

THIS SYSTEM IS RATED FOR LARGE & SMALL MISSILE IMPACT.
SHUTTERS ARE NOT REQUIRED.

ES-8860
ALUMINUM WINDOW WALL SYSTEM

THIS SYSTEM MAY BE USED IN CONJUNCTION WITH F.B.C. APPR'D
LARGE MISSILE IMPACT RESISTANT DOORS.

LOWER DESIGN PRESSURE FROM WINDOW WALL OR DOOR APPROVAL
WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE
REQUIREMENTS OF THE 2023 (8TH EDITION)/2026 (9TH EDITION) FLORIDA
BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

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.

ALL SHIMS TO BE LOAD-BEARING, (HIGH DENSITY PLASTIC/COMPOSITE, METAL
OR OTHER RIGID MATERIALS).

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT
COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE
REQUIREMENTS OF THE 2023/2026 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.

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1** DETERMINE DESIGN WIND PRESSURE REQUIREMENTS BASED
ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING
APPLICABLE ASCE 7 STANDARD.
- STEP 2** SEE CHARTS ON SHEET 3.2 FOR GLASS DESIGN LOAD
CAPACITY.
- STEP 3** FOR SSG SYSTEMS USING SHEET 3 & 3.1, VERIFY
MINIMUM SILICONE BITE REQD. FOR DESIGN LOADS.
- STEP 4** CHECK MULLION DESIGN LOAD CAPACITY FOR A GIVEN
SPACING AND HEIGHT USING CHARTS ON SHEETS 4 & 5
THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 5** USING CHARTS ON SHEET 6 & 6.1 SELECT ANCHOR
OPTION WITH DESIGN LOAD CAPACITY MORE THAN DESIGN
LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 6** THE LOWEST VALUE RESULTING FROM STEPS 2 THRU 5
THAT EXCEED THE DESIGN WIND PRESSURES DETERMINED
THRU STEP 1 SHALL APPLY TO ENTIRE SYSTEM.
- STEP 7** FOR UNANCHORED JAMBS, USING SHEET 8, DETERMINE
THE MIN. & MAX. GAP DIMENSIONS.
- STEP 8** WHEN USING THIS SYSTEM WITH DOORS, THE LOWER
VALUE OF THE DESIGN PRESSURE RATING FOR THE
SYSTEM AND THE DOOR SHALL APPLY.

NOTE:
GLASS CAPACITIES ARE BASED ON
ASTM E1300-16 (3 SEC. GUSTS).

WINDOW WALL SYSTEM COMPLIES WITH REQUIREMENTS
OF ANSI Z97.1.

FASTENERS AND CONNECTORS (AS APPLICABLE) SHOWN IN THIS APPROVAL MAY NOT MEET
CORROSION RESISTANCE REQUIREMENTS FOR COASTAL OR SALT WATER EXPOSURE ZONES.
COMPLIANCE WITH THESE CONDITIONS TO BE CHECKED PER FBC 1711.

LAMINATED GLASS
LARGE MISSILE IMPACT

Sealed: 10/5/2026

FL #22526

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.



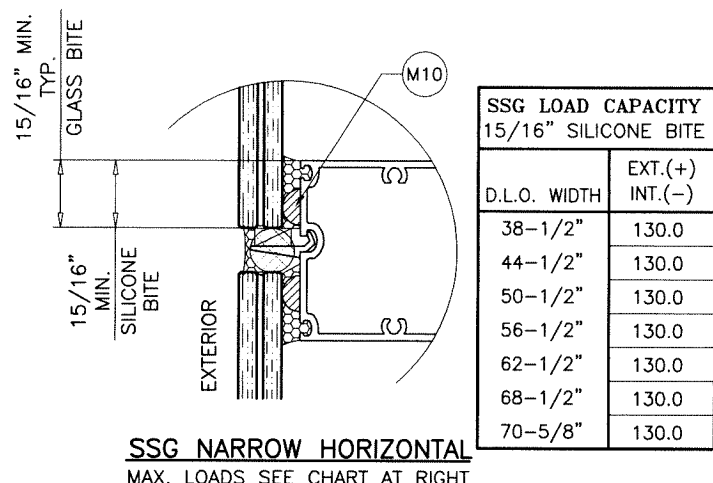
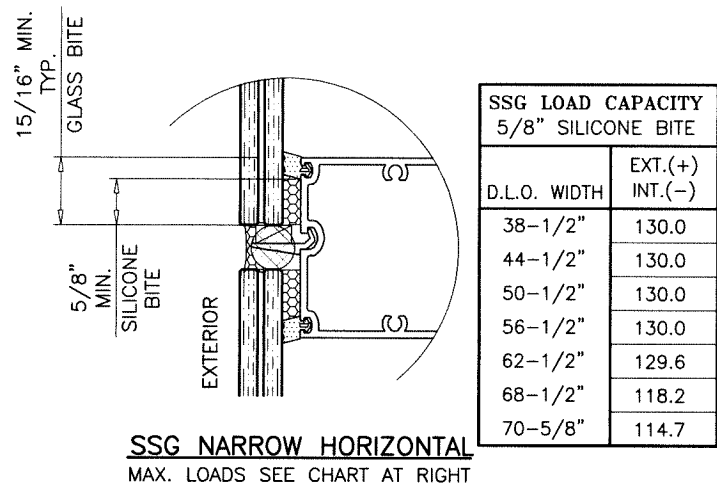
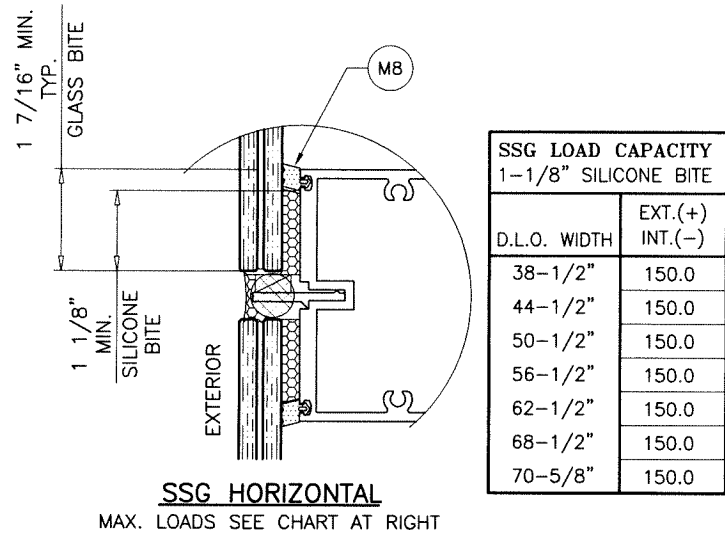
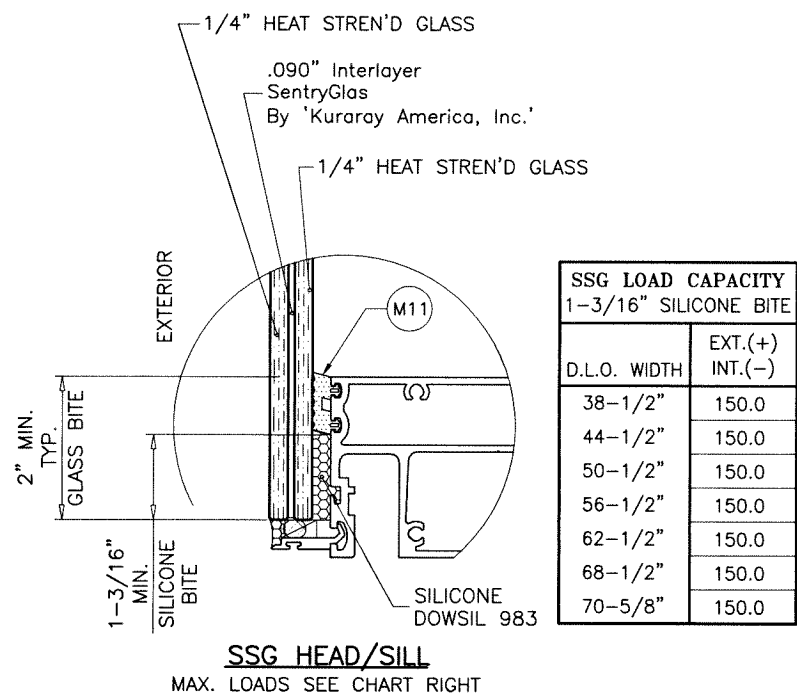
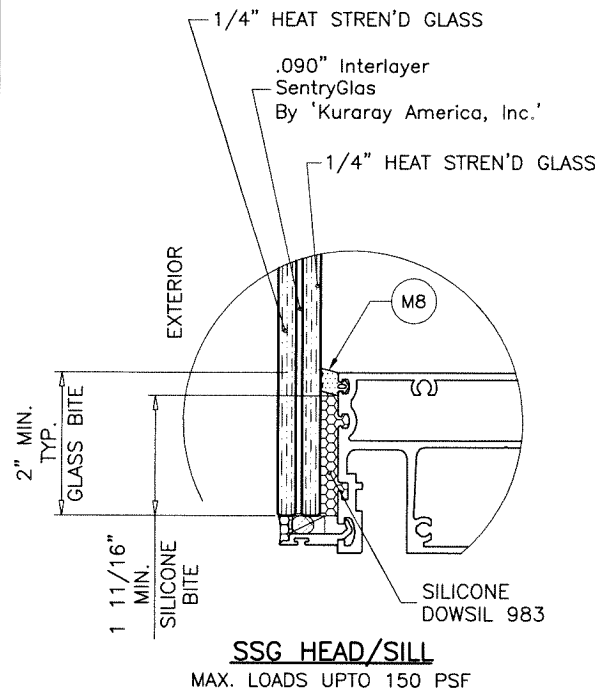
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E	07.31.23		UPDATED TO 2023 FBC	F	09.01.26		UPDATED TO 2026 FBC		

drawing no.
18-01F
sheet 1 of 14

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
(C.A.N. 3538)

ES-8860 ALUM WINDOW WALL SYSTEM (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

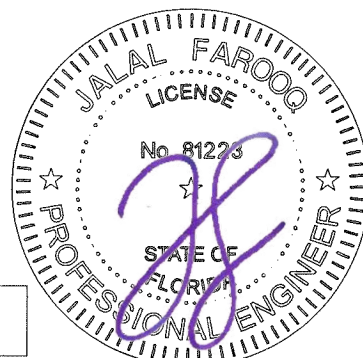
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GLAZING DETAILS

Sealed: 10/5/2026

FL #22526



GLASS

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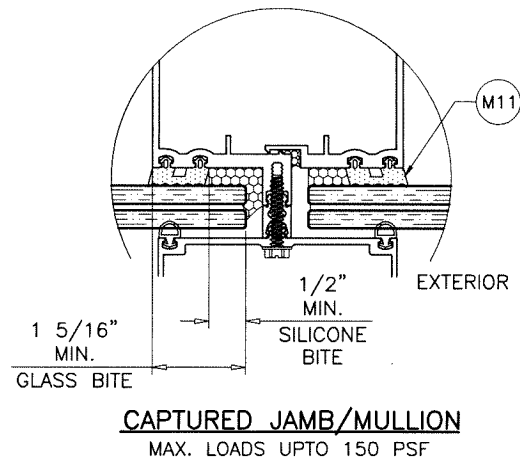
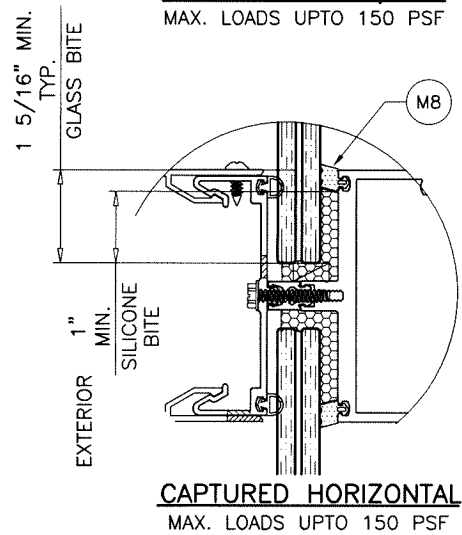
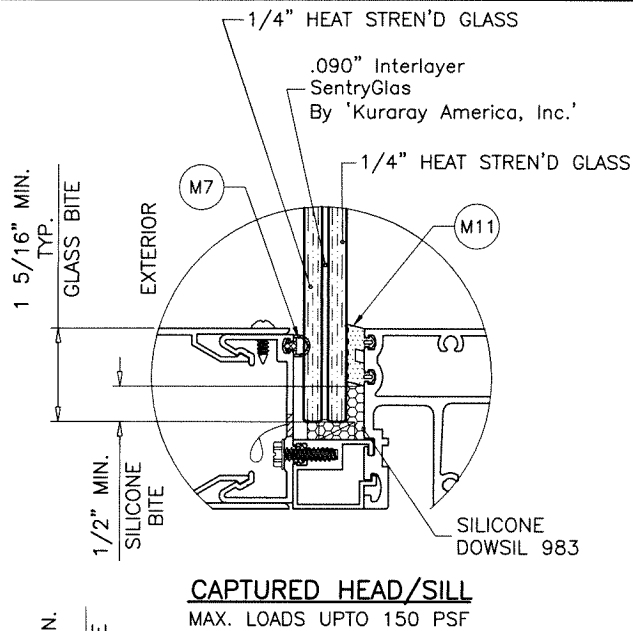
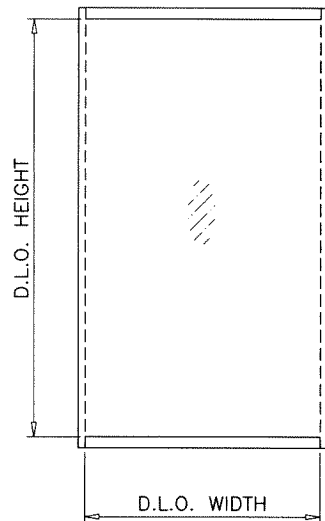
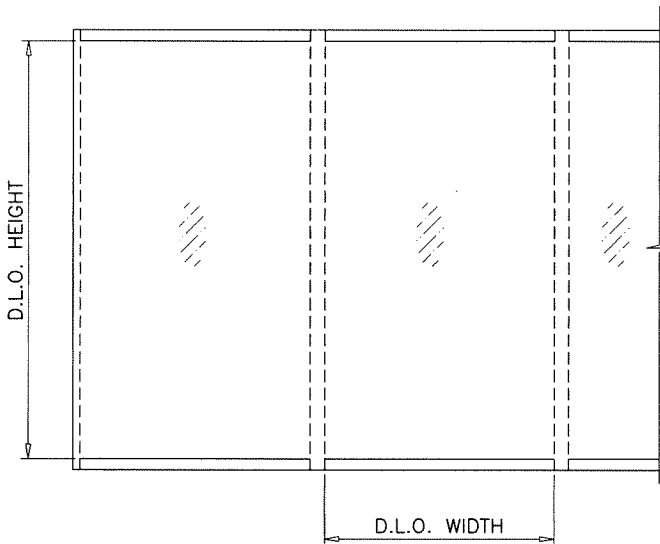
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drawing no.	18-01F	sheet	3 of 14

