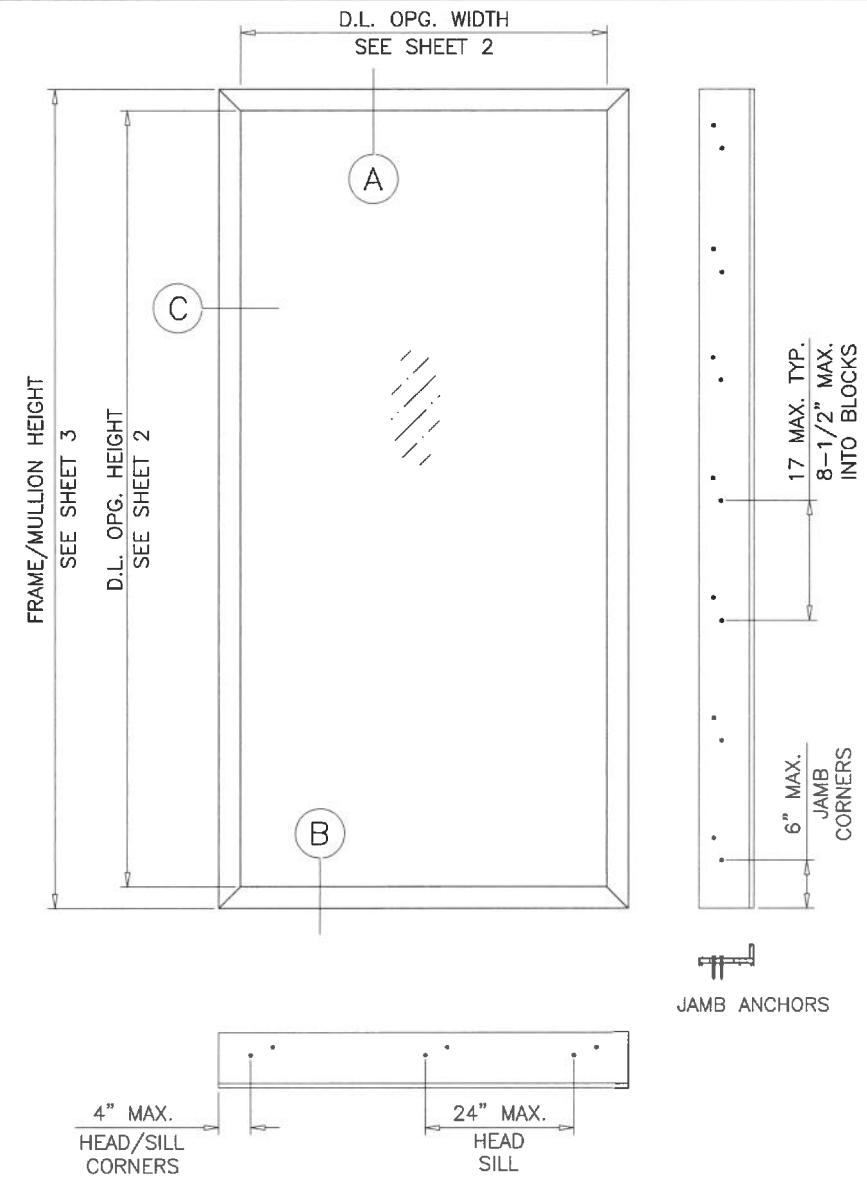
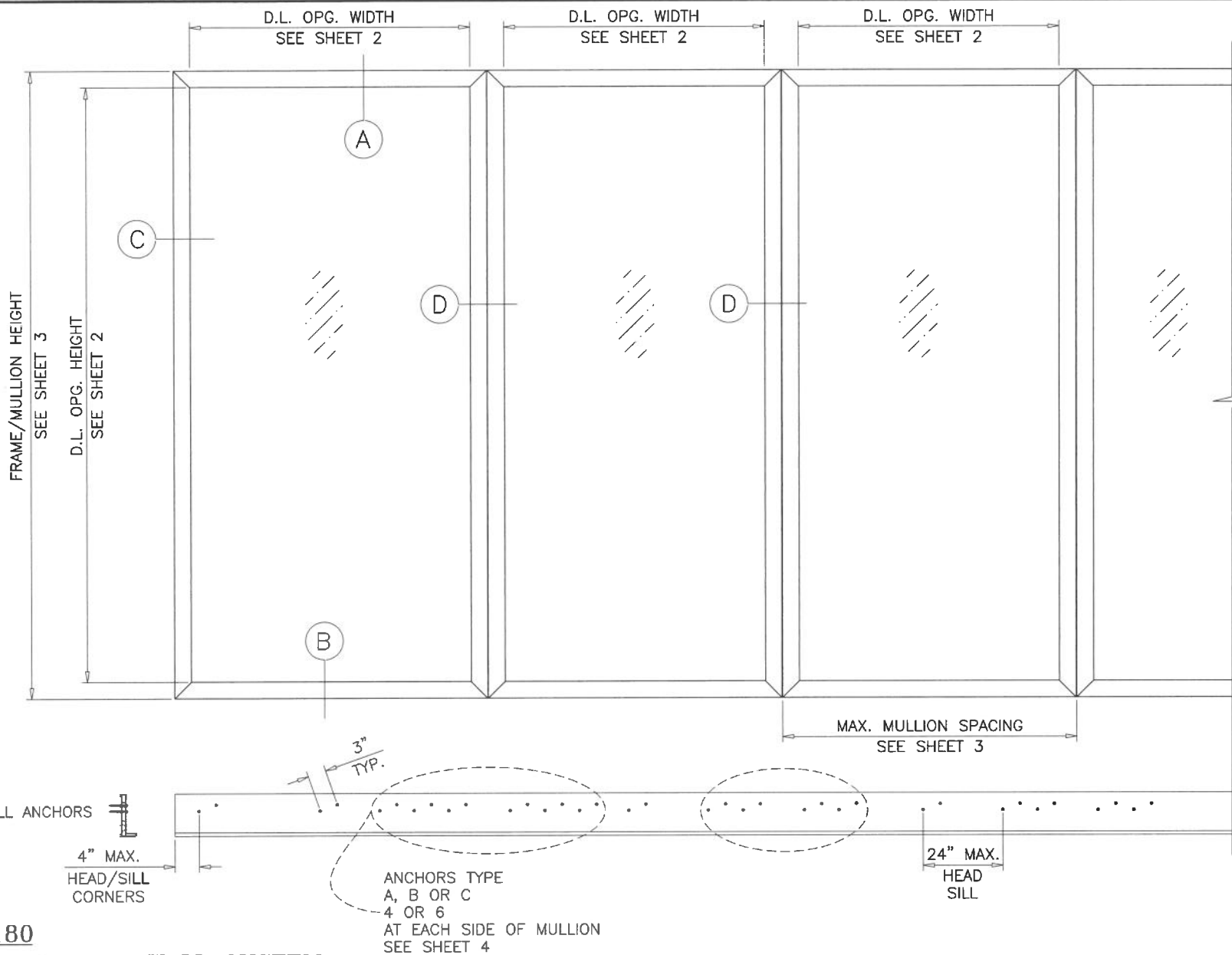




SERIES 180
ALUMINUM WINDOW WALL SYSTEM

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.

