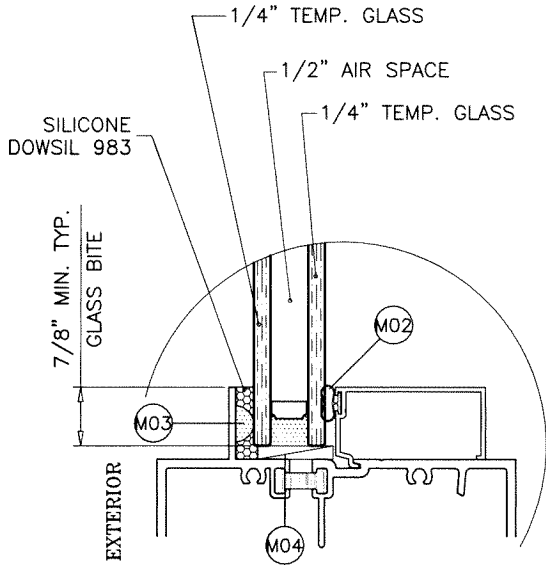
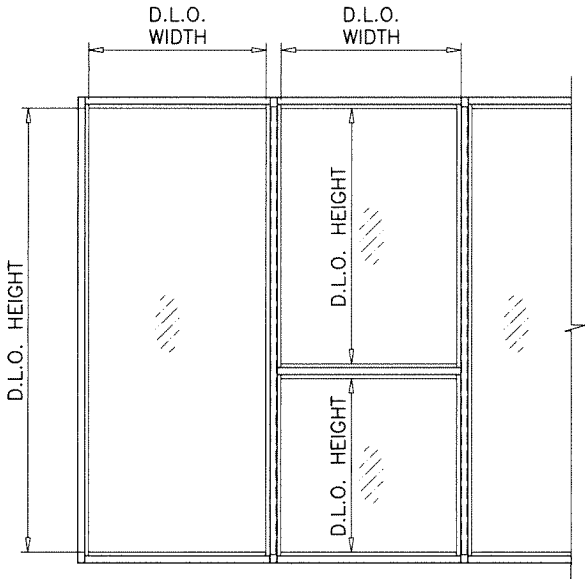


GLASS LOAD CAPACITY - PSF			
NOMINAL DIMS.		1" INSUL. GL.	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)
26-1/4"	108-1/2"	80.0	100.0
32-1/4"		80.0	100.0
38-1/4"		80.0	100.0
44-1/4"		80.0	100.0
50-1/4"		80.0	97.1
56-1/4"		80.0	86.8
61"		80.0	80.0
26-1/4"	114-1/2"	80.0	100.0
32-1/4"		80.0	100.0
38-1/4"		80.0	100.0
44-1/4"		80.0	100.0
50-1/4"		80.0	95.9
56-1/4"		80.0	86.8
61"		80.0	80.0
26-1/4"	126-1/2"	80.0	100.0
32-1/4"		80.0	100.0
38-1/4"		80.0	100.0
44-1/4"		80.0	100.0
50-1/4"		80.0	93.4
56-1/4"		80.0	86.0
61"		80.0	80.0
26-1/4"	133"	80.0	100.0
32-1/4"		80.0	100.0
38-1/4"		80.0	100.0
44-1/4"		80.0	100.0
50-1/4"		80.0	92.3
56-1/4"		80.0	84.8
61"		80.0	80.0
26-1/4"	138-1/2"	80.0	100.0
32-1/4"		80.0	100.0
38-1/4"		80.0	100.0
44-1/4"		80.0	100.0
50-1/4"		80.0	91.4
56-1/4"		80.0	83.9

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



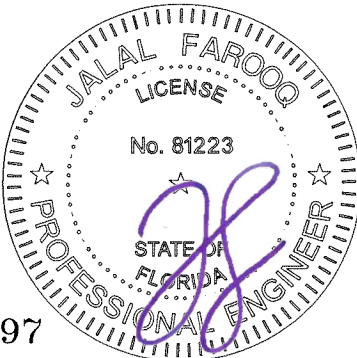
GLAZING DETAIL
1" OVERALL INSUL. GLASS

1/2" AIR SPACE CONSISTING OF:
SPACER:
'HELIMA' LOW PROFILE ALUMINUM SPACER
BY 'LINGERMANN GMBH'
AROUND THE PERIMETER OF THE GLASS.
PERIMETER SEALANT:
SILICONE
DOWSIL 791
GE 2000

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

GLASS

Sealed: 3/19/2025



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

ES-800T ALUM WINDOW WALL SYSTEM (N.I.)

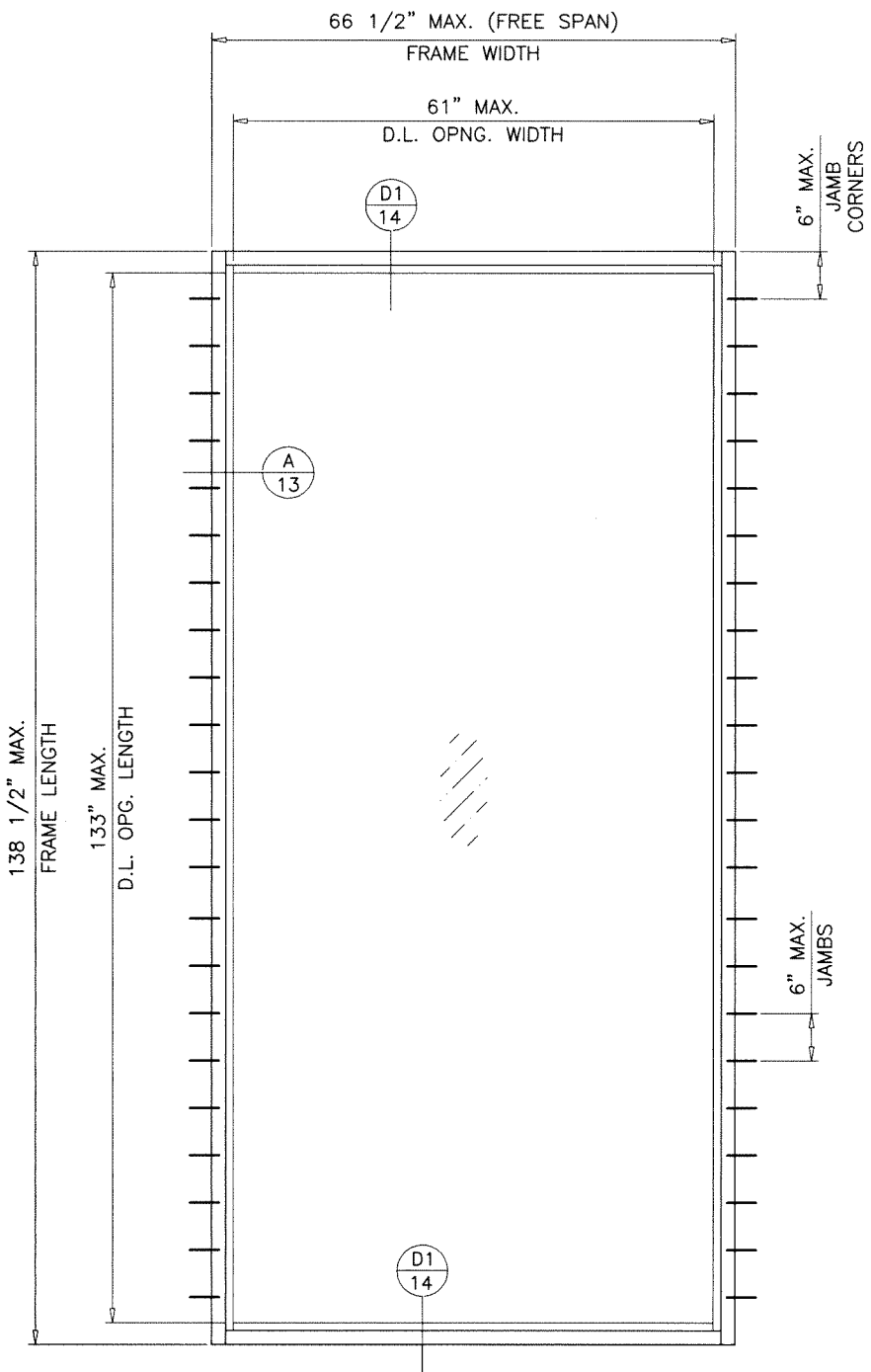
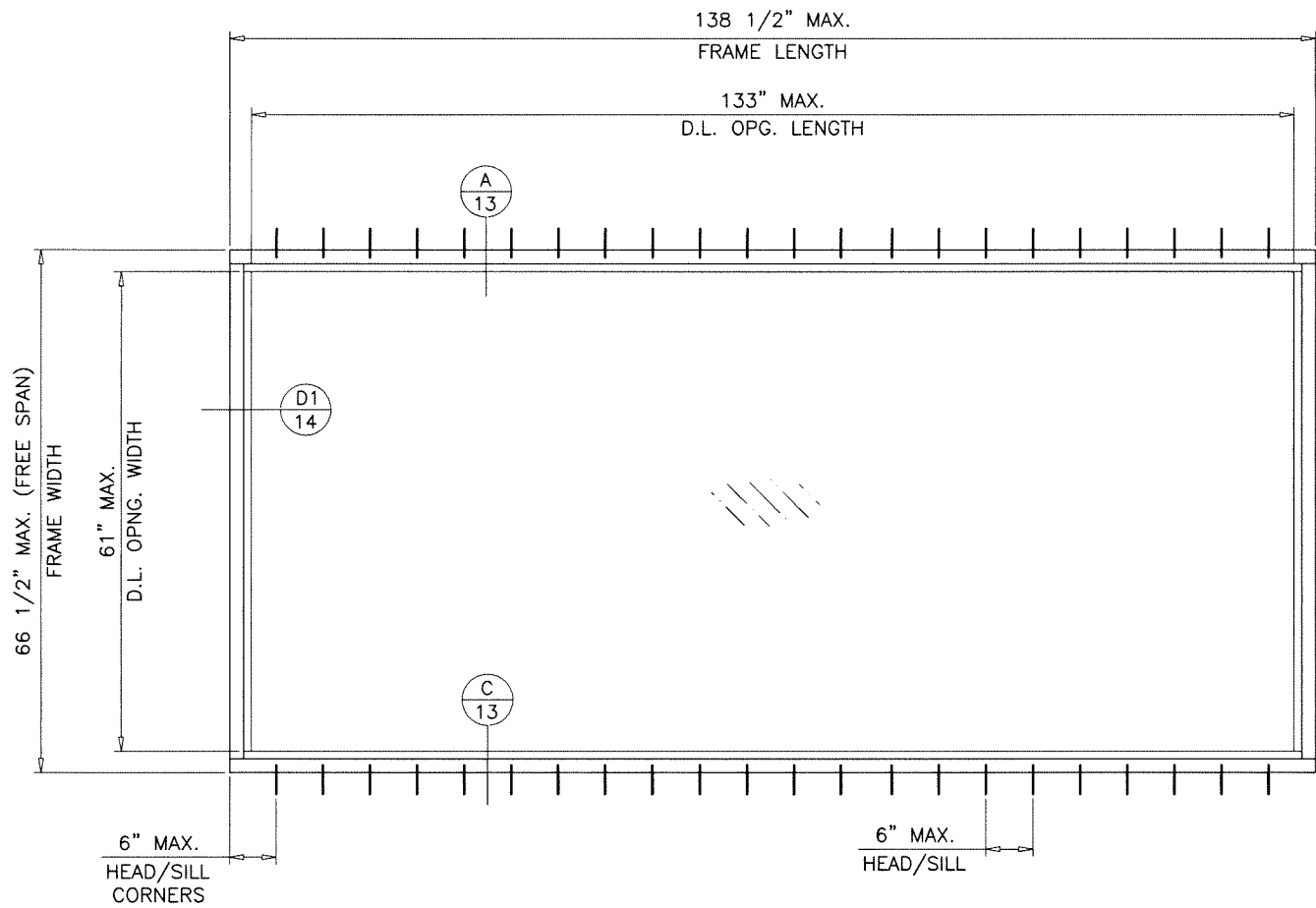
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151
FAX. (305) 638-5158

revisions:
no date by description

date: 10-02-24
scale: 3/8" = 1"
dr. by: TARIQ
chk. by:

drawing no.
24-71F
sheet 2 of 18

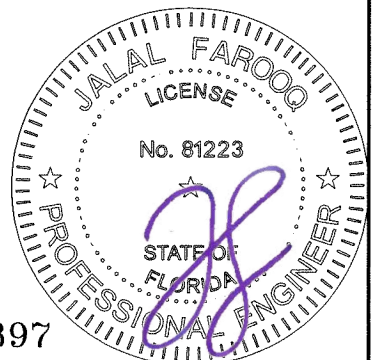
STORE 24-71F-ES



MAXIMUM DESIGN LOAD RATING = + 80.0 PSF
 - 80.0 PSF
 (ONLY FOR SINGLE UNITS SHOWN IN THIS SHEET OR SMALLER)

THESE FRAMES CAN BE USED AT ALL SUBSTRATES SHOWN ON SHEETS 13 AND 14.
 WIDTH AND LENGTH DIMENSIONS CAN BE ORIENTED VERTICALLY OR HORIZONTALLY AS SHOWN ABOVE.

Sealed: 3/19/2025



FL #17897

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

af c
 STORE 24-71F-ES

ES-8000T ALUM WINDOW WALL SYSTEM (N.I.)

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

revisions:

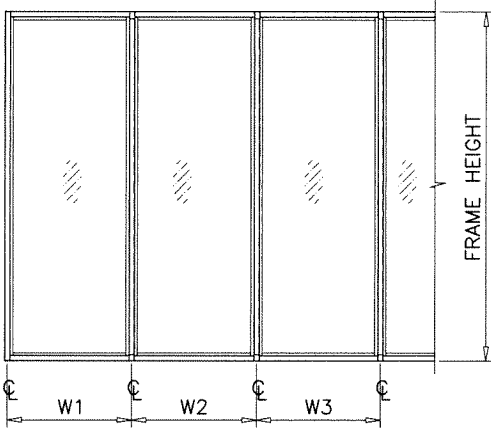
no	date	by description

date: 10-02-24
 scale: 1/2"=1'-0"
 dr. by: TARIQ
 chk. by:

drawing no.
24-71F
 sheet 2.1 of 18

DESIGN LOAD CAPACITY - PSF JAMB/MULLION WITHOUT INTERMEDIATE HORIZONTALS							
NOMINAL DIMS.		JAMB 'J1'		MULLION 'M1'		MULLION 'M2'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	90"	60.0	60.0	60.0	60.0	60.0	60.0
36"		60.0	60.0	60.0	60.0	60.0	60.0
42"		60.0	60.0	60.0	60.0	60.0	60.0
48"		60.0	60.0	60.0	60.0	60.0	60.0
54"		60.0	60.0	60.0	60.0	60.0	60.0
60"		60.0	60.0	60.0	60.0	60.0	60.0
30"	96"	60.0	60.0	60.0	60.0	60.0	60.0
36"		60.0	60.0	60.0	60.0	60.0	60.0
40"		60.0	60.0	60.0	60.0	60.0	60.0
42"		60.0	60.0	-	-	60.0	60.0
48"		60.0	60.0	-	-	60.0	60.0
54"		60.0	60.0	-	-	60.0	60.0
60"		60.0	60.0	-	-	60.0	60.0
30"	102"	60.0	60.0	-	-	60.0	60.0
36"		60.0	60.0	-	-	60.0	60.0
42"		60.0	60.0	-	-	60.0	60.0
48"		60.0	60.0	-	-	60.0	60.0
54"		60.0	60.0	-	-	60.0	60.0
60"		60.0	60.0	-	-	60.0	60.0
30"	108"	60.0	60.0	-	-	60.0	60.0
36"		60.0	60.0	-	-	60.0	60.0
42"		60.0	60.0	-	-	60.0	60.0
48"		60.0	60.0	-	-	60.0	60.0
54"		60.0	60.0	-	-	60.0	60.0
30"	126"	60.0	60.0	-	-	60.0	60.0
36"		60.0	60.0	-	-	60.0	60.0
42"		60.0	60.0	-	-	60.0	60.0
48"		60.0	60.0	-	-	60.0	60.0
30"	132"	60.0	60.0	-	-	60.0	60.0
36"		60.0	60.0	-	-	60.0	60.0
42"		60.0	60.0	-	-	60.0	60.0
44-3/4"		60.0	60.0	-	-	60.0	60.0
30"	137"	60.0	60.0	-	-	60.0	60.0
36"		60.0	60.0	-	-	60.0	60.0
42"		60.0	60.0	-	-	58.1	58.1
44-3/4"		54.0	54.0	-	-	54.0	54.0

INTERPOLATION BETWEEN WIDTHS ALLOWED.

