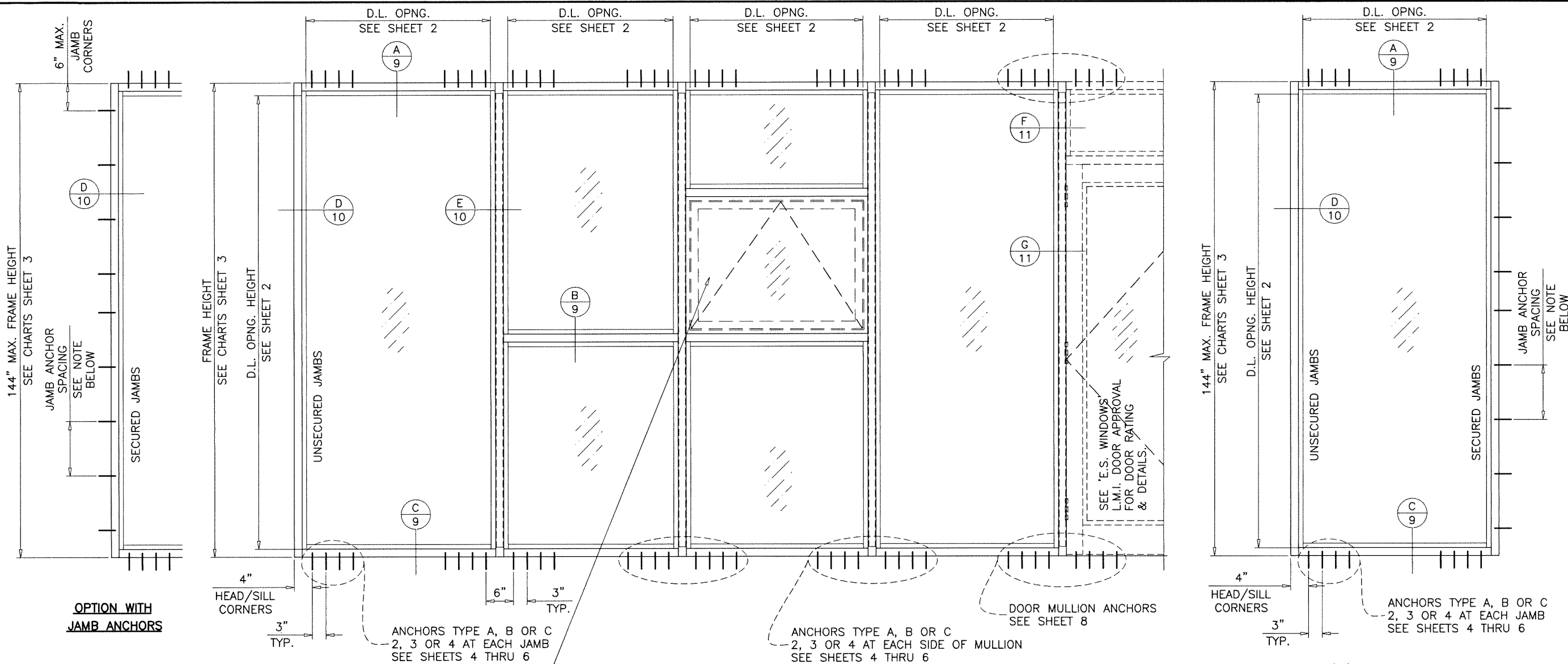




SERIES ES-8000T
ALUMINUM WINDOW WALL SYSTEM

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).

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

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

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

ALL SHIMS TO BE 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.

WINDOWS AND LOUVERS SUPPORTED BY APPROVALS CAN BE INSTALLED WITHIN THE DAYLIGHT OPENING. ALLOWED AREA NOT TO EXCEED THE TESTED GLASS AREA AND MAX. MULLION SPACING PER CHARTS ON SHEETS 3, 3.1 & 3.2 PROVIDED THESE ARE PROPERLY SECURED WITH SCREWS AT PERIMETER OF OPENING. INSTALLATION AND COMPLIANCE WITH CODE SHALL BE VERIFIED INDEPENDENTLY. PTAC UNITS USED AS WINDOW INSERT TO BE ENGINEERED SEPARATELY FOR MULLION CAPACITY, ANCHORS, ASYMMETRICAL LOADS ETC.

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1** DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2** SEE CHARTS ON SHEET 2 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE.
- STEP 3** CHECK MULLION CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEETS 3 FOR WINDOW WALL MULLION AND SHEETS 7 THRU 8 FOR DOOR MULLION. THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 4** CHECK ANCHOR CAPACITY FOR WINDOW WALL SYSTEM USING CHARTS ON SHEETS 4 THRU 6 FOR DOOR MULLION ANCHOR CAPACITY SEE CHART ON SHEET 8. THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 5** THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.

TYPICAL ELEVATIONS
JAMB ANCHORS:

FOR 12" MAX. SPACING LIMIT MAX. LOADS TO 80.0 PSF FOR ANCHOR TYPES 'A' & 'B' TO 74.0 PSF FOR ANCHOR TYPE 'C'
FOR LOADS HIGHER THAN SHOWN ABOVE LIMIT ANCHOR SPACING TO 6" MAX.

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.

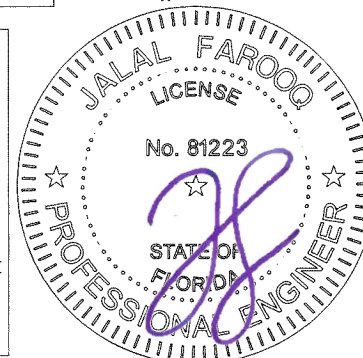
PRODUCT COMPLIES WITH REQUIREMENTS OF ANSI Z97.1.

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

- 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.

SINGLE 'O' PANEL:
FRAME WIDTH = D.L.O. WIDTH + 5.50"
FRAME HEIGHT = D.L.O. HEIGHT + 5.50"

Sealed: 7/16/2026



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

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

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

no	date	by	description
K	06.11.24	L	LOUVER NOTE ADDED
L	07.30.25	M	WINLITE INTERLAYER ADDED
M	03.31.26	N	ALT. GLAZING BEAD ADDED
N	07.14.26		UPDATED TO 2026 FBC

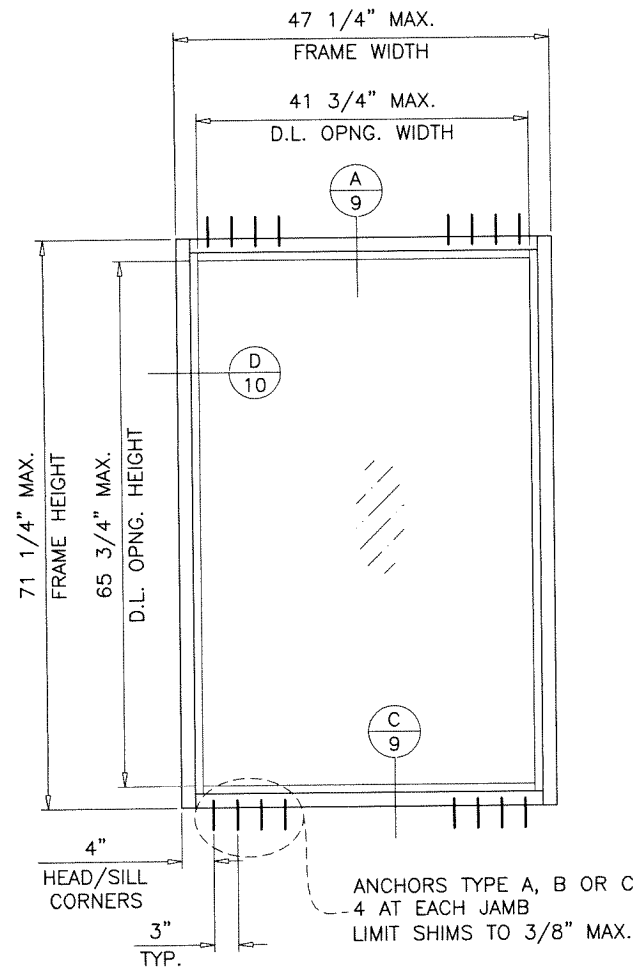
revisions:

date: 07-16-15
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chk. by:

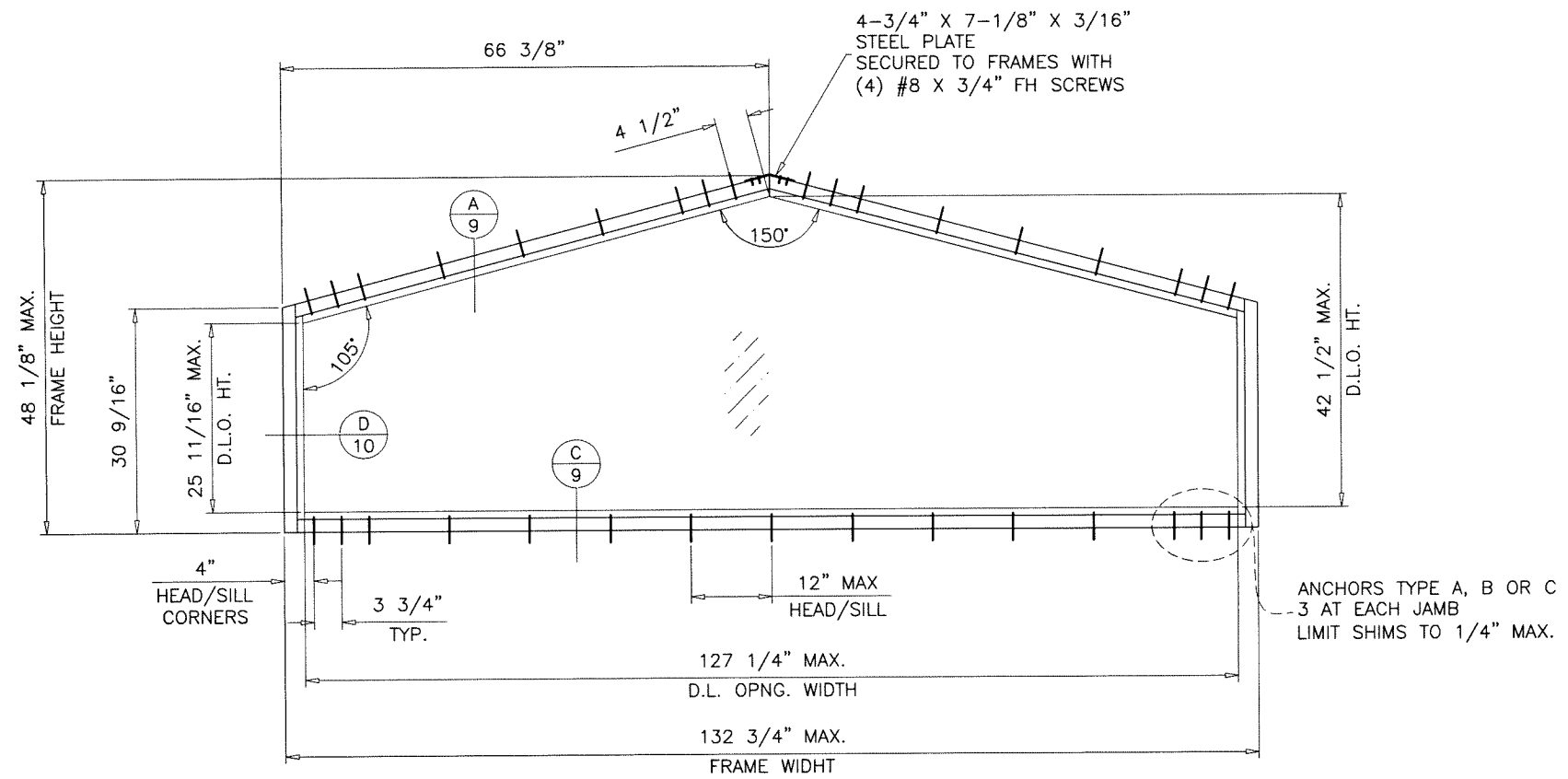
drawing no.
W15-37
sheet 1 of 13

af c

COMP-ANL\W15-37ES



GLASS TYPE 'GL2R'
 MAXIMUM DESIGN LOAD RATING = + 66.0 PSF
 - 108.0 PSF
 (FOR SINGLE UNIT SHOWN ABOVE)



GLASS TYPE 'GL2R'
 MAXIMUM DESIGN LOAD RATING = + 80.0 PSF
 - 80.0 PSF
 (FOR SINGLE UNIT SHOWN ABOVE)

Sealed: 7/16/2026

FL #17897



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

af c
 (C.A.N. 3538)
 COMP-ANL W15-37ES

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

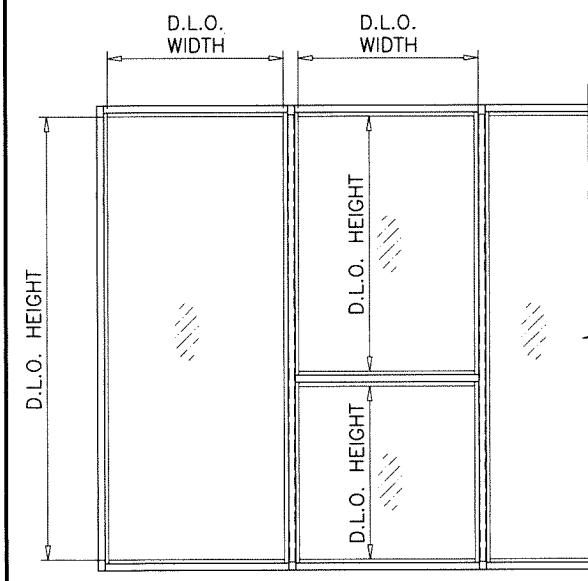
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

Revisions:	
no	date by description

date: 07-16-15
 scale: 1/2"=1'-0"
 dr. by: TARIQ
 chk. by:

drawing no.
W15-37
 sheet 1.1 of 13

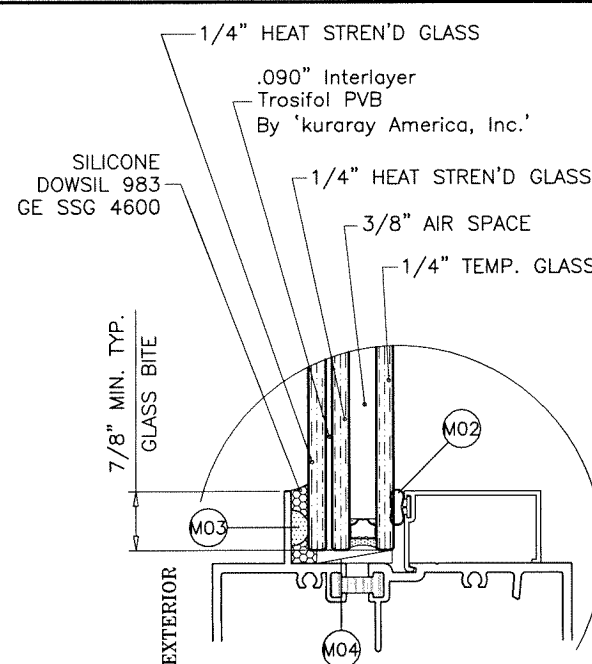
GLASS LOAD CAPACITY - PSF			
NOMINAL DIMS.		GLASS TYPES	
		'GL1'/'GL1R'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)
26-1/4"	105-1/2"	60.0	70.0
32-1/4"		60.0	70.0
38-1/4"		60.0	70.0
44-1/4"		60.0	70.0
50-1/4"		60.0	70.0
56-1/4"		60.0	70.0
26-1/4"	108-1/2"	60.0	70.0
32-1/4"		60.0	70.0
38-1/4"		60.0	70.0
44-1/4"		60.0	70.0
50-1/4"		60.0	70.0
56-1/4"		60.0	70.0
26-1/4"	114-1/2"	60.0	70.0
32-1/4"		60.0	70.0
38-1/4"		60.0	70.0
44-1/4"		60.0	70.0
50-1/4"		60.0	70.0
56-1/4"		60.0	70.0
26-1/4"	120-1/2"	60.0	70.0
32-1/4"		60.0	70.0
38-1/4"		60.0	70.0
44-1/4"		60.0	70.0
50-1/4"		60.0	70.0
56-1/4"		60.0	70.0
26-1/4"	126-1/2"	60.0	70.0
32-1/4"		60.0	70.0
38-1/4"		60.0	70.0
44-1/4"		60.0	70.0
48-1/4"		60.0	70.0
26-1/4"	132-1/2"	60.0	70.0
32-1/4"		60.0	70.0
38-1/4"		60.0	70.0
44-1/4"		60.0	70.0
46-1/4"		60.0	70.0
26-1/4"	138-1/2"	60.0	70.0
32-1/4"		60.0	70.0
38-1/4"		60.0	70.0
44-1/4"		60.0	70.0



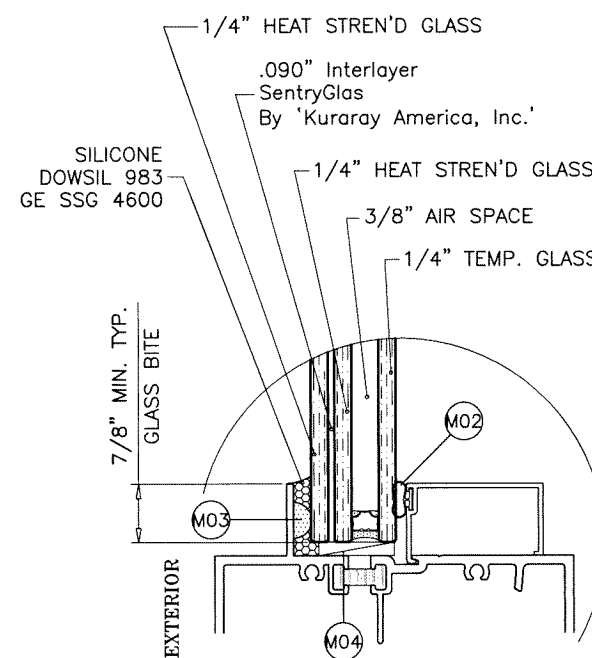
GLASS LOAD CAPACITY - PSF					
NOMINAL DIMS.		GLASS TYPES			
		'GL2'		'GL2R'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
26-1/4"	84-1/2"	90.0	120.0	90.0	90.0
32-1/4"		90.0	120.0	90.0	90.0
38-1/4"		90.0	120.0	90.0	90.0
44-1/4"		90.0	120.0	90.0	90.0
50-1/4"		90.0	120.0	90.0	90.0
56-1/4"		90.0	120.0	90.0	90.0
26-1/4"	96-1/2"	90.0	120.0	90.0	90.0
32-1/4"		90.0	120.0	90.0	90.0
38-1/4"		90.0	120.0	90.0	90.0
44-1/4"		90.0	120.0	90.0	90.0
50-1/4"		90.0	120.0	90.0	90.0
56-1/4"		90.0	120.0	90.0	90.0
26-1/4"	102-1/2"	90.0	120.0	90.0	90.0
32-1/4"		90.0	120.0	90.0	90.0
38-1/4"		90.0	120.0	90.0	90.0
44-1/4"		90.0	120.0	90.0	90.0
49"		90.0	120.0	90.0	90.0
50-1/4"	105-1/2"	-	-	66.7	66.7
56-1/4"		-	-	60.0	60.0
26-1/4"	108-1/2"	90.0	120.0	90.0	90.0
32-1/4"		90.0	120.0	90.0	90.0
38-1/4"		90.0	120.0	90.0	90.0
44-1/4"		90.0	120.0	90.0	90.0
48"		90.0	120.0	90.0	90.0
50-1/4"	114-1/2"	-	-	66.7	66.7
56-1/4"		-	-	60.0	60.0
26-1/4"	118-1/2"	90.0	120.0	90.0	90.0
32-1/4"		90.0	120.0	90.0	90.0
38-1/4"		90.0	120.0	90.0	90.0
44-1/4"		90.0	120.0	90.0	90.0
46"		90.0	120.0	90.0	90.0
50-1/4"	126-1/2"	-	-	66.7	66.7
56-1/4"		-	-	60.0	60.0
26-1/4"	132-1/2"	90.0	120.0	90.0	90.0
32-1/4"		90.0	120.0	90.0	90.0
38-1/4"		90.0	120.0	90.0	90.0
44-1/4"		90.0	120.0	90.0	90.0
46"		90.0	120.0	90.0	90.0
50-1/4"	138-1/2"	-	-	66.7	66.7
56-1/4"		-	-	60.0	60.0
26-1/4"	144-1/2"	90.0	120.0	90.0	90.0
32-1/4"		90.0	120.0	90.0	90.0
38-1/4"		90.0	120.0	90.0	90.0
44-1/4"		90.0	120.0	90.0	90.0
46"		90.0	120.0	90.0	90.0
50-1/4"	150-1/2"	-	-	66.7	66.7
56-1/4"		-	-	60.0	60.0
26-1/4"	156-1/2"	90.0	120.0	90.0	90.0
32-1/4"		90.0	120.0	90.0	90.0
38-1/4"		90.0	120.0	90.0	90.0
44-1/4"		90.0	120.0	90.0	90.0
46"		90.0	120.0	90.0	90.0
50-1/4"	162-1/2"	-	-	66.7	66.7
56-1/4"		-	-	60.0	60.0
26-1/4"	168-1/2"	90.0	120.0	90.0	90.0
32-1/4"		90.0	120.0	90.0	90.0
38-1/4"		90.0	120.0	90.0	90.0
44-1/4"		90.0	120.0	90.0	90.0
46"		90.0	120.0	90.0	90.0
50-1/4"	174-1/2"	-	-	66.7	66.7
56-1/4"		-	-	60.0	60.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