TYPICAL ELEVATIONS

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1** DETERMINE DESIGN WIND PRESSURE REQUIREMENTS BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.
- STEP 2** SEE CHARTS ON SHEET 2 FOR GLASS DESIGN LOAD CAPACITY.
- STEP 3** CHECK MULLION DESIGN LOAD CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEET 3 THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 4** USING CHARTS ON SHEET 4 SELECT ANCHOR OPTION WITH DESIGN LOAD CAPACITY MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 5** THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 THAT EXCEED THE DESIGN WIND PRESSURES DETERMINED THRU STEP 1 SHALL APPLY TO ENTIRE SYSTEM.

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

Sealed: 7/17/2026

FL #27509

- 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.



AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
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SERIES 180 ALUM WINDOW WALL SYSTEM (S.M.I.)

Alucorp S.A. De C.V.
Calle 2 Tablaje 17439 Int C X 21y
25 Chichi Suarez, Merida
Yucatan, Mexico
Tel. (-) Fax. (-)

no	date	by	description
A	06.28.20		UPDATED TO 2020 FBC
B	07.01.23		UPDATED TO 2023 FBC
C	07.15.26		UPDATED TO 2026 FBC

date: 05-11-18

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dr. by: TARIQ

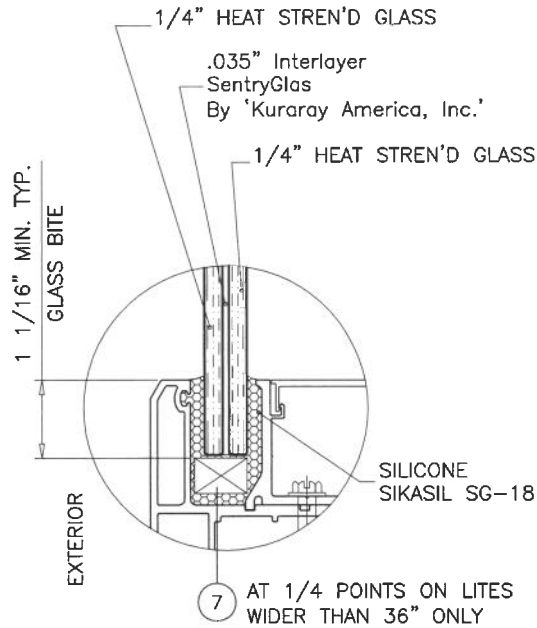
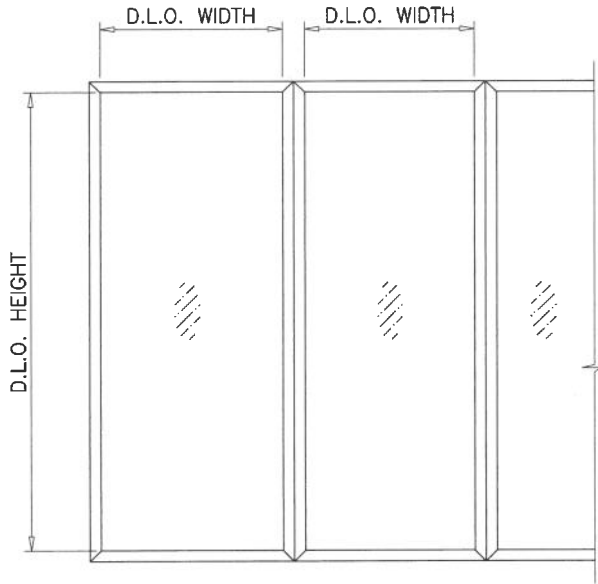
chk. by:

