

**SERIES-2046A IMPACT WINDOW WALL SYSTEM**

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

CODE REQUIREMENTS FOR SAFEGUARDS MUST BE OBSERVED.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2017 (6TH 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 2017 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)' FOR EQUIVALENT LOADS IN 'LOAD AND RESISTANCE FACTOR DESIGN (LRFD)' MULTIPLY 'ASD' LOADS BY 1.67 (ASD LOAD X 1.67 = LRFD LOAD)

**TYPICAL ELEVATIONS**

**ANCHOR SPACING AT FRAME JAMBS:**

TYPICAL ANCHOR SPACING = 12" O.C. MAX.

EXCEPT

ANCHOR TYPE 'A' FOR LOADS ABOVE 100 PSF = 6" O.C.

ANCHOR TYPE 'B' INTO BLOCKS ONLY FOR LOADS ABOVE 70 PSF = 6" O.C.

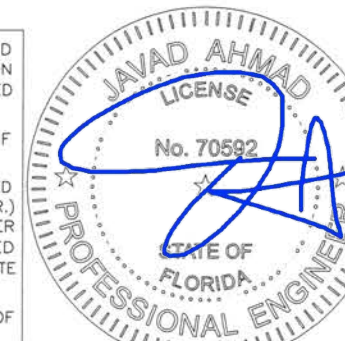
**INSTRUCTIONS:**

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 CHART ON SHEETS 2 AND 2.1 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE.
- STEP 3** CHECK MULLION CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEETS 3 & 3.1 THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.
- STEP 4** USING CHARTS ON SHEET 4 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
- STEP 5** THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.

- 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.

FL #16228



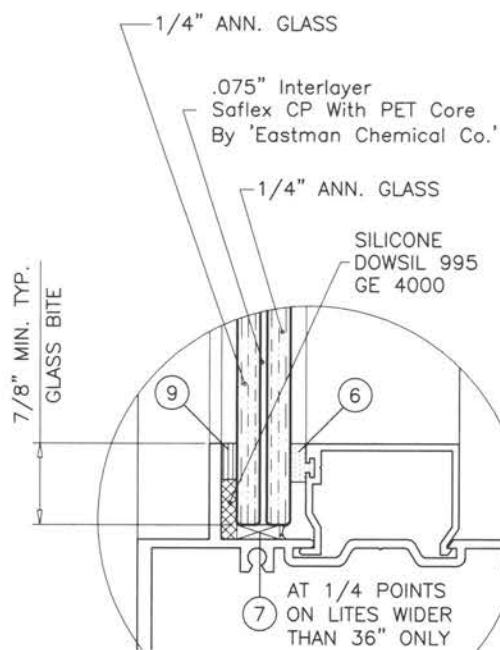
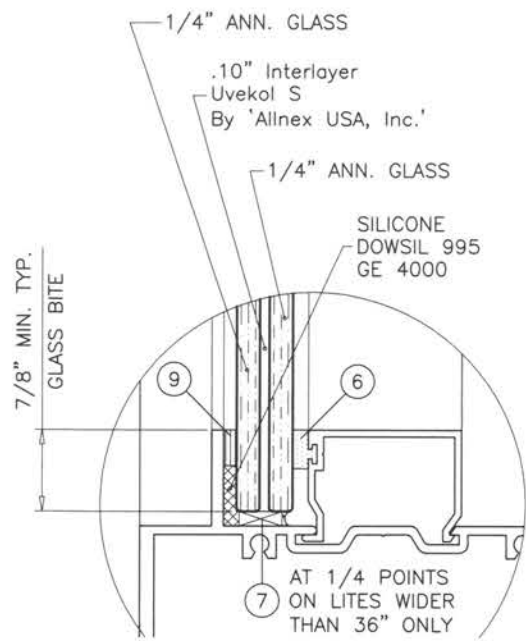
**afC**  
**AL-FAROOQ CORPORATION**  
 ENGINEERS & PRODUCT DEVELOPMENT  
 9360 SUNSET DRIVE, SUITE 220  
 MIAMI, FLORIDA 33173 (C.A.N. 3538)  
 TEL. (305) 264-8100 FAX. (305) 262-6978  
 STORE \19-116F-GTE

SERIES-2046A ALUM WINDOW WALL SYSTEM (L.M.I.)  
**Glass Tech Engineering, Inc.**  
 8321 N.W. 70th Street  
 Miami, FL. 33166  
 Tel. (305) 594-4321 Fax. (305) 599-2730

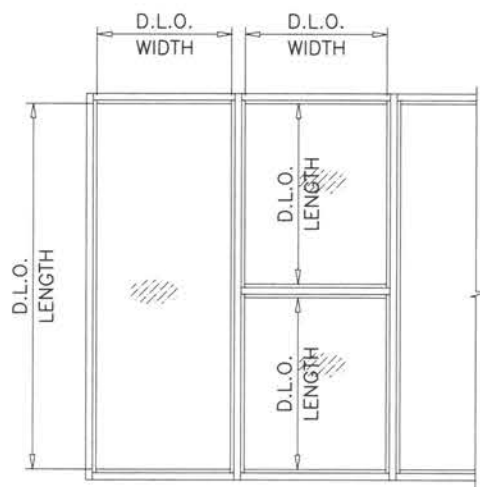
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 chk. by:

drawing no.  
**19-116F**  
 sheet 1 of 7



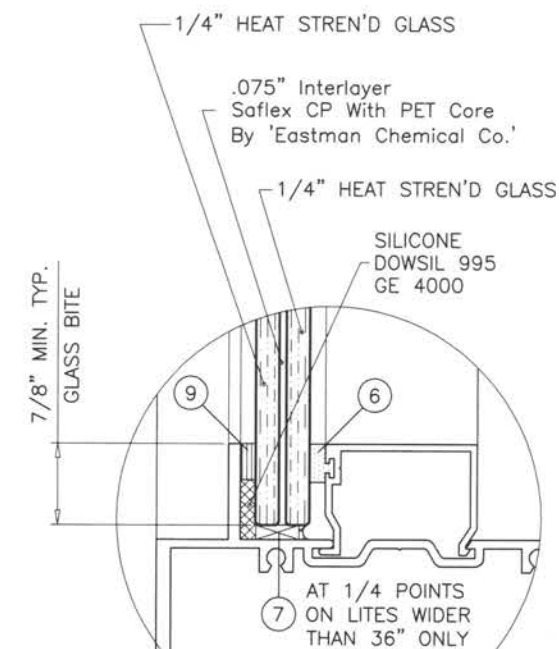
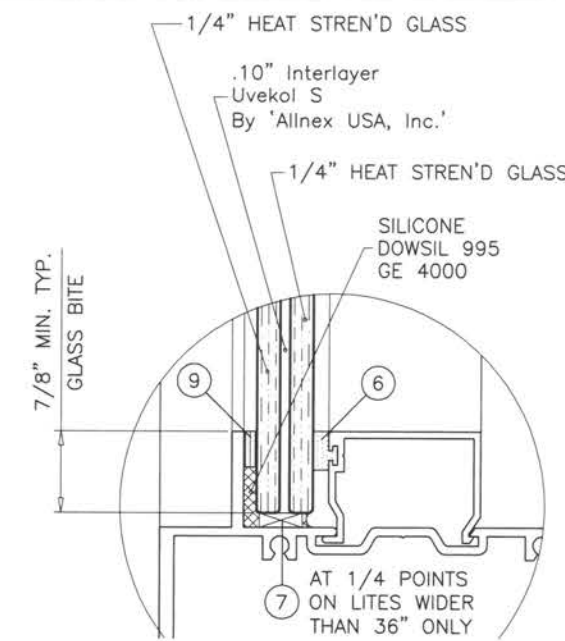
GLASS TYPE 'A'



