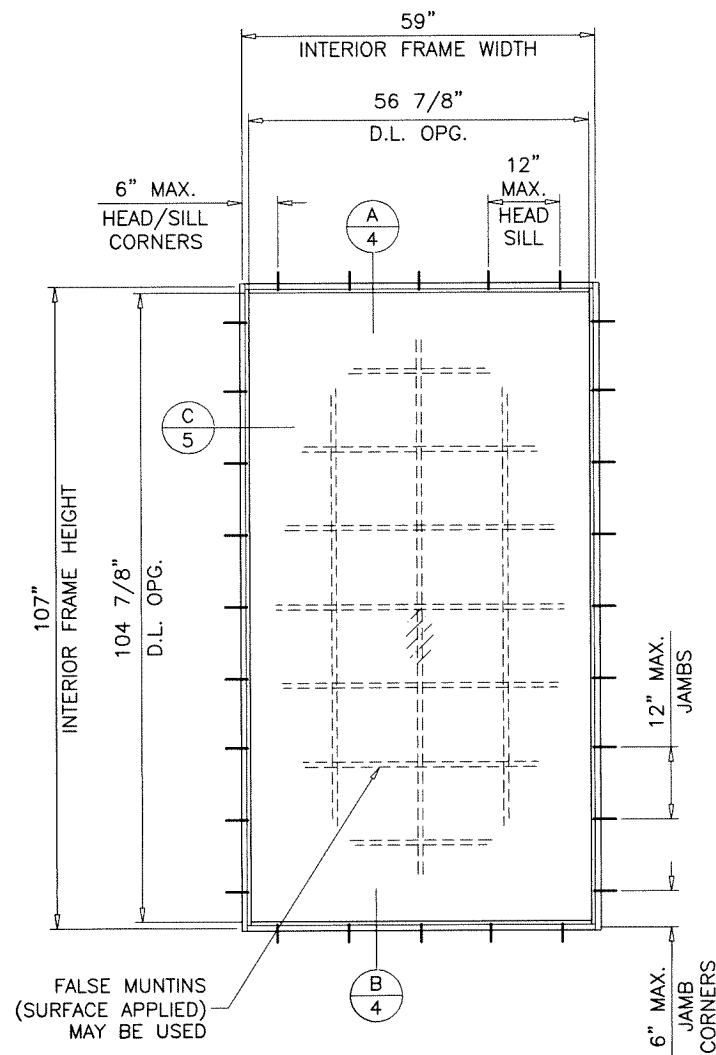
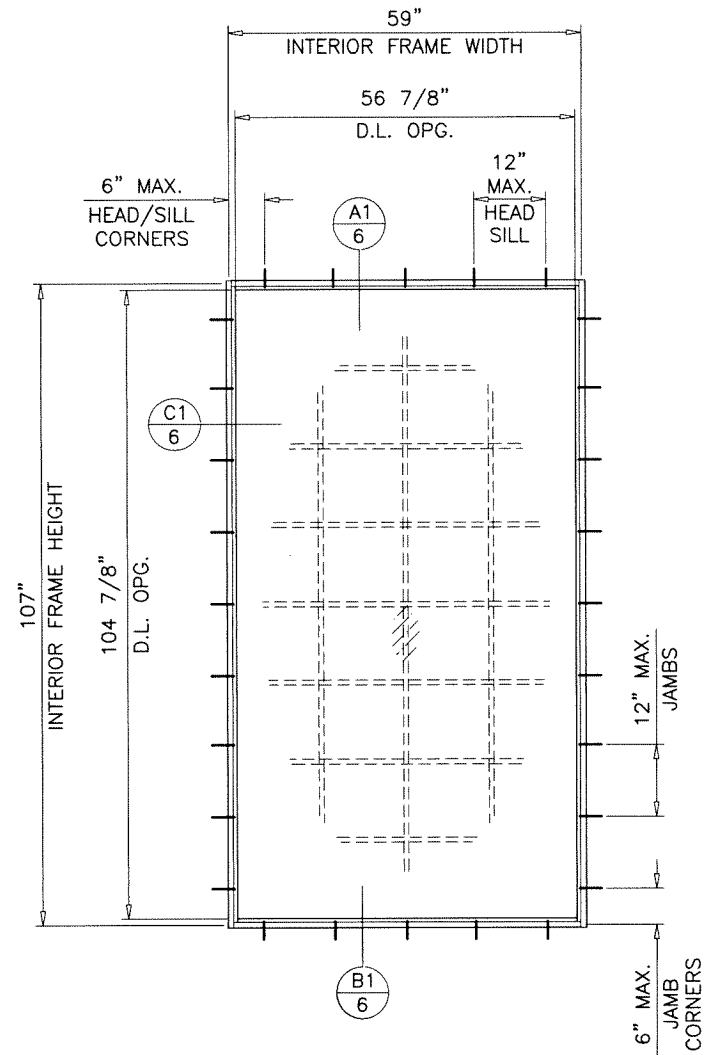
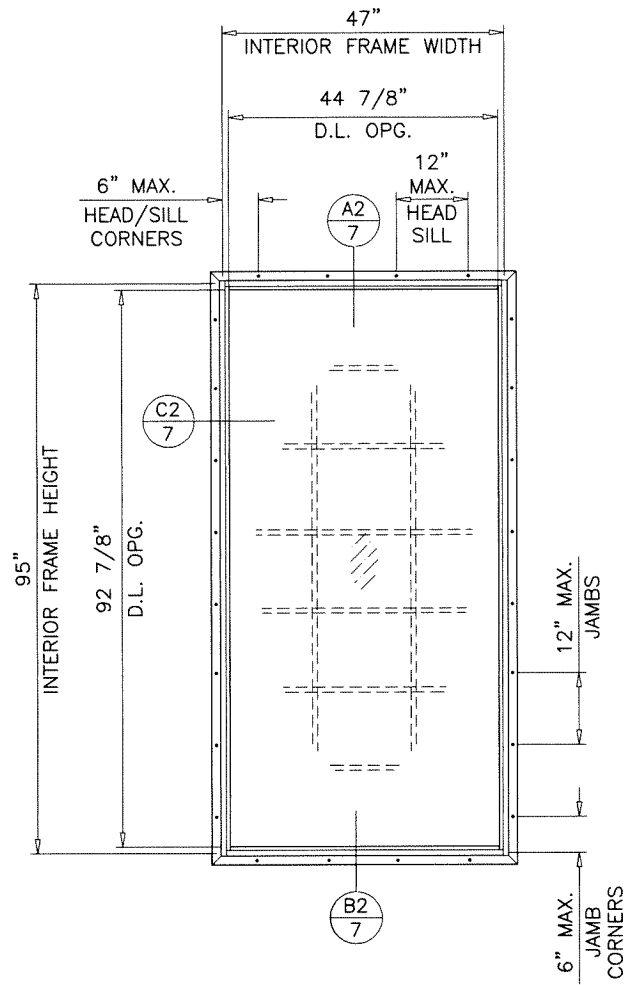




TYPICAL ELEVATION
FLANGE FRAMES



TYPICAL ELEVATION
FLANGE FRAMES WITH FLUSH ADAPTER



TYPICAL ELEVATION
FLANGE FRAMES WITH FIN ADAPTER

WINDOWS WITH FIN FRAME ADAPTERS LIMITED TO GLASS TYPES 'A', 'Ai', 'B', 'Di' & 'Ei' ONLY

DAYLITE OPENINGS:
D.L.O. HEIGHT = WINDOW HEIGHT - 3.125"
D.L.O. WIDTH = WINDOW WIDTH - 3.125"

WINDOWS COMPLY WITH REQUIREMENTS OF ANSI Z97.1.

THESE WINDOWS ARE RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

Sealed: 4/25/2025

FL #21461

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.



ES-EL150 FIXED ALUMINUM WINDOW

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEETS 3 AND 3.1.

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF FIX./FIX. OR FIXED WITH OTHER WINDOW TYPES IN MODULES OF TWO OR MORE WINDOWS USING F.B.C. APPROVED MULLIONS IN BETWEEN. LOWER DESIGN PRESSURE FROM WINDOWS OR MULLION APPROVAL WILL APPLY TO ENTIRE SYSTEM.

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

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

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

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

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

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

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC. CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

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

MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE. LABELING TO COMPLY WITH SECTION 1709.9.2.

af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\W16-76ES

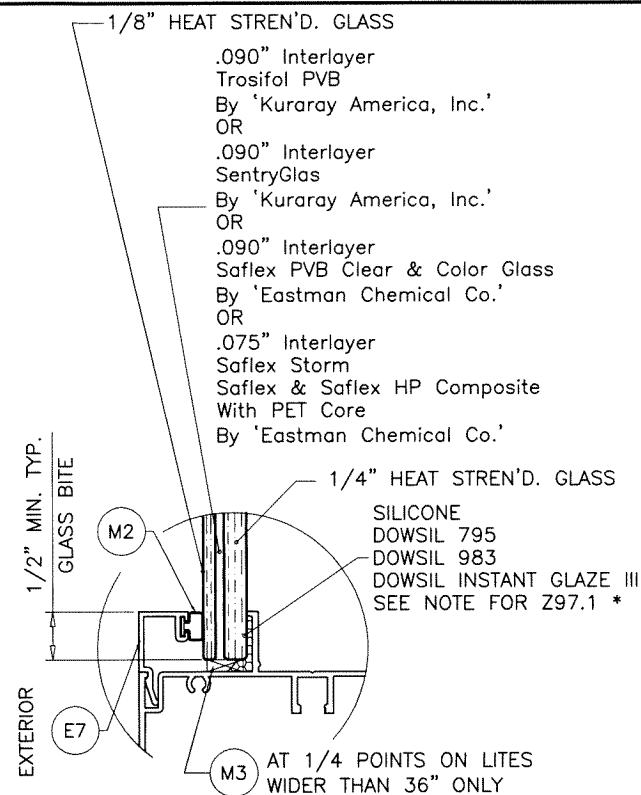
ES-EL150 FIXED ALUMINUM WDW. (L.M.I.)