drawing no.
18-63F

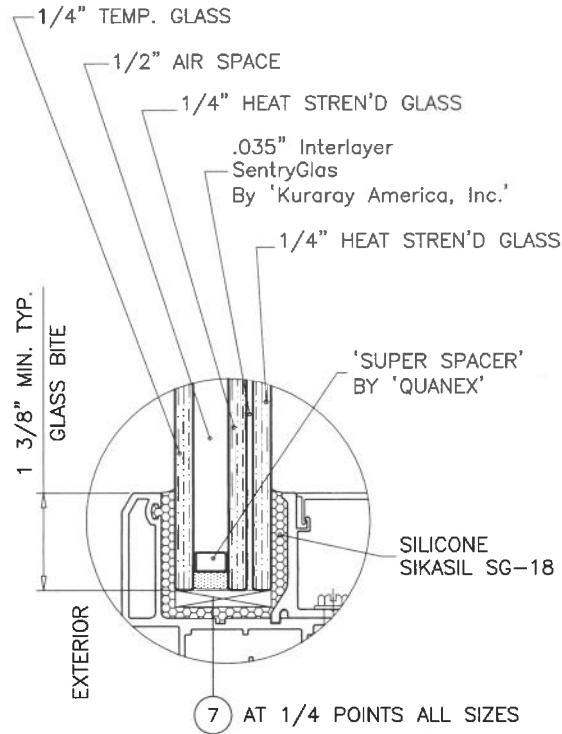
sheet 1 of 8

GLASS LOAD CAPACITY - PSF			
NOMINAL DIMS.		GLASS TYPES 'A' & 'A1'	
D.L.O. WIDTH	D.L.O. HEIGHT	EXT.(+)	INT.(-)
24-1/2"	90-1/2"	140.0	140.0
30-1/2"		140.0	140.0
42-1/2"		140.0	140.0
48-1/2"		140.0	140.0
54-1/2"		140.0	140.0
60-1/2"		130.7	130.7
66-1/2"		119.8	119.8
24-1/2"	93"	140.0	140.0
30-1/2"		140.0	140.0
42-1/2"		140.0	140.0
48-1/2"		140.0	140.0
54-1/2"		140.0	140.0
60-1/2"		130.7	130.7
66-1/2"		119.8	119.8
24-1/2"	96-1/2"	140.0	140.0
30-1/2"		140.0	140.0
42-1/2"		140.0	140.0
48-1/2"		140.0	140.0
54-1/2"		140.0	140.0
60-1/2"		130.7	130.7
66-1/2"		119.5	119.8
24-1/2"	102-1/2"	140.0	140.0
30-1/2"		140.0	140.0
42-1/2"		140.0	140.0
48-1/2"		140.0	140.0
54-1/2"		140.0	140.0
60-1/2"		130.7	130.7
24-1/2"	105"	140.0	140.0
30-1/2"		140.0	140.0
42-1/2"		140.0	140.0
48-1/2"		140.0	140.0
54-1/2"		140.0	140.0
60-1/2"		130.7	130.7
24-1/2"	108-1/2"	140.0	140.0
30-1/2"		140.0	140.0
42-1/2"		140.0	140.0
48-1/2"		140.0	140.0
54-1/2"		140.0	140.0
56-1/8"		140.0	140.0
24-1/2"	114-1/2"	140.0	140.0
30-1/2"		140.0	140.0
42-1/2"		140.0	140.0
48-1/2"		140.0	140.0
54-1/2"		140.0	140.0
56-1/8"		136.0	136.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



GLASS TYPE 'A'
9/16" OVERALL LAMINATED GLASS



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

Sealed: 7/17/2026



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

FL #27509

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
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COMP-ANL\18-63F-ALU

SERIES 180 ALUM WINDOW WALL SYSTEM (S.M.I.)

Alucorp S.A. De C.V.
Calle 2 Tablaje 17439 Int C X 21y
25 Chichi Suarez, Merida
Yucatan, Mexico
Tel. (-) Fax. (-)

revisions:

no	date	by	description

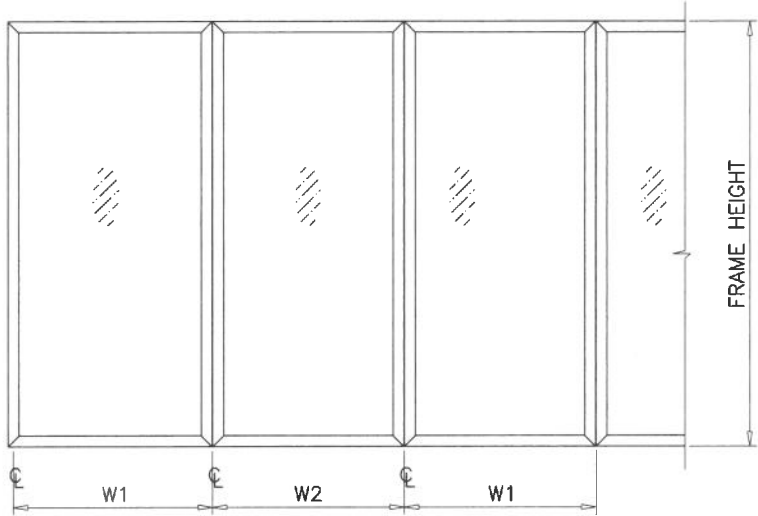
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scale: -
dr. by: TARIQ
chk. by:

drawing no.
18-63F

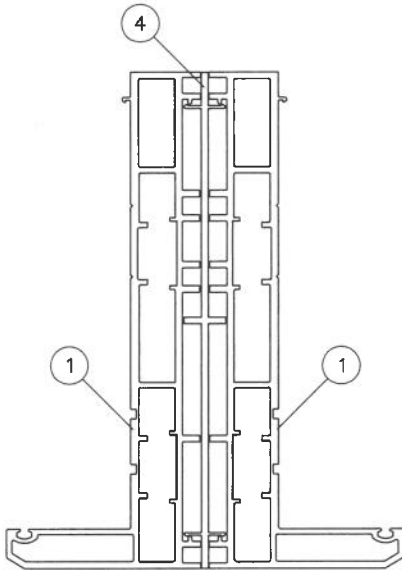
sheet 2 of 8

MULLION LOAD CAPACITY - PSF			
NOMINAL DIMS.		MULLION 'M'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(-)
30"	96"	140.0	140.0
36"		140.0	140.0
48"		140.0	140.0
54"		140.0	140.0
60"		140.0	140.0
66"		140.0	140.0
72"		140.0	140.0
30"	98-1/2"	140.0	140.0
36"		140.0	140.0
48"		140.0	140.0
54"		140.0	140.0
60"		140.0	140.0
66"		140.0	140.0
72"		140.0	140.0
30"	102"	140.0	140.0
36"		140.0	140.0
48"		140.0	140.0
54"		140.0	140.0
60"		140.0	140.0
66"		140.0	140.0
72"		140.0	140.0
30"	108"	140.0	140.0
36"		140.0	140.0
48"		140.0	140.0
54"		140.0	140.0
60"		140.0	140.0
66"		140.0	140.0
72"		140.0	140.0
30"	110-1/2"	140.0	140.0
36"		140.0	140.0
48"		140.0	140.0
54"		140.0	140.0
60"		140.0	140.0
66"		140.0	140.0
72"		140.0	140.0
30"	114"	140.0	140.0
36"		140.0	140.0
48"		140.0	140.0
54"		140.0	140.0
60"		140.0	140.0
66"		140.0	140.0
72"		140.0	140.0
30"	120"	140.0	140.0
36"		140.0	140.0
48"		140.0	140.0
54"		140.0	140.0
60"		133.4	133.4
61-5/8"		130.6	130.6
61-5/8"		130.6	130.6

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.



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



MULLION 'M'

Ix IN^4	Sx IN^3
20.1434	6.5310

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FL #27509

MULLIONS

AL-FAROOQ CORPORATION
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SERIES 180 ALUM WINDOW WALL SYSTEM (S.M.I.)

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revisions:

no	date	by	description

date: 05-11-18

scale: -

dr. by: TARIQ

chk. by: -

drawing no.

