 'B'				ANCHORS TYPE 'C'				ANCHORS TYPE 'D'		
WIDTH (W)	FRAME HEIGHT	A2	A3	A4	A5	B2	B3	B4	B5	C2	C3	C4	C5	A2	A3	A4	A5	B2	B3	B4	B5	C2	C3	C4	C5	D2	D3	D4
30"	90"	56.8	85.2	113.6	150.0	65.4	98.0	130.7	150.0	111.4	130.0	150.0	150.0	44.3	66.5	88.7	110.8	51.3	76.9	102.6	128.2	87.7	130.0	150.0	150.0	130.0	130.0	150.0
36"		47.3	71.0	94.6	118.3	54.5	81.7	108.9	136.2	92.8	130.0	150.0	150.0	36.9	55.4	73.9	92.4	42.7	64.1	85.5	106.8	73.1	109.7	146.2	150.0	130.0	130.0	150.0
42"		40.6	60.8	81.1	101.4	46.7	70.0	93.4	116.7	79.6	119.4	150.0	150.0	31.7	47.5	63.3	79.2	36.6	54.9	73.3	91.6	62.7	94.0	125.3	150.0	119.2	130.0	150.0
48"		35.5	53.2	71.0	88.7	40.9	61.3	81.7	102.1	69.6	104.4	139.3	150.0	27.7	41.6	55.4	69.3	32.1	48.1	64.1	80.1	54.8	82.2	109.7	137.1	104.3	130.0	150.0
54"		31.5	47.3	63.1	78.9	36.3	54.5	72.6	90.8	61.9	92.8	123.8	150.0	24.6	36.9	49.3	61.6	28.5	42.7	57.0	71.2	48.7	73.1	97.5	121.8	92.7	130.0	150.0
60"		28.4	42.6	56.8	71.0	32.7	49.0	65.4	81.7	55.7	83.6	111.4	139.3	22.2	33.2	44.3	55.4	25.6	38.5	51.3	64.1	43.9	65.8	87.7	109.7	83.4	125.1	150.0
66"		25.8	38.7	51.6	64.5	29.7	44.6	59.4	74.3	50.6	76.0	90.0	90.0	20.2	30.2	40.3	50.4	23.3	35.0	46.6	58.3	39.9	59.8	79.7	90.0	75.8	90.0	90.0
72"	23.7	35.5	47.3	59.2	27.2	40.9	54.5	68.1	46.4	69.6	90.0	90.0	-	27.7	36.9	46.2	21.4	32.1	42.7	53.4	36.6	54.8	73.1	90.0	69.5	90.0	90.0	
30"	96"	53.2	79.9	106.5	133.1	61.3	91.9	122.6	150.0	104.4	130.0	150.0	150.0	41.6	62.3	83.1	103.9	48.1	72.1	96.2	120.2	82.2	123.4	150.0	150.0	130.0	130.0	150.0
36"		44.4	66.6	88.7	110.9	51.1	76.6	102.1	127.7	87.0	130.0	150.0	150.0	34.6	52.0	69.3	86.6	40.1	60.1	80.1	100.2	68.5	102.8	137.1	150.0	130.0	130.0	150.0
40"		39.9	59.9	79.9	99.8	46.0	68.9	91.9	114.9	78.3	117.5	150.0	150.0	31.2	46.8	62.3	77.9	36.1	54.1	72.1	90.2	61.7	92.5	123.4	150.0	117.3	130.0	150.0
42"		38.0	57.0	76.1	95.1	43.8	65.7	87.5	109.4	74.6	111.9	149.2	150.0	29.7	44.5	59.4	74.2	34.3	51.5	68.7	85.9	58.7	88.1	117.5	146.9	111.7	130.0	150.0
48"		33.3	49.9	66.6	83.2	38.3	57.5	76.6	95.8	65.3	97.9	130.6	150.0	26.0	39.0	52.0	64.9	30.1	45.1	60.1	75.1	51.4	77.1	102.8	128.5	97.8	130.0	150.0
54"		29.6	44.4	59.2	73.9	34.0	51.1	68.1	85.1	58.0	87.0	116.0	145.1	23.1	34.6	46.2	57.7	26.7	40.1	53.4	66.8	45.7	68.5	91.4	114.2	86.9	130.0	150.0
60"		26.6	39.9	53.2	66.6	30.6	46.0	61.3	76.6	52.2	78.3	104.4	130.6	20.8	31.2	41.6	52.0	24.0	36.1	48.1	60.1	41.1	61.7	82.2	102.8	78.2	117.3	150.0
66"	24.2	36.3	48.4	60.5	27.9	41.8	55.7	69.6	47.5	71.2	90.0	90.0	-	28.3	37.8	47.2	21.9	32.8	43.7	54.6	37.4	56.1	74.8	90.0	71.1	90.0	90.0	
72"	22.2	33.3	44.4	55.5	25.5	38.3	51.1	63.8	43.5	65.3	87.0	90.0	-	26.0	34.6	43.3	20.0	30.1	40.1	50.1	34.3	51.4	68.5	85.7	65.2	90.0	90.0	
30"	102"	50.1	75.2	100.2	125.3	57.7	86.5	115.4	144.2	98.3	130.0	150.0	150.0	39.1	58.7	78.2	97.8	45.3	67.9	90.5	113.1	77.4	116.1	150.0	150.0	130.0	130.0	150.0
36"		41.8	62.6	83.5	104.4	48.1	72.1	96.1	120.2	81.9	122.9	150.0	150.0	32.6	48.9	65.2	81.5	37.7	56.6	75.4	94.3	64.5	96.8	129.0	150.0	122.7	130.0	150.0
42"		35.8	53.7	71.6	89.5	41.2	61.8	82.4	103.0	70.2	105.3	140.4	150.0	27.9	41.9	55.9	69.8	32.3	48.5	64.6	80.8	55.3	82.9	110.6	138.2	105.1	130.0	150.0
48"		31.3	47.0	62.6	78.3	36.0	54.1	72.1	90.1	61.4	92.2	122.9	150.0	24.4	36.7	48.9	61.1	28.3	42.4	56.6	70.7	48.4	72.6	96.8	120.9	92.0	130.0	150.0
54"		27.8	41.8	55.7	69.6	32.0	48.1	64.1	80.1	54.6	81.9	109.2	136.5	21.7	32.6	43.5	54.3	25.1	37.7	50.3	62.8	43.0	64.5	86.0	107.5	81.8	122.7	150.0
60"		25.1	37.6	50.1	62.6	28.8	43.3	57.7	72.1	49.1	73.7	90.0	90.0	-	29.3	39.1	48.9	22.6	33.9	45.3	56.6	38.7	58.1	77.4	90.0	73.6	90.0	90.0
66"		22.8	34.2	45.6	56.9	26.2	39.3	52.4	65.5	44.7	67.0	89.4	90.0	-	26.7	35.6	44.4	20.6	30.9	41.1	51.4	35.2	52.8	70.4	88.0	66.9	90.0	90.0
30"	108"	47.3	71.0	94.6	118.3	54.5	81.7	108.9	136.2	92.8	130.0	150.0	150.0	36.9	55.4	73.9	92.4	42.7	64.1	85.5	106.8	73.1	109.7	146.2	150.0	130.0	130.0	150.0
36"		39.4	59.2	78.9	98.6	45.4	68.1	90.8	113.5	77.4	116.0	150.0	150.0	30.8	46.2	61.6	77.0	35.6	53.4	71.2	89.0	60.9	91.4	121.8	150.0	115.9	130.0	150.0
42"		33.8	50.7	67.6	84.5	38.9	58.4	77.8	97.3	66.3	99.5	132.6	150.0	26.4	39.6	52.8	66.0	30.5	45.8	61.1	76.3	52.2	78.3	104.4	130.5	99.3	130.0	150.0
48"		29.6	44.4	59.2	73.9	34.0	51.1	68.1	85.1	58.0	87.0	116.0	145.1	23.1	34.6	46.2	57.7	26.7	40.1	53.4	66.8	45.7	68.5	91.4	114.2	86.9	130.0	150.0
54"		26.3	39.4	52.6	65.7	30.3	45.4	60.5	75.7	51.6	77.4	90.0	90.0	20.5	30.8	41.0	51.3	23.7	35.6	47.5	59.4	40.6	60.9	81.2	90.0	77.2	90.0	90.0
60"		23.7	35.5	47.3	59.2	27.2	40.9	54.5	68.1	46.4	69.6	90.0	90.0	-	27.7	36.9	46.2	21.4	32.1	42.7	53.4	36.6	54.8	73.1	90.0	69.5	90.0	90.0
66"		22.4	33.6	44.8	56.0	25.8	38.7	51.6	64.5	44.0	66.0	87.9	90.0	-	26.2	35.0	43.7	20.2	30.4	40.5	50.6	34.6	51.9	69.3	86.6	65.9	90.0	90.0
30"	114"	44.8	67.3	89.7	112.1	51.6	77.4	103.2	129.0	87.9	130.0	150.0	150.0	35.0	52.5	70.0	87.5	40.5	60.7	81.0	101.2	69.3	103.9	138.5	150.0	130.0	130.0	150.0
36"		37.4	56.0	74.7	93.4	43.0	64.5	86.0	107.5	73.3	109.9	146.6	150.0	29.2	43.7	58.3	72.9	33.7	50.6	67.5	84.4	57.7	86.6	115.4	144.3	109.8	130.0	150.0
42"		32.0	48.0	64.0	80.1	36.9	55.3	73.7	92.2	62.8	94.2	125.6	150.0	25.0	37.5	50.0	62.5	28.9	43.4	57.8	72.3	49.5	74.2	98.9	123.7	94.1	130.0	150.0
48"		28.0	42.0	56.0	70.1	32.3	48.4	64.5	80.6	55.0	82.5	109.9	137.4	21.9	32.8	43.7	54.7	25.3	38.0	50.6	63.3	43.3	64.9	86.6	108.2	82.3	123.5	150.0
54"		24.9	37.4	49.8	62.3	28.7	43.0	57.3	71.7	48.9	73.3	90.0	90.0	-	29.2	38.9	48.6	22.5	33.7	45.0	56.2	38.5	57.7	76.9	90.0	73.2	90.0	90.0
60"		22.4	33.6	44.8	56.0	25.8	38.7	51.6	64.5	44.0	66.0	87.9	90.0	-	26.2	35.0	43.7	20.2	30.4	40.5	50.6	34.6	51.9	69.3	86.6	65.9	90.0	90.0
66"		22.4	33.6	44.8	56.0	25.8	38.7	51.6	64.5	44.0	66.0	87.9	90.0	-	26.2	35.0	43.7	20.2	30.4	40.5	50.6	34.6	51.9	69.3	86.6	65.9	90.0	90.0
30"	120"	42.6	63.9	85.2	106.5	49.0	73.5	98.0	122.6	83.6	125.3	150.0	150.0	33.2	49.9	66.5	83.1	38.5	57.7	76.9	96.2	65.8	98.7	131.6	150.0	125.1	130.0	150.0
36"		35.5	53.2	71.0	88.7	40.9	61.3	81.7	102.1	69.6	104.4	139.3	150.0	27.7	41.6	55.4	69.3	32.1	48.1	64.1	80.1	54.8	82.2	109.7	137.1	104.3	130.0	150.0
42"		30.4	45.6	60.8	76.1	35.0	52.5	70.0	87.5	59.7	89.5	119.4	149.2	23.7	35.6	47.5	59.4	27.5	41.2	54.9	68.7	47.0	70.5	94.0	117.5	89.4	130.0	150.0
48"		26.6	39.9	53.2	66.6	30.6	46.0	61.3	76.6	52.2	78.3	104.4	130.6	20.8	31.2	41.6	52.0	24.0	36.1	48.1	60.1	41.1	61.7	82.2	102.8	78.2	117.3	150.0
54"		23.7	35.5	47.3	59.2	27.2	40.9	54.5	68.1	46.4	69.6	90.0	90.0	-	27.7	36.9	46.2	21.4	32.1	42.7	53.4	36.6	54.8	73.1	90.0	69.5	90.0	90.0
60"		22.4	33.6	44.8	56.0	25.8	38.7	51.6	64.5	44.0	66.0	87.9	90.0	-	26.2	35.0	43.7	20.2	30.4	40.5	50.6	34.6	51.9	69.3	86.6	65.9	90.0	90.0
66"		22.4	33.6	44.8	56.0	25.8	38.7	51.6	64.5	44.0	66.0	87.9	90.0	-	26.2	35.0	43.7	20.2	30.4	40.5	50.6	34.6	51.9	69.3	86.6	65.9	90.0	90.0
30"	126"	40.6	60.8	81.1	90.0	46.7	70.0	90.0	90.0	79.6	90.0	90.0	90.0	31.7	47.5	63.3												