DESIGN LOAD CAPACITY - PSF			
NOMINAL DIMS.		9/16" LAM. GLASS	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)
26-1/2"	93"	150.0	150.0
32-1/2"		150.0	150.0
38-1/2"		150.0	150.0
44-1/2"		150.0	150.0
50-1/2"		148.1	148.1
56-1/2"		132.5	132.5
62-1/2"		121.0	121.0
68-1/2"		113.0	113.0
26-1/2"	99"	150.0	150.0
32-1/2"		150.0	150.0
38-1/2"		150.0	150.0
44-1/2"		150.0	150.0
50-1/2"		134.6	134.6
56-1/2"		121.7	121.7
62-1/2"		121.0	121.0
68-1/2"		113.0	113.0
26-1/2"	103"	150.0	150.0
32-1/2"		150.0	150.0
38-1/2"		150.0	150.0
44-1/2"		150.0	150.0
50-1/2"		130.3	130.3
56-1/2"		121.7	121.7
62-1/2"		121.0	121.0
68-1/2"		113.0	113.0
26-1/2"	105-3/4"	150.0	150.0
32-1/2"		150.0	150.0
38-1/2"		150.0	150.0
44-1/2"		147.9	147.9
50"		129.2	129.2
50-1/2"		121.7	121.7
56-1/2"		121.7	121.7
62-1/2"		121.0	121.0
68-1/2"		113.0	113.0
26-1/2"	109"	150.0	150.0
32-1/2"		150.0	150.0
38-1/2"		150.0	150.0
44-1/2"		144.1	144.1
50-1/2"		121.7	121.7
56-1/2"		121.7	121.7
62-1/2"		121.0	121.0
68-1/2"		113.0	113.0
26-1/2"	115"	150.0	150.0
32-1/2"		150.0	150.0
38-1/2"		150.0	150.0
44-1/2"		137.1	137.1
50-1/2"		121.7	121.7
56-1/2"		121.7	121.7
62-1/2"		121.0	121.0
68-1/2"		113.0	113.0
70-5/8"		111.0	111.0

DESIGN LOAD CAPACITY - PSF			
NOMINAL DIMS.		9/16" LAM. GLASS	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)
26-1/2"	121"	150.0	150.0
32-1/2"		150.0	150.0
38-1/2"		150.0	150.0
44-1/2"		129.8	129.8
50-1/2"		121.7	121.7
56-1/2"		121.7	121.7
62-1/2"		116.0	116.0
68-1/2"		85.0	85.0
26-1/2"	127"	150.0	150.0
32-1/2"		150.0	150.0
38-1/2"		150.0	150.0
44-1/2"		129.8	129.8
50-1/2"		121.7	121.7
56-1/2"		121.7	121.7
62-1/2"		112.0	112.0
68-1/2"		85.0	85.0
26-1/2"	133"	150.0	150.0
32-1/2"		150.0	150.0
38-1/2"		150.0	150.0
44-1/2"		128.6	128.6
50-1/2"		121.7	121.7
56-1/2"		120.0	120.0
62-1/2"		92.7	92.7
68-1/2"		85.0	85.0
26-1/2"	139"	150.0	150.0
32-1/2"		150.0	150.0
38-1/2"		130.0	130.0
50-1/2"		121.7	121.7
56-1/2"		116.0	116.0
62-1/2"		92.7	92.7
68-1/2"		85.0	85.0
26-1/2"	145"	150.0	150.0
32-1/2"		150.0	150.0
38-1/2"		130.0	130.0
44-1/2"		121.7	121.7
50-1/2"		121.7	121.7
56-1/2"		102.0	102.0
62-1/2"		92.7	92.7
26-1/2"	151"	150.0	150.0
32-1/2"		150.0	150.0
38-1/2"		130.0	130.0
44-1/2"		121.7	121.7
50-1/2"		121.7	121.7
56-1/2"		102.0	102.0
62-1/2"		92.7	92.7
26-1/2"	157"	150.0	150.0
32-1/2"		150.0	150.0
38-1/2"		130.0	130.0
44-1/2"		121.7	121.7
50-1/2"		121.7	121.7
56-1/2"		102.0	102.0
62-1/2"		92.7	92.7
68-1/2"		85.0	85.0

DESIGN LOAD CAPACITY - PSF			
NOMINAL DIMS.		9/16" LAM. GLASS	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)
26-1/2"	163"	150.0	150.0
32-1/2"		130.0	130.0
38-1/2"		121.7	121.7
44-1/2"		121.7	121.7
50-1/2"		102.0	102.0
56-1/2"		102.0	102.0
62-1/2"		102.0	102.0
68-1/2"		102.0	102.0
26-1/2"	169"	150.0	150.0
32-1/2"		130.0	130.0
38-1/2"		121.7	121.7
44-1/2"		121.7	121.7
50-1/2"		102.0	102.0
56-1/2"		102.0	102.0
62-1/2"		102.0	102.0
68-1/2"		102.0	102.0
26-1/2"	175"	150.0	150.0
32-1/2"		130.0	130.0
38-1/2"		121.7	121.7
44-1/2"		121.7	121.7
50-1/2"		102.0	102.0
56-1/2"		102.0	102.0
62-1/2"		102.0	102.0
68-1/2"		102.0	102.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

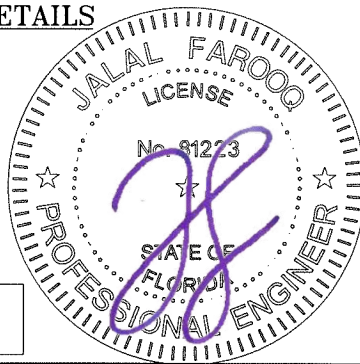


GLAZING DETAILS

Sealed: 10/5/2026

FL #22526

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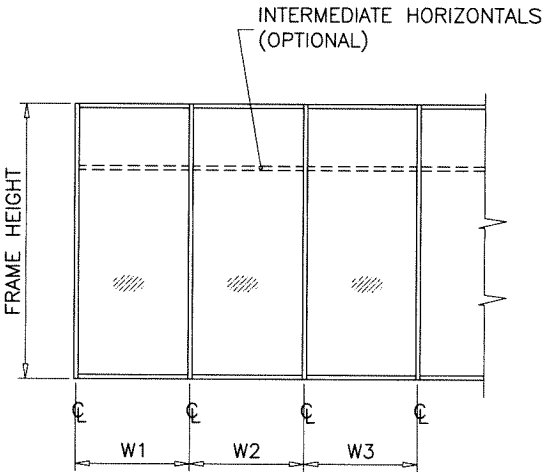
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MULLION DESIGN LOAD CAPACITY - PSF WITH OR WITHOUT INTERMEDIATE HORIZONTALS									
NOMINAL DIMS.		JAMB 'J1'		JAMB 'J2'		MULLION 'M1'		MULLION 'M1A'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	96"	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
36"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
42"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
48"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
54"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
60"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
66"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
72"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
74-1/8"		-	-	121.7	121.7	-	-	121.7	121.7
30"	102"	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
36"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
42"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
48"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
54"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
60"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
66"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
72"		-	-	127.4	127.4	127.4	127.4	130.0	130.0
74-1/8"		-	-	121.7	121.7	-	-	121.7	121.7
30"	108"	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
36"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
42"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
48"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
54"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
60"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
66"		-	-	122.5	122.5	122.5	122.5	130.0	130.0
72"		-	-	121.7	121.7	112.3	112.3	130.0	130.0
74-1/8"		-	-	121.7	121.7	-	-	121.7	121.7
30"	114"	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
36"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
42"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
48"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
54"		128.8	128.8	130.0	130.0	130.0	130.0	130.0	130.0
60"		115.9	115.9	121.7	121.7	119.5	119.5	130.0	130.0
66"		-	-	121.7	121.7	108.6	108.6	130.0	130.0
72"		-	-	121.7	121.7	99.6	99.6	130.0	130.0
74-1/8"		-	-	121.7	121.7	-	-	121.7	121.7
30"	120"	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
36"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
42"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
48"		129.9	129.9	130.0	130.0	130.0	130.0	130.0	130.0
54"		115.5	115.5	121.7	121.7	118.4	118.4	130.0	130.0
60"		-	-	121.7	121.7	106.6	106.6	130.0	130.0
66"		-	-	121.7	121.7	96.9	96.9	130.0	130.0
72"		-	-	121.7	121.7	88.8	88.8	130.0	130.0
74-1/8"		-	-	121.7	121.7	-	-	121.7	121.7
30"	126"	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
36"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
42"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
48"		117.0	117.0	119.4	119.4	119.4	119.4	130.0	130.0
54"		104.0	104.0	106.2	106.2	106.2	106.2	130.0	130.0
60"		-	-	95.5	95.5	95.5	95.5	130.0	130.0
66"		-	-	86.9	86.9	86.9	86.9	130.0	130.0
72"		-	-	79.6	79.6	79.6	79.6	123.5	123.5

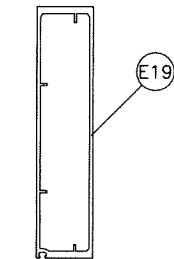
MULLION DESIGN LOAD CAPACITY - PSF WITH OR WITHOUT INTERMEDIATE HORIZONTALS									
NOMINAL DIMS.		JAMB 'J1'		JAMB 'J2'		MULLION 'M1'		MULLION 'M1A'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	132"	130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
36"		130.0	130.0	130.0	130.0	130.0	130.0	130.0	130.0
42"		121.0	121.0	122.9	122.9	122.9	122.9	130.0	130.0
48"		105.9	105.9	107.6	107.6	107.6	107.6	130.0	130.0
54"		-	-	95.6	95.6	95.6	95.6	130.0	130.0
60"		-	-	86.1	86.1	86.1	86.1	130.0	130.0
66"		-	-	78.2	78.2	78.2	78.2	122.8	122.8
72"		-	-	71.7	71.7	71.7	71.7	112.6	112.6
30"	138"	130.0	130.0	93.4	93.4	93.4	93.4	130.0	130.0
36"		128.3	128.3	77.8	77.8	77.8	77.8	130.0	130.0
42"		110.0	110.0	66.7	66.7	66.7	66.7	130.0	130.0
48"		96.3	96.3	58.4	58.4	58.4	58.4	130.0	130.0
54"		-	-	51.9	51.9	51.9	51.9	130.0	130.0
60"		-	-	46.7	46.7	46.7	46.7	123.6	123.6
66"		-	-	42.5	42.5	42.5	42.5	112.4	112.4
72"		-	-	42.5	42.5	42.5	42.5	112.4	112.4
30"	144"	130.0	130.0	82.2	82.2	82.2	82.2	130.0	130.0
36"		117.1	117.1	68.5	68.5	68.5	68.5	130.0	130.0
42"		100.4	100.4	58.7	58.7	58.7	58.7	130.0	130.0
48"		87.8	87.8	51.4	51.4	51.4	51.4	130.0	130.0
54"		-	-	45.7	45.7	45.7	45.7	126.1	126.1
60"		-	-	41.1	41.1	41.1	41.1	113.5	113.5
66"		-	-	37.4	37.4	37.4	37.4	103.2	103.2
72"		-	-	37.4	37.4	37.4	37.4	103.2	103.2

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



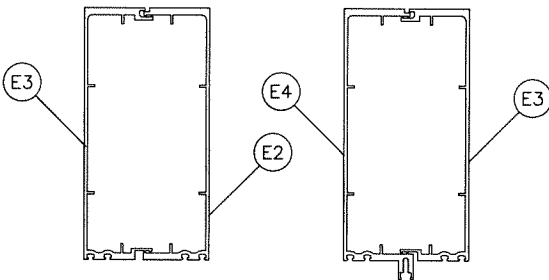
WIDTH (W) = W1
AT JAMB

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



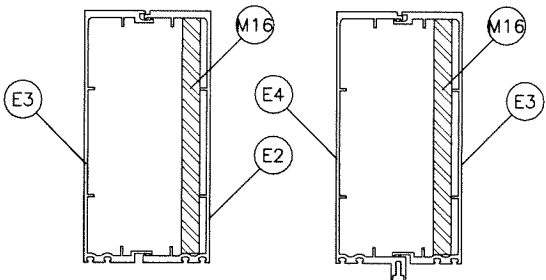
JAMB 'J1'

Ix IN^4	Sx IN^3
11.5878	3.281



JAMB 'J2'
MULLION 'M1'

Ix IN^4	Sx IN^3
20.3192	5.532

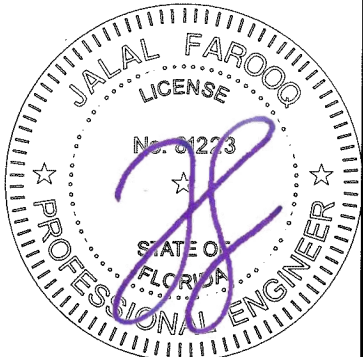


MULLION 'M1A'

