Product Approval
USER: Public User

FL #	FL29676-R2
Application Type	Revision
Code Version	2023
Application Status	Approved
Comments	
Archived	☐
Product Manufacturer	Mr-Glass Doors & Windows Manufacturing, LLC
Address/Phone/Email	8051 NW 79th Place Medley, FL 33166 (305) 470-8284 ulises@mrglasswindows.com
Authorized Signature	Ulises Senaris ulises@mrglasswindows.com
Technical Representative	Augusto Arias
Address/Phone/Email	8120 NW 84th St Medley, FL 33166 (305) 470-8284 aarias@mrglasswindows.com
Quality Assurance Representative	
Address/Phone/Email	
Category	Windows
Subcategory	Casement
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer ☐ Evaluation Report - Hardcopy Received
Florida Engineer or Architect Name who developed the Evaluation Report	Jalal Farooq
Florida License	PE-81223
Quality Assurance Entity	Keystone Certifications, Inc.
Quality Assurance Contract Expiration Date	04/30/2035
Validated By	Abel Carrasco, PE ☑ Validation Checklist - Hardcopy Received
Certificate of Independence	FL29676_R2_COI_SS - Certificate of Independence 2023.pdf

Referenced Standard and Year (of Standard)

Standard	Year
ASTM E1886	2013
ASTM E1996	2014
TAS 201	1994
TAS 202	1994
TAS 203	1994

Equivalence of Product Standards
Certified By

Sections from the Code

Product Approval Method	Method 1 Option D
Date Submitted	07/21/2023
Date Validated	07/29/2023
Date Pending FBC Approval	07/31/2023
Date Approved	10/17/2023

Summary of Products

FL #	**Model, Number or Name**	**Description**
29676.1	Series 600 Aluminum Casement Window	Large missile impact resistant aluminum outswing casement window.
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** Yes **Design Pressure:** +80/-100 **Other:** See installation drawing 19-28F for span vs. load combination and installation details.		**Installation Instructions** FL29676_R2_II_SS - 600 Casement WDW (LMI) DWG 19-28F 2023.1.pdf Verified By: Jalal Farooq PE 81223 Created by Independent Third Party: Yes **Evaluation Reports** FL29676_R2_AE_SS - 600 CASEMENT - LMI PAE 2023.pdf Created by Independent Third Party: Yes

Back Next

Contact Us :: 2601 Blair Stone Road, Tallahassee FL 32399 Phone: 850-487-1824

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Product Approval Accepts:

Credit Card Safe securityMETRICS

AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

PRODUCT APPROVAL EVALUATION
RULE CHAPTER #61G20-3 • METHOD 1 OPTION D

FL 29676
Date: 07/20/2023

Detailed Product Description:
Manufacturer: MR-GLASS DOORS & WINDOWS MANUFACTURING, LLC
Manufacturer Address: 8051 N.W. 79TH PLACE. MEDLEY, FL 33166
Model Name: SERIES 600 ALUMINUM CASEMENT WINDOW
Maximum Load: +80 PSF, -100 PSF (Large Missile Impact)
Installation Drawings # 19-28F

This product complies with the High Velocity Hurricane Zone (HVHZ) testing requirements.

For maximum sizes, combination of span vs loads and anchor type refer to installation drawings.

Comparative analysis used _X_ Yes ___ No

Mandatory Tests (Tested in accordance with AAMA 101/I.S.2/NAFS/TAS-202)

Test	Description	Test Location	Test Report Date	Test Report #	Test Sealed By
ASTM E283	Air Infiltration Leakage	Hurricane Engineering & Testing Inc.	3/19/2019 3/19/2019 3/19/2019	HELTI-18-6079 HELTI-18-6082 HELTI-19-7004	Rafael Droz-Seda, PE
ASTM E331 OR ASTM E547 & TAS 202	Water Penetration	Hurricane Engineering & Testing Inc.	3/19/2019 3/19/2019 3/19/2019	HELTI-18-6079 HELTI-18-6082 HELTI-19-7004	Rafael Droz-Seda, PE
ASTM E330 & TAS 202	Uniform Static Air Press.	Hurricane Engineering & Testing Inc.	3/19/2019 3/19/2019 3/19/2019 3/19/2019 3/19/2019	HELTI-18-6079 HELTI-18-6082 HELTI-19-7004 HELTI-19-7008 HELTI-19-7011	Rafael Droz-Seda, PE
ASTM F588 or AAMA 1302.5	Forced Entry Test	Hurricane Engineering & Testing Inc.	3/19/2019 3/19/2019	HELTI-18-6079 HELTI-18-6082	Rafael Droz-Seda, PE

Supplemental Tests (Tested in accordance with TAS-201 and TAS-203)

Test	Description	Test Location	Test Report Date	Test Report#	Test Sealed By
FBC 1626.2 (TAS 201 & 203) ASTM E1886/1996 ANSI Z97.1	Large Missile Impact & Cyclic	Hurricane Engineering & Testing Inc.	3/19/2019 3/19/2019 3/19/2019 1/19/2019 3/19/2019 3/19/2019 3/19/2019 3/19/2019 3/19/2019 4/29/2020 6/29/2020	HELTI-18-6080 HELTI-18-6081 HELTI-19-7005 HELTI-19-7009 HELTI-19-7010 HELTI-19-7012 HELTI-19-7015 HELTI-19-7016 HELTI-20-8050 HELTI-20-8071	Rafael Droz-Seda, PE

Under the limitations of the attached installation drawings, to the best of my knowledge and ability, the above product conforms to the requirements of the 2023 Florida Building Code.

Evaluation Report Engineer:

Jalal Farooq PE # 81223
Al-Farooq Corporation EB # 3538

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

Sealed: 7/21/2023

AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

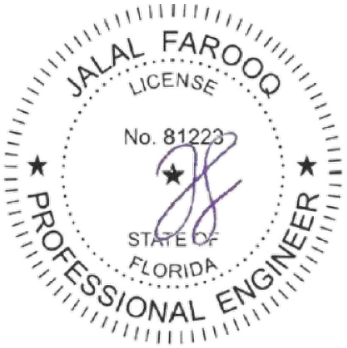
January 23, 2023

Product Approval Administrator
Building Codes & Standards Section
Department of Business & Professional Regulations
1940 North Monroe Street, Suite 90
Tallahassee, FL 32399-2100

To whom it may concern,

As the design engineer retained to prepare the product approval(s) associated with this letter as shown below on this same web page, I do hereby declare that I do not have and will not have any financial interest in any company manufacturing or distributing the referenced product(s), nor do I have or will have any financial interest with any other entity involved in the approval process of the referenced product(s).

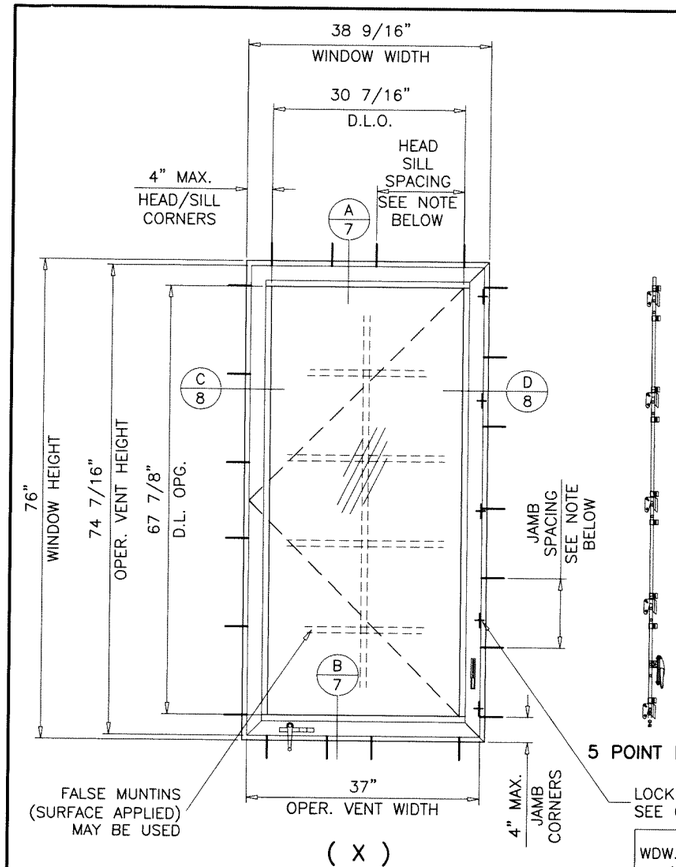
Sincerely,



Jalal Farooq, P.E.
CFO

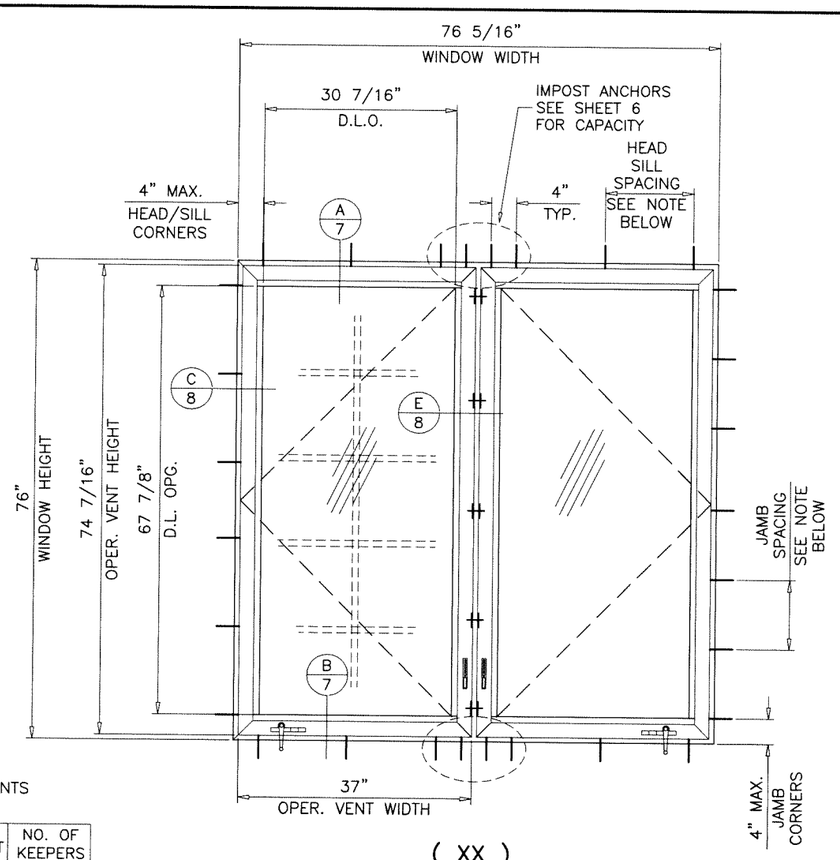
Sealed: 1/23/2023

9360 Sunset Drive, Suite 220 | Miami, FL 33173 | T: 305.264.8100 | F: 305.262.6978 | www.afceng.com | alfarooq@afceng.com



(X)

WDW. HEIGHT UPTO	NO. OF KEEPERS AT SASH
26"	2
38–3/8"	3
50–5/8"	4
76"	5



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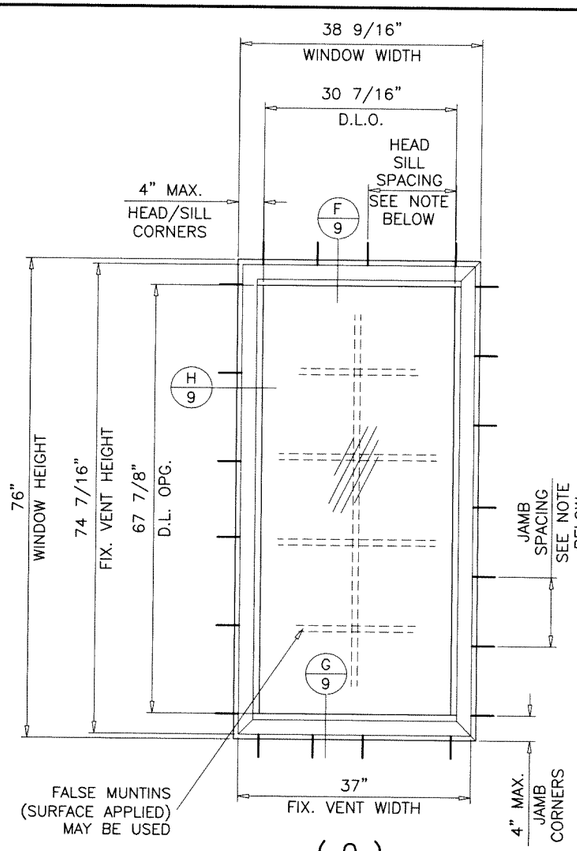


(O)

ANCHOR SPACING:
14" O.C. MAX. FOR LOADS UPTO 80 PSF
11" O.C. MAX. FOR LOADS ABOVE 80 PSF

TYPICAL ELEVATIONS

SERIES 600
ALUMINUM CASEMENT WINDOW

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEET 6.