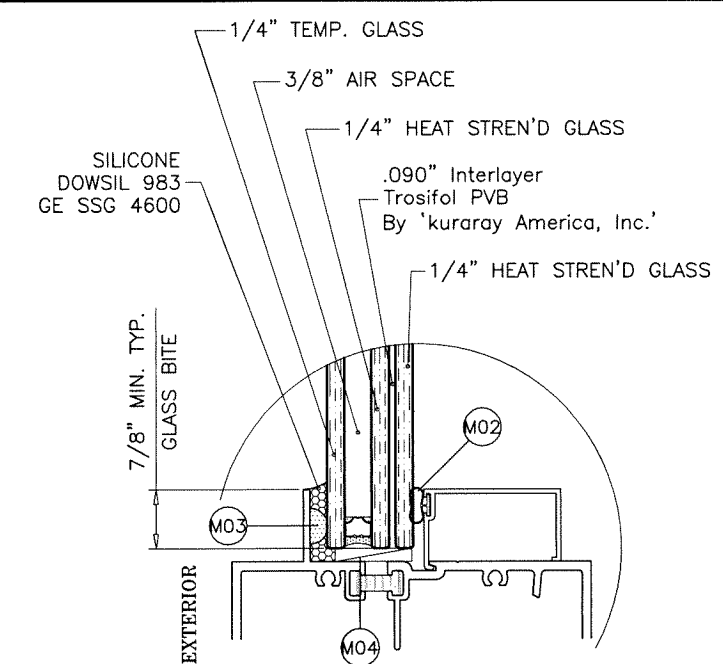
GLASS



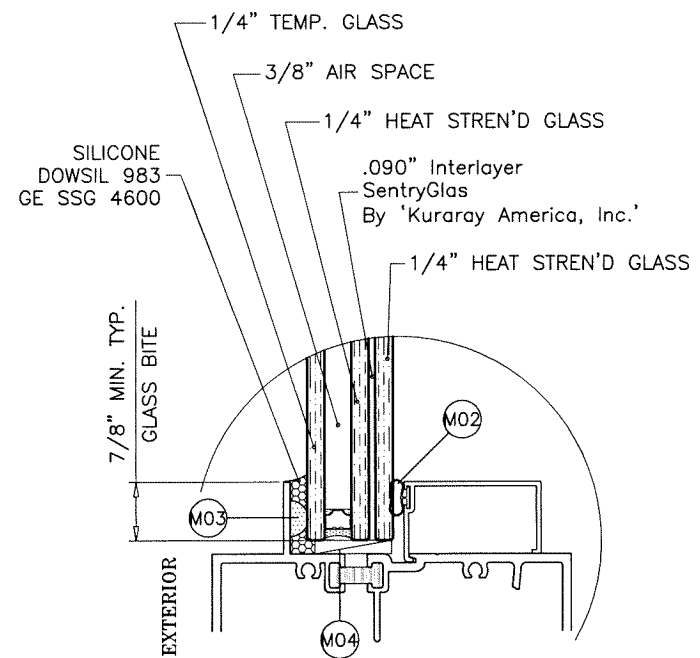
GLASS TYPE 'GL1'
1-3/16" OVERALL INSUL. LAM. GLASS



GLASS TYPE 'GL2'
1-3/16" OVERALL INSUL. LAM. GLASS



GLASS TYPE 'GL1R'
1-3/16" OVERALL INSUL. LAM. GLASS



GLASS TYPE 'GL2R'
1-3/16" OVERALL INSUL. LAM. GLASS

3/8" AIR SPACE CONSISTING OF:

SPACER:

'HELIMA' LOW PROFILE ALUMINUM SPACER

BY 'LINGERMANN GMBH'

AROUND THE PERIMETER OF THE GLASS.

PERIMETER SEALANT:

SILICONE

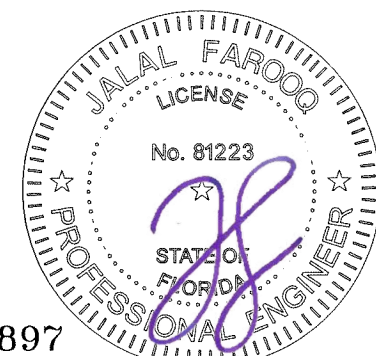
DOWSIL 791

GE 2000

Sealed: 7/16/2026

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

FL #17897

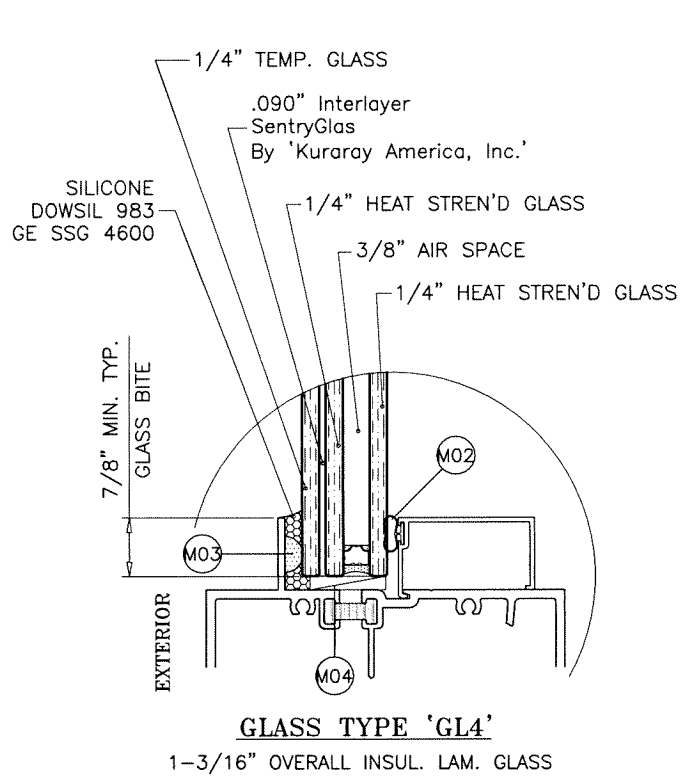
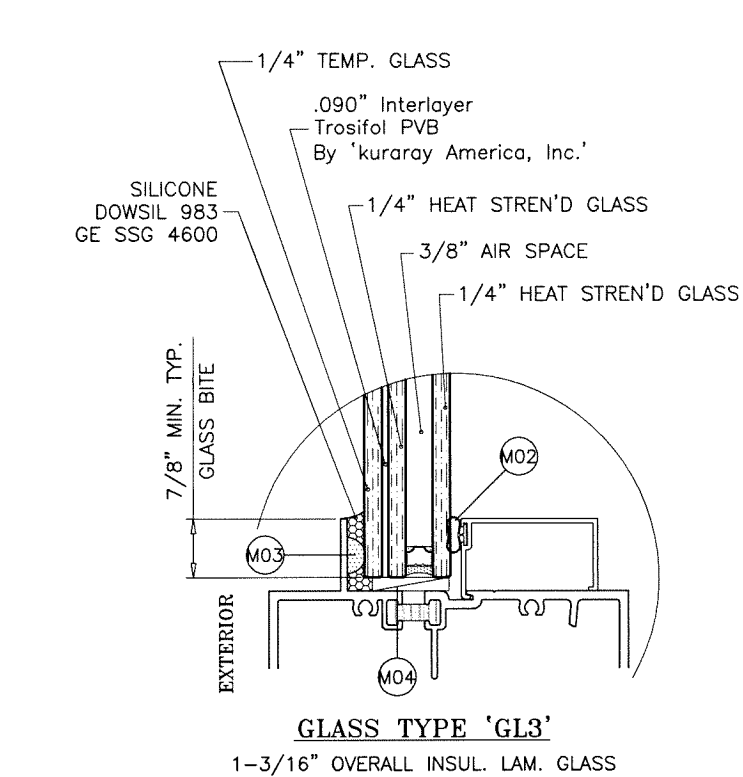
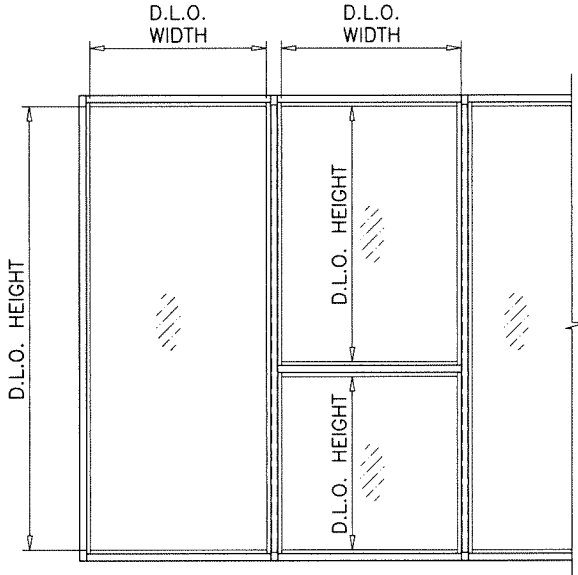


AL-FAROOQ CORPORATION ENGINEERS & PRODUCT DEVELOPMENT 9360 SUNSET DRIVE, SUITE 220 MIAMI, FLORIDA 33173 TEL. (305) 264-8100 FAX. (305) 262-6978 COMP-ANL W15-37ES			
ES-8000T ALUM WINDOW WALL SYSTEM (L.M.I.)			
E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL. (305) 638-5151 FAX. (305) 638-5158			
revisions:	no	date	by description
date:	07-16-15	scale:	-
dr. by:	TARIQ	chk. by:	
drawing no.	W15-37		
sheet	2 of 13		

GLASS LOAD CAPACITY - PSF					
NOMINAL DIMS.		GLASS TYPES			
		'GL3'		'GL4'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
26-1/4"	84-1/2"	60.0	70.0	90.0	120.0
32-1/4"		60.0	70.0	90.0	120.0
38-1/4"		60.0	70.0	90.0	120.0
44-1/4"		60.0	70.0	90.0	120.0
46-1/4"		57.4	67.0	86.6	115.4
48-1/4"		55.0	64.2	83.0	110.6
49"		53.5	62.0	81.3	108.4
50-1/4"		52.8	61.6	79.3	105.7
56-1/4"	96-1/2"	47.2	55.1	70.8	94.4
26-1/4"		60.0	70.0	90.0	120.0
32-1/4"		60.0	70.0	90.0	120.0
38-1/4"		60.0	70.0	90.0	120.0
44-1/4"		60.0	70.0	90.0	120.0
46-1/4"		57.4	67.0	86.6	115.4
48-1/4"		55.0	64.2	83.0	110.6
49"		53.5	62.0	81.3	108.4
50-1/4"		52.8	61.6	79.3	105.7
56-1/4"	102-1/2"	47.2	55.1	-	-
26-1/4"		60.0	70.0	90.0	120.0
32-1/4"		60.0	70.0	90.0	120.0
38-1/4"		60.0	70.0	90.0	120.0
44-1/4"		60.0	70.0	90.0	120.0
46-1/4"		57.4	67.0	86.6	115.4
48-1/4"		55.0	64.2	83.0	110.6
49"		53.5	62.0	81.3	108.4
50-1/4"		52.8	61.6	-	-
56-1/4"	105-1/2"	47.2	55.1	-	-
26-1/4"		60.0	70.0	90.0	120.0
32-1/4"		60.0	70.0	90.0	120.0
38-1/4"		60.0	70.0	90.0	120.0
44-1/4"		60.0	70.0	90.0	120.0
46-1/4"		57.4	67.0	86.6	115.4
48-1/4"		55.0	64.2	83.0	110.6
50-1/4"		52.8	61.6	-	-
56-1/4"	108-1/2"	47.2	55.1	-	-
26-1/4"		60.0	70.0	90.0	120.0
32-1/4"		60.0	70.0	90.0	120.0
38-1/4"		60.0	70.0	90.0	120.0
44-1/4"		60.0	70.0	90.0	120.0
46-1/4"		57.4	67.0	86.6	115.4
48-1/4"		55.0	64.2	-	-
50-1/4"		52.8	61.6	-	-
56-1/4"	114-1/2"	47.2	55.1	-	-
26-1/4"		60.0	70.0	90.0	120.0
32-1/4"		60.0	70.0	90.0	120.0
38-1/4"		60.0	70.0	90.0	120.0
44-1/4"		60.0	70.0	90.0	120.0
46-1/4"		57.4	67.0	-	-
48-1/4"		55.0	64.2	-	-
50-1/4"		52.8	61.6	-	-

GLASS LOAD CAPACITY - PSF					
NOMINAL DIMS.		GLASS TYPES			
		'GL3'		'GL4'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
26-1/4"	120-1/2"	60.0	70.0	-	-
32-1/4"		60.0	70.0	-	-
38-1/4"		60.0	70.0	-	-
44-1/4"		60.0	70.0	-	-
46-1/4"		57.4	67.0	-	-
48-1/4"		55.0	64.2	-	-
50-1/4"		52.8	61.6	-	-
26-1/4"	126-1/2"	60.0	70.0	-	-
32-1/4"		60.0	70.0	-	-
38-1/4"		60.0	70.0	-	-
44-1/4"		60.0	70.0	-	-
46-1/4"		57.4	67.0	-	-
48-1/4"		55.0	64.2	-	-
26-1/4"	132-1/2"	60.0	70.0	-	-
32-1/4"		60.0	70.0	-	-
38-1/4"		60.0	70.0	-	-
44-1/4"		60.0	70.0	-	-
46-1/4"		57.4	67.0	-	-
26-1/4"	138-1/2"	60.0	70.0	-	-
32-1/4"		60.0	70.0	-	-
38-1/4"		60.0	70.0	-	-
44-1/4"		60.0	70.0	-	-

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



3/8" 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

Sealed: 7/16/2026



GLASS

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

FL #17897

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 262-6978
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ES-800T 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

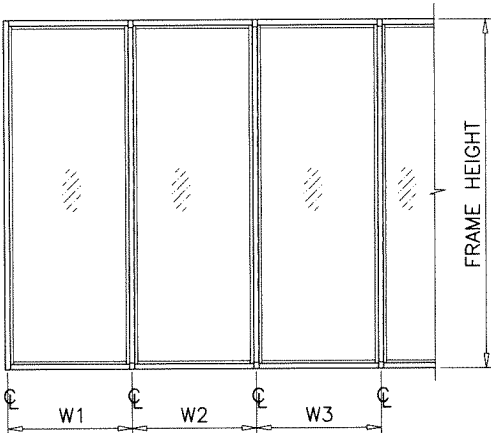
date: 07-16-15
scale: -
dr. by: TARIQ
chk. by: -

drawing no.
W15-37

sheet **2.1** of **13**

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.

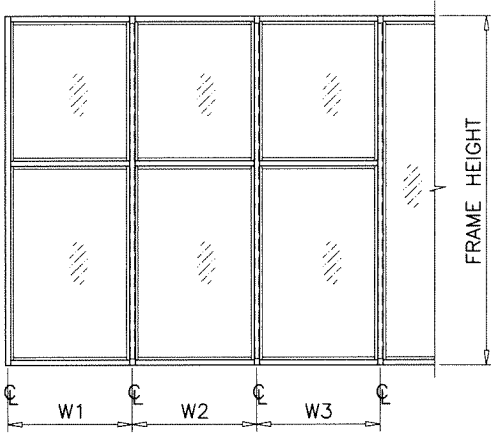


WIDTH (W) = W1
AT FRAME JAMB

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

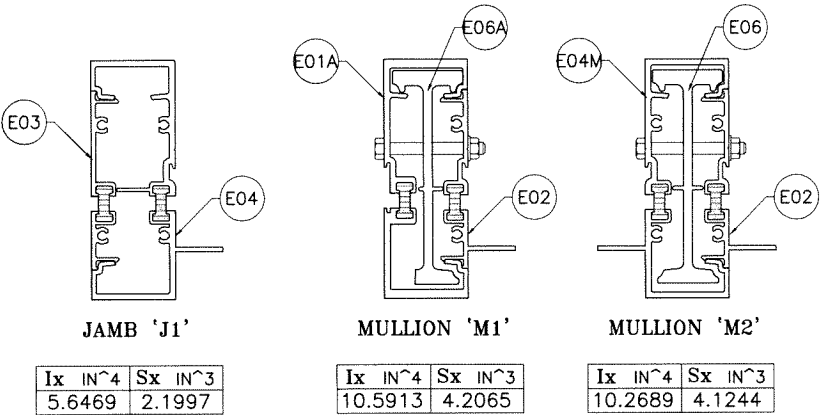
DESIGN LOAD CAPACITY - PSF JAMB/MULLION WITH INTERMEDIATE HORIZONTALS							
NOMINAL DIMS.		JAMB 'J1'		MULLION 'M1'		MULLION 'M2'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	90"	60.0	60.0	60.0	60.0	60.0	60.0
36"		60.0	60.0	60.0	60.0	60.0	60.0
42"		60.0	60.0	60.0	60.0	60.0	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



MULLIONS

Sealed: 7/16/2026

FL #17897



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revisions:

no	date	by	description

date: 07-16-15
scale: -
dr. by: TARIQ
chk. by:

drawing no.
W15-37

sheet **3** of **13**

COMP-ANL\W15-37ES

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"	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
36"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
42"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
48"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
54"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
60"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
30"	98-1/2"	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
36"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
42"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
48"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
54"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
60"		60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
30"	102"	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
36"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
42"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
48"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
54"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
60"		60.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
30"	108"	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
36"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
42"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
48"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
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"	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
36"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
42"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
48"		90.0	116.1	90.0	116.1	90.0	116.1	90.0	116.1	90.0	116.1
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"	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
36"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
42"		90.0	118.1	90.0	118.1	90.0	118.1	90.0	118.1	90.0	118.1
48"		90.0	105.2	90.0	105.2	90.0	105.2	90.0	105.2	90.0	105.2
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"	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
36"		90.0	116.0	90.0	116.0	90.0	116.0	90.0	116.0	90.0	116.0
42"		90.0	100.7	90.0	100.7	90.0	100.7	90.0	100.7	90.0	100.7
48"		89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	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.