	Ix IN^4	Sx IN^3
ALUMINUM	20.3192	5.532
STEEL	11.4427	3.52
TOTAL Ix ALUM + Ix STL X 2.9	53.503	

Sealed: 10/5/2026

MULLION



af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978
STORE\18-01F-ES

ES-8860 ALUM WINDOW WALL SYSTEM (L.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: 12-18-17

scale: -

dr. by: TARIQ

chk. by:

drawing no.
18-01F

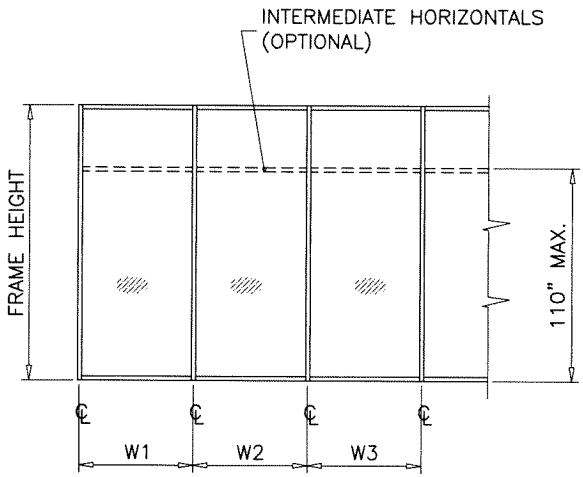
sheet 4 of 14

MULLION DESIGN LOAD CAPACITY - PSF WITH OR WITHOUT INTERMEDIATE HORIZONTALS							
NOMINAL DIMS.		JAMB 'J3'		JAMB 'J4'		MULLION 'M2'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	132"	150.0	150.0	150.0	150.0	150.0	150.0
36"		150.0	150.0	150.0	150.0	150.0	150.0
42"		150.0	150.0	150.0	150.0	150.0	150.0
48"		150.0	150.0	150.0	150.0	150.0	150.0
54"		150.0	150.0	150.0	150.0	150.0	150.0
60"		150.0	150.0	150.0	150.0	150.0	150.0
66"		150.0	150.0	150.0	150.0	150.0	150.0
72"		150.0	150.0	150.0	150.0	150.0	150.0
30"	138"	150.0	150.0	150.0	150.0	150.0	150.0
36"		150.0	150.0	150.0	150.0	150.0	150.0
42"		150.0	150.0	150.0	150.0	150.0	150.0
48"		150.0	150.0	150.0	150.0	150.0	150.0
54"		150.0	150.0	150.0	150.0	150.0	150.0
60"		150.0	150.0	150.0	150.0	150.0	150.0
66"		150.0	150.0	150.0	150.0	150.0	150.0
72"		92.0	92.0	102.0	102.0	102.0	102.0
30"	144"	150.0	150.0	150.0	150.0	150.0	150.0
36"		150.0	150.0	150.0	150.0	150.0	150.0
42"		150.0	150.0	150.0	150.0	150.0	150.0
48"		150.0	150.0	150.0	150.0	150.0	150.0
54"		150.0	150.0	150.0	150.0	150.0	150.0
60"		150.0	150.0	150.0	150.0	150.0	150.0
66"		150.0	150.0	150.0	150.0	150.0	150.0
72"		92.0	92.0	102.0	102.0	102.0	102.0
30"	150"	150.0	150.0	150.0	150.0	150.0	150.0
36"		150.0	150.0	150.0	150.0	150.0	150.0
42"		150.0	150.0	150.0	150.0	150.0	150.0
48"		150.0	150.0	150.0	150.0	150.0	150.0
54"		150.0	150.0	150.0	150.0	150.0	150.0
60"		150.0	150.0	150.0	150.0	150.0	150.0
66"		92.0	92.0	102.0	102.0	102.0	102.0
72"		92.0	92.0	102.0	102.0	102.0	102.0
30"	156"	150.0	150.0	150.0	150.0	150.0	150.0
36"		150.0	150.0	150.0	150.0	150.0	150.0
42"		150.0	150.0	150.0	150.0	150.0	150.0
48"		150.0	150.0	150.0	150.0	150.0	150.0
54"		150.0	150.0	150.0	150.0	150.0	150.0
60"		150.0	150.0	150.0	150.0	150.0	150.0
66"		92.0	92.0	102.0	102.0	102.0	102.0
72"		92.0	92.0	102.0	102.0	102.0	102.0
30"	162"	150.0	150.0	150.0	150.0	150.0	150.0
36"		150.0	150.0	150.0	150.0	150.0	150.0
42"		150.0	150.0	150.0	150.0	150.0	150.0
48"		150.0	150.0	150.0	150.0	150.0	150.0
54"		150.0	150.0	150.0	150.0	150.0	150.0
60"		150.0	150.0	150.0	150.0	145.7	145.7
66"		92.0	92.0	102.0	102.0	102.0	102.0
72"		92.0	92.0	102.0	102.0	102.0	102.0
30"	168"	150.0	150.0	150.0	150.0	150.0	150.0
36"		150.0	150.0	150.0	150.0	150.0	150.0
42"		150.0	150.0	150.0	150.0	150.0	150.0
48"		150.0	150.0	150.0	150.0	150.0	150.0
54"		150.0	150.0	150.0	150.0	150.0	150.0
60"		92.0	92.0	102.0	102.0	102.0	102.0
66"		92.0	92.0	102.0	102.0	102.0	102.0
72"		92.0	92.0	102.0	102.0	102.0	102.0
30"	173"	150.0	150.0	150.0	150.0	150.0	150.0
36"		150.0	150.0	150.0	150.0	150.0	150.0
42"		150.0	150.0	150.0	150.0	150.0	150.0
48"		147.7	147.7	147.7	147.7	143.0	143.0
54"		145.0	145.0	145.0	145.0	140.3	140.3
60"		92.0	92.0	102.0	102.0	102.0	102.0
66"		92.0	92.0	102.0	102.0	102.0	102.0

MULLION DESIGN LOAD CAPACITY - PSF WITH OR WITHOUT INTERMEDIATE HORIZONTALS							
NOMINAL DIMS.		JAMB 'J3'		MULLION 'M2'			
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)		
30"	174"	150.0	150.0	150.0	150.0		
36"		150.0	150.0	150.0	150.0		
42"		150.0	150.0	150.0	150.0		
48"		147.7	147.7	143.0	143.0		
54"		145.0	145.0	140.3	140.3		
60"		92.0	92.0	92.0	92.0		
66"		92.0	92.0	92.0	92.0		
72"		92.0	92.0	92.0	92.0		
30"	180"	150.0	150.0	150.0	150.0		
36"		150.0	150.0	150.0	150.0		
42"		150.0	150.0	150.0	150.0		
48"		150.0	150.0	147.5	147.5		
54"		135.5	135.5	131.1	131.1		
60"		92.0	92.0	92.0	92.0		
66"		92.0	92.0	92.0	92.0		
72"		92.0	92.0	92.0	92.0		
30"	186"	150.0	150.0	150.0	150.0		
36"		150.0	150.0	150.0	150.0		
42"		150.0	150.0	150.0	150.0		
48"		142.7	142.7	138.1	138.1		
53-1/2"		128.1	128.1	123.9	123.9		
54"		92.0	92.0	92.0	92.0		
60"		92.0	92.0	92.0	92.0		
66"		92.0	92.0	92.0	92.0		
72"		92.0	92.0	92.0	92.0		
30"	192"	150.0	150.0	150.0	150.0		
36"		150.0	150.0	150.0	150.0		
42"		150.0	150.0	148.2	148.2		
48"		133.9	133.9	129.6	129.6		
53-1/2"		120.2	120.2	116.3	116.3		
54"		92.0	92.0	92.0	92.0		
60"		92.0	92.0	92.0	92.0		
66"		92.0	92.0	92.0	92.0		
72"		92.0	92.0	92.0	92.0		
30"	193"	150.0	150.0	150.0	150.0		
36"		150.0	150.0	150.0	150.0		
42"		150.0	150.0	146.6	146.6		
48"		132.6	132.6	128.3	128.3		
53-1/2"		118.9	118.9	115.1	115.1		
54"		92.0	92.0	92.0	92.0		
60"		92.0	92.0	92.0	92.0		
66"		92.0	92.0	92.0	92.0		
72"		92.0	92.0	92.0	92.0		
30"	198"	130.0	130.0	130.0	130.0		
36"		130.0	130.0	130.0	130.0		
42"		130.0	130.0	130.0	130.0		
48"		126.0	126.0	115.9	115.9		
54"		92.0	92.0	92.0	92.0		
60"		92.0	92.0	92.0	92.0		
66"		92.0	92.0	92.0	92.0		
72"		92.0	92.0	92.0	92.0		
30"	204"	130.0	130.0	130.0	130.0		
36"		130.0	130.0	130.0	130.0		
42"		130.0	130.0	124.8	124.8		
48"		118.7	118.7	109.2	109.2		
54"		92.0	92.0	92.0	92.0		
60"		92.0	92.0	91.9	91.9		
66"		92.0	92.0	91.9	91.9		
72"		92.0	92.0	91.9	91.9		

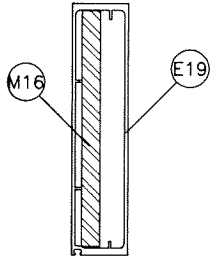
INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

MULLION DESIGN LOAD CAPACITY - PSF WITH OR WITHOUT INTERMEDIATE HORIZONTALS							
NOMINAL DIMS.		JAMB 'J3'		MULLION 'M2'			
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)		
30"	210"	92.0	92.0	92.0	92.0		
36"		92.0	92.0	92.0	92.0		
42"		92.0	92.0	92.0	92.0		
48"		92.0	92.0	92.0	92.0		
54"		92.0	92.0	92.0	92.0		
60"		89.6	89.6	86.7	86.7		
30"	213"	92.0	92.0	92.0	92.0		
36"		92.0	92.0	92.0	92.0		
42"		92.0	92.0	92.0	92.0		
48"		92.0	92.0	92.0	92.0		
54"		92.0	92.0	92.0	92.0		
60"		87.1	87.1	84.3	84.3		



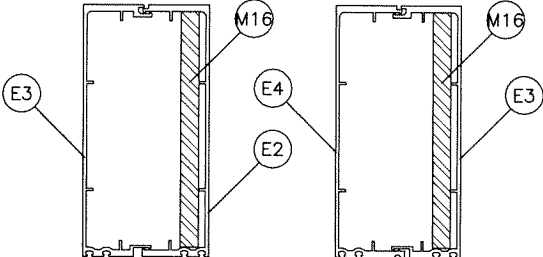
WIDTH (W) = W1
AT JAMB

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



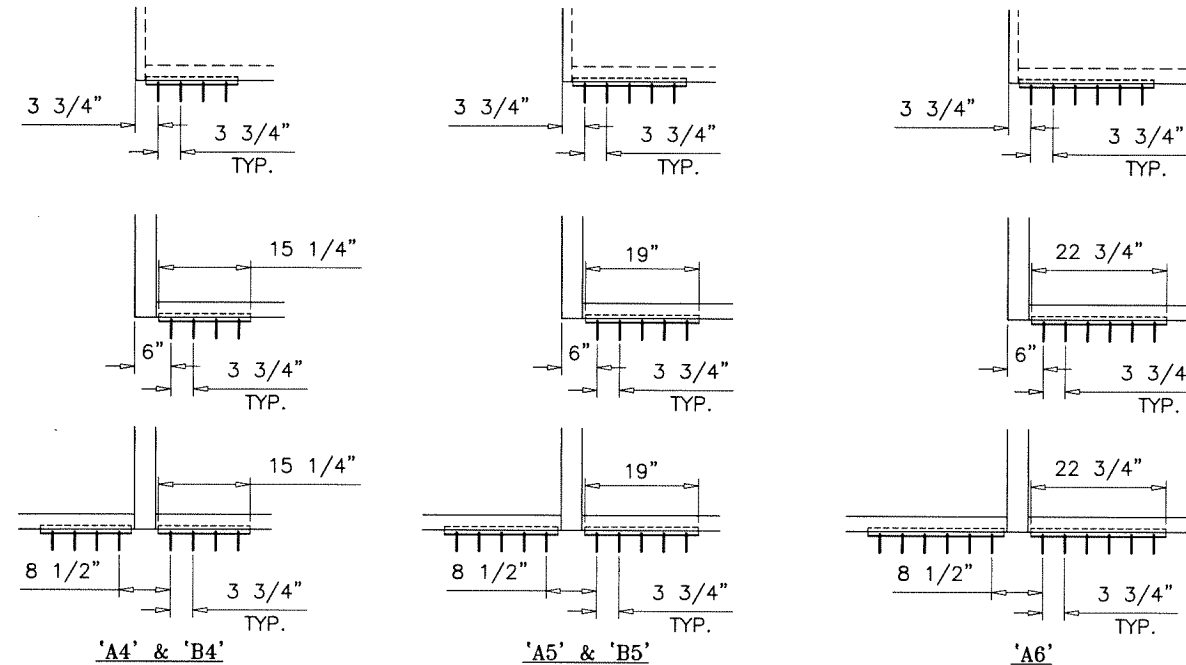
JAMB 'J3'

	Ix IN^4	Sx IN^3
ALUMINUM	11.5878	3.281
STEEL	11.4427	3.5208
TOTAL Ix ALUM + Ix STL X 2.9	44.7716	



JAMB 'J4'

	Ix IN^4	Sx IN^3
ALUMINUM	20.3192	5.532
STEEL	11.4427	3.52
TOTAL Ix ALUM + Ix STL X 2.9	53.503	



ANCHORS TYPES:

- A4 = (4) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
 B4 = (4) ANCHORS TYPE 'B' 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
 A6 = (6) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION

SEE SHEET 6.1 FOR ANCHOR CAPACITY CHART

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

TYPE 'A'

5/16" DIA. ULTRACON BY 'DEWALT' ($F_u=177$ KSI, $F_y=155$ KSI)

DIRECTLY INTO 3500 PSI CONCRETE
 2" MIN. EMBED INTO CONCRETE

ANCHOR EDGE DISTANCES

INTO CONCRETE = 3-1/8" MIN.