APPROVAL APPLIES TO SINGLE, DOUBLE OR TRIPLE WINDOWS IN ANY COMBINATION OF OPERATING OR FIXED UNITS USING INTEGRAL IMPOST IN BETWEEN.

ALSO TOP & BOTTOM COMBINATIONS OF FIXED/OPERATING OR OPERATING/FIXED IN SINGLE, DOUBLE AND TRIPLE UNIT COMBINATIONS USING INTEGRAL IMPOST IN BETWEEN.

ALSO SIDE BY SIDE OR TOP AND BOTTOM COMBINATIONS OF CASMT/CASMT OR CASEMENT WITH OTHER WINDOW TYPES IN MODULES OF TWO OR MORE WINDOWS USING FBC 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 2020 (7TH EDITION)/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 2020/2023 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.

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

FIXED WINDOW (O) COMPLIES WITH REQUIREMENTS OF ANSI Z97.1.

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.

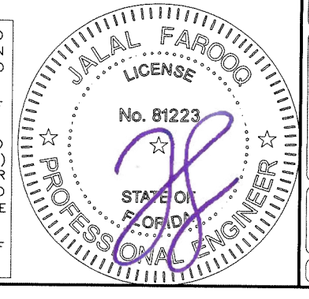
B– THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.

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.

Sealed: 7/26/2023

FL #29676



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\19–28F–MG

SERIES 600 ALUMINUM CASEMENT WINDOW (L.M.I.)

MR–GLASS DOORS & WINDOWS MANUFACTURING, LLC
8051 N.W. 79th Place
Medley, FL. 33166
Tel. (305) 764–3963 Fax. (305) 470–8285

revisions:			
no	date	by	description
A	03.06.20		X/O OPTION ADDED
B	07.24.20		UPDATED TO 2020 FBC
C	07.18.23		UPDATED TO 2023 FBC

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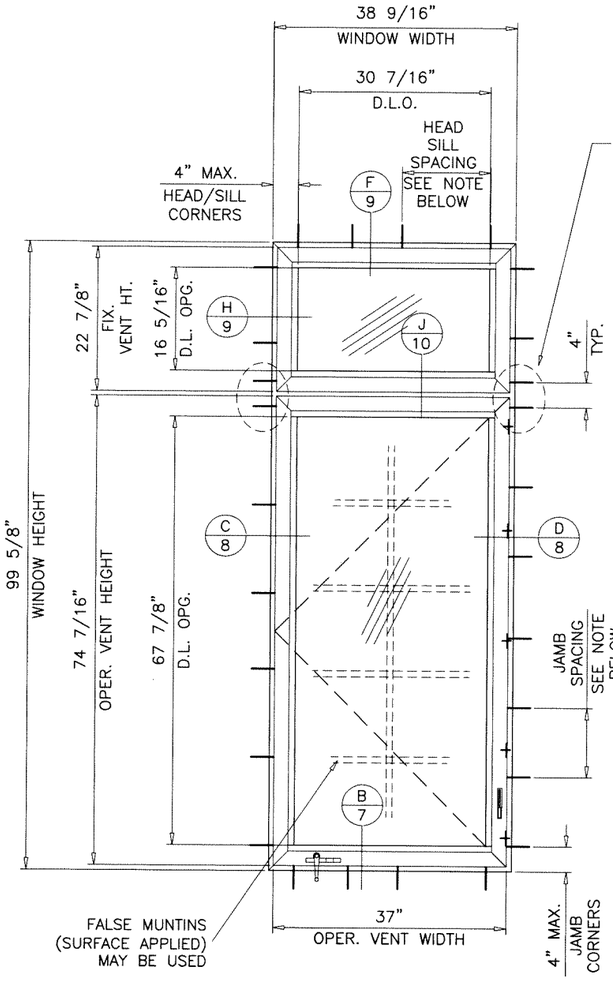
chk. by:

drawing no.
19–28F



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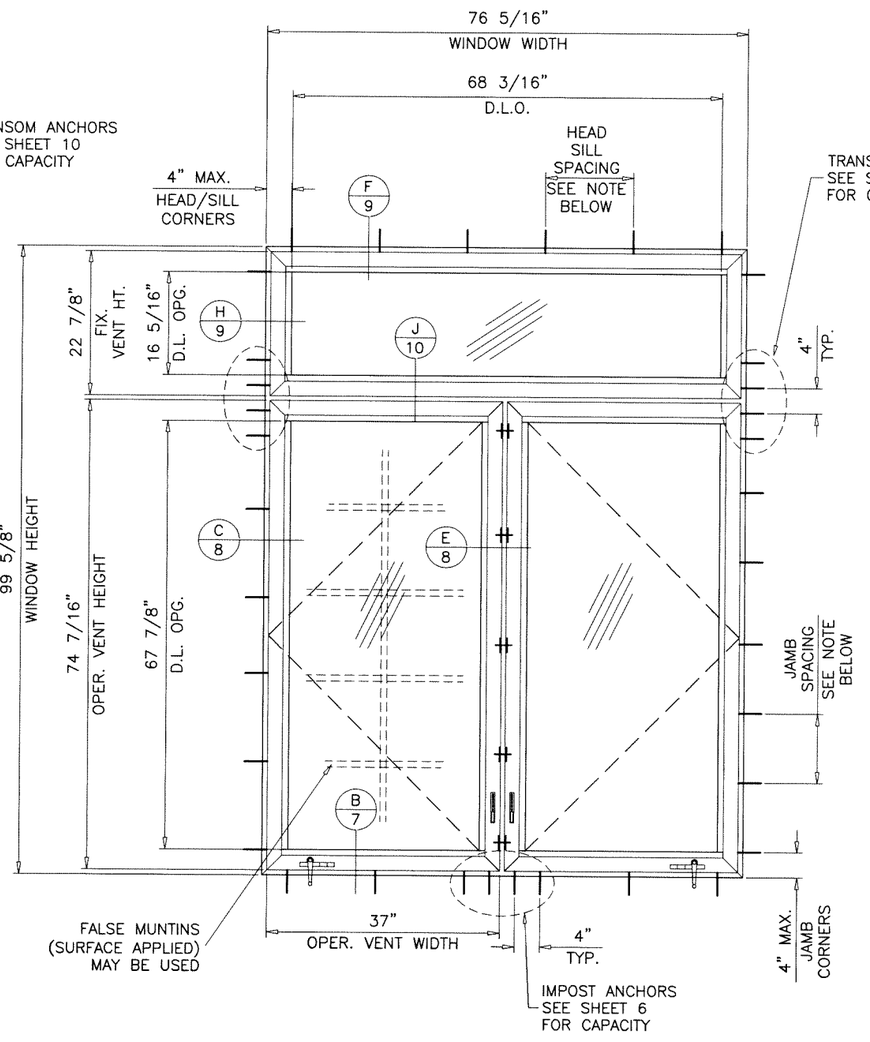

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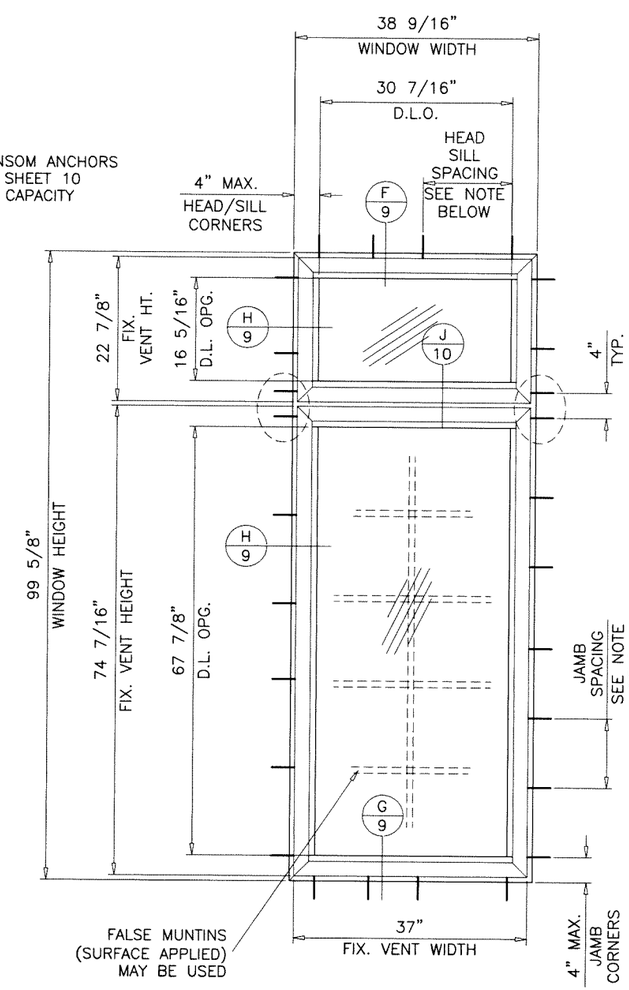

(O/O)

ANCHOR SPACING:
14" O.C. MAX. FOR LOADS UPTO 80 PSF
11" O.C. MAX. FOR LOADS ABOVE 80 PSF

TYPICAL ELEVATIONS

Sealed: 7/26/2023

FL #29676

afc
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revisions:

no	date	by	description

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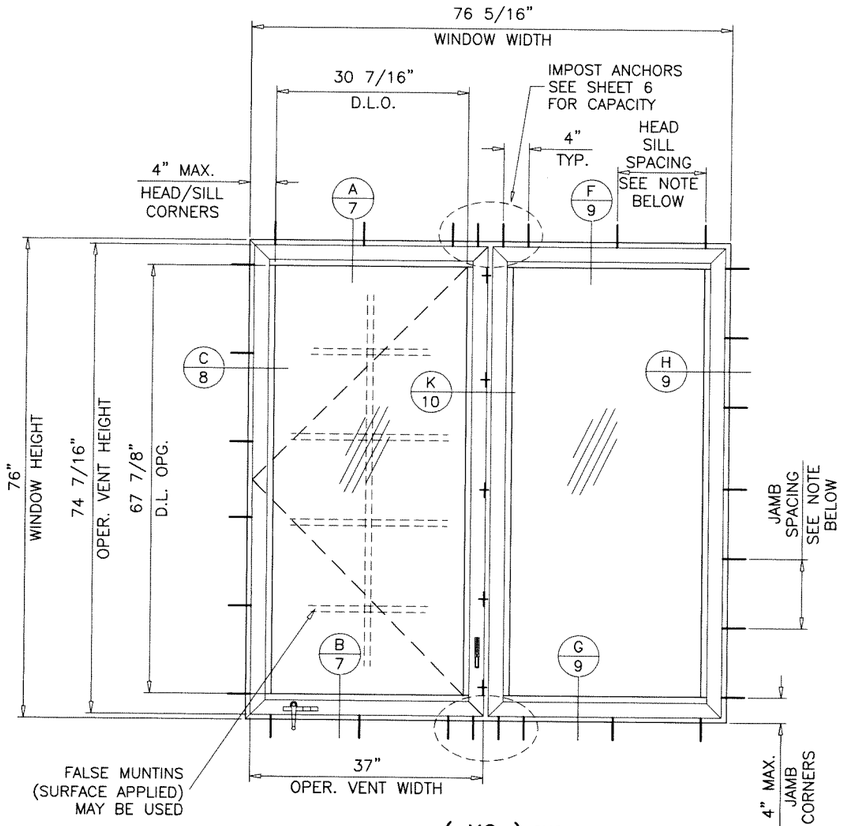
chk. by:

drawing no. 19-28F

sheet 2 of 14



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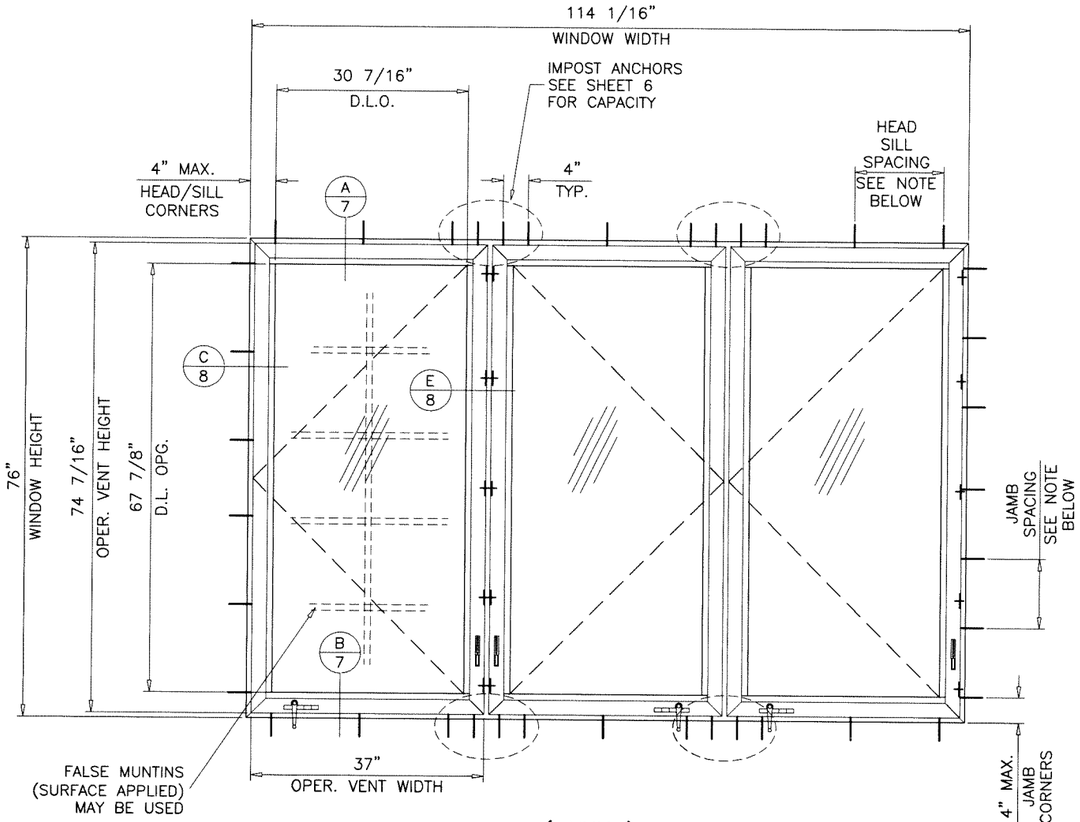
(OX)
(OO)



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(XOO)
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(OOO)
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ANCHOR SPACING:
14" O.C. MAX. FOR LOADS UPTO 80 PSF
11" O.C. MAX. FOR LOADS ABOVE 80 PSF

TYPICAL ELEVATIONS

Sealed: 7/26/2023

FL #29676

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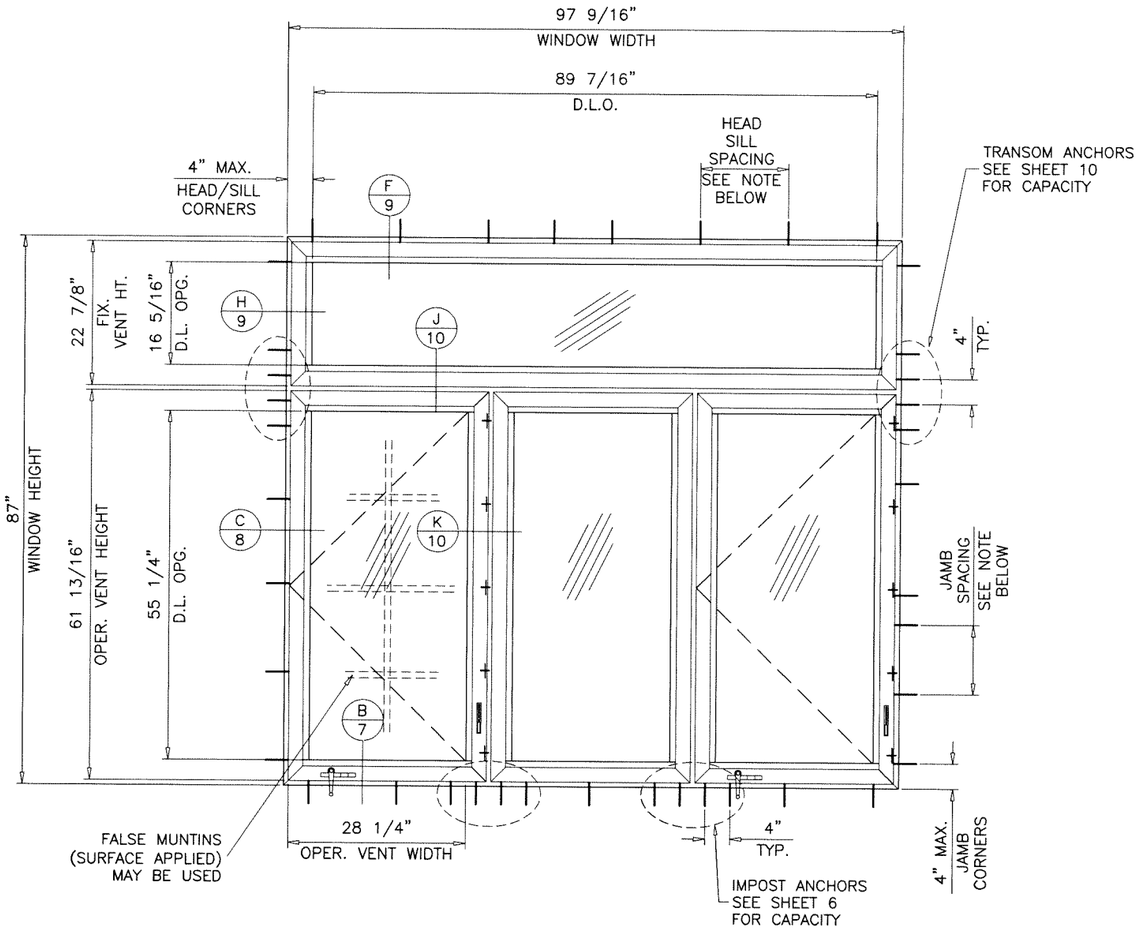
chk. by:

drawing no. 19-28F

sheet 3 of 14



ANCHOR SPACING:
14" O.C. MAX. FOR LOADS UPTO 80 PSF
11" O.C. MAX. FOR LOADS ABOVE 80 PSF

(O/XOX) SHOWN
(O/XXO)
(O/OXX)
(O/XOO)
(O/OOX)
(O/OOO)
(O/OXO)

TYPICAL ELEVATION

Sealed: 7/26/2023

FL #29676

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
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revisions:

no	date	by	description

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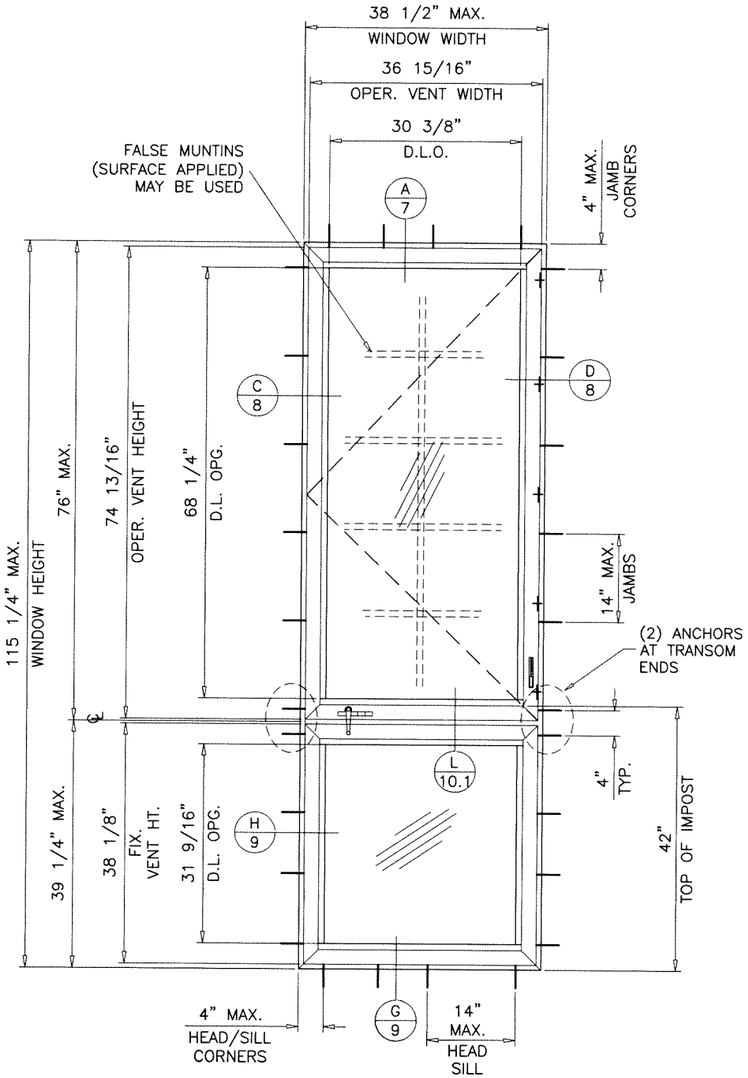
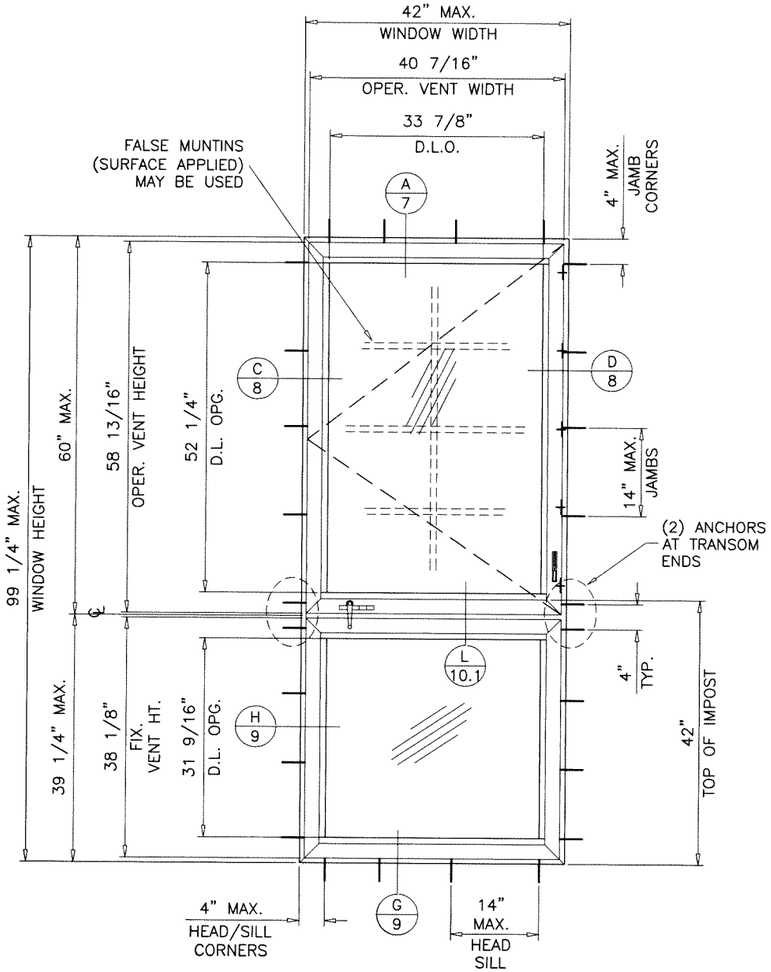
chk. by:

drawing no. 19-28F

sheet 4 of 14





(X/O)