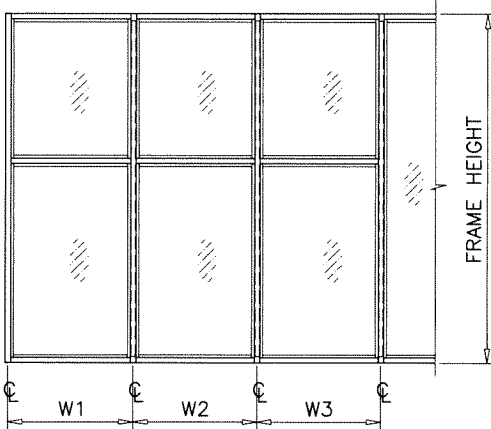


WIDTH (W) = W1
AT FRAME JAMB

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

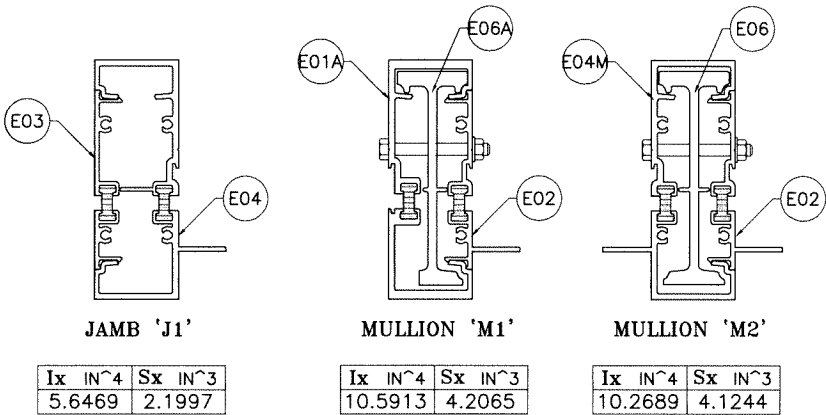
DESIGN LOAD CAPACITY - PSF JAMB/MULLION WITH INTERMEDIATE HORIZONTALS							
NOMINAL DIMS.		JAMB 'J1'		MULLION 'M1'		MULLION 'M2'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	90"	60.0	60.0	60.0	60.0	60.0	60.0
36"		60.0	60.0	60.0	60.0	60.0	60.0
42"		60.0	60.0	60.0	60.0	60.0	60.0
48"		60.0	60.0	60.0	60.0	60.0	60.0
54"		60.0	60.0	60.0	60.0	60.0	60.0
60"		60.0	60.0	60.0	60.0	60.0	60.0
30"	96"	60.0	60.0	60.0	60.0	60.0	60.0
36"		60.0	60.0	60.0	60.0	60.0	60.0
40"		60.0	60.0	60.0	60.0	60.0	60.0
42"		60.0	60.0	-	-	60.0	60.0
48"		60.0	60.0	-	-	60.0	60.0
54"		60.0	60.0	-	-	60.0	60.0
60"		60.0	60.0	-	-	60.0	60.0
30"	102"	60.0	60.0	-	-	60.0	60.0
36"		60.0	60.0	-	-	60.0	60.0
42"		60.0	60.0	-	-	60.0	60.0
48"		60.0	60.0	-	-	60.0	60.0
54"		60.0	60.0	-	-	60.0	60.0
60"		60.0	60.0	-	-	60.0	60.0
30"	108"	60.0	60.0	-	-	60.0	60.0
36"		60.0	60.0	-	-	60.0	60.0
42"		60.0	60.0	-	-	60.0	60.0
48"		60.0	60.0	-	-	60.0	60.0
54"		60.0	60.0	-	-	60.0	60.0
30"	126"	60.0	60.0	-	-	60.0	60.0
36"		60.0	60.0	-	-	60.0	60.0
42"		60.0	60.0	-	-	60.0	60.0
48"		60.0	60.0	-	-	60.0	60.0
30"	132"	60.0	60.0	-	-	60.0	60.0
36"		60.0	60.0	-	-	60.0	60.0
42"		60.0	60.0	-	-	60.0	60.0
44-3/4"		60.0	60.0	-	-	58.8	58.8
30"	137"	60.0	60.0	-	-	60.0	60.0
36"		60.0	60.0	-	-	60.0	60.0
42"		60.0	60.0	-	-	56.1	56.1
44-3/4"		54.0	54.0	-	-	52.6	52.6

INTERPOLATION BETWEEN WIDTHS ALLOWED.



WIDTH (W) = W1
AT FRAME JAMB

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



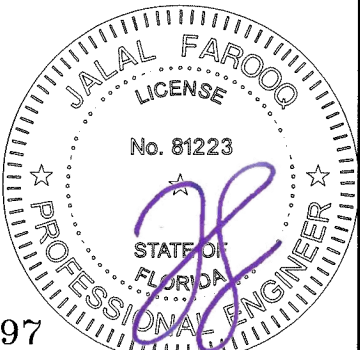
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Ix	IN^4	Sx	IN^3
10.5913		4.2065	

Ix	IN^4	Sx	IN^3
10.2689		4.1244	

Sealed: 3/19/2025

MULLIONS



FL #17897

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
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STORE 24-71F-ES

ES-8000T ALUM WINDOW WALL SYSTEM (N.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: 10-02-24
scale: -
dr. by: TARIQ
chk. by:

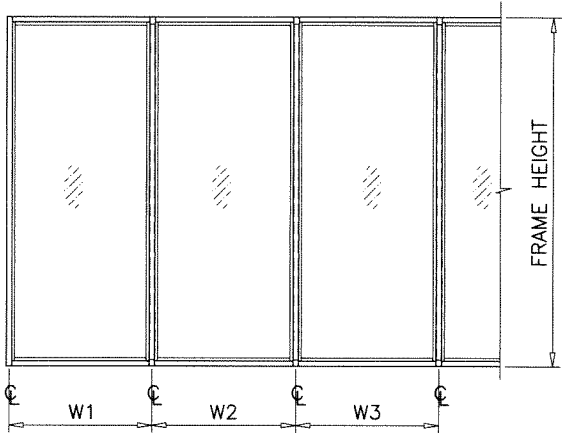
drawing no.
24-71F

sheet 3 of 18

DESIGN LOAD CAPACITY - PSF JAMB/MULLION WITHOUT INTERMEDIATE HORIZONTALS											
NOMINAL DIMS.		JAMB 'J2'		JAMB 'J3'		MULLION 'M3'		MULLION 'M4'		MULLION 'M5'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	96"	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
42"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
54"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
60"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
30"	98-1/2"	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
42"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
54"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
60"		60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
30"	102"	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
42"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
54"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
60"		60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
30"	108"	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
42"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
54"		60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
60"		60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
30"	110-1/2"	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
42"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
54"		60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
60"		60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
30"	114"	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
42"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
48"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
54"		60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
60"		60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
30"	120"	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
36"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
42"		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0
48"		89.5	89.5	80.0	89.5	80.0	89.5	80.0	89.5	80.0	89.5
54"		60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
57"		60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
60"		-	-	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
30"	126"	60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
36"		60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42"		60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
48"		60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
54"		60.0	69.4	70.0	70.0	69.4	69.4	70.0	70.0	70.0	70.0
60"		-	-	70.0	70.0	63.6	63.6	70.0	70.0	70.0	70.0

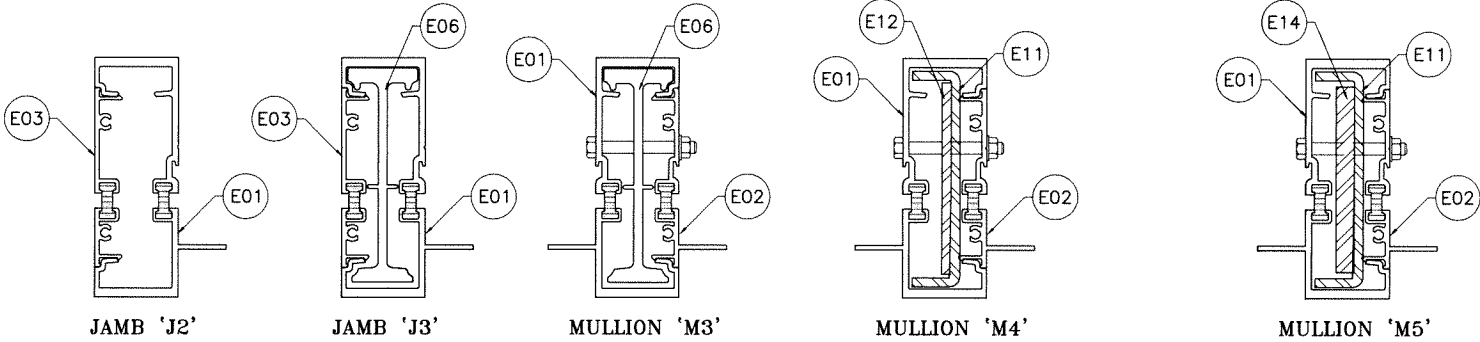
DESIGN LOAD CAPACITY - PSF JAMB/MULLION WITHOUT INTERMEDIATE HORIZONTALS											
NOMINAL DIMS.		JAMB 'J2'		JAMB 'J3'		MULLION 'M3'		MULLION 'M4'		MULLION 'M5'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	132"	60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
36"		60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42"		60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
48"		60.0	66.5	70.0	70.0	66.5	66.5	70.0	70.0	70.0	70.0
52"		60.0	62.0	70.0	70.0	62.0	62.0	70.0	70.0	70.0	70.0
54"		-	-	70.0	70.0	59.9	59.9	70.0	70.0	70.0	70.0
60"		-	-	70.0	70.0	54.8	54.8	69.2	69.2	70.0	70.0
30"	138"	60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
36"		60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
42"		60.0	65.4	70.0	70.0	65.4	65.4	70.0	70.0	70.0	70.0
48"		57.9	57.9	70.0	70.0	57.9	57.9	70.0	70.0	70.0	70.0
50"		55.8	55.8	70.0	70.0	55.8	55.8	70.0	70.0	70.0	70.0
54"		-	-	70.0	70.0	52.1	52.1	69.0	69.0	70.0	70.0
60"		-	-	70.0	70.0	47.6	47.6	62.9	62.9	70.0	70.0
30"	144"	60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
36"		60.0	66.4	70.0	70.0	66.4	66.4	70.0	70.0	70.0	70.0
42"		57.4	57.4	70.0	70.0	57.4	57.4	70.0	70.0	70.0	70.0
48"		50.8	50.8	70.0	70.0	50.8	50.8	70.0	70.0	70.0	70.0
54"		-	-	70.0	70.0	45.6	45.6	63.1	63.1	70.0	70.0
60"		-	-	60.0	60.0	41.6	41.6	57.5	57.5	60.0	60.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



WIDTH (W) = W1
AT FRAME JAMB

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



Ix IN^4	Sx IN^3
6.5995	2.5891

Ix IN^4	Sx IN^3
11.0604	4.4380

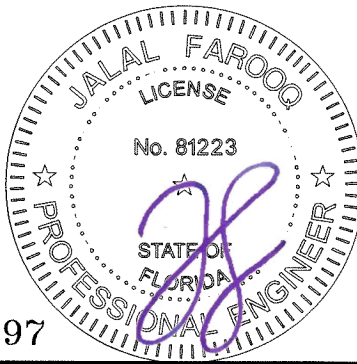
Ix IN^4	Sx IN^3
11.2393	4.3497

	Ix IN^4	Sx IN^3
ALUMINUM	6.7652	2.6449
STEEL	3.7533	1.6656
TOTAL Ix ALUM + Ix STL X 2.9	17.5420	

	Ix IN^4	Sx IN^3
ALUMINUM	6.7652	2.6449
STEEL	4.5689	2.0306
TOTAL Ix ALUM + Ix STL X 2.9	19.8838	

Sealed: 3/19/2025

MULLIONS



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
STORE 24-71F-ES
FBPE #3538

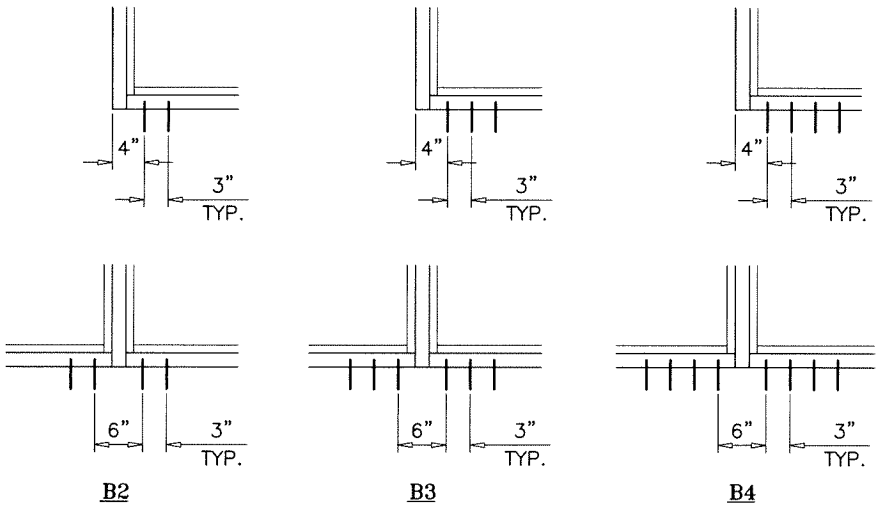
ES-8000T ALUM WINDOW WALL SYSTEM (N.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151
FAX. (305) 638-5158

revisions:
no date by description
date: 10-02-24
scale: -
dr. by: TARIQ
chk. by:
drawing no.
24-71F
sheet 4 of 18

ANCHOR LOAD CAPACITY – PSF EXT.(+) & INT.(–)										
NOMINAL DIMS.		ANCHORS TYPE 'B'								
		1/4" MAX. SHIM			3/8" MAX. SHIM			1/2" SHIM		
WIDTH (W)	FRAME HEIGHT	B2	B3	B4	B2	B3	B4	B2	B3	B4
30"	78"	100.0	100.0	100.0	100.0	100.0	100.0	101.4	100.0	100.0
36"		100.0	100.0	100.0	100.0	100.0	100.0	84.5	100.0	100.0
42"		100.0	100.0	100.0	91.8	100.0	100.0	72.4	100.0	100.0
48"		100.0	100.0	100.0	80.3	100.0	100.0	63.4	95.1	100.0
54"		93.3	100.0	100.0	71.4	100.0	100.0	56.3	84.5	100.0
60"		83.9	100.0	100.0	64.2	96.4	100.0	50.7	76.1	100.0
30"	84"	100.0	100.0	100.0	100.0	100.0	100.0	94.2	100.0	100.0
36"		100.0	100.0	100.0	99.4	100.0	100.0	78.5	100.0	100.0
42"		100.0	100.0	100.0	85.2	100.0	100.0	67.3	100.0	100.0
48"		97.4	100.0	100.0	74.6	100.0	100.0	58.9	88.3	100.0
54"		86.6	100.0	100.0	66.3	99.4	100.0	52.3	78.5	100.0
60"		77.9	100.0	100.0	59.7	89.5	100.0	47.1	70.6	94.2
30"	90"	100.0	100.0	100.0	100.0	100.0	100.0	87.9	100.0	100.0
36"		100.0	100.0	100.0	92.8	100.0	100.0	73.2	100.0	100.0
42"		100.0	100.0	100.0	79.5	100.0	100.0	62.8	94.2	100.0
48"		90.9	100.0	100.0	69.6	100.0	100.0	54.9	82.4	100.0
54"		80.8	100.0	100.0	61.9	92.8	100.0	48.8	73.2	97.7
60"		72.7	100.0	100.0	55.7	83.5	100.0	43.9	65.9	87.9
30"	96"	100.0	100.0	100.0	100.0	100.0	100.0	82.4	100.0	100.0
36"		100.0	100.0	100.0	87.0	100.0	100.0	68.7	100.0	100.0
42"		97.4	100.0	100.0	74.6	100.0	100.0	58.9	88.3	100.0
48"		85.3	100.0	100.0	65.3	97.9	100.0	51.5	77.3	100.0
54"		75.8	100.0	100.0	58.0	87.0	100.0	45.8	68.7	91.6
60"		68.2	100.0	100.0	52.2	78.3	100.0	41.2	61.8	82.4
30"	102"	100.0	100.0	100.0	98.3	100.0	100.0	77.6	100.0	100.0
36"		100.0	100.0	100.0	81.9	100.0	100.0	64.6	96.9	100.0
42"		91.7	100.0	100.0	70.2	100.0	100.0	55.4	83.1	100.0
48"		80.2	100.0	100.0	61.4	92.1	100.0	48.5	72.7	96.9
54"		71.3	100.0	100.0	54.6	81.9	100.0	43.1	64.6	86.2
60"		64.2	70.0	70.0	49.1	70.0	70.0	38.8	58.2	70.0
30"	108"	100.0	100.0	100.0	92.8	100.0	100.0	73.2	100.0	100.0
36"		100.0	100.0	100.0	77.3	100.0	100.0	61.0	91.6	100.0
42"		86.6	100.0	100.0	66.3	99.4	100.0	52.3	78.5	100.0
48"		75.8	100.0	100.0	58.0	87.0	100.0	45.8	68.7	91.6
54"		67.4	100.0	100.0	51.6	77.3	100.0	40.7	61.0	81.4
60"		60.6	70.0	70.0	46.4	69.6	70.0	36.6	54.9	70.0
30"	114"	100.0	100.0	100.0	87.9	100.0	100.0	69.4	100.0	100.0
36"		95.7	100.0	100.0	73.3	100.0	100.0	57.8	86.7	100.0
42"		82.0	100.0	100.0	62.8	94.2	100.0	49.6	74.3	99.1
48"		71.8	100.0	100.0	54.9	82.4	100.0	43.4	65.1	86.7
54"		63.8	70.0	70.0	48.8	70.0	70.0	38.5	57.8	70.0
60"		57.4	70.0	70.0	44.0	65.9	70.0	34.7	52.0	69.4
30"	120"	100.0	100.0	100.0	83.5	100.0	100.0	65.9	98.9	100.0
36"		90.9	100.0	100.0	69.6	100.0	100.0	54.9	82.4	100.0
42"		77.9	100.0	100.0	59.7	89.5	100.0	47.1	70.6	94.2
48"		68.2	100.0	100.0	52.2	78.3	100.0	41.2	61.8	82.4
54"		60.6	70.0	70.0	46.4	69.6	70.0	36.6	54.9	70.0
60"		–	70.0	70.0	–	62.6	70.0	–	49.4	65.9
30"	126"	70.0	70.0	70.0	70.0	70.0	70.0	62.8	70.0	70.0
36"		70.0	70.0	70.0	66.3	70.0	70.0	52.3	70.0	70.0
42"		70.0	70.0	70.0	56.8	70.0	70.0	44.8	67.3	70.0
48"		65.0	70.0	70.0	49.7	70.0	70.0	39.2	58.9	70.0
54"		57.7	70.0	70.0	44.2	66.3	70.0	34.9	52.3	69.8
60"		–	70.0	70.0	–	59.7	70.0	–	47.1	62.8