JAMB 'J2'

Ix IN ⁴	Sx IN ³
6.5995	2.5891

JAMB 'J3'

Ix IN ⁴	Sx IN ³
11.0604	4.4380

MULLION 'M3'

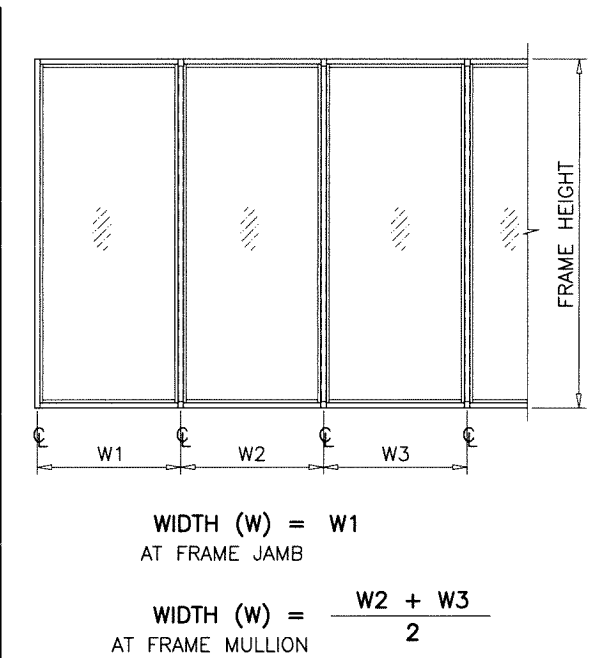
Ix IN ⁴	Sx IN ³
11.2393	4.3497

MULLION 'M4'

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

MULLION 'M5'

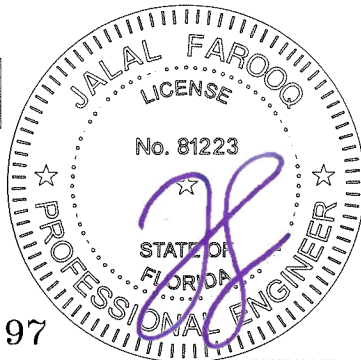
Ix IN ⁴	Sx IN ³
ALUMINUM	6.7652 2.6449
STEEL	4.5689 2.0306
TOTAL	19.8838
Ix ALUM + Ix STL X 2.9	



MULLIONS

Sealed: 7/16/2026

FL #17897



AL-FAROOQ CORPORATION
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ES-8000T ALUM WINDOW WALL SYSTEM (L.M.I.)

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revisions:

no	date	by	description

date: 07-16-15

scale: -

dr. by: TARIQ

chk. by:

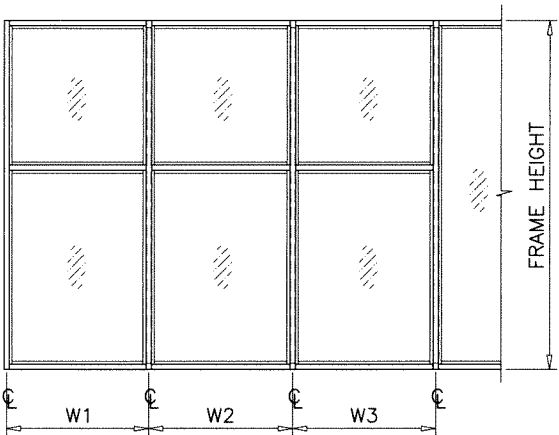
drawing no.
W15-37

sheet **3.1** of **13**

DESIGN LOAD CAPACITY - PSF JAMB/MULLION WITH 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"	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
36"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
42"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
48"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
54"		-	-	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"	98-1/2"	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
36"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
42"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
48"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
54"		-	-	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"	102"	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
36"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
42"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
48"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
54"		-	-	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"	108"	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
36"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
42"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
48"		90.0	115.3	90.0	115.3	90.0	115.3	90.0	115.3	90.0	115.3
54"		-	-	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"	110-1/2"	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
36"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
42"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
48"		90.0	107.7	90.0	107.7	90.0	107.7	90.0	107.7	90.0	107.7
54"		-	-	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"	114"	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
36"		90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
42"		90.0	112.1	90.0	112.1	90.0	112.1	90.0	112.1	90.0	112.1
48"		90.0	98.1	90.0	98.1	90.0	98.1	90.0	98.1	90.0	98.1
54"		-	-	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"	120"	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0	90.0	120.0
36"		90.0	112.1	90.0	112.1	90.0	112.1	90.0	112.1	90.0	112.1
42"		90.0	96.1	90.0	96.1	90.0	96.1	90.0	96.1	90.0	96.1
48"		84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1	84.1
54"		-	-	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
60"		-	-	70.0	70.0	67.2	67.2	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"		-	-	70.0	70.0	64.5	64.5	70.0	70.0	70.0	70.0
60"		-	-	70.0	70.0	58.0	58.0	70.0	70.0	70.0	70.0

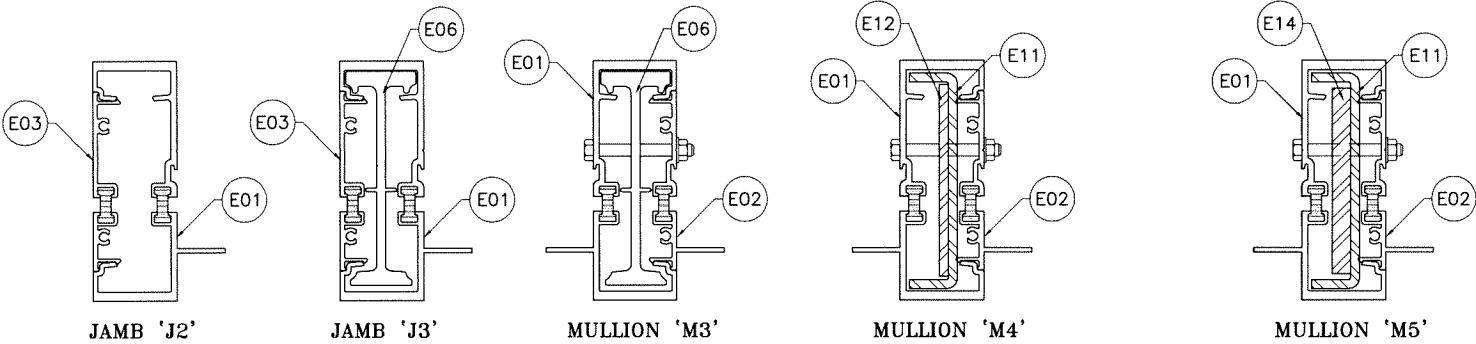
DESIGN LOAD CAPACITY - PSF JAMB/MULLION WITH INTERMEDIATE HORIZONTALS											
NOMINAL DIMS.		JAMB 'J2'		JAMB 'J3'		MULLION 'M3'		MULLION 'M4'		MULLION 'M5'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
30"	132"	60.0	70.0	70.0	70.0	70.0	70.0	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	63.2	70.0	70.0	63.2	63.2	70.0	70.0	70.0	70.0
54"		-	-	70.0	70.0	56.1	56.1	70.0	70.0	70.0	70.0
60"		-	-	70.0	70.0	50.5	50.5	64.5	64.5	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	63.2	70.0	70.0	63.2	63.2	70.0	70.0	70.0	70.0
48"		55.3	55.3	70.0	70.0	55.3	55.3	70.0	70.0	70.0	70.0
54"		-	-	70.0	70.0	49.1	49.1	65.6	65.6	70.0	70.0
60"		-	-	70.0	70.0	44.2	44.2	59.0	59.0	67.0	67.0
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	64.9	70.0	70.0	64.9	64.9	70.0	70.0	70.0	70.0
42"		55.6	55.6	70.0	70.0	55.6	55.6	70.0	70.0	70.0	70.0
48"		48.7	48.7	70.0	70.0	48.7	48.7	67.8	67.8	70.0	70.0
54"		-	-	70.0	70.0	43.2	43.2	60.2	60.2	68.4	68.4
60"		-	-	60.0	60.0	38.9	38.9	54.2	54.2	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

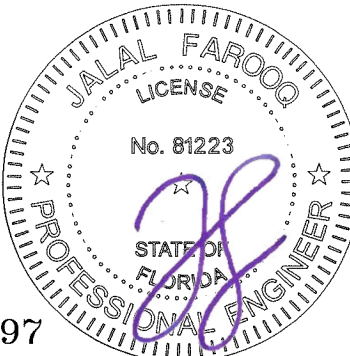
Ix IN^4	Sx IN^3
11.0604	4.4380

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 1x ALUM + 1x STL X 2.9	17.5420	

	Ix IN^4	Sx IN^3
ALUMINUM	6.7652	2.6449
STEEL	4.5689	2.0306
TOTAL 1x ALUM + 1x STL X 2.9	19.8838	

MULLIONS



Sealed: 7/16/2026

FL #17897

af c

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
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ES-8000T 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: 07-16-15
scale: -
dr. by: TARIQ
chk. by:

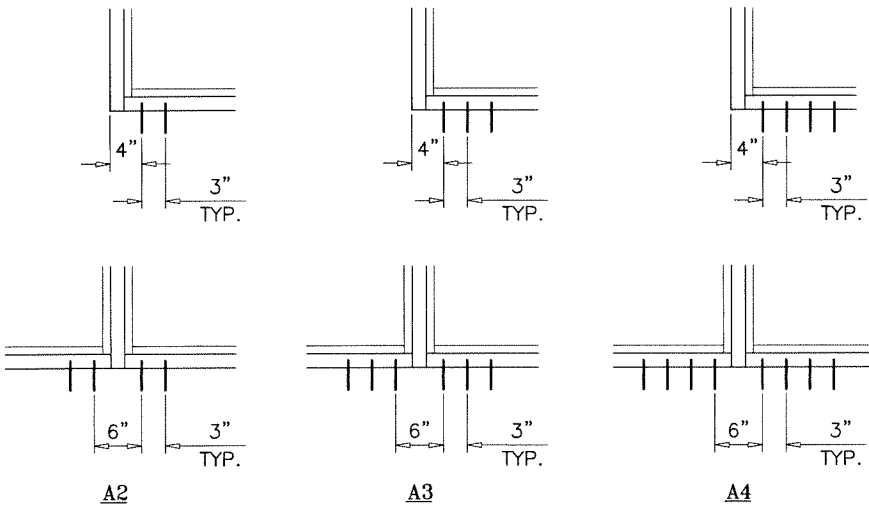
drawing no.
W15-37
sheet 3.2 of 13

COMP-ANL\W15-37ES

ANCHOR LOAD CAPACITY – PSF EXT.(+) & INT.(–)									
NOMINAL DIMS.		ANCHORS TYPE 'A'							
		1/4" MAX. SHIM			3/8" MAX. SHIM			1/2" SHIM	
WIDTH (W)	FRAME HEIGHT	A2	A3	A4	A2	A3	A4	A3	A4
30"	78"	120.0	120.0	120.0	90.3	120.0	120.0	105.3	120.0
36"		107.1	120.0	120.0	75.2	112.9	120.0	87.8	117.0
42"		91.8	120.0	120.0	64.5	96.7	120.0	75.2	100.3
48"		80.3	120.0	120.0	56.4	84.6	112.9	65.8	87.8
54"		71.4	107.1	120.0	50.2	75.2	100.3	58.5	78.0
60"		64.2	96.4	120.0	45.1	67.7	90.3	52.7	70.2
30"	84"	119.3	120.0	120.0	83.8	120.0	120.0	97.8	120.0
36"		99.4	120.0	120.0	69.9	104.8	120.0	81.5	108.6
42"		85.2	120.0	120.0	59.9	89.8	119.8	69.8	93.1
48"		74.6	111.9	120.0	52.4	78.6	104.8	61.1	81.5
54"		66.3	99.4	120.0	46.6	69.9	93.2	54.3	72.4
60"		59.7	89.5	119.3	41.9	62.9	83.8	48.9	65.2
30"	90"	111.4	120.0	120.0	78.3	117.4	120.0	91.3	120.0
36"		92.8	120.0	120.0	65.2	97.8	120.0	76.1	101.4
42"		79.5	119.3	120.0	55.9	83.8	111.8	65.2	86.9
48"		69.6	104.4	120.0	48.9	73.4	97.8	57.0	76.1
54"		61.9	92.8	120.0	43.5	65.2	86.9	50.7	67.6
60"		55.7	83.5	111.4	39.1	58.7	78.3	45.6	60.8
30"	96"	104.4	120.0	120.0	73.4	110.0	120.0	85.6	114.1
36"		87.0	120.0	120.0	61.1	91.7	120.0	71.3	95.1
42"		74.6	111.9	120.0	52.4	78.6	104.8	61.1	81.5
48"		65.3	97.9	120.0	45.9	68.8	91.7	53.5	71.3
54"		58.0	87.0	116.0	40.8	61.1	81.5	47.5	63.4
60"		52.2	78.3	104.4	36.7	55.0	73.4	42.8	57.0
30"	102"	98.3	120.0	120.0	69.0	103.6	120.0	80.5	107.4
36"		81.9	120.0	120.0	57.5	86.3	115.1	67.1	89.5
42"		70.2	105.3	120.0	49.3	74.0	98.6	57.5	76.7
48"		61.4	92.1	120.0	43.2	64.7	86.3	50.3	67.1
54"		54.6	81.9	109.2	38.4	57.5	76.7	44.7	59.6
60"		49.1	70.0	70.0	34.5	51.8	69.0	40.3	53.7
30"	108"	92.8	120.0	120.0	65.2	97.8	120.0	76.1	101.4
36"		77.3	116.0	120.0	54.3	81.5	108.7	63.4	84.5
42"		66.3	99.4	120.0	46.6	69.9	93.2	54.3	72.4
48"		58.0	87.0	116.0	40.8	61.1	81.5	47.5	63.4
54"		51.6	77.3	103.1	36.2	54.3	72.5	42.3	56.3
60"		46.4	69.6	70.0	32.6	48.9	65.2	38.0	50.7
30"	114"	87.9	120.0	120.0	61.8	92.7	120.0	72.1	96.1
36"		73.3	109.9	120.0	51.5	77.2	103.0	60.0	80.1
42"		62.8	94.2	120.0	44.1	66.2	88.3	51.5	68.6
48"		54.9	82.4	109.9	38.6	57.9	77.2	45.0	60.0
54"		48.8	70.0	70.0	34.3	51.5	68.6	40.0	53.4
60"		44.0	65.9	70.0	30.9	46.3	61.8	36.0	48.0
30"	120"	83.5	120.0	120.0	58.7	88.0	117.4	68.4	91.3
36"		69.6	104.4	120.0	48.9	73.4	97.8	57.0	76.1
42"		59.7	89.5	119.3	41.9	62.9	83.8	48.9	65.2
48"		52.2	78.3	104.4	36.7	55.0	73.4	42.8	57.0
54"		46.4	69.6	70.0	32.6	48.9	65.2	38.0	50.7
60"		–	62.6	70.0	–	44.0	58.7	34.2	45.6
30"	126"	70.0	70.0	70.0	55.9	70.0	70.0	65.2	70.0
36"		66.3	70.0	70.0	46.6	69.9	70.0	54.3	70.0
42"		56.8	70.0	70.0	39.9	59.9	70.0	46.6	62.1
48"		49.7	70.0	70.0	34.9	52.4	69.9	40.7	54.3
54"		44.2	66.3	70.0	31.1	46.6	62.1	36.2	48.3
60"		–	59.7	70.0	–	41.9	55.9	32.6	43.5

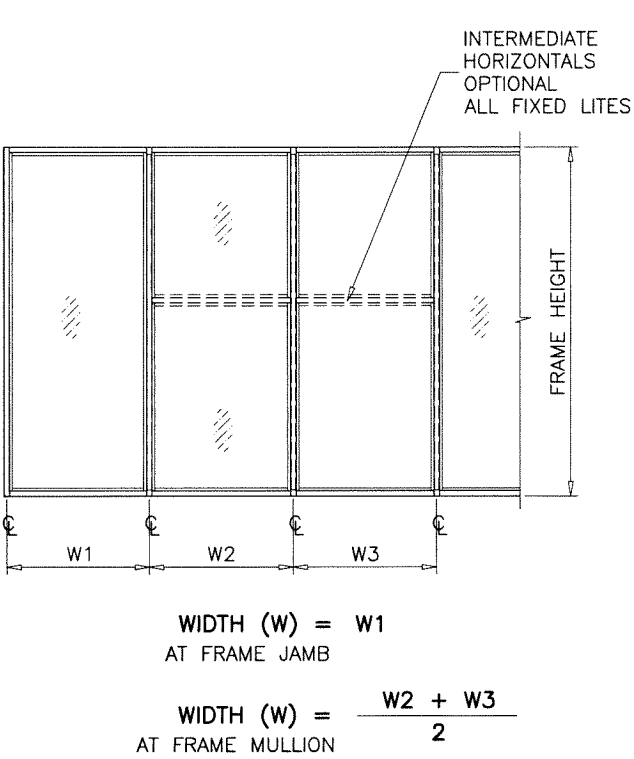
ANCHOR LOAD CAPACITY – PSF EXT.(+) & INT.(–)									
NOMINAL DIMS.		ANCHORS TYPE 'A'							
		1/4" MAX. SHIM			3/8" MAX. SHIM			1/2" SHIM	
WIDTH (W)	FRAME HEIGHT	A2	A3	A4	A2	A3	A4	A3	A4
30"	132"	70.0	70.0	70.0	53.4	70.0	70.0	62.2	70.0
36"		63.3	70.0	70.0	44.5	66.7	70.0	51.9	69.1
42"		54.2	70.0	70.0	38.1	57.2	70.0	44.4	59.3
48"		47.5	70.0	70.0	33.3	50.0	66.7	38.9	51.9
54"		–	63.3	70.0	–	44.5	59.3	34.6	46.1
60"		–	56.9	70.0	–	40.0	53.4	31.1	41.5
30"	138"	70.0	70.0	70.0	51.0	70.0	70.0	59.5	70.0
36"		60.5	70.0	70.0	42.5	63.8	70.0	49.6	66.1
42"		51.9	70.0	70.0	36.5	54.7	70.0	42.5	56.7
48"		45.4	68.1	70.0	31.9	47.8	63.8	37.2	49.6
54"		–	60.5	70.0	–	42.5	56.7	33.1	44.1
60"		–	54.5	70.0	–	38.3	51.0	29.8	39.7
30"	144"	69.6	70.0	70.0	48.9	70.0	70.0	57.0	70.0
36"		58.0	70.0	70.0	40.8	61.1	70.0	47.5	63.4
42"		49.7	70.0	70.0	34.9	52.4	69.9	40.7	54.3
48"		43.5	65.3	70.0	30.6	45.9	61.1	35.7	47.5
54"		–	58.0	70.0	–	40.8	54.3	31.7	42.3
60"		–	52.2	60.0	–	36.7	48.9	28.5	38.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