18-63F

sheet 3 of 8

MULLION ANCHOR LOAD CAPACITY – PSF					
ANCHOR TYPE		ANCHOR TYPE 'A'		ANCHOR 'B'	ANCHOR 'C'
WIDTH (W)	LENGTH (L)	8 ANCHORS	12 ANCHORS	8 ANCHORS	8 ANCHORS
		EXT. (+) INT. (–)	EXT. (+) INT. (–)	EXT. (+) INT. (–)	EXT. (+) INT. (–)
30"	86–1/2"	140.0	140.0	140.0	140.0
36"		140.0	140.0	140.0	140.0
48"		140.0	140.0	140.0	140.0
54"		140.0	140.0	140.0	140.0
60"		140.0	140.0	140.0	140.0
66"		140.0	140.0	140.0	140.0
72"		140.0	140.0	140.0	140.0
30"	90"	140.0	140.0	140.0	140.0
36"		140.0	140.0	140.0	140.0
48"		140.0	140.0	140.0	140.0
54"		140.0	140.0	140.0	140.0
60"		140.0	140.0	140.0	140.0
66"		140.0	140.0	140.0	140.0
72"		138.1	140.0	140.0	140.0
30"	96"	140.0	140.0	140.0	140.0
36"		140.0	140.0	140.0	140.0
48"		140.0	140.0	140.0	140.0
54"		140.0	140.0	140.0	140.0
60"		140.0	140.0	140.0	140.0
66"		140.0	140.0	140.0	140.0
72"		129.5	140.0	140.0	140.0
30"	98–1/2"	140.0	140.0	140.0	140.0
36"		140.0	140.0	140.0	140.0
48"		140.0	140.0	140.0	140.0
54"		140.0	140.0	140.0	140.0
60"		140.0	140.0	140.0	140.0
66"		137.7	140.0	140.0	140.0
72"		126.2	140.0	139.0	140.0
30"	102"	140.0	140.0	140.0	140.0
36"		140.0	140.0	140.0	140.0
48"		140.0	140.0	140.0	140.0
54"		140.0	140.0	140.0	140.0
60"		140.0	140.0	140.0	140.0
66"		133.0	140.0	140.0	140.0
72"		121.9	140.0	134.2	140.0
30"	108"	140.0	140.0	140.0	140.0
36"		140.0	140.0	140.0	140.0
48"		140.0	140.0	140.0	140.0
54"		140.0	140.0	140.0	140.0
60"		138.1	140.0	140.0	140.0
66"		125.6	140.0	138.3	140.0
30"	110–1/2"	140.0	140.0	140.0	140.0
36"		140.0	140.0	140.0	140.0
48"		140.0	140.0	140.0	140.0
54"		140.0	140.0	140.0	140.0
60"		135.0	140.0	140.0	140.0
66"		122.7	140.0	135.2	140.0

INTERPOLATION BETWEEN WIDTHS OR HEIGHTS ALLOWED.

MULLION ANCHOR LOAD CAPACITY – PSF					
ANCHOR TYPE		ANCHOR TYPE 'A'		ANCHOR 'B'	ANCHOR 'C'
WIDTH (W)	LENGTH (L)	8 ANCHORS	12 ANCHORS	8 ANCHORS	8 ANCHORS
		EXT. (+) INT. (–)	EXT. (+) INT. (–)	EXT. (+) INT. (–)	EXT. (+) INT. (–)
30"	114"	140.0	140.0	140.0	140.0
36"		140.0	140.0	140.0	140.0
48"		140.0	140.0	140.0	140.0
54"		140.0	140.0	140.0	140.0
60"		130.9	140.0	140.0	140.0
61–5/8"		127.4	140.0	140.0	140.0
30"	120"	140.0	140.0	140.0	140.0
36"		140.0	140.0	140.0	140.0
48"		140.0	140.0	140.0	140.0
54"		138.1	140.0	140.0	140.0
60"		124.3	140.0	136.9	140.0
61–5/8"		121.0	140.0	133.3	140.0

SEE SHEET 6 FOR ANCHOR DESCRIPTION

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FL #27509

ANCHORS

**AL-FAROOQ CORPORATION**
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SERIES 180 ALUM WINDOW WALL SYSTEM (S.M.I.)

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Calle 2 Tablaje 17439 Int C X 21y
25 Chichi Suarez, Merida
Yucatan, Mexico
Tel. (–) Fax. (–)