ANCHOR LOAD CAPACITY – PSF EXT.(+) & INT.(–)										
NOMINAL DIMS.		ANCHORS TYPE 'B'								
		1/4" MAX. SHIM			3/8" MAX. SHIM			1/2" SHIM		
WIDTH (W)	FRAME HEIGHT	B2	B3	B4	B2	B3	B4	B2	B3	B4
30"	132"	70.0	70.0	70.0	70.0	70.0	70.0	59.9	70.0	70.0
36"		70.0	70.0	70.0	63.3	70.0	70.0	49.9	70.0	70.0
42"		70.0	70.0	70.0	54.2	70.0	70.0	42.8	64.2	70.0
48"		62.0	70.0	70.0	47.5	70.0	70.0	37.5	56.2	70.0
54"		–	70.0	70.0	–	63.3	70.0	–	49.9	66.6
60"		–	70.0	70.0	–	56.9	70.0	–	44.9	59.9
30"	138"	70.0	70.0	70.0	70.0	70.0	70.0	57.3	70.0	70.0
36"		70.0	70.0	70.0	60.5	70.0	70.0	47.8	70.0	70.0
42"		67.8	70.0	70.0	51.9	70.0	70.0	40.9	61.4	70.0
48"		59.3	70.0	70.0	45.4	68.1	70.0	35.8	53.7	70.0
54"		–	70.0	70.0	–	60.5	70.0	–	47.8	63.7
60"		–	70.0	70.0	–	54.5	70.0	–	43.0	57.3
30"	144"	70.0	70.0	70.0	69.6	70.0	70.0	54.9	70.0	70.0
36"		70.0	70.0	70.0	58.0	70.0	70.0	45.8	68.7	70.0
42"		65.0	70.0	70.0	49.7	70.0	70.0	39.2	58.9	70.0
48"		56.8	70.0	70.0	43.5	65.3	70.0	34.3	51.5	68.7
54"		–	70.0	70.0	–	58.0	70.0	–	45.8	61.0
60"		–	60.0	60.0	–	52.2	60.0	–	41.2	54.9

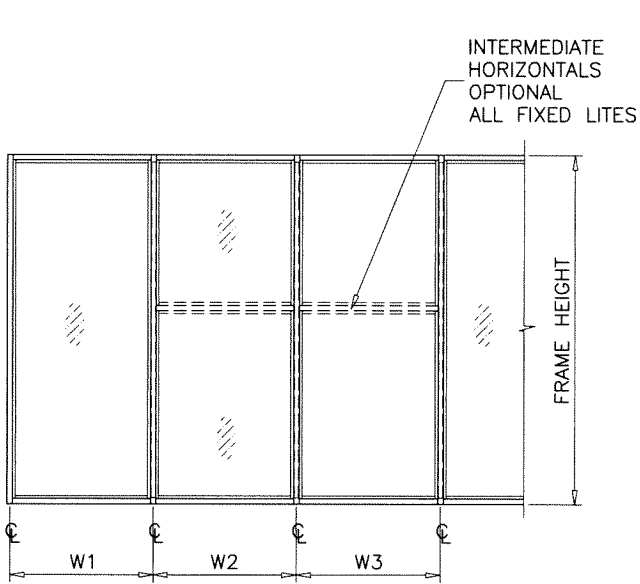
INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



ANCHORS TYPES: SEE SHEET 13 FOR DESCRIPTION

B2 = (2) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
B3 = (3) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION
B4 = (4) ANCHORS TYPE 'B' AT EACH SIDE OF JAMB AND MULLION

ANCHORS



WIDTH (W) = W1
AT FRAME JAMB

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

Sealed: 3/19/2025



FL #17897

afC

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

STORE 24-71F-ES

ES-8000T ALUM WINDOW WALL SYSTEM (N.I.)

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

FBPE #3538

revisions:
no date by description

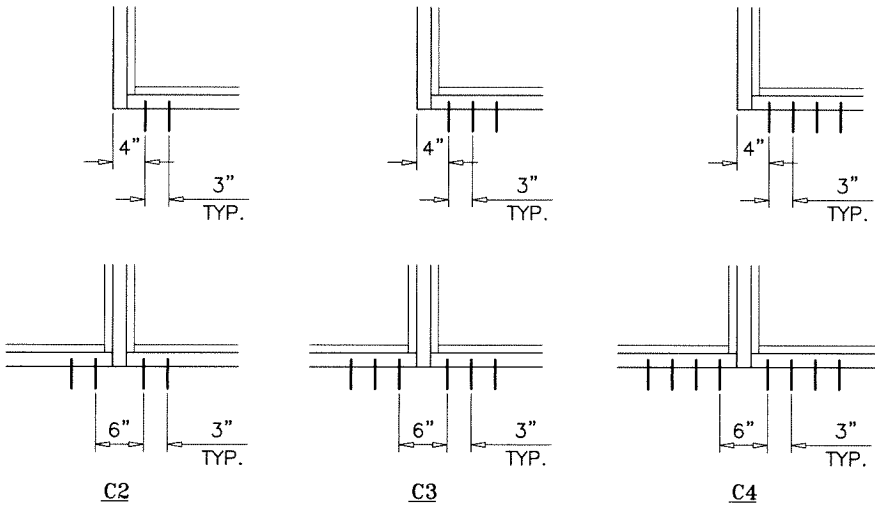
date: 10-02-24
scale: –
dr. by: TARIQ
chk. by:

drawing no.
24-71F
sheet 7 of 18

ANCHOR LOAD CAPACITY - PSF EXT.(+) & INT.(-)									
NOMINAL DIMS.		ANCHORS TYPE 'C'							
		1/4" MAX. SHIM			3/8" MAX. SHIM			1/2" SHIM	
WIDTH (W)	FRAME HEIGHT	C2	C3	C4	C2	C3	C4	C3	C4
30"	78"	100.0	100.0	100.0	91.6	100.0	100.0	100.0	100.0
36"		100.0	100.0	100.0	76.3	100.0	100.0	90.5	100.0
42"		100.0	100.0	100.0	65.4	98.1	100.0	77.5	100.0
48"		100.0	100.0	100.0	57.2	85.8	100.0	67.8	90.5
54"		100.0	100.0	100.0	50.9	76.3	100.0	60.3	80.4
60"		96.2	100.0	100.0	45.8	68.7	91.6	54.3	72.4
30"	84"	100.0	100.0	100.0	85.0	100.0	100.0	100.0	100.0
36"		100.0	100.0	100.0	70.9	100.0	100.0	84.0	100.0
42"		100.0	100.0	100.0	60.7	91.1	100.0	72.0	96.0
48"		100.0	100.0	100.0	53.1	79.7	100.0	63.0	84.0
54"		99.3	100.0	100.0	47.2	70.9	94.5	56.0	74.7
60"		89.4	100.0	100.0	42.5	63.8	85.0	50.4	67.2
30"	90"	100.0	100.0	100.0	79.4	100.0	100.0	94.1	100.0
36"		100.0	100.0	100.0	66.1	99.2	100.0	78.4	100.0
42"		100.0	100.0	100.0	56.7	85.0	100.0	67.2	89.6
48"		100.0	100.0	100.0	49.6	74.4	99.2	58.8	78.4
54"		92.7	100.0	100.0	44.1	66.1	88.2	52.3	69.7
60"		83.4	100.0	100.0	39.7	59.5	79.4	47.0	62.7
30"	96"	100.0	100.0	100.0	74.4	100.0	100.0	88.2	100.0
36"		100.0	100.0	100.0	62.0	93.0	100.0	73.5	98.0
42"		100.0	100.0	100.0	53.1	79.7	100.0	63.0	84.0
48"		97.8	100.0	100.0	46.5	69.8	93.0	55.1	73.5
54"		86.9	100.0	100.0	41.3	62.0	82.7	49.0	65.3
60"		78.2	100.0	100.0	37.2	55.8	74.4	44.1	58.8
30"	102"	100.0	100.0	100.0	70.0	100.0	100.0	83.0	100.0
36"		100.0	100.0	100.0	58.4	87.5	100.0	69.2	92.2
42"		100.0	100.0	100.0	50.0	75.0	100.0	59.3	79.1
48"		92.0	100.0	100.0	43.8	65.6	87.5	51.9	69.2
54"		81.8	100.0	100.0	38.9	58.4	77.8	46.1	61.5
60"		70.0	70.0	70.0	35.0	52.5	70.0	41.5	55.3
30"	108"	100.0	100.0	100.0	66.1	99.2	100.0	78.4	100.0
36"		100.0	100.0	100.0	55.1	82.7	100.0	65.3	87.1
42"		99.3	100.0	100.0	47.2	70.9	94.5	56.0	74.7
48"		86.9	100.0	100.0	41.3	62.0	82.7	49.0	65.3
54"		77.2	100.0	100.0	36.7	55.1	73.5	43.6	58.1
60"		69.5	70.0	70.0	33.1	49.6	66.1	39.2	52.3
30"	114"	100.0	100.0	100.0	62.7	94.0	100.0	74.3	99.0
36"		100.0	100.0	100.0	52.2	78.3	100.0	61.9	82.5
42"		94.1	100.0	100.0	44.8	67.1	89.5	53.1	70.7
48"		82.3	100.0	100.0	39.2	58.7	78.3	46.4	61.9
54"		70.0	70.0	70.0	34.8	52.2	69.6	41.3	55.0
60"		65.9	70.0	70.0	31.3	47.0	62.7	37.1	49.5
30"	120"	100.0	100.0	100.0	59.5	89.3	100.0	70.6	94.1
36"		100.0	100.0	100.0	49.6	74.4	99.2	58.8	78.4
42"		89.4	100.0	100.0	42.5	63.8	85.0	50.4	67.2
48"		78.2	100.0	100.0	37.2	55.8	74.4	44.1	58.8
54"		69.5	70.0	70.0	33.1	49.6	66.1	39.2	52.3
60"		-	70.0	70.0	-	44.6	59.5	35.3	47.0
30"	126"	70.0	70.0	70.0	56.7	70.0	70.0	67.2	70.0
36"		70.0	70.0	70.0	47.2	70.0	70.0	56.0	70.0
42"		70.0	70.0	70.0	40.5	60.7	70.0	48.0	64.0
48"		70.0	70.0	70.0	35.4	53.1	70.0	42.0	56.0
54"		66.2	70.0	70.0	31.5	47.2	63.0	37.3	49.8
60"		-	70.0	70.0	-	42.5	56.7	33.6	44.8

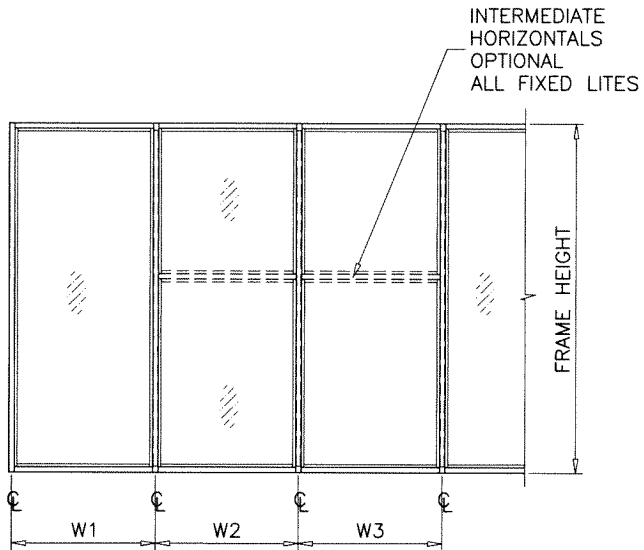
ANCHOR LOAD CAPACITY - PSF EXT.(+) & INT.(-)									
NOMINAL DIMS.		ANCHORS TYPE 'C'							
		1/4" MAX. SHIM			3/8" MAX. SHIM			1/2" SHIM	
WIDTH (W)	FRAME HEIGHT	C2	C3	C4	C2	C3	C4	C3	C4
30"	132"	70.0	70.0	70.0	54.1	70.0	70.0	64.1	70.0
36"		70.0	70.0	70.0	45.1	67.6	70.0	53.5	70.0
42"		70.0	70.0	70.0	38.6	58.0	70.0	45.8	61.1
48"		70.0	70.0	70.0	33.8	50.7	67.6	40.1	53.5
54"		-	70.0	70.0	-	45.1	60.1	35.6	47.5
60"		-	70.0	70.0	-	40.6	54.1	32.1	42.8
30"	138"	70.0	70.0	70.0	51.8	70.0	70.0	61.4	70.0
36"		70.0	70.0	70.0	43.1	64.7	70.0	51.1	68.2
42"		70.0	70.0	70.0	37.0	55.5	70.0	43.8	58.4
48"		68.0	70.0	70.0	32.3	48.5	64.7	38.3	51.1
54"		-	70.0	70.0	-	43.1	57.5	34.1	45.4
60"		-	70.0	70.0	-	38.8	51.8	30.7	40.9
30"	144"	70.0	70.0	70.0	49.6	70.0	70.0	58.8	70.0
36"		70.0	70.0	70.0	41.3	62.0	70.0	49.0	65.3
42"		70.0	70.0	70.0	35.4	53.1	70.0	42.0	56.0
48"		65.2	70.0	70.0	31.0	46.5	62.0	36.8	49.0
54"		-	70.0	70.0	-	41.3	55.1	32.7	43.6
60"		-	60.0	60.0	-	37.2	49.6	29.4	39.2

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



ANCHORS TYPES: SEE SHEET 13 FOR DESCRIPTION

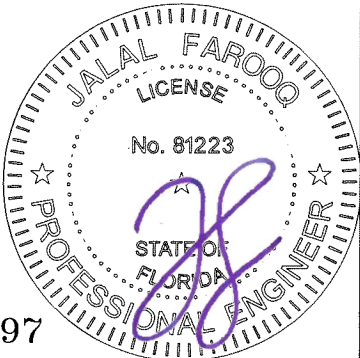
C2 = (2) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION
C3 = (3) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION
C4 = (4) ANCHORS TYPE 'C' AT EACH SIDE OF JAMB AND MULLION