GLASS DESIGN LOAD CAPACITY - PSF		
NOMINAL DIMS.		GLASS TYPE 'A'
D.L.O. WIDTH	D.L.O. LENGTH	EXT.(+) & INT.(-)
24"	66"	120.0
30"		120.0
36"		120.0
42"		100.0
48"		96.7
54"		89.0
60"	81.9	
24"	72"	120.0
30"		120.0
36"		100.0
42"		98.4
48"		88.7
54"		81.0
24"	78"	120.0
30"		120.0
36"		100.0
42"		91.2
48"		81.2
54"		71.2
24"	84"	120.0
30"		100.0
36"		100.0
42"		85.2
48"		75.2
54"		65.2
24"	90"	120.0
30"		100.0
36"		96.8
42"		80.3
48"		70.3
54"		60.3
24"	96"	120.0
30"		100.0
36"		92.5
42"		78.5
48"		68.5
54"		58.5
24"	102"	100.0
30"		100.0
36"		88.2
42"		74.2
48"		64.2
54"		54.2
24"	108"	100.0
30"		100.0
36"		84.7
42"		70.7
48"		60.7
54"		50.7
24"	114"	100.0
30"		100.0
36"		84.7
42"		70.7
48"		60.7
54"		50.7
24"	120"	100.0
30"		100.0
36"		84.7
42"		70.7
48"		60.7
54"		50.7

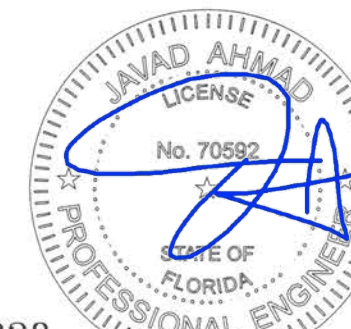
VALUES SHOWN ABOVE ARE MAXIMUM DAYLITE OPENING DIMS. FOR GLASS. SEE MULLION CHARTS FOR MULLION CAPACITY.

GLASS DESIGN LOAD CAPACITY - PSF		
NOMINAL DIMS.		GLASS TYPE 'B'
D.L.O. WIDTH	D.L.O. LENGTH	EXT.(+) & INT.(-)
24"	78"	120.0
30"		120.0
36"		120.0
42"		120.0
48"		120.0
54"		120.0
24"	84"	120.0
30"		120.0
36"		120.0
42"		120.0
48"		120.0
54"		120.0
24"	90"	120.0
30"		120.0
36"		120.0
42"		120.0
48"		120.0
54"		120.0
24"	96"	120.0
30"		120.0
36"		120.0
42"		120.0
48"		120.0
54"		120.0
24"	102"	120.0
30"		120.0
36"		120.0
42"		120.0
48"		120.0
54"		120.0
24"	108"	120.0
30"		120.0
36"		120.0
42"		120.0
48"		120.0
54"		120.0
24"	114"	120.0
30"		120.0
36"		120.0
42"		120.0
48"		120.0
54"		120.0
24"	120"	120.0
30"		120.0
36"		120.0
42"		120.0
48"		120.0
54"		120.0



GLASS TYPE 'B'

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



FL #16228

Sealed: 11/1/19

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revisions:	no	date	by	description

date:	10-29-19
scale:	1/2" = 1"
dr. by:	TARIQ
chk. by:	

drawing no.

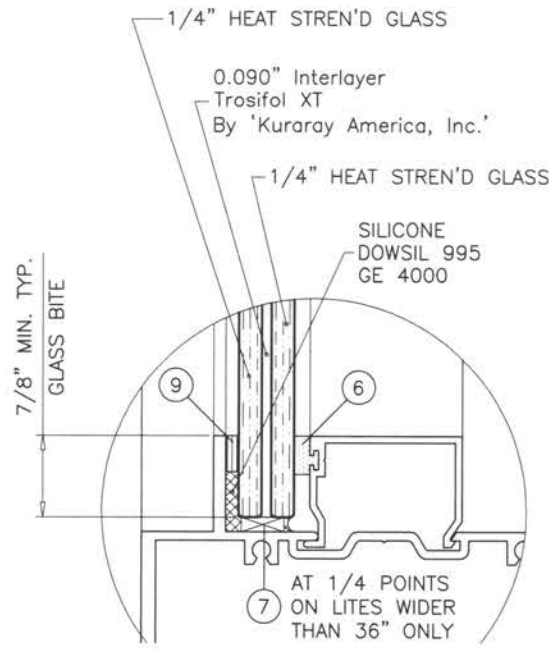
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sheet 2 of 7

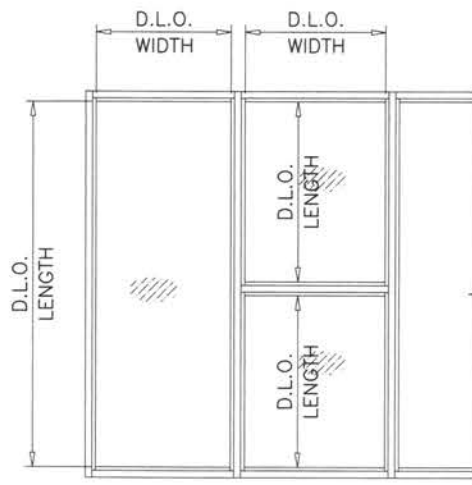
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**GLASS DESIGN LOAD CAPACITY - PSF**

NOMINAL DIMS.		GLASS TYPE 'C' EXT.(+) & INT.(-)
D.L.O. WIDTH	D.L.O. LENGTH	
24"	96"	80.0
30"		80.0
36"		80.0
42"		80.0
48"		80.0
54"		80.0
60"	80.0	
24"	102"	80.0
30"		80.0
36"		80.0
42"		80.0
48"		80.0
54"		80.0
24"	108"	80.0
30"		80.0
36"		80.0
42"		80.0
48"		80.0
54"		80.0
24"	114"	80.0
30"		80.0
36"		80.0
42"		80.0
48"	80.0	
24"	120"	80.0
30"		80.0
36"		80.0
42"		80.0
48"	80.0	
24"	126"	80.0
30"		80.0
36"		80.0
42"		80.0
48"	80.0	

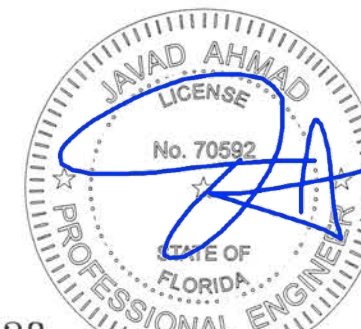


**GLASS TYPE 'C'**



VALUES SHOWN ABOVE ARE MAXIMUM DAYLITE OPENING DIMS. FOR GLASS. SEE MULLION CHARTS FOR MULLION CAPACITY.

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



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**af c**  
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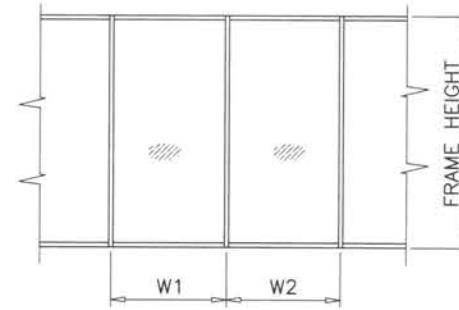
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chk. by:	

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sheet 2.1 of 7

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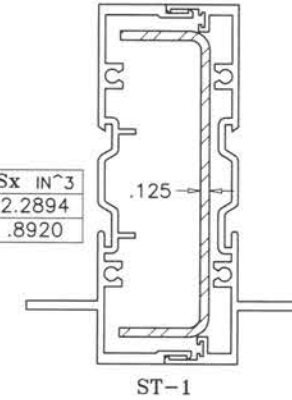
MULLION LOAD CAPACITY - PSF WITHOUT INTERMEDIATE HORIZONTALS					
NOMINAL DIMS.		WITHOUT REINFORCING	ST-1 REINFORCING	ST-2 REINFORCING	ST-3 REINFORCING
WIDTH (W)	FRAME HEIGHT	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)
24"	72"	100.0	120.0	120.0	120.0
30"		100.0	120.0	120.0	120.0
36"		100.0	120.0	120.0	120.0
42"		100.0	120.0	120.0	120.0
48"		100.0	120.0	120.0	120.0
54"		100.0	120.0	120.0	120.0
60"	100.0	120.0	120.0	120.0	
24"	78"	100.0	120.0	120.0	120.0
30"		100.0	120.0	120.0	120.0
36"		100.0	120.0	120.0	120.0
42"		100.0	120.0	120.0	120.0
48"		100.0	120.0	120.0	120.0
54"		100.0	120.0	120.0	120.0
60"	-	120.0	120.0	120.0	
24"	84"	100.0	120.0	120.0	120.0
30"		100.0	120.0	120.0	120.0
36"		100.0	120.0	120.0	120.0
42"		100.0	120.0	120.0	120.0
48"		100.0	120.0	120.0	120.0
54"		97.6	120.0	120.0	120.0
60"	-	120.0	120.0	120.0	
24"	90"	100.0	120.0	120.0	120.0
30"		100.0	120.0	120.0	120.0
36"		100.0	120.0	120.0	120.0
42"		100.0	120.0	120.0	120.0
48"		90.3	120.0	120.0	120.0
54"		-	120.0	120.0	120.0
60"	-	114.5	120.0	120.0	
24"	96"	100.0	120.0	120.0	120.0
30"		100.0	120.0	120.0	120.0
36"		99.7	120.0	120.0	120.0
42"		87.0	120.0	120.0	120.0
48"		77.7	116.9	120.0	120.0
54"		-	106.5	120.0	120.0
60"	-	98.6	117.1	120.0	
24"	102"	-	120.0	120.0	120.0
30"		-	120.0	120.0	120.0
36"		-	120.0	120.0	120.0
42"		-	115.0	120.0	120.0
48"		-	102.5	120.0	120.0
54"		-	93.1	110.6	120.0
24"	108"	-	120.0	120.0	120.0
30"		-	120.0	120.0	120.0
36"		-	117.4	120.0	120.0
42"		-	102.0	120.0	120.0
48"		-	90.6	107.7	120.0
60"		-	-	-	-
24"	114"	-	120.0	120.0	120.0
30"		-	120.0	120.0	120.0
36"		-	104.9	120.0	120.0
42"		-	91.0	108.2	120.0
48"		-	80.8	96.0	108.8