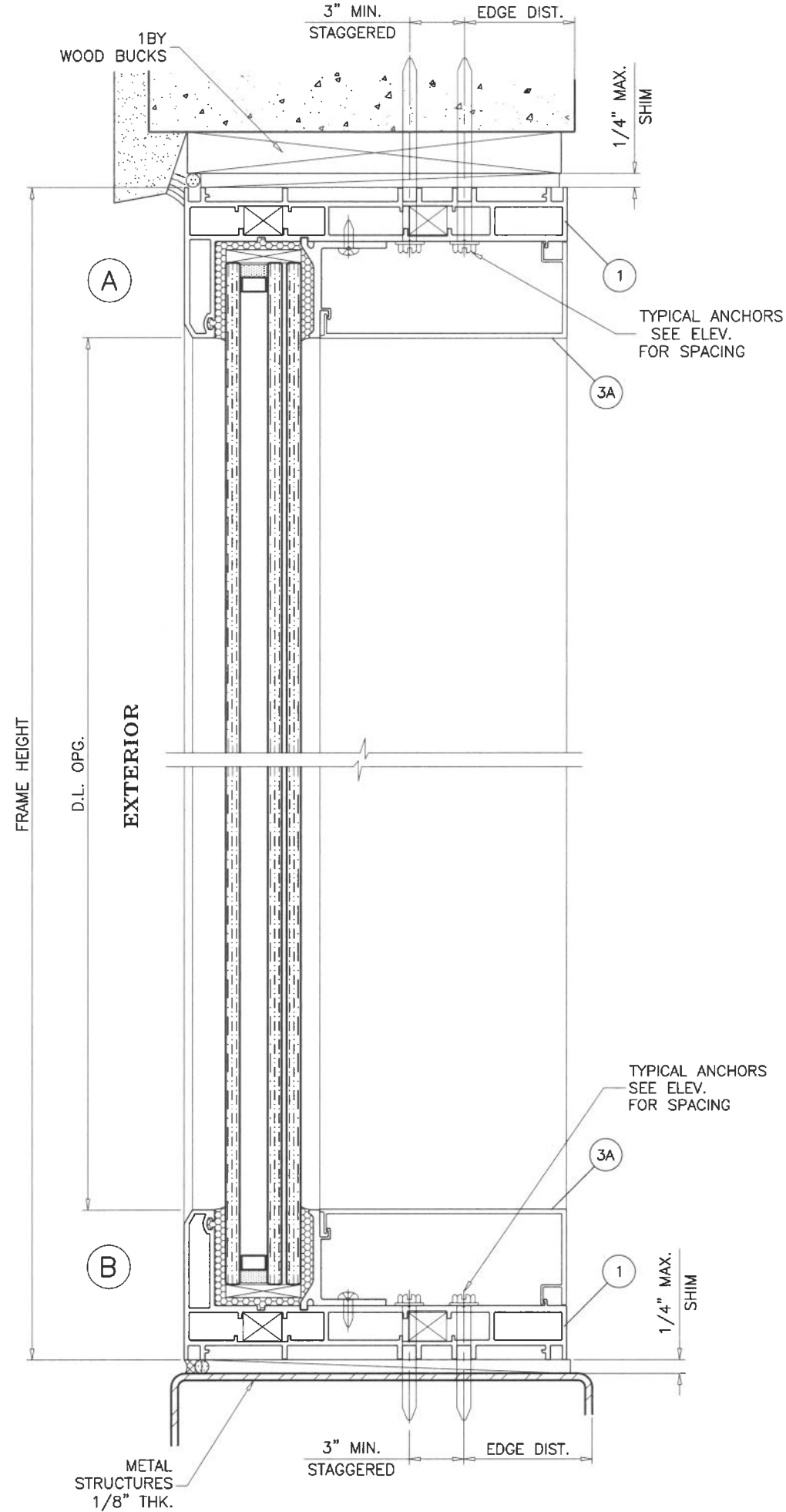
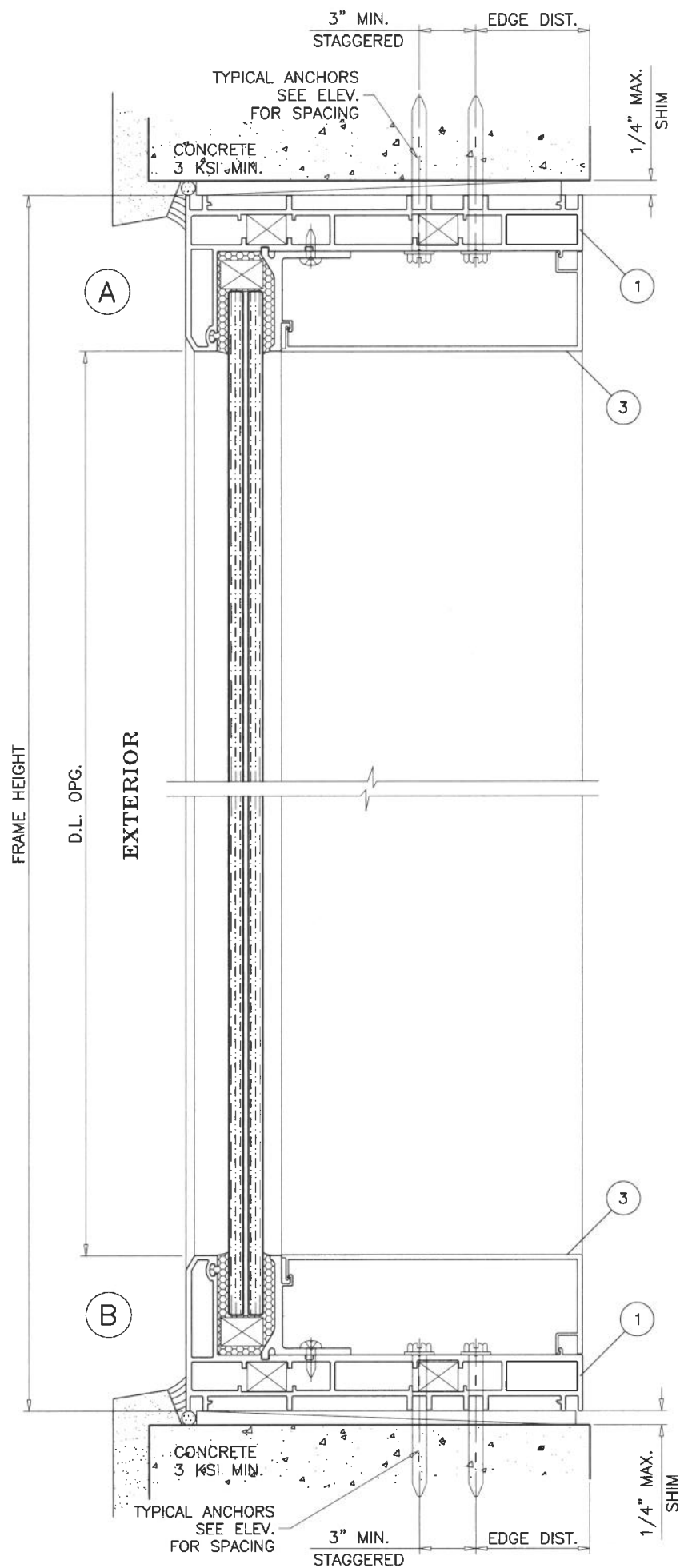
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dr. by: TARIQ
chk. by:

drawing no.
18–63F

sheet 4 of 8

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revisions:

no	date	by	description

date: 05-11-18 scale: 3/8" = 1" dr. by: TARIQ chk. by:

drawing no.
18-63F

sheet 5 of 8

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

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

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

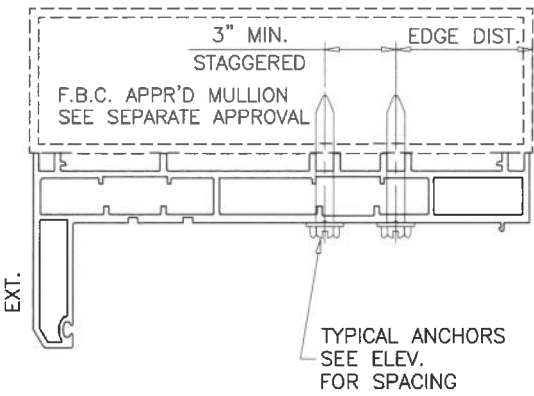
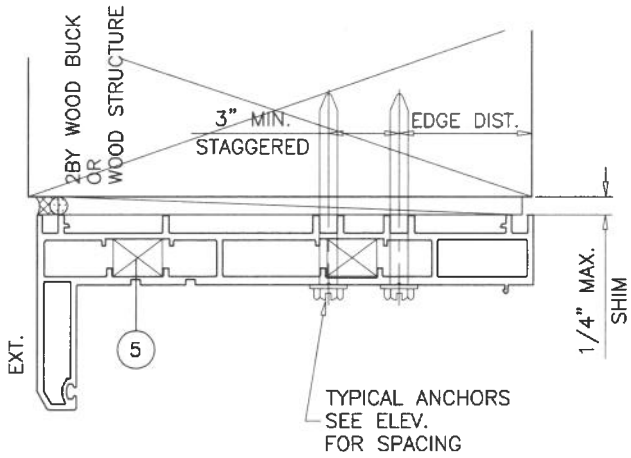
TYPE 'B'– 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)
DIRECTLY INTO CONCRETE OR BLOCKS
1-1/2" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

TYPE 'C'– # 14 SMS OR SELF DRILLING SCREWS (GRADE 2 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 BLOCKS = 2-1/2" 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 GROUT FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.



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FL #27509

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AL-FAROOQ CORPORATION
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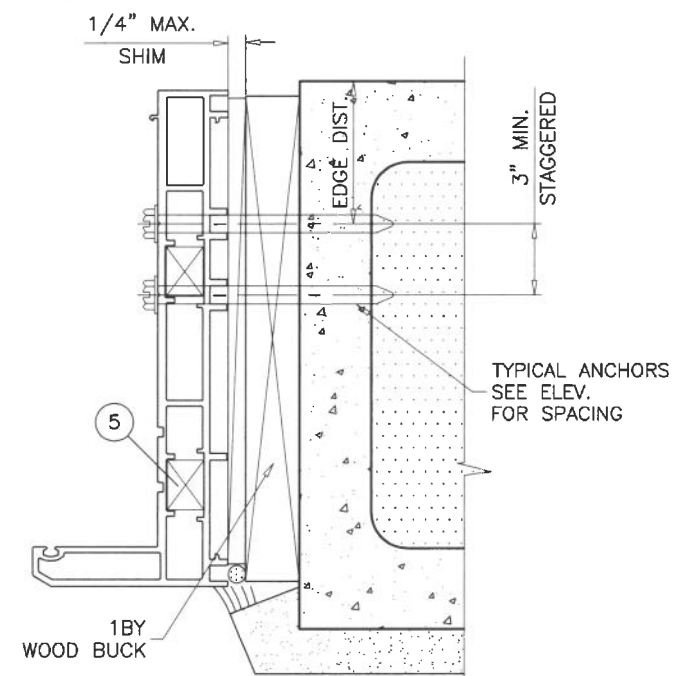
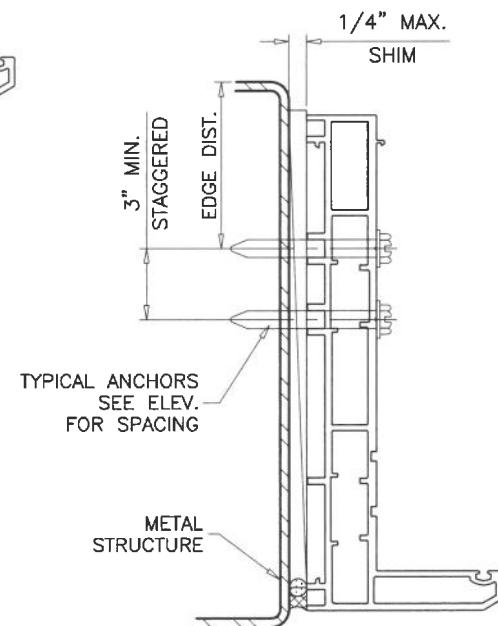
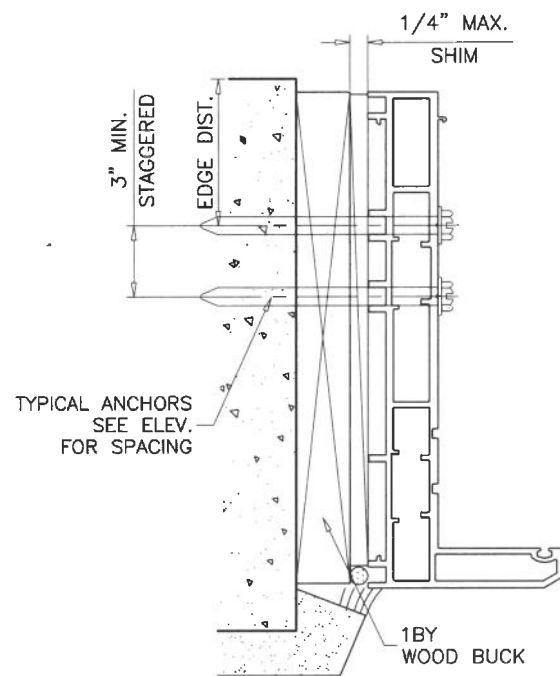
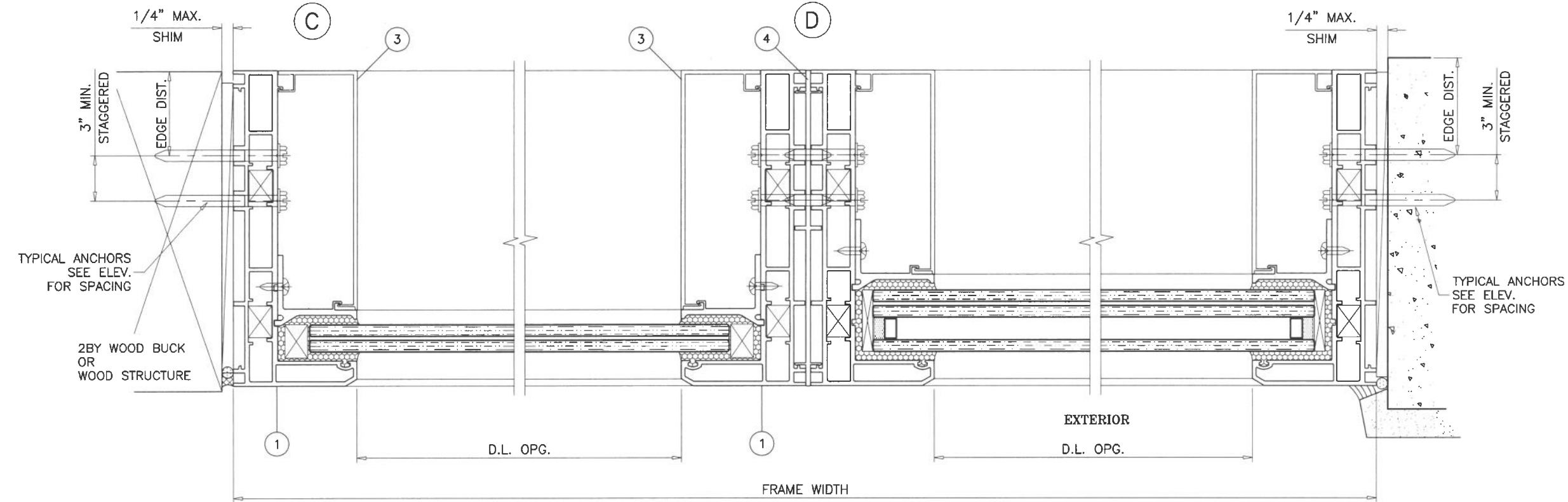
SERIES 180 ALUM WINDOW WALL SYSTEM (S.M.I.)