TYPICAL ELEVATIONS

MAXIMUM DESIGN LOAD RATING	= + 80.0 PSF
(FOR SIZES SHOWN ABOVE OR SMALLER)	– 80.0 PSF

MAXIMUM DESIGN LOAD RATING	= + 78.6 PSF
(FOR SIZES SHOWN ABOVE OR SMALLER)	– 78.6 PSF

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300–09 (3 SEC. GUSTS)
AND FLORIDA BUILDING COMMISSION
DECLARATORY STATEMENT DCA05–DEC–219

Sealed: 7/26/2023

FL #29676

JALAL FAROOQ
LICENSE
No. 81223
STATE OF FLORIDA
PROFESSIONAL ENGINEER

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 *(C.A.N. 3538)*
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revisions:

no	date	by	description

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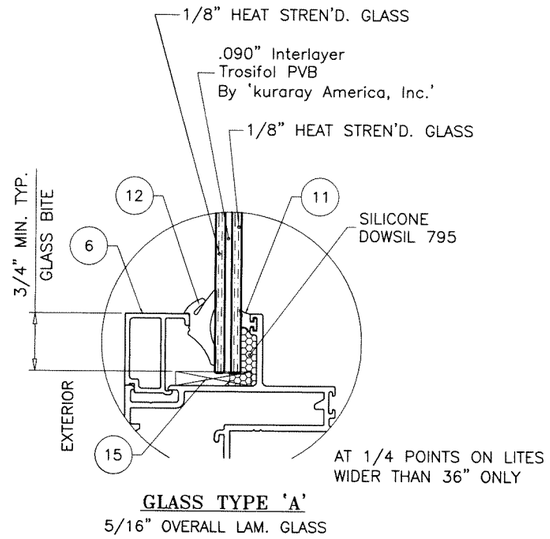
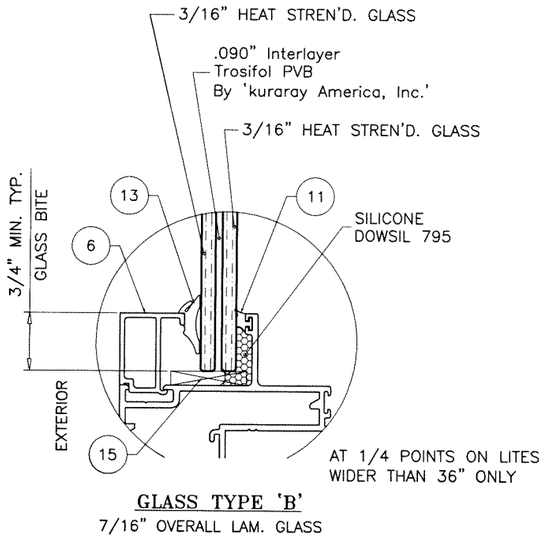
dr. by: TARIQ
chk. by:

drawing no.
19–28F

sheet 4.1 of 14



GLASS TYPE 'A'
5/16" OVERALL LAM. GLASS



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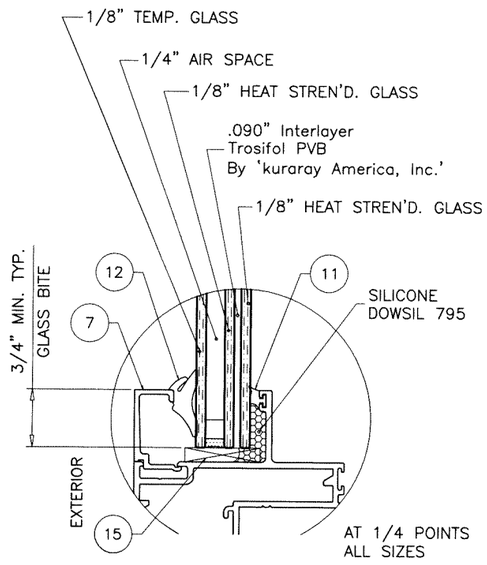
7/16" OVERALL LAM. GLASS



GLASS TYPE 'A1'
11/16" OVERALL INSUL. LAM. GLASS

1/4" AIR SPACE CONSISTING OF:
'DURASEAL' EDGE SEAL SYSTEM
BY 'QUANEX'

Sealed: 7/26/2023

FL #29676

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
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revisions:

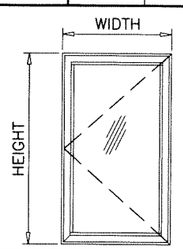
no	date	by	description

date: 04-15-19
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no. 19-28F

DESIGN LOAD CAPACITY – PSF
OPERABLE CASEMENT (X SIZES)

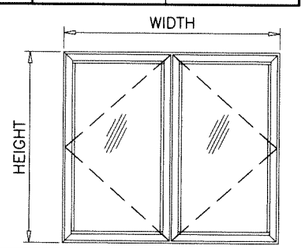
FRAME DIMS.		GLASS TYPES 'A' & 'A1'		GLASS TYPE 'B'	
WIDTH	HEIGHT	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)
19–1/8"	26"	80.0	80.0	80.0	100.0
26–1/2"		80.0	80.0	80.0	100.0
37"		80.0	80.0	80.0	100.0
19–1/8"	38–3/8"	80.0	80.0	80.0	100.0
26–1/2"		80.0	80.0	80.0	100.0
37"		80.0	80.0	80.0	100.0
19–1/8"	50–5/8"	80.0	80.0	80.0	100.0
26–1/2"		80.0	80.0	80.0	100.0
37"		80.0	80.0	80.0	100.0
19–1/8"	56"	80.0	80.0	80.0	100.0
26–1/2"		80.0	80.0	80.0	100.0
37"		80.0	80.0	80.0	100.0
19–1/8"	63"	80.0	80.0	80.0	100.0
26–1/2"		80.0	80.0	80.0	100.0
37"		80.0	80.0	80.0	100.0
19–1/8"	72"	80.0	80.0	80.0	100.0
26–1/2"		80.0	80.0	80.0	100.0
37"		80.0	80.0	80.0	100.0
19–1/8"	76"	80.0	80.0	80.0	100.0
26–1/2"		80.0	80.0	80.0	100.0
37"		80.0	80.0	80.0	100.0
38–1/2"		80.0	80.0	80.0	100.0
12"	36"	80.0	80.0	80.0	100.0
18"		80.0	80.0	80.0	100.0
24"		80.0	80.0	80.0	100.0
30"		80.0	80.0	80.0	100.0
38"		80.0	80.0	80.0	100.0
42"		80.0	80.0	80.0	100.0
12"	48"	80.0	80.0	80.0	100.0
18"		80.0	80.0	80.0	100.0
24"		80.0	80.0	80.0	100.0
30"		80.0	80.0	80.0	100.0
38"		77.9	77.9	77.9	97.4
42"		70.5	70.5	70.5	88.1
12"	60"	80.0	80.0	80.0	100.0
18"		80.0	80.0	80.0	100.0
24"		80.0	80.0	80.0	100.0
30"		80.0	80.0	80.0	100.0
38"		77.9	77.9	77.9	97.4
42"		70.5	70.5	70.5	88.1
12"	72"	80.0	80.0	80.0	100.0
18"		80.0	80.0	80.0	100.0
24"		80.0	80.0	80.0	100.0
30"		80.0	80.0	80.0	100.0
38"		77.9	77.9	77.9	97.4



DESIGN LOAD CAPACITY – PSF
OPERABLE CASEMENT (XX SIZES)

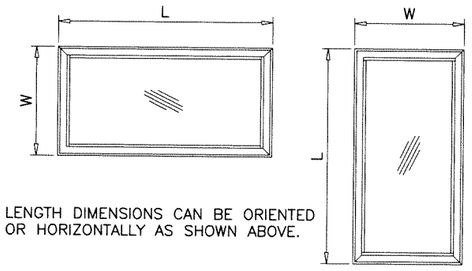
FRAME DIMS.		2 ANCHORS AT IMPOST LOCATION GLASS TYPES 'A', 'A1' & 'B'		4 ANCHORS AT IMPOST LOCATION GLASS TYPES 'A', 'A1' & 'B'	
WIDTH	HEIGHT	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)
37"	26"	80.0	80.0	80.0	80.0
53–1/8"		80.0	80.0	80.0	80.0
74"		80.0	80.0	80.0	80.0
37"	38–3/8"	80.0	80.0	80.0	80.0
53–1/8"		80.0	80.0	80.0	80.0
74"		80.0	80.0	80.0	80.0
37"	50–5/8"	80.0	80.0	80.0	80.0
53–1/8"		80.0	80.0	80.0	80.0
74"		74.1	74.1	80.0	80.0
37"	56"	80.0	80.0	80.0	80.0
53–1/8"		77.7	77.7	80.0	80.0
74"		63.5	63.5	80.0	80.0
37"	63"	80.0	80.0	80.0	80.0
53–1/8"		66.7	66.7	80.0	80.0
74"		53.5	53.5	80.0	80.0
37"	72"	75.9	75.9	80.0	80.0
53–1/8"		56.5	56.5	80.0	80.0
74"		44.5	44.5	80.0	80.0
37"	76"	71.4	71.4	80.0	80.0
53–1/8"		52.9	52.9	80.0	80.0
74"		41.4	41.4	80.0	80.0
76		40.7	40.7	80.0	80.0
24"	36"	80.0	80.0	80.0	80.0
36"		80.0	80.0	80.0	80.0
48"		80.0	80.0	80.0	80.0
60"		80.0	80.0	80.0	80.0
76"		80.0	80.0	80.0	80.0
84"		80.0	80.0	80.0	80.0
24"	48"	80.0	80.0	80.0	80.0
36"		80.0	80.0	80.0	80.0
48"		80.0	80.0	80.0	80.0
60"		80.0	80.0	80.0	80.0
76"		77.9	77.9	77.9	77.9
84"		70.5	70.5	70.5	70.5
24"	60"	80.0	80.0	80.0	80.0
36"		80.0	80.0	80.0	80.0
48"		76.5	76.5	80.0	80.0
60"		65.3	65.3	80.0	80.0
76"		56.6	56.6	77.9	77.9
84"		53.8	53.8	70.5	70.5
24"	72"	80.0	80.0	80.0	80.0
36"		77.7	77.7	80.0	80.0
48"		61.2	61.2	80.0	80.0
60"		51.5	51.5	80.0	80.0
76"		45.8	45.8	77.9	77.9

NOTE:
FOR TRIPLE CASEMENT CONFIGURATION MULTIPLY OVERALL WIDTH BY 2/3 AND APPLY CHART FOR XX SIZES.
THE GLASS AREA OF ANY INDIVIDUAL SASH SHALL NOT EXCEED THE MAXIMUM TESTED AREA.