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

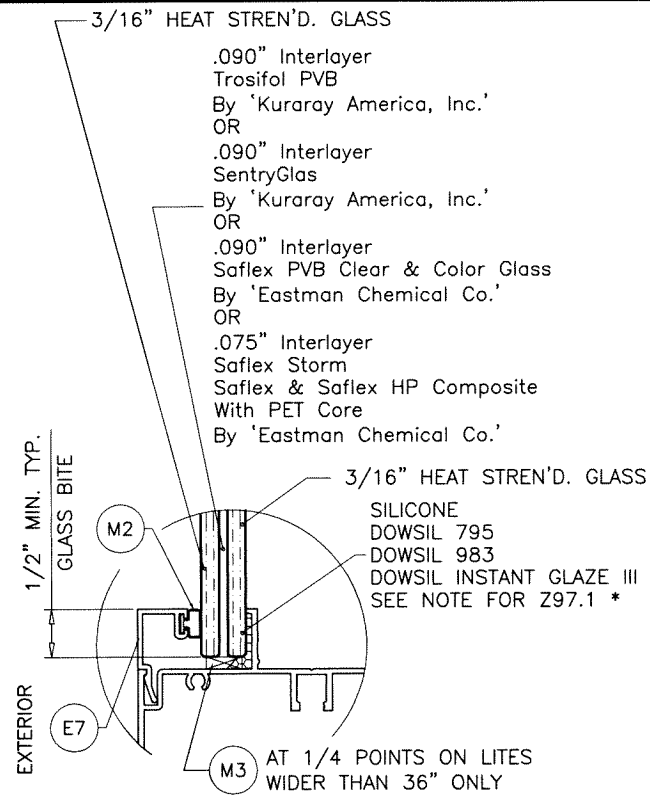
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no	date	by	description	
C	06.15.21		WDW. SIZES ADDED	
D	07.07.23		UPDATED TO 2023 FBC	
E	10.13.23		WDW. FRAME REV.	
F	03.27.25		Z97.1 NOTE REVISED	

date:	11-29-16
scale:	3/8" = 1'-0"
dr. by:	TARIQ
chk. by:	

drawing no.	W16-76
sheet	1 of 9



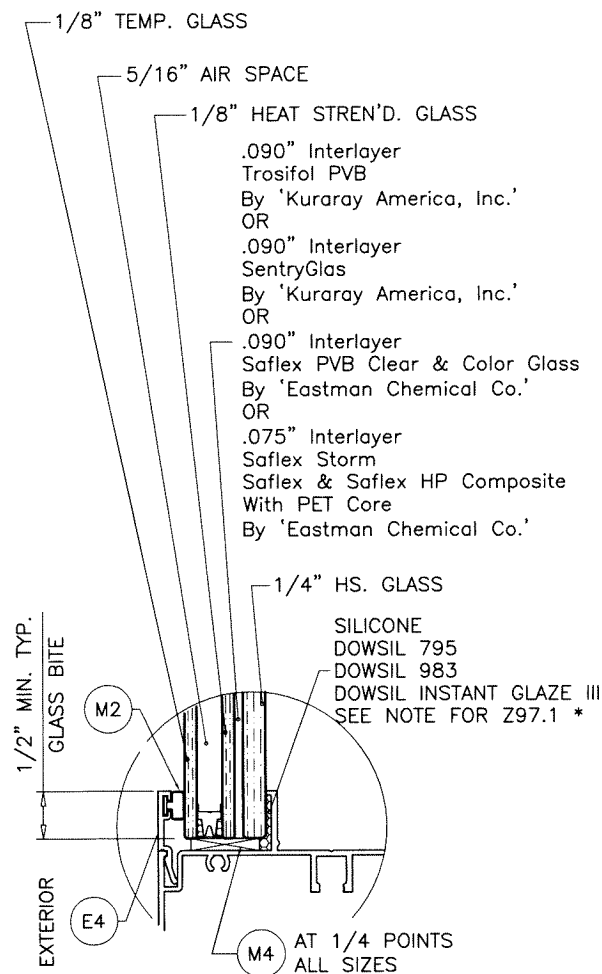
GLASS TYPE 'A'
7/16" OVERALL LAM. GLASS



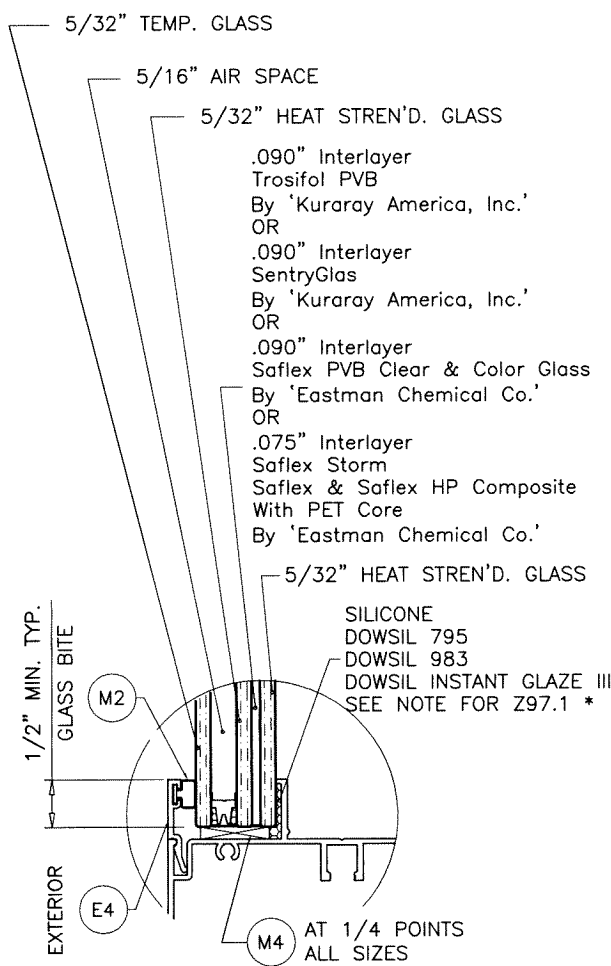
GLASS TYPE 'B'
7/16" OVERALL LAM. GLASS

*
NOTE SILICONE
DOWSIL INSTANT GLAZE III NOT APPROVED FOR
ANSI Z97.1 IMPACT

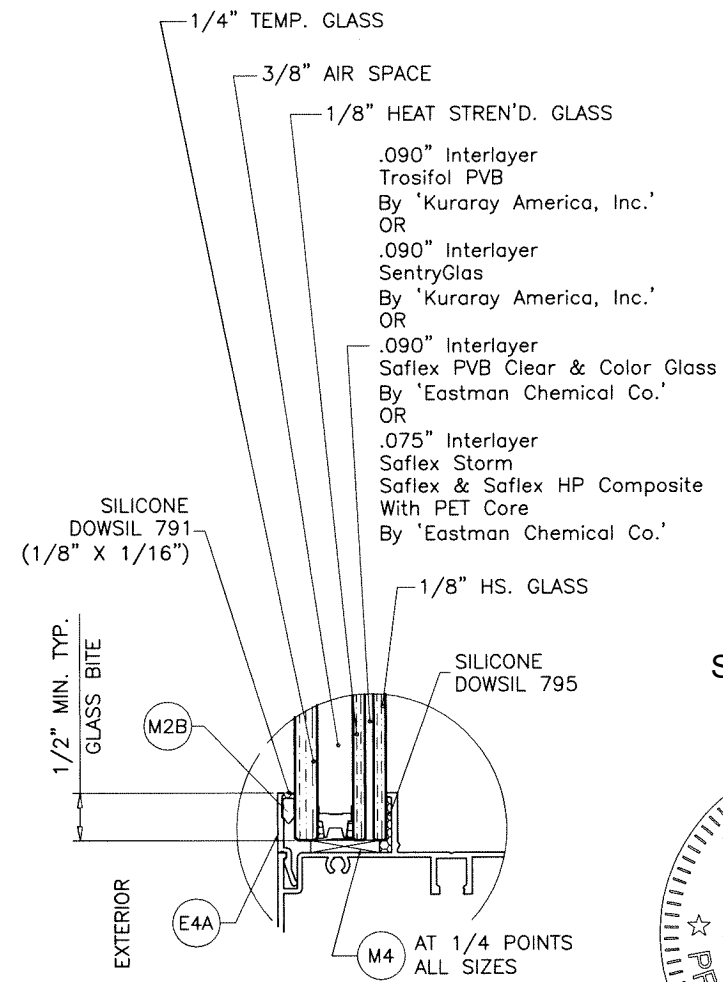
5/16" OR 3/8" AIR SPACE CONSISTING OF:
SPACER:
'HELIMA' LOW PROFILE ALUMINUM SPACER
BY 'LINGERMANN GMBH'
AROUND THE PERIMETER OF THE GLASS.
PERIMETER SEALANT:
SILICONE
DOW CORNING 791
GE 2000



GLASS TYPE 'Ai'
7/8" OVERALL INSUL. LAM. GLASS

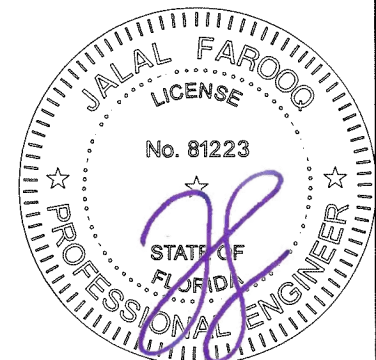


GLASS TYPE 'Di'
7/8" OVERALL INSUL. LAM. GLASS



GLASS TYPE 'Ei'
7/8" OVERALL INSUL. LAM. GLASS

Sealed: 4/25/2025
FL #21461



ES-EL150 FIXED ALUMINUM WDW. (L.M.I.)