ANCHORS TYPES: SEE SHEET 9 FOR DESCRIPTION

- A2 = (2) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
A3 = (3) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION
A4 = (4) ANCHORS TYPE 'A' AT EACH SIDE OF JAMB AND MULLION



ANCHORS

Sealed: 7/16/2026

FL #17897

a f c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
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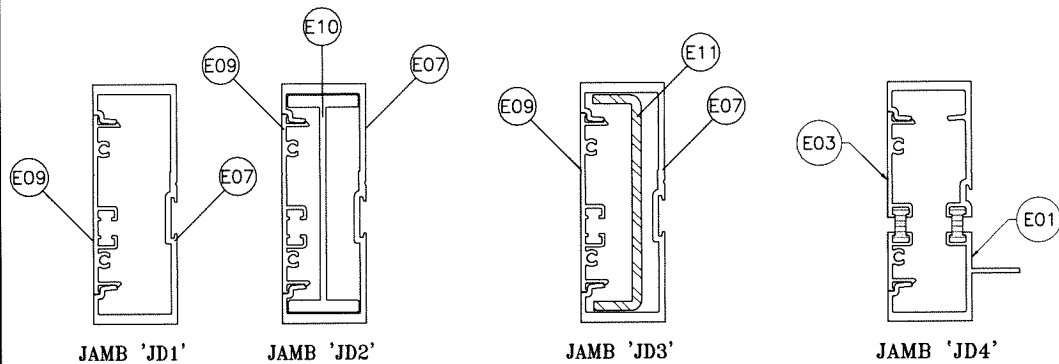
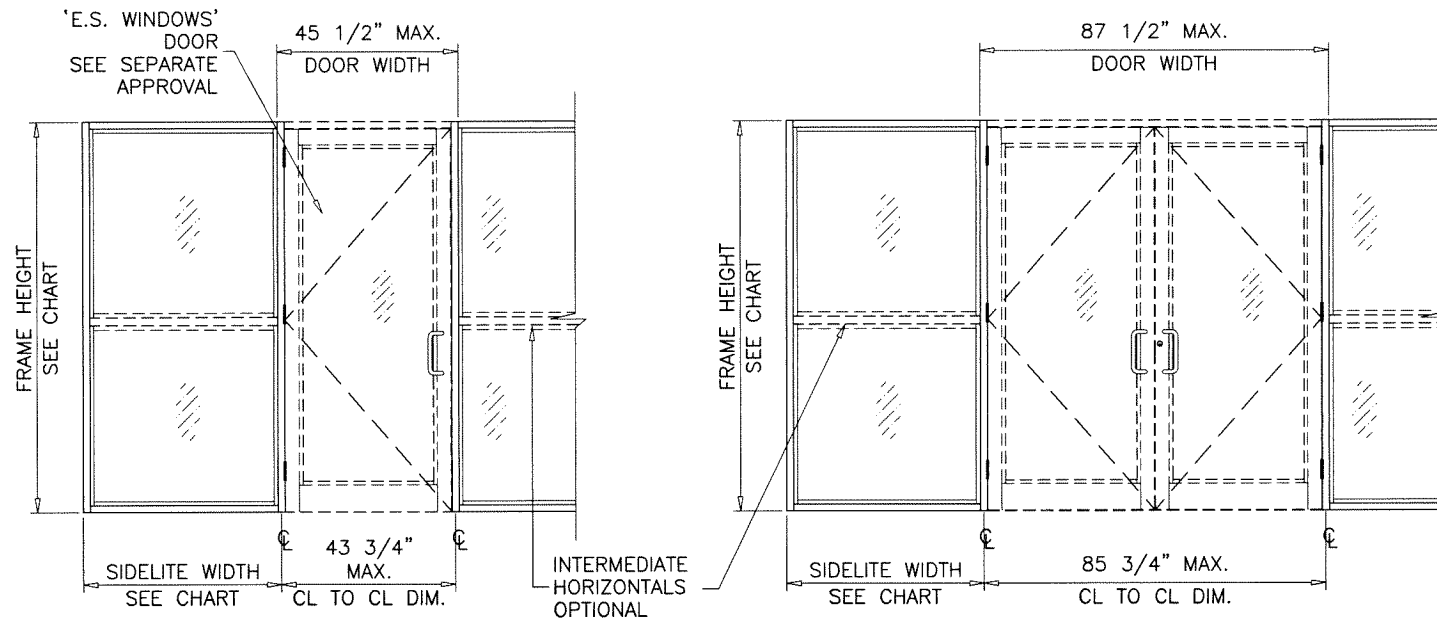
ES-800T ALUM WINDOW WALL SYSTEM (L.M.I.)
E.S. WINDOWS, LLC
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revisions:
no date by description

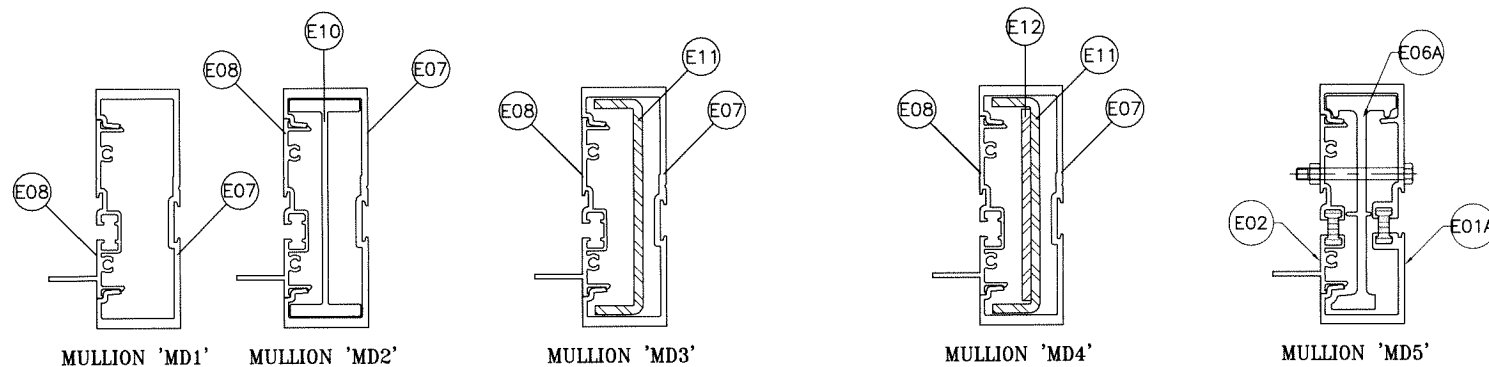
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scale: –
dr. by: TARIQ
chk. by:

drawing no.
W15-37
sheet 4 of 13

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	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	80.0	90.0
36		120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	80.0	90.0
42		120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	80.0	90.0
48		120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	80.0	90.0
54		120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	80.0	90.0
60		120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	80.0	90.0
32	98-1/2	112.6	112.6	120.0	120.0	120.0	120.0	120.0	120.0	80.0	90.0
36		107.1	107.1	120.0	120.0	120.0	120.0	120.0	120.0	80.0	90.0
42		99.7	99.7	120.0	120.0	120.0	120.0	120.0	120.0	80.0	90.0
48		93.3	93.3	120.0	120.0	120.0	120.0	120.0	120.0	80.0	90.0
54		87.7	87.7	120.0	120.0	116.1	116.1	120.0	120.0	80.0	90.0
60		82.1	82.1	120.0	120.0	110.5	110.5	120.0	120.0	80.0	90.0
32	110-1/2	79.8	79.8	120.0	120.0	118.5	118.5	120.0	120.0	80.0	90.0
36		75.8	75.8	120.0	120.0	112.6	112.6	120.0	120.0	80.0	90.0
42		70.6	70.6	113.6	113.6	104.9	104.9	120.0	120.0	80.0	90.0
48		66.1	66.1	106.3	106.3	98.2	98.2	120.0	120.0	80.0	90.0
54		61.5	61.5	100.7	100.7	93.6	93.6	120.0	120.0	80.0	90.0
60		57.0	57.0	95.1	95.1	88.0	88.0	120.0	120.0	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	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					
				TOTAL	14.6962						
				Ix ALUM + Ix STL X 2.9							

DOOR-WINDOWALL
TRANSITION MULLION



Sealed: 7/16/2026

FL #17897

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revisions:

no	date	by	description

date: 07-16-15

scale: -

dr. by: TARIQ

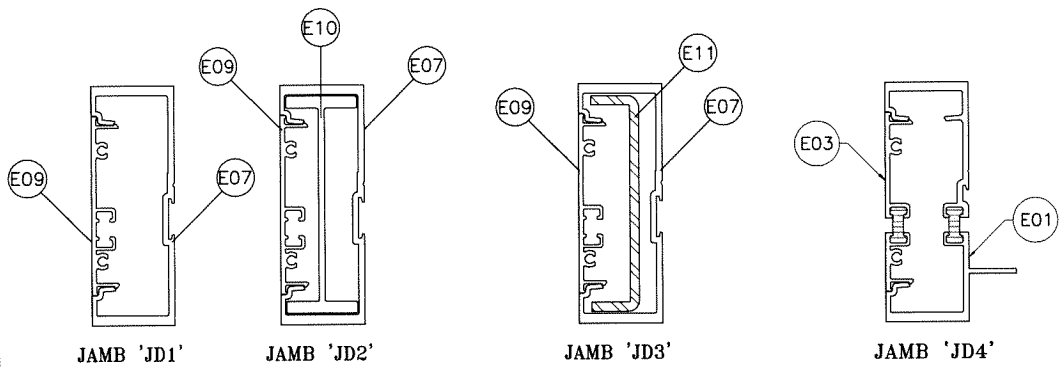
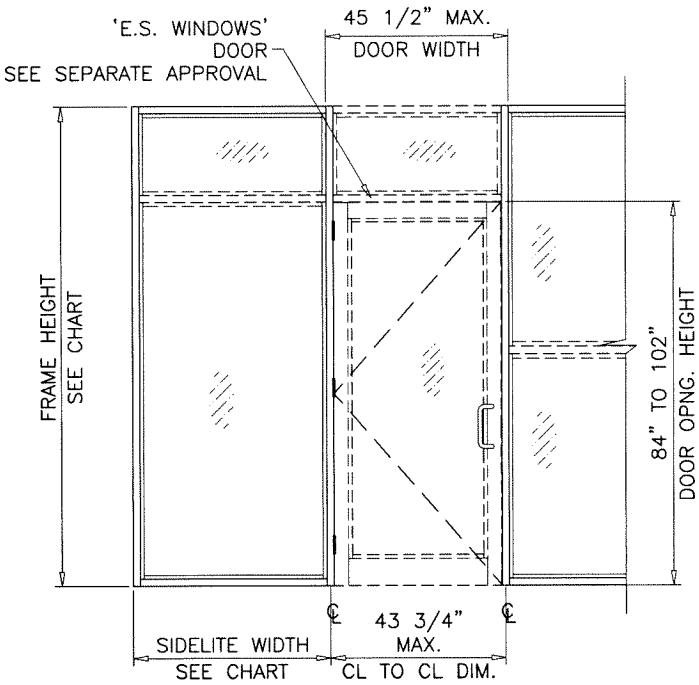
chk. by: -

drawing no.

W15-37

sheet 7 of 13

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	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0
36		90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0
42		90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0
48		90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0
54		87.7	87.7	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0
32	110-1/2	79.8	79.8	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0
36		75.8	75.8	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0
42		70.6	70.6	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0
48		66.1	66.1	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0
32		72.6	72.6	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0
36	114	69.1	69.1	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0
42		64.3	64.3	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0
48		60.2	60.2	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0
32		62.3	62.3	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0
36	120	59.2	59.2	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0
42		55.2	55.2	88.7	88.7	89.1	89.1	90.0	90.0	80.0	88.7
48		51.6	51.6	83.0	83.0	83.4	83.4	90.0	90.0	80.0	82.9

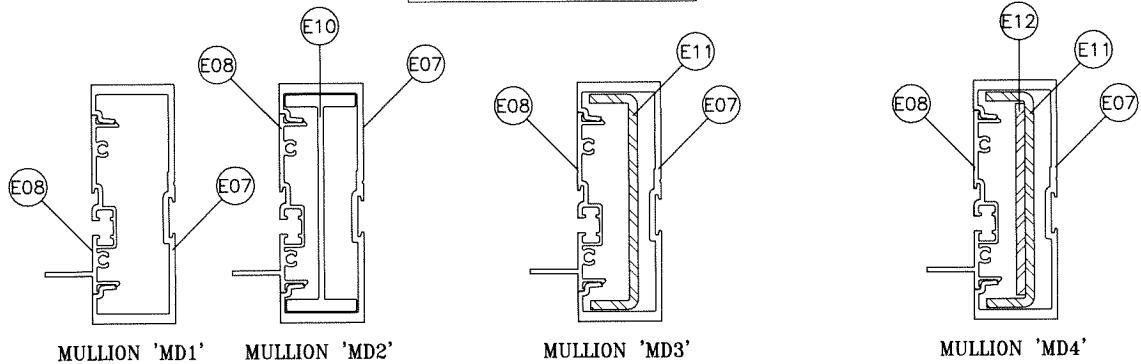


Ix IN^4	Sx IN^3
6.570	2.7226

Ix IN^4	Sx IN^3
10.6577	3.8057

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

Ix IN^4	Sx IN^3
6.5995	2.5891



Ix IN^4	Sx IN^3
6.7195	2.6757

Ix IN^4	Sx IN^3
10.8072	4.4788

ALUMINUM	Ix IN^4	Sx IN^3
STEEL	6.7195	2.6757
TOTAL	2.7506	1.224
Ix ALUM + Ix STL X 2.9	14.6962	

ALUMINUM	Ix IN^4	Sx IN^3
STEEL	6.7195	2.6757
TOTAL	3.7533	1.6681
Ix ALUM + Ix STL X 2.9	17.6041	

Ix IN^4	Sx IN^3
10.5913	4.2065

DOOR-WINDOWALL
TRANSITION MULLION

Sealed: 7/16/2026

FL #17897

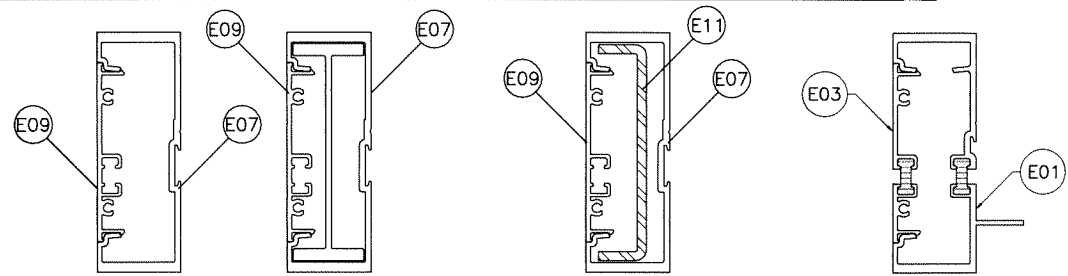


ES-800T ALUM WINDOW WALL SYSTEM (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

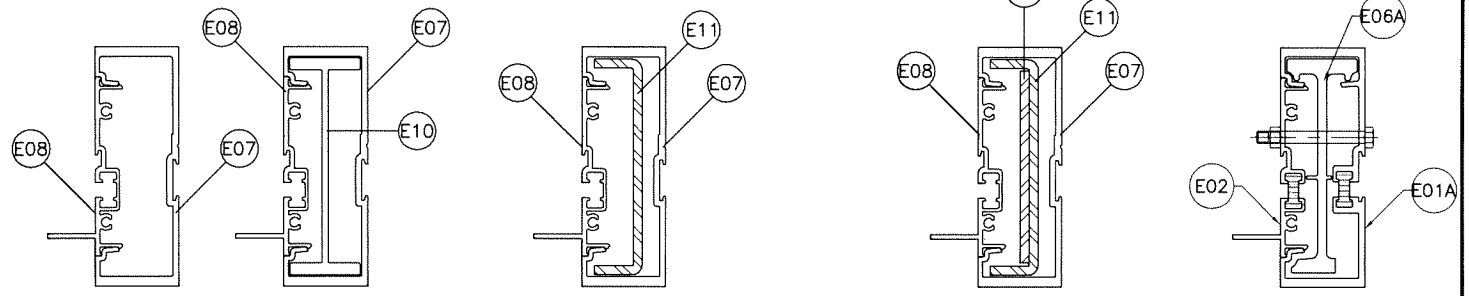
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\W15-37ES

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	96	84	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	36			90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	42			90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	48			90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	54			90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	60			85.7	85.7	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	30	102		90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0
	36			86.9	86.9	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	42			81.5	81.5	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	48			76.7	76.7	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	54			72.5	72.5	90.0	90.0	89.0	89.0	90.0	90.0	80.0	90.0	
	60			74.2	74.2	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	30	108		69.5	69.5	90.0	90.0	89.1	89.1	90.0	90.0	80.0	90.0	
	36			65.4	65.4	90.0	90.0	84.4	84.4	90.0	90.0	80.0	88.9	
	42			61.7	61.7	90.0	90.0	80.2	80.2	90.0	90.0	80.0	84.5	
	48			60.2	60.2	90.0	90.0	81.7	81.7	90.0	90.0	80.0	86.1	
	54			56.6	56.6	90.0	90.0	77.4	77.4	90.0	90.0	80.0	81.5	
	60			53.3	53.3	85.8	85.8	73.4	73.4	87.8	87.8	77.4	77.4	
	30	114		50.5	50.5	81.2	81.2	69.9	69.9	83.5	83.5	73.6	73.6	
	36			49.7	49.7	80.0	80.0	71.9	71.9	85.9	85.9	75.8	75.8	
	42			46.8	46.8	75.3	75.3	68.1	68.1	81.5	81.5	71.8	71.8	
	48			44.2	44.2	71.2	71.2	64.8	64.8	77.4	77.4	68.2	68.2	
	54			41.9	41.9	67.5	67.5	61.7	61.7	73.8	73.8	65.0	65.0	
	60			90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
85-3/4	30	102	90	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	36			86.6	86.6	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	42			81.2	81.2	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	48			76.5	76.5	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	54			79.3	79.3	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	60			74.0	74.0	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	30	108		69.3	69.3	90.0	90.0	88.9	88.9	90.0	90.0	80.0	90.0	
	36			65.2	65.2	90.0	90.0	84.3	84.3	90.0	90.0	80.0	88.0	
	42			63.9	63.9	90.0	90.0	85.6	85.6	90.0	90.0	80.0	89.4	
	48			59.9	59.9	90.0	90.0	80.8	80.8	90.0	90.0	80.0	84.4	
	54			56.3	56.3	90.0	90.0	76.5	76.5	90.0	90.0	79.9	79.9	
	60			53.1	53.1	85.4	85.4	72.7	72.7	86.9	86.9	75.9	75.9	
	30	114		52.4	52.4	84.2	84.2	74.5	74.5	89.1	89.1	77.9	77.9	
	36			49.2	49.2	79.1	79.1	70.5	70.5	84.3	84.3	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	
	48			43.8	43.8	70.5	70.5	63.6	63.6	76.1	76.1	66.5	66.5	
	54			84.6	84.6	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	60			78.6	78.6	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
85-3/4	30	108	96	73.4	73.4	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	36			68.8	68.8	90.0	90.0	89.7	89.7	90.0	90.0	80.0	90.0	
	42			68.2	68.2	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	48			63.5	63.5	90.0	90.0	85.3	85.3	90.0	90.0	80.0	88.4	
	54			59.5	59.5	90.0	90.0	80.6	80.6	90.0	90.0	80.0	83.5	
	60			56.0	56.0	90.0	90.0	76.3	76.3	90.0	90.0	79.1	79.1	
	30	114		55.5	55.5	89.3	89.3	78.0	78.0	90.0	90.0	80.0	80.9	
	36			51.9	51.9	83.5	83.5	73.6	73.6	88.0	88.0	76.3	76.3	
	42			48.8	48.8	78.5	78.5	69.7	69.7	83.3	83.3	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	
	54			84.6	84.6	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	
	60			78.6	78.6	90.0	90.0	90.0	90.0	90.0	90.0	80.0	90.0	