TYPE 'B'

5/16" DIA. DRIL-FLEX SELF DRILLING SCREWS BY 'DEWALT' (GRADE 5 CRS)

INTO METAL STRUCTURES
 (3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
 STEEL: 3/16" THK. MIN. ($F_y = 36$ KSI MIN.)
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

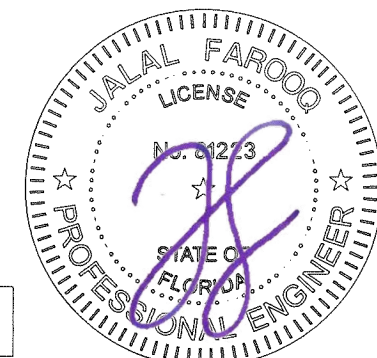
ANCHOR EDGE DISTANCES

INTO METAL STRUCTURE = 1" MIN.

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

Sealed: 10/5/2026

FL #22526



ANCHORS

afc

AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173 (C.A.N. 3538)
 TEL. (305) 264-8100 FAX. (305) 262-6978

ES-8860 ALUM WINDOW WALL SYSTEM (L.M.I.)

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revisions:	no	date	by	description

date:	12-18-17
dr.	TARIO
chk.	

drawing no.

18-01F

sheet 6 of 14

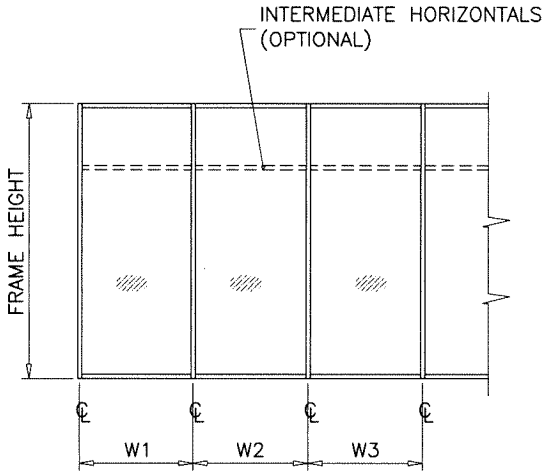
STORE\18-01F-ES

ANCHOR DESIGN LOAD CAPACITY - PSF EXT.(+) & INT.(-)						
NOMINAL DIMS.		ANCHOR TYPE 'A'			ANCHOR TYPE 'B'	
WIDTH (W)	FRAME HEIGHT	'A4'	'A5'	'A6'	'B4'	'B5'
30"	120"	150.0	150.0	150.0	150.0	150.0
36"		150.0	150.0	150.0	150.0	150.0
42"		150.0	150.0	150.0	150.0	150.0
48"		147.0	150.0	150.0	150.0	150.0
54"		130.7	150.0	150.0	150.0	150.0
60"		117.6	147.0	150.0	150.0	150.0
66"		106.9	133.6	150.0	150.0	150.0
72"		98.0	122.5	147.0	150.0	150.0
74-1/4"		95.2	119.0	142.8	150.0	150.0
30"	126"	150.0	150.0	150.0	150.0	150.0
36"		150.0	150.0	150.0	150.0	150.0
42"		150.0	150.0	150.0	150.0	150.0
48"		140.0	150.0	150.0	150.0	150.0
54"		124.4	150.0	150.0	150.0	150.0
60"		112.0	140.0	150.0	150.0	150.0
66"		101.8	127.3	150.0	150.0	150.0
72"		93.3	116.7	140.0	149.4	150.0
74-1/4"		90.7	113.3	136.0	145.1	150.0
30"	132"	150.0	150.0	150.0	150.0	150.0
36"		150.0	150.0	150.0	150.0	150.0
42"		150.0	150.0	150.0	150.0	150.0
48"		133.6	150.0	150.0	150.0	150.0
54"		118.8	148.5	150.0	150.0	150.0
60"		106.9	133.6	150.0	150.0	150.0
66"		97.2	121.5	145.8	150.0	150.0
72"		89.1	111.4	133.6	142.6	150.0
30"	138"	150.0	150.0	150.0	150.0	150.0
36"		150.0	150.0	150.0	150.0	150.0
42"		146.1	150.0	150.0	150.0	150.0
48"		127.8	150.0	150.0	150.0	150.0
54"		113.6	142.0	150.0	150.0	150.0
60"		102.3	127.8	150.0	150.0	150.0
66"		93.0	116.2	139.4	148.8	150.0
72"		85.2	106.5	127.8	136.4	150.0
30"	144"	150.0	150.0	150.0	150.0	150.0
36"		150.0	150.0	150.0	150.0	150.0
42"		140.0	150.0	150.0	150.0	150.0
48"		122.5	150.0	150.0	150.0	150.0
54"		108.9	136.1	150.0	150.0	150.0
60"		98.0	122.5	147.0	150.0	150.0
66"		89.1	111.4	133.6	142.6	150.0
72"		81.7	102.0	102.0	102.0	102.0
30"	150"	150.0	150.0	150.0	150.0	150.0
36"		150.0	150.0	150.0	150.0	150.0
42"		134.4	150.0	150.0	150.0	150.0
48"		117.6	147.0	150.0	150.0	150.0
54"		104.5	130.7	150.0	150.0	150.0
60"		94.1	117.6	141.1	150.0	150.0
66"		85.5	106.9	128.3	136.9	150.0
72"		78.4	92.0	92.0	92.0	92.0
30"	156"	150.0	150.0	150.0	150.0	150.0
36"		150.0	150.0	150.0	150.0	150.0
42"		129.2	150.0	150.0	150.0	150.0
48"		113.1	141.3	150.0	150.0	150.0
54"		100.5	125.6	150.0	150.0	150.0
60"		90.5	113.1	135.7	144.8	150.0
66"		82.2	102.8	123.4	131.6	150.0
72"		75.4	92.0	92.0	92.0	92.0

ANCHOR DESIGN LOAD CAPACITY - PSF EXT.(+) & INT.(-)						
NOMINAL DIMS.		ANCHOR TYPE 'A'			ANCHOR TYPE 'B'	
WIDTH (W)	FRAME HEIGHT	'A4'	'A5'	'A6'	'B4'	'B5'
30"	162"	150.0	150.0	150.0	150.0	150.0
36"		145.2	150.0	150.0	150.0	150.0
42"		124.4	150.0	150.0	150.0	150.0
48"		108.9	136.1	150.0	150.0	150.0
54"		96.8	121.0	145.2	150.0	150.0
60"		87.1	108.9	130.7	139.4	150.0
66"		79.2	92.0	92.0	92.0	92.0
72"		72.6	90.7	92.0	92.0	92.0
30"	168"	150.0	150.0	150.0	150.0	150.0
36"		140.0	150.0	150.0	150.0	150.0
42"		120.0	150.0	150.0	150.0	150.0
48"		105.0	131.3	150.0	150.0	150.0
54"		93.3	116.7	140.0	149.4	150.0
60"		84.0	105.0	126.0	134.4	150.0
66"		76.4	92.0	92.0	92.0	92.0
72"		70.0	87.5	92.0	92.0	92.0
30"	174"	150.0	150.0	150.0	150.0	150.0
36"		135.2	150.0	150.0	150.0	150.0
42"		115.9	144.8	150.0	150.0	150.0
48"		101.4	126.7	150.0	150.0	150.0
54"		90.1	112.6	135.2	144.2	150.0
60"		81.1	92.0	92.0	92.0	92.0
66"		73.7	92.0	92.0	92.0	92.0
72"		67.6	84.5	92.0	92.0	92.0
30"	180"	150.0	150.0	150.0	150.0	150.0
36"		130.7	150.0	150.0	150.0	150.0
42"		112.0	140.0	150.0	150.0	150.0
48"		98.0	122.5	147.0	150.0	150.0
54"		87.1	108.9	130.7	139.4	150.0
60"		78.4	92.0	92.0	92.0	92.0
66"		71.3	89.1	92.0	92.0	92.0
30"	186"	150.0	150.0	150.0	150.0	150.0
36"		126.5	150.0	150.0	150.0	150.0
42"		108.4	135.5	150.0	150.0	150.0
48"		94.8	118.6	142.3	150.0	150.0
54"		84.3	105.4	126.5	134.9	150.0
60"		75.9	92.0	92.0	92.0	92.0
66"		69.0	86.2	92.0	92.0	92.0
30"	192"	147.0	150.0	150.0	150.0	150.0
36"		122.5	150.0	150.0	150.0	150.0
42"		105.0	131.3	150.0	150.0	150.0
48"		91.9	114.8	137.8	147.0	150.0
54"		81.7	92.0	92.0	92.0	92.0
60"		73.5	91.9	92.0	92.0	92.0
66"		66.8	83.5	92.0	92.0	92.0
30"	198"	130.0	130.0	130.0	130.0	130.0
36"		118.8	130.0	130.0	130.0	130.0
42"		101.8	127.3	130.0	130.0	130.0
48"		89.1	111.4	129.7	130.0	130.0
54"		79.2	92.0	92.0	92.0	92.0
60"		71.3	89.1	92.0	92.0	92.0
30"	204"	130.0	92.0	92.0	92.0	92.0
36"		115.3	92.0	92.0	92.0	92.0
42"		98.8	92.0	92.0	92.0	92.0
48"		86.5	92.0	92.0	92.0	92.0
54"		76.9	92.0	92.0	92.0	92.0
60"		69.2	86.5	92.0	92.0	92.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

ANCHOR DESIGN LOAD CAPACITY - PSF EXT.(+) & INT.(-)						
NOMINAL DIMS.		ANCHOR TYPE 'A'			ANCHOR TYPE 'B'	
WIDTH (W)	FRAME HEIGHT	'A4'	'A5'	'A6'	'B4'	'B5'
30"	210"	92.0	92.0	92.0	92.0	92.0
36"		92.0	92.0	92.0	92.0	92.0
42"		92.0	92.0	92.0	92.0	92.0
48"		84.0	92.0	92.0	92.0	92.0
54"		74.7	92.0	92.0	92.0	92.0
60"		67.2	84.0	92.0	92.0	92.0
30"	213"	92.0	92.0	92.0	92.0	92.0
36"		92.0	92.0	92.0	92.0	92.0
42"		92.0	92.0	92.0	92.0	92.0
48"		82.8	92.0	92.0	92.0	92.0
54"		73.6	92.0	92.0	92.0	92.0
60"		66.3	82.8	92.0	92.0	92.0