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

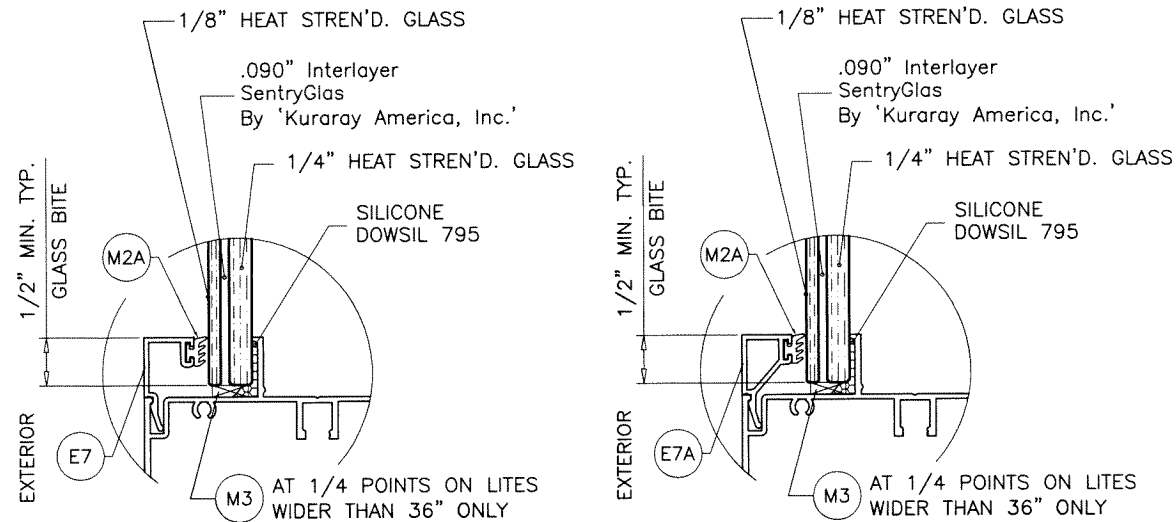
revisions:
no date by description

date: 11-29-16
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dr. by: TARIQ
chk. by:

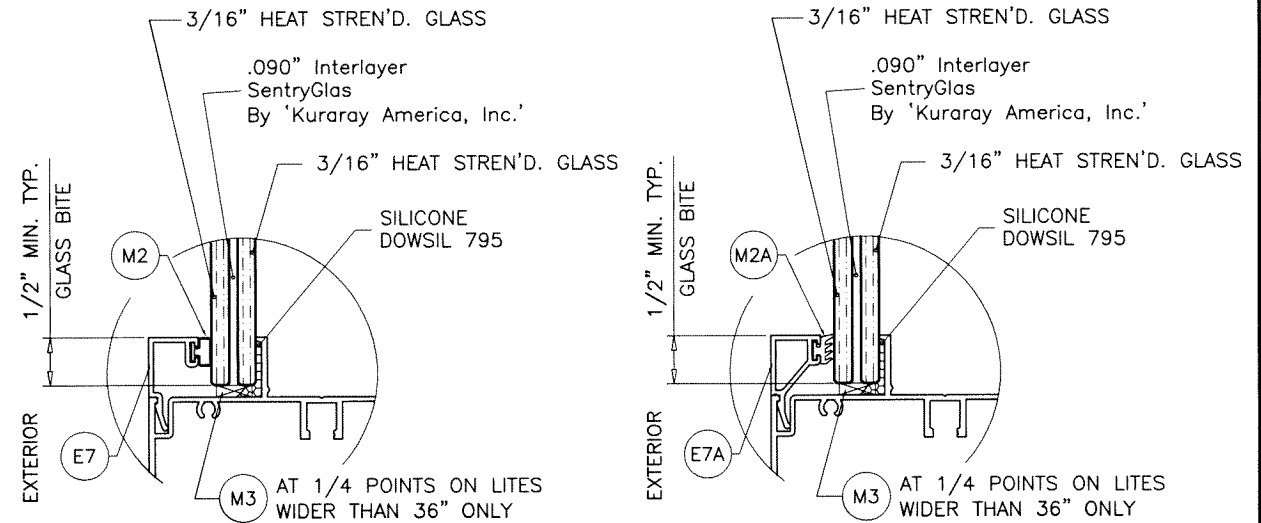
drawing no.
W16-76

sheet 2 of 9

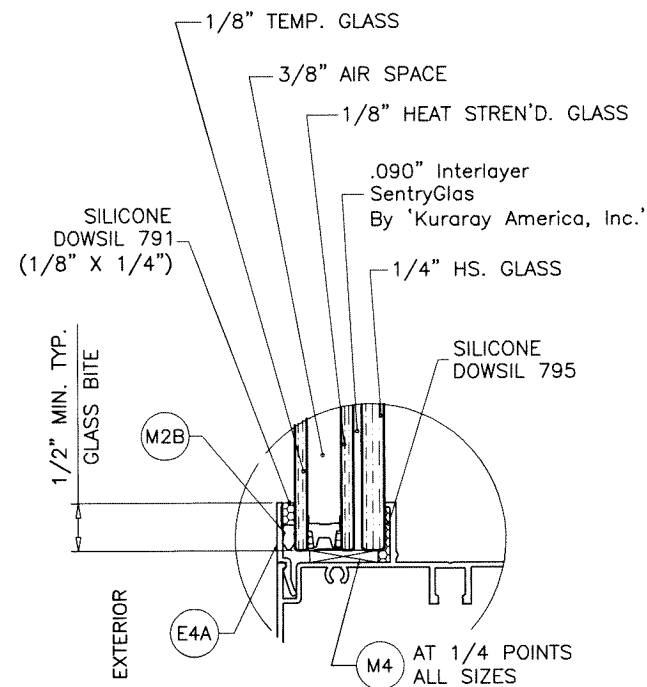
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 262-6978 FAX. (305) 262-6978
COMP-ANL W16-76ES



GLASS TYPE 'AA'
7/16" OVERALL LAM. GLASS



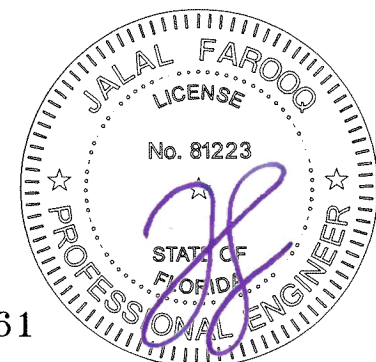
GLASS TYPE 'BB'
7/16" OVERALL LAM. GLASS



GLASS TYPE 'AAi'
7/8" 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
DOW CORNING 791
GE 2000

Sealed: 4/25/2025



GLAZING OPTIONS

FL #21461

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
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af c
COMP-ANL W16-76ES

ES-EL150 FIXED ALUMINUM WDW. (L.M.I.)

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MIAMI, FL. 33142
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revisions:	
no	by description

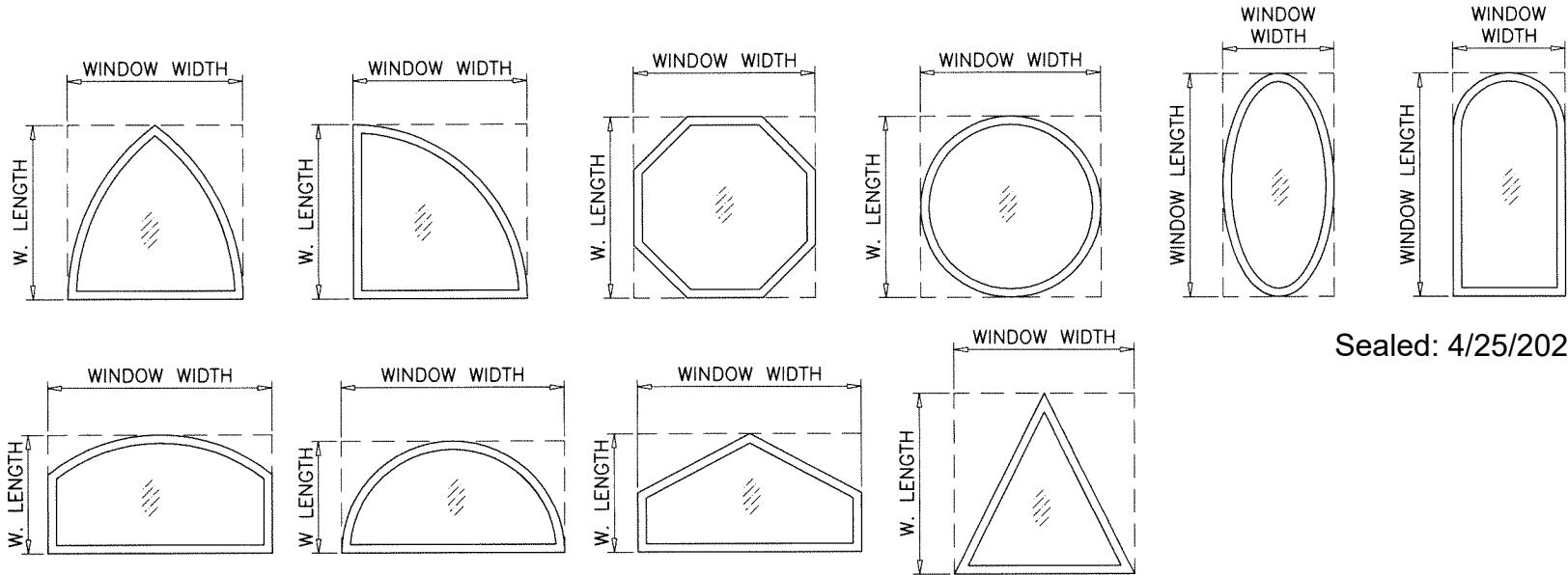
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dr. by: TARIQ
chk. by:

drawing no.
W16-76
sheet 2.1 of 9

DESIGN LOAD CAPACITY - PSF FLANGE FRAMES, FLUSH FRAMES, FIN FRAMES					
INTERIOR FRAME DIMS.		GLASS TYPE 'A'		GLASS TYPES 'B', 'Ai', 'Di', 'Ei'	
WIDTH	HEIGHT	EXT.(+)	1NT.(-)	EXT.(+)	1NT.(-)
29"	47"	60.0	80.0	80.0	80.0
35"		60.0	80.0	80.0	80.0
41"		60.0	68.6	80.0	80.0
47"		60.0	60.0	80.0	80.0
53"		60.0	60.0	80.0	80.0
59"		60.0	60.0	80.0	80.0
29"	53"	60.0	80.0	80.0	80.0
35"		60.0	80.0	80.0	80.0
41"		60.0	68.6	80.0	80.0
47"		60.0	60.0	80.0	80.0
53"		53.3	53.3	71.1	71.1
59"		53.3	53.3	71.1	71.1
29"	59"	60.0	80.0	80.0	80.0
35"		60.0	80.0	80.0	80.0
41"		60.0	68.6	80.0	80.0
47"		60.0	60.0	80.0	80.0
53"		53.3	53.3	71.1	71.1
59"		48.0	48.0	64.0	64.0
29"	65"	60.0	80.0	80.0	80.0
35"		60.0	80.0	80.0	80.0
41"		60.0	68.6	80.0	80.0
47"		60.0	60.0	80.0	80.0
53"		53.3	53.3	71.1	71.1
59"		48.0	48.0	64.0	64.0
29"	71"	60.0	80.0	80.0	80.0
35"		60.0	80.0	80.0	80.0
41"		60.0	68.6	80.0	80.0
47"		60.0	60.0	80.0	80.0
53"		53.3	53.3	71.1	71.1
59"		48.0	48.0	64.0	64.0
29"	77"	60.0	80.0	80.0	80.0
35"		60.0	78.0	80.0	80.0
41"		60.0	68.6	80.0	80.0
47"		60.0	60.0	80.0	80.0
53"		53.3	53.3	71.1	71.1
29"	83"	60.0	80.0	80.0	80.0
35"		60.0	76.4	80.0	80.0
41"		60.0	68.6	80.0	80.0
47"		60.0	60.0	80.0	80.0
53"		53.3	53.3	71.1	71.1
29"	89"	60.0	80.0	80.0	80.0
35"		60.0	75.0	80.0	80.0
41"		60.0	67.1	80.0	80.0
47"		60.0	60.0	80.0	80.0
29"	95"	60.0	80.0	80.0	80.0
35"		60.0	73.8	80.0	80.0
41"		60.0	65.8	80.0	80.0
47"		60.0	60.0	80.0	80.0

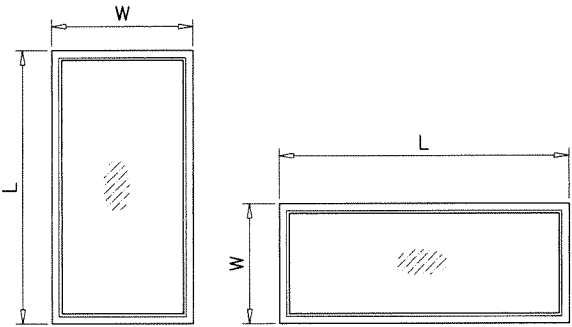
DESIGN LOAD CAPACITY - PSF FLANGE FRAMES, FLUSH FRAMES, FIN FRAMES					
INTERIOR FRAME DIMS.		GLASS TYPE 'A'		GLASS TYPES 'B', 'Ai', 'Di', 'Ei'	
WIDTH	HEIGHT	EXT.(+)	1NT.(-)	EXT.(+)	1NT.(-)
29"	101"	60.0	80.0	80.0	80.0
32"		60.0	78.1	80.0	80.0
35"		60.0	72.9	80.0	80.0
38"		60.0	68.5	80.0	80.0
41"		60.0	64.8	80.0	80.0
44"		60.0	61.6	80.0	80.0
29"	107"	60.0	80.0	80.0	80.0
32"		60.0	77.3	80.0	80.0
35"		60.0	72.0	80.0	80.0
38"		60.0	67.6	80.0	80.0
41"		60.0	63.8	80.0	80.0
29"	113"	60.0	80.0	80.0	80.0
32"		60.0	76.5	80.0	80.0
35"		60.0	71.3	80.0	80.0
38"		60.0	66.8	80.0	80.0
29"	119"	60.0	80.0	80.0	80.0
32"		60.0	75.9	80.0	80.0
35"		60.0	70.6	80.0	80.0
29"	125"	60.0	80.0	80.0	80.0
32"		60.0	75.3	80.0	80.0
35"		60.0	70.0	80.0	80.0
29"	131"	60.0	80.0	80.0	80.0
32"		60.0	74.8	80.0	80.0
29"	137"	60.0	80.0	80.0	80.0
32"		60.0	74.3	80.0	80.0
29"	143"	60.0	80.0	80.0	80.0

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

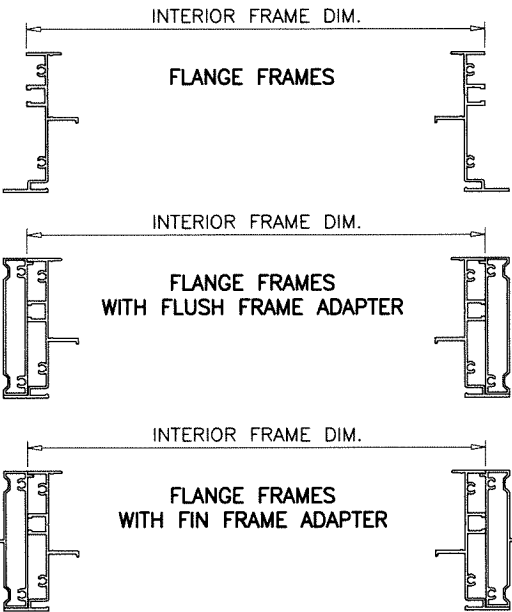


ALLOWABLE LOADS FOR ALTERNATE SHAPES AS SHOWN ABOVE OR SIMILAR CAN BE
VERIFIED BY INSCRIBING PICTURE WINDOW SHAPE WITHIN SQUARE OR RECTANGLE AS
SHOWN IN DOTTED LINES AND OBTAINING ALLOWABLE LOADS FROM THOSE SHAPES.

DESIGN LOAD CAPACITY - PSF FLANGE FRAMES, FLUSH FRAMES, FIN FRAMES					
INTERIOR FRAME DIMS.		GLASS TYPE 'A'		GLASS TYPES 'B', 'Ai', 'Di', 'Ei'	
WIDTH	HEIGHT	EXT.(+)	1NT.(-)	EXT.(+)	1NT.(-)
18-1/8"	25"	60.0	80.0	80.0	80.0
25-1/2"		60.0	80.0	80.0	80.0
36"		60.0	80.0	80.0	80.0
47"		60.0	80.0	80.0	80.0
52-1/8"		60.0	80.0	80.0	80.0
18-1/8"	37-3/8"	60.0	80.0	80.0	80.0
25-1/2"		60.0	80.0	80.0	80.0
36"		60.0	77.8	80.0	80.0
47"		60.0	75.0	80.0	80.0
52-1/8"		60.0	75.0	80.0	80.0
18-1/8"	49-5/8"	60.0	80.0	80.0	80.0
25-1/2"		60.0	80.0	80.0	80.0
36"		60.0	77.8	80.0	80.0
47"		60.0	60.0	80.0	80.0
52-1/8"		56.9	56.9	75.9	75.9
18-1/8"	57"	60.0	80.0	80.0	80.0
25-1/2"		60.0	80.0	80.0	80.0
36"		60.0	77.8	80.0	80.0
47"		60.0	60.0	80.0	80.0
52-1/8"		54.2	54.2	72.3	72.3
18-1/8"	62"	60.0	80.0	80.0	80.0
25-1/2"		60.0	80.0	80.0	80.0
36"		60.0	77.8	80.0	80.0
47"		60.0	60.0	80.0	80.0
52-1/8"		54.2	54.2	72.3	72.3
18-1/8"	75"	60.0	80.0	80.0	80.0
25-1/2"		60.0	80.0	80.0	80.0
36"		60.0	77.2	80.0	80.0
47"		60.0	60.0	80.0	80.0
52-1/8"		54.2	54.2	72.3	72.3



NOTE:
WIDTH AND LENGTH DIMENSIONS CAN BE ORIENTED
VERTICALLY OR HORIZONTALLY AS SHOWN ABOVE.



Sealed: 4/25/2025



FL #21461

af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 262-6978 FAX. (305) 262-6978
COMP-ANL W16-76ES

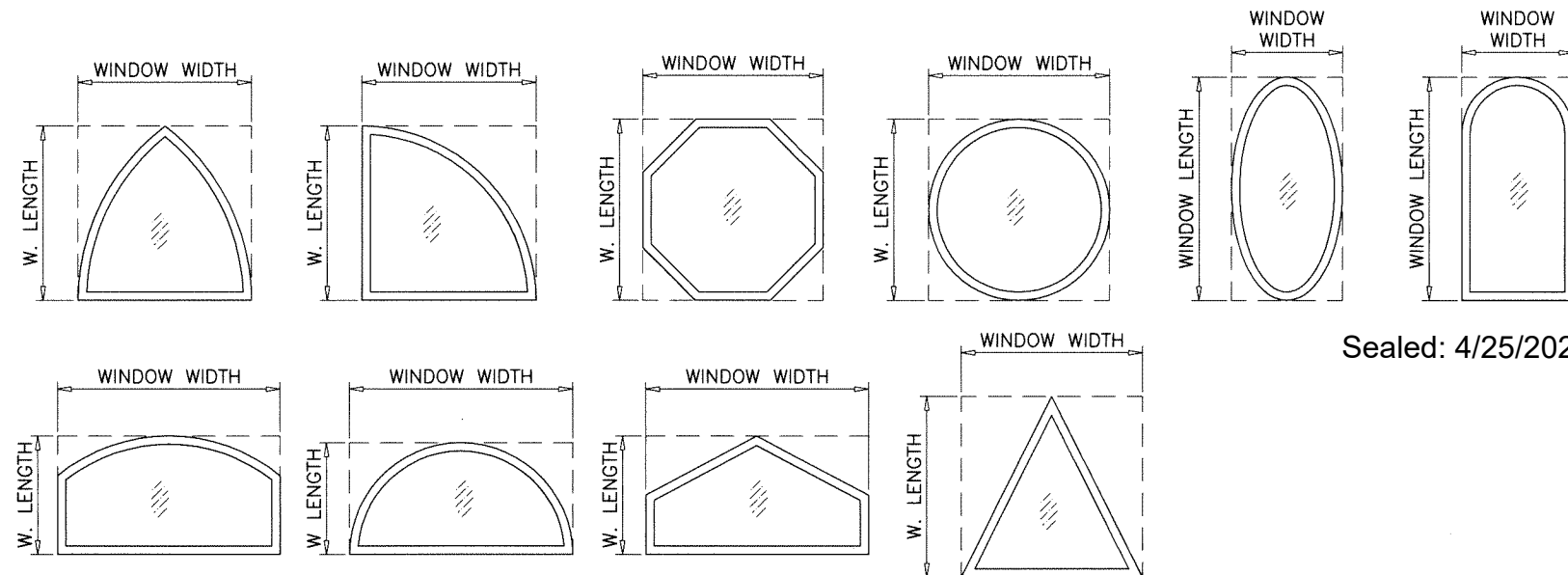
ES-EL150 FIXED ALUMINUM WDW. (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:	no	date	by	description
date:	11-29-16	scale:	1/2" = 1"	
dr. by:	TARIQ	chk. by:		
drawing no.	W16-76	sheet	3 of 9	