DOOR MULLION LOAD CAPACITY-PSF					
SIDELITE WIDTH INCHES	FRAME HEIGHT INCHES	JAMB 'JD1'	JAMB 'JD1'	JAMB 'JD2'	JAMB 'JD3'
		MULL 'MD1'	MULL 'MD2'	MULL 'MD3'	MULL 'MD4'
		EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
32	86-1/2	120.0	120.0	120.0	120.0
36		120.0	120.0	120.0	120.0
42		120.0	120.0	120.0	120.0
48		120.0	120.0	120.0	120.0
54		120.0	120.0	120.0	120.0
60		120.0	120.0	120.0	120.0
32	98-1/2	112.6	120.0	120.0	120.0
36		107.1	120.0	120.0	120.0
42		99.7	120.0	120.0	120.0
48		93.3	120.0	120.0	120.0
54		87.7	120.0	116.1	120.0
32	110-1/2	79.8	120.0	118.5	120.0
36		75.8	120.0	112.6	120.0
42		70.6	113.6	104.9	120.0
48		66.1	106.3	98.2	120.0
32	120	-	-	-	90.0
36		-	-	-	90.0
42		-	-	-	90.0
48		-	-	-	85.1

NOTE:
LIMIT MAXIMUM EXTERIOR(+) LOADS TO 100.0 PSF

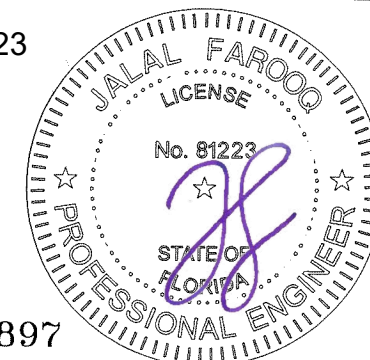
DOOR MULLION LOAD CAPACITY-PSF					
SIDELITE WIDTH INCHES	FRAME HEIGHT INCHES	JAMB 'JD1'	JAMB 'JD1'	JAMB 'JD2'	JAMB 'JD3'
		MULL 'MD1'	MULL 'MD2'	MULL 'MD3'	MULL 'MD4'
		EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)	EXT. (+) INT. (-)
32	98-1/2	90.0	90.0	90.0	90.0
36		90.0	90.0	90.0	90.0
42		90.0	90.0	90.0	90.0
48		90.0	90.0	90.0	90.0
54		87.7	90.0	90.0	90.0
32	110-1/2	79.8	90.0	90.0	90.0
36		75.8	90.0	90.0	90.0
42		70.6	90.0	90.0	90.0
48		66.1	90.0	90.0	90.0
32	114	72.6	90.0	90.0	90.0
36		69.1	90.0	90.0	90.0
42		64.3	90.0	90.0	90.0
48		60.2	90.0	90.0	90.0
32	120	62.3	90.0	90.0	90.0
36		59.2	90.0	90.0	90.0
42		55.2	88.7	89.1	90.0
48		51.6	83.0	83.4	90.0
32	144	-	-	-	90.0
36		-	-	-	89.8
42		-	-	-	83.6
48		-	-	-	78.3



Ix IN^4	Sx IN^3	Ix IN^4	Sx IN^3	Ix IN^4	Sx IN^3	Ix IN^4	Sx IN^3	Ix IN^4	Sx IN^3	Ix IN^4	Sx IN^3	Ix IN^4	Sx IN^3
6.570	2.7226	10.6577	3.8057	6.570	2.7226	6.7195	2.6757	10.8072	4.4788	6.7195	2.6757	6.7195	2.6757
ALUMINUM		STEEL		TOTAL		ALUMINUM		STEEL		TOTAL		ALUMINUM	
				Ix ALUM + Ix STL X 2.9						Ix ALUM + Ix STL X 2.9			
				14.5467						14.6962			
												17.6041	

DOOR-WINDOW WALL
TRANSITION MULLION

Sealed: 7/25/2023



FL #17897

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL: (305) 264-8100
WWW.AFCENG.COM
FBPE #3538

SERIES 8000 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)

E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL: (305) 638-5151 FAX: (305) 638-5158

revisions:
no. date by description

date: 01-25-23
scale: -
dr. by: TARIO
chk. by:

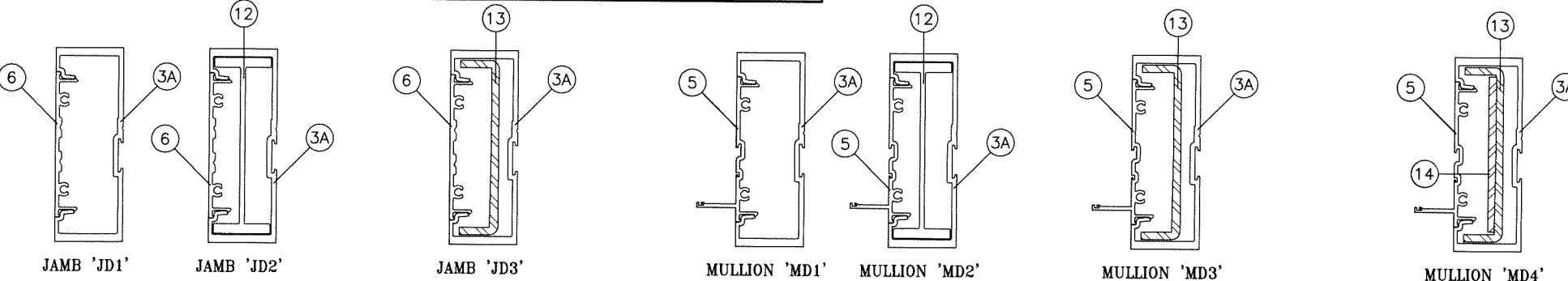
drawing no.
23-06F
sheet 8 of 18

STORE 23-06F-ES

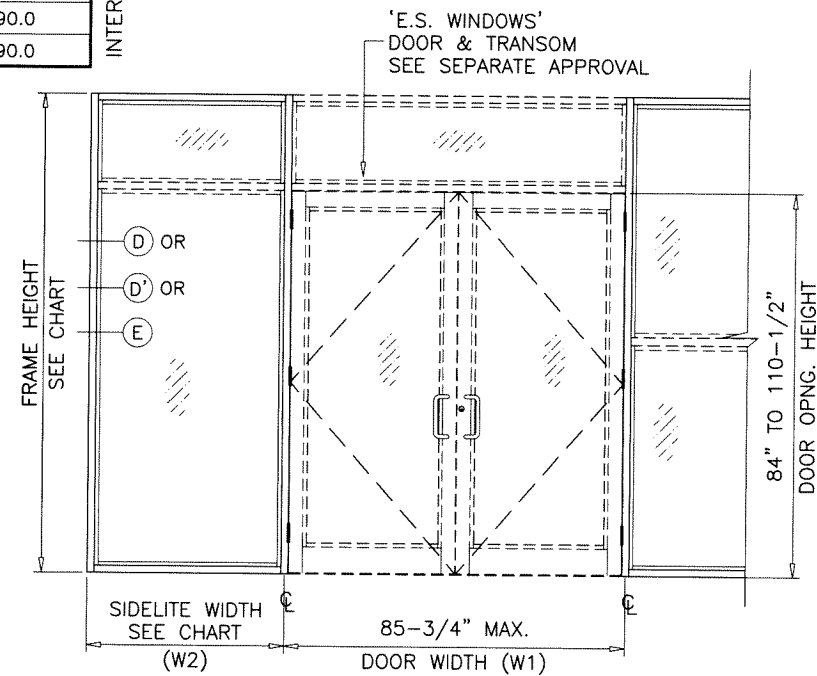
DOOR MULLION LOAD CAPACITY - PSF							
NOMINAL DIMS.				JAMB 'JD1'	JAMB 'JD1'	JAMB 'JD2'	JAMB 'JD3'
WIDTH (W1)	WIDTH (W2)	FRAME HEIGHT	DOOR HEIGHT	MULL 'MD1'	MULL 'MD2'	MULL 'MD3'	MULL 'MD4'
INCHES	INCHES	INCHES	INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)
85-3/4	30	96	84	90.0	90.0	90.0	90.0
	36			90.0	90.0	90.0	90.0
	42			90.0	90.0	90.0	90.0
	48			90.0	90.0	90.0	90.0
	54			90.0	90.0	90.0	90.0
	60			85.7	90.0	90.0	90.0
	30	102		90.0	90.0	90.0	90.0
	36			86.9	90.0	90.0	90.0
	42			81.5	90.0	90.0	90.0
	48			76.7	90.0	90.0	90.0
	54			72.5	90.0	89.0	90.0
	60			74.2	90.0	90.0	90.0
	30	108		69.5	90.0	89.1	90.0
	36			65.4	90.0	84.4	90.0
	42			61.7	90.0	80.2	90.0
	48			60.2	90.0	81.7	90.0
	54			56.6	90.0	77.4	90.0
	60			53.3	85.8	73.4	87.8
	30	114		50.5	81.2	69.9	83.5
	36			49.7	80.0	71.9	85.9
	42			46.8	75.3	68.1	81.5
	48			44.2	71.2	64.8	77.4
	54			41.9	67.5	61.7	73.8
	60			40.0	64.0	58.0	70.0
30	120	40.0	64.0	58.0	70.0		
36		38.0	60.0	54.0	66.0		
42		36.0	56.0	50.0	62.0		
48		34.0	52.0	46.0	58.0		
54		32.0	48.0	42.0	54.0		
60		30.0	44.0	38.0	50.0		

DOOR MULLION LOAD CAPACITY - PSF							
NOMINAL DIMS.				JAMB 'JD1'	JAMB 'JD1'	JAMB 'JD2'	JAMB 'JD3'
WIDTH (W1)	WIDTH (W2)	FRAME HEIGHT	DOOR HEIGHT	MULL 'MD1'	MULL 'MD2'	MULL 'MD3'	MULL 'MD4'
INCHES	INCHES	INCHES	INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)
85-3/4	30	108	96	84.6	90.0	90.0	90.0
	36			78.6	90.0	90.0	90.0
	42			73.4	90.0	90.0	90.0
	48			68.8	90.0	89.7	90.0
	54			64.2	90.0	89.0	90.0
	60			63.5	90.0	85.3	90.0
	30	114		59.5	90.0	80.6	90.0
	36			56.0	90.0	76.3	90.0
	42			55.5	89.3	78.0	90.0
	48			51.9	83.5	73.6	88.0
	54			48.8	78.5	69.7	83.3
	60			46.0	74.0	66.2	79.1
85-3/4	30	114	102	72.4	90.0	90.0	90.0
	36			67.2	90.0	90.0	90.0
	42			62.7	90.0	85.9	90.0
	48			58.8	90.0	81.1	90.0
	54			59.0	90.0	82.6	90.0
	60			55.0	88.4	77.7	90.0
	30	120		51.5	82.8	73.3	87.7
	36			48.4	77.8	69.4	83.0
	42			63.7	90.0	90.0	90.0
	48			59.0	90.0	85.7	90.0
	54			55.0	88.4	80.4	90.0
	60			51.5	82.8	75.7	90.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