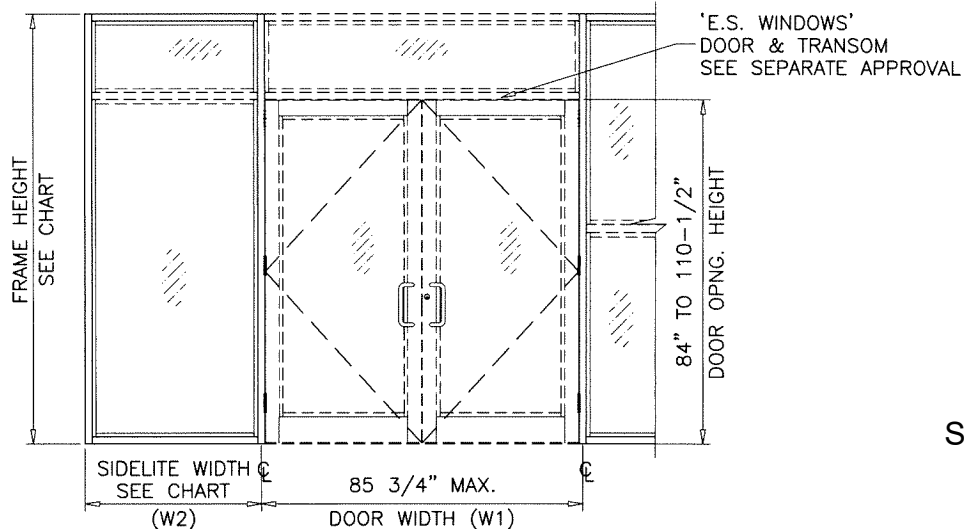
DOOR MULLION LOAD CAPACITY - PSF													
NOMINAL DIMS.				JAMB 'JD1' MULL 'MD1'		JAMB 'JD1' MULL 'MD2'		JAMB 'JD2' JAMB 'JD3' MULL 'MD3'		JAMB 'JD3' MULL 'MD4'		JAMB 'JD4' MULL 'MD5'	
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+)	INT.(−)	EXT.(+)	INT.(−)	EXT.(+)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



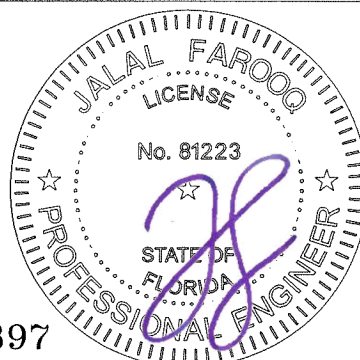
JAMB 'JD1'		JAMB 'JD2'		JAMB 'JD3'		JAMB 'JD4'		
Ix IN ⁴	Sx IN ³	Ix IN ⁴	Sx IN ³		Ix IN ⁴	Sx IN ³	Ix IN ⁴	Sx IN ³
6.570	2.7226	10.6577	3.8057	ALUMINUM	6.570	2.7226	6.5995	2.5891
				STEEL	2.7506	1.2224		
				TOTAL				
				Ix ALUM + Ix STL X 2.9	14.5467			



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
				STEEL	2.7506	1.224	STEEL	3.7533	1.6681
				TOTAL			TOTAL		
				Ix ALUM + Ix STL X 2.9	14.6962		Ix ALUM + Ix STL X 2.9	17.6041	



DOOR-WINDOW WALL
TRANSITION MULLION



Sealed: 7/16/2026

FL #17897

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

ES-8000T 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

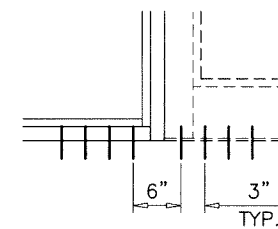
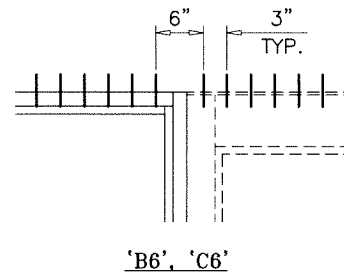
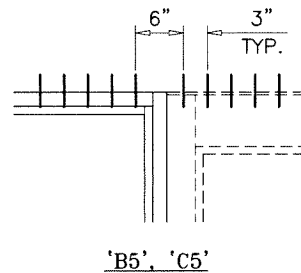
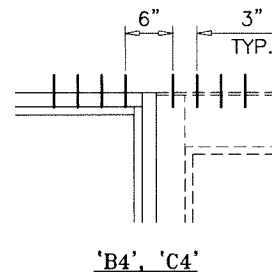
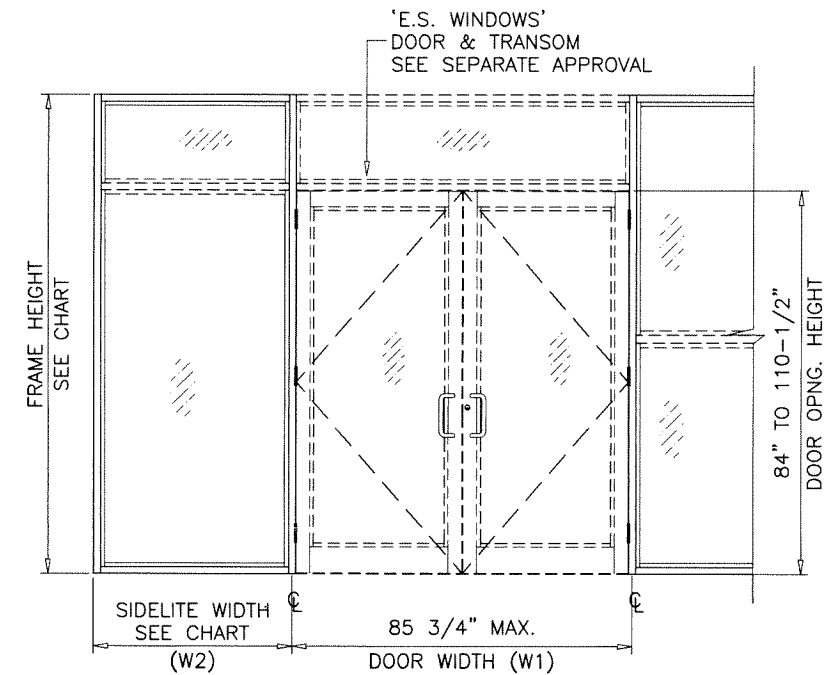
date: 07-16-15
scale: -
dr. by: TARIQ
chk. by:

drawing no.
W15-37
sheet 7.2 of 13

DOOR MULLION HEAD ANCHOR LOAD CAPACITY – PSF						
NOMINAL DIMS.				'B4'/'C4'	'B5'/'C5'	'B6'/'C6'
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(–)	EXT.(+) INT.(–)	EXT.(+) INT.(–)
85–3/4	30	96	84	89.6	90.0	90.0
	36			85.0	90.0	90.0
	42			80.8	90.0	90.0
	48			77.0	90.0	90.0
	54			73.6	90.0	90.0
	60			70.4	88.0	90.0
	30	102		86.0	90.0	90.0
	36			81.5	90.0	90.0
	42			77.4	90.0	90.0
	48			73.8	90.0	90.0
	54			70.4	88.0	90.0
	30			108	82.7	90.0
	36	78.3			90.0	90.0
	42	74.3			90.0	90.0
	48	70.8			88.4	90.0
	30	114		79.7	90.0	90.0
	36			75.4	90.0	90.0
	42			71.5	89.4	90.0
	48			68.0	85.0	90.0
	30	120		76.9	90.0	90.0
	36			72.6	90.0	90.0
	42			68.9	86.1	90.0
	48			65.4	81.8	90.0
	85–3/4	30		102	90	84.1
36		79.7	90.0			90.0
42		75.8	90.0			90.0
48		72.3	90.0			90.0
54		69.1	86.4			90.0
30		108	80.9	90.0		90.0
36			76.7	90.0		90.0
42			72.9	90.0		90.0
48			69.4	86.8		90.0
30		114	78.0	90.0		90.0
36			73.9	90.0		90.0
42			70.1	87.7		90.0
48			66.8	83.5		90.0
30		120	75.3	90.0		90.0
36			71.2	89.1		90.0
42			67.6	84.5		90.0
48			64.3	80.4		90.0

DOOR MULLION HEAD ANCHOR LOAD CAPACITY - PSF						
NOMINAL DIMS.				'B4'/'C4'	'B5'/'C5'	'B6'/'C6'
WIDTH (W1) INCHES	WIDTH (W2) INCHES	FRAME HEIGHT INCHES	DOOR HEIGHT INCHES	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)
85-3/4	30	108	96	79.2	90.0	90.0
	36			75.1	90.0	90.0
	42			71.5	89.3	90.0
	48			68.1	85.2	90.0
	30	114		76.4	90.0	90.0
	36			72.4	90.0	90.0
	42			68.8	86.0	90.0
	48			65.6	82.0	90.0
	30	120		73.8	90.0	90.0
	36			69.9	87.4	90.0
	42			66.4	83.0	90.0
	48			63.2	79.0	90.0
85-3/4	30	114	102	74.9	90.0	90.0
	36			71.0	88.8	90.0
	42			67.6	84.5	90.0
	48			64.4	80.5	90.0
	30	120		72.4	90.0	90.0
	36			68.6	85.7	90.0
	42			65.2	81.5	90.0
	48			62.1	77.7	90.0
85-3/4	30	120	110-1/2	70.4	88.0	90.0
	36			66.8	83.5	90.0
	42			63.6	79.5	90.0
	48			60.7	75.9	90.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



'B4' AT SILL ALL CASES

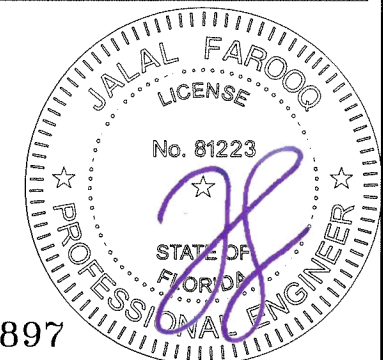
ANCHORS TYPES: SEE SHEET 8 FOR DESCRIPTION

B4 = (4) ANCHORS TYPE 'B' AT EACH SIDE OF DOOR MULLION
 B5 = (5) ANCHORS TYPE 'B' AT EACH SIDE OF DOOR MULLION
 B6 = (6) ANCHORS TYPE 'B' AT EACH SIDE OF DOOR MULLION

C4 = (4) ANCHORS TYPE 'C' AT EACH SIDE OF DOOR MULLION
 C5 = (5) ANCHORS TYPE 'C' AT EACH SIDE OF DOOR MULLION
 C6 = (6) ANCHORS TYPE 'C' AT EACH SIDE OF DOOR MULLION

ALL OTHER ANCHORS TO BE SPACED AS PER ELEVATION.
 SHIM SPACE FOR ANCHORS TYPE 'C' LIMITED TO 1/4" MAX.

TRANSITION MULLION ANCHORS



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FL #17897

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

E.S. WINDOWS, LLC
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 TEL. (305) 638-5151 FAX. (305) 638-5158

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

COMP-ANL W15-37ES

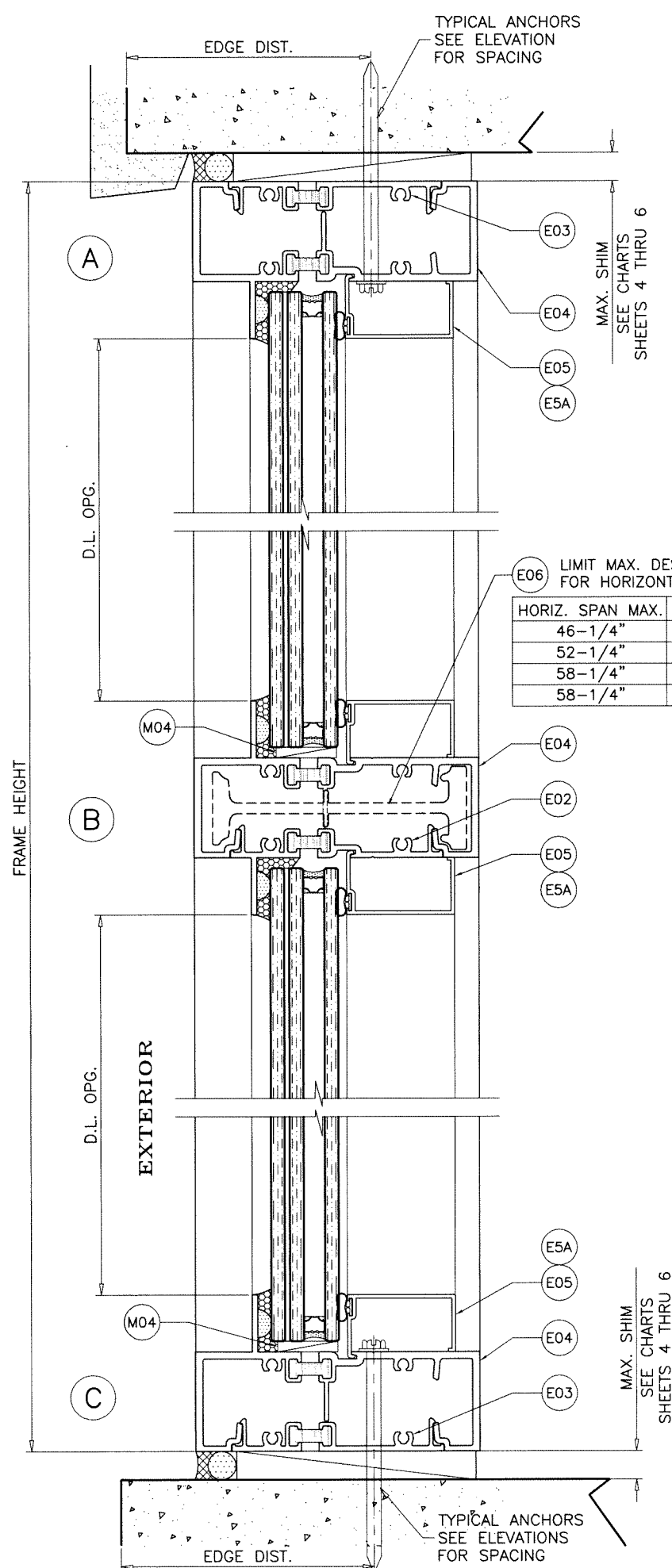
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drawing no.

W15-37

sheet 8 of 13



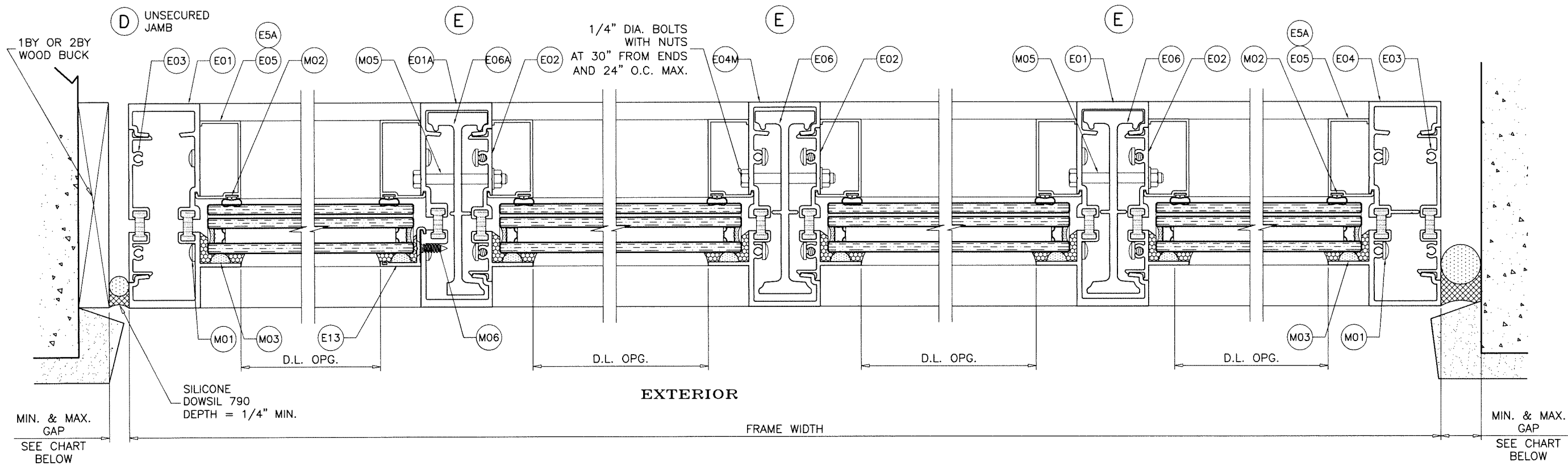
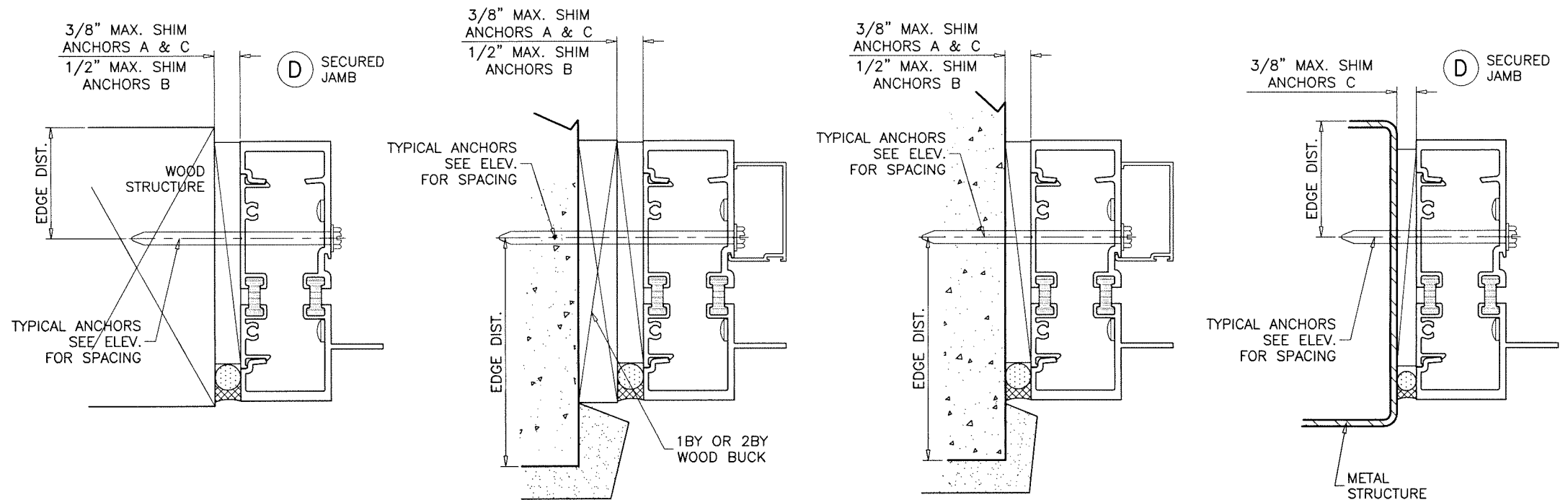
LIMIT MAX. DESIGN LOADS FOR HORIZONTAL AS FOLLOWS		
HORIZ. SPAN MAX.	LOAD CAPACITY — PSF	
46—1/4"	120.0	W/O REINF.
52—1/4"	70.0	
58—1/4"	51.0	
58—1/4"	60.0	WITH REINF.