Alucorp S.A. De C.V.
Calle 2 Tablaje 17439 Int C X 21y
25 Chichi Suarez, Merida
Yucatan, Mexico
Tel. (-) Fax. (-)

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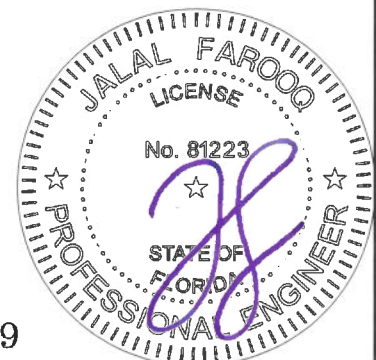
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sheet 6 of 8



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FL #27509

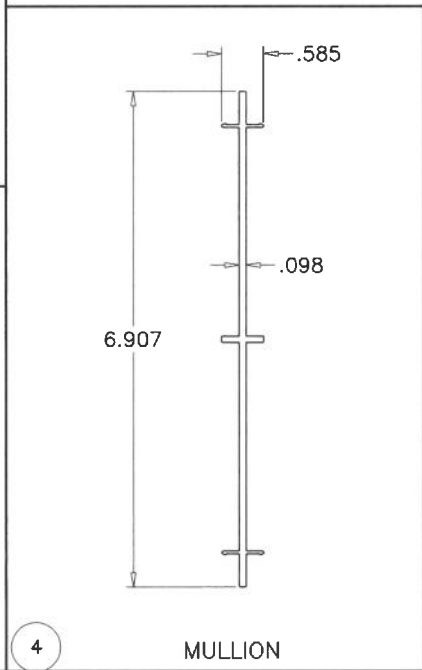
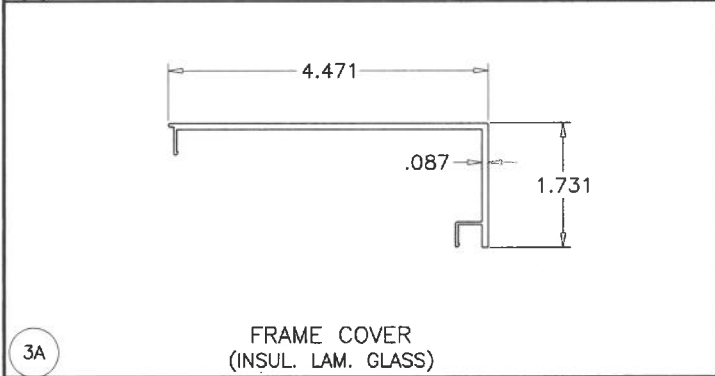
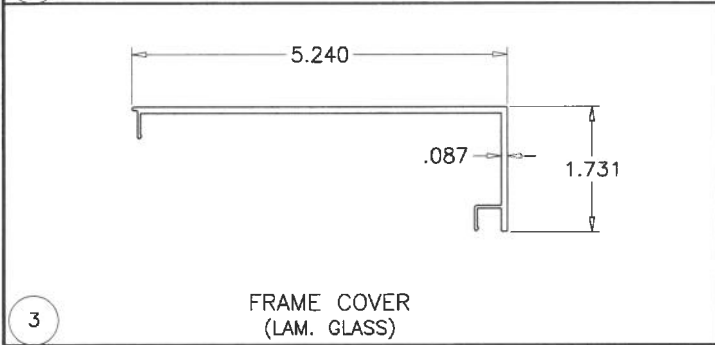
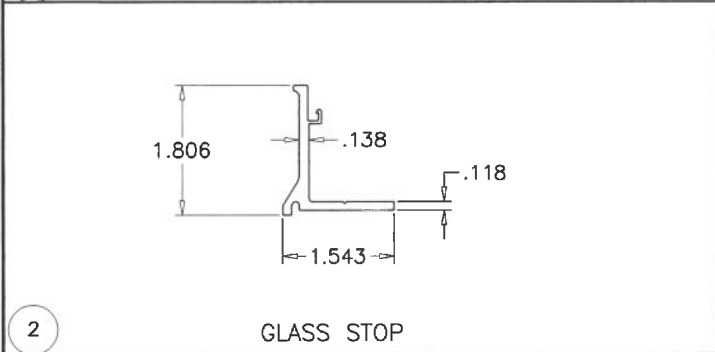
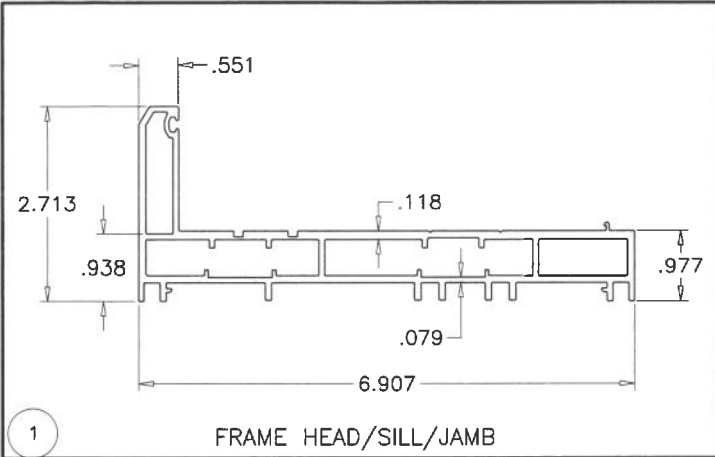


AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

SERIES 180 ALUM WINDOW WALL SYSTEM (S.M.I.)
Alucorp S.A. De C.V.
Calle 2 Tablaje 17439 Int C X 21y
25 Chichi Suarez, Merida
Yucatan, Mexico
Tel. (-) Fax. (-)

revisions:		no	date	by	description
date:	05-11-18	scale:	3/8" = 1"	dr. by:	TARIQ
chk. by:		drawing no.	18-63F	sheet	7 of 8

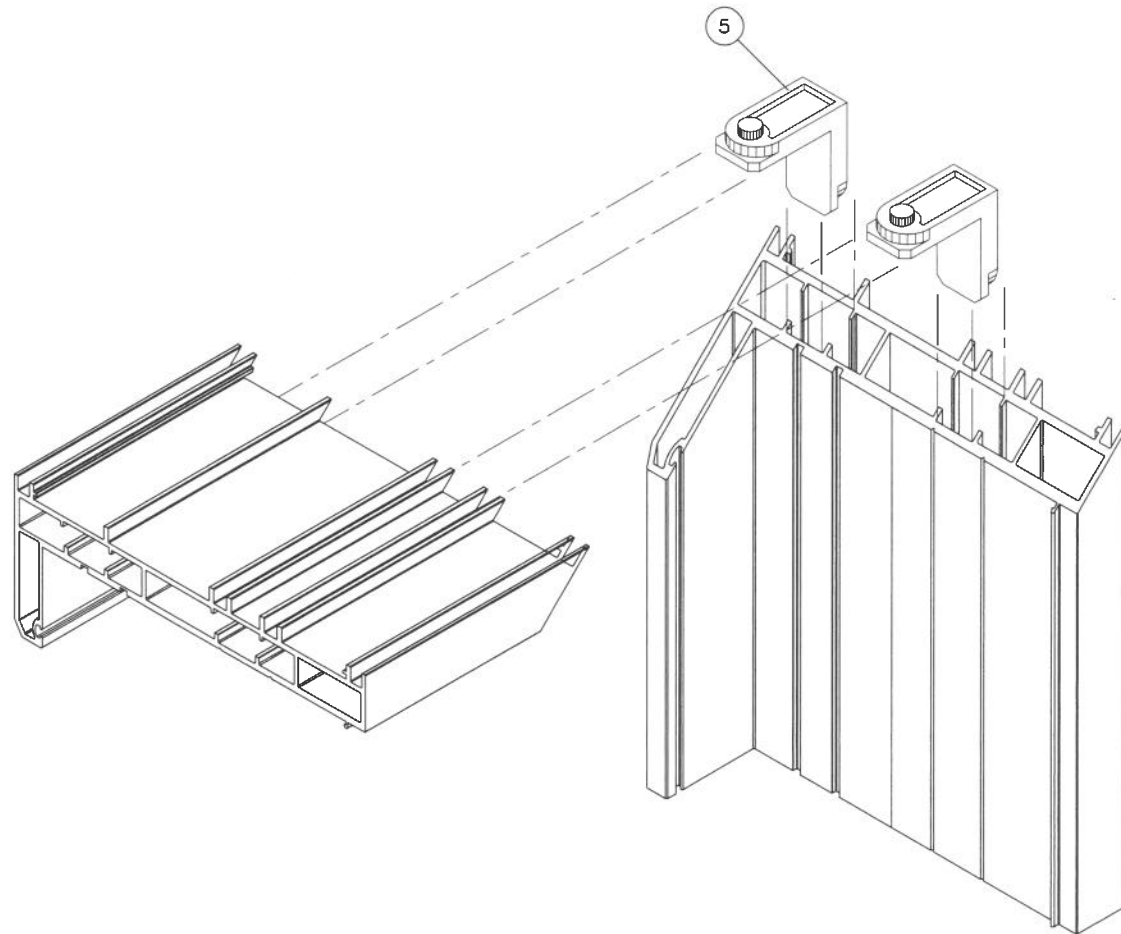
COMP-ANL \ 18-63F-ALU



ITEM #	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	DIV-1010	AS RQED.	FRAME HEAD/SILL/JAMB	6063-T6	-
2	-	AS REQD.	GLASS STOP	6063-T5	-
3	-	AS REQD.	FRAME COVER (LAM. GLASS)	6063-T5	-
3A	-	AS REQD.	FRAME COVER (INSUL. LAM. GLASS)	6063-T5	-
4	DIV-1012	AS REQD.	MULLION	6063-T6	-
5	-	-	CORNER KEY	-	-
6	#10 X 1/2"	AS REQD.	GLASS STOP FASTENERS, AT 6" FROM ENDS & 21-1/4" O.C.	ST. STEEL	PH SELF DRILLING SCREWS
7	-	2/ LITE	SETTING BLOCKS	EPDM	DUROMETER 80±5 SHORE A
8	-	-	-	-	-

SEALANTS:

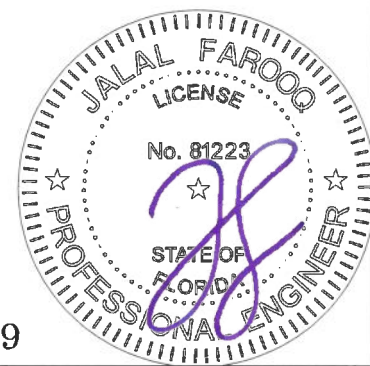
ALL FRAME CORNERS, JOINTS, MULLION SEAMS AND PERIMETER OF GLAZING BEAD TO FRAME SEALED WITH SILICONE SEALANT.



FRAME CORNER

Sealed: 7/17/2026

FL #27509



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