WIDTH (W) = W1
AT FRAME JAMB

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

Sealed: 3/19/2025



ANCHORS

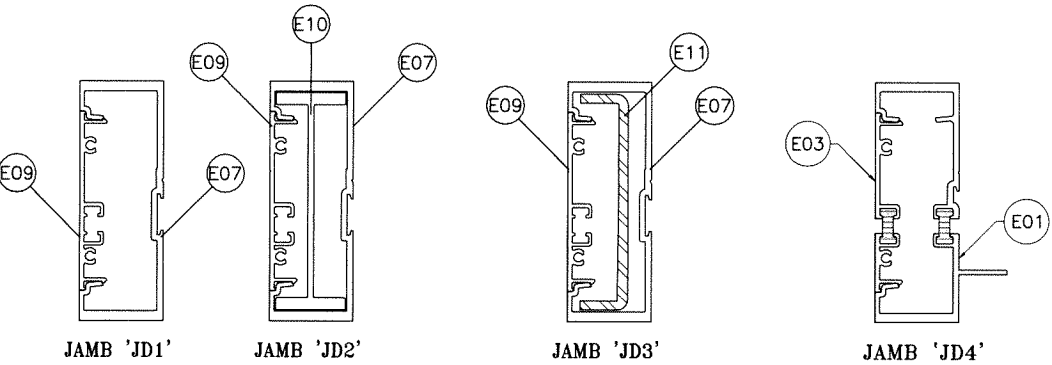
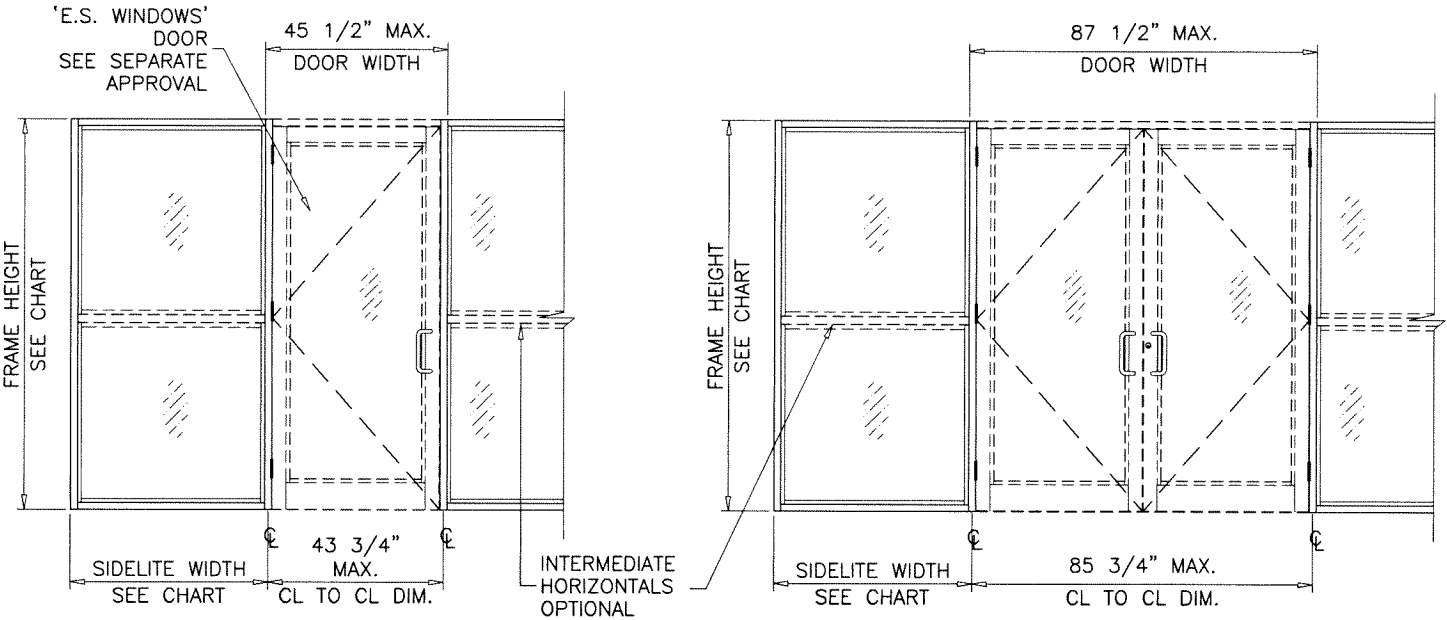
FL #17897

af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100
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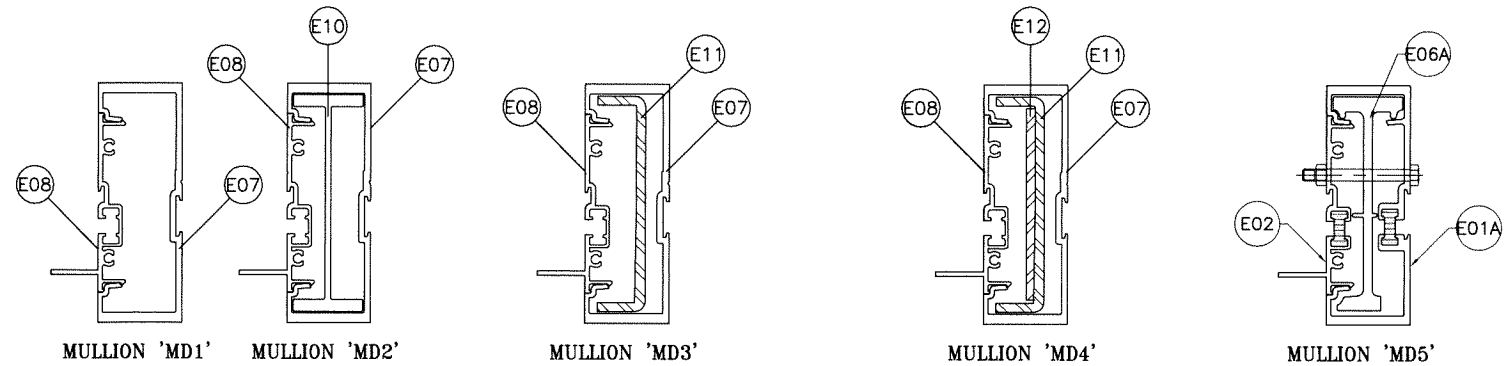
ES-8000T ALUM WINDOW WALL SYSTEM (N.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151
FAX. (305) 638-5158
FBPE #3538

revisions:
no date by description
10-02-24
scale: -
dr. by: TARIQ
chk. by:
drawing no.
24-71F
sheet 8 of 18

DOOR MULLION LOAD CAPACITY-PSF											
SIDELITE WIDTH INCHES	FRAME HEIGHT INCHES	JAMB 'JD1' MULL 'MD1'		JAMB 'JD1' MULL 'MD2'		JAMB 'JD2' JAMB 'JD3' MULL 'MD3'		JAMB 'JD3' MULL 'MD4'		JAMB 'JD4' MULL 'MD5'	
		EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
32	86-1/2	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	90.0
36		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	90.0
42		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	90.0
48		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	90.0
54		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	90.0
60		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	90.0
32	98-1/2	80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	90.0
36		80.0	100.0	80.0	100.0	80.0	100.0	80.0	100.0	80.0	90.0
42		80.0	99.7	80.0	100.0	80.0	100.0	80.0	100.0	80.0	90.0
48		80.0	93.3	80.0	100.0	80.0	100.0	80.0	100.0	80.0	90.0
54		80.0	87.7	80.0	100.0	80.0	100.0	80.0	100.0	80.0	90.0
32	110-1/2	79.8	79.8	80.0	100.0	80.0	100.0	80.0	100.0	80.0	90.0
36		75.8	75.8	80.0	100.0	80.0	100.0	80.0	100.0	80.0	90.0
42		70.6	70.6	80.0	100.0	80.0	100.0	80.0	100.0	80.0	90.0
48		66.1	66.1	80.0	100.0	80.0	98.2	80.0	100.0	80.0	90.0
32	120	-	-	-	-	-	-	-	-	80.0	90.0
36		-	-	-	-	-	-	-	-	80.0	90.0
42		-	-	-	-	-	-	-	-	80.0	88.7
48		-	-	-	-	-	-	-	-	80.0	82.9



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	ALUMINUM	6.570	2.7226	6.5995	2.5891	
				STEEL	2.7506	1.2224			
				TOTAL					
				Ix ALUM + Ix STL X 2.9	14.5467				



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
6.7195	2.6757	10.8072	4.4788	ALUMINUM	6.7195	2.6757	6.7195	2.6757	6.7195	2.6757	
				STEEL	2.7506	1.224		3.7533	1.6681		
				TOTAL							
				Ix ALUM + Ix STL X 2.9	14.6962			17.6041			

DOOR-WINDOWALL
TRANSITION MULLION

Sealed: 3/19/2025



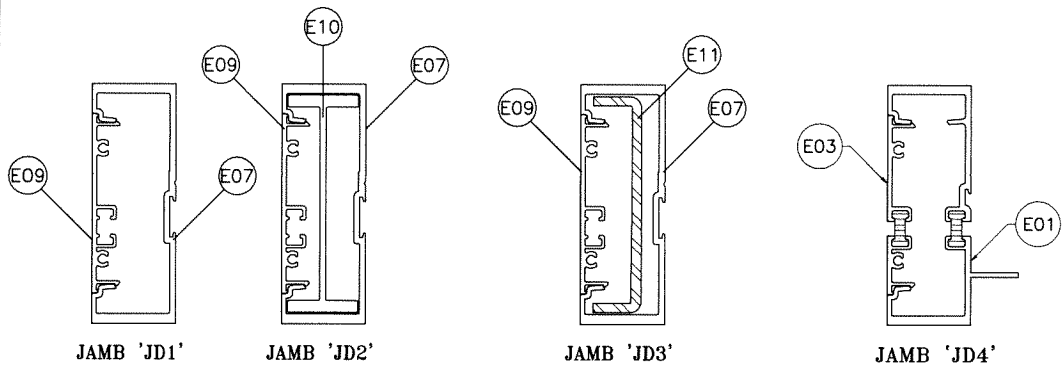
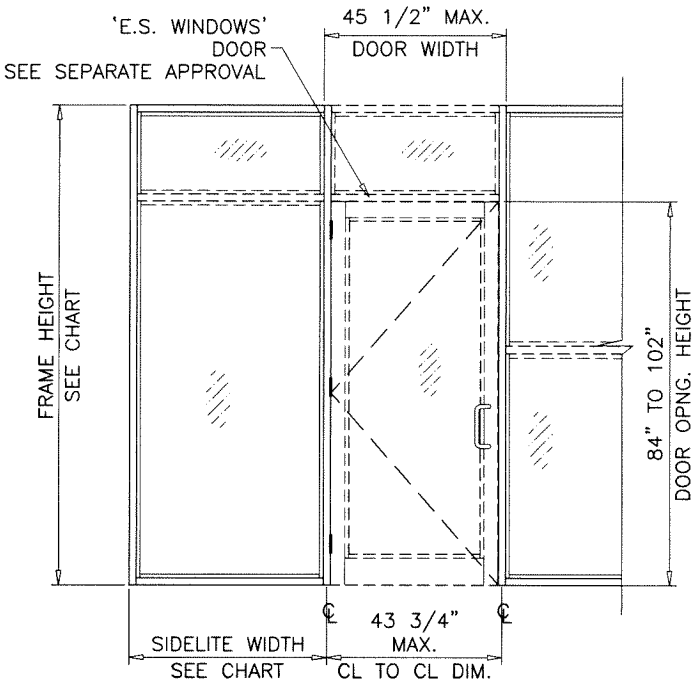
FL #17897

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AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100
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FBPE #3538
STORE 24-71F-ES

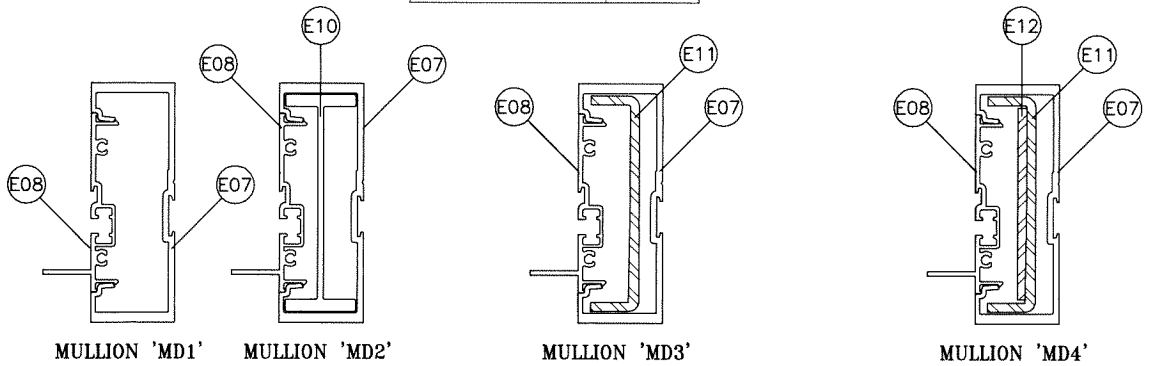
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revisions:		no date by description	
date:	10-02-24	scale:	-
dr. by:	TARIQ	chk. by:	
drawing no.		24-71F	
sheet		9 of 18	

DOOR MULLION LOAD CAPACITY-PSF											
SIDELITE WIDTH INCHES	FRAME HEIGHT INCHES	JAMB 'JD1' MULL 'MD1'		JAMB 'JD1' MULL 'MD2'		JAMB 'JD2' JAMB 'JD3' MULL 'MD3'		JAMB 'JD3' MULL 'MD4'		JAMB 'JD4' MULL 'MD5'	
		EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
32	98-1/2	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
36		80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
42		80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
48		80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
54		80.0	87.7	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
32	110-1/2	79.8	79.8	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
36		75.8	75.8	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
42		70.6	70.6	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
48		66.1	66.1	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
32	114	72.6	72.6	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
36		69.1	69.1	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
42		64.3	64.3	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
48		60.2	60.2	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
32	120	62.3	62.3	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
36		59.2	59.2	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
42		55.2	55.2	80.0	88.7	80.0	89.1	80.0	90.0	80.0	88.7
48		51.6	51.6	80.0	83.0	80.0	83.4	80.0	90.0	80.0	82.9



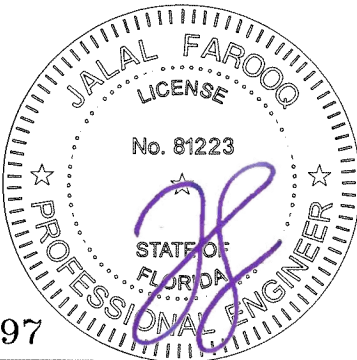
Ix IN ⁴	Sx IN ³	Ix IN ⁴	Sx IN ³			Ix IN ⁴	Sx IN ³			Ix IN ⁴	Sx IN ³
6.570	2.7226	10.6577	3.8057	ALUMINUM		6.570	2.7226			6.5995	2.5891
				STEEL		2.7506	1.2224				
TOTAL						14.5467					
Ix ALUM + Ix STL X 2.9											



Ix IN ⁴	Sx IN ³	Ix IN ⁴	Sx IN ³			Ix IN ⁴	Sx IN ³			Ix IN ⁴	Sx IN ³
6.7195	2.6757	10.8072	4.4788	ALUMINUM		6.7195	2.6757			10.5913	4.2065
				STEEL		2.7506	1.224			3.7533	1.6681
TOTAL						14.6962				17.6041	
Ix ALUM + Ix STL X 2.9											