DESIGN LOAD CAPACITY – PSF
FIXED CASEMENT (O)

FRAME DIMS.		GLASS TYPES 'A' & 'A1'		GLASS TYPE 'B'	
WIDTH	LENGTH	EXT.(+)	1NT.(–)	EXT.(+)	1NT.(–)
19–1/8"	26"	80.0	80.0	80.0	100.0
26–1/2"		80.0	80.0	80.0	100.0
37"		80.0	80.0	80.0	100.0
53–1/8"		80.0	80.0	80.0	100.0
19–1/8"	38–3/8"	80.0	80.0	80.0	100.0
26–1/2"		80.0	80.0	80.0	100.0
37"		80.0	80.0	80.0	100.0
53–1/8"		77.1	77.1	77.1	96.4
19–1/8"	50–5/8"	80.0	80.0	80.0	100.0
26–1/2"		80.0	80.0	80.0	100.0
37"		80.0	80.0	80.0	100.0
53–1/8"		58.5	58.5	58.5	73.1
19–1/8"	56"	80.0	80.0	80.0	100.0
26–1/2"		80.0	80.0	80.0	100.0
37"		80.0	80.0	80.0	100.0
19–1/8"	63"	80.0	80.0	80.0	100.0
26–1/2"		80.0	80.0	80.0	100.0
37"		80.0	80.0	80.0	100.0
19–1/8"	72"	80.0	80.0	80.0	100.0
26–1/2"		80.0	80.0	80.0	100.0
37"		80.0	80.0	80.0	100.0
19–1/8"	76"	80.0	80.0	80.0	100.0
26–1/2"		80.0	80.0	80.0	100.0
37"		80.0	80.0	80.0	100.0
38–1/2"		80.0	80.0	80.0	100.0
24"	48"	80.0	80.0	80.0	100.0
30"		80.0	80.0	80.0	100.0
32"		80.0	80.0	80.0	100.0
36"		80.0	80.0	80.0	100.0
42"		70.5	70.5	70.5	88.1
48"		61.7	61.7	61.7	77.1
24"	60"	80.0	80.0	80.0	100.0
30"		80.0	80.0	80.0	100.0
32"		80.0	80.0	80.0	100.0
36"		80.0	80.0	80.0	100.0
42"		70.5	70.5	70.5	88.1
24"	72"	80.0	80.0	80.0	100.0
30"		80.0	80.0	80.0	100.0
32"		80.0	80.0	80.0	100.0
36"		80.0	80.0	80.0	100.0
24"	84"	80.0	80.0	80.0	100.0
30"		80.0	80.0	80.0	100.0
32"		80.0	80.0	80.0	100.0
24"	96"	80.0	80.0	80.0	100.0



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

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300–09 (3 SEC. GUSTS) AND FLORIDA BUILDING COMMISSION DECLARATORY STATEMENT DCA05–DEC–219

Sealed: 7/26/2023

FL #29676

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COMP–ANL\19–28F–MG

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8051 N.W. 79th Place
Medley, FL. 33166
Tel. (305) 764-3963 Fax. (305) 470-8285

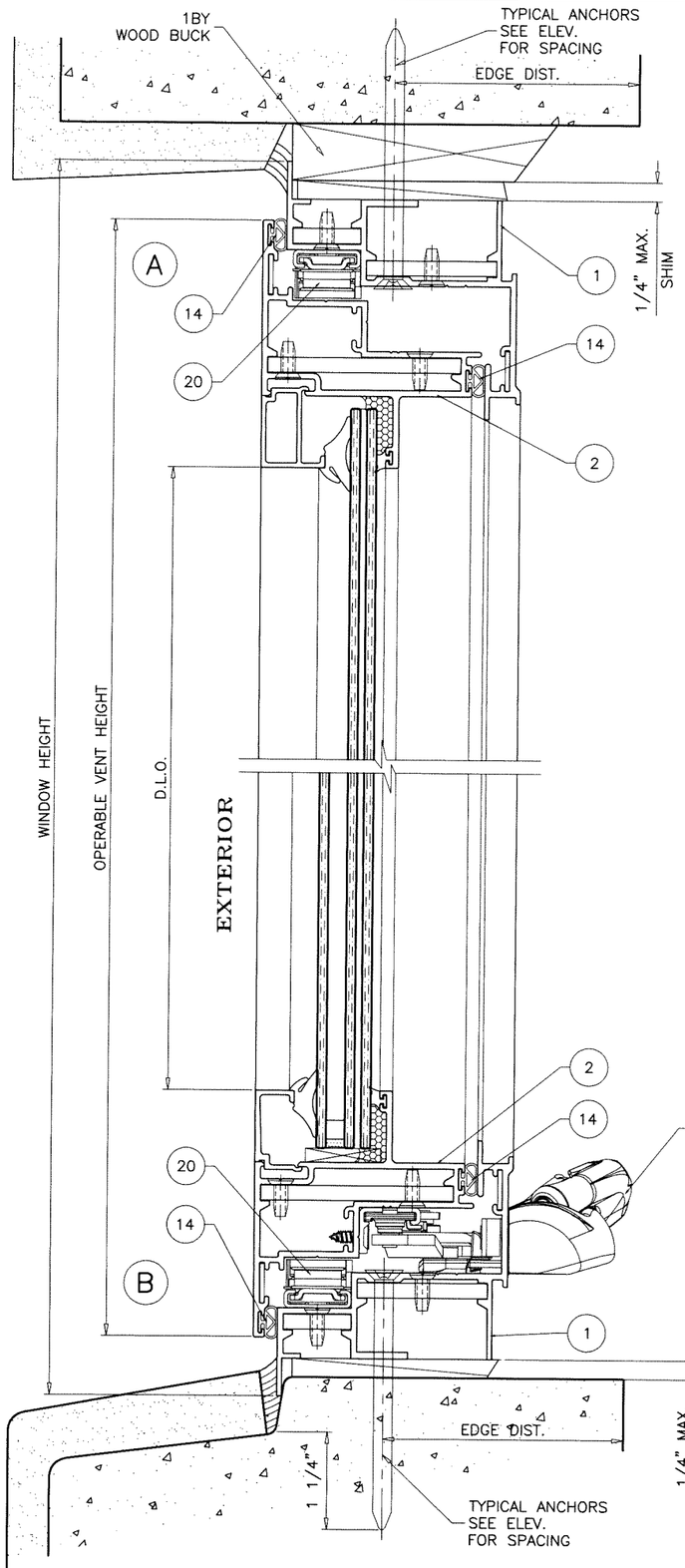
revisions:

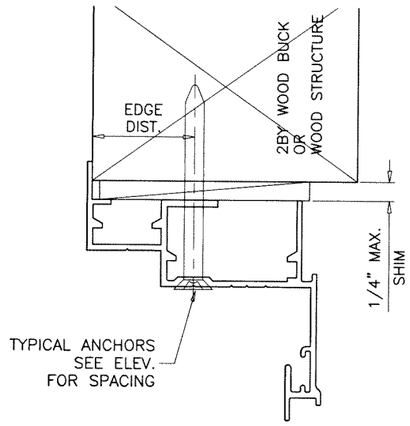
no	date	by	description

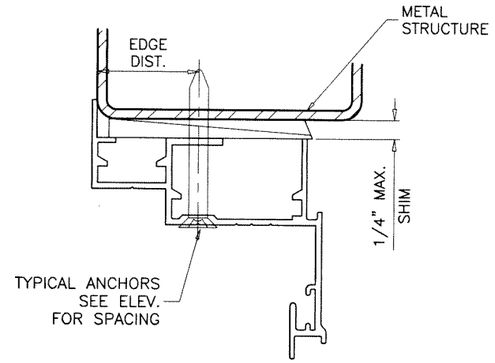
date: 04–15–19
scale: –
dr. by: TARIQ
chk. by:

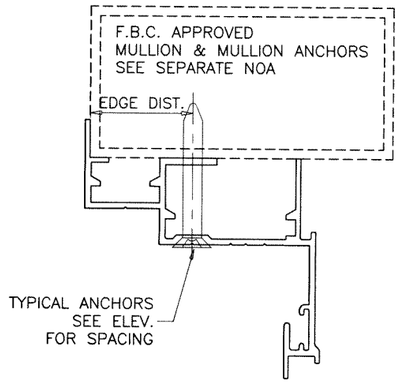
drawing no. 19–28F

sheet 6 of 14









WOOD BUCKS AND METAL STRUCTURE NOT BY 'MR-GLASS' MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

5/16" DIA. ULTRACON BY 'DEWALT' (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)

DIRECTLY INTO CONCRETE OR BLOCKS
1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
1-3/4" MIN. EMBED INTO GROUT-FILLED BLOCKS (JAMBS)

5/16" DIA. TEKS OR SELF-DRILLING SCREWS (GRADE 5 CRS)
INTO F.B.C. APPROVED MULLIONS
AND
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.

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no	date	by	description

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chk. by:

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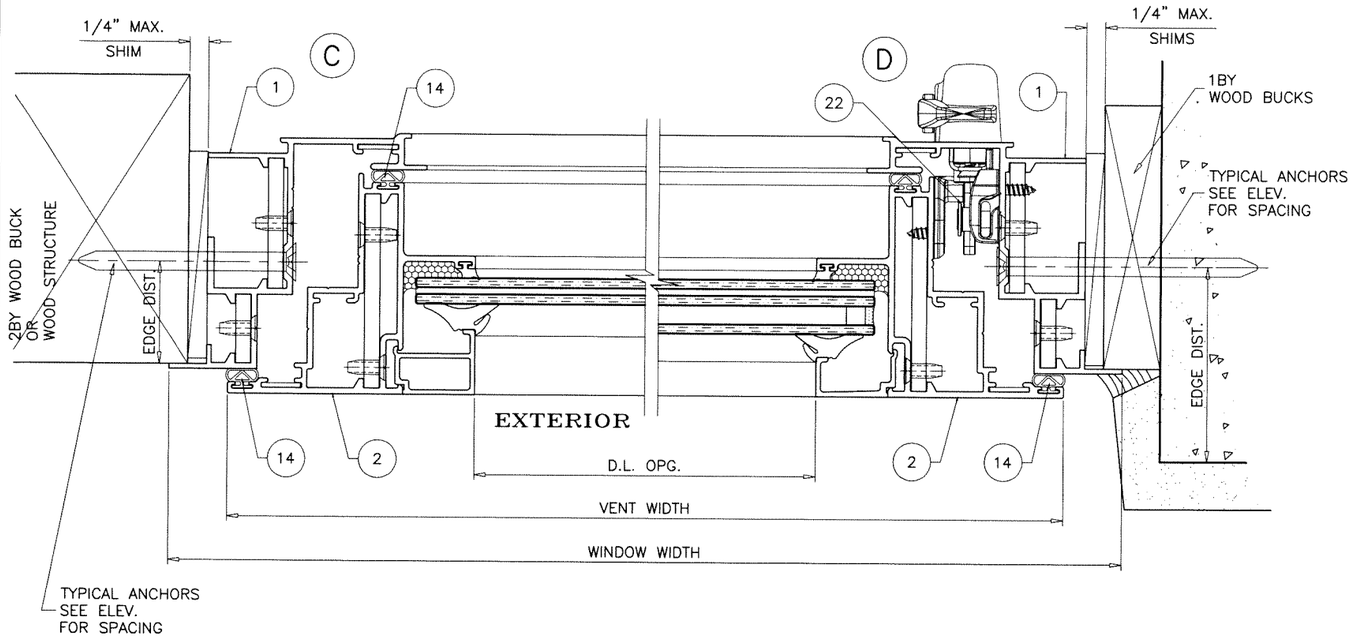