MULLION LOAD CAPACITY - PSF WITHOUT INTERMEDIATE HORIZONTALS					
NOMINAL DIMS.		WITHOUT REINFORCING	ST-1 REINFORCING	ST-2 REINFORCING	ST-3 REINFORCING
WIDTH (W)	FRAME HEIGHT	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)
24"	120"	-	120.0	120.0	120.0
30"		-	112.3	120.0	120.0
36"		-	94.4	112.2	120.0
42"		-	81.8	97.2	110.2
48"	-	-	72.5	86.1	97.6
24"	126"	-	-	80.0	80.0
30"		-	-	80.0	80.0
42"		-	-	80.0	80.0
48"		-	-	77.7	80.0

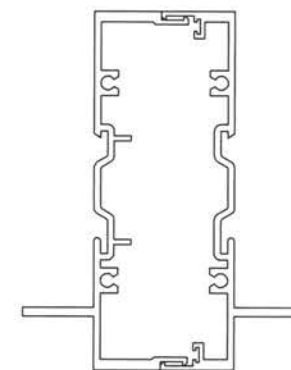
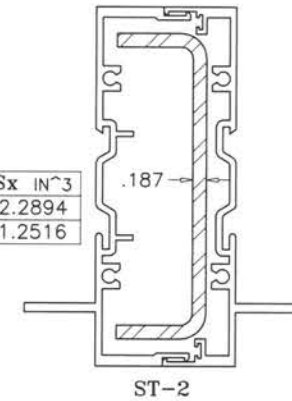


$$WIDTH (W) = \frac{W1 + W2}{2}$$

	Ix IN <sup>4</sup>	Sx IN <sup>3</sup>
ALUMINUM	6.2048	2.2894
STEEL	1.8955	.8920
TOTAL	8.1003	3.1814
Ix ALUM + Ix STL X 2.9	11.7018	

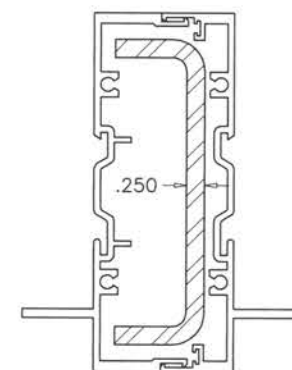


	Ix IN <sup>4</sup>	Sx IN <sup>3</sup>
ALUMINUM	6.2048	2.2894
STEEL	2.6597	1.2516
TOTAL	8.8645	3.5410
Ix ALUM + Ix STL X 2.9	13.9179	



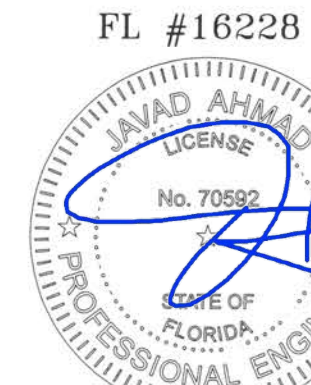
	Ix IN <sup>4</sup>	Sx IN <sup>3</sup>
ALUM	6.2048	2.2894

MULLION  
W/O REINFORCING



	Ix IN <sup>4</sup>	Sx IN <sup>3</sup>
ALUMINUM	6.2048	2.2894
STEEL	3.3026	1.5542
TOTAL	9.5074	3.8436
Ix ALUM + Ix STL X 2.9	15.7823	

MULLION  
W/ REINFORCING



**af c**  
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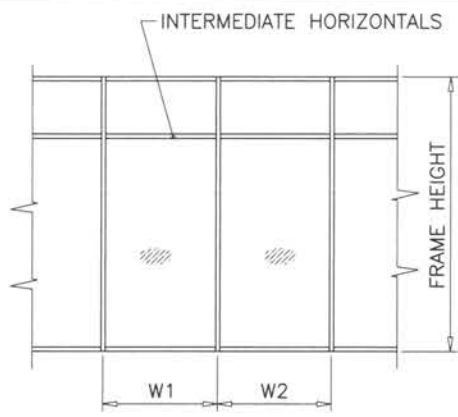
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date: 10-29-19  
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drawing no.  
**19-116F**  
 sheet 3 of 7

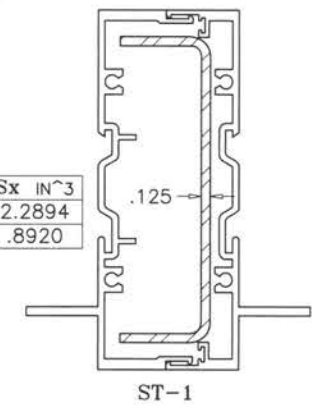
MULLION LOAD CAPACITY - PSF WITH INTERMEDIATE HORIZONTALS					
NOMINAL DIMS.		WITHOUT REINFORCING	ST-1 REINFORCING	ST-2 REINFORCING	ST-3 REINFORCING
WIDTH (W)	FRAME HEIGHT	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)
24"	72"	100.0	120.0	120.0	120.0
30"		100.0	120.0	120.0	120.0
36"		100.0	120.0	120.0	120.0
42"		100.0	120.0	120.0	120.0
48"		100.0	120.0	120.0	120.0
54"		100.0	120.0	120.0	120.0
60"	100.0	120.0	120.0	120.0	
24"	78"	100.0	120.0	120.0	120.0
30"		100.0	120.0	120.0	120.0
36"		100.0	120.0	120.0	120.0
42"		100.0	120.0	120.0	120.0
48"		100.0	120.0	120.0	120.0
54"		98.6	120.0	120.0	120.0
60"	-	120.0	120.0	120.0	
24"	84"	100.0	120.0	120.0	120.0
30"		100.0	120.0	120.0	120.0
36"		100.0	120.0	120.0	120.0
42"		100.0	120.0	120.0	120.0
48"		94.8	120.0	120.0	120.0
54"		84.3	120.0	120.0	120.0
60"	-	112.2	120.0	120.0	
24"	90"	100.0	120.0	120.0	120.0
30"		100.0	120.0	120.0	120.0
36"		100.0	120.0	120.0	120.0
42"		93.6	120.0	120.0	120.0
48"		81.9	120.0	120.0	120.0
54"		-	108.6	120.0	120.0
60"	-	97.7	116.1	120.0	
24"	96"	100.0	120.0	120.0	120.0
30"		100.0	120.0	120.0	120.0
36"		95.2	120.0	120.0	120.0
42"		81.6	120.0	120.0	120.0
48"		71.4	107.4	120.0	120.0
54"		-	95.4	113.4	120.0
60"	-	85.9	102.1	115.7	
24"	102"	-	120.0	120.0	120.0
30"		-	120.0	120.0	120.0
36"		-	120.0	120.0	120.0
42"		-	108.7	120.0	120.0
48"		-	95.1	113.0	120.0
54"		-	84.5	100.5	113.9
24"	108"	-	120.0	120.0	120.0
30"		-	120.0	120.0	120.0
36"		-	113.1	120.0	120.0
42"		-	97.0	115.2	120.0
48"		-	84.8	100.8	114.3
54"		-	-	-	-
24"	114"	-	120.0	120.0	120.0
30"		-	120.0	120.0	120.0
36"		-	101.5	120.0	120.0
42"		-	87.0	103.4	117.2
48"		-	76.1	90.5	102.6