DESIGN LOAD CAPACITY - PSF FLANGE FRAMES & FLUSH FRAMES ONLY					
INTERIOR FRAME DIMS.		GLASS TYPES 'AA' & 'AAi'		GLASS TYPE 'BB'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
47"	47"	80.0	105.0	80.0	100.0
53"		80.0	105.0	80.0	100.0
59"		80.0	105.0	80.0	100.0
65"		80.0	105.0	80.0	100.0
71"		80.0	105.0	80.0	100.0
77"		80.0	105.0	80.0	100.0
47"	53"	80.0	105.0	80.0	100.0
53"		71.1	93.3	80.0	88.9
59"		71.1	93.3	80.0	88.9
65"		71.1	93.3	80.0	88.9
71"		-	-	80.0	88.9
77"		-	-	80.0	88.9
47"	59"	80.0	105.0	80.0	100.0
53"		71.1	93.3	80.0	88.9
59"		64.0	84.0	80.0	80.0
65"		-	-	80.0	80.0
71"		-	-	80.0	80.0
77"		-	-	80.0	80.0
47"	65"	80.0	105.0	80.0	100.0
53"		71.1	93.3	80.0	88.9
59"		-	-	80.0	80.0
65"		-	-	72.7	72.7
71"		-	-	72.7	72.7
77"		-	-	72.7	72.7
47"	71"	80.0	105.0	80.0	100.0
53"		-	-	80.0	88.9
59"		-	-	80.0	80.0
65"		-	-	72.7	72.7
71"		-	-	66.7	66.7
77"		-	-	66.7	66.7
47"	77"	80.0	105.0	80.0	100.0
53"		-	-	80.0	88.9
59"		-	-	80.0	80.0
65"		-	-	72.7	72.7
71"		-	-	66.7	66.7
77"		-	-	61.5	61.5
41"	83"	80.0	105.0	80.0	100.0
47"		-	-	80.0	100.0
53"		-	-	80.0	88.9
59"		-	-	80.0	80.0
65"		-	-	72.7	72.7
71"		-	-	66.7	66.7
41"	89"	80.0	105.0	80.0	100.0
47"		-	-	80.0	100.0
53"		-	-	80.0	80.0
59"		-	-	80.0	80.0
65"		-	-	72.7	72.7
71"		-	-	66.7	66.7
35"	95"	80.0	105.0	80.0	100.0
41"		-	-	80.0	100.0
47"		-	-	80.0	100.0
53"		-	-	80.0	80.0
59"		-	-	80.0	80.0
65"		-	-	72.7	72.7

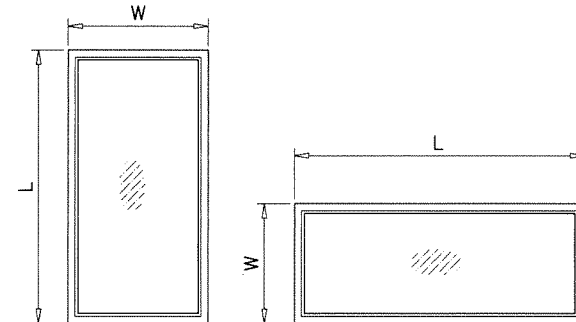
DESIGN LOAD CAPACITY - PSF FLANGE FRAMES & FLUSH FRAMES ONLY					
INTERIOR FRAME DIMS.		GLASS TYPES 'AA' & 'AAi'		GLASS TYPE 'BB'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
35"	101"	80.0	105.0	80.0	100.0
41"		-	-	80.0	100.0
47"		-	-	80.0	80.0
53"		-	-	80.0	80.0
59"		-	-	80.0	80.0
29"		80.0	105.0	80.0	100.0
41"	107"	-	-	80.0	100.0
47"		-	-	80.0	80.0
53"		-	-	80.0	80.0
59"		-	-	80.0	80.0
29"	113"	80.0	105.0	80.0	100.0
47"		-	-	80.0	80.0
53"		-	-	80.0	80.0
29"	119"	80.0	105.0	80.0	100.0
47"		-	-	80.0	80.0
53"		-	-	80.0	80.0
29"	125"	80.0	105.0	80.0	100.0
23"		80.0	105.0	80.0	100.0
41"		-	-	80.0	80.0
47"	131"	-	-	80.0	80.0
23"		80.0	105.0	80.0	100.0
41"		-	-	80.0	80.0
23"	137"	80.0	105.0	80.0	100.0
41"		-	-	80.0	80.0
23"		80.0	105.0	80.0	100.0
41"	143"	-	-	80.0	80.0
41"		-	-	80.0	80.0

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

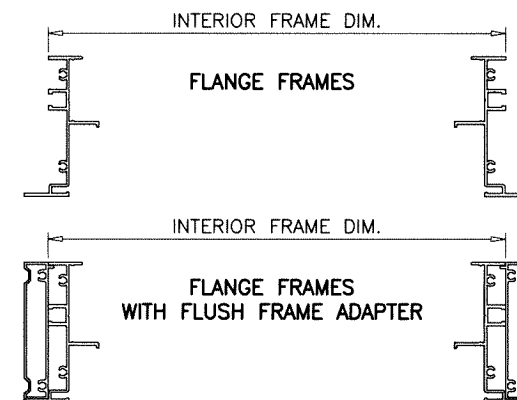


ALLOWABLE LOADS FOR ALTERNATE SHAPES AS SHOWN ABOVE OR SIMILAR CAN BE
VERIFIED BY INSCRIBING PICTURE WINDOW SHAPE WITHIN SQUARE OR RECTANGLE AS
SHOWN IN DOTTED LINES AND OBTAINING ALLOWABLE LOADS FROM THOSE SHAPES.

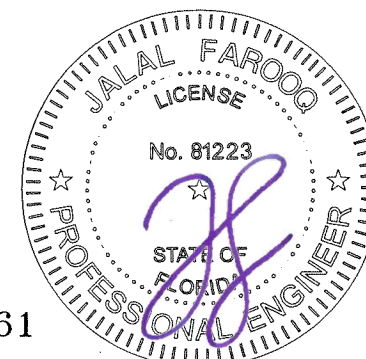
DESIGN LOAD CAPACITY - PSF FLANGE FRAMES & FLUSH FRAMES ONLY					
INTERIOR FRAME DIMS.		GLASS TYPES 'AA' & 'AAi'		GLASS TYPE 'BB'	
WIDTH	HEIGHT	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
18-1/8"	25"	80.0	105.0	80.0	100.0
25-1/2"		80.0	105.0	80.0	100.0
36"		80.0	105.0	80.0	100.0
47"		80.0	105.0	80.0	100.0
52-1/8"		80.0	105.0	80.0	100.0
18-1/8"		80.0	105.0	80.0	100.0
25-1/2"	37-3/8"	80.0	105.0	80.0	100.0
36"		80.0	105.0	80.0	100.0
47"		80.0	105.0	80.0	100.0
52-1/8"		80.0	105.0	80.0	100.0
18-1/8"	49-5/8"	80.0	105.0	80.0	100.0
25-1/2"		80.0	105.0	80.0	100.0
36"		80.0	105.0	80.0	100.0
47"		80.0	105.0	80.0	100.0
52-1/8"	57"	75.9	99.6	80.0	94.8
18-1/8"		80.0	105.0	80.0	100.0
25-1/2"		80.0	105.0	80.0	100.0
36"		80.0	105.0	80.0	100.0
47"	62"	80.0	105.0	80.0	100.0
52-1/8"		72.3	94.9	80.0	90.4
18-1/8"	75"	80.0	105.0	80.0	100.0
25-1/2"		80.0	105.0	80.0	100.0
36"		80.0	105.0	80.0	100.0
47"		80.0	105.0	80.0	100.0
52-1/8"		-	-	80.0	90.4
18-1/8"		80.0	105.0	80.0	100.0
25-1/2"		80.0	105.0	80.0	100.0
36"		80.0	105.0	80.0	100.0
47"		80.0	105.0	80.0	100.0
52-1/8"		-	-	80.0	90.4



NOTE:
WIDTH AND LENGTH DIMENSIONS CAN BE ORIENTED
VERTICALLY OR HORIZONTALLY AS SHOWN ABOVE.