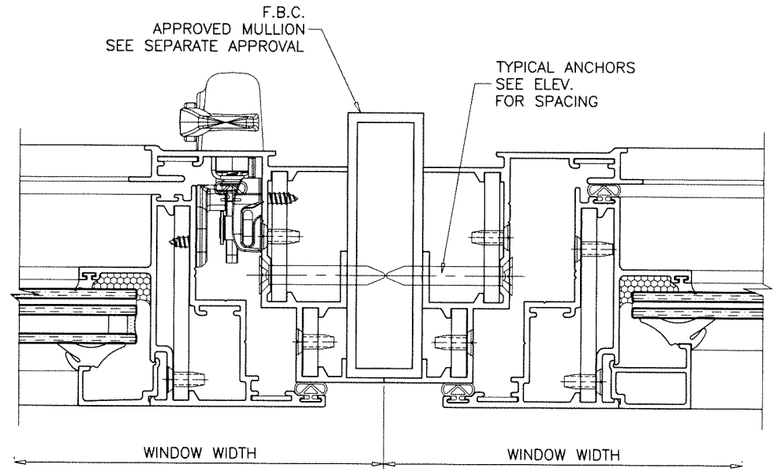

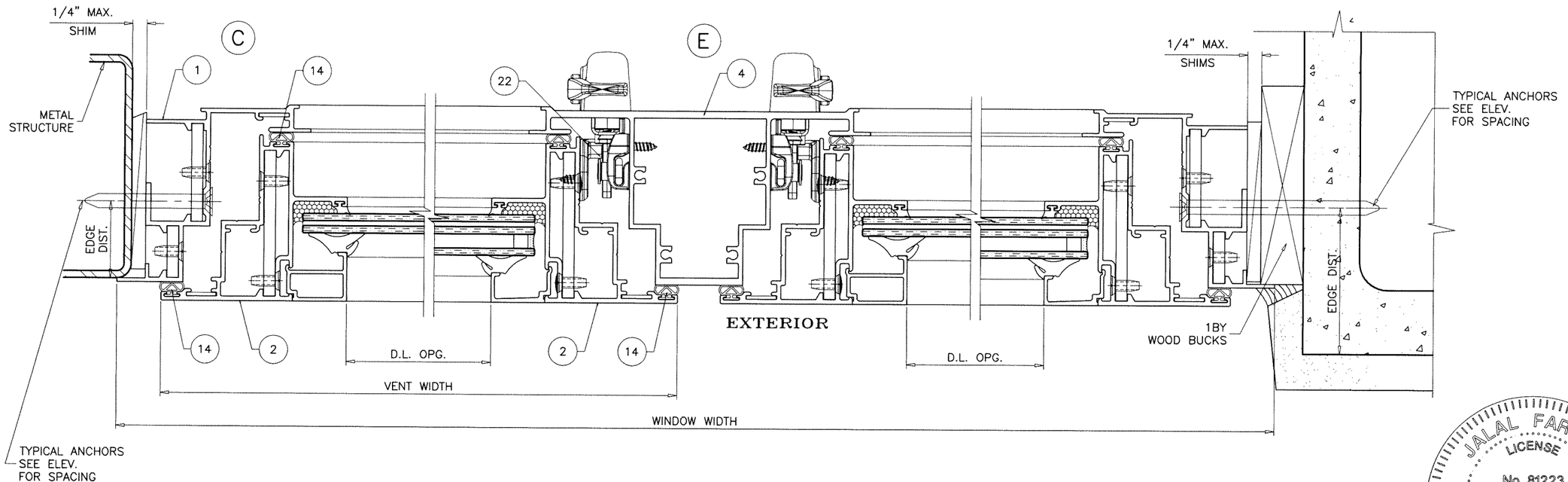

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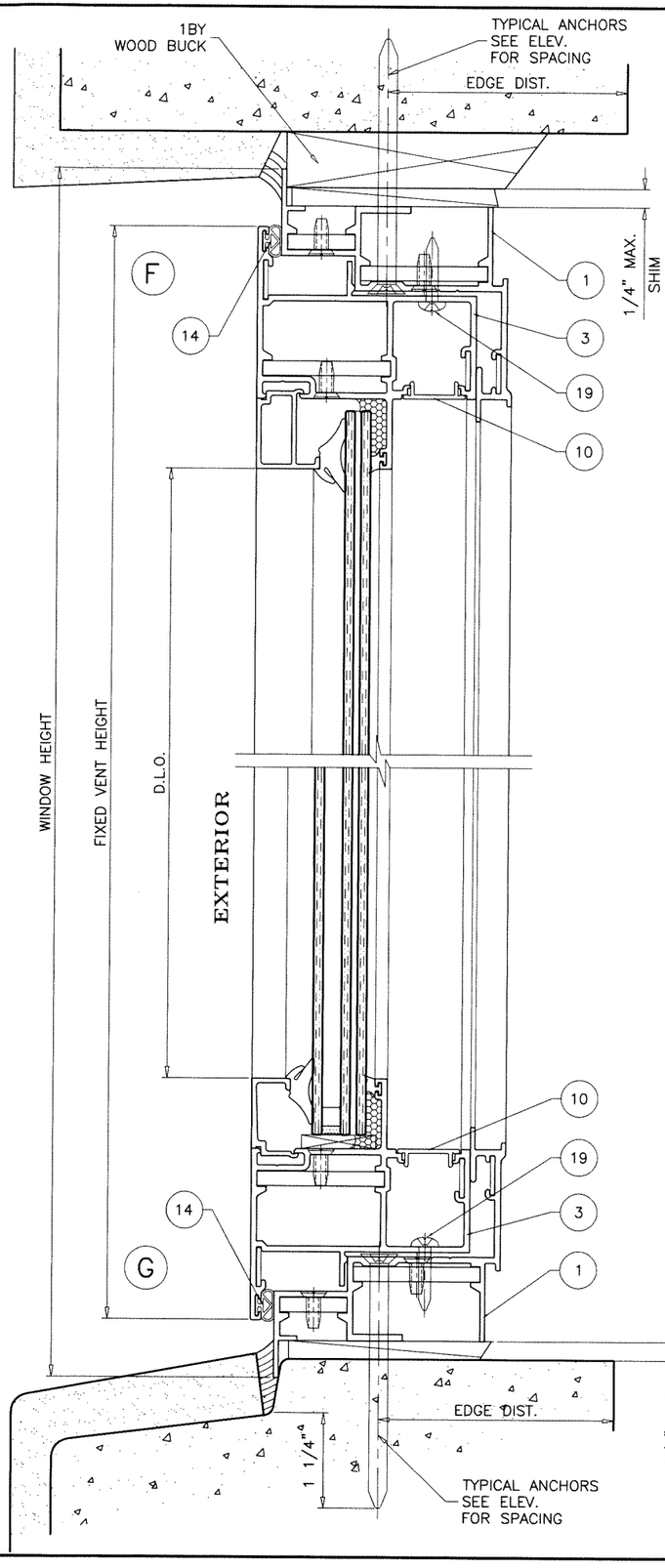
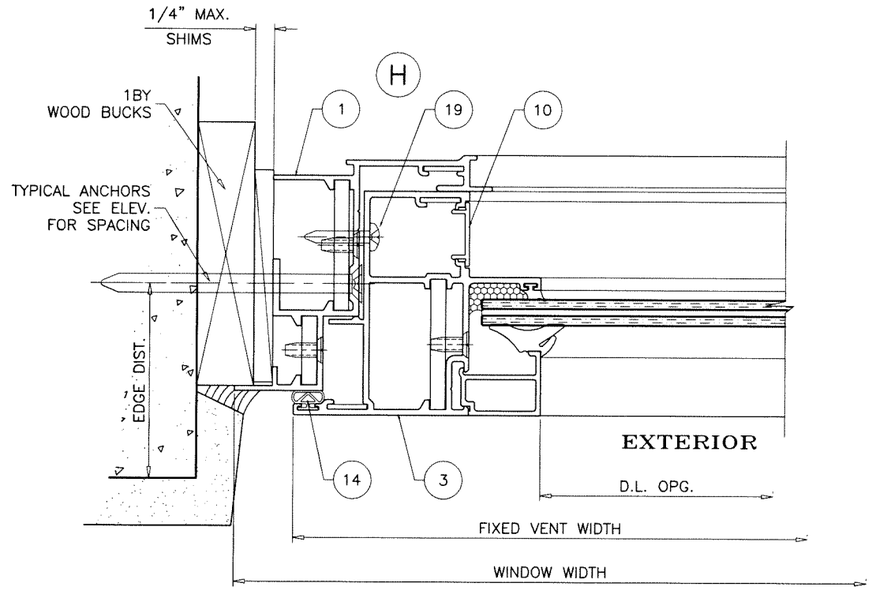


FRAMES CAN BE USED AT ALL SUBSTRATES SHOWN ON SHEETS 7 AND 8.



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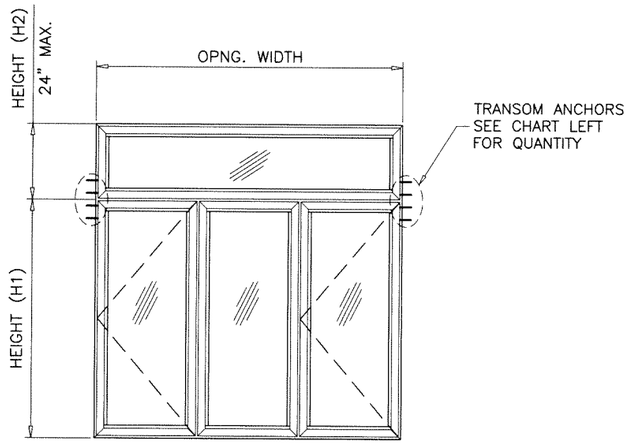
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

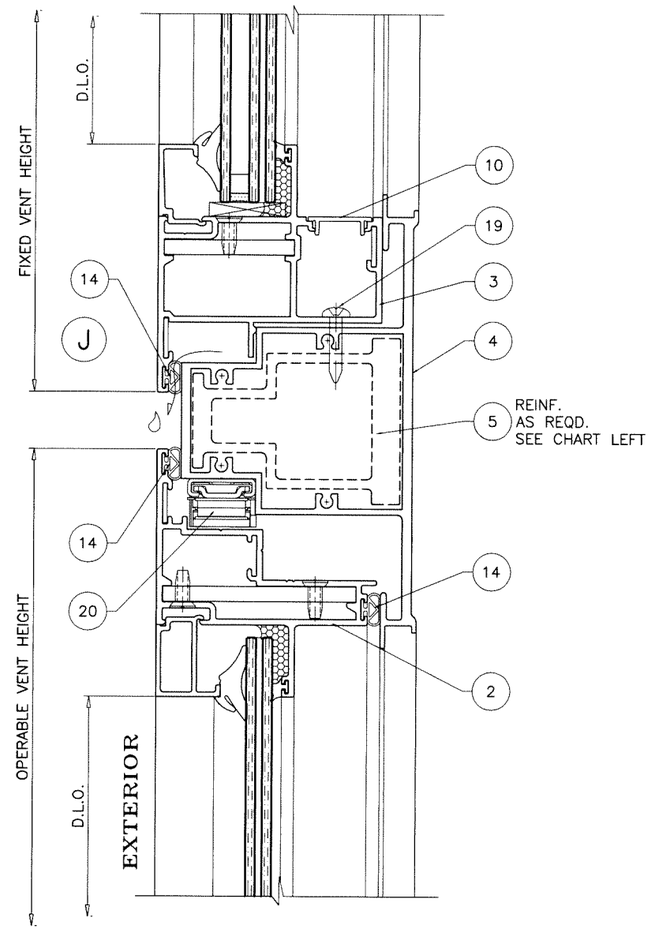
drawing no. 19-28F

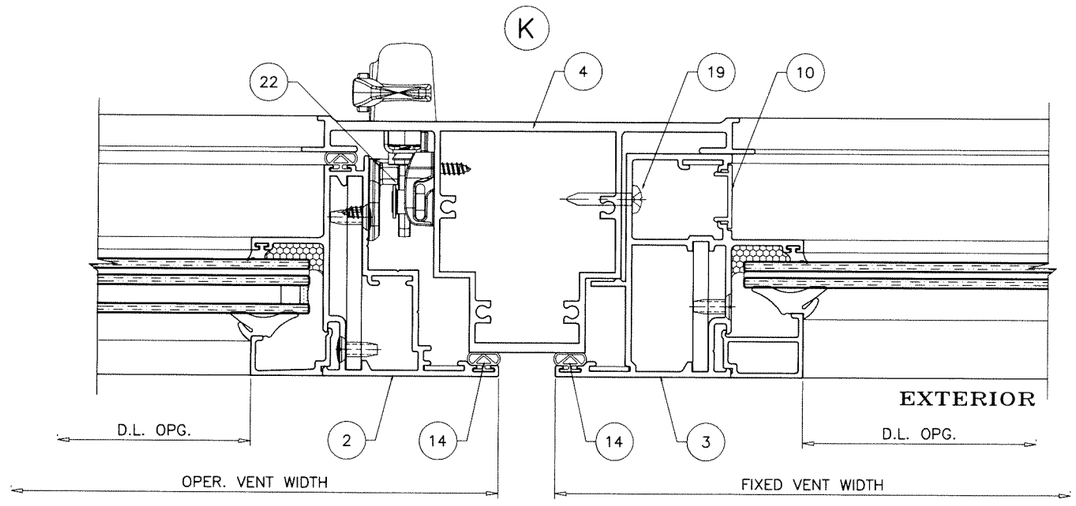
sheet 9 of 14

TRANSOM DESIGN LOAD CAPACITY

NOMINAL DIMS.			WITHOUT REINF.	WITH REINF.	NO. OF ANCHORS AT TRANSOM ENDS
OPNG. WIDTH INCHES	HEIGHT (H1) INCHES	HEIGHT (H2) INCHES			
48	36	24	80.0	80.0	2
50			80.0	80.0	3
62			80.0	80.0	3
74			80.0	80.0	4
86			–	80.0	4
98			–	80.0	5
48	38–3/8	24	80.0	80.0	3
50			80.0	80.0	3
62			80.0	80.0	3
74			80.0	80.0	4
86			–	80.0	4
98			–	80.0	5
48	48	24	80.0	80.0	3
50			80.0	80.0	3
62			80.0	80.0	4
74			80.0	80.0	4
86			–	80.0	5
98			–	80.0	6
48	50–5/8	24	80.0	80.0	3
50			80.0	80.0	3
62			80.0	80.0	4
74			80.0	80.0	4
86			–	80.0	5
98			–	80.0	6
48	56	24	80.0	80.0	3
50			80.0	80.0	3
62			80.0	80.0	4
74			80.0	80.0	5
86			–	80.0	5
98			–	80.0	6
48	60	24	80.0	80.0	3
50			80.0	80.0	3
62			80.0	80.0	4
74			80.0	80.0	5
86			–	80.0	6
98			–	80.0	6
48	63	24	80.0	80.0	3
50			80.0	80.0	3
62			80.0	80.0	4
74			80.0	80.0	5
86			–	80.0	6
98			–	78.5	6
48	76	24	80.0	80.0	4
50			80.0	80.0	4
62			80.0	80.0	5
74			80.0	80.0	6