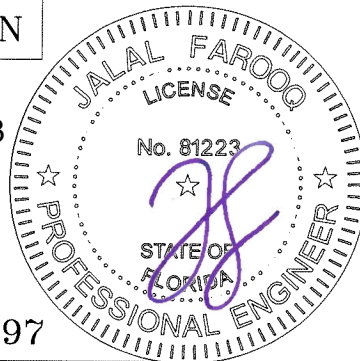


Ix IN ⁴	Sx IN ³	Ix IN ⁴	Sx IN ³	ALUMINUM	Ix IN ⁴	Sx IN ³	Ix IN ⁴	Sx IN ³	ALUMINUM	Ix IN ⁴	Sx IN ³	Ix IN ⁴	Sx IN ³	ALUMINUM	Ix IN ⁴	Sx IN ³
6.570	2.7226	10.6577	3.8057		6.570	2.7226	6.7195	2.6757		6.7195	2.6757	6.7195	2.6757		6.7195	2.6757
				STEEL	2.7506	1.2224			STEEL	2.7506	1.224			STEEL	3.7533	1.668
				TOTAL	14.5467				TOTAL	14.6962				TOTAL	17.6041	
				Ix ALUM + Ix STL X 2.9					Ix ALUM + Ix STL X 2.9					Ix ALUM + Ix STL X 2.9		



DOOR-WINDOWALL TRANSITION MULLION

Sealed: 7/25/2023



FL #17897

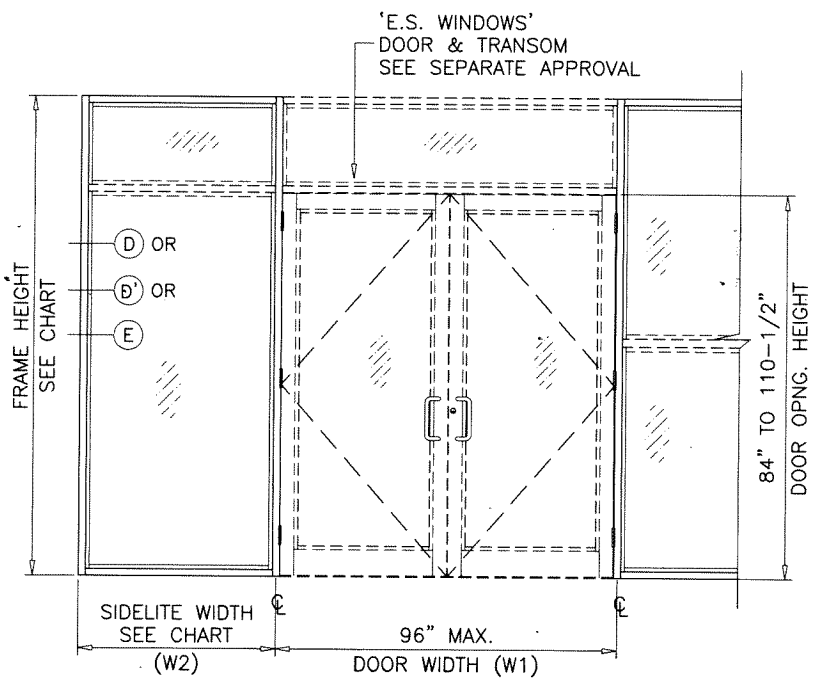
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173
 TEL. (305) 264-8100
 WWW.AFCENG.COM
 FBPE #3538

SERIES 8000 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

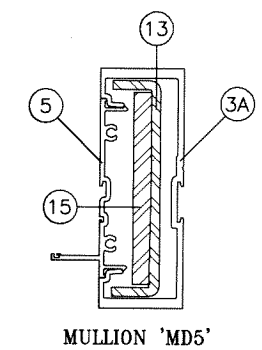
revisions:	no.	date	description
date:	01-25-23	scale:	
dr. by:	TARIO	chk. by:	
drawing no.	23-06F		
sheet	9 of 18		

DOOR MULLION LOAD CAPACITY - PSF					
NOMINAL DIMS.				JAMB 'JD3' MULL 'MD4'	
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)	
96	30	96	84	90.0	
	36			90.0	
	42			90.0	
	48			90.0	
	54			90.0	
	60			90.0	
	30	102		90.0	
	36			90.0	
	42			90.0	
	48			90.0	
	54			90.0	
	30			108	90.0
36	90.0				
42	90.0				
48	89.4				
30	114	90.0			
36		85.5			
42		81.5			
48		77.8			
30		120	79.1		
36			75.3		
42	71.8				
48	68.7				
96	30		102	90	90.0
	36				90.0
	42	90.0			
	48	90.0			
	54	90.0			
	30	108			90.0
	36		90.0		
	42		90.0		
	48		90.0		
	30		114		90.0
	36				89.5
	42	85.1			
48	81.1				
30	120	82.1			
36		78.0			
42		74.3			
48		70.9			

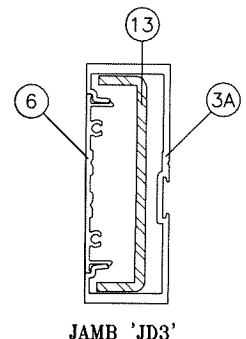
DOOR MULLION LOAD CAPACITY - PSF							
NOMINAL DIMS.				JAMB 'JD3' MULL 'MD4'			
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)			
96	30	108	96	90.0			
	36			90.0			
	42			90.0			
	48			90.0			
	30			114	90.0		
	36				90.0		
	42	89.8					
	48	85.3					
	30	120			86.1		
	36				81.6		
	42			77.5			
	48			73.9			
96	30		114	102	90.0		
	36				90.0		
	42	90.0					
	48	89.4					
	30	120			90.0		
	36				86.3		
	42		81.8				
	48		77.7				
	96		30		120	110-1/2	90.0
			36				90.0
		42	90.0				
		48	85.1				
96		30	144	108			57.0
		36					54.2
	42	51.6					
	48	49.2					



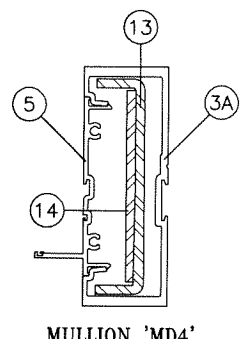
DOOR MULLION LOAD CAPACITY - PSF				
NOMINAL DIMS.				JAMB 'JD3' MULL 'MD5'
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)
76	30	144	108	78.4
	36			73.8
	42			69.7
	48			66.1
84	30			73.1
	36			69.1
	42			65.5
	48			62.3
96	30			66.3
	36			63.0
	42			60.0
	48			57.3



	Ix IN ⁴	Sx IN ³
ALUMINUM	6.7195	2.6757
STEEL	4.7506	2.1114
TOTAL Ix ALUM + Ix STL X 2.9	20.3598	



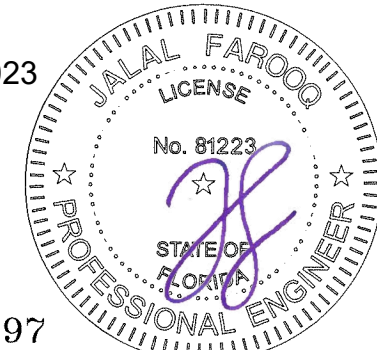
	Ix IN ⁴	Sx IN ³
ALUMINUM	6.570	2.7226
STEEL	2.7506	1.2224
TOTAL Ix ALUM + Ix STL X 2.9	14.5467	



	Ix IN ⁴	Sx IN ³
ALUMINUM	6.7195	2.6757
STEEL	3.7533	1.668
TOTAL Ix ALUM + Ix STL X 2.9	17.6041	

DOOR-WINDOWALL
TRANSITION MULLION

Sealed: 7/25/2023



FL #17897

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100
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SERIES 8000 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
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TEL. (305) 638-5151 FAX. (305) 638-5158

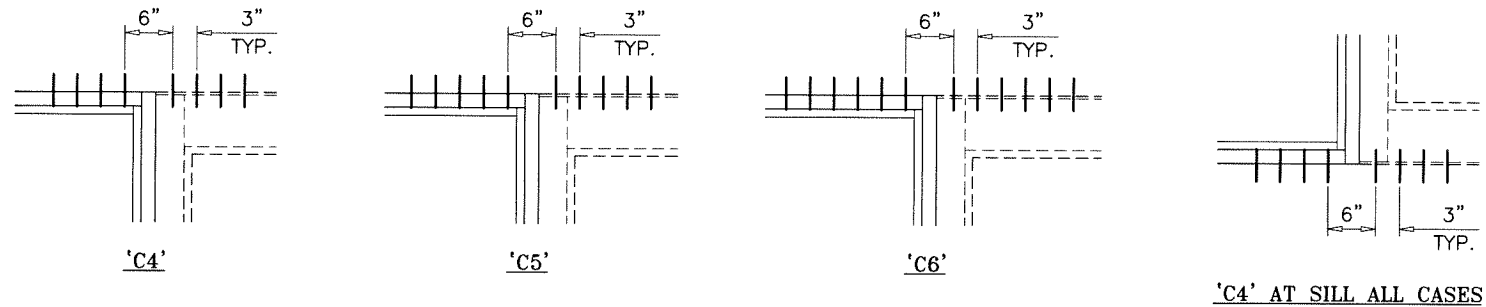
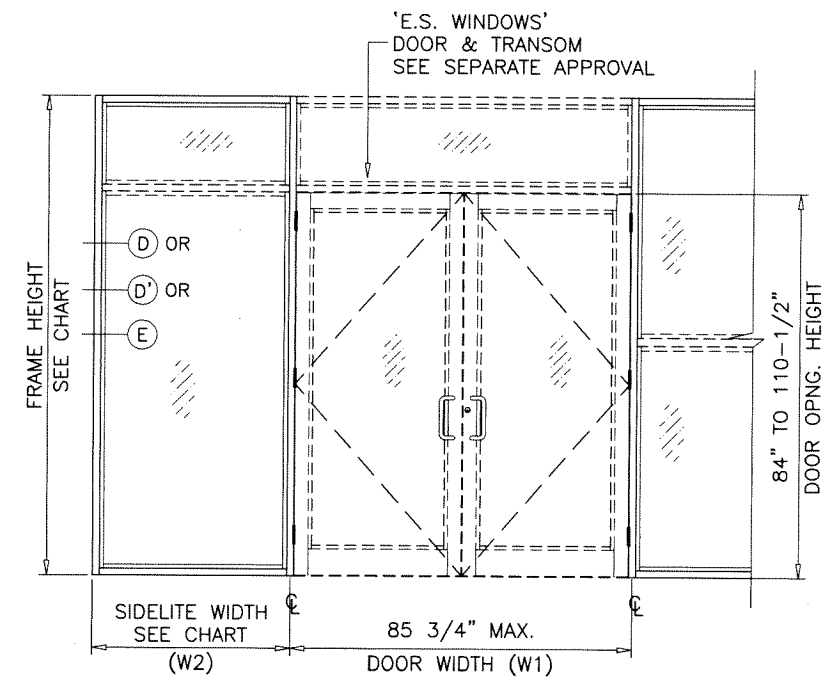
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date: 01-25-23	scale: -	dr. by: TARIQ	chk. by:
drawing no. 23-06F			
sheet 10 of 18			