MULLION LOAD CAPACITY - PSF WITH INTERMEDIATE HORIZONTALS					
NOMINAL DIMS.		WITHOUT REINFORCING	ST-1 REINFORCING	ST-2 REINFORCING	ST-3 REINFORCING
WIDTH (W)	FRAME HEIGHT	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)	EXT.(+) INT.(-)
24"	120"	-	120.0	120.0	120.0
30"		-	110.0	120.0	120.0
36"		-	91.6	108.9	120.0
42"		-	78.5	93.3	105.8
48"	-	68.7	81.7	92.6	
24"	126"	-	-	80.0	80.0
30"		-	-	80.0	80.0
36"		-	-	80.0	80.0
42"		-	-	80.0	80.0
48"	-	-	74.1	80.0	

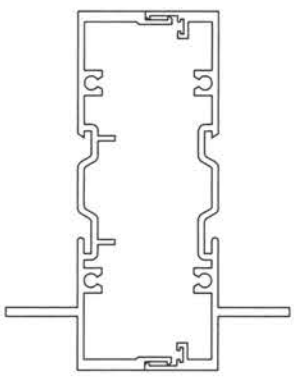
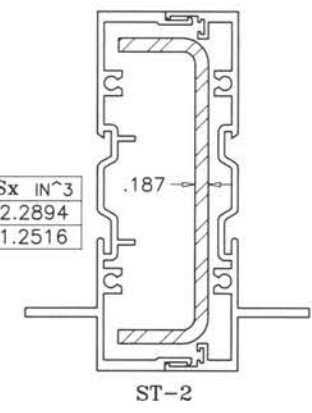


$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$

	Ix IN <sup>4</sup>	Sx IN <sup>3</sup>
ALUMINUM	6.2048	2.2894
STEEL	1.8955	.8920
TOTAL	11.7018	
Ix ALUM + Ix STL X 2.9	11.7018	

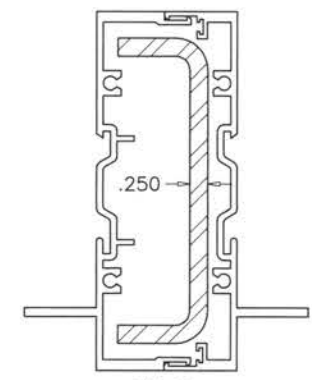


	Ix IN <sup>4</sup>	Sx IN <sup>3</sup>
ALUMINUM	6.2048	2.2894
STEEL	2.6597	1.2516
TOTAL	13.9179	
Ix ALUM + Ix STL X 2.9	13.9179	



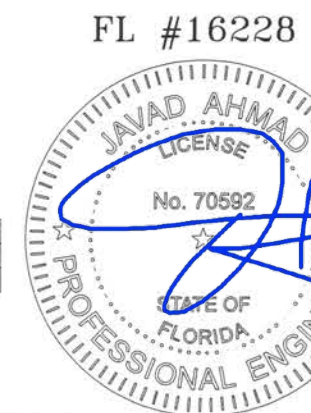
	Ix IN <sup>4</sup>	Sx IN <sup>3</sup>
ALUM	6.2048	2.2894

MULLION W/O REINFORCING



	Ix IN <sup>4</sup>	Sx IN <sup>3</sup>
ALUMINUM	6.2048	2.2894
STEEL	3.3026	1.5542
TOTAL	15.7823	
Ix ALUM + Ix STL X 2.9	15.7823	

MULLION W/ REINFORCING



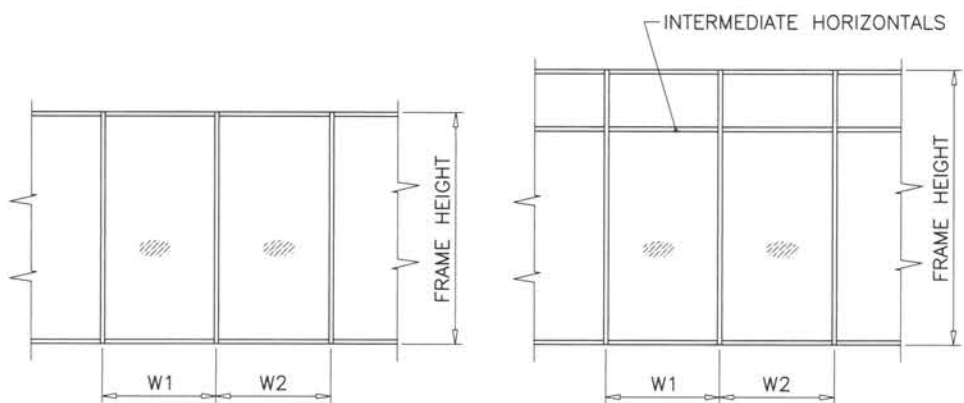
**af c**  
**AL-FAROOQ CORPORATION**  
 ENGINEERS & PRODUCT DEVELOPMENT  
 9360 SUNSET DRIVE, SUITE 220  
 MIAMI, FLORIDA 33173 (C.A.N. 3538)  
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SERIES-2046A ALUM WINDOW WALL SYSTEM (L.M.I.)  
**Glass Tech Engineering, Inc.**  
 8321 N.W. 70th Street  
 Miami, FL. 33166  
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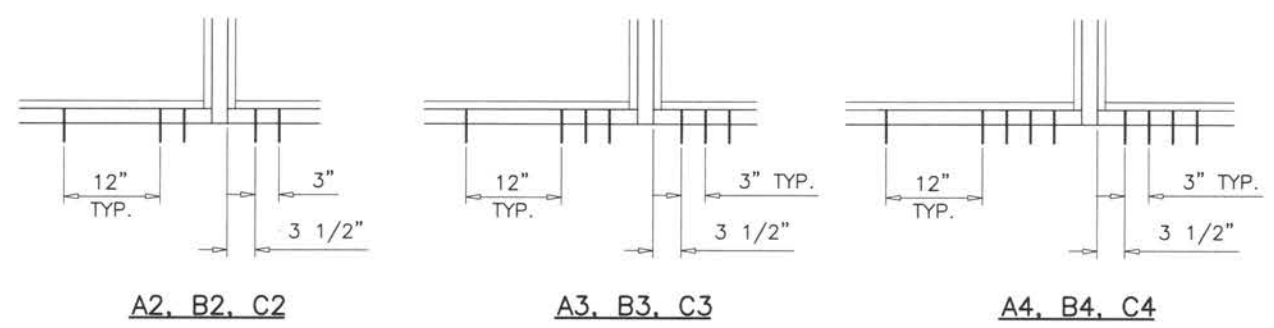
revisions:  
 no. date by description  
 10-29-19  
 scale: -  
 dr. by: TARIQ  
 chk. by:  
 drawing no. 19-116F  
 sheet 3.1 of 7