WIDTH (W) = W1
AT JAMB

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

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FL #22526



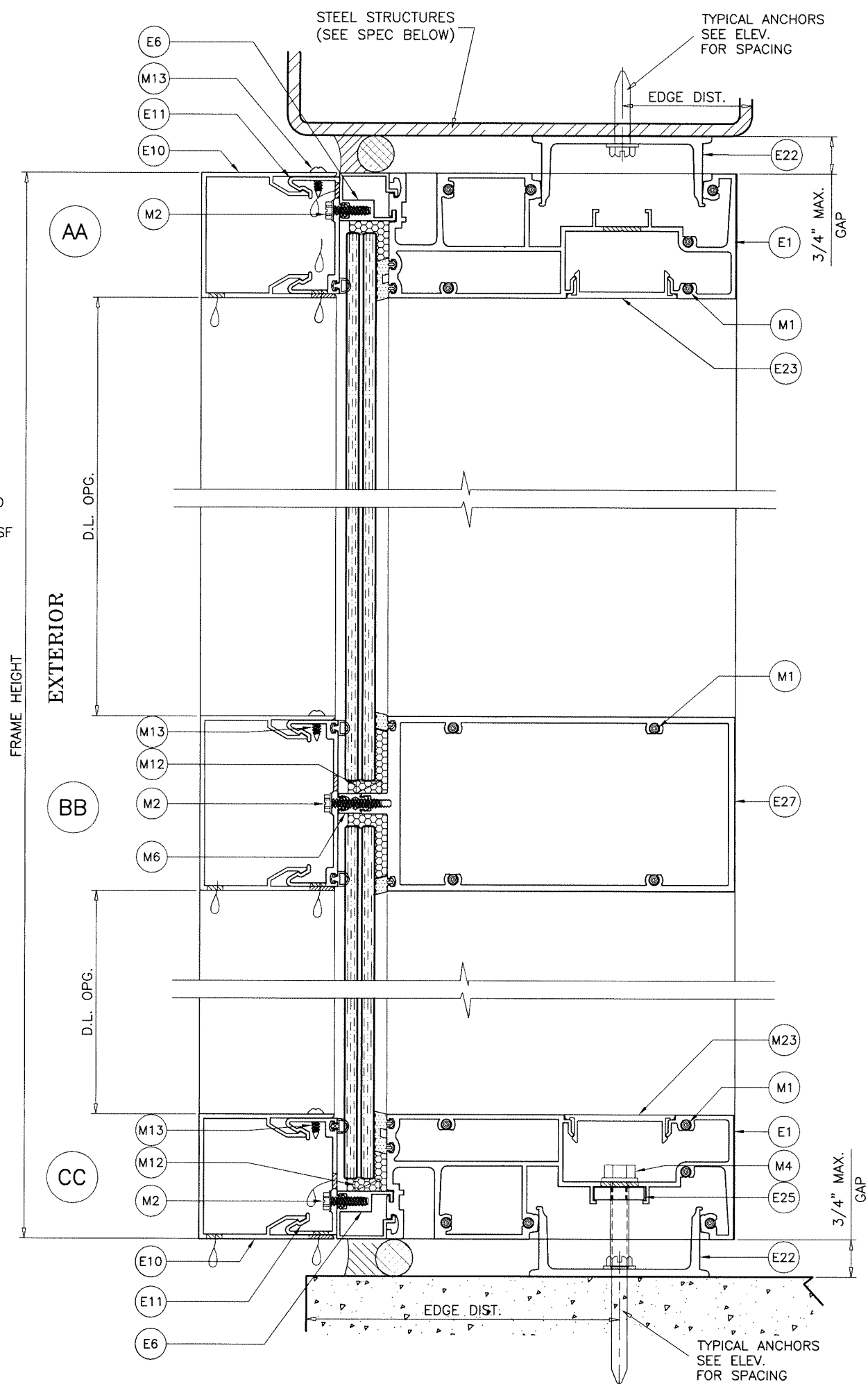
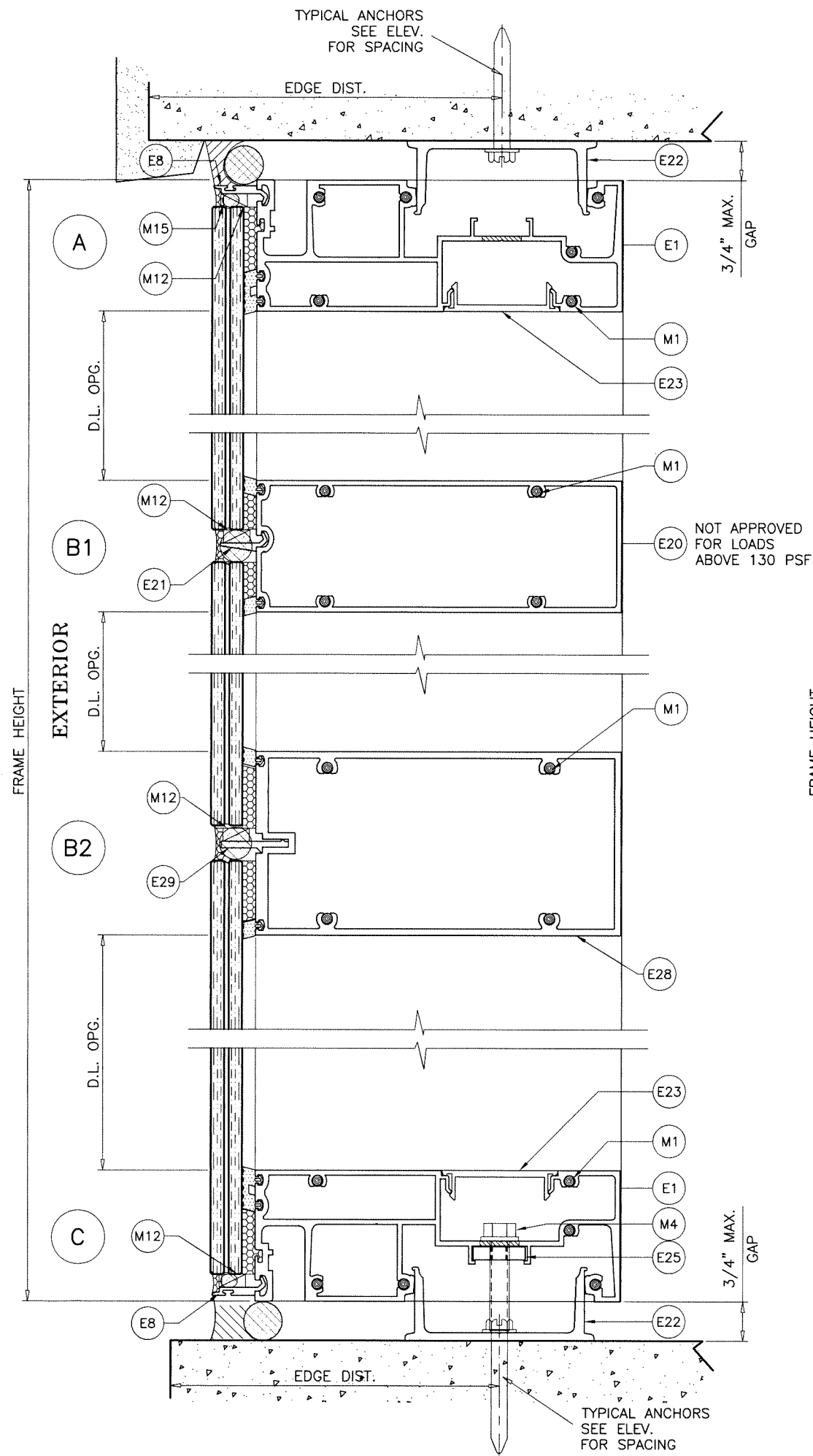
ANCHORS

af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978

ES-8860 ALUM WINDOW WALL SYSTEM (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

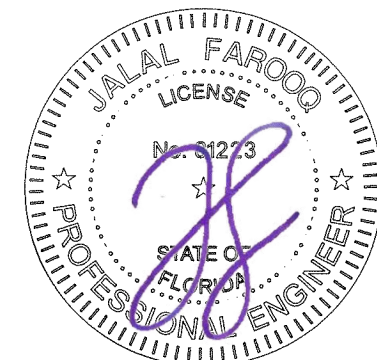
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no date by description
12-18-17
scale: -
dr. by: TARIQ
chk. by:
drawing no.
18-01F
sheet **6.1** of **14**

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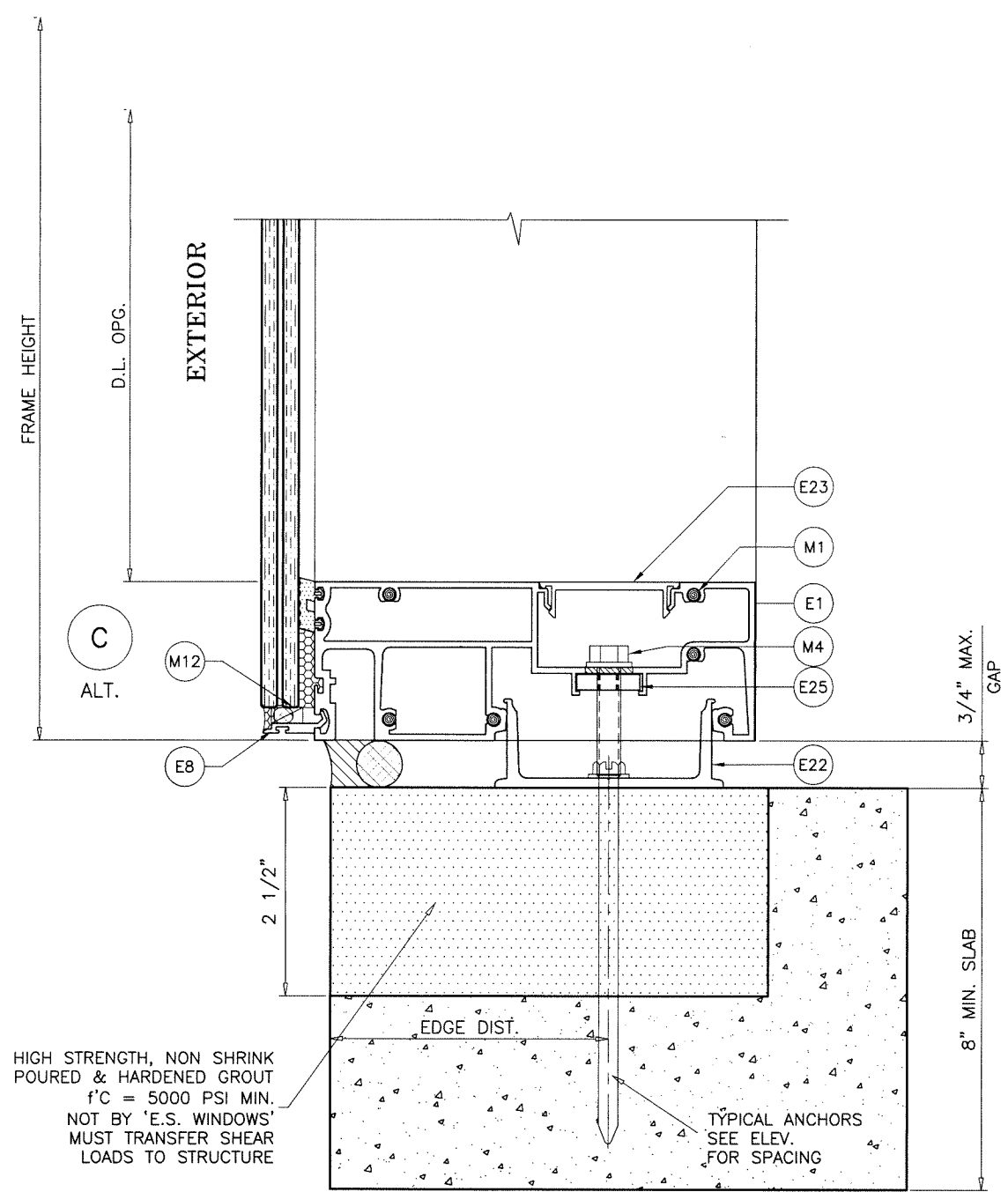
ES-8860 ALUM WINDOW WALL SYSTEM (L.M.I.)

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
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chk. by:				

drawing no.
18-01F
sheet 7 of 14

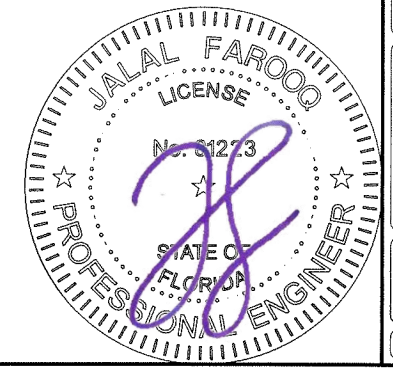
STORE\18-01F-ES



HIGH STRENGTH, NON SHRINK
POURED & HARDENED GROUT
f'c = 5000 PSI MIN.
NOT BY 'E.S. WINDOWS'
MUST TRANSFER SHEAR
LOADS TO STRUCTURE

TYPICAL ANCHORS
SEE ELEV.
FOR SPACING

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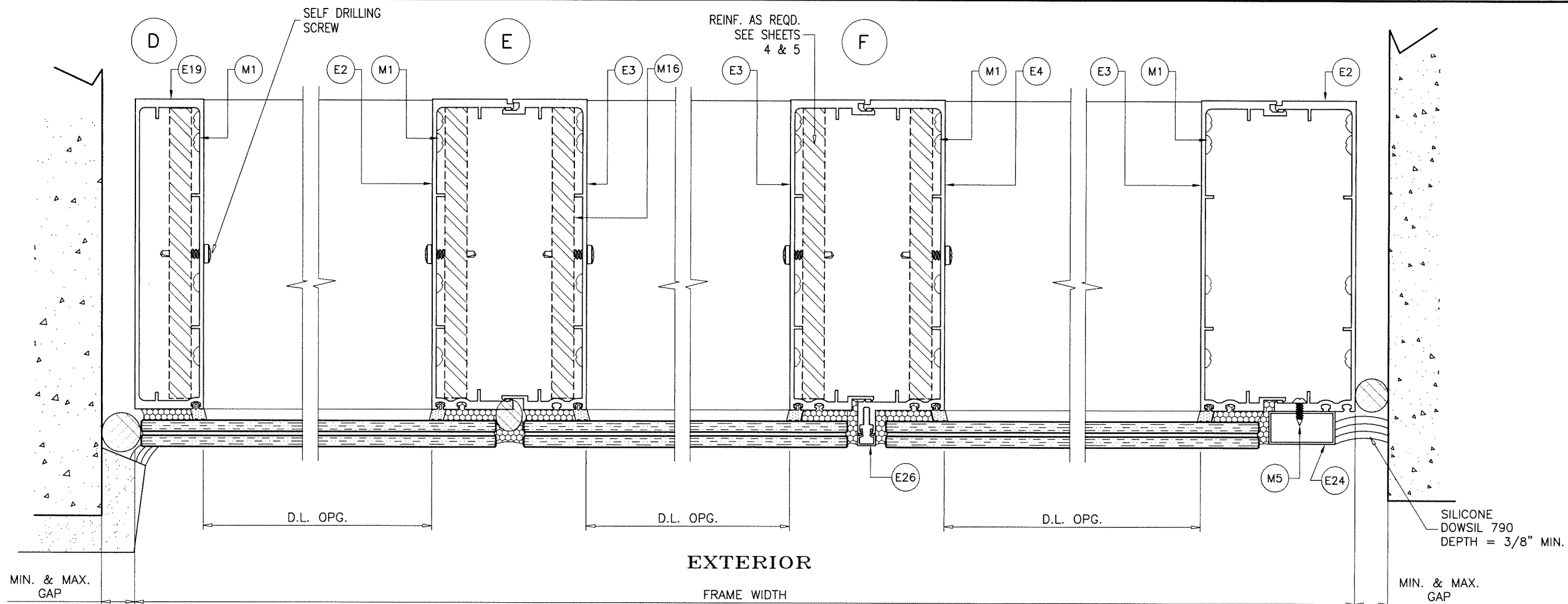
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chk. by:

drawing no.