DOOR MULLION HEAD ANCHOR LOAD CAPACITY - PSF						
NOMINAL DIMS.				'C4'	'C5'	'C6'
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)
85-3/4	30	96	84	89.6	90.0	90.0
				85.0	90.0	90.0
				80.8	90.0	90.0
				77.0	90.0	90.0
				73.6	90.0	90.0
				70.4	88.0	90.0
	36	102	84	86.0	90.0	90.0
				81.5	90.0	90.0
				77.4	90.0	90.0
				73.8	90.0	90.0
				70.4	88.0	90.0
				68.0	85.0	90.0
	42	108	84	82.7	90.0	90.0
				78.3	90.0	90.0
				74.3	90.0	90.0
				70.8	88.4	90.0
				68.0	85.0	90.0
				65.4	81.8	90.0
	48	114	84	79.7	90.0	90.0
				75.4	90.0	90.0
				71.5	89.4	90.0
				68.0	85.0	90.0
				65.4	81.8	90.0
				62.9	79.2	90.0
85-3/4	30	90	90	84.1	90.0	90.0
				79.7	90.0	90.0
				75.8	90.0	90.0
				72.3	90.0	90.0
	36	102	90	80.9	90.0	90.0
				76.7	90.0	90.0
				72.9	90.0	90.0
				69.4	86.8	90.0
	42	108	90	78.0	90.0	90.0
				73.9	90.0	90.0
				70.1	87.7	90.0
				66.8	83.5	90.0
48	114	90	75.3	90.0	90.0	
			71.2	89.1	90.0	
			67.6	84.5	90.0	
			64.3	80.4	90.0	

DOOR MULLION HEAD ANCHOR LOAD CAPACITY - PSF						
NOMINAL DIMS.				'C4'	'C5'	'C6'
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)
85-3/4	30	108	96	79.2	90.0	90.0
				75.1	90.0	90.0
				71.5	89.3	90.0
				68.1	85.2	90.0
	36	114	96	76.4	90.0	90.0
				72.4	90.0	90.0
				68.8	86.0	90.0
				65.6	82.0	90.0
	42	120	96	73.8	90.0	90.0
				69.9	87.4	90.0
				66.4	83.0	90.0
				63.2	79.0	90.0
48	120	96	74.9	90.0	90.0	
			71.0	88.8	90.0	
			67.6	84.5	90.0	
			64.4	80.5	90.0	
85-3/4	30	102	102	72.4	90.0	90.0
				68.6	85.7	90.0
				65.2	81.5	90.0
				62.1	77.7	90.0
	36	114	102	70.4	88.0	90.0
				66.8	83.5	90.0
				63.6	79.5	90.0
				60.7	75.9	90.0
	42	120	102	70.4	88.0	90.0
				66.8	83.5	90.0
				63.6	79.5	90.0
				60.7	75.9	90.0

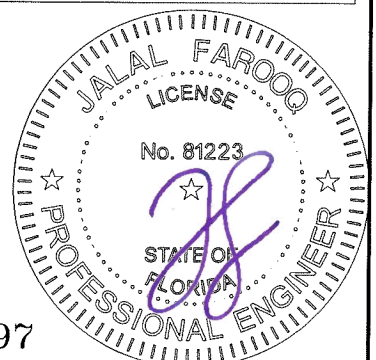
INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.




ANCHORS TYPES: SEE SHEET 13 FOR DESCRIPTION
 C4 = (4) ANCHORS TYPE 'C' AT EACH SIDE OF DOOR MULLION
 C5 = (5) ANCHORS TYPE 'C' AT EACH SIDE OF DOOR MULLION
 C6 = (6) ANCHORS TYPE 'C' AT EACH SIDE OF DOOR MULLION
 ALL OTHER ANCHORS TO BE SPACED AS PER ELEVATION.

TRANSITION MULLION ANCHORS

Sealed: 7/25/2023



FL #17897



AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173
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 FBPE #3538

SERIES 8000 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)

E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:	no	date	by	description

date: 01-25-23
 scale: -
 dr. by: TARIQ
 chk. by: -

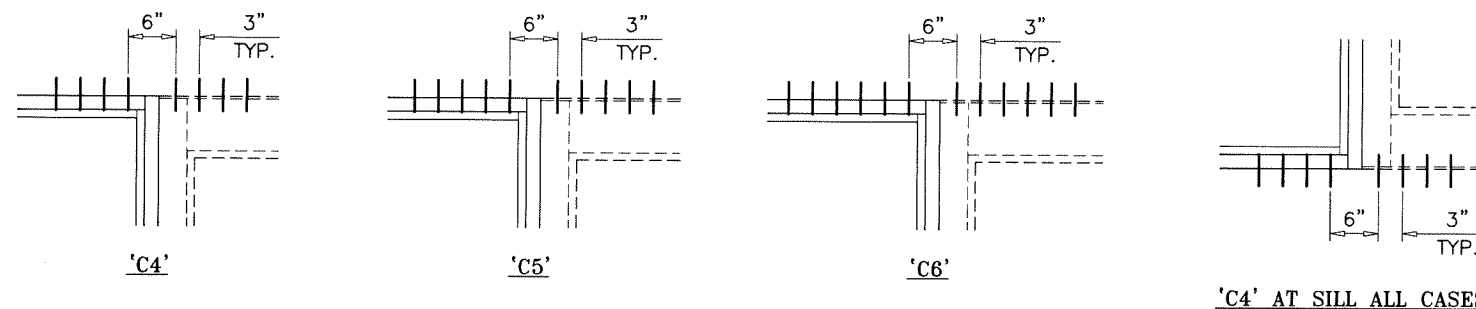
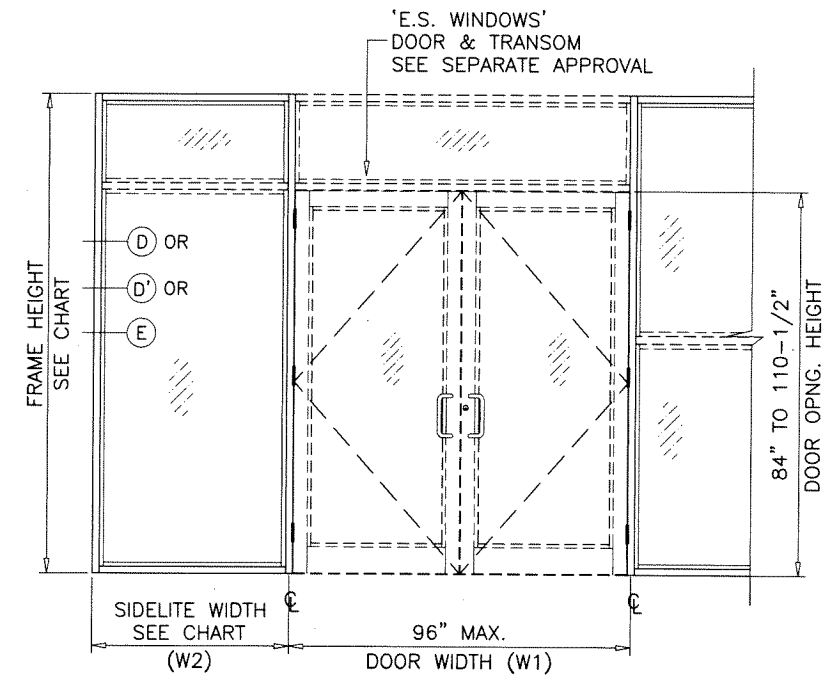
drawing no.
23-06F

sheet 11 of 18

DOOR MULLION HEAD ANCHOR LOAD CAPACITY - PSF							
NOMINAL DIMS.				'C4'	'C5'	'C6'	
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)	
96	30	96	84	82.4	90.0	90.0	
	36			78.5	90.0	90.0	
	42			74.9	90.0	90.0	
	48			71.7	89.6	90.0	
	54			68.7	85.8	90.0	
	60			65.9	82.4	90.0	
	30	102		79.2	90.0	90.0	
	36			75.3	90.0	90.0	
	42			71.8	89.8	90.0	
	48			68.7	85.8	90.0	
	54			65.8	82.2	90.0	
	30			108	76.2	90.0	90.0
	36	72.4			90.0	90.0	
	42	69.0			86.3	90.0	
	48	65.9			82.4	90.0	
	30	114			73.4	90.0	90.0
	36				69.8	87.2	90.0
	42			66.4	83.0	90.0	
	48			63.4	79.2	90.0	
	30			120	70.9	88.6	90.0
	36				67.3	84.1	90.0
	42	64.0			80.0	90.0	
	48	61.0			76.3	90.0	
	96	30			102	90	77.3
36		73.7	90.0				90.0
42		70.3	87.9	90.0			
48		67.3	84.1	90.0			
54		64.5	80.6	90.0			
30		108	74.5	90.0			90.0
36			70.9	88.6	90.0		
42			67.6	84.5	90.0		
48			64.6	80.8	90.0		
30			114	71.8	89.8		90.0
36				68.3	85.4		90.0
42		65.1		81.4	90.0		
48		62.2		77.7	90.0		
30		120		69.4	86.7		90.0
36				65.9	82.4		90.0
42			62.8	78.5	90.0		
48			59.9	74.9	89.9		

DOOR MULLION HEAD ANCHOR LOAD CAPACITY - PSF									
NOMINAL DIMS.				'C4'	'C5'	'C6'			
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)			
96	30	108	96	72.8	90.0	90.0			
	36			69.4	86.7	90.0			
	42			66.3	82.8	90.0			
	48			63.4	79.2	90.0			
	30	114		70.3	87.9	90.0			
	36			66.9	83.7	90.0			
	42			63.8	79.8	90.0			
	48			61.0	76.3	90.0			
	30	120		68.0	84.9	90.0			
	36			64.6	80.8	90.0			
	42			61.6	77.0	90.0			
	48			58.9	73.6	88.3			
96	30	114	102	68.8	86.1	90.0			
	36			65.6	82.0	90.0			
	42			62.6	78.3	90.0			
	48			59.9	74.9	89.9			
	30	120		66.6	83.2	90.0			
	36			63.4	79.2	90.0			
	42			60.5	75.6	90.0			
	48			57.8	72.3	86.7			
	96	30		120	110-1/2	64.7	80.9	90.0	
		36				61.7	77.1	90.0	
		42				58.9	73.7	88.4	
		48				56.4	70.5	84.6	
96		30	144			108	57.8	72.3	86.7
		36					54.9	68.7	82.4
	42	52.3		65.4	78.5				
	48	49.9		62.4	74.9				

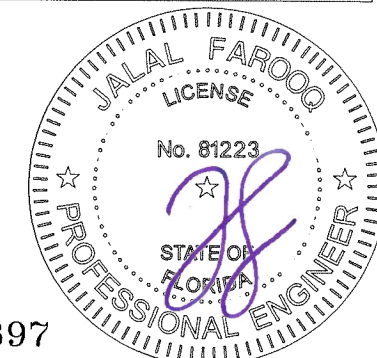
INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



ANCHORS TYPES: SEE SHEET 13 FOR DESCRIPTION
 C4 = (4) ANCHORS TYPE 'C' AT EACH SIDE OF DOOR MULLION
 C5 = (5) ANCHORS TYPE 'C' AT EACH SIDE OF DOOR MULLION
 C6 = (6) ANCHORS TYPE 'C' AT EACH SIDE OF DOOR MULLION
 ALL OTHER ANCHORS TO BE SPACED AS PER ELEVATION.