ANCHOR LOAD CAPACITY - PSF EXT.(+) & INT.(-)										
NOMINAL DIMS.		ANCHORS TYPE 'A'			ANCHORS TYPE 'B'			ANCHORS TYPE 'C'		
WIDTH (W)	FRAME HEIGHT	A2	A3	A4	B2	B3	B4	C2	C3	C4
24"	72"	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
30"		120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
36"		115.1	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
42"		98.7	120.0	120.0	112.4	120.0	120.0	120.0	120.0	120.0
48"		86.3	120.0	120.0	98.3	120.0	120.0	110.7	120.0	120.0
54"		76.7	115.1	120.0	87.4	120.0	120.0	98.4	120.0	120.0
60"	69.1	103.6	120.0	78.7	118.0	120.0	88.5	120.0	120.0	
24"	78"	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
30"		120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
36"		106.3	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
42"		91.1	120.0	120.0	103.7	120.0	120.0	116.7	120.0	120.0
48"		79.7	119.5	120.0	90.8	120.0	120.0	102.2	120.0	120.0
54"		70.8	106.3	120.0	80.7	120.0	120.0	90.8	120.0	120.0
60"	63.8	95.6	120.0	72.6	108.9	120.0	81.7	120.0	120.0	
24"	84"	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
30"		118.4	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
36"		98.7	120.0	120.0	112.4	120.0	120.0	120.0	120.0	120.0
42"		84.6	120.0	120.0	96.3	120.0	120.0	108.4	120.0	120.0
48"		74.0	111.0	120.0	84.3	120.0	120.0	94.9	120.0	120.0
54"		65.8	98.7	120.0	74.9	112.4	120.0	84.3	120.0	120.0
60"	59.2	88.8	118.4	67.4	101.1	120.0	75.9	113.8	120.0	
24"	90"	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
30"		110.5	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
36"		92.1	120.0	120.0	104.9	120.0	120.0	118.0	120.0	120.0
42"		78.9	118.4	120.0	89.9	120.0	120.0	101.2	120.0	120.0
48"		69.1	103.6	120.0	78.7	118.0	120.0	88.5	120.0	120.0
54"		61.4	92.1	120.0	69.9	104.9	120.0	78.7	118.0	120.0
60"	55.3	82.9	110.5	62.9	94.4	120.0	70.8	106.2	120.0	
24"	96"	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
30"		103.6	120.0	120.0	118.0	120.0	120.0	120.0	120.0	120.0
36"		86.3	120.0	120.0	98.3	120.0	120.0	110.7	120.0	120.0
42"		74.0	111.0	120.0	84.3	120.0	120.0	94.9	120.0	120.0
48"		64.8	97.1	120.0	73.8	110.6	120.0	83.0	120.0	120.0
54"		57.6	86.3	115.1	65.6	98.3	120.0	73.8	110.7	120.0
60"	51.8	77.7	103.6	59.0	88.5	118.0	66.4	99.6	120.0	
24"	102"	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
30"		97.5	120.0	120.0	111.1	120.0	120.0	120.0	120.0	120.0
36"		81.3	120.0	120.0	92.5	120.0	120.0	104.2	120.0	120.0
42"		69.6	104.5	120.0	79.3	119.0	120.0	89.3	120.0	120.0
48"		60.9	91.4	120.0	69.4	104.1	120.0	78.1	117.2	120.0
54"		54.2	81.3	108.3	61.7	92.5	120.0	69.4	104.2	120.0
24"	108"	115.1	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
30"		92.1	120.0	120.0	104.9	120.0	120.0	118.0	120.0	120.0
36"		76.7	115.1	120.0	87.4	120.0	120.0	98.4	120.0	120.0
42"		65.8	98.7	120.0	74.9	112.4	120.0	84.3	120.0	120.0
48"		57.6	86.3	115.1	65.6	98.3	120.0	73.8	110.7	120.0
54"		51.2	76.7	102.3	58.3	87.4	116.5	65.6	98.4	120.0
24"	114"	109.1	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
30"		87.2	120.0	120.0	99.4	120.0	120.0	111.8	120.0	120.0
36"		72.7	109.1	120.0	82.8	120.0	120.0	93.2	120.0	120.0
42"		62.3	93.5	120.0	71.0	106.5	120.0	79.9	119.8	120.0
48"		54.5	81.8	109.1	62.1	93.2	120.0	69.9	104.8	120.0

ANCHOR LOAD CAPACITY - PSF EXT.(+) & INT.(-)										
NOMINAL DIMS.		ANCHORS TYPE 'A'			ANCHORS TYPE 'B'			ANCHORS TYPE 'C'		
WIDTH (W)	FRAME HEIGHT	A2	A3	A4	B2	B3	B4	C2	C3	C4
24"	120"	103.6	120.0	120.0	118.0	120.0	120.0	120.0	120.0	120.0
30"		82.9	120.0	120.0	94.4	120.0	120.0	106.2	120.0	120.0
36"		69.1	103.6	120.0	78.7	118.0	120.0	88.5	120.0	120.0
42"		59.2	88.8	118.4	67.4	101.1	120.0	75.9	113.8	120.0
48"		51.8	77.7	103.6	59.0	88.5	118.0	66.4	99.6	120.0
24"	126"	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
30"		78.9	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
36"		65.8	80.0	80.0	74.9	80.0	80.0	80.0	80.0	80.0
42"		56.4	80.0	80.0	64.2	80.0	80.0	72.3	80.0	80.0
48"		49.3	74.0	80.0	56.2	80.0	80.0	63.2	80.0	80.0



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



- ANCHORS TYPES: SEE SHEET 5 FOR DESCRIPTION**
- A2 = (2) ANCHORS TYPE 'A' AT EACH SIDE OF MULLION
  - A3 = (3) ANCHORS TYPE 'A' AT EACH SIDE OF MULLION
  - A4 = (4) ANCHORS TYPE 'A' AT EACH SIDE OF MULLION
  - B2 = (2) ANCHORS TYPE 'B' AT EACH SIDE OF MULLION
  - B3 = (3) ANCHORS TYPE 'B' AT EACH SIDE OF MULLION
  - B4 = (4) ANCHORS TYPE 'B' AT EACH SIDE OF MULLION
  - C2 = (2) ANCHORS TYPE 'C' AT EACH SIDE OF MULLION
  - C3 = (3) ANCHORS TYPE 'C' AT EACH SIDE OF MULLION
  - C4 = (4) ANCHORS TYPE 'C' AT EACH SIDE OF MULLION

ALL OTHER ANCHORS TO BE SPACED AS PER ELEVATION.