18-01F

sheet 7.1 of 14

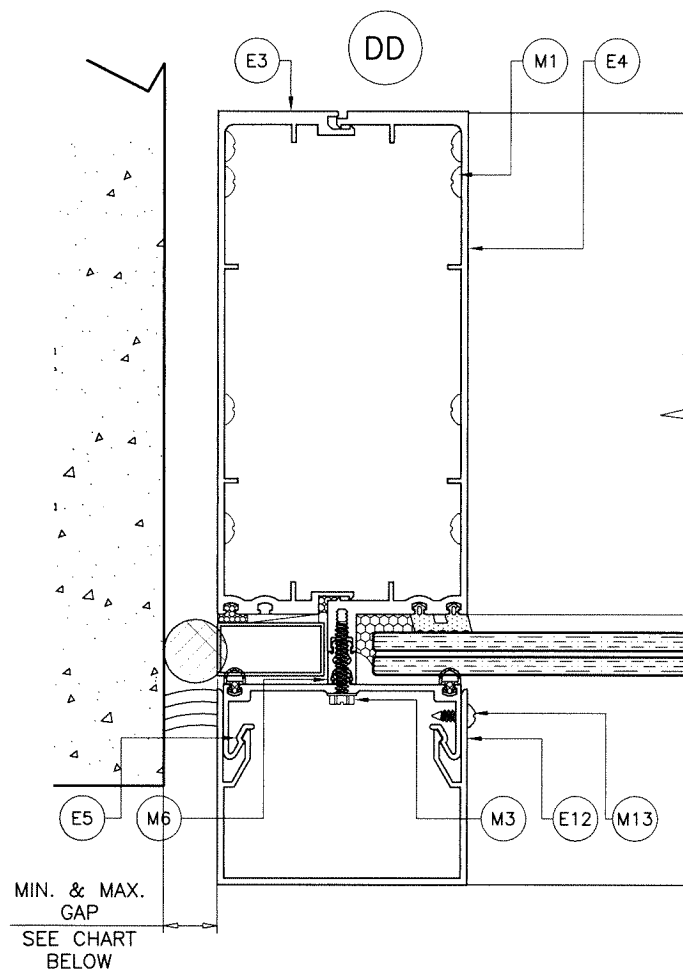


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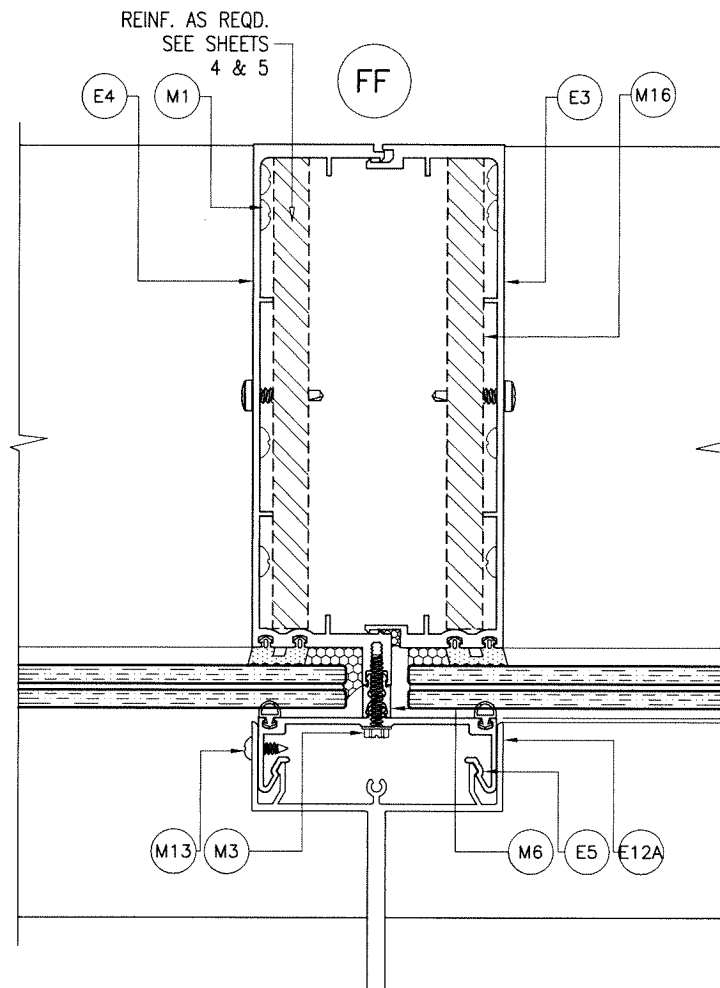
FRAME WIDTH

MIN. & MAX.
GAP
SEE CHART
BELOW

MIN. & MAX.
GAP
SEE CHART
BELOW



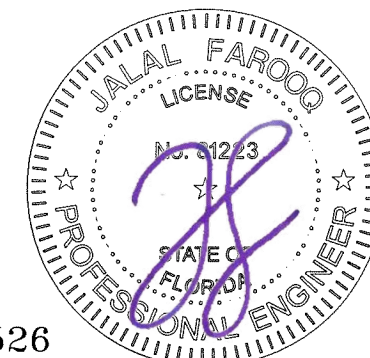
MIN. & MAX.
GAP
SEE CHART
BELOW



MAX. FRAME HEIGHT	GAP	
	MIN.	MAX.
120"	7/16"	3/4"
168"	9/16"	3/4"
213"	11/16"	3/4"

NOTE:
MAX. MOVEMENT CONSIDERED=100% STRETCH.
PLEASE REFER TO SEALANT MANUFACTURER'S DATA AND APPLICATION
MANUAL FOR COMPATABILITY OF SEALANT TO SUBSTRATE & WINDOWALL
MATERIAL/FINISH AND COMPLIANCE FOR WARRANTY.
REFER TO ACI-117-10 FOR CONSTRUCTION TOLERANCES.
ALTERNATE SEALANTS AT JAMB GAPS CAN BE DESIGNED BY
ENGINEER OF RECORD BASED ON MANUFACTURER GUIDE LINES.
GAPS LESS THAN 1/4" MAY BE DESIGNED BY ENGINEER OF RECORD BY
THE USE OF BOND BREAKER TAPE OR 15% OF GAP ALLOWED MOVEMENT.

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FL #22526

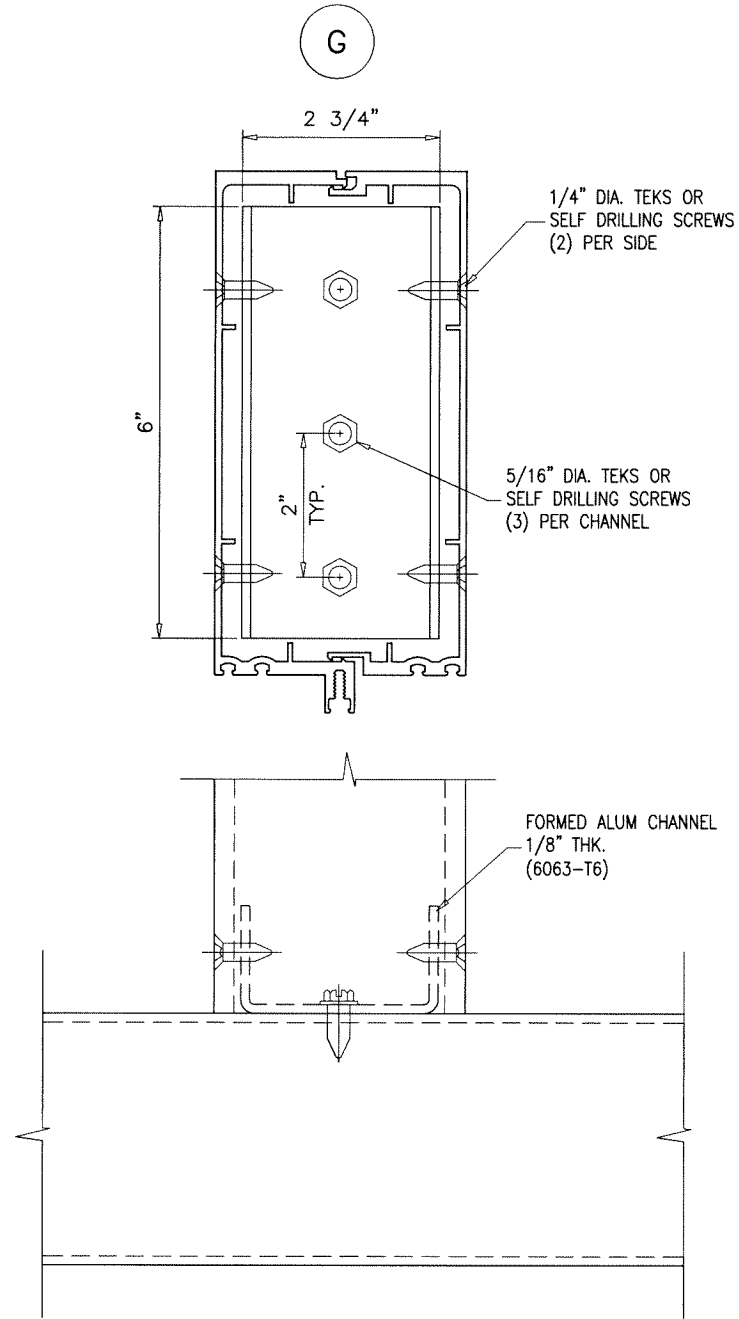
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AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

ES-8860 ALUM WINDOW WALL SYSTEM (L.M.I.)

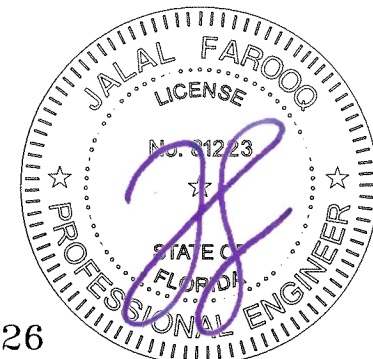
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

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date:	12-18-17	scale:	3/8" = 1"
dr. by:	TARIQ	chk. by:	
drawing no.	18-01F	sheet	8 of 14

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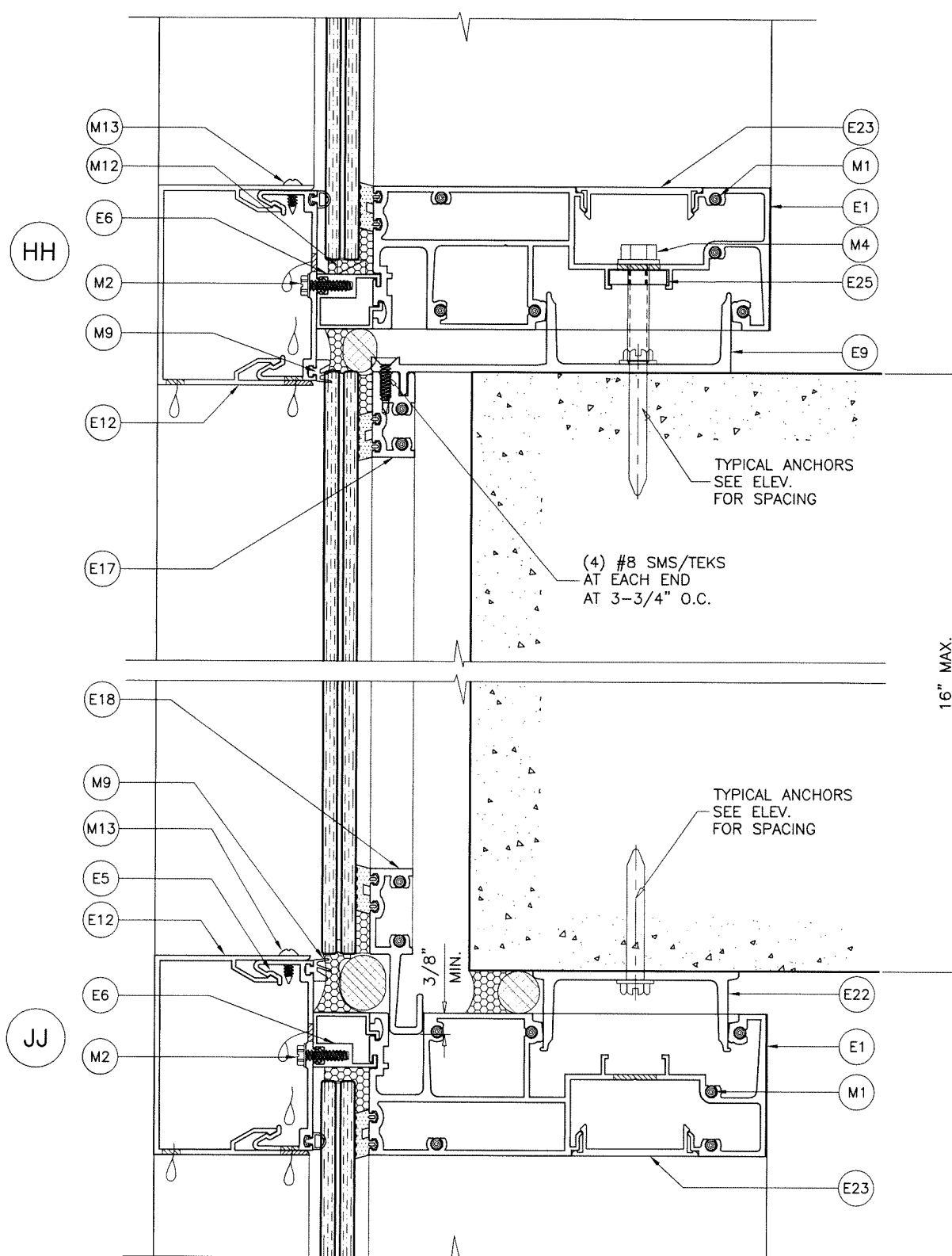
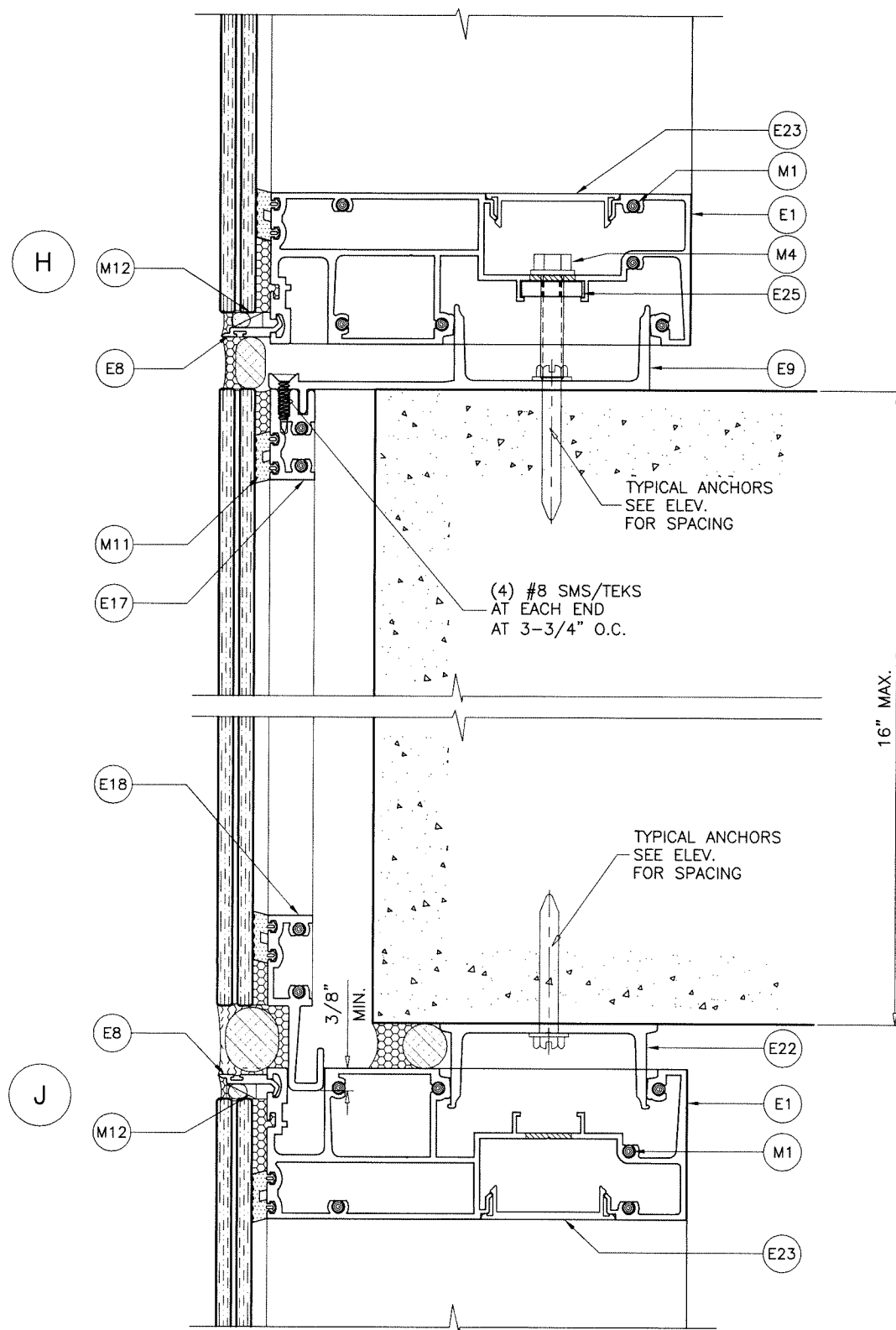