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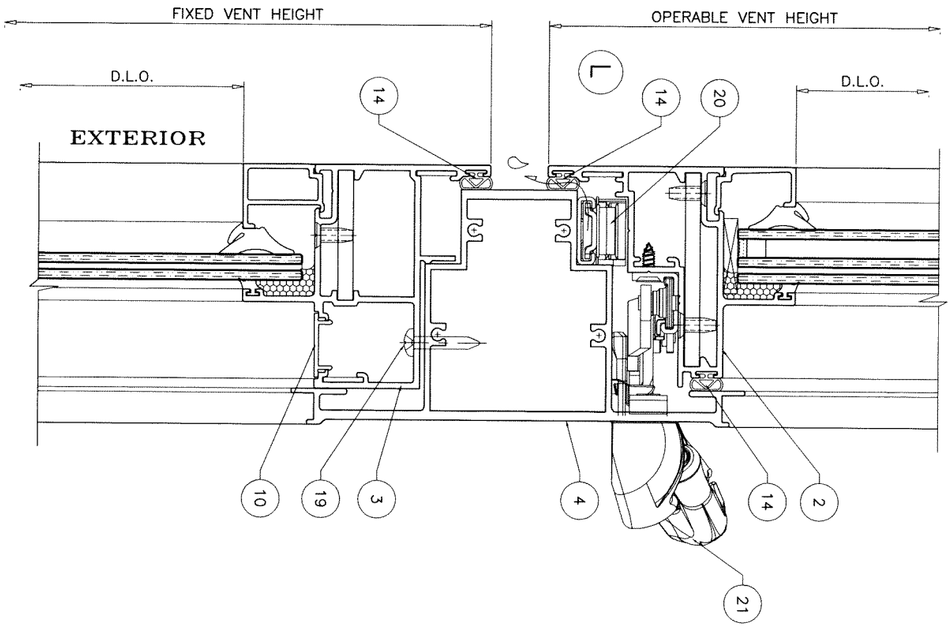

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FL #29676

JALAL FAROOQ
PROFESSIONAL ENGINEER
STATE OF FLORIDA
No. 81223
LICENSE

sheet	10.1 of 14
drawing no.	19-28F
date:	04-15-19
scale:	1/2" = 1"
dr. by:	TARIQ
chk. by:	

revisions:

no	date	by	description

SERIES 600 ALUMINUM CASEMENT WINDOW (L.M.I.)

MR-GLASS DOORS & WINDOWS MANUFACTURING, LLC
8051 N.W. 79th Place
Medley, FL. 33166
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MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

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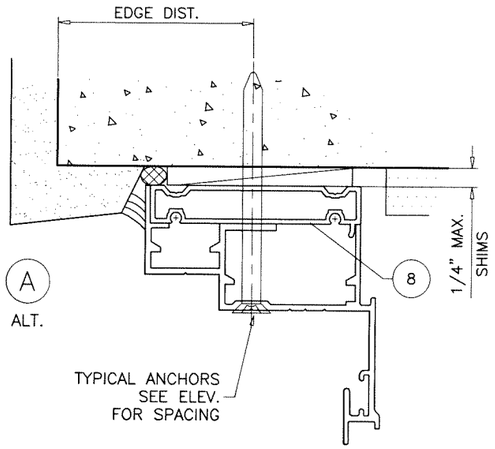

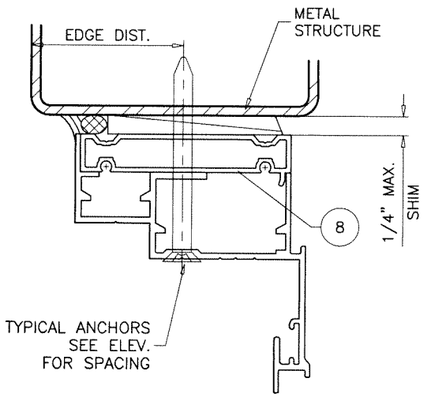

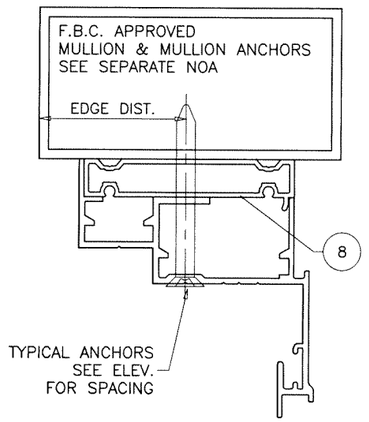

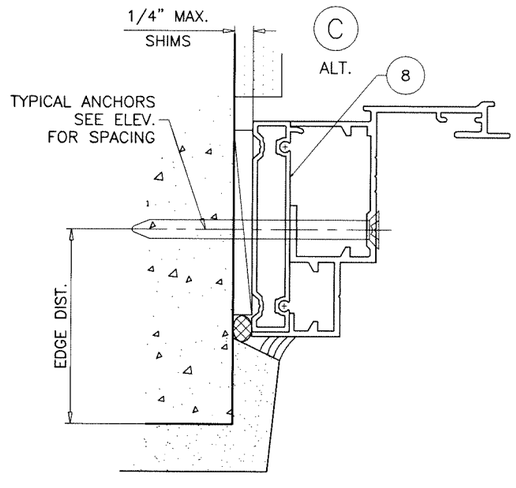

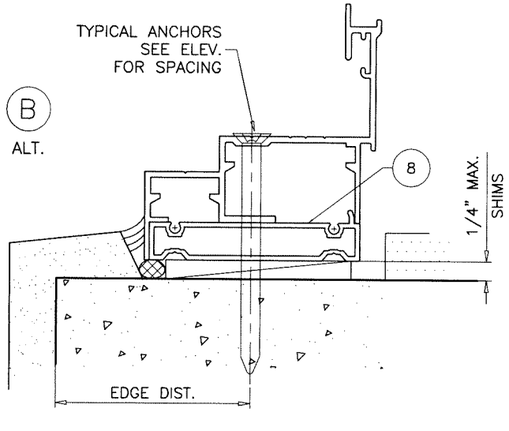

INSTALLATION DETAILS WITH FLUSH FRAME ADAPTER

SEE SHEETS 7 THRU 9 FOR WINDOW DETAILS

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ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	E-602	4/ WDW.	FRAME	6063-T6	-
2	E-601	4/ WDW.	OPERABLE VENT	6063-T6	-
3	E-604	4/ WDW.	FIXED VENT	6063-T6	-
4	E-603	AS REQD.	IMPOST	6063-T6	-
5	E-605	AS REQD.	IMPOST REINFORCING	6063-T6	-
6	E-9001	4/ LITE	GLAZING BEAD (LAM. GLASS)	6063-T6	-
7	E-9003	4/ LITE	GLAZING BEAD (INSUL. LAM. GLASS)	6063-T6	-
8	E-212	AS REQD.	FLUSH ADAPTER	6063-T6	-
9	E-2037	AS REQD.	CORNER KEY	6063-T6	-
10	E-1018	AS REQD.	FIXED VENT COVER	6063-T6	-
11	G-3001	AS REQD.	INTERIOR GLAZING GASKET	SANTOPRENE	-
12	G-601	AS REQD.	EXTERIOR GLAZING GASKET (5/16" & INSUL. GLASS)	EPDM	DUROMETER 70±5 SHORE A
13	G10-04	AS REQD.	EXTERIOR GLAZING GASKET (7/16" GLASS)	EPDM	DUROMETER 70±5 SHORE A
14	G-3005	AS REQD.	BULB W'STRIPPING	SANTOPRENE	-
15	G-602	2/ LITE	SETTING BLOCK	SILICONE	-
16	PJS45-SS	AS REQD.	CORNER GUIDE	ST. STEEL	-
17	#10 X 1/2"	AS REQD.	CORNER ASSEMBLY FASTENERS	ST. STEEL	FH SMS
18	#10 X 1-1/2"	AS REQD.	IMPOST ASSEMBLY FASTENERS	ST. STEEL	FH SMS
19	#10 X 1"	AS REQD.	FIXED VENT FASTENERS, AT 3" FROM ENDS & 13" O.C.	ST. STEEL	FH SMS
20	-	2/ VENT	HINGES	-	-
21	-	1/ VENT	OPERATOR	-	-
22	-	1/ VENT	MULTI POINT LOCK	-	-

SEALANT:

ALL JOINTS AND FRAME CONNECTIONS SEALED WITH DOWSIL 795 SEALANT.

LOCKS:

OPTION #1

MULTI POINT LOCK SYSTEM BY 'INTERLOCK'
AT FRAME JAMB
LOCK OPERATOR AT 12-1/2" FROM SILL
FASTENED TO JAMBS WITH (2) #10 X 5/8" SMS.

LOCK BAR SECURED TO JAMB WITH 9 GUIDES
SPACED AT 10" O.C. MAX.
EACH GUIDE FASTENED WITH (3) #10 X 1/2" P FH SMS

5 NYLON KEEPERS AT VENT FACING LOCKING POINTS
SPACED AT 15" O.C. MAX.
EACH FASTENED WITH (2) #10 X 5/8" P FH SMS

OPTION #2

MULTI POINT LOCK SYSTEM BY 'ROTO FRANK OF AMERICA'
AT FRAME JAMB
LOCK OPERATOR AT 11-1/2" FROM SILL
FASTENED TO JAMBS WITH (2) #10 X 5/8" SMS.

LOCK BAR SECURED TO JAMB WITH 8 GUIDES
SPACED AT 10" O.C. MAX.
EACH GUIDE FASTENED WITH (3) #10 X 1/2" P FH SMS

5 ST. STEEL KEEPERS AT VENT FACING LOCKING POINTS
SPACED AT 17" O.C. MAX.
EACH FASTENED WITH (2) #10 X 5/8" P FH SMS

HINGES:

'STORMB16' FRICTION HINGES BY 'SECURISTYLE'
LOCATED AT TOP AND BOTTOM CORNERS
FASTENED TO FRAME WITH (3) #10 X 1/2" P FH SELF DRILLING SCREWS
FASTENED TO VENT WITH (3) #10 X 1/2" P FH SELF DRILLING SCREWS

OPERATOR:

OPTION #1

DUAL ARM ROTO OPERATOR #C001-0251 BY 'INTERLOCK'
LOCATED AT SILL END
FASTENED WITH (8) #8 X 1/2" P FH SMS

OPTION #2

DUAL ARM ROTO OPERATOR #OP06-7785-AS BY
'ROTO FRANK OF AMERICA'
LOCATED AT SILL END
FASTENED WITH (9) #8 X 1/2" P FH SMS

SNUBBERS:

'ASD2' VECTOR SECURITY DEVICE BY 'ASD' LOCATED AT JAMB AND HINGE STILE AT 11" FROM TOP AND BOTTOM
EACH FASTENED WITH (2) #10 X 1/2" P FH SDS.