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

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FL #17897



MAX. GAPS FOR UNANCHORED JAMBS		
MAX. FRAME HEIGHT	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"

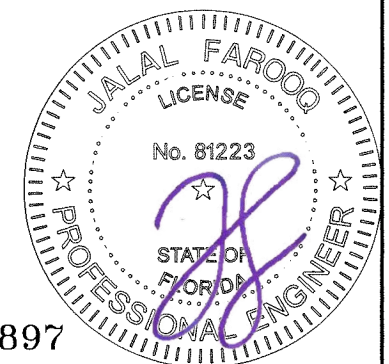
NOTE:
 MAX. MOVEMENT CONSIDERED=100% STRETCH.
 PLEASE REFER TO SEALANT MANUFACTURER'S DATA AND APPLICATION MANUAL FOR COMPATABILITY OF SEALANT TO SUBSTRATE & WINDOWALL MATERIAL/FINISH AND COMPLIANCE FOR WARRANTY.
 REFER TO ACI-117-10 FOR CONSTRUCTION TOLERANCES.

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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FL #17897



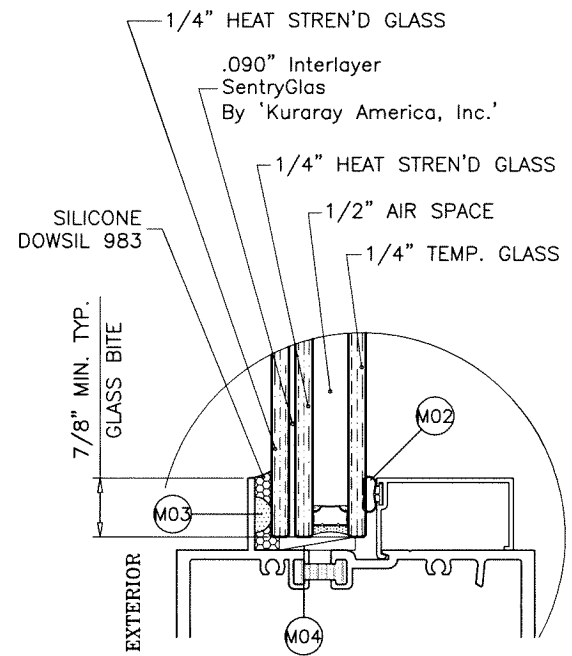
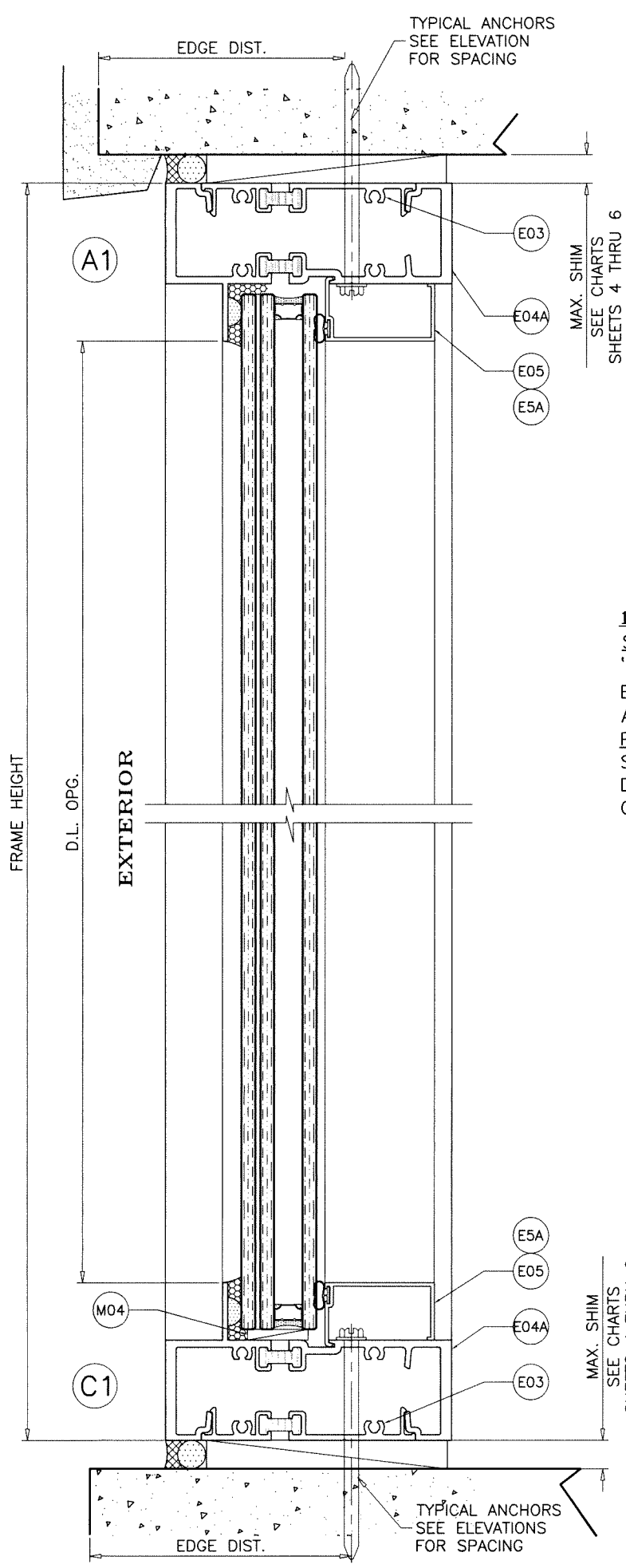
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revisions:		by description	
no	date		

date: 07-16-15
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 dr. by: TARIQ
 chk. by:
 drawing no.
W15-37
 sheet 10 of 13

COMP-ANL W15-37ES

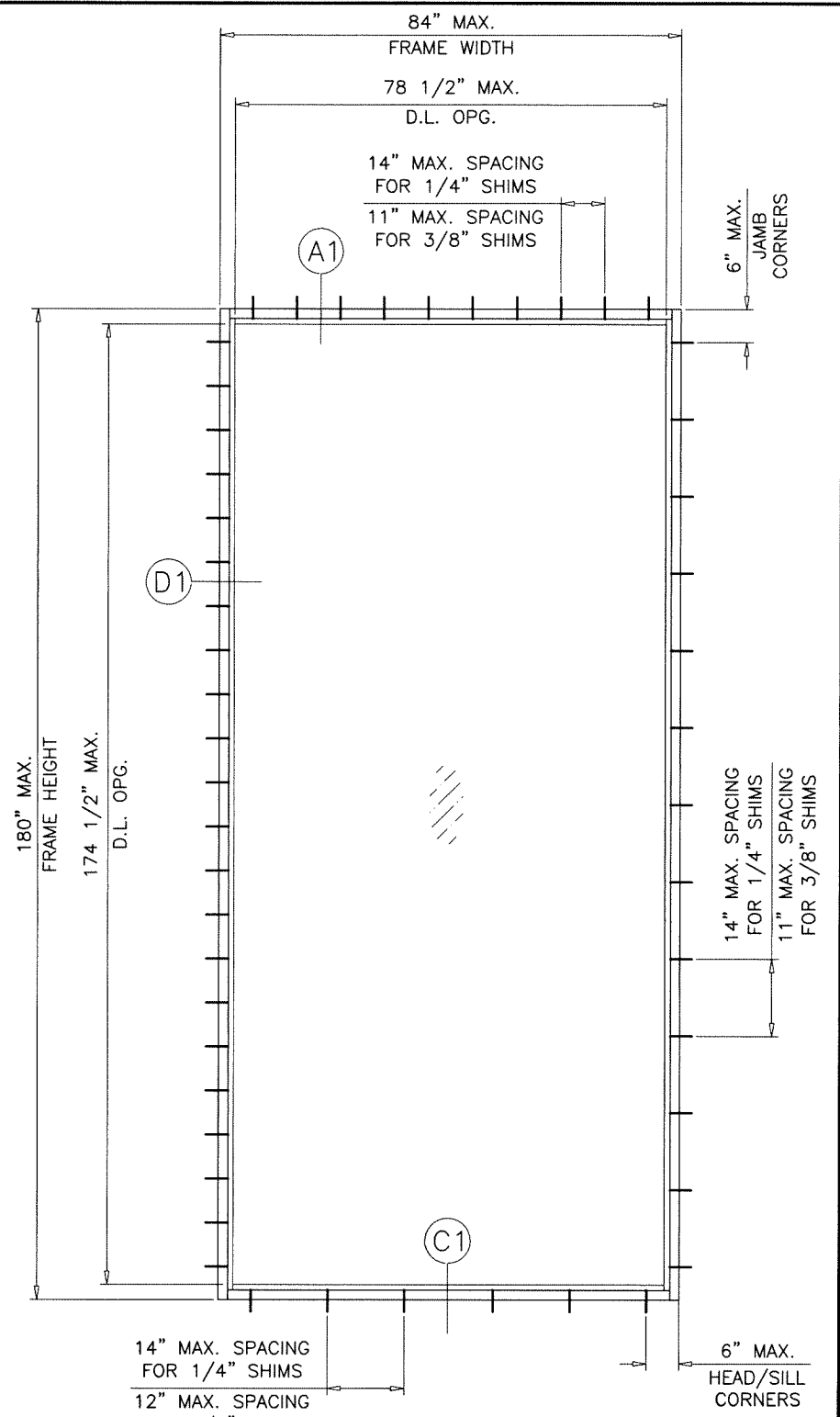
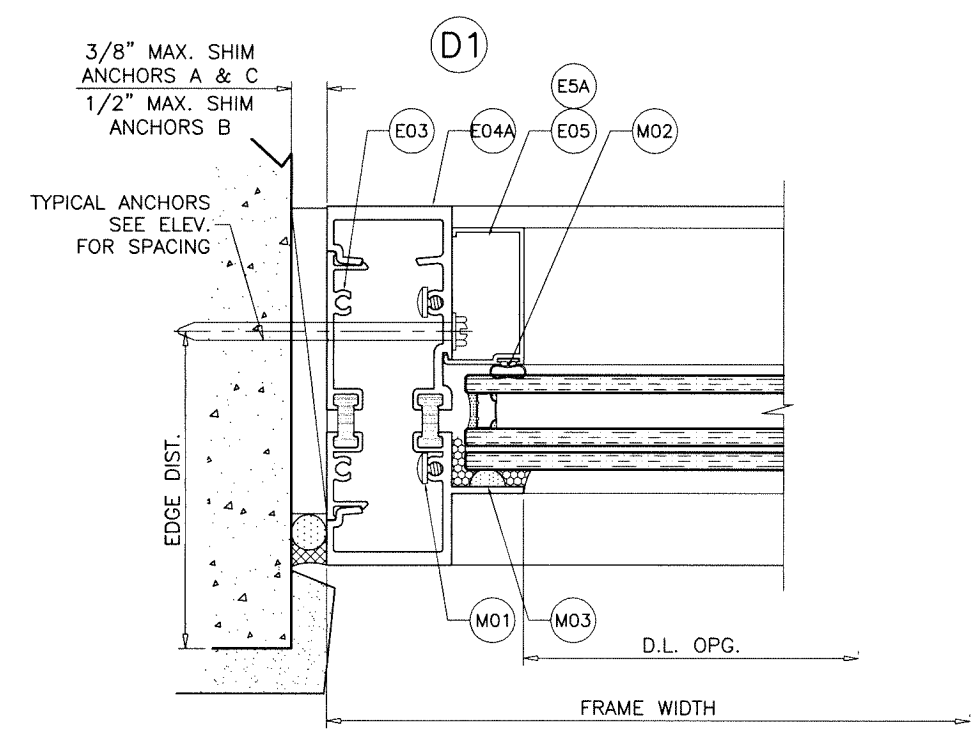


GLASS TYPE 'GL3'
1-5/16" OVERALL INSUL. LAM. GLASS

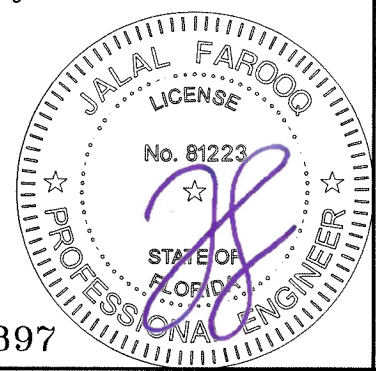
1/2" AIR SPACE CONSISTING OF:
SPACER:
'HELIMA' LOW PROFILE ALUMINUM SPACER
BY 'LINGERMANN GMBH'
AROUND THE PERIMETER OF THE GLASS.
PERIMETER SEALANT:
SILICONE
DOWSIL 791
GE 2000

**MAXIMUM DESIGN LOAD RATING = + 70.0 PSF
- 70.0 PSF**
(FOR SINGLE UNITS SHOWN IN THIS SHEET OR SMALLER)

THESE FRAMES CAN BE USED AT ALL SUBSTRATES SHOWN
ON SHEETS 9 AND 10.



**TYPICAL ELEVATION
SINGLE (O) PANEL**
Scale: 3/8"=1'-0"



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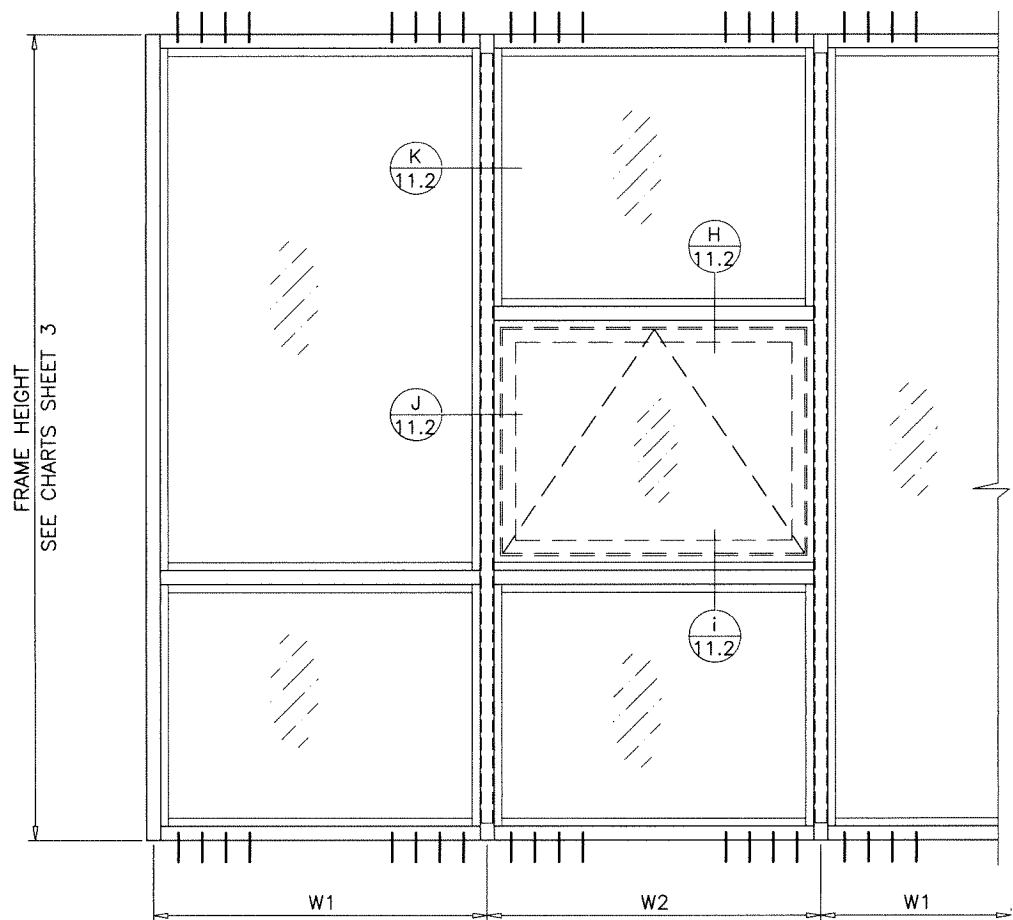
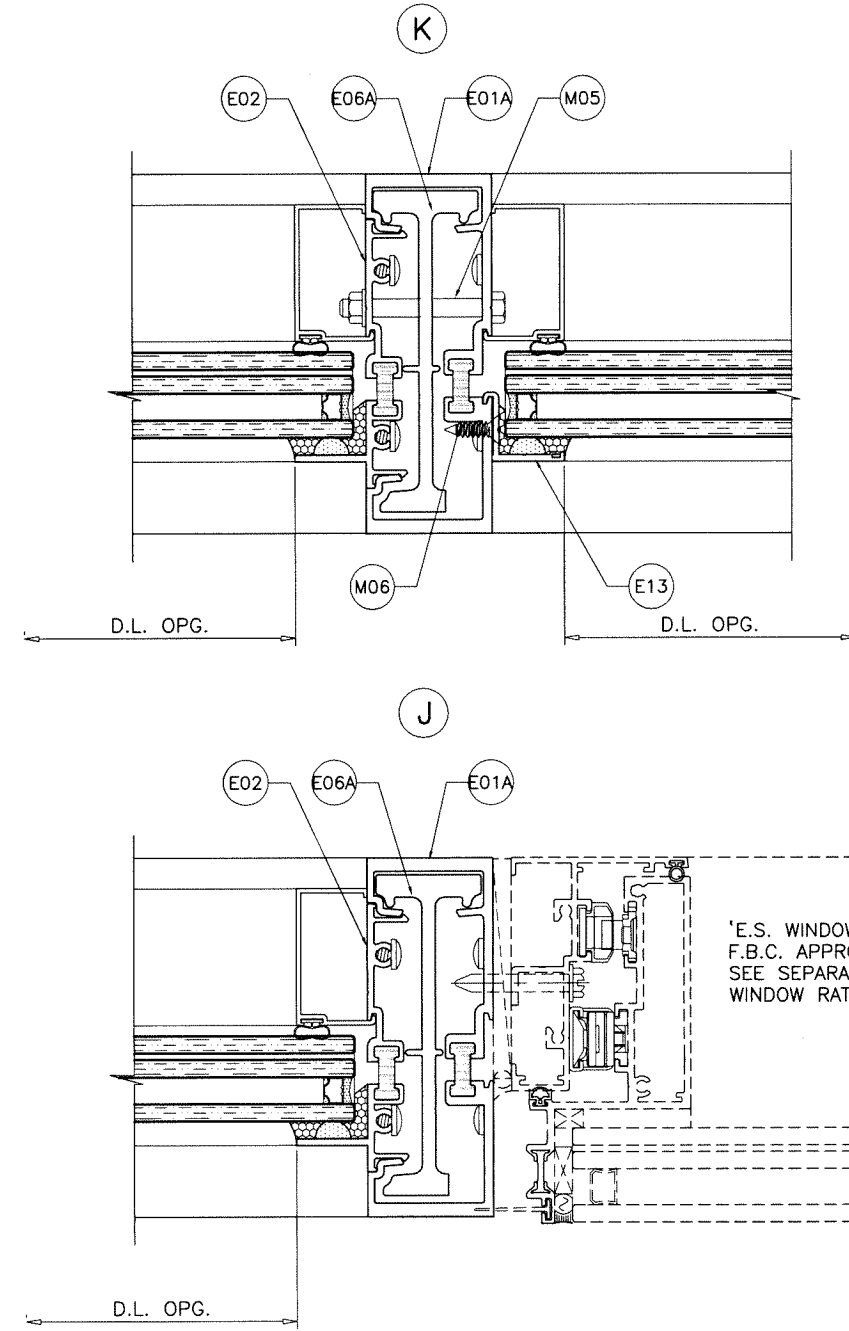
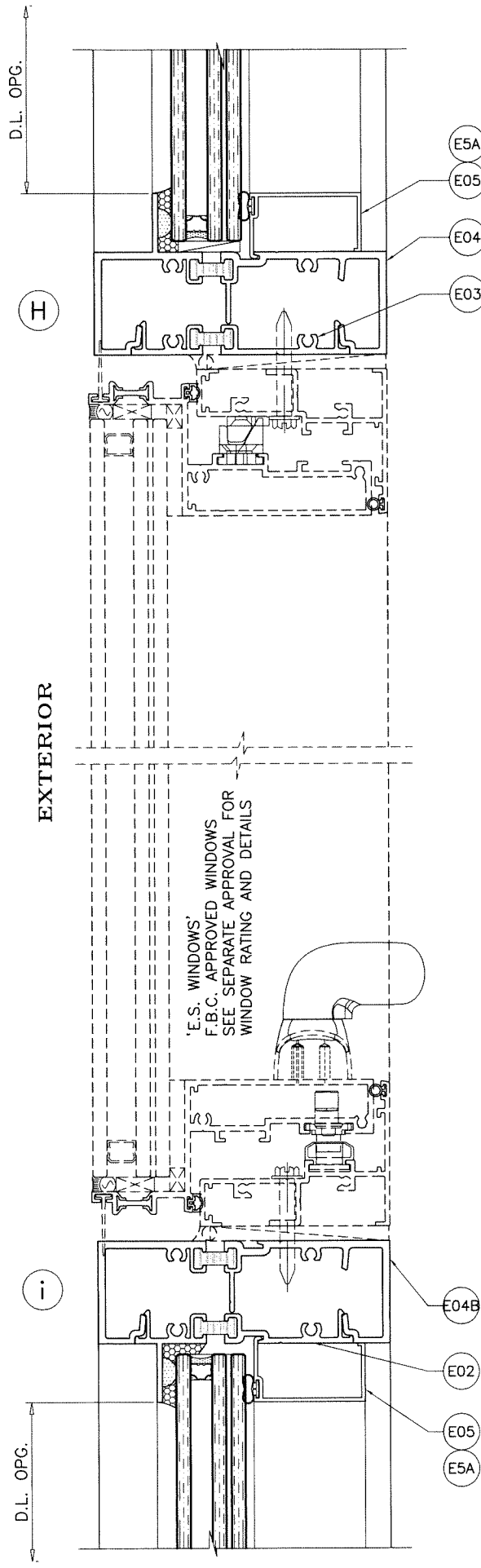
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date: 07-16-15
scale: 3/8" = 1"
dr. by: TARIQ
chk. by:

drawing no.
W15-37
sheet 11.1 of 13

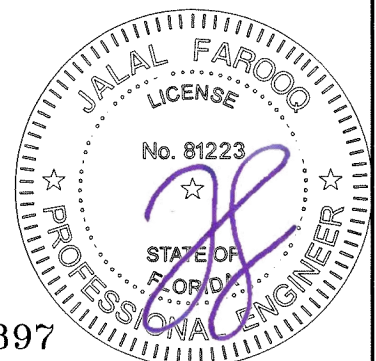


TYPICAL INSTALLATION OF WINDOWS IN THE WINDOW WALL SYSTEM

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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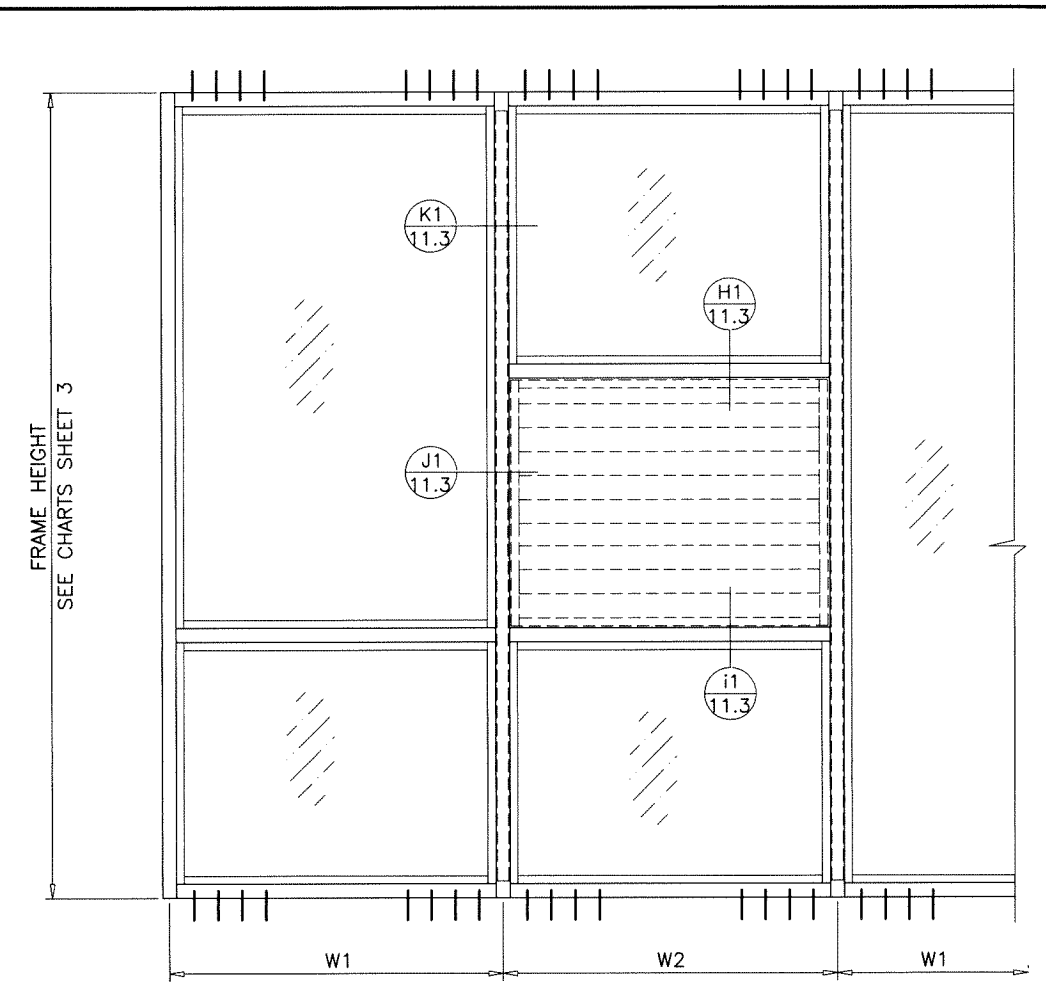
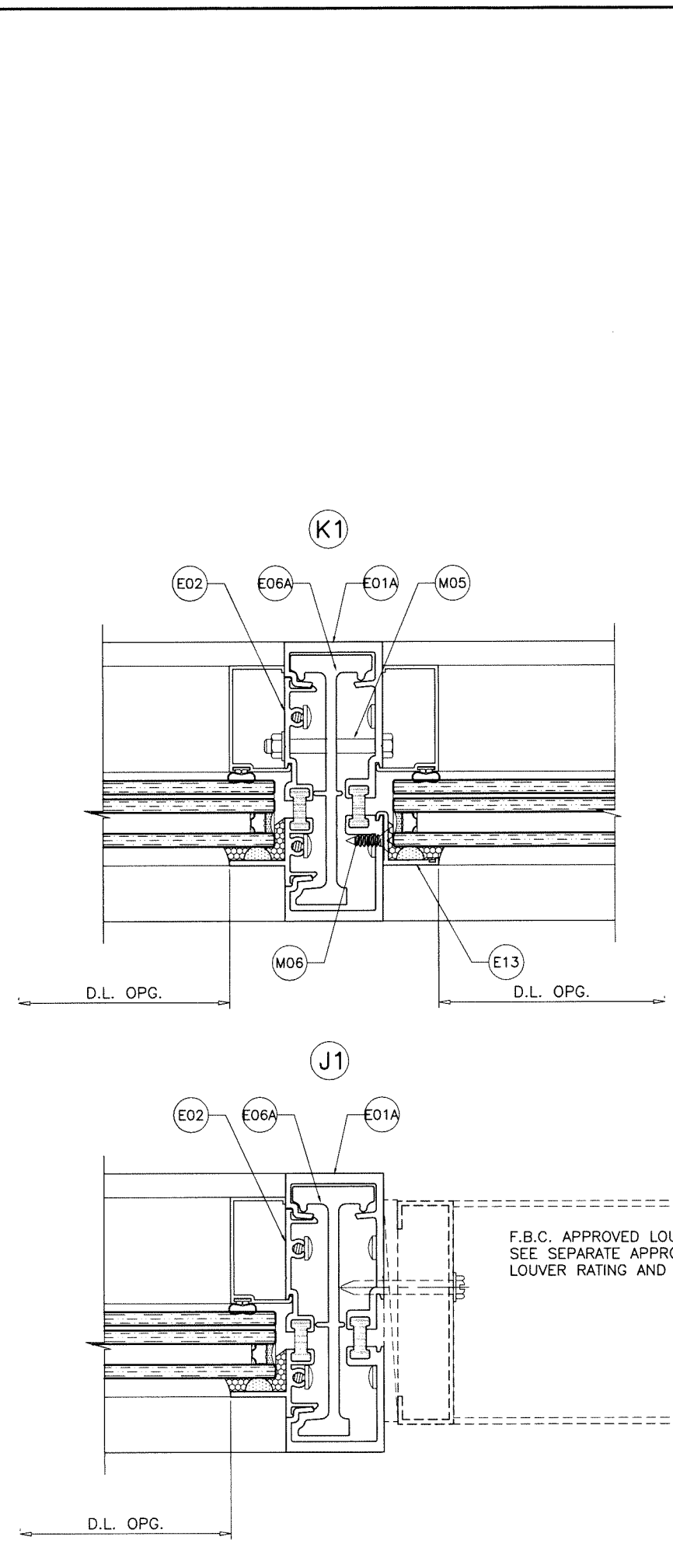
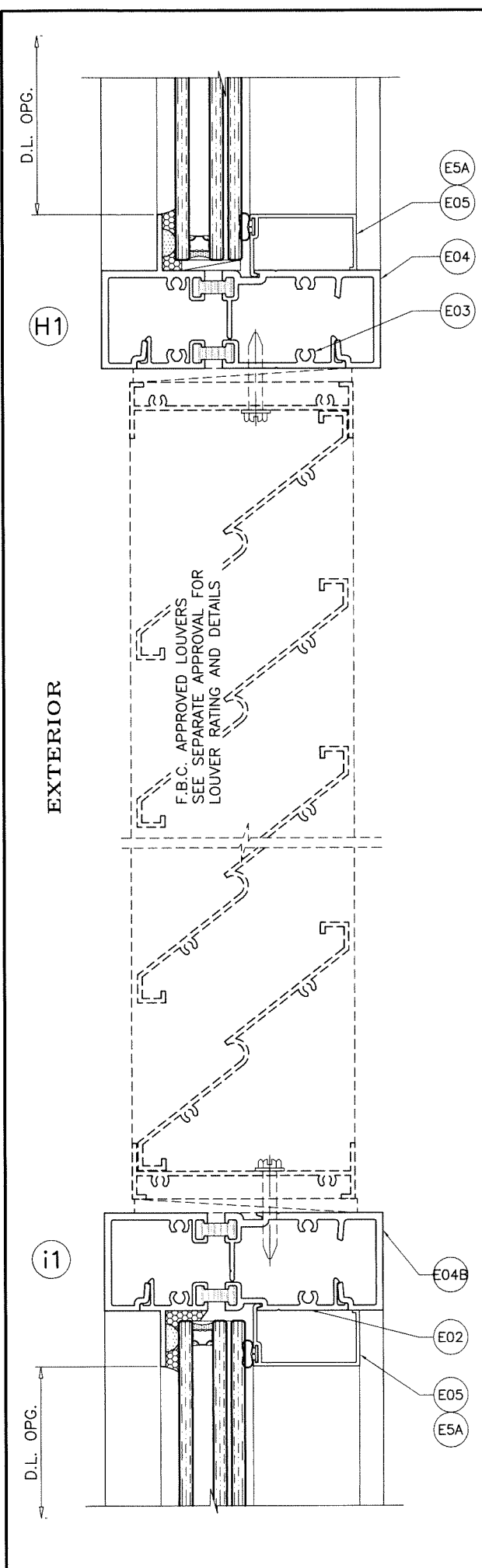
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drawing no. W15-37			
sheet 11.2 of 13			



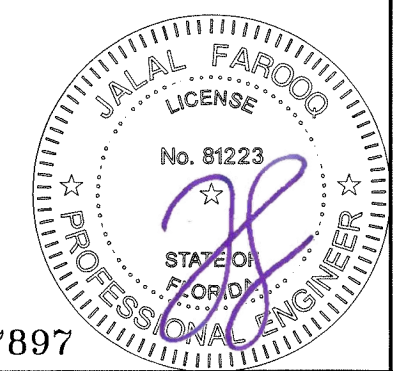
TYPICAL INSTALLATION OF LOUVERS IN THE WINDOW WALL SYSTEM
 USE LOUVERS HOLDING CURRENT APPROVAL
 REFER TO NOTES ON SHEET 1

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

AT FRAME MULLION

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FL #17897



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COMP-ANL W15-37ES

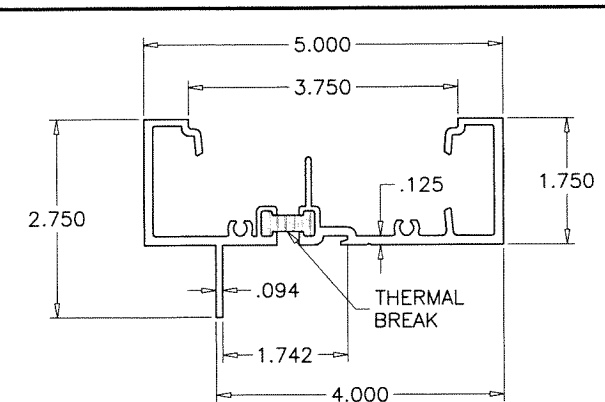
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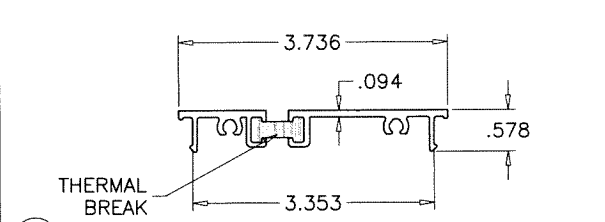
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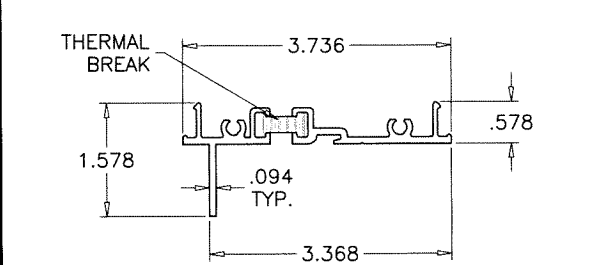
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 sheet 11.3 of 13