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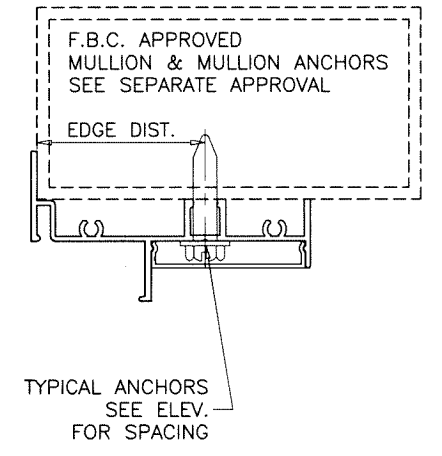
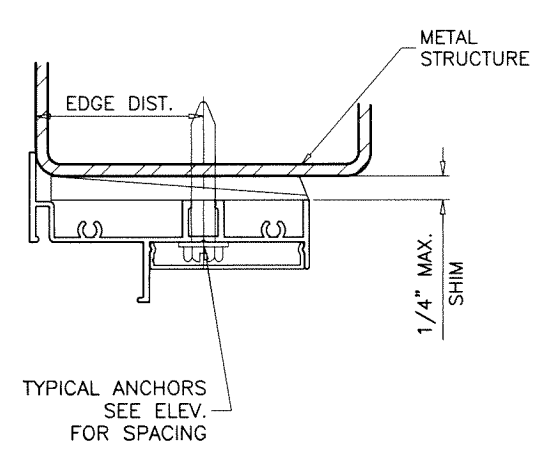
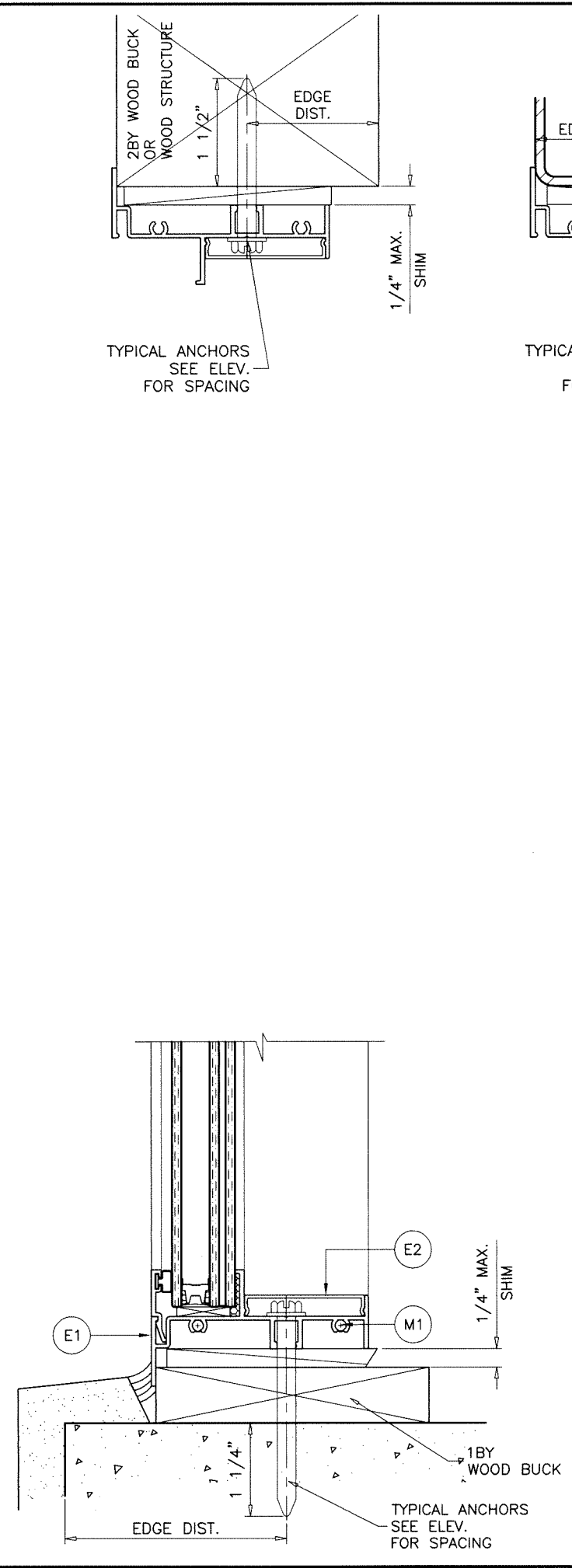
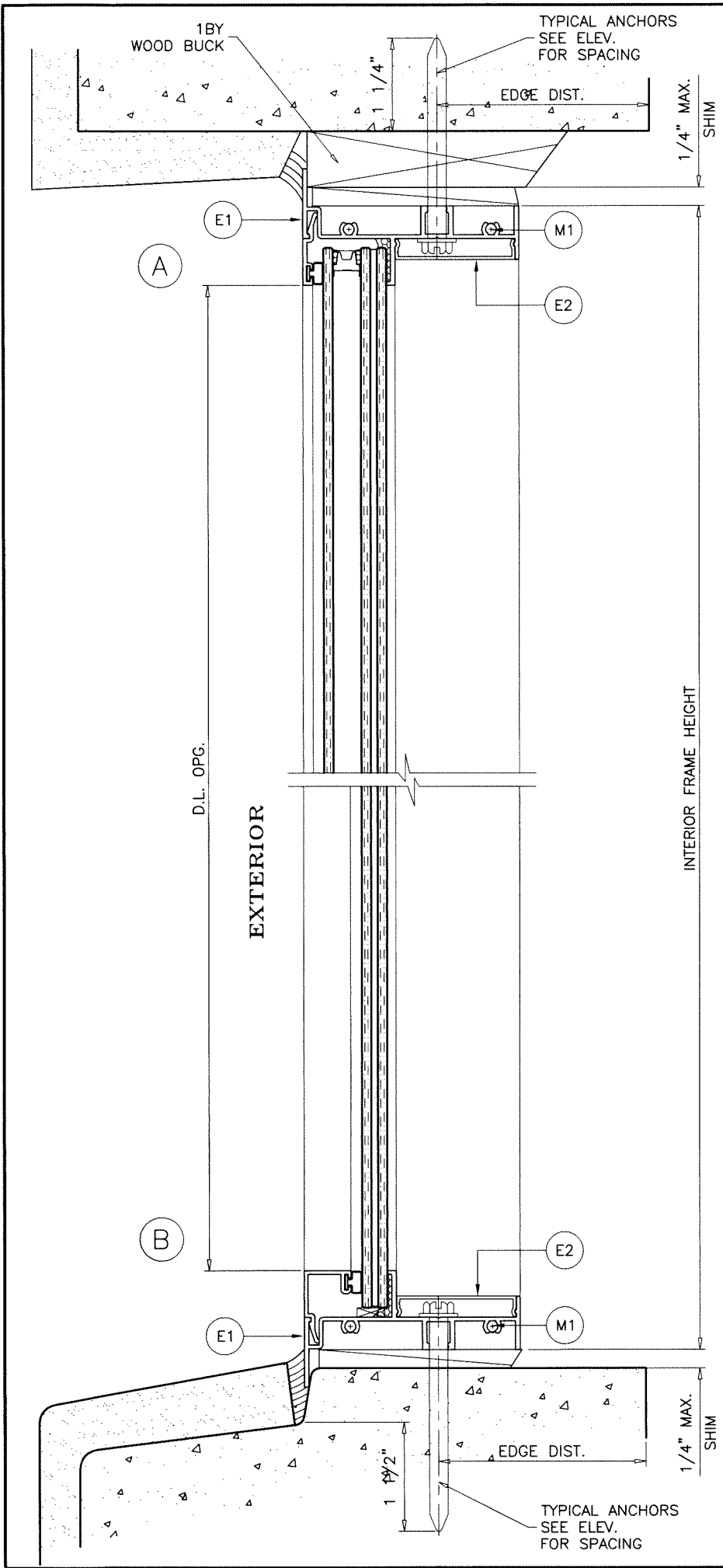


FL #21461

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 W16-76ES

ES-EL150 FIXED ALUMINUM WDW. (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: 11-29-16
scale: 1/2" = 1"
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chk. by:
drawing no.
W16-76
sheet 3.1 of 9

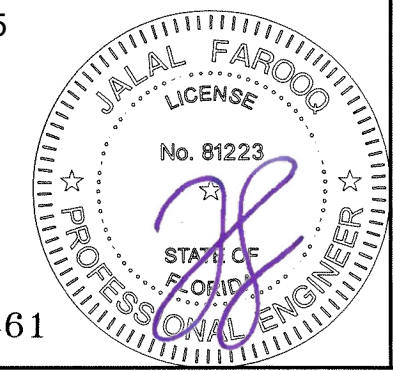


WOOD BUCKS AND METAL STRUCTURE NOT BY 'E.S. WINDOWS' MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS: SEE ELEV. FOR SPACING
1/4" DIA. TAPCON BY 'ITW' (Fu=125 KSI, Fy=100 KSI)
1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
 1-1/2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)
 THRU 1BY BUCKS INTO CONC. OR MASONRY
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-1/4" MIN. EMBED INTO MASONRY (JAMBS)
 DIRECTLY INTO CONCRETE OR MASONRY
 1-1/2" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
 1-1/4" MIN. EMBED INTO MASONRY (JAMBS)
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. TO EXTEND BEYOND METAL THICKNESS
 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)

TYPICAL EDGE DISTANCE
 INTO CONCRETE AND MASONRY = 2" MIN.
 INTO WOOD STRUCTURE = 1" MIN.
 INTO METAL STRUCTURE = 3/4" MIN.
 WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.
 CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.
 C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

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 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