TRANSITION MULLION ANCHORS

Sealed: 7/25/2023

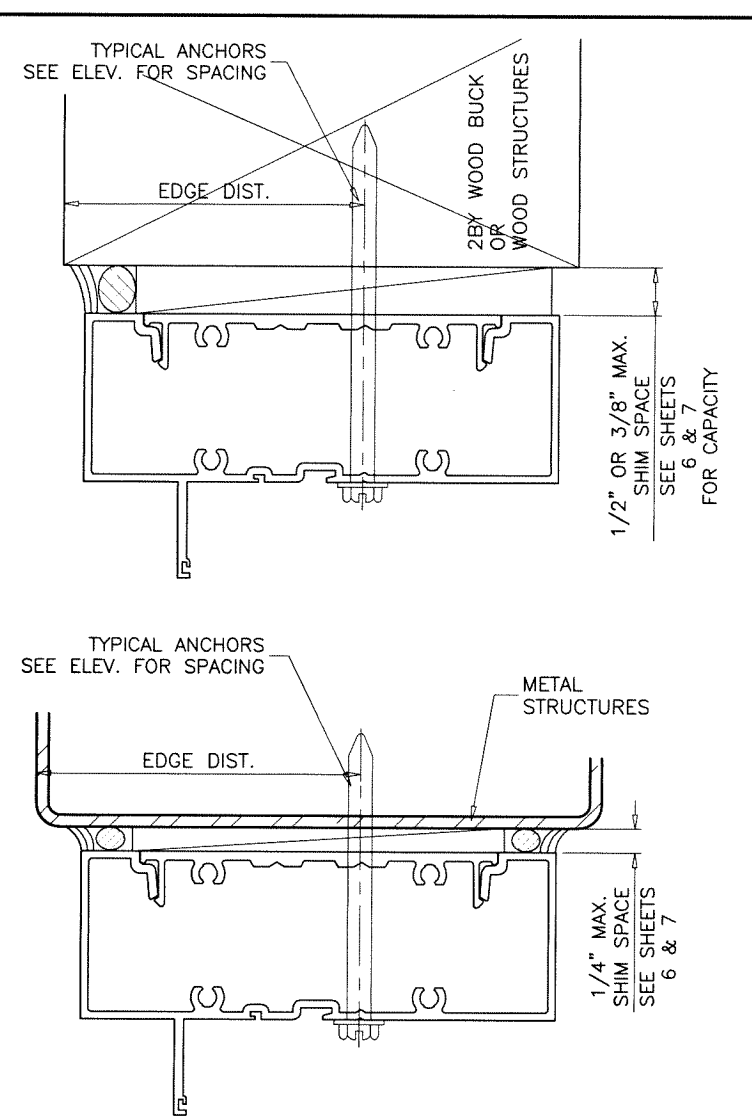
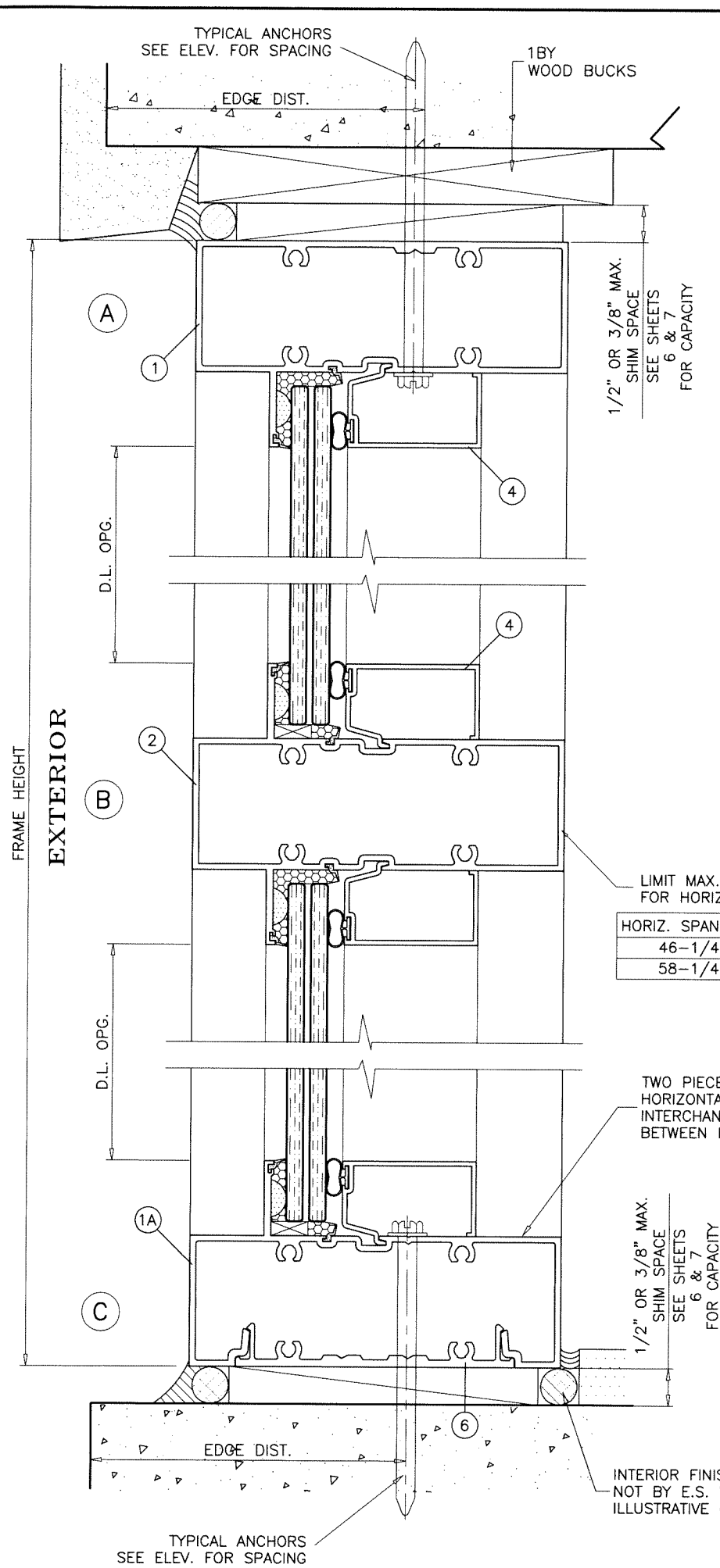


FL #17897

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 TEL. (305) 264-8100
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 STORE\23-06F-ES

SERIES 8000 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
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revisions:	no	date	by	description
date:	01-25-23	scale:	-	
dr. by:	TARIQ	chk. by:		
drawing no.	23-06F			
sheet	12 of 18			



LIMIT MAX. DESIGN LOADS FOR HORIZONTAL AS FOLLOWS

HORIZ. SPAN MAX.	LOAD CAPACITY - PSF
46-1/4"	+100.0, -130.0
58-1/4"	+70.0, -70.0

SEALANTS:

ALL FRAME CORNERS, JOINTS, MULLION SEAMS AND PERIMETER OF GLAZING BEAD TO FRAME SEALED WITH SILICONE SEALANT.

WOOD BUCKS AND METAL STRUCTURES NOT BY 'E.S. WDW.' MUST SUPPORT LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

TYPE 'A'- 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES WITH 1-1/2" MIN. PENETRATION INTO WOOD
 THRU 1BY WOOD BUCKS INTO CONCRETE WITH 1-1/4" MIN. EMBED INTO CONCRETE
 DIRECTLY INTO CONCRETE WITH 2" MIN. EMBED INTO CONC.

ANCHOR EDGE DISTANCES

INTO CONCRETE AND MASONRY = 2-1/2" MIN.
 INTO WOOD STRUCTURE = 1" MIN.

TYPE 'B'- 1/4" DIA. KWIK-CON II+ BY 'HILTI' (Fu=138 KSI, Fy=137 KSI)
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES WITH 1-1/2" MIN. PENETRATION INTO WOOD
 THRU 1BY WOOD BUCKS INTO CONCRETE WITH 1-1/4" MIN. EMBED INTO CONCRETE
 DIRECTLY INTO CONCRETE WITH 2" MIN. EMBED INTO CONC.

ANCHOR EDGE DISTANCES

INTO CONCRETE AND MASONRY = 3" MIN.
 INTO WOOD STRUCTURE = 1" MIN.

TYPE 'C'- 5/16" DIA ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES WITH 1-1/2" MIN. PENETRATION INTO WOOD
 THRU 1BY WOOD BUCKS INTO CONCRETE WITH 1-1/4" MIN. EMBED INTO CONCRETE
 DIRECTLY INTO CONCRETE WITH 1-1/4" MIN. EMBED INTO CONC.

ANCHOR EDGE DISTANCES

INTO CONCRETE AND MASONRY = 3" MIN.
 INTO WOOD STRUCTURE = 1-1/4" MIN.

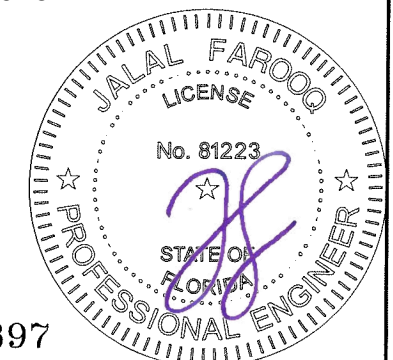
TYPE 'D'- 1/4" DIA. TEKS OR SELF DRILLING SCREWS ST/ST (GRADE 5 CRS)
 INTO METAL STRUCTURES (3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
 ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)
 STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

ANCHOR EDGE DISTANCES

INTO METAL STRUCTURE = 1/2" MIN.

WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.
 CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.
 C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