'CPB1' PULL IN BLOCK BY 'SECURISTYLE' LOCATED AT JAMB AND HINGE STILE AT MIDSPAN
EACH FASTENED WITH (2) #10 X 1/2" P FH SDS.

NOTE:
FOR CASEMENT INSTALLED WITHOUT OPERATOR
MAXIMUM PUSH OUT OPERATING FORCE < 5 LBS.
NO PINCHING OR TWIST OF WRIST IS REQUIRED
TO OPERATE.

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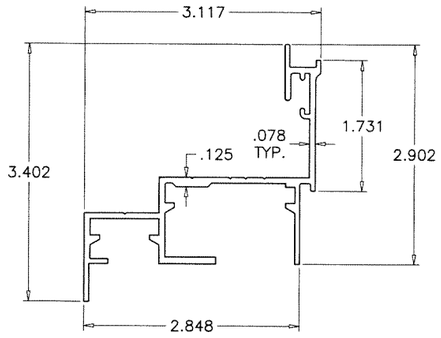
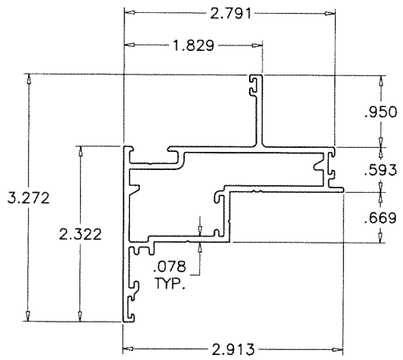


(1) FRAME



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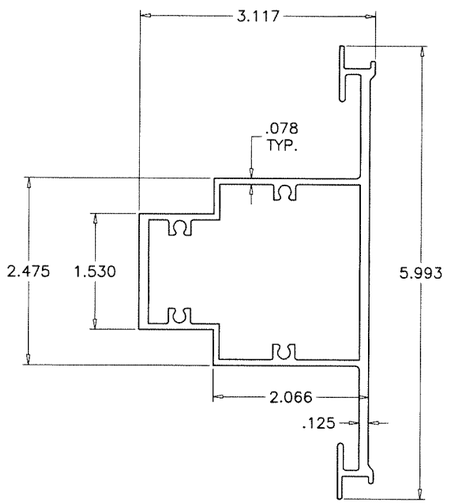

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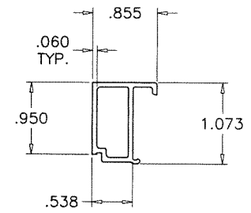
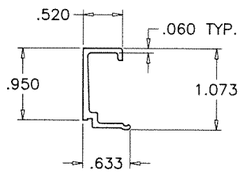
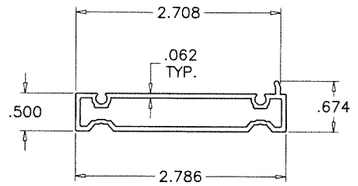


(6) GLAZING BEAD (LAM. GLASS)



(7) GLAZING BEAD (INSUL. LAM. GLASS)



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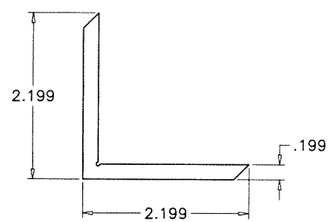
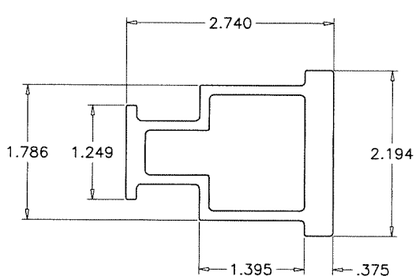
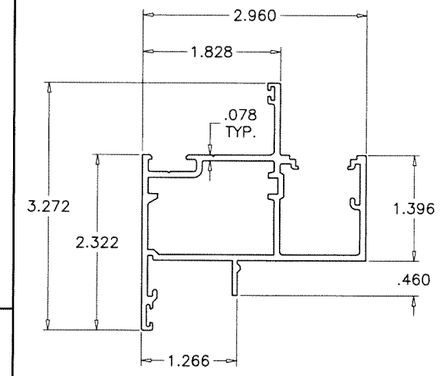


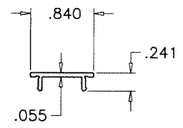
(9) CORNER KEY



(5) IMPOST REINF.



(3) FIXED VENT



(10) FIXED VENT COVER

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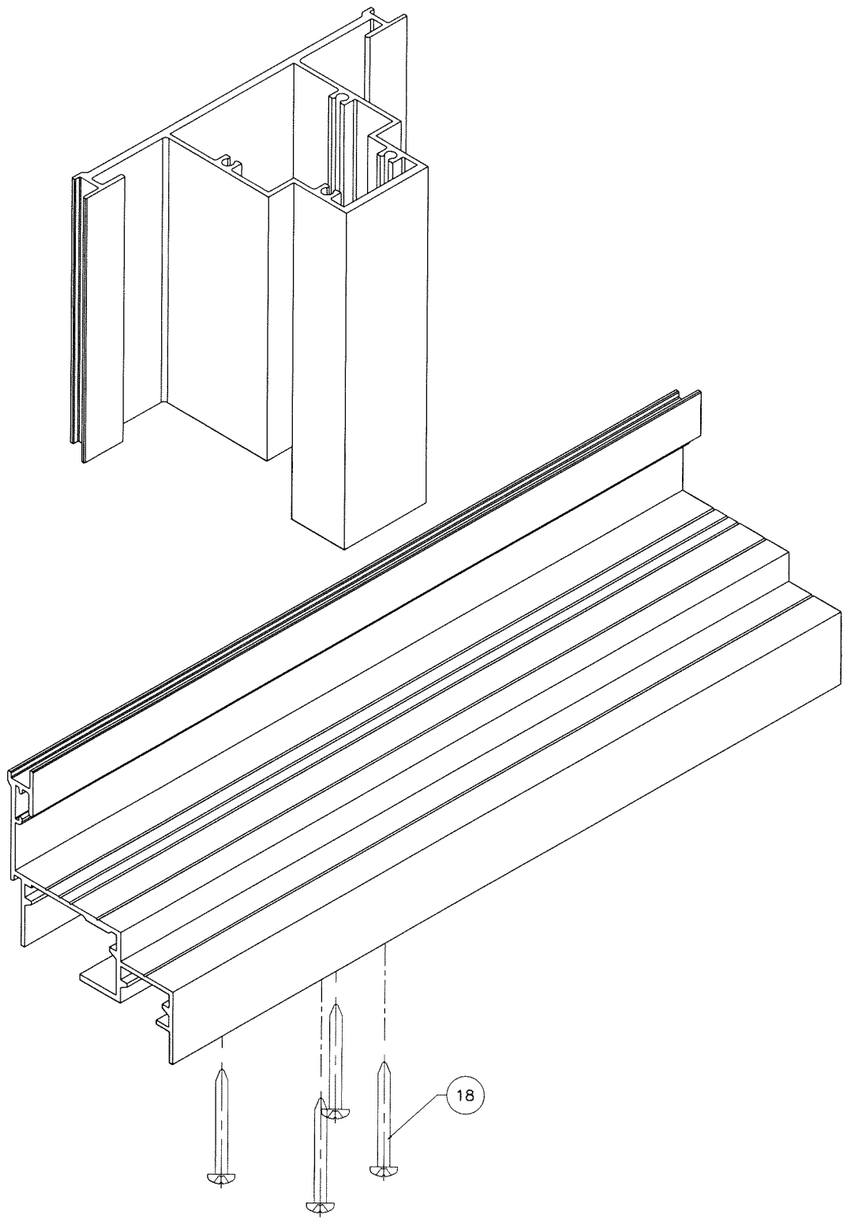
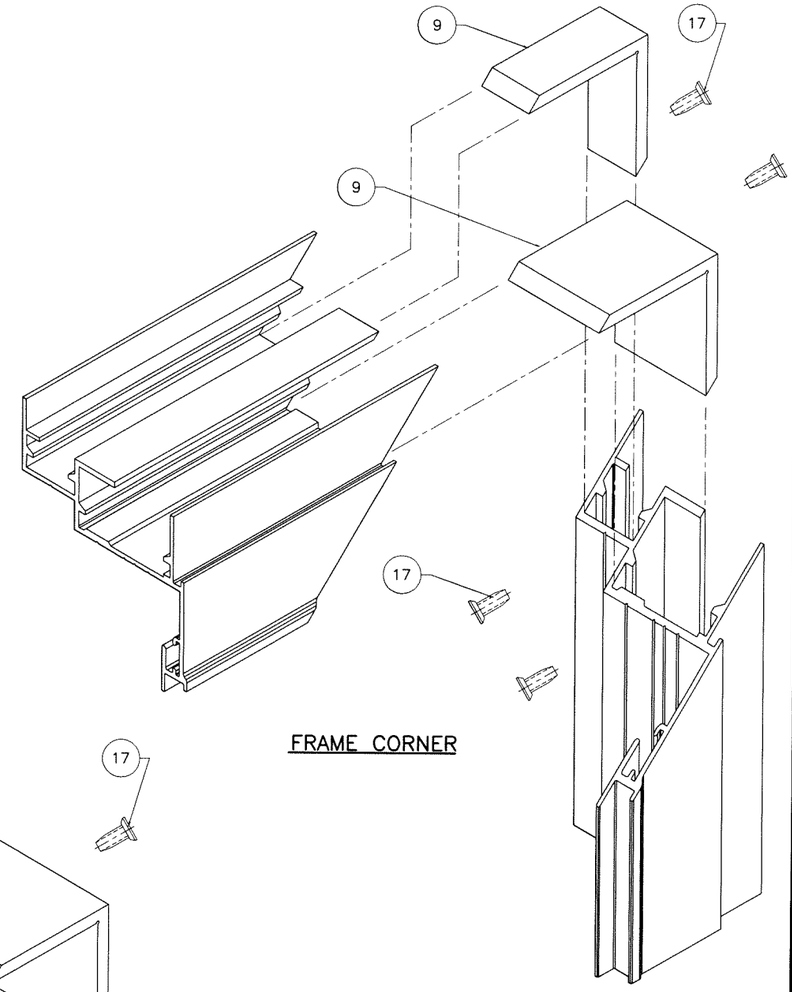


IMPOSTS CORNER



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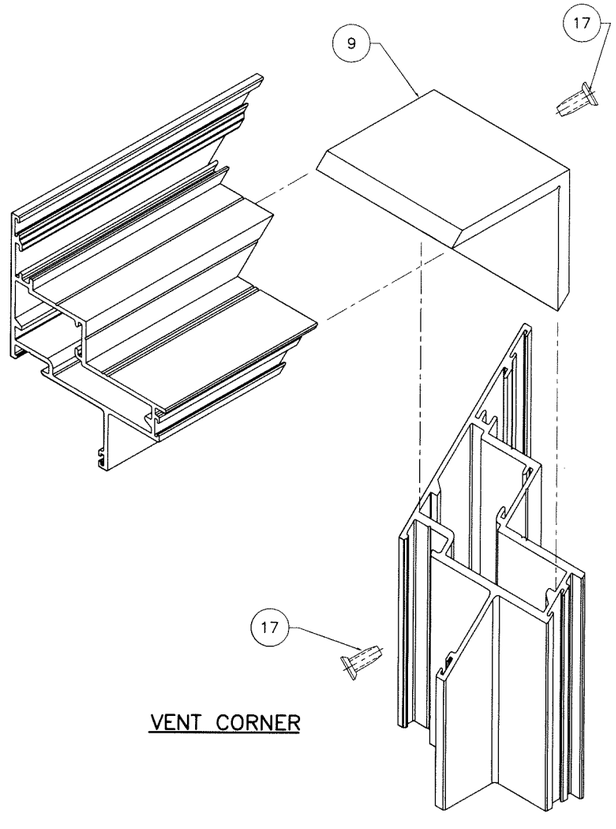

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