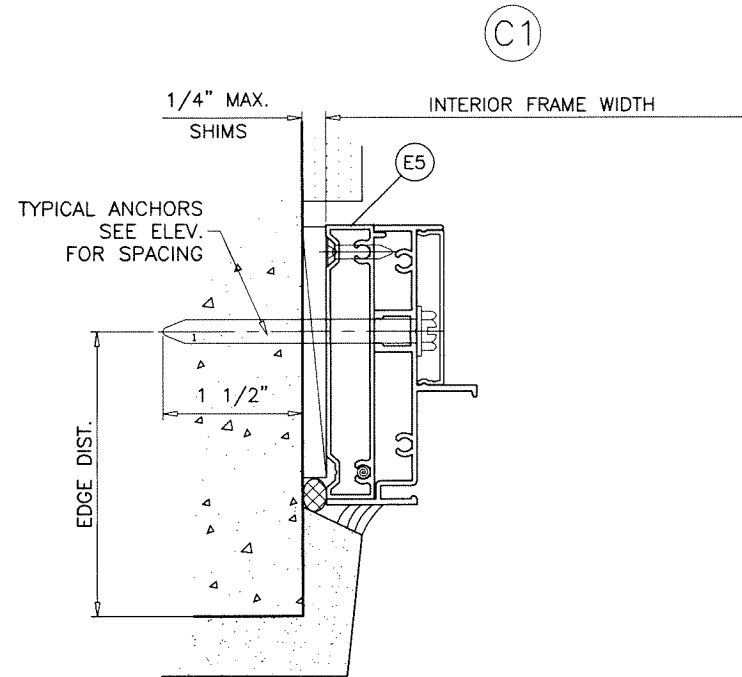
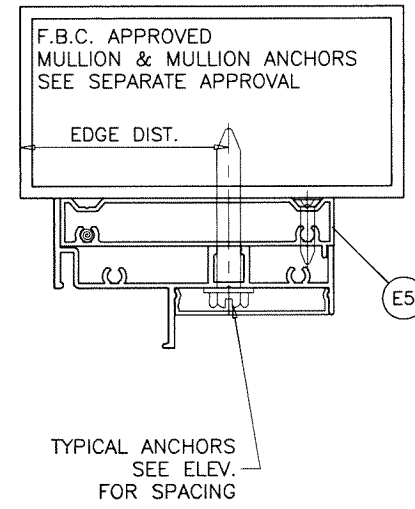
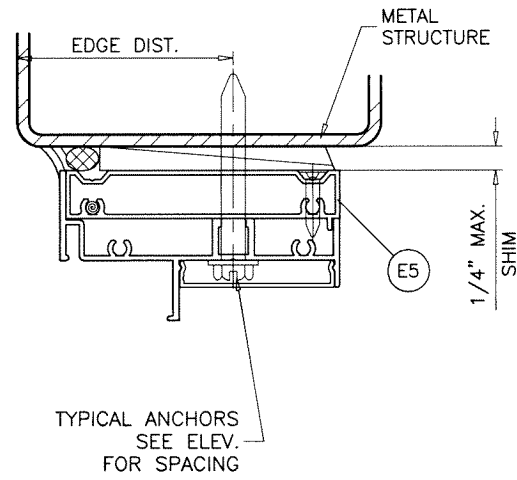
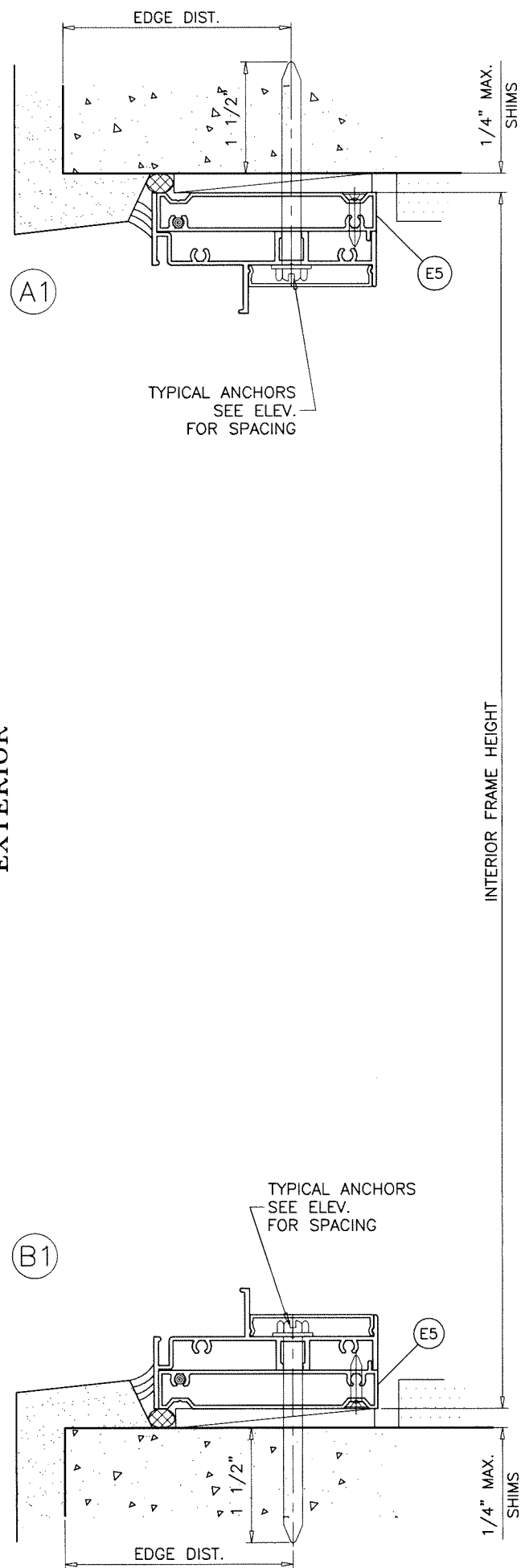
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drawing no.
W16-76

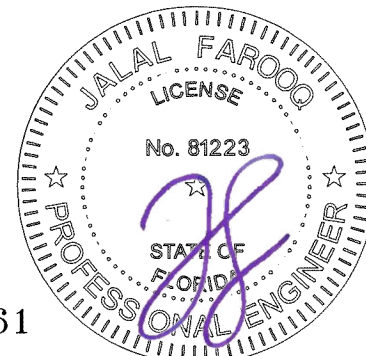
sheet 4 of 9

EXTERIOR



INSTALLATION DETAILS WITH FLUSH FRAME ADAPTERS
SEE SHEETS 4 & 5 FOR WINDOW DETAILS

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MIAMI, FLORIDA 33173
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ES-EL150 FIXED ALUMINUM WDW. (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

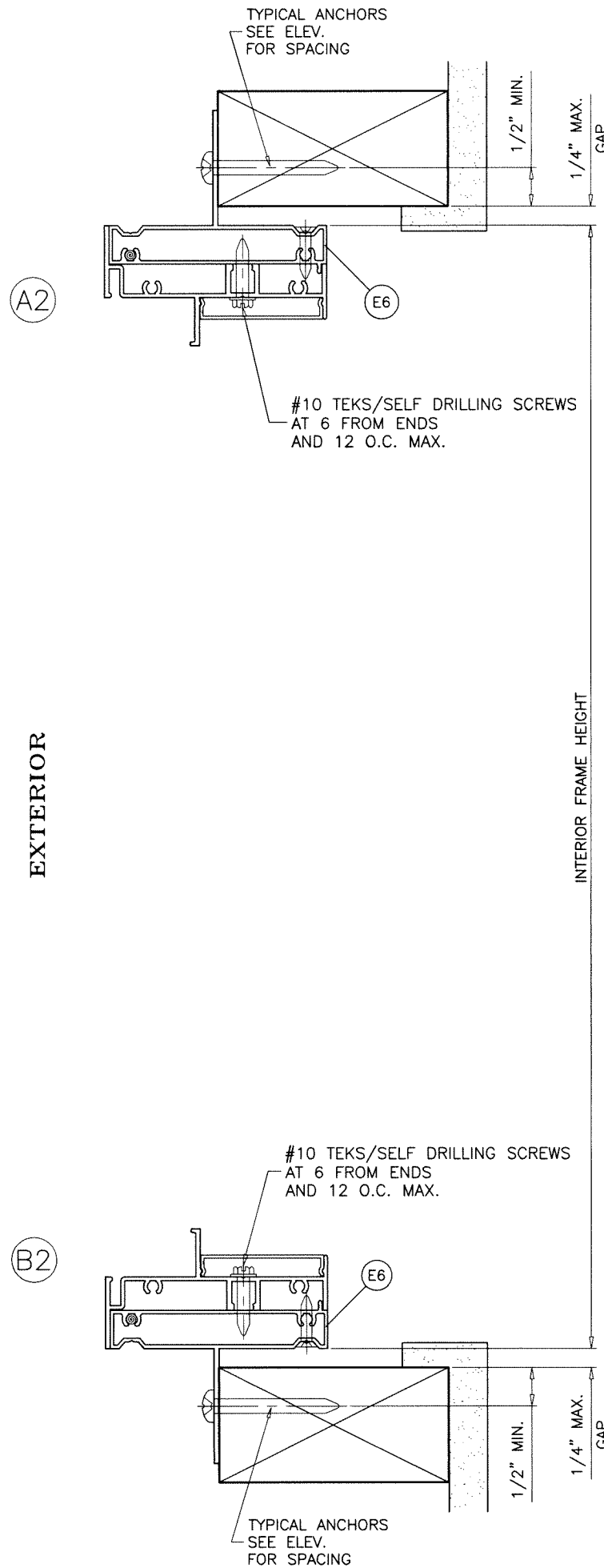
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drawing no.
W16-76
sheet 6 of 9