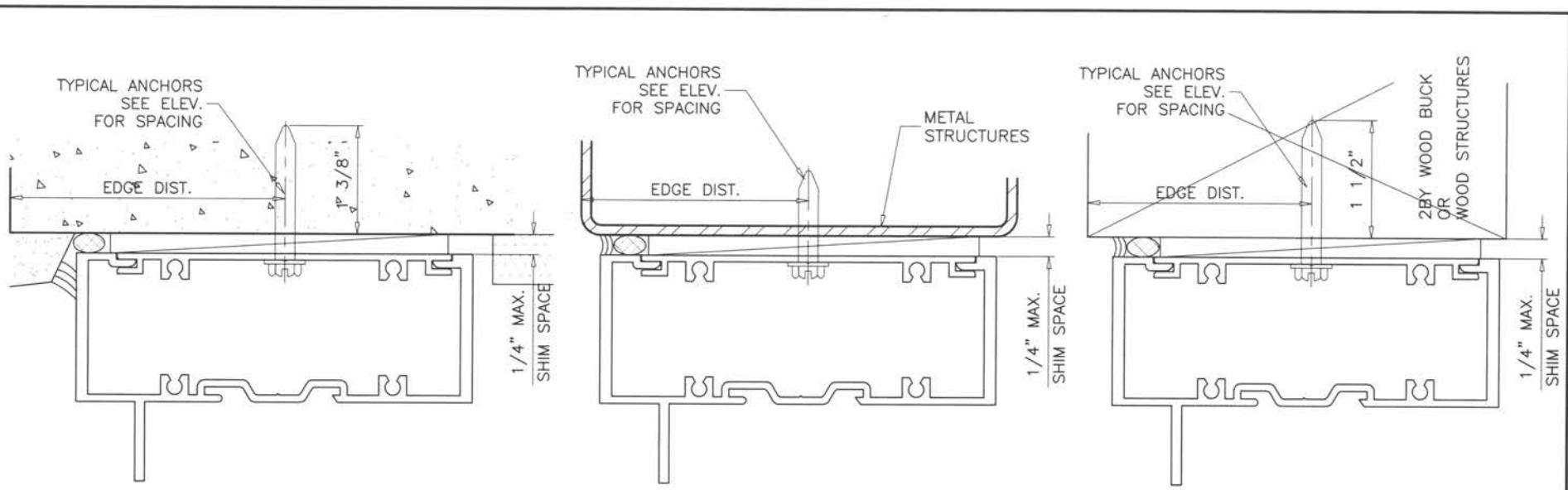
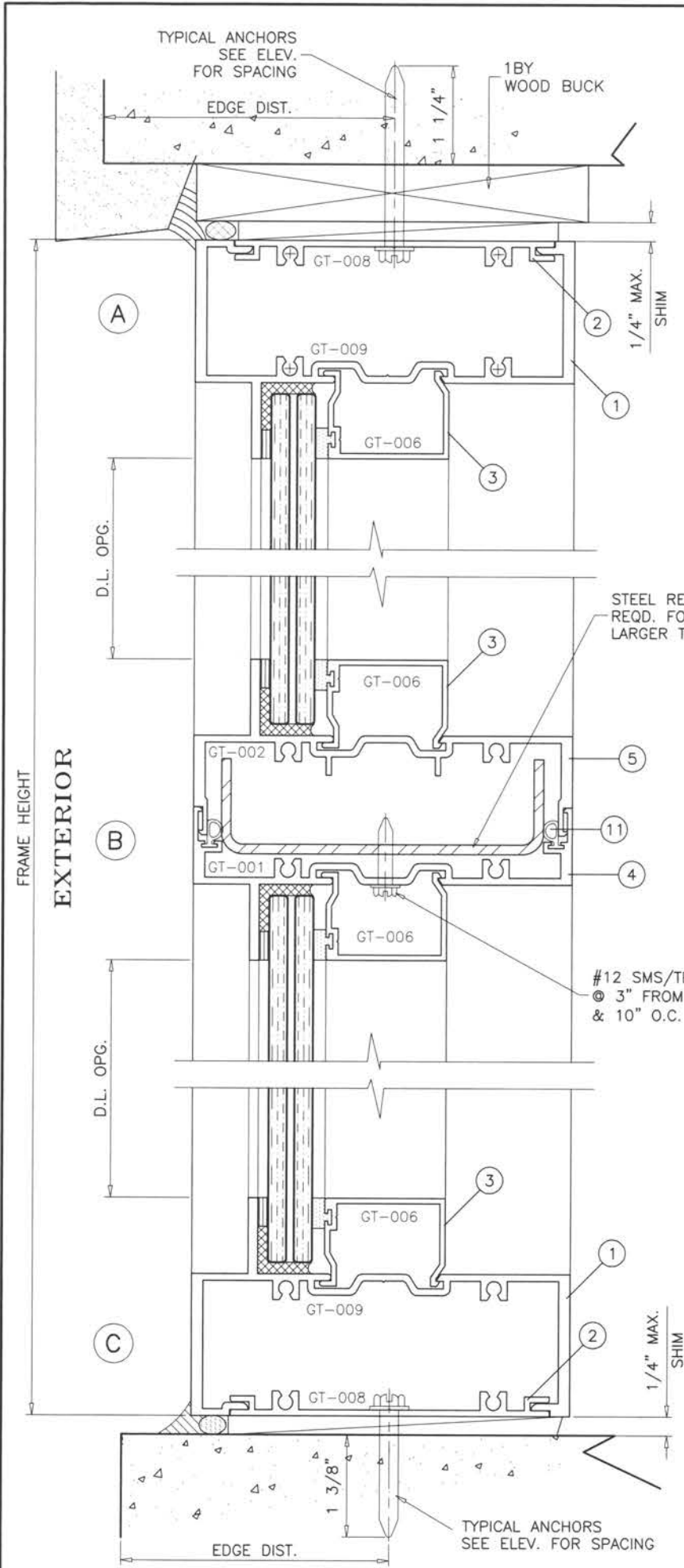
FL #16228



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

SERIES-2046A ALUM WINDOW WALL SYSTEM (L.M.I.)  
**Glass Tech Engineering, Inc.**  
 8321 N.W. 70th Street  
 Miami, FL. 33166  
 Tel. (305) 594-4321 Fax. (305) 599-2730

revisions:	no	date	by	description
date:	10-29-19	scale:	-	dr. by: TARIQ
				chk. by:
drawing no. 19-116F				
sheet 4 of 7				



WOOD BUCKS AND METAL STRUCTURES NOT BY GLASS TECH MUST SUPPORT 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 'ELCO' (Fu=177 KSI, Fy=155 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  
 1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)  
 1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

**TYPE 'B'** - 1/4" DIA. ULTRACON BY 'ELCO' (Fu=177 KSI, Fy=155 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)

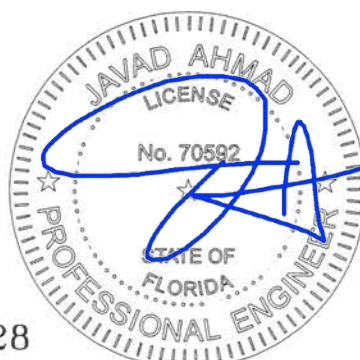
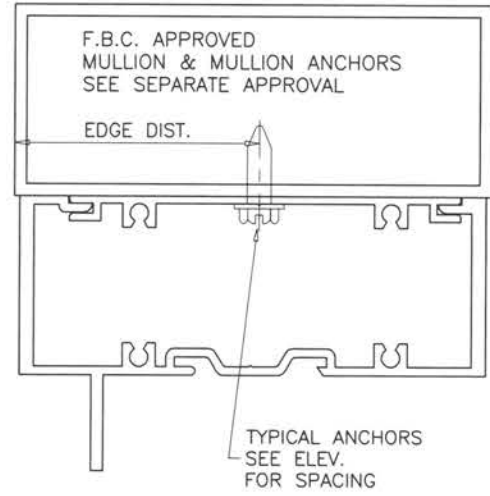
**CRITICAL EDGE DISTANCE**

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 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

**SEALANTS:**

ALL FRAME CORNERS SEALED WITH JOINT SEALANT.