DOOR-WINDOWALL TRANSITION MULLION

Sealed: 3/19/2025



FL #17897

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revisions:

no	date	by	description

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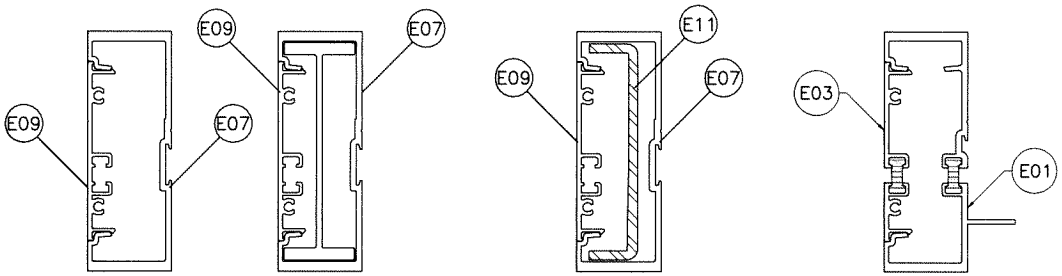
24-71F

sheet 10 of 18

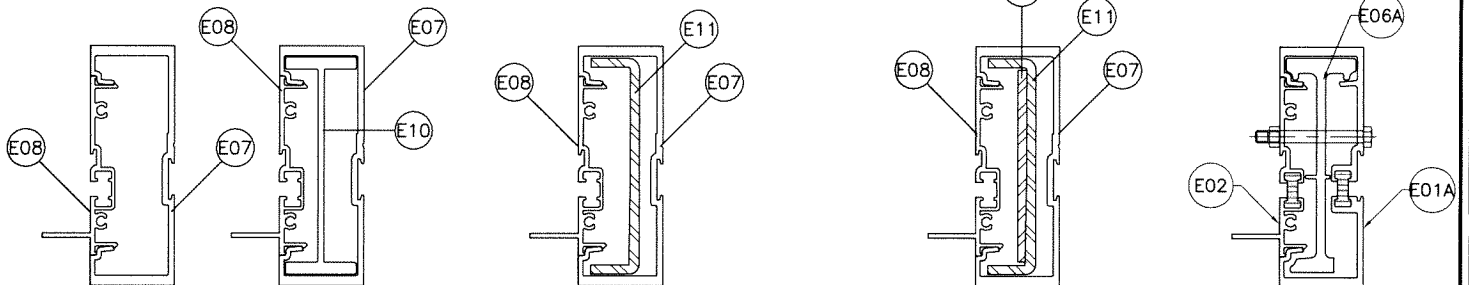
DOOR MULLION LOAD CAPACITY - PSF															
NOMINAL DIMS.				JAMB 'JD1' MULL 'MD1'				JAMB 'JD1' MULL 'MD2'		JAMB 'JD2' JAMB 'JD3' MULL 'MD3'		JAMB 'JD3' MULL 'MD4'		JAMB 'JD4' MULL 'MD5'	
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
85-3/4	30	96	84	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
	36			80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
	42			80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
	48			80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
	54			80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
	60			80.0	85.7	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
	30	102		80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
	36			80.0	86.9	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
	42			80.0	81.5	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
	48			76.7	76.7	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
	54	108		72.5	72.5	80.0	90.0	80.0	89.0	80.0	90.0	80.0	90.0	80.0	90.0
	30			74.2	74.2	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
	36			69.5	69.5	80.0	90.0	80.0	89.1	80.0	90.0	80.0	90.0	80.0	90.0
	42			65.4	65.4	80.0	90.0	80.0	84.4	80.0	90.0	80.0	90.0	80.0	88.9
	48	61.7		61.7	80.0	90.0	80.0	80.2	80.0	90.0	80.0	90.0	80.0	84.5	
	30	114		60.2	60.2	80.0	90.0	80.0	81.7	80.0	90.0	80.0	90.0	80.0	86.1
	36			56.6	56.6	80.0	90.0	77.4	77.4	80.0	90.0	80.0	90.0	80.0	81.5
	42			53.3	53.3	80.0	85.8	73.4	73.4	80.0	87.8	77.4	77.4	77.4	77.4
	48			50.5	50.5	80.0	81.2	69.9	69.9	80.0	83.5	73.6	73.6	73.6	73.6
	30	120		49.7	49.7	80.0	80.0	71.9	71.9	80.0	85.9	75.8	75.8	75.8	75.8
	36			46.8	46.8	75.3	75.3	68.1	68.1	80.0	81.5	71.8	71.8	71.8	71.8
	42			44.2	44.2	71.2	71.2	64.8	64.8	77.4	77.4	68.2	68.2	68.2	68.2
	48			41.9	41.9	67.5	67.5	61.7	61.7	73.8	73.8	65.0	65.0	65.0	65.0
	85-3/4	30		102	90	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
36		80.0	90.0			80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
42		86.6	86.6			80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
48		81.2	81.2			80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
54		76.5	76.5			80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
30		108	79.3	79.3		80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
36			74.0	74.0		80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
42			69.3	69.3		80.0	90.0	80.0	88.9	80.0	90.0	80.0	90.0	80.0	90.0
48			65.2	65.2		80.0	90.0	80.0	84.3	80.0	90.0	80.0	90.0	80.0	88.0
30		114	63.9	63.9		80.0	90.0	80.0	85.6	80.0	90.0	80.0	90.0	80.0	89.4
36			59.9	59.9		80.0	90.0	80.0	80.8	80.0	90.0	80.0	90.0	80.0	84.4
42			56.3	56.3		80.0	90.0	76.5	76.5	80.0	90.0	79.9	79.9	79.9	79.9
48			53.1	53.1		80.0	85.4	72.7	72.7	80.0	86.9	75.9	75.9	75.9	75.9
30		120	52.4	52.4		80.0	84.2	74.5	74.5	80.0	89.1	77.9	77.9	77.9	77.9
36			49.2	49.2		79.1	79.1	70.5	70.5	80.0	84.3	73.7	73.7	73.7	73.7
42			46.3	46.3		74.5	74.5	66.9	66.9	80.0	80.0	69.9	69.9	69.9	69.9
48	43.8		43.8	70.5	70.5	63.6	63.6	76.1	76.1	66.5	66.5	66.5	66.5		
85-3/4	30	108	96	84.6	84.6	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
	36			78.6	78.6	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
	42			73.4	73.4	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
	48			68.8	68.8	80.0	90.0	80.0	89.7	80.0	90.0	80.0	90.0	80.0	90.0
	30	114		68.2	68.2	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
	36			63.5	63.5	80.0	90.0	80.0	85.3	80.0	90.0	80.0	90.0	80.0	88.4
	42			59.5	59.5	80.0	90.0	80.0	80.6	80.0	90.0	80.0	90.0	80.0	83.5
	48			56.0	56.0	80.0	90.0	76.3	76.3	80.0	90.0	79.1	79.1	79.1	79.1
	30	120		55.5	55.5	80.0	89.3	78.0	78.0	80.0	90.0	80.0	90.0	80.0	80.9
	36			51.9	51.9	80.0	83.5	73.6	73.6	80.0	88.0	76.3	76.3	76.3	76.3
	42			48.8	48.8	78.5	78.5	69.7	69.7	80.0	83.3	72.2	72.2	72.2	72.2
	48			46.0	46.0	74.0	74.0	66.2	66.2	79.1	79.1	68.6	68.6	68.6	68.6

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

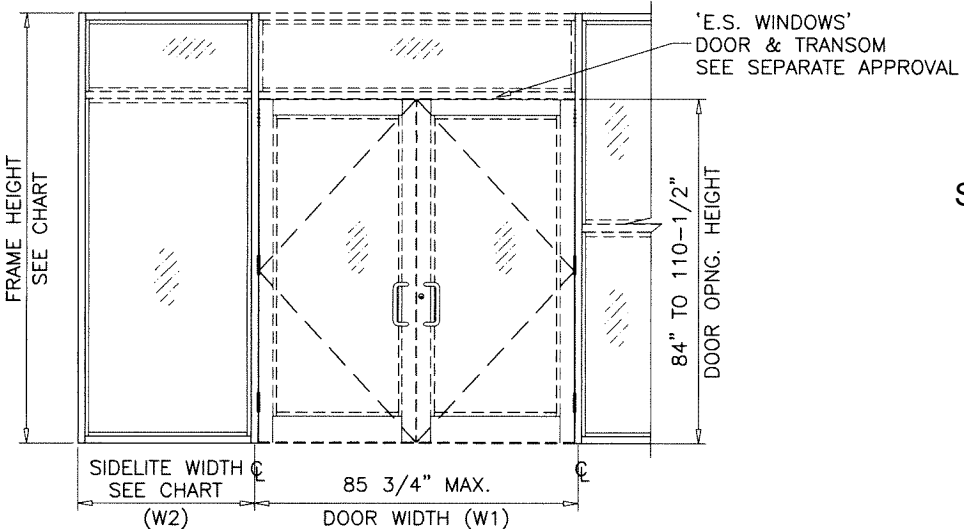
DOOR MULLION LOAD CAPACITY - PSF													
NOMINAL DIMS.				JAMB 'JD1' MULL 'MD1'		JAMB 'JD1' MULL 'MD2'		JAMB 'JD2' JAMB 'JD3' MULL 'MD3'		JAMB 'JD3' MULL 'MD4'		JAMB 'JD4' MULL 'MD5'	
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+)	INT.(−)	EXT.(+)	INT.(−)	EXT.(+)	INT.(−)	EXT.(+)	INT.(−)	EXT.(+)	INT.(−)
85−3/4	30	114	102	72.4	72.4	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
	36			67.2	67.2	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
	42			62.7	62.7	80.0	90.0	80.0	85.9	80.0	90.0	80.0	88.2
	48			58.8	58.8	80.0	90.0	80.0	81.1	80.0	90.0	80.0	83.3
	30	120		59.0	59.0	80.0	90.0	80.0	82.6	80.0	90.0	80.0	84.9
	36			55.0	55.0	80.0	88.4	77.7	77.7	80.0	90.0	79.9	79.9
	42			51.5	51.5	80.0	82.8	73.3	73.3	80.0	87.7	75.4	75.4
	48			48.4	48.4	77.8	77.8	69.4	69.4	80.0	83.0	71.4	71.4
85−3/4	30	120	110−1/2	63.7	63.7	80.0	90.0	80.0	90.0	80.0	90.0	80.0	90.0
	36			59.0	59.0	80.0	90.0	80.0	85.7	80.0	90.0	80.0	87.1
	42			55.0	55.0	80.0	88.4	80.0	80.4	80.0	90.0	80.0	81.7
	48			51.5	51.5	80.0	82.8	75.7	75.7	80.0	90.0	77.0	77.0



JAMB 'JD1'		JAMB 'JD2'		JAMB 'JD3'		JAMB 'JD4'	
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	ALUMINUM 6.570 2.7226		6.5995	2.5891
				STEEL 2.7506 1.2224			
				TOTAL Ix ALUM + Ix STL X 2.9 14.5467			

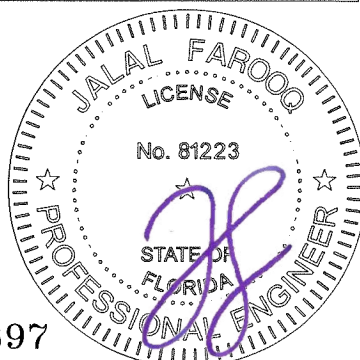


MULLION 'MD1'		MULLION 'MD2'		MULLION 'MD3'		MULLION 'MD4'		MULLION 'MD5'	
Ix IN^4	Sx IN^3	Ix IN^4	Sx IN^3	Ix IN^4	Sx IN^3	Ix IN^4	Sx IN^3	Ix IN^4	Sx IN^3
6.7195	2.6757	10.8072	4.4788	ALUMINUM 6.7195 2.6757		ALUMINUM 6.7195 2.6757		10.5913	4.2065
				STEEL 2.7506 1.224		STEEL 3.7533 1.6681			
				TOTAL Ix ALUM + Ix STL X 2.9 14.6962		TOTAL Ix ALUM + Ix STL X 2.9 17.6041			



DOOR-WINDOWALL
TRANSITION MULLION

Sealed: 3/19/2025



FL #17897

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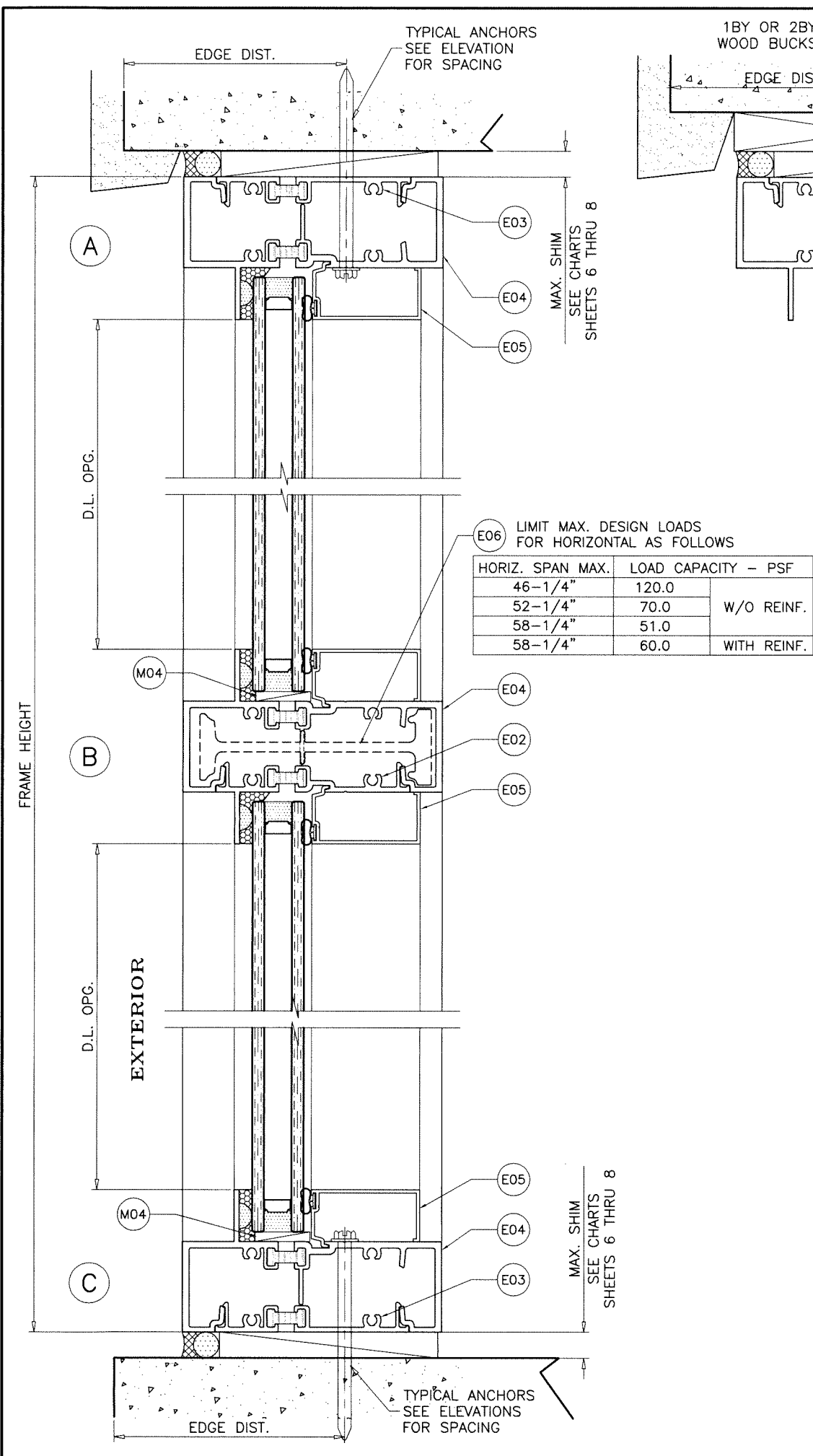
ES-800T ALUM WINDOW WALL SYSTEM (N.I.)

E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151
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TYPICAL ANCHORS: SEE ELEV. FOR SPACING

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

ANCHOR EDGE DISTANCES

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

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

ANCHOR EDGE DISTANCES

INTO CONCRETE AND MASONRY = 2-1/2" MIN.
 INTO WOOD STRUCTURE = 1-1/4" MIN.

TYPE 'C' - 1/4" DIA. TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS)
 INTO F.B.C. APPROVED MULLIONS
 OR
 INTO METAL STRUCTURES (HEAD/SILL/JAMBS)
 (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.

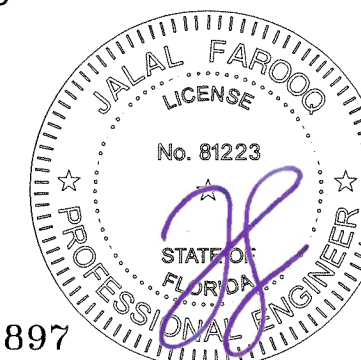
WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.
 CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.
 C-90 GROUT FILLED NORMAL WEIGHT BLOCK AT JAMBS f'm = 2000 PSI MIN.