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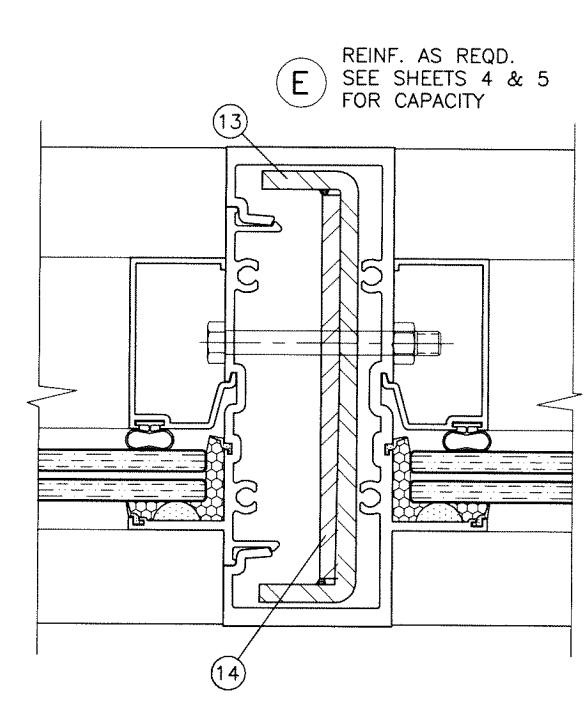
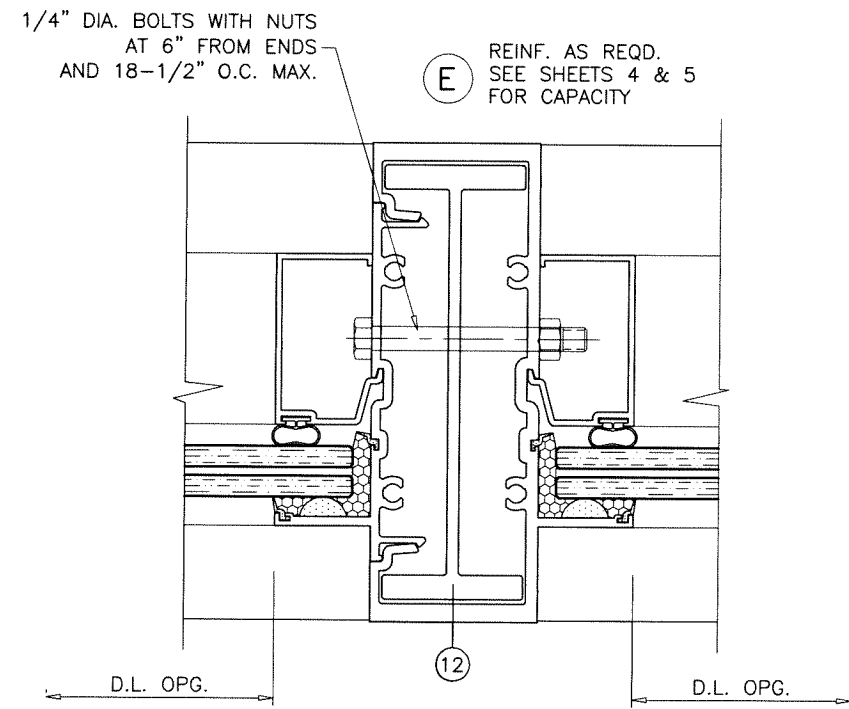
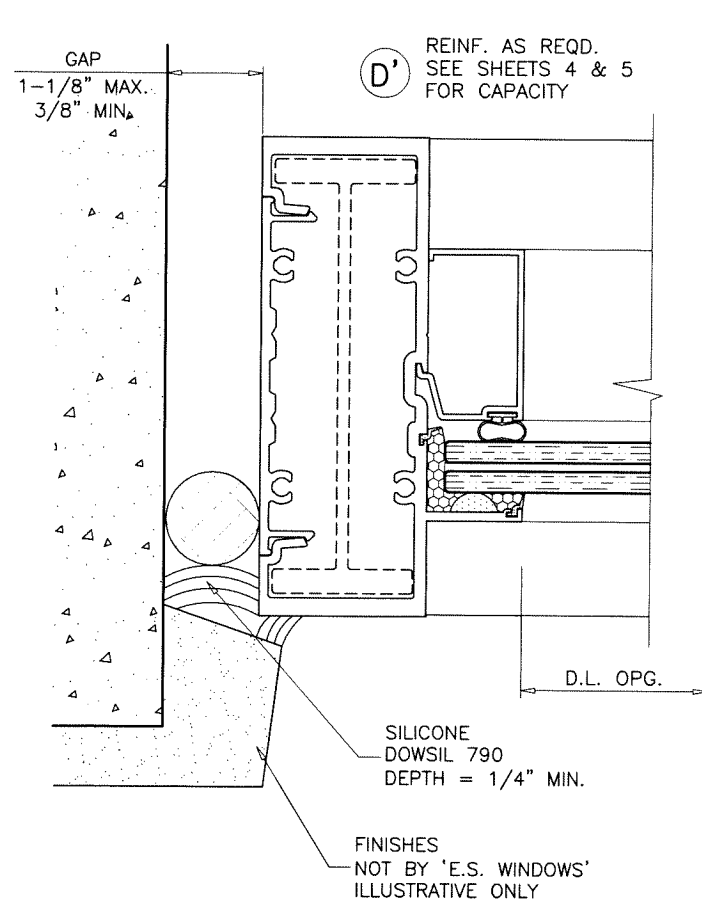
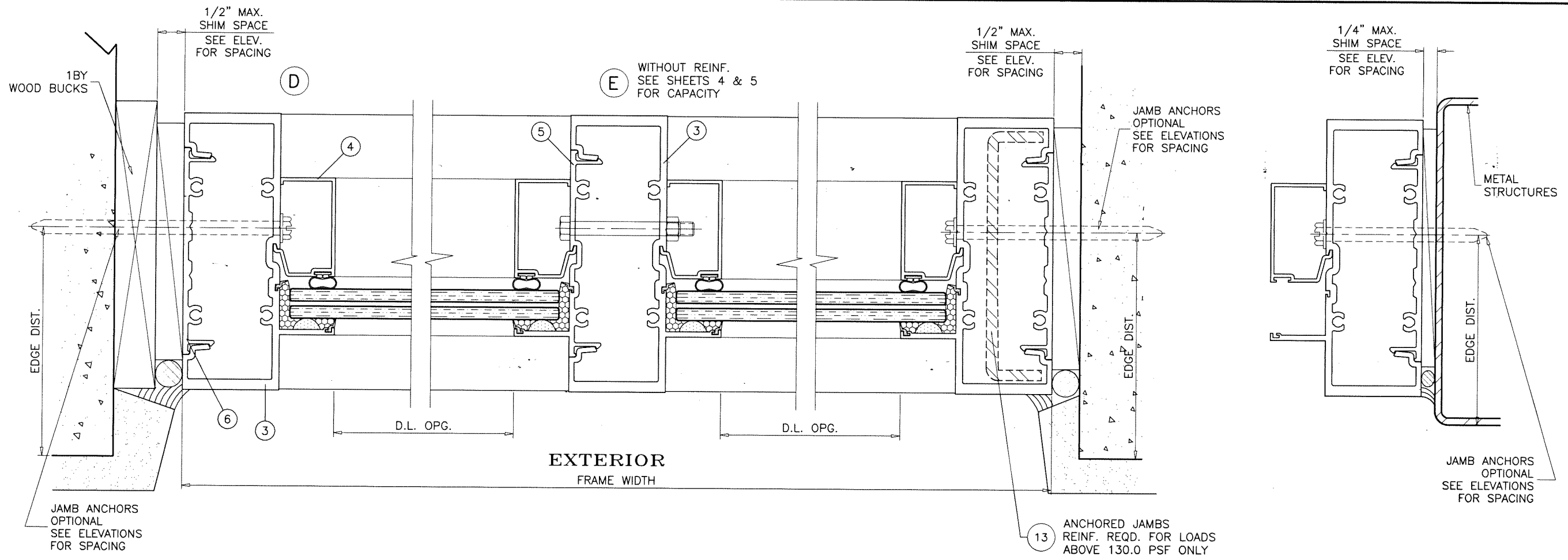
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AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173
 TEL. (305) 264-8100
 WWW.AFCENG.COM
 STORE \23-06F-ES
 FBPE #3538

SERIES 8000 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

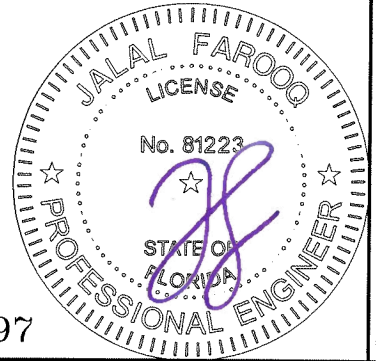
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 dr. by: TARIQ
 chk. by:
 drawing no. 23-06F
 sheet 13 of 18

FL #17897



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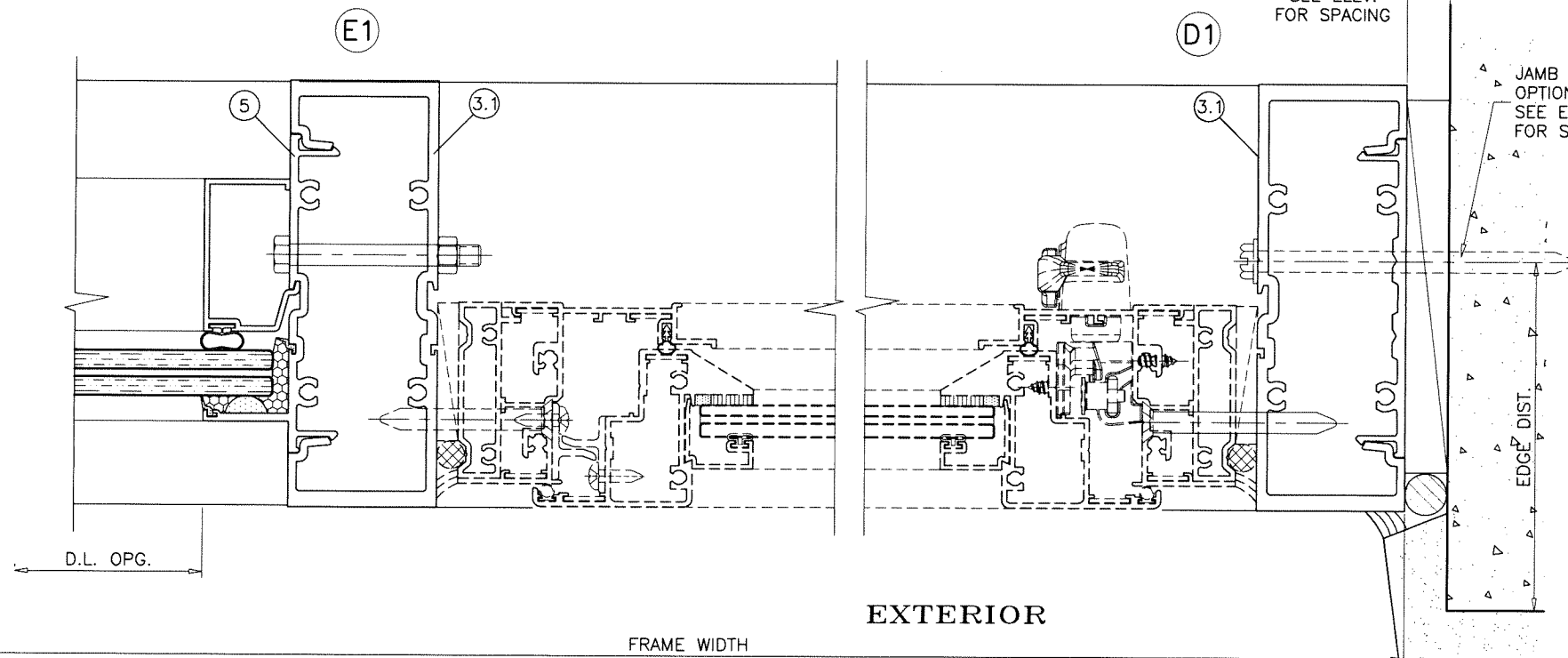
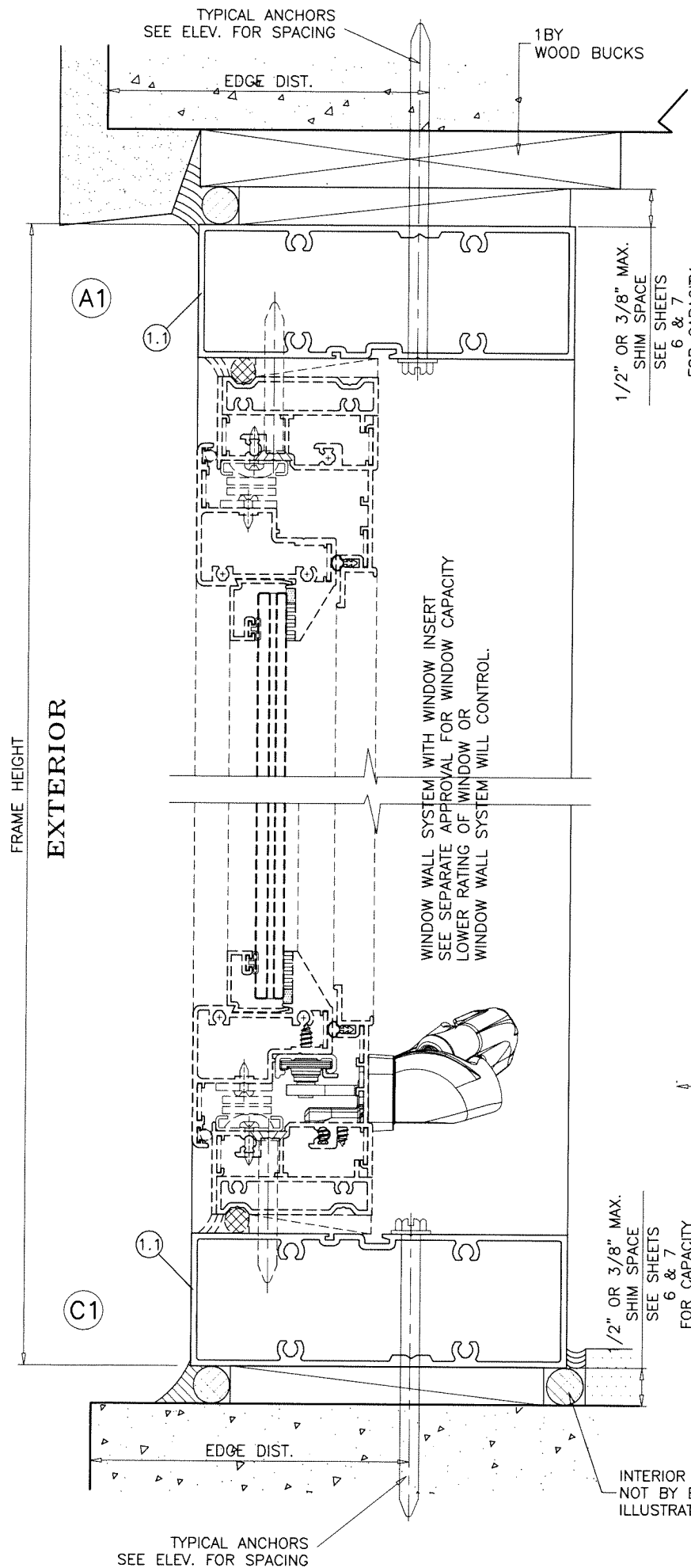
SERIES 8000 ALUMINUM WINDOW WALL SYSTEM (S.M.I.)