FL #16228

Sealed: 11/1/19

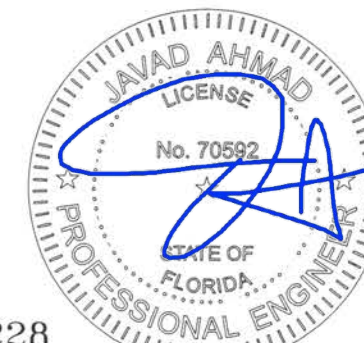
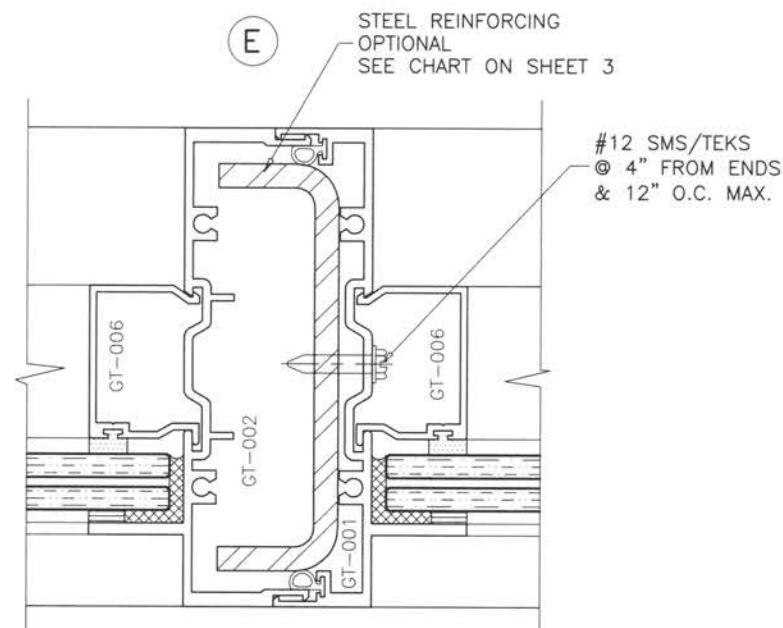
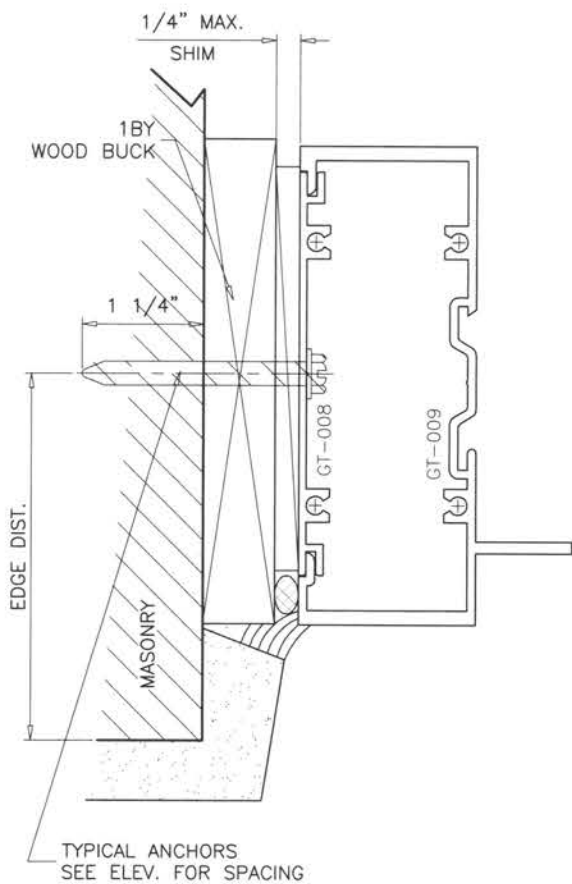
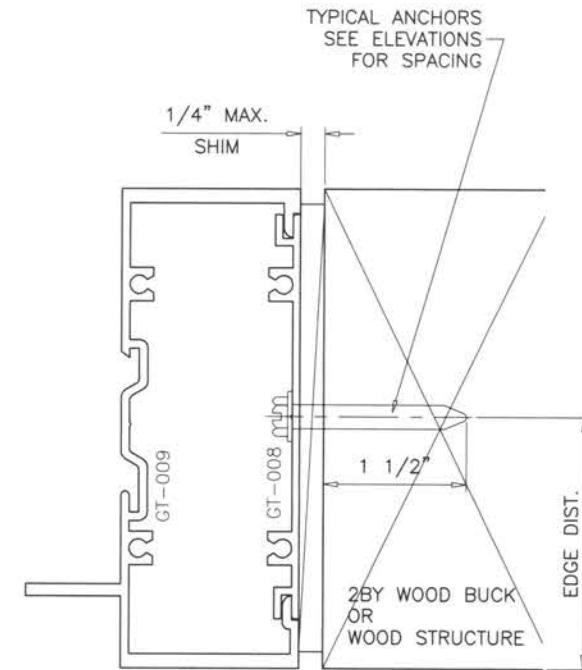
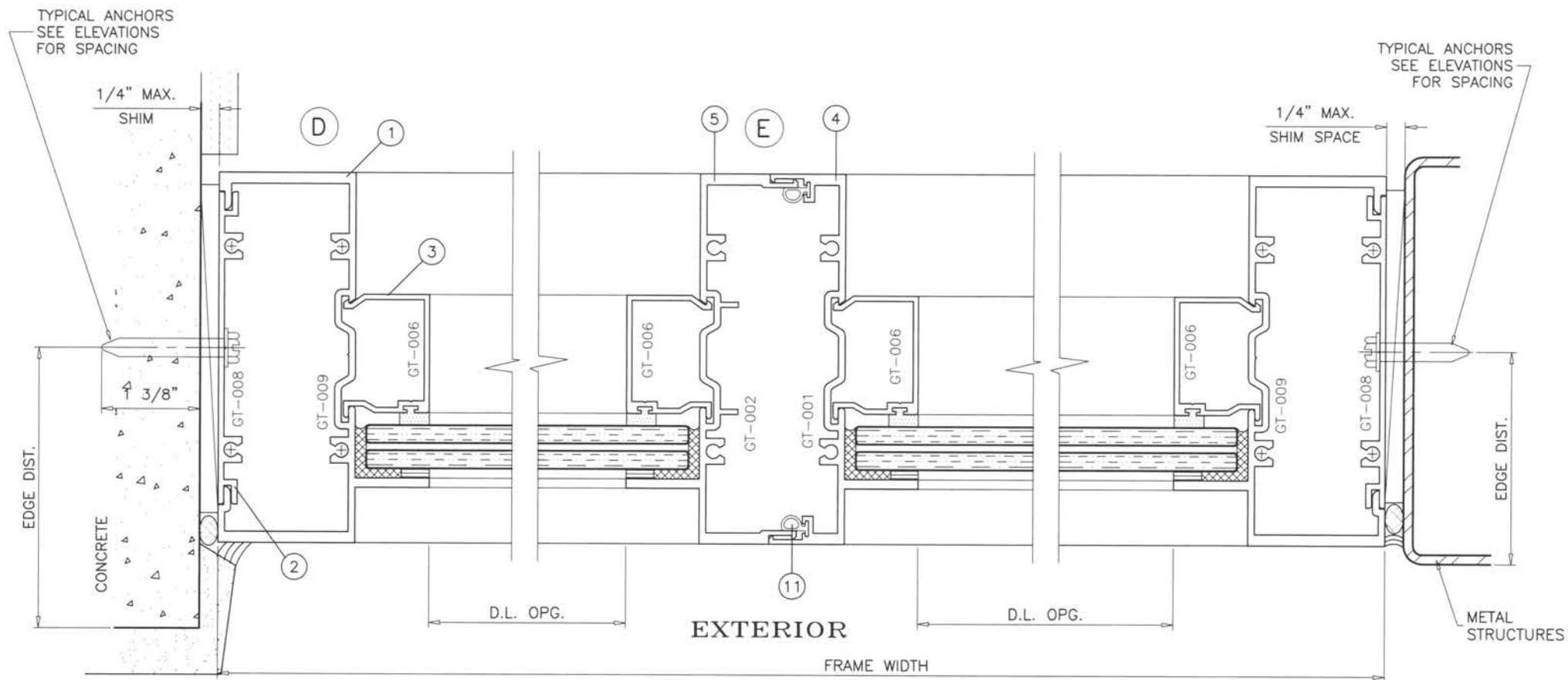
**af c**  
**AL-FAROOQ CORPORATION**  
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no	date	by	description

date: 10-29-19	scale: 1/2" = 1"
dr. by: TARIQ	chk. by:

drawing no.  
**19-116F**  
 sheet 5 of 7



FL #16228

Sealed: 11/1/19

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 STORE \ 19-116F-GTE

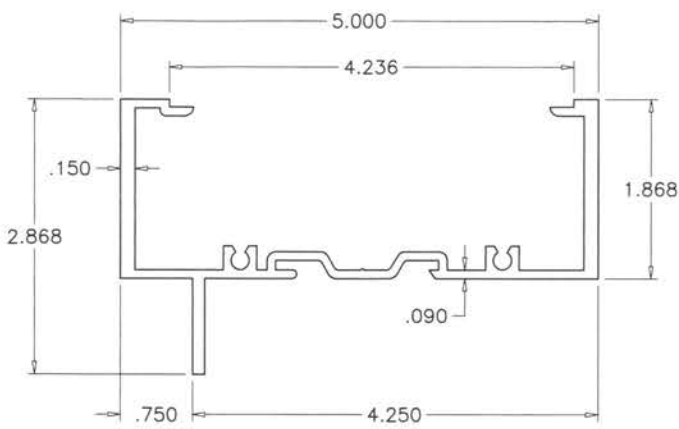
SERIES-2046A ALUM WINDOW WALL SYSTEM (L.M.I.)  
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no	date	by	description

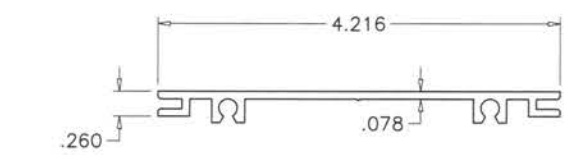
date: 10-29-19  
 scale: 1/2" = 1"  
 dr. by: TARIQ  
 chk. by:

drawing no.  
**19-116F**  
 sheet 6 of 7

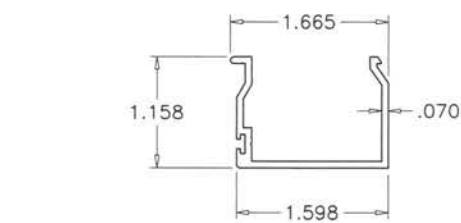




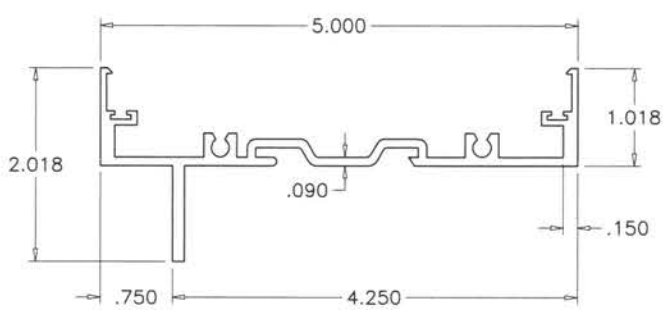
1 FRAME HEAD/SILL/JAMB



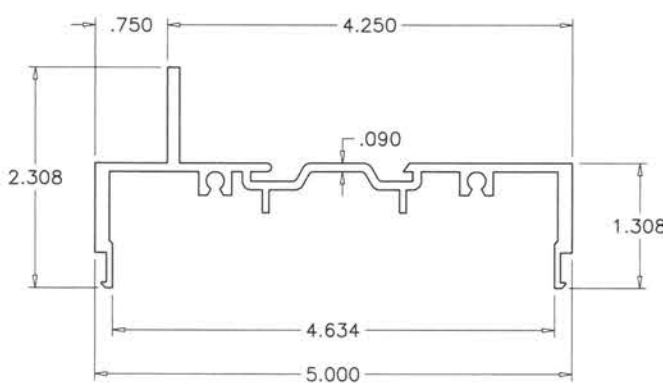
2 FLAT POCKET FILLER



3 GLAZING STOP

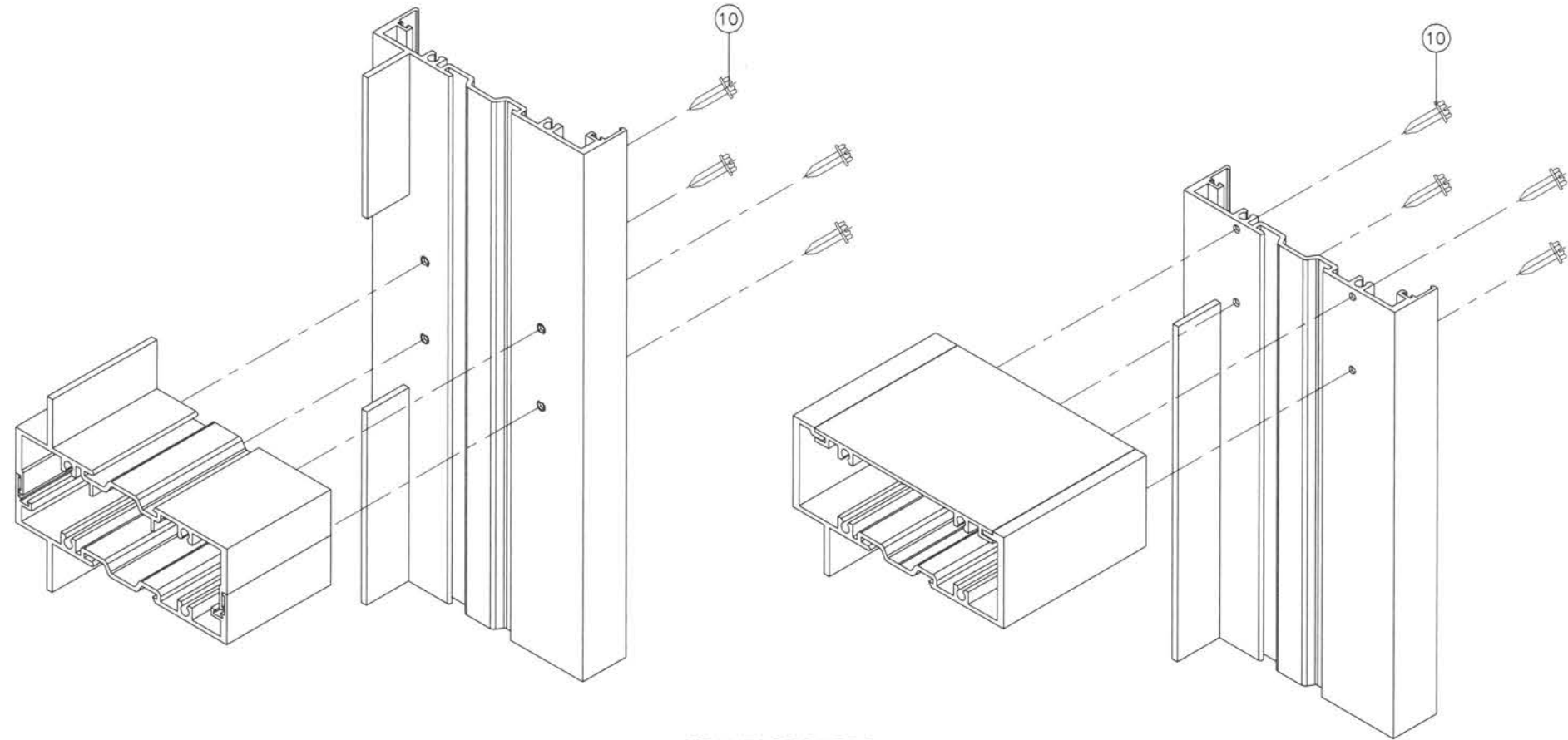


4 FEMALE FRAME

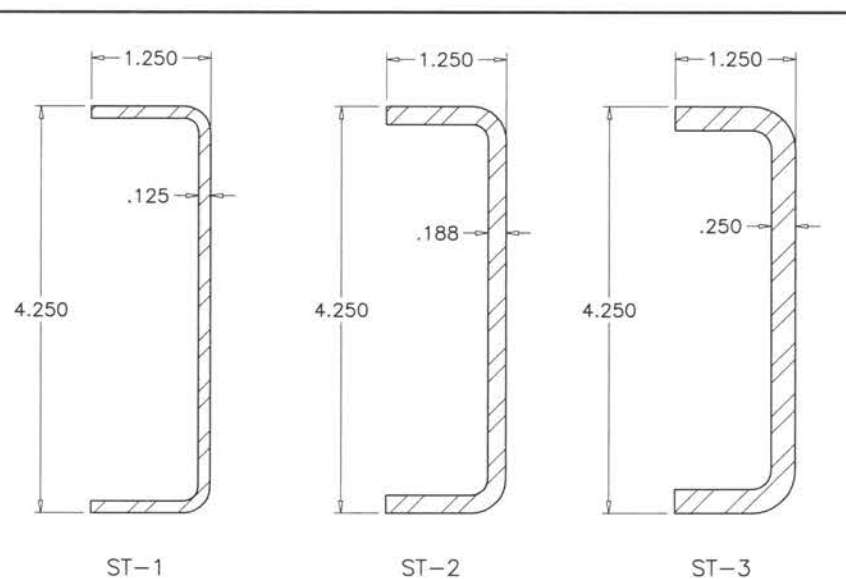


5 MALE FRAME

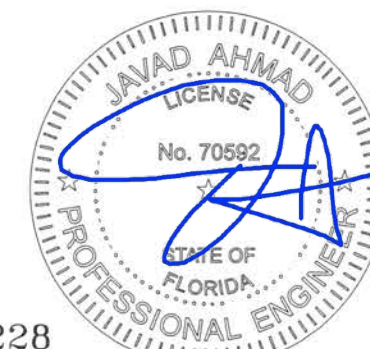
ITEM No.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	GT-009	AS REQD.	HEAD, SILL AND JAMB FRAME	6063-T6	-
2	GT-008	AS REQD.	FLAT POCKET FILLER	6063-T6	-
3	GT-006	AS REQD.	GLAZING BEAD	6063-T5	-
4	GT-001	AS REQD.	FEMALE FRAME	6063-T6	-
5	GT-002	AS REQD.	MALE FRAME	6063-T6	-
6	TR-427N	AS REQD.	GLAZING GASKET	NEOPRENE	TREMCO
7	-	AS REQD.	SETTING BLOCKS	EPDM	DUROMETER 80±5 SHORE A
8	995/4000	AS REQD.	GLAZING COMPOUND	SILICONE	DOWSIL/GE
9	V2204	AS REQD.	GLAZING TAPE (1/8" X 3/8")	-	NORTON
10	#12 X 1-1/2"	AS REQD.	FRAME ASSEMBLY SCREWS	-	SMS OR SELF DRILLING
11	-	AS REQD.	BULB VINYL	-	-



FRAME CORNERS



11 STEEL REINFORCING 36 KSI MIN.



FL #16228

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revisions:	no	date	by	description
date:	10-29-19	scale:	1/2" = 1"	
dr. by:	TARIQ	chk. by:		
drawing no.	19-116F			
sheet	7 of 7			

Sealed: 11/1/19