SEALANTS:

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

1BY OR 2BY WOOD BUCKS AND METAL STRUCTURE NOT BY 'E.S. WINDOWS'. MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

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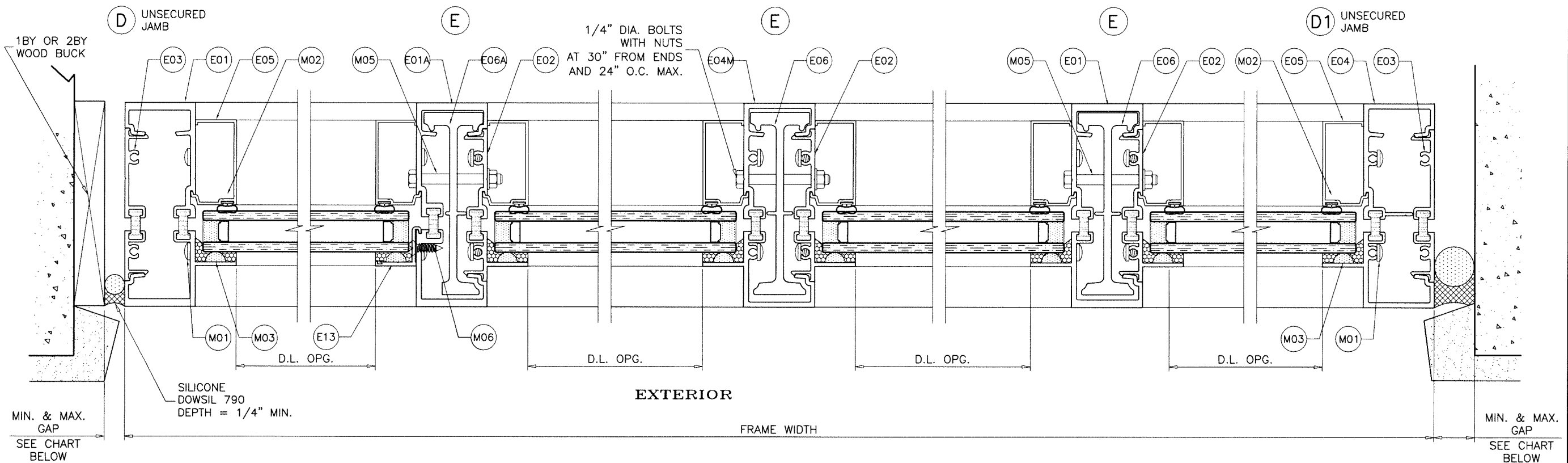
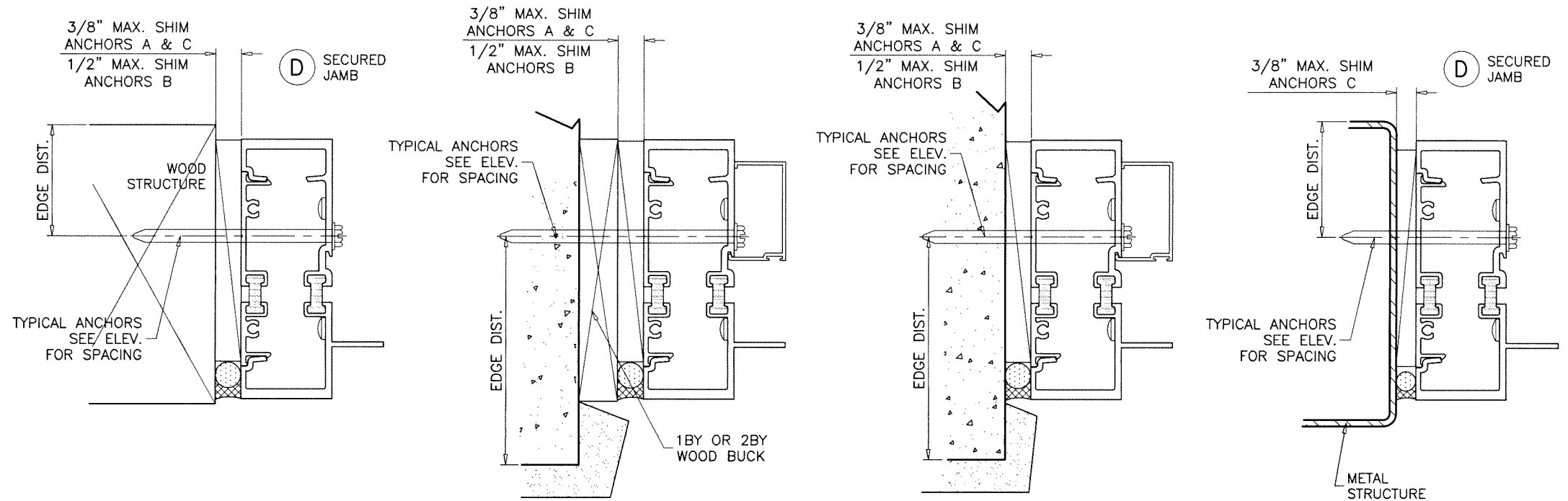
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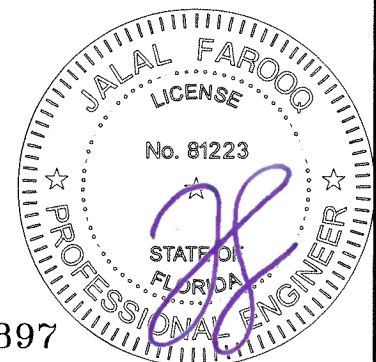


MAX. GAPS FOR UNANCHORED JAMBS		
MAXIMUM FRAME HEIGHT OR FREE SPAN	JAMB J1	
	MIN.	MAX.
96"	1/4"	1"
102"	1/4"	1"
108"	3/8"	1"
120"	3/8"	1"
132"	3/8"	1"
144"	3/8"	1"

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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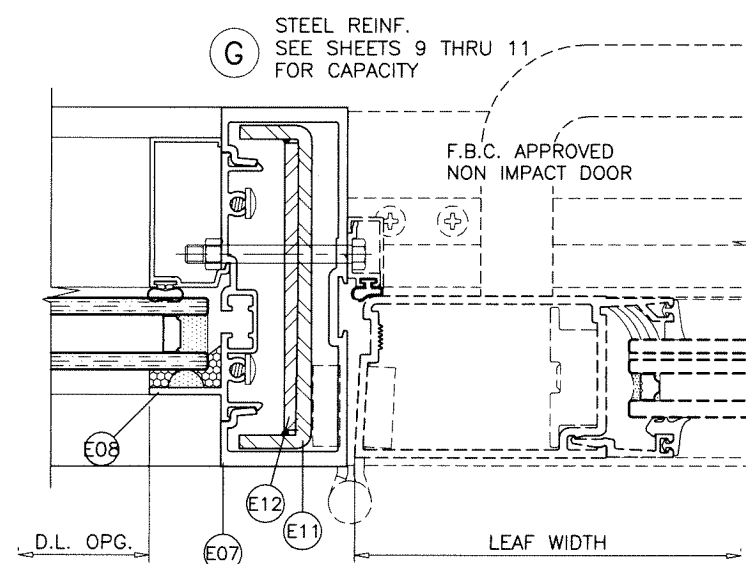
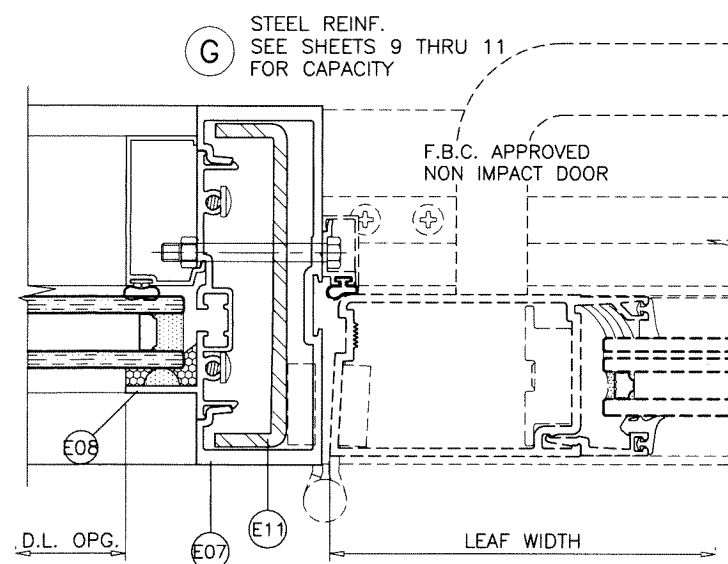
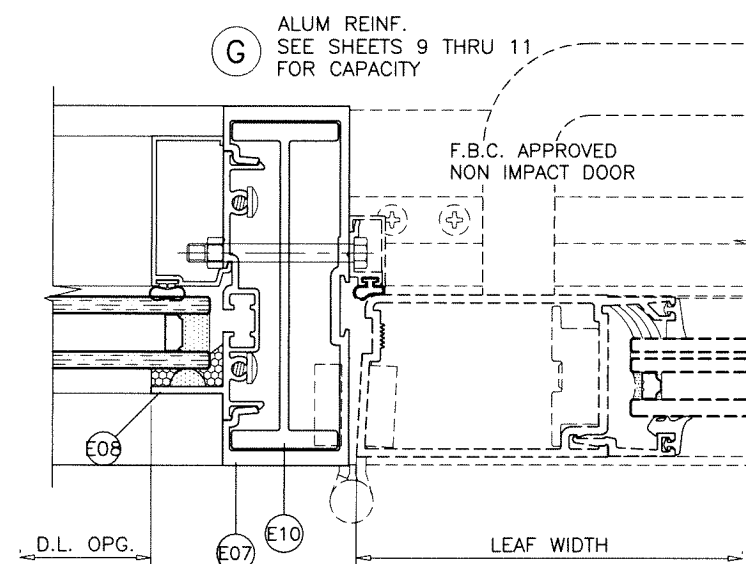
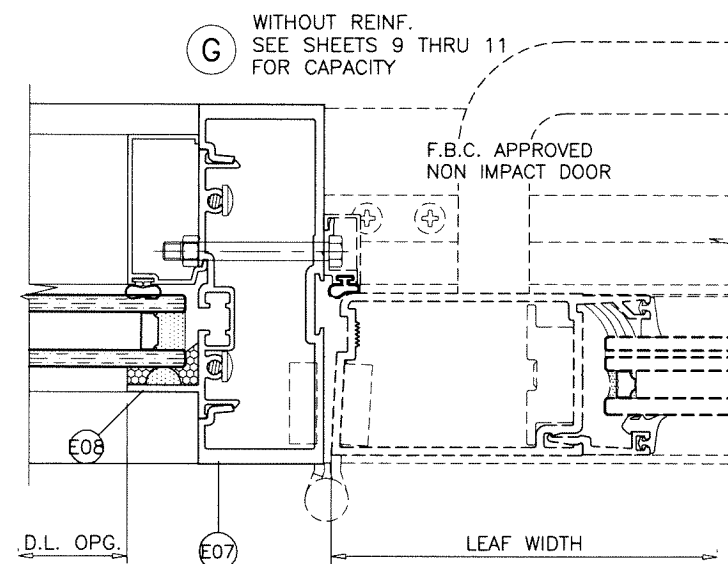
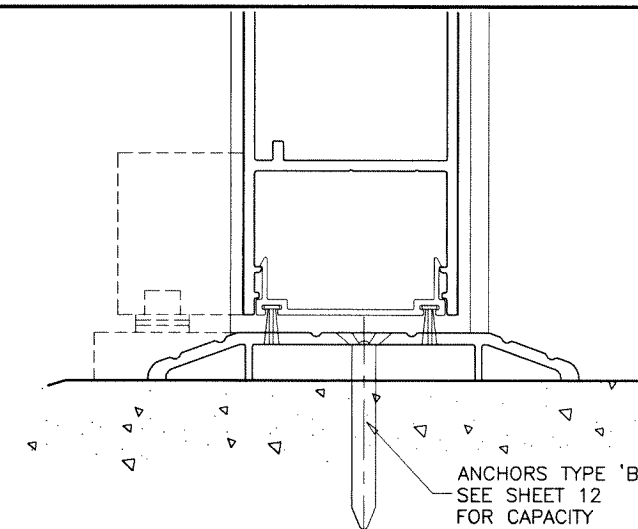
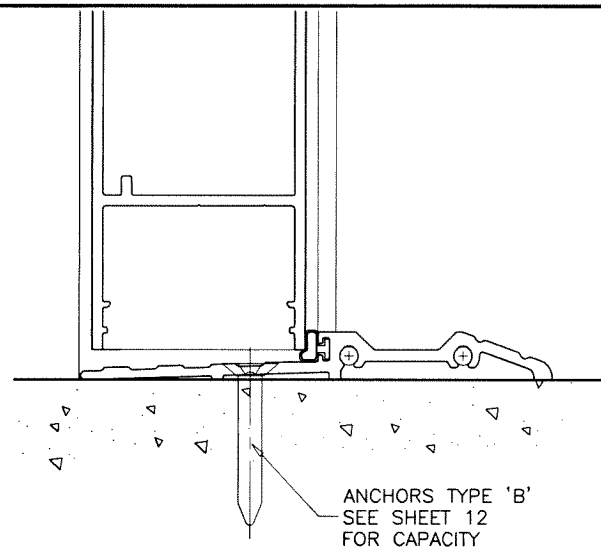
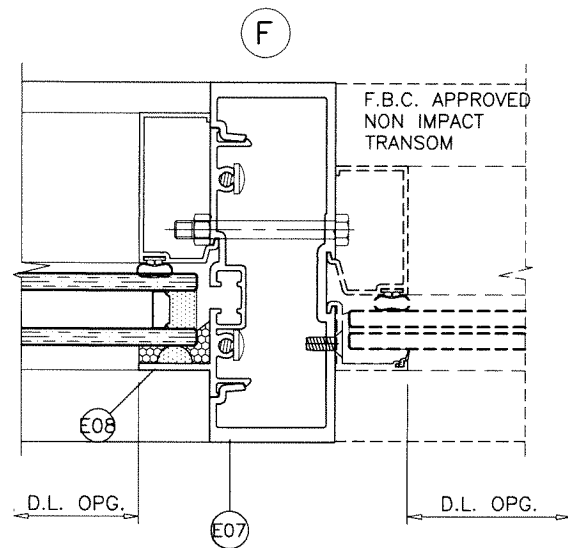
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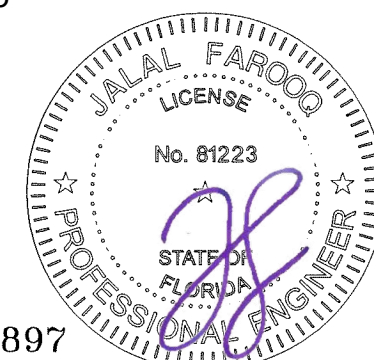
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SEE SEPARATE APPROVAL FOR DESIGN LOAD
CAPACITY OF DOORS AND DOOR ANCHORS.
LOWER VALUES FROM DOORS APPROVAL
OR STOREFRONT SYSTEM CAPACITY CHARTS
WILL APPLY TO ENTIRE SYSTEM.