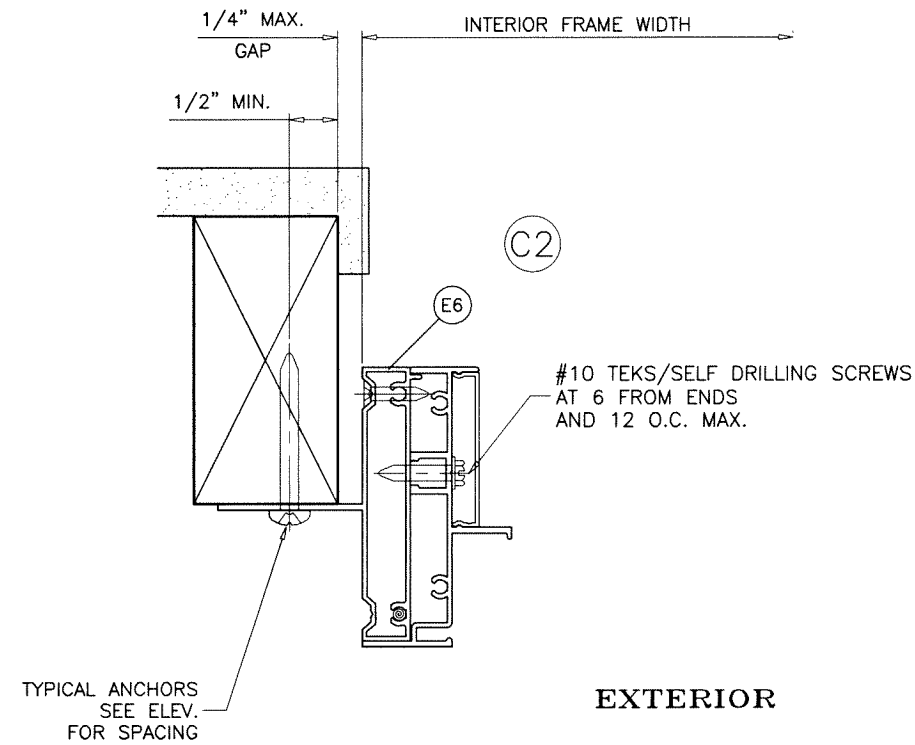
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EXTERIOR



TYPICAL ANCHORS: SEE ELEV. FOR SPACING

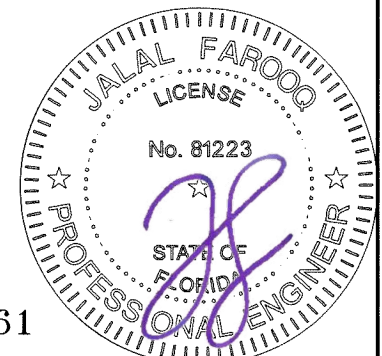
#10 WOOD SCREWS (GRADE 2 CRS)
INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
1-1/2" MIN. PENETRATION INTO WOOD



INSTALLATION DETAILS WITH FIN FRAME ADAPTERS
SEE SHEETS 4 & 5 FOR WINDOW DETAILS

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AL-FAROOQ CORPORATION ENGINEERS & PRODUCT DEVELOPMENT 9360 SUNSET DRIVE, SUITE 220 MIAMI, FLORIDA 33173 TEL. (305) 264-8100 FAX. (305) 262-6978 (C.A.N. 3538)		af c COMP-ANL\W16-76ES	
ES-EL150 FIXED ALUMINUM WDW. (L.M.I.)		E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL. (305) 638-5151 FAX. (305) 638-5158	
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drawing no.		sheet 7 of 9	
W16-76			



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MIAMI, FLORIDA 33173 (C.A.N. 3598)
TEL. (305) 264-8100 FAX. (305) 262-6978

ES-EL150 FIXED ALUMINUM WDW. (L.M.I.)

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3550 N.W. 49 STREET
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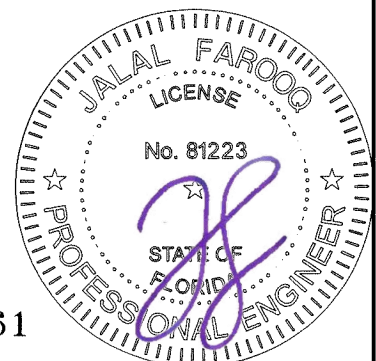
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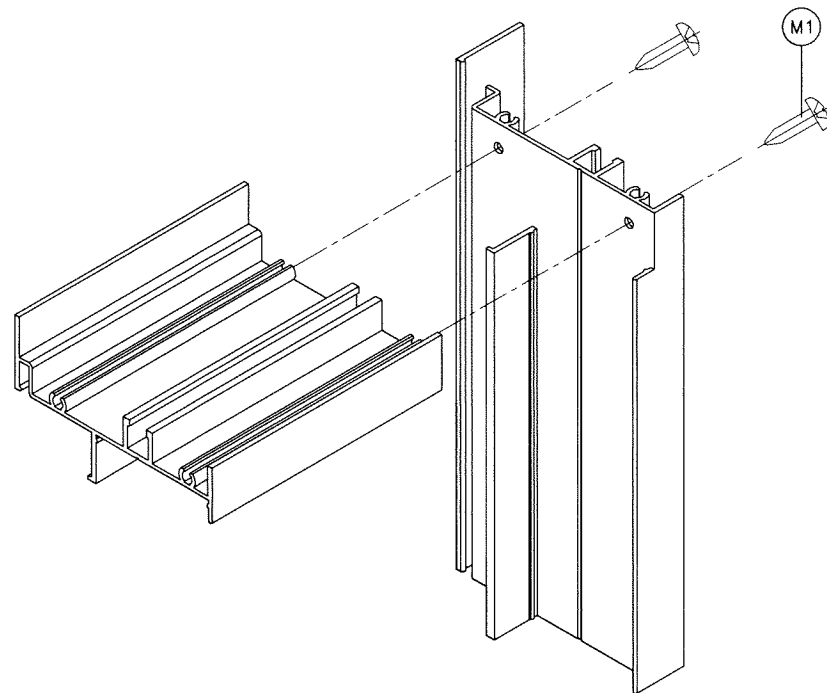
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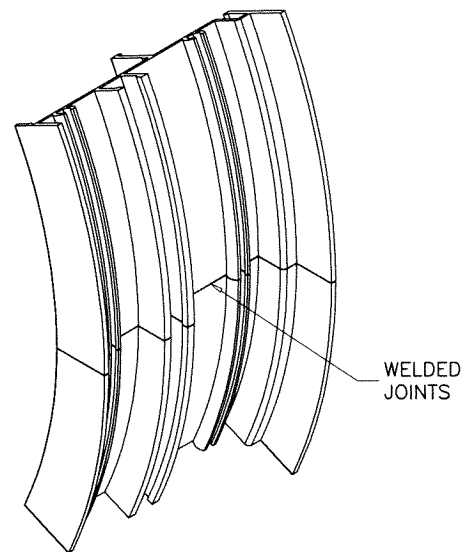
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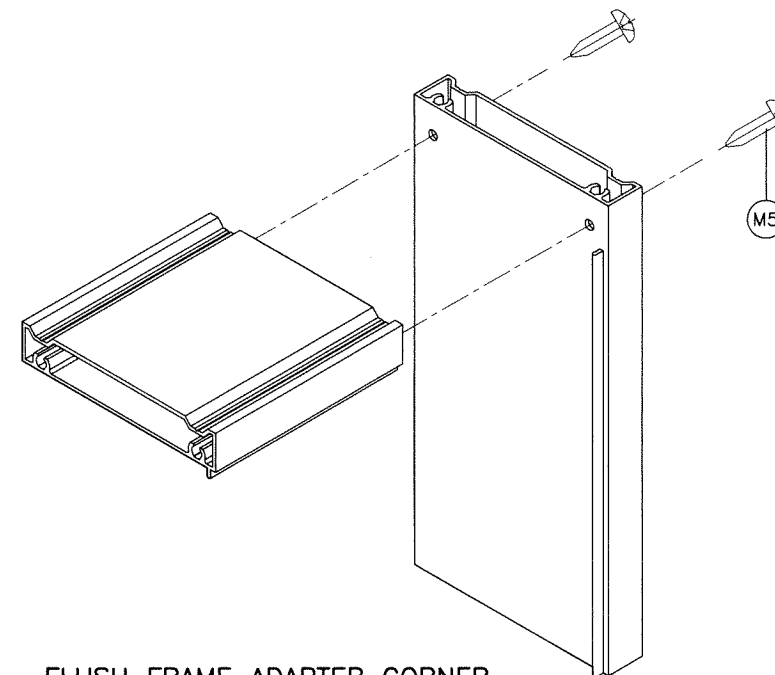
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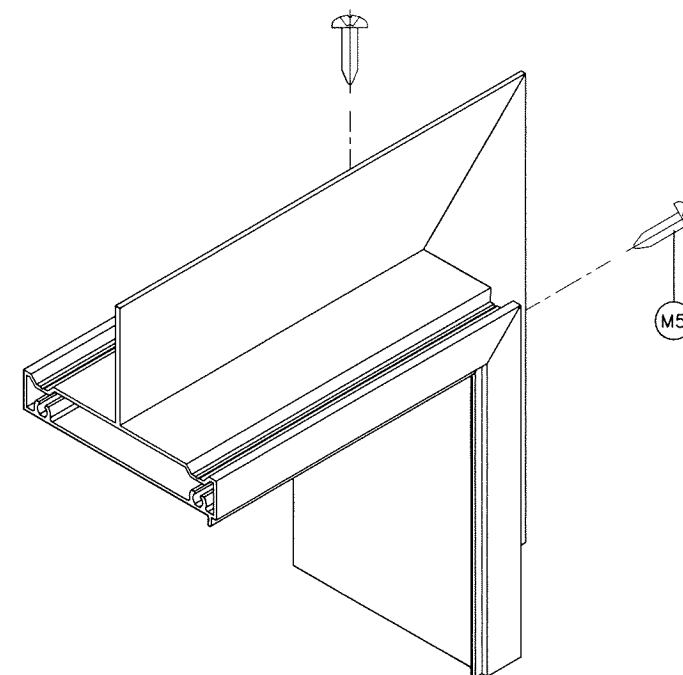
RECT. OR SQUARE WINDOWS



CIRCULAR WINDOWS

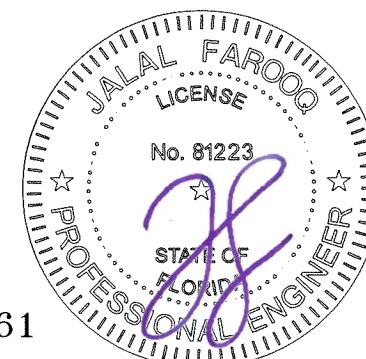


FLUSH FRAME ADAPTER CORNER



FIN FRAME ADAPTER CORNER

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FL #21461

afc

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TEL. (305) 264-8100 FAX. (305) 262-6978

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3550 N.W. 49 STREET

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