E.S. WINDOWS, LLC
3550 N.W. 49 STREET
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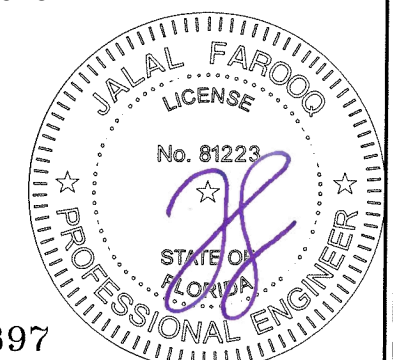
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dr. by: TARIQ
chk. by:

drawing no. **23-06F**
sheet 14 of 18



Sealed: 7/25/2023



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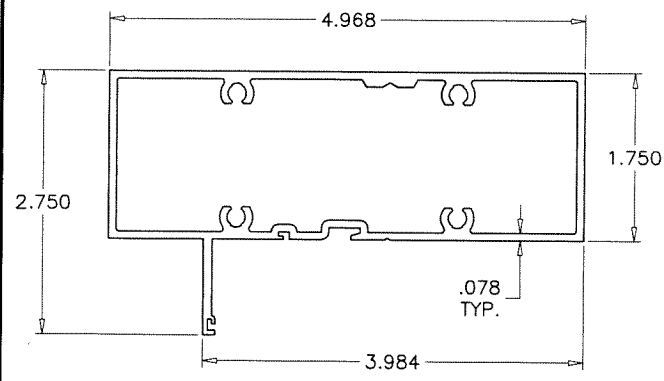
E.S. WINDOWS, LLC
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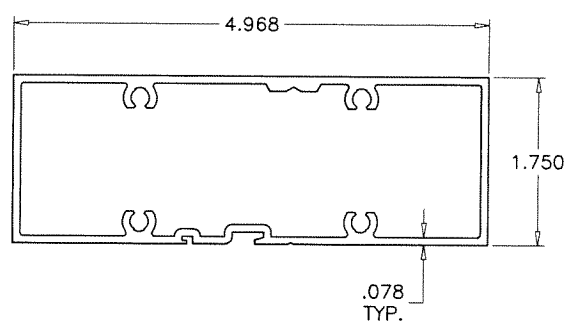
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chk. by:

drawing no.
23-06F

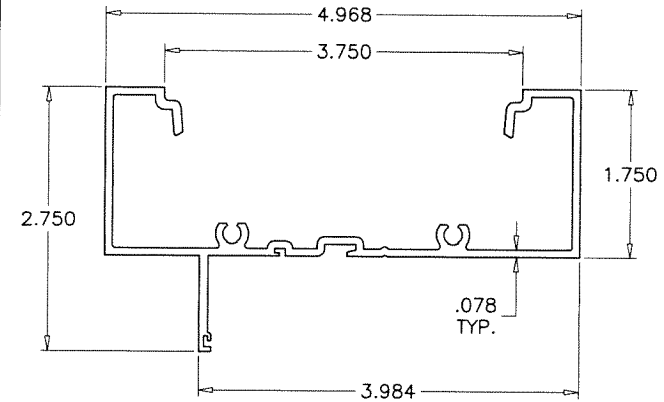
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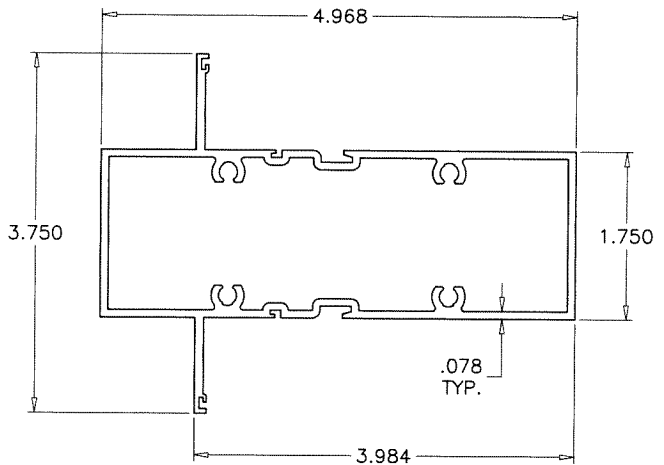
HOLLOW FRAME HEAD/SILL



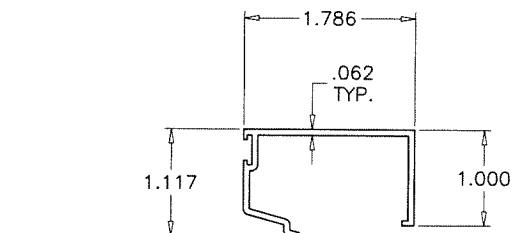
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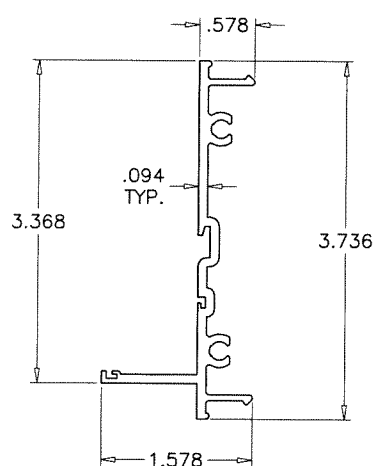
FRAME HEAD/SILL/JAMB



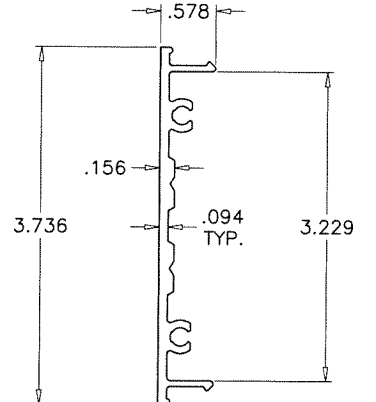
INTERMEDIATE HORIZONTAL



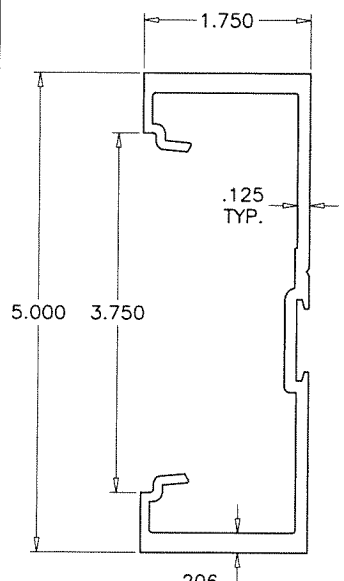
GLASS STOP



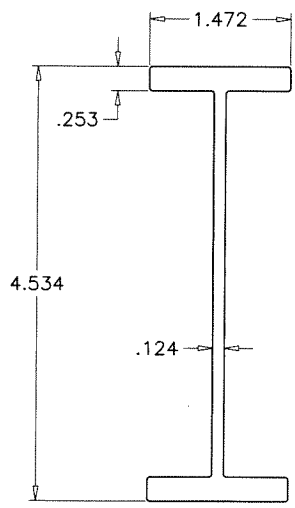
MULLION SNAP-IN MATE



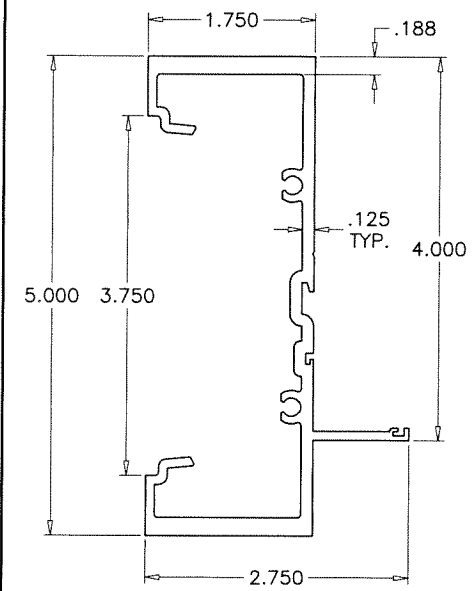
SHEAR CLIP



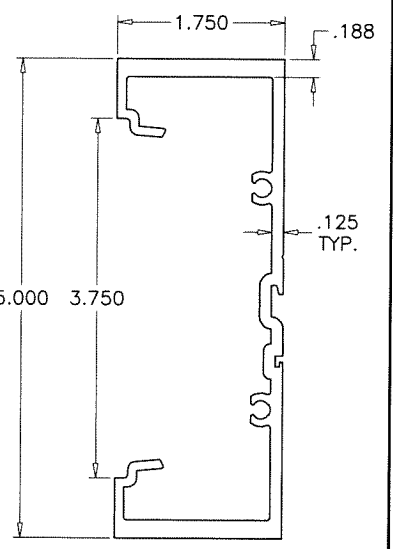
DOOR MULLION



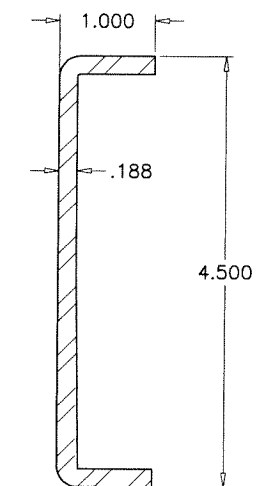
STIFFENER



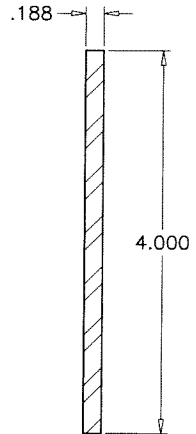
FRAME JAMB/MULLION



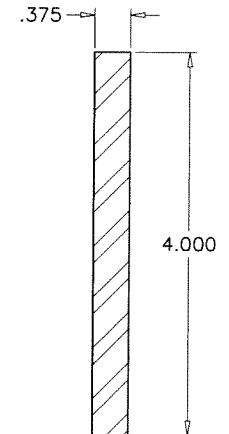
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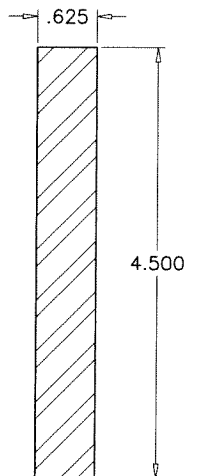
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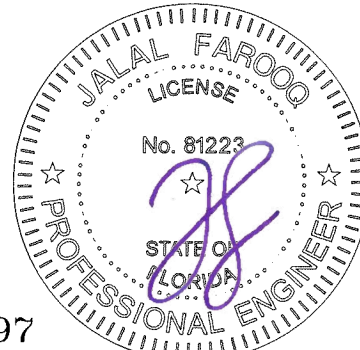
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(16)

ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1, 1.1	ES8005	AS REQD.	HOLLOW FRAME HEAD/SILL	6005-T5	-
1A	ES8007	AS REQD.	FRAME HEAD/SILL/JAMB	6063-T6	-
2	ES8004	AS REQD.	INTERMEDIATE HORIZONTAL	6063-T6	-
3, 3.1	ES8001	AS REQD.	FRAME JAMB/MULLION	6005-T5	-
3A	ES8012	AS REQD.	DOOR MULLION	6005-T5	-
4	ES8006	AS REQD.	GLASS STOP	6063-T5	-
5	ES8002	AS REQD.	MULLION SNAP-IN MATE	6005-T5	-
6	ES8003	AS REQD.	SHEAR CLIP	6005-T5	-
7	-	AS REQD.	INTERIOR BULB GASKET	VINYL	-
8	ES8009	AS REQD.	SILICONE STOP	VINYL	-
8A	ES-8011A	AS REQD.	1/4" BUTTON BUMPER SPACER	SILICONE	DUROMETER 85±5 SHORE A
9	-	-	FRAME JAMB/MULLION	-	-
10	ES-9000-B01A S	2/ LITE	3/16" X 1/2" X 2" LONG SETTING BLOCK, AT 1/4" POINTS	EPDM	DUROMETER 85±5 SHORE A
11	#12 X 1-1/2"	4/ CORNER	ASSEMBLY SCREWS PHSMS	STEEL	-
12	-	AS REQD.	MULLION STIFFENER	6005-T5	-
13	-	AS REQD.	MULLION REINFORCING CHANNEL	STEEL	Fy MIN. = 36 KSI
14	-	AS REQD.	MULLION REINFORCING BAR (3/16" X 4")	STEEL	Fy MIN. = 36 KSI
15	-	AS REQD.	MULLION REINFORCING BAR (3/8" X 4")	STEEL	Fy MIN. = 36 KSI
16	-	AS REQD.	MULLION REINFORCING BAR (5/8" X 4-1/2")	STEEL	Fy MIN. = 70 KSI

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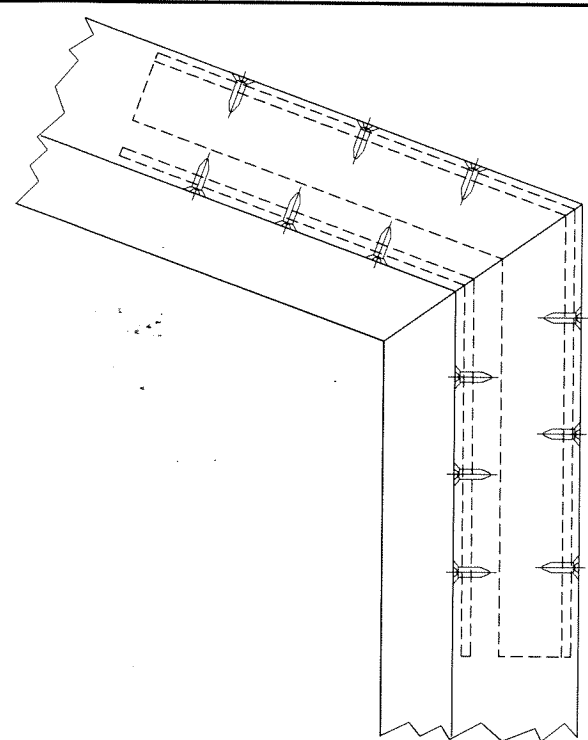


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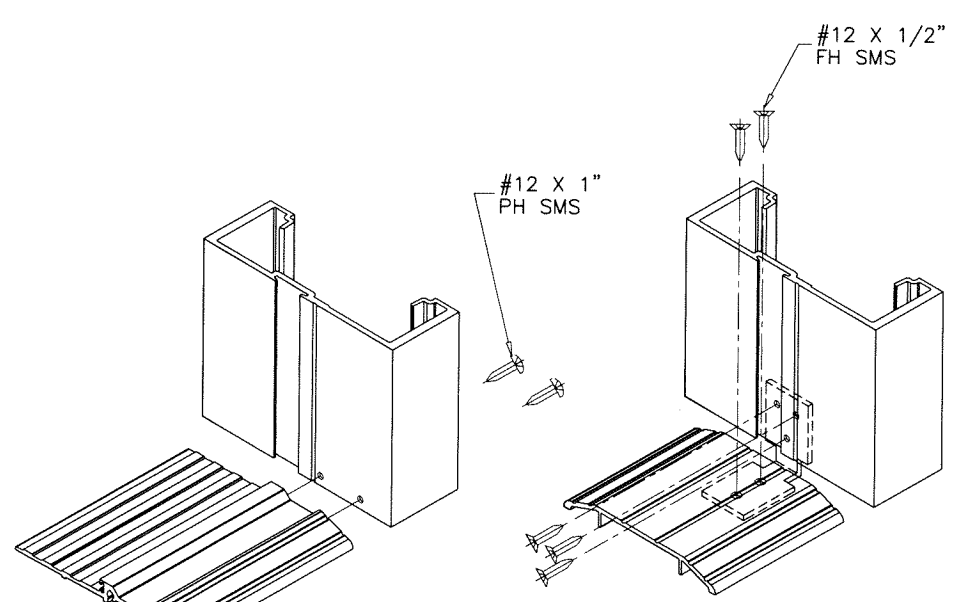
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 dr. by: TARIQ
 chk. by:
 drawing no.
23-06F
 sheet 17 of 18



5/8" X 1/8"
ALUM PLATE
BENT TO MATCH JOINT
SECURED WITH #8 SMS
(3) PER SIDE OF JOINT

5/16 X 1 X 1/8"
ALUM ANGLE
BENT TO MATCH JOINT
SECURED WITH #8 SMS
(3) PER SIDE OF JOINT

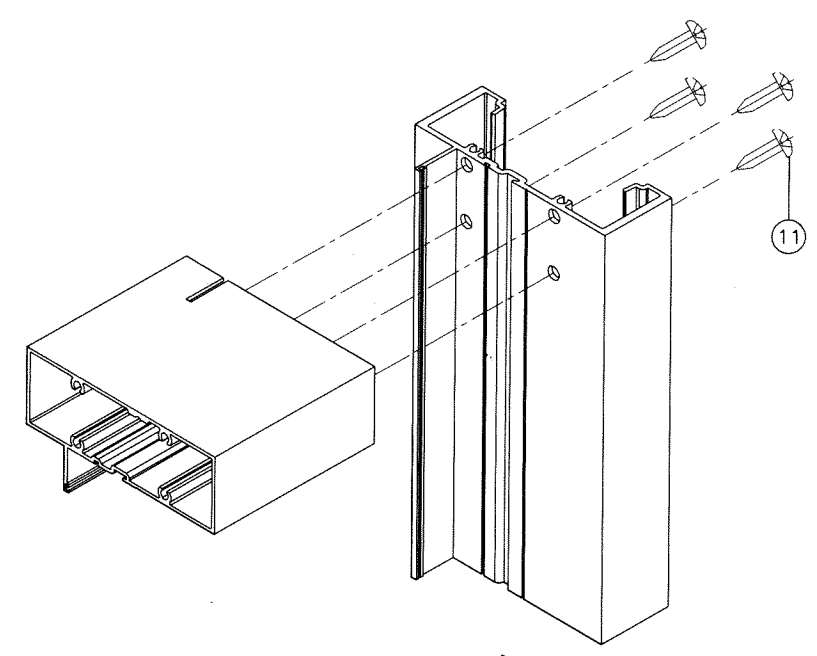
CIRCULAR OR ANGLED CORNERS



#12 X 1"
PH SMS

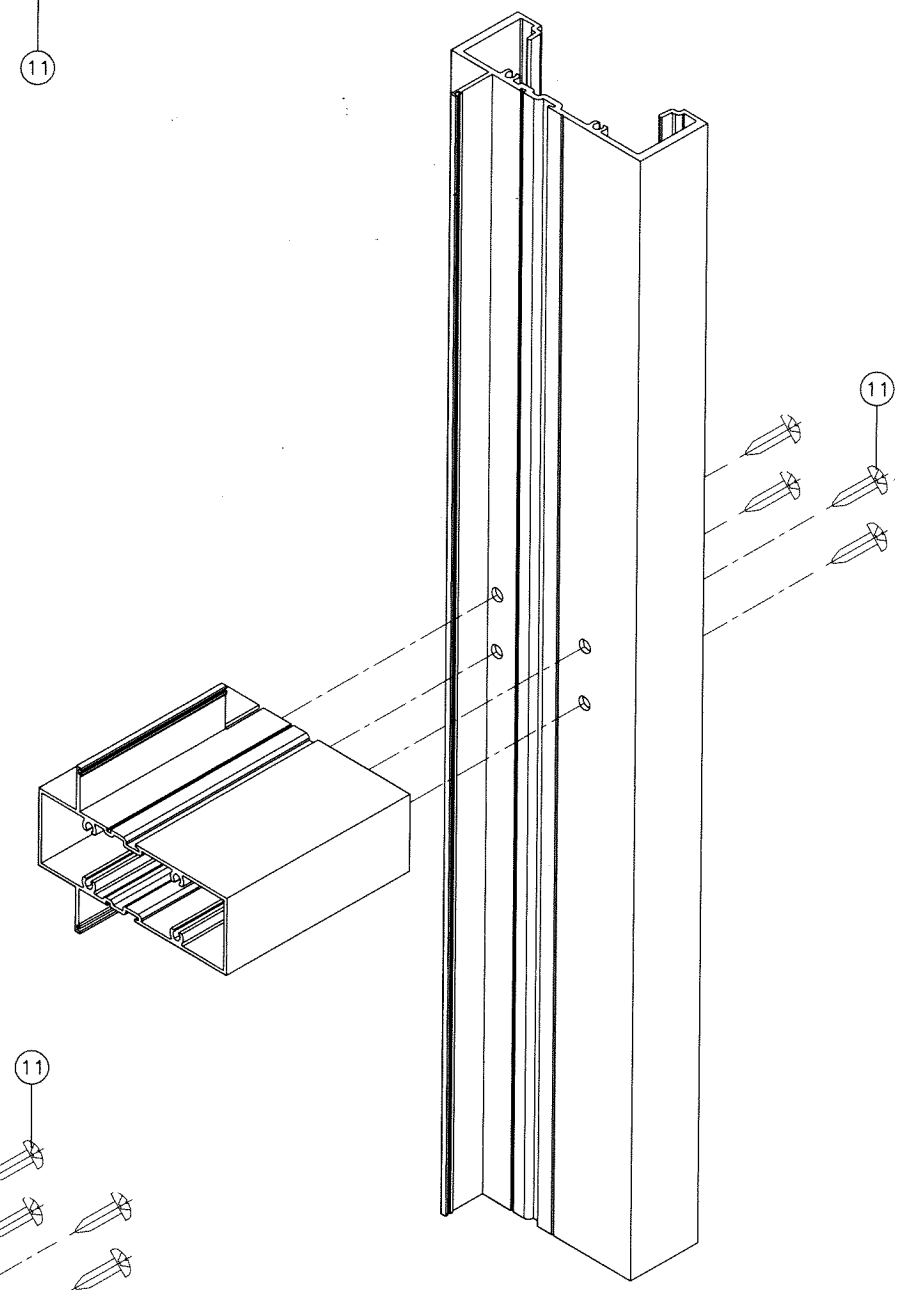
#12 X 1/2"
FH SMS

DOOR MULLION CORNER



11

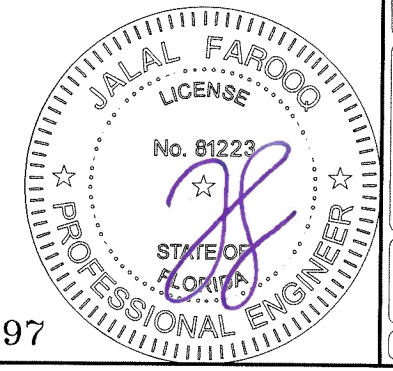
RECT. OR SQUARE CORNERS



11

HORIZONTAL CORNER

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revisions:	no	date	by	description
date:	01-25-23	scale:	-	
dr. by:	TARIQ	chk. by:		
drawing no.	23-06F			
sheet	18 of 18			