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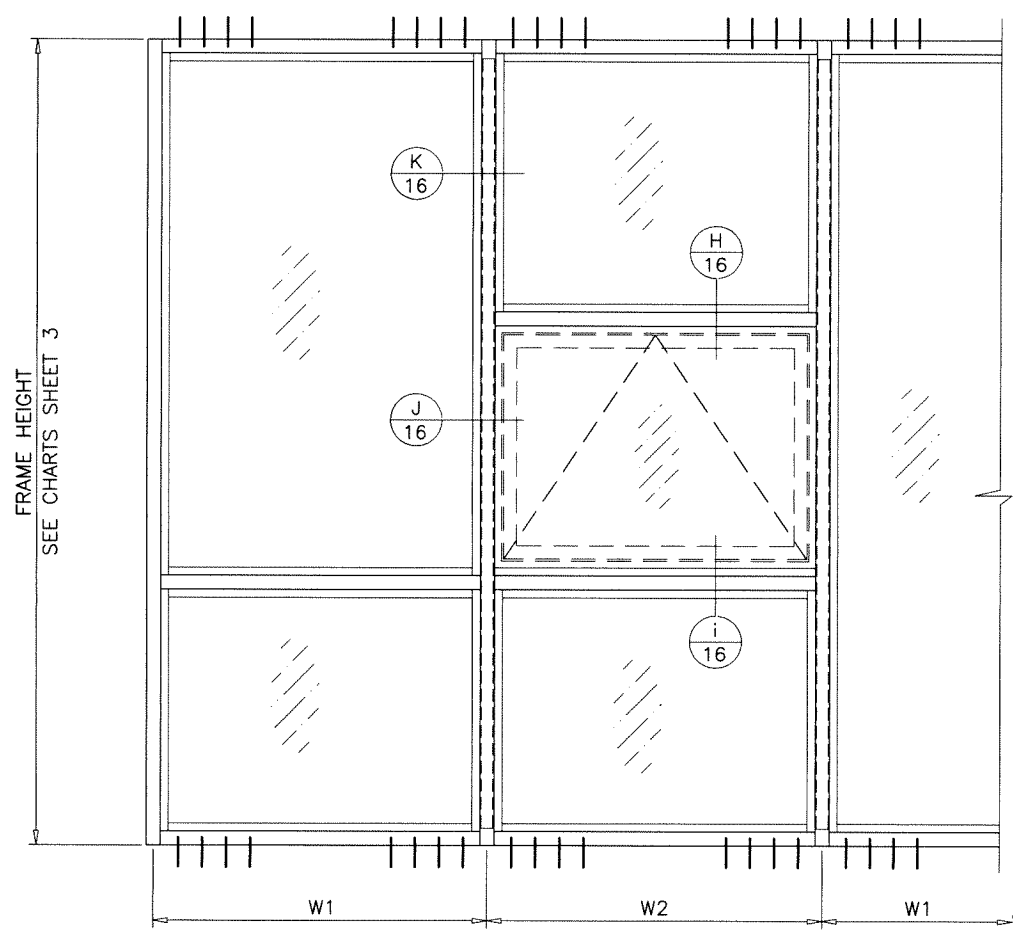
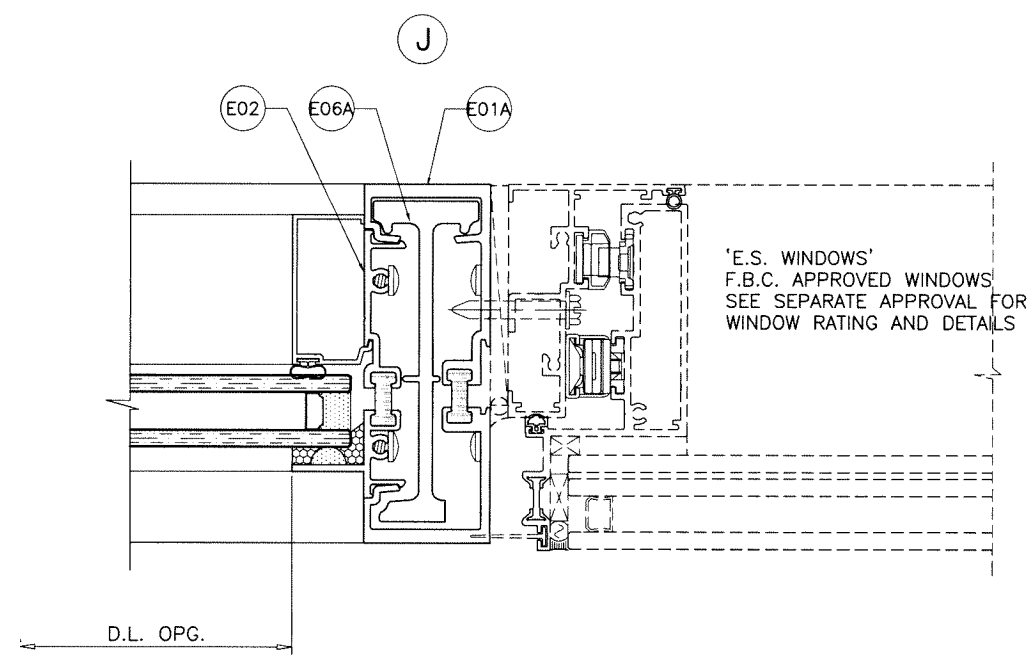
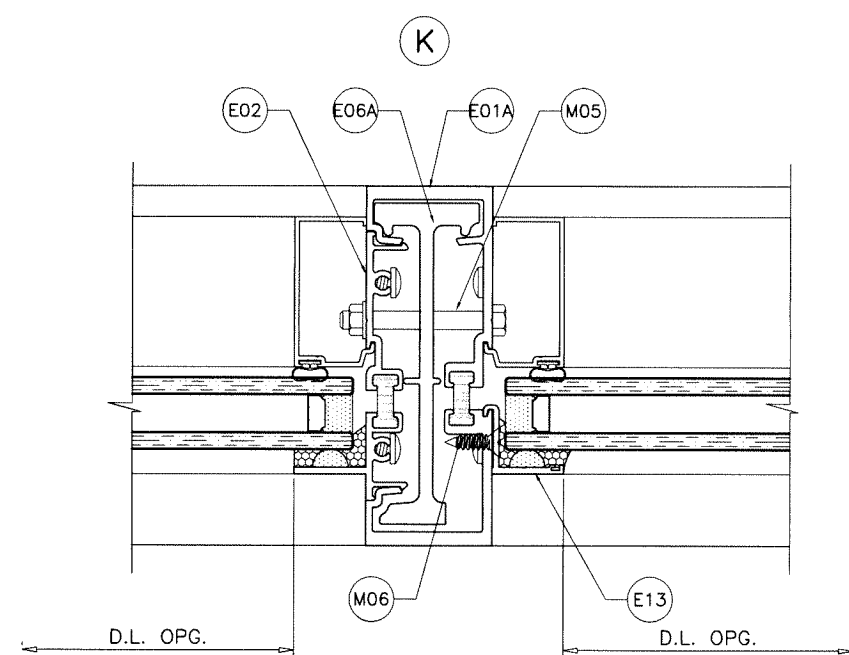
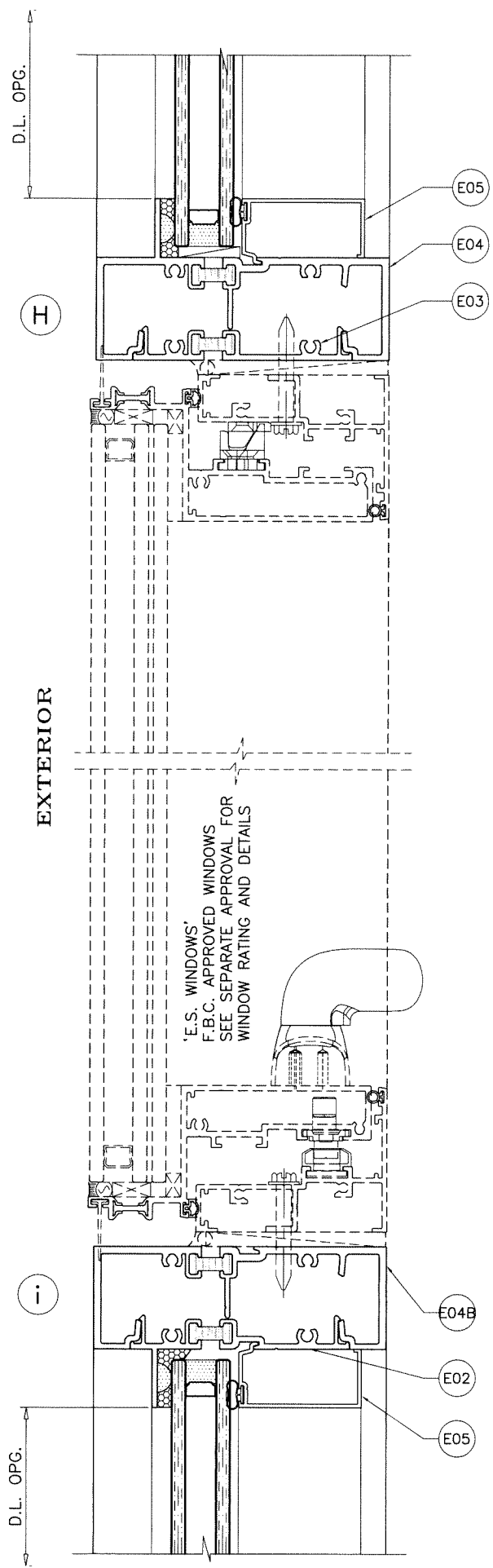
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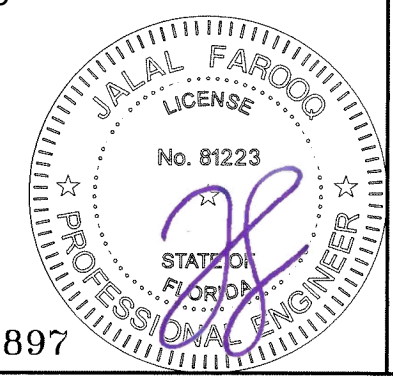
TYPICAL INSTALLATION OF WINDOWS IN THE WINDOW WALL SYSTEM

USE WINDOWS HOLDING CURRENT APPROVAL
REFER TO NOTES ON SHEET 1

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

AT FRAME MULLION

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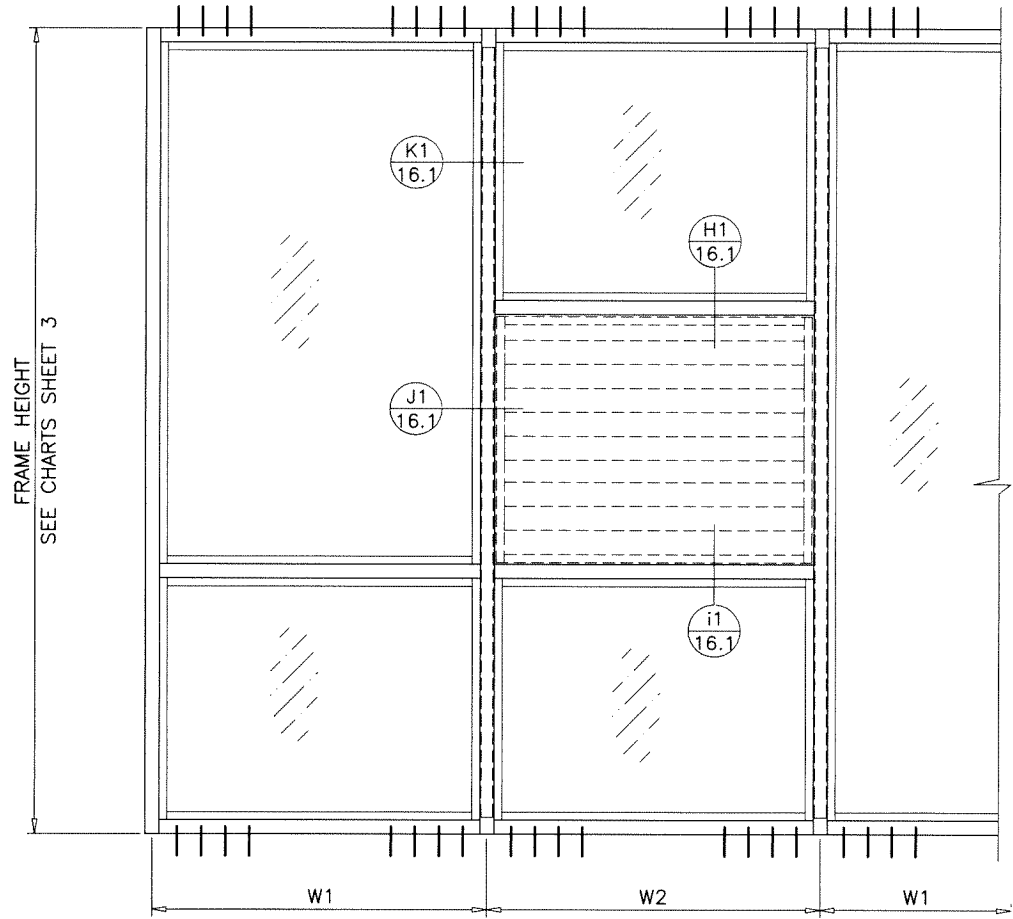
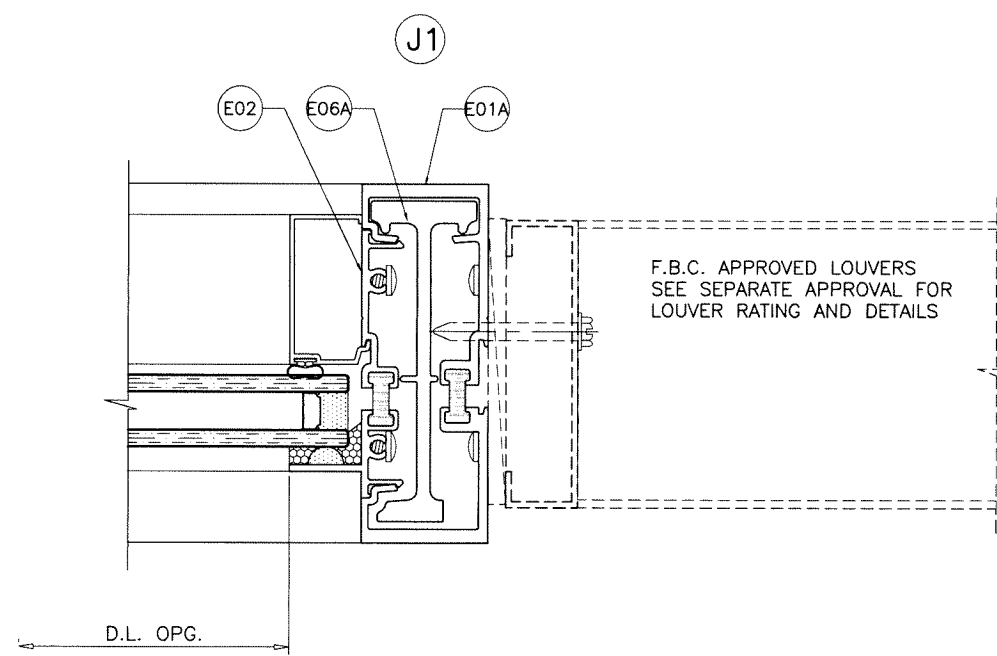
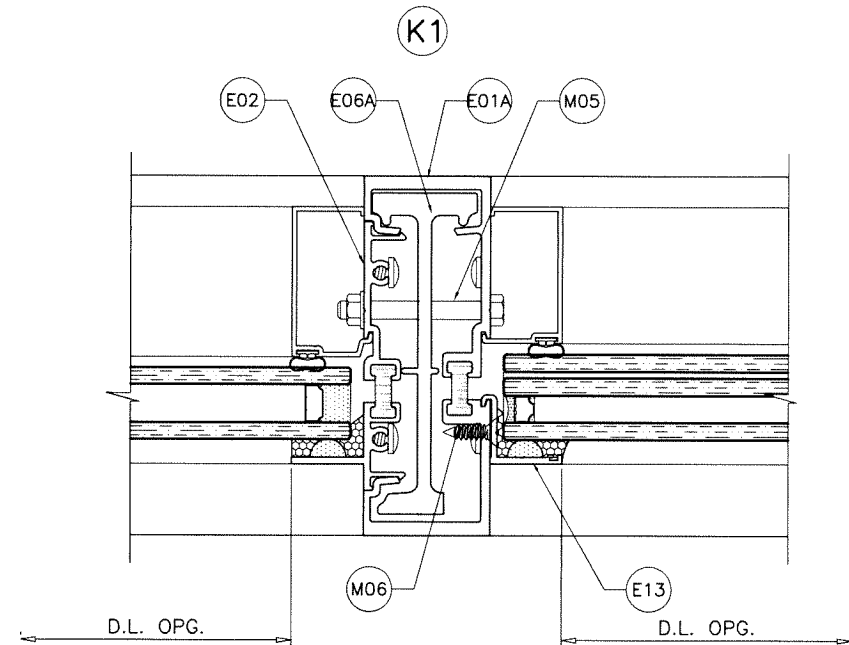
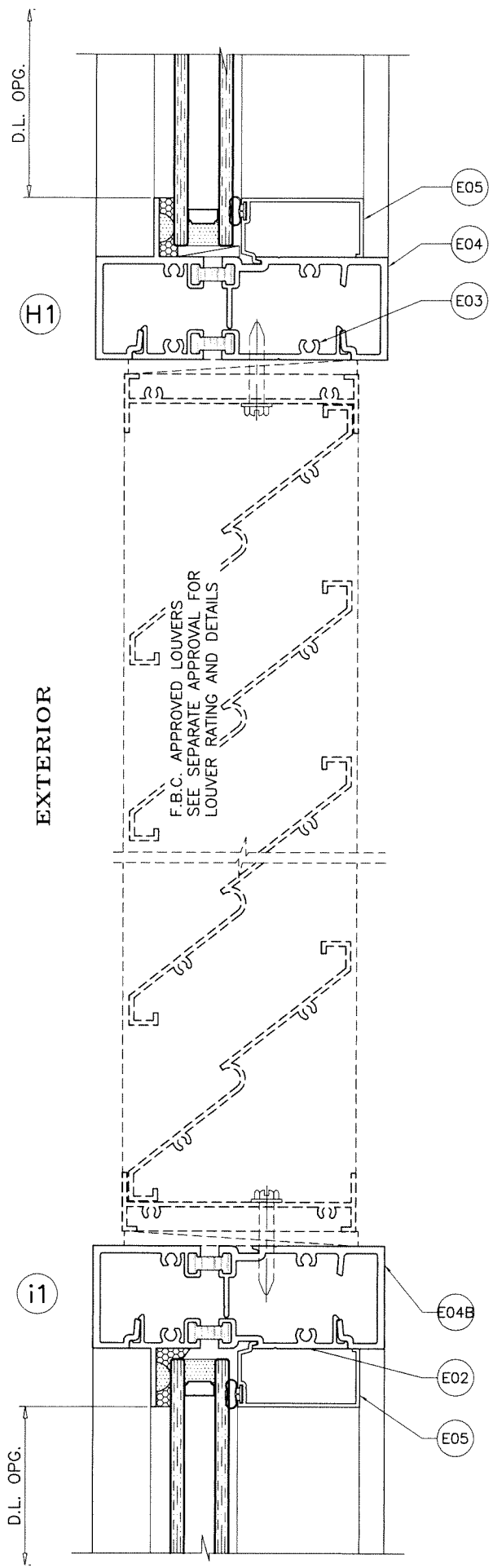
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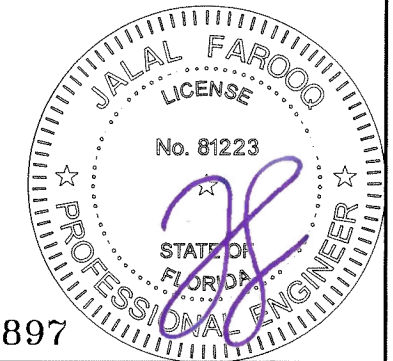