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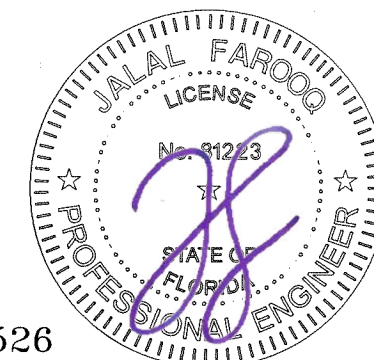
FL #22526

AL-FAROOQ CORPORATION ENGINEERS & PRODUCT DEVELOPMENT 9360 SUNSET DRIVE, SUITE 220 MIAMI, FLORIDA 33173 TEL. (305) 264-8100 FAX. (305) 262-6978 (C.A.N. 3538)		STORE \ 18-01F-ES	
ES-8860 ALUM WINDOW WALL SYSTEM (L.M.I.)		E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL. (305) 638-5151 FAX. (305) 638-5158	
date: 12-18-17	scale: 3/8" = 1"	dr. by: TARIQ	chk. by:
drawing no. 18-01F		sheet 9 of 14	



Sealed: 10/5/2026

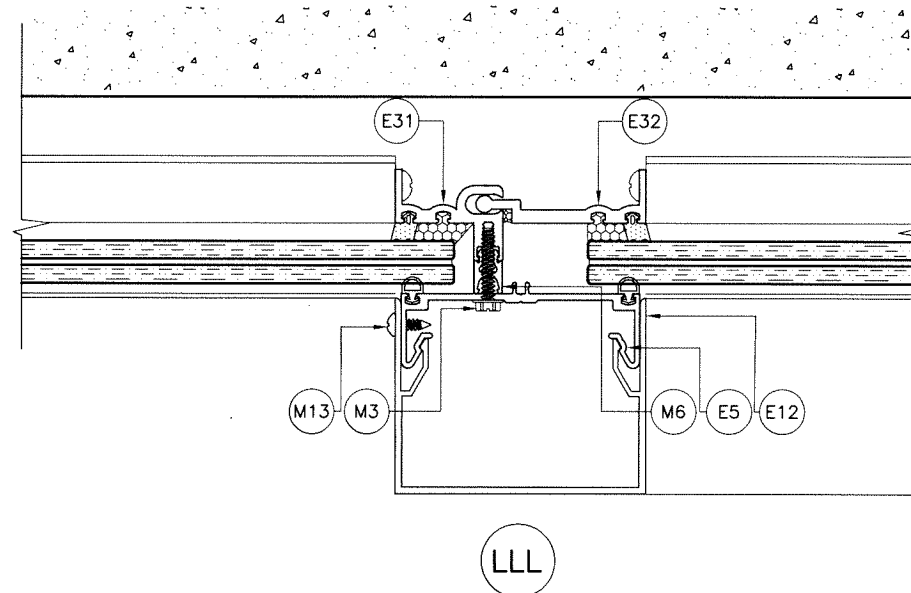
FL #22526



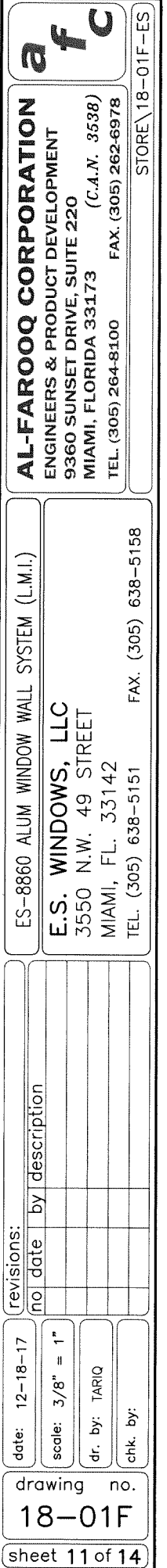
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AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173 (C.A.N. 3538)
 TEL. (305) 264-8100 FAX. (305) 262-6978
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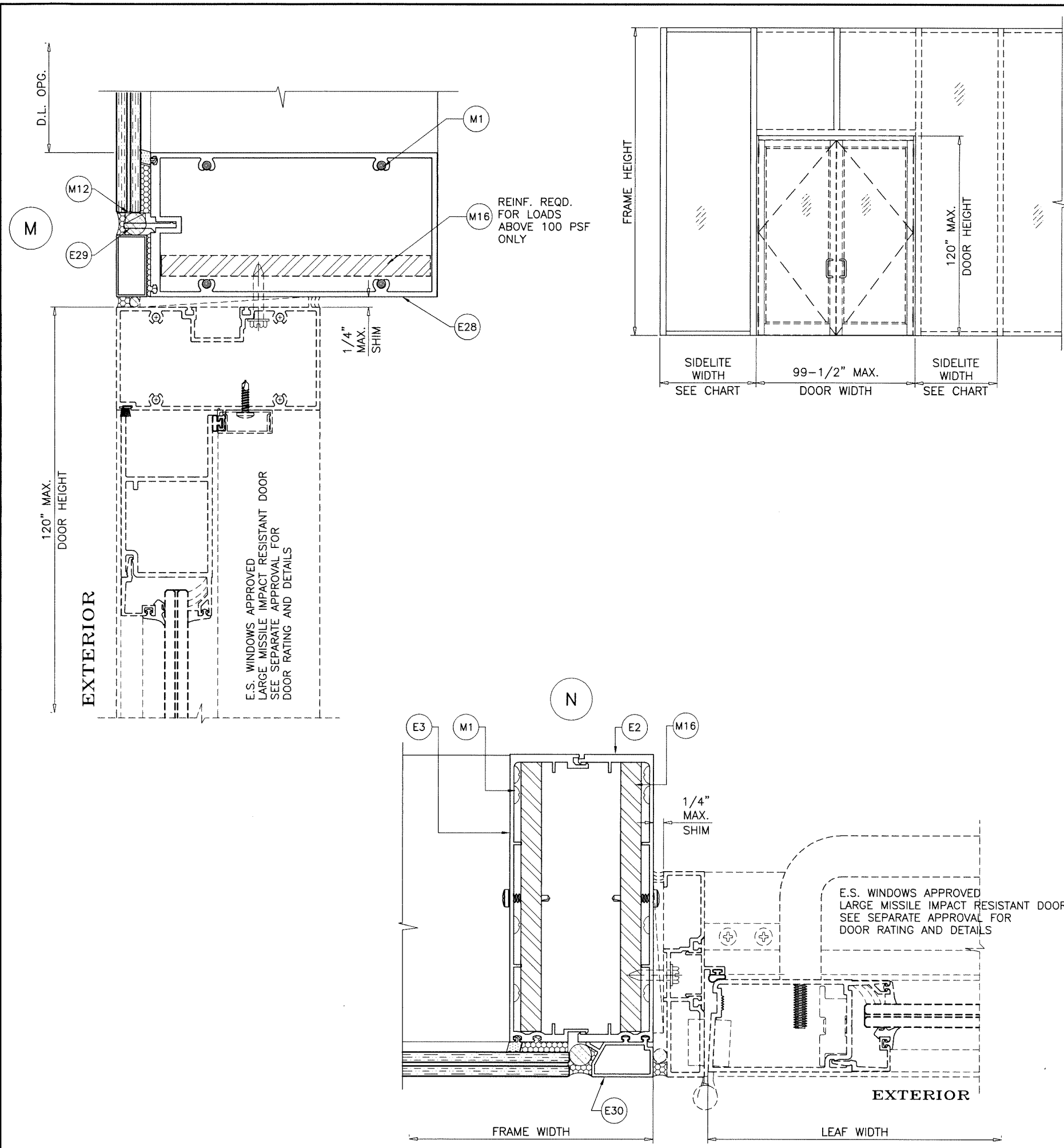
ES-8860 ALUM WINDOW WALL SYSTEM (L.M.I.)
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

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drawing no.		18-01F	
sheet 10 of 14			



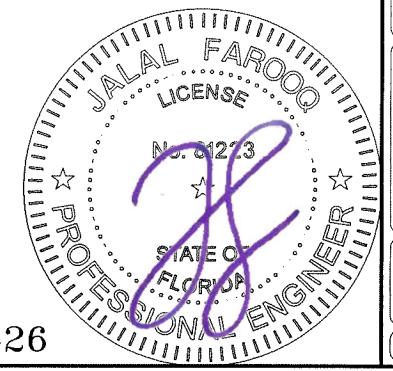
FL #22526





DOOR MULLION LOAD CAPACITY - PSF			
NOMINAL DIMS.		MULL 'DM'	
SIDELITE WIDTH INCHES	FRAME HEIGHT INCHES	EXT.(+)	INT.(-)
30	132		130.0
36			130.0
42			130.0
48			130.0
54			130.0
60			130.0
66	138		130.0
72			130.0
30			130.0
36			130.0
42			130.0
48			130.0
54			130.0
60			130.0
66	144		130.0
30			130.0
36			130.0
42			130.0
48			130.0
54			130.0
60			130.0
66	150		130.0
30			130.0
36			130.0
42			130.0
48			130.0
54			130.0
60			130.0
66	156		130.0
30			130.0
36			130.0
42			130.0
48			130.0
54			130.0
60			130.0
66	162		130.0
30			130.0
36			130.0
42			130.0
48			130.0
54			128.8
60			123.3
66	168		130.0
30			130.0
36			130.0
42			129.0
48			123.1
54			117.8
60	174		130.0
66			124.4
30			118.5
36			113.2
42			108.4
48			

DOOR MULLION LOAD CAPACITY - PSF			
NOMINAL DIMS.		MULL 'DM'	
SIDELITE WIDTH INCHES	FRAME HEIGHT INCHES	EXT.(+)	INT.(-)
30	180		120.7
36			114.8
42			109.5
48			104.6
54			100.2
60			111.8
66	186		106.4
72			101.5
30			97.1
36			91.6
42			104.1
48			99.1
54	192		94.6
60			90.4
66			85.6
72			97.2
30			92.6
36			88.4
42	198		84.5
48			91.1
54			86.8
60			82.9
66			79.3
72			



Sealed: 10/5/2026

FL #22526

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MIAMI, FLORIDA 33173
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STORE 18-01F-ES

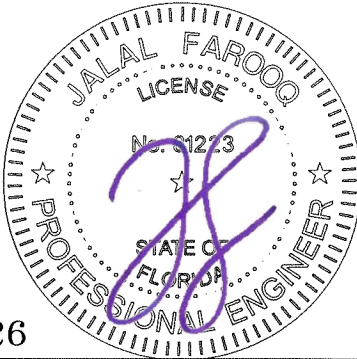
ES-8860 ALUM WINDOW WALL SYSTEM (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
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revisions:
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12-18-17
scale: 3/8" = 1"
dr. by: TARIQ
chk. by:
drawing no.
18-01F
sheet 12 of 14

ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
E1	ES-8860-007	AS REQD.	FRAME HEAD AND SILL	6063-T6	-
E2	ES-8860-008	AS REQD.	SSG FEMALE MULLION	6005-T5	-
E3	ES-8860-009	AS REQD.	SSG AND CAPTURED MALE MULLION	6005-T5	-
E4	ES-8860-010	AS REQD.	SSG AND CAPTURED MALE MULLION	6005-T5	-
E5	ES-8860-011	AS REQD.	PRESSURE PLATE	6063-T6	-
E6	ES-8860-012	AS REQD.	PRESSURE PLATE ADAPTER (HEAD/SILL)	6063-T6	-
E8	ES-8860-014	AS REQD.	SETTING CHAIR	6063-T6	-
E9	ES-8860-015	AS REQD.	ANCHOR	6063-T6	-
E10	ES-8860-016	AS REQD.	PRESSURE PLATE COVER (HEAD/SILL)	6063-T6	-
E11	ES-8860-017	AS REQD.	HEAD/SILL PRESSURE PLATE	6063-T6	-
E11A	ES-8860-011	AS REQD.	HORIZONTAL/VERTICAL PRESSURE PLATE	6063-T6	-
E12	ES-8860-018	AS REQD.	PRESSURE PLATE COVER	6063-T6	-
E12A	ES-8860-401	AS REQD.	PRESSURE PLATE COVER	6063-T6	-
E13	ES-8860-001	AS REQD.	SSG/CAPTURED MULLION SLAD COVER	6063-T6	-
E14	ES-8860-002	AS REQD.	SSG MULLION SLAD COVER	6063-T6	-
E15	ES-8860-003	AS REQD.	SSG MULLION SLAD COVER	6063-T6	-
E16	ES-8860-004	AS REQD.	JAMB SLAD COVER	6063-T6	-
E17	ES-8860-005	AS REQD.	HEAD SLAD COVER	6063-T6	-
E18	ES-8860-006	AS REQD.	SILL SLAD COVER	6063-T6	-
E19	ES-WW8832-104	AS REQD.	JAMB MULLION	6063-T6	-
E20	ES-WW8832-101	AS REQD.	HORIZONTAL MULLION	6005-T5	-
E21	ES-WW8832-107	AS REQD.	SETTING CHAIR (LAM. GLASS)	6005-T5	-
E22	ES-7004	AS REQD.	ANCHOR	6005-T5	-
E23	ES-7003A	AS REQD.	SNAP COVER	6063-T5	-
E24	ES-T-097	AS REQD.	FILLER TUBE	6063-T6	-
E25	ALU-P-020	AS REQD.	SILL LEVELER	6063-T6	-
E26	ES-8860-021	AS REQD.	COVER	6063-T5	-
E27	ES-8860-022	AS REQD.	HORIZONTAL MULLION	6063-T6	-
E28	GW-7000-129	AS REQD.	HORIZONTAL MULLION SSG	6063-T6	-
E29	GW-5250-206	AS REQD.	STRUCTURAL GLAZING SHELF	6063-T6	-
E30	ES-8860-025	AS REQD.	JAMB FILLER	6063-T5	-
E31	ES-8860-023	AS REQD.	SSG/CAPTURED MULLION SLAD COVER	6063-T6	-
E32	ES-8860-024	AS REQD.	SSG MULLION SLAD COVER	6063-T5	-
M1	#12 X 1-1/2"	AS REQD.	FRAME ASSEMBLY FASTENERS	ST/ST	PH SMS
M2	#10 X 3/4"	AS REQD.	HORIZONTAL PRESSURE PLATE FASTENERS	ST/ST	HWH SMS
M3	#10 X 1"	AS REQD.	VERTICAL PRESSURE PLATE FASTENERS	ST/ST	HWH SMS
M4	3/8-16 X 2"	AS REQD.	LEVELING SCREW	ST/ST	HWH TAP BOLT
M5	#8 X 1/2"	AS REQD.	FILLER TUBE FASTENERS	ST/ST	PH SMS
M6	W5250-301	AS REQD.	9/16" CW SPACER	-	-
M7	WW7000-NE003	AS REQD.	SPACER GASKET	SILICONE	DUROMETER 70±5 SHORE A
M8	WW5250-NS02	AS REQD.	INTERIOR GASKET	SILICONE	DUROMETER 60±5 SHORE A
M8A	ES-8860-G01	AS REQD.	INTERIOR GASKET	SILICONE	DUROMETER 60±5 SHORE A
M9	ES-W625-G03A	AS REQD.	EXTERIOR GASKET (CAPTURED VERT. MULLION)	SILICONE	DUROMETER 60±5 SHORE A
M10	-	AS REQD.	BUMPON SPACER, 4" LONG	SILICONE	DUROMETER 65±5 SHORE A
M11	ES-8860-G02	AS REQD.	INTERIOR GASKET	SILICONE	DUROMETER 70±5 SHORE A
M12	80-378A	2/ LITE	SETTING BLOCKS AT 1/4 POINTS (LAM. GLASS)	EPDM	DUROMETER 85±5 SHORE A
M13	#8 X 1/2"	AS REQD.	PRESSURE PLATE COVER FASTENERS	ST/ST	FH SMS
M14	-	AS REQD.	7/8" OPEN CELL FOAM BACKER ROD AT VERTICAL	POLYETHYLENE	-
M15	-	AS REQD.	3/8" OPEN CELL FOAM BACKER ROD AT HORIZONTAL	POLYETHYLENE	-
M16	-	AS REQD.	MULLION REINF. BAR (1/2" X 6-1/2")	STEEL	-

SEALANTS:

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



Sealed: 10/5/2026

FL #22526

afcc

AL-FAROOQ CORPORATION

ENGINEERS & PRODUCT DEVELOPMENT

9360 SUNSET DRIVE, SUITE 220

MIAMI, FLORIDA 33173

TEL. (305) 264-8100

FAX. (305) 262-6978

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ES-8860 ALUM WINDOW WALL SYSTEM (L.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: 12-18-17

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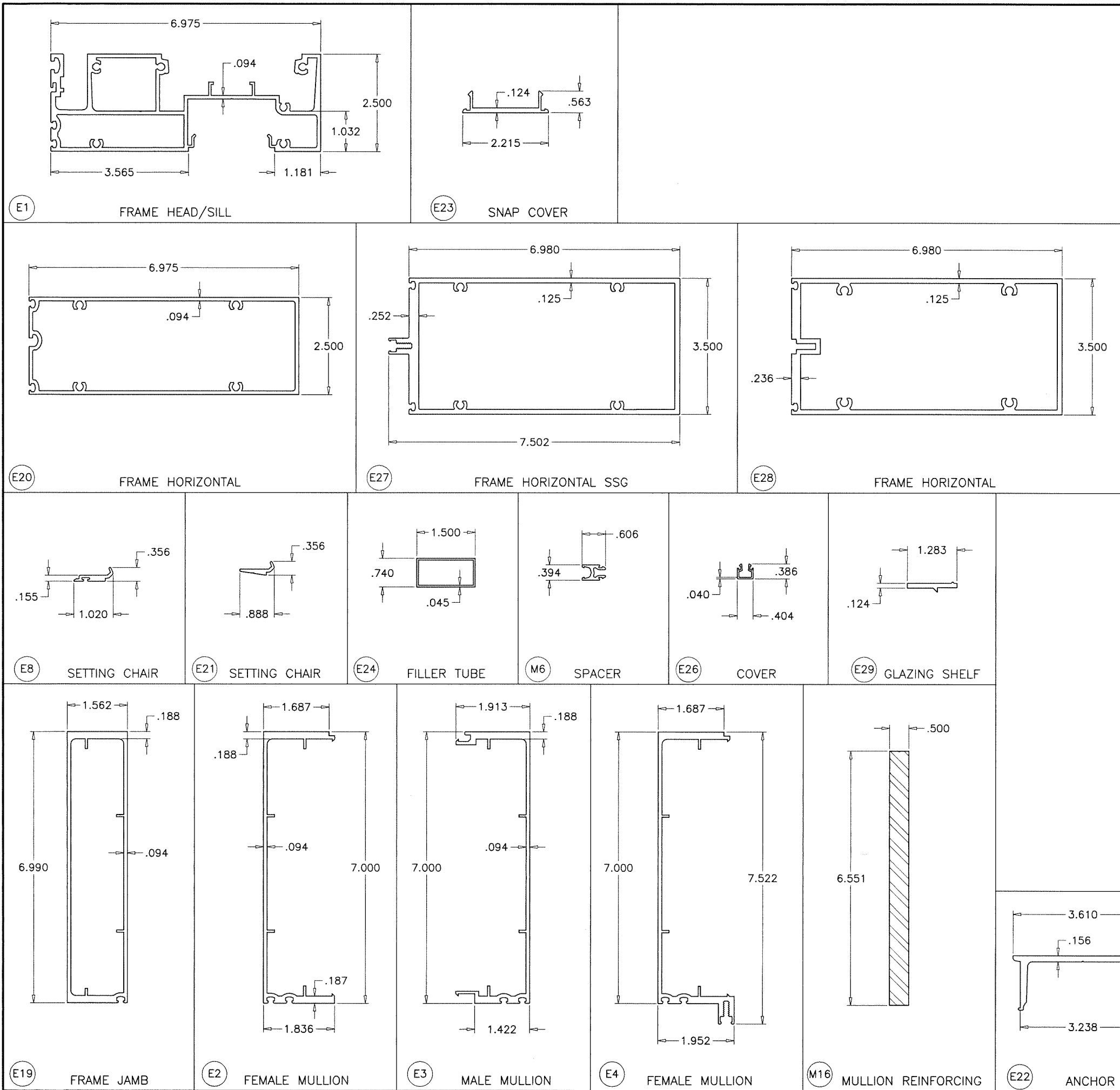
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chk. by:

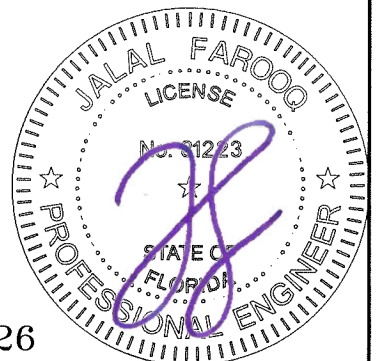
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18-01F

sheet 13 of 14



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MIAMI, FLORIDA 33173
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ES-8860 ALUM WINDOW WALL SYSTEM (L.M.I.)

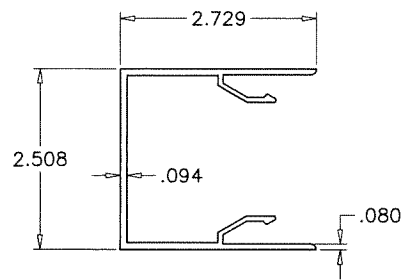
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

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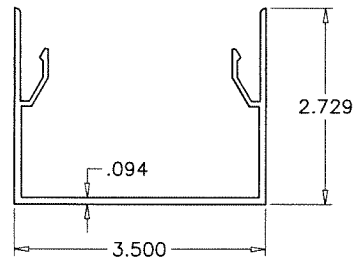
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chk. by:

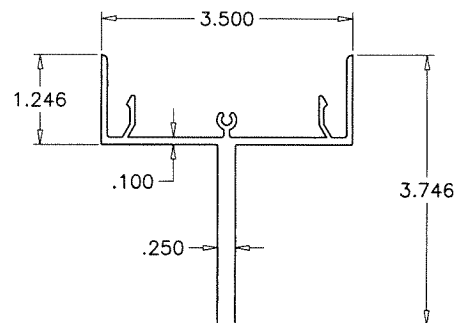
drawing no.
18-01F
sheet 14 of 14



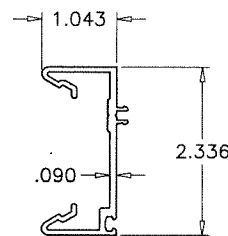
E10 PRESSURE PLATE COVER



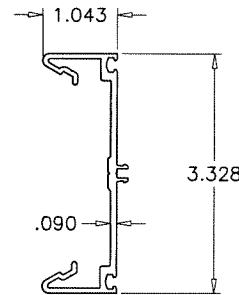
E12 PRESSURE PLATE COVER



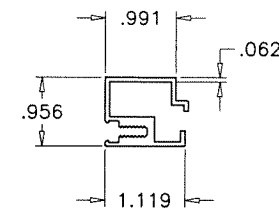
E12A PRESSURE PLATE COVER



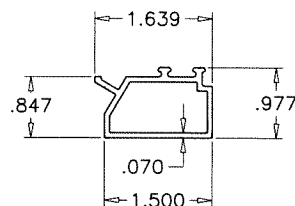
E11 HEAD/SILL PRESSURE PLATE



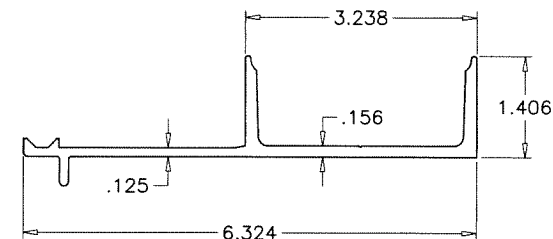
E11A HORIZ./VERT. PRESSURE PLATE



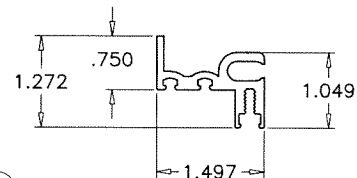
E6 PRESSURE PLATE ADAPTER



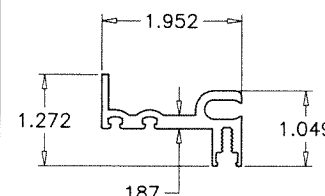
E30 JAMB FILLER



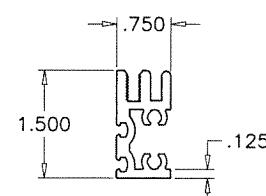
E9 SLAD COVER ANCHOR



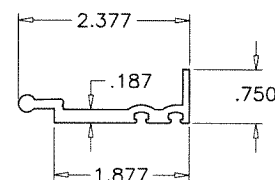
E31 SSG/CAPTURED MULLION SLAD COVER



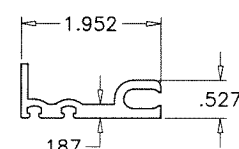
E13 SSG SLAD COVER



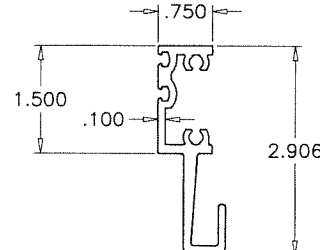
E17 HEAD SLAD COVER



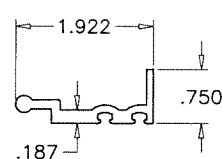
E32 SSG MULLION SLAD COVER



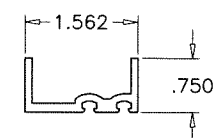
E14 MULLION SSG SLAD COVER



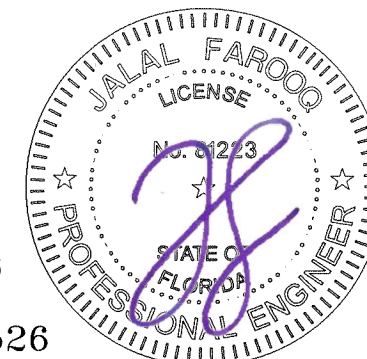
E18 SILL SLAD COVER



E15 MULLION SSG SLAD COVER



E16 JAMB SLAD COVER



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sheet 14.1 of 14

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