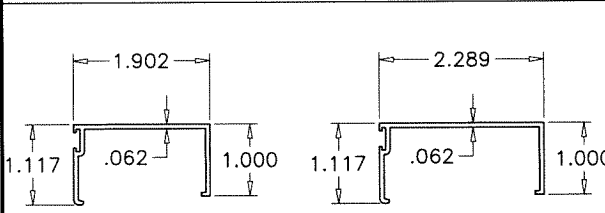
E04 FRAME HEAD/SILL/INTERMEDIATE



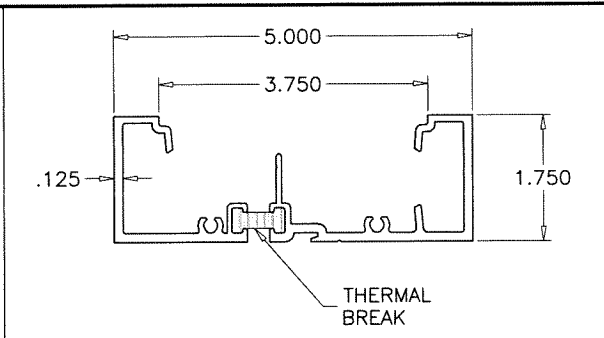
E03 FRAME HEAD/SILL/JAMB SNAP-IN PLATE



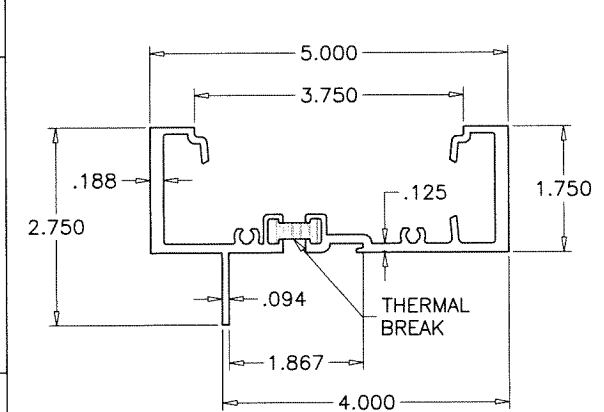
E02 SNAP-IN MATE



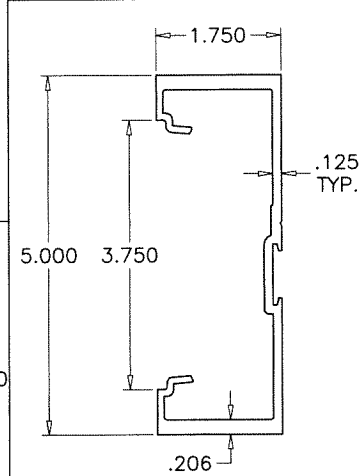
E05 GLAZING BEADS



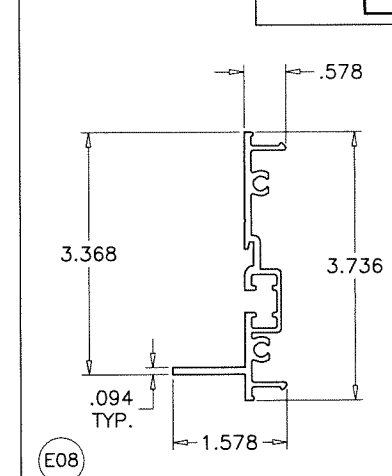
E04B FRAME HEAD/SILL/INTERMEDIATE



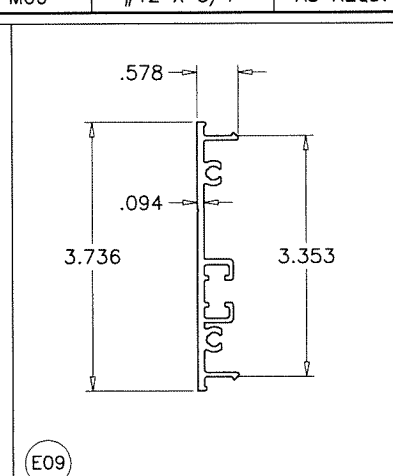
E04A FRAME HEAD/SILL/JAMB



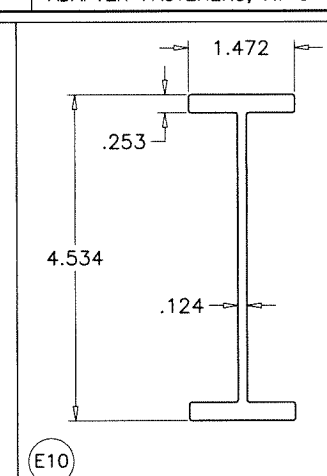
E07 DOOR MULLION



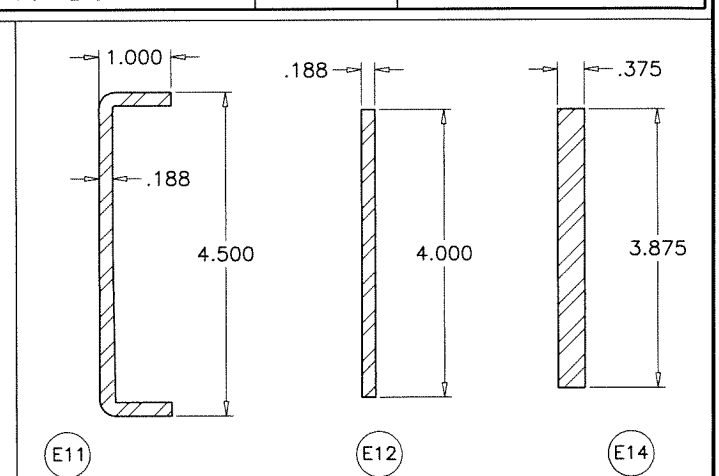
E08 DOOR MULL SNAP-IN MATE



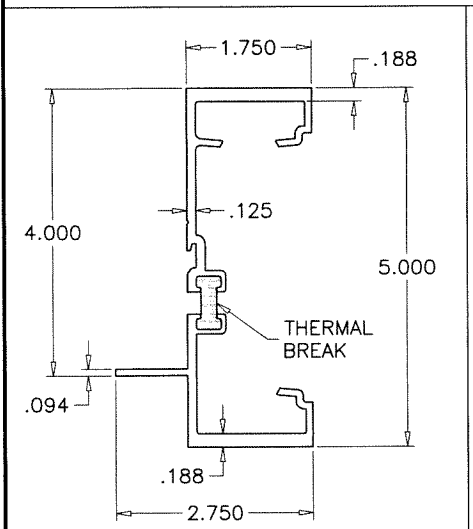
E09 DOOR MULL SNAP-IN PLATE



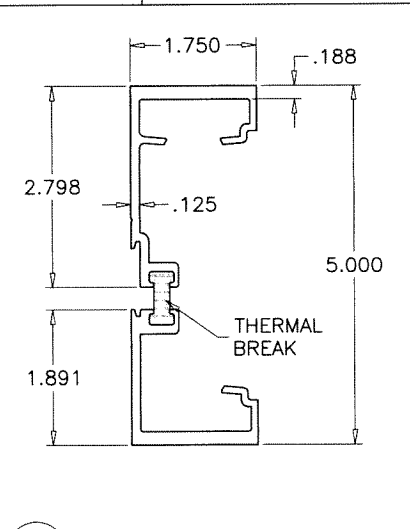
E10 DOOR MULL STIFFENER



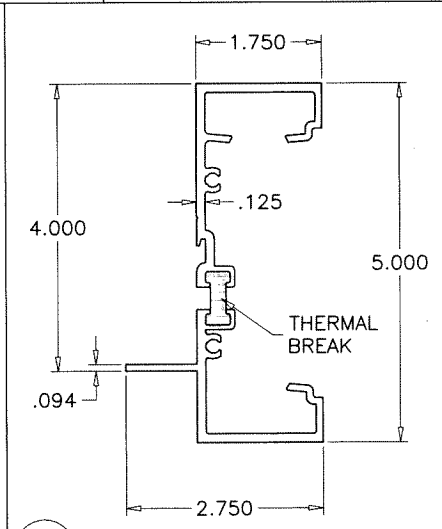
E11 E12 E14 MULL STEEL REINF.



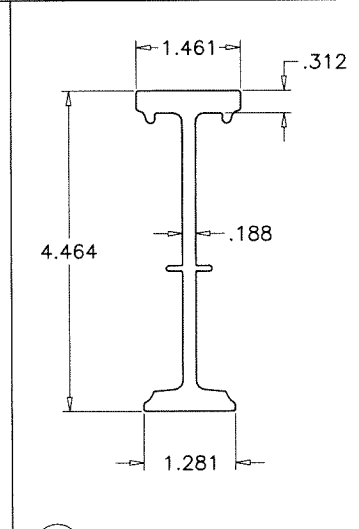
E01 JAMB/VERTICAL MULLION



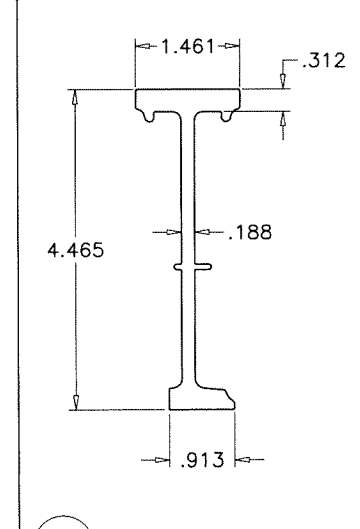
E01A VERTICAL MULLION



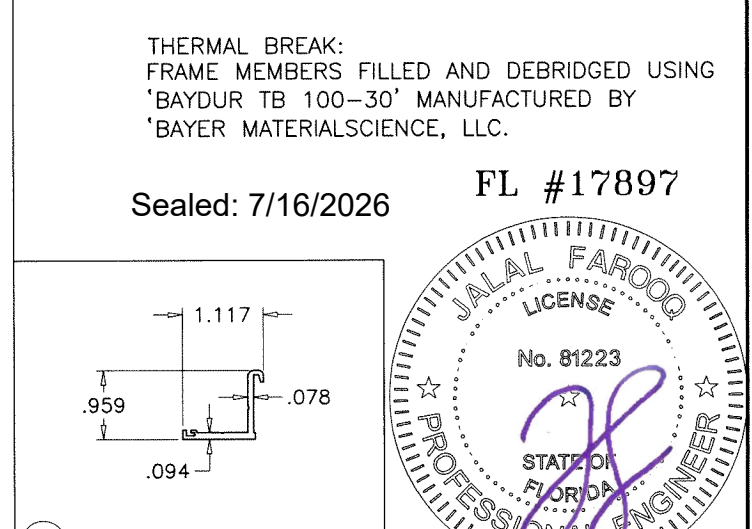
E04M VERTICAL MULLION



E06 STIFFENER



E06A STIFFENER



E13 EXT. GLAZING ADAPTER

ITEM #	PART #	REQ'D	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
E01	ES-8000T-001	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-003	AS REQD.	HEAD/SILL/JAMB SNAP-IN PLATE	6005-T5	-
E04	ES-8000T-004	AS REQD.	FRAME HEAD/SILL/INTERMEDIATE	6005-T5	-
E04M	ES-8000T-004	AS REQD.	VERTICAL MULLION	6005-T5	-
E04A	ES-8000T-007	AS REQD.	FRAME HEAD/SILL/JAMB (GLASS TYPE GL3)	6005-T5	-
E04B	ES-8000T-012T	AS REQD.	FRAME HEAD/SILL/INTERMEDIATE	6005-T5	-
E05	ES-8000T-005	AS REQD.	GLAZING BEAD	6063-T5	-
E5A	ES-8000T-019	AS REQD.	ALT. GLAZING BEAD	6005-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 70±3 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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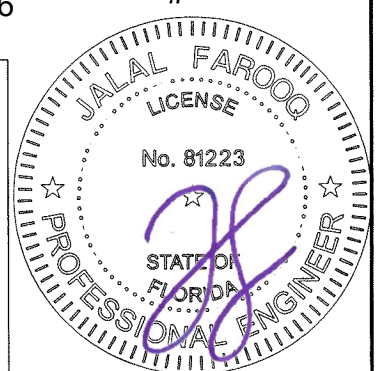
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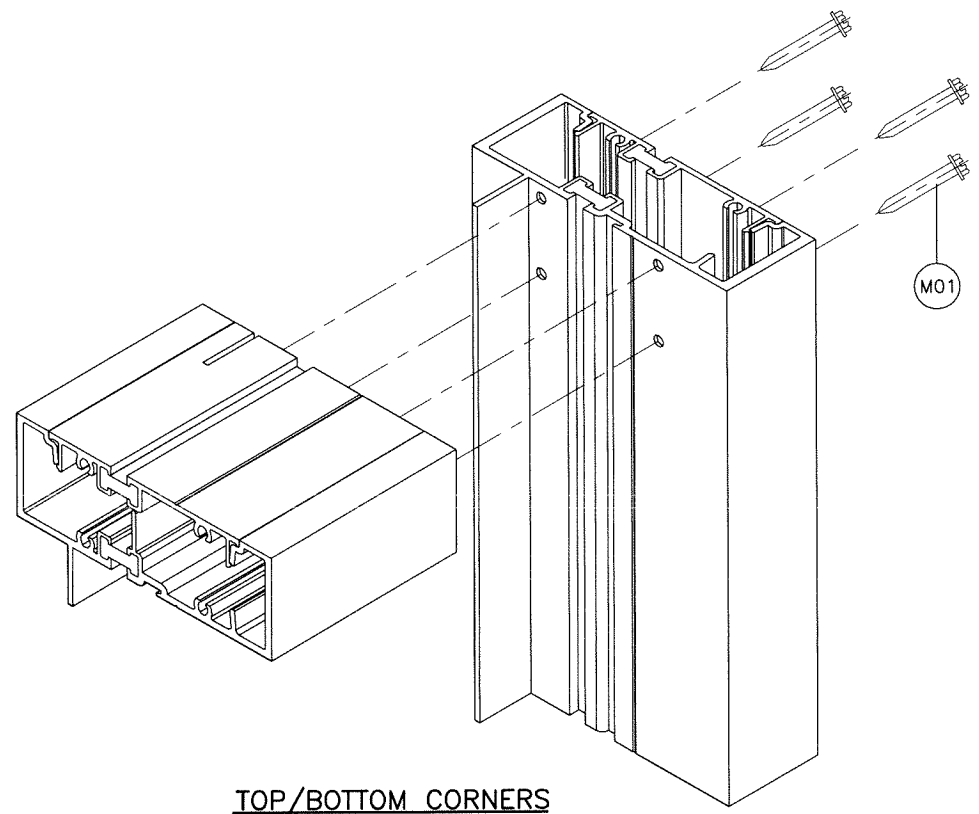
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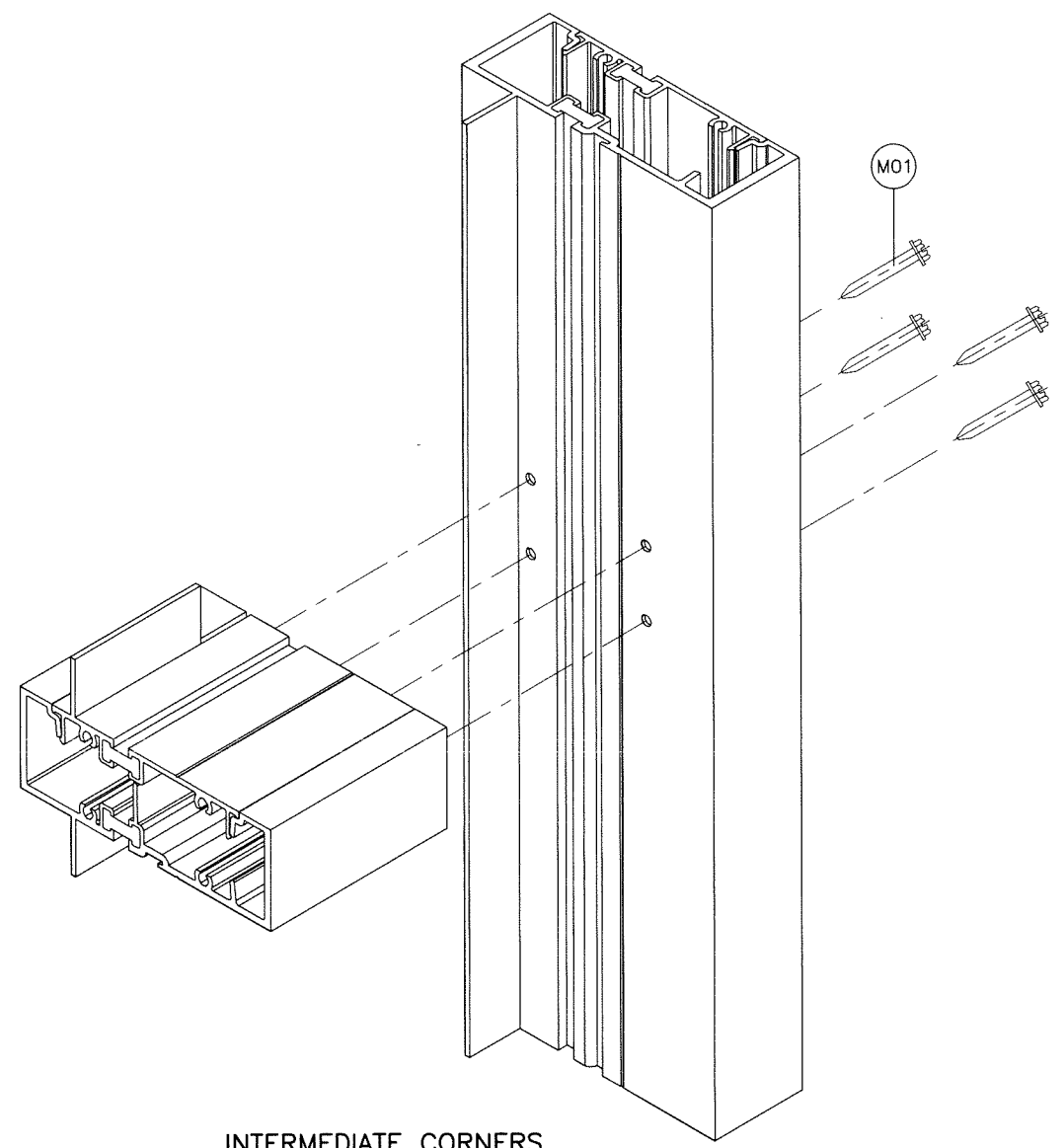
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W15-37
sheet 12 of 13

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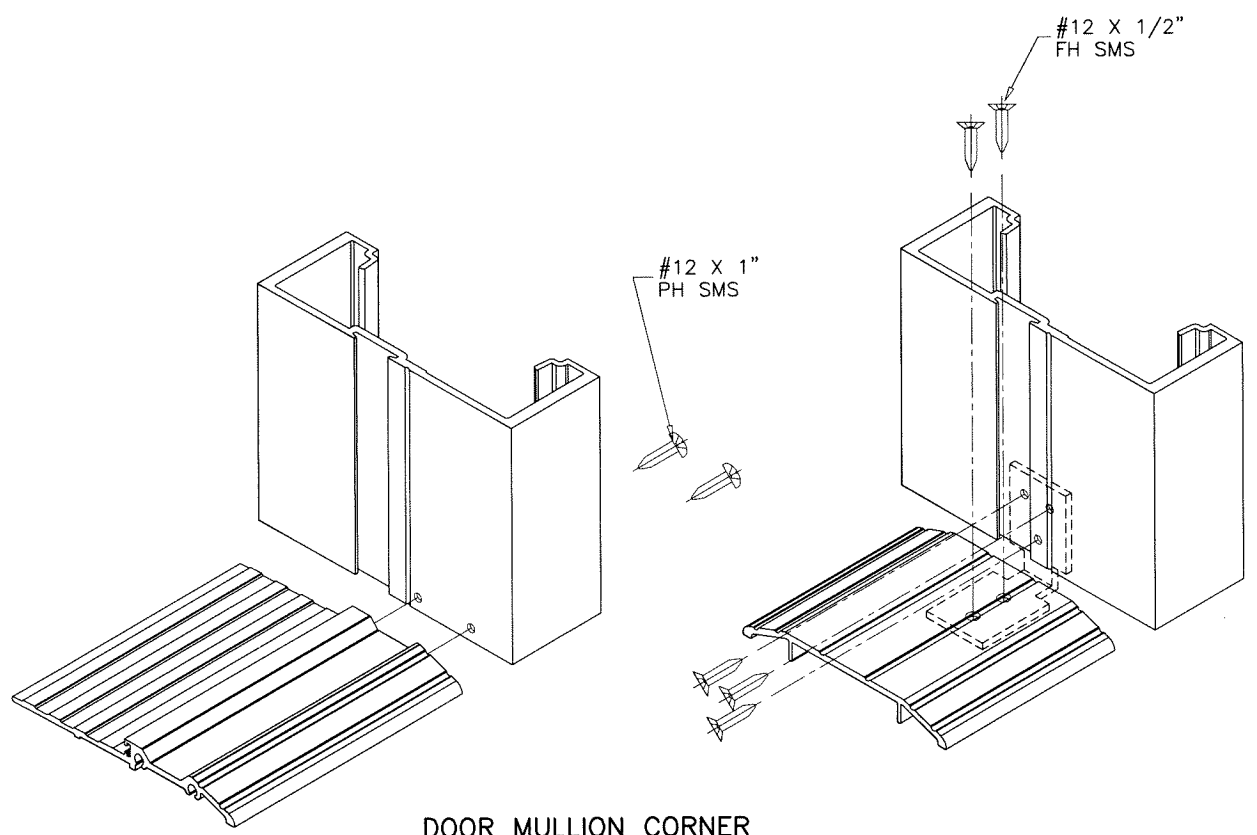




TOP/BOTTOM CORNERS



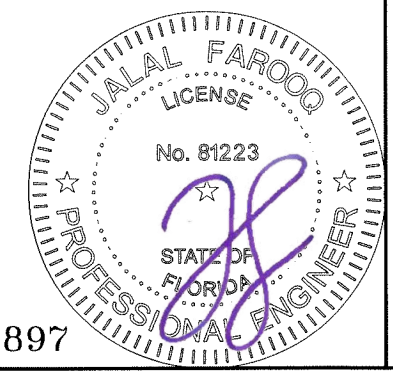
INTERMEDIATE CORNERS



DOOR MULLION CORNER

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sheet 13 of 13