TYPICAL INSTALLATION OF LOUVERS IN THE WINDOW WALL SYSTEM
 USE LOUVERS HOLDING CURRENT APPROVAL
 REFER TO NOTES ON SHEET 1

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

AT FRAME MULLION

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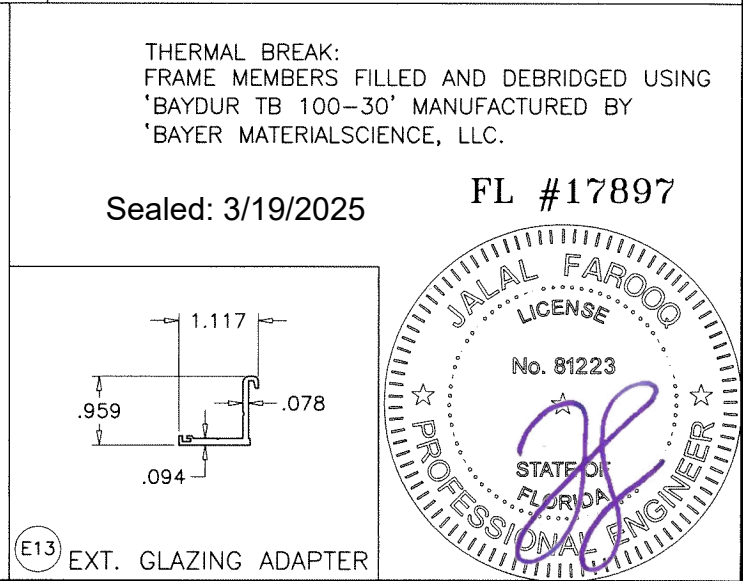
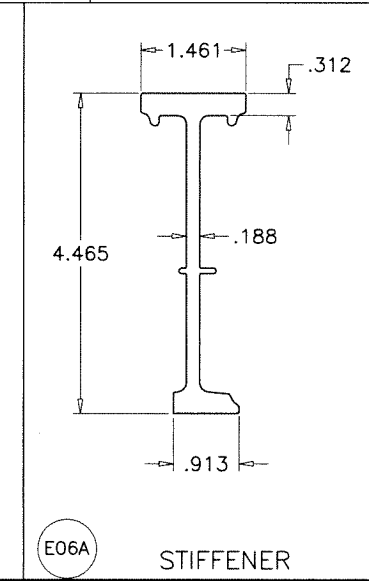
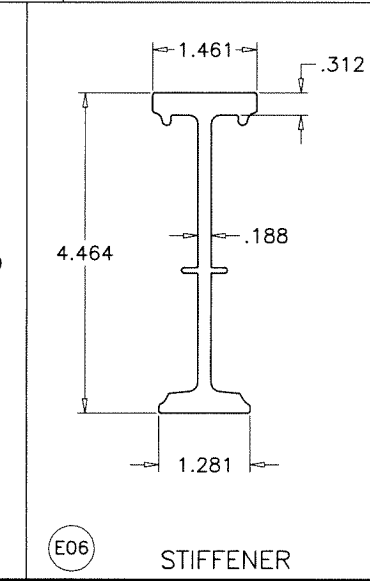
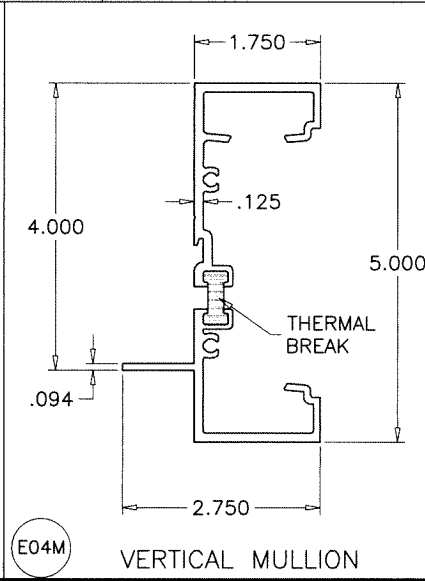
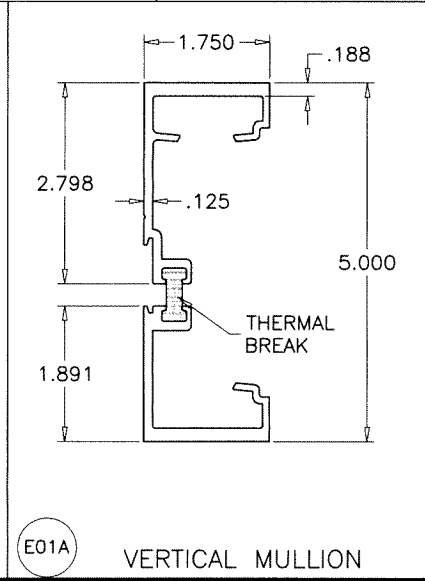
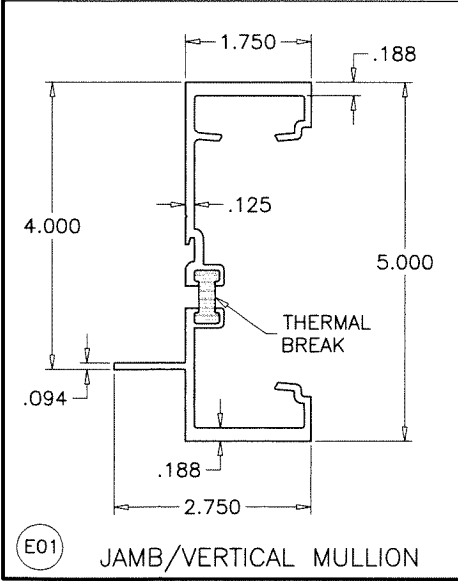
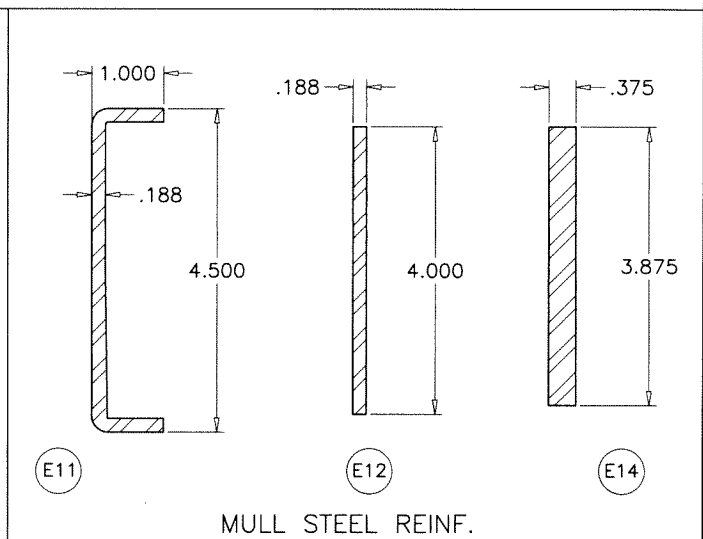
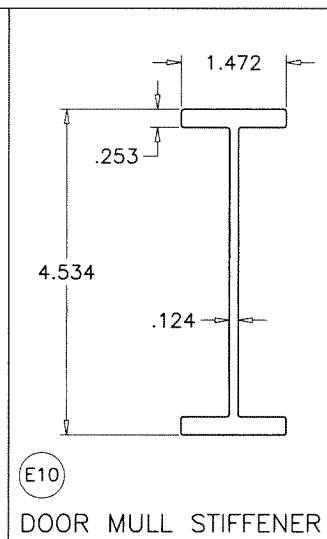
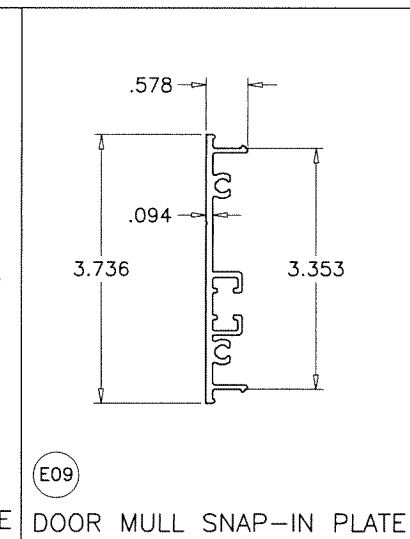
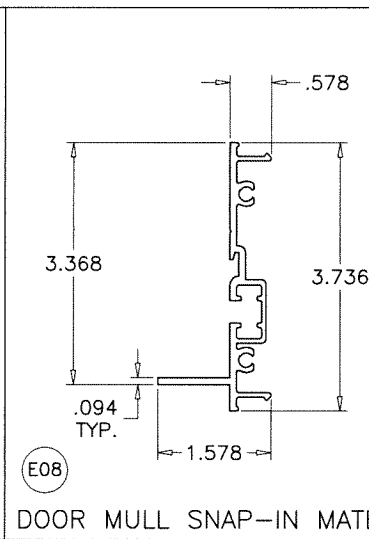
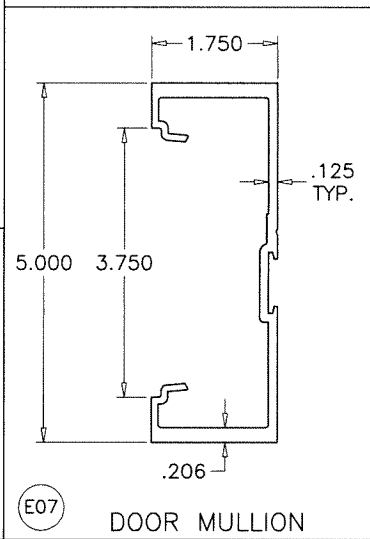
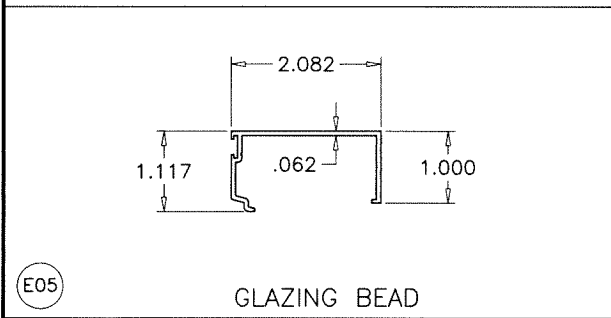
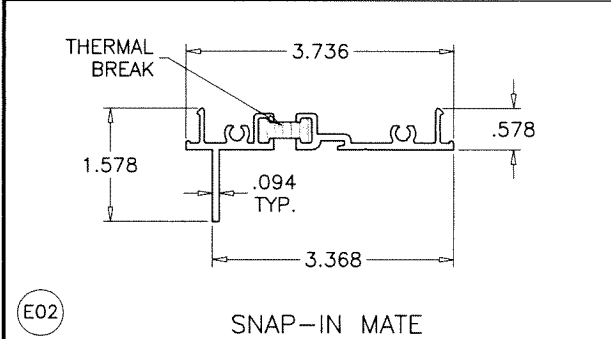
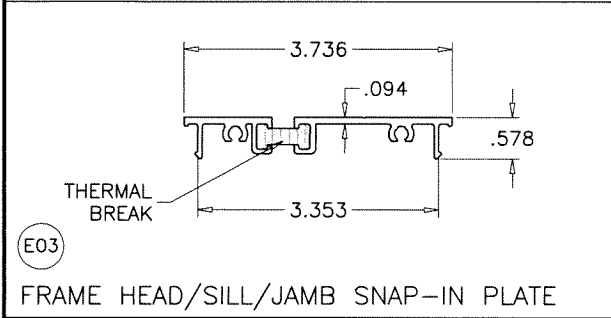
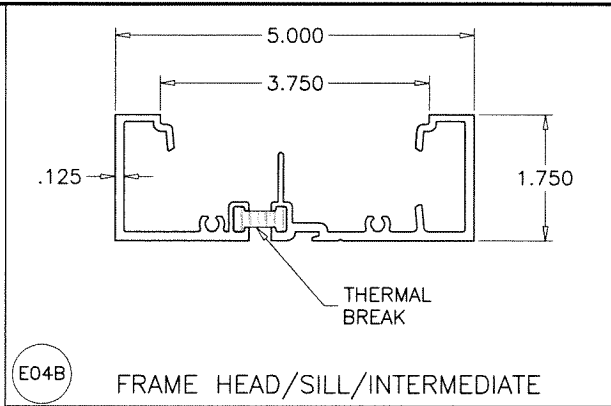
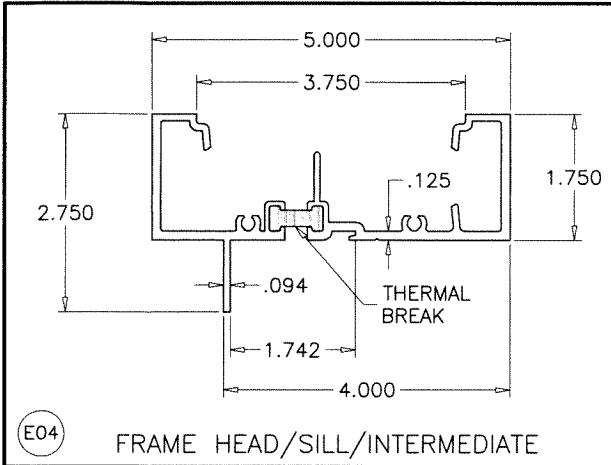
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ITEM #	PART #	REQ'D	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
E01	ES-8000T-001T	AS REQD.	JAMB AND VERTICAL MULLION	6005-T5	-
E01A	ES-8000T-009T	AS REQD.	VERTICAL MULLION	6063-T6	-
E02	ES-8000T-002	AS REQD.	SNAP-IN MATE	6005-T5	-
E03	ES-8000T-003T	AS REQD.	HEAD/SILL/JAMB SNAP-IN PLATE	6005-T5	-
E04	ES-8000T-004T	AS REQD.	FRAME HEAD/SILL/INTERMEDIATE	6005-T5	-
E04M	ES-8000T-004	AS REQD.	VERTICAL MULLION	6005-T5	-
E04B	ES-8000T-012T	AS REQD.	FRAME HEAD/SILL/INTERMEDIATE	6005-T5	-
E05	ES-8000T-007	AS REQD.	GLAZING BEAD	6063-T5	-
E06	ES-8000T-006	AS REQD.	STIFFENER	6005-T5	-
E06A	ES-8000T-011	AS REQD.	STIFFENER	6005-T5	-
E07	-	AS REQD.	DOOR MULLION	6005-T5	-
E08	ES-8000T-002	AS REQD.	DOOR MULLION SNAP-IN MATE	6005-T5	-
E09	ES-8000T-003	AS REQD.	DOOR MULL SNAP-IN PLATE	6005-T5	-
E10	-	AS REQD.	DOOR MULLION STIFFENER	6005-T5	-
E11	-	AS REQD.	MULLION REINFORCING CHANNEL	STEEL	A36, Fu MIN. = 58 KSI
E12	-	AS REQD.	MULLION REINFORCING BAR	STEEL	A36, Fu MIN. = 58 KSI
E13	ES8014	AS REQD.	EXTERIOR GLAZING ADAPTER	6063-T6	-
E14	-	AS REQD.	MULLION REINFORCING BAR	STEEL	A36, Fu MIN. = 58 KSI
M01	#12 X 1-1/2"	AS REQD.	ASSEMBLY FASTENERS	ST. STEEL	PH SMS
M02	ES-8010A	AS REQD.	INTERIOR GLAZING GASKET	SILICONE	DUROMETER 60±5 SHORE A
M03	ES-8011A	AS REQD.	1/4" GLASS SPACER	SILICONE	DUROMETER 85±5 SHORE A
M04	ES-7530-B01A	2/ LITE	SETTING BLOCKS AT 1/4 POINTS	EPDM	DUROMETER 80±5 SHORE A
M05	1/4" X 2-1/8"	AS REQD.	MULLION FASTENERS	ST. STEEL	BOLT WITH NUT
M06	#12 X 3/4"	AS REQD.	ADAPTER FASTENERS, AT 3" FROM ENDS & 12" O.C.	ST. STEEL	FH SMS

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