MIAMI–DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315–2590 F (786) 315–2599
www.miamidade.gov/building

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

Tecnoglass, LLC
3550 NW 49 Street
Miami, FL 33142

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami–Dade County RER–Product Control Section to be used in Miami–Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami–Dade County Product Control Section (In Miami–Dade County) and/or the AHJ (in areas other than Miami–Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance if it is determined by Miami–Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "HP-3060" Aluminum Window Wall System – S.M.I.

APPROVAL DOCUMENT: Drawing No. **W04-25,** titled "HP3060 Alum. Window Wall System (S.M.I.)", sheets 1 through 7 of 7, dated 03/22/04, with revision **I** dated 09/20/23, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami–Dade County Product Control Section.

MISSILE IMPACT RATING: Small Missile Impact Resistant.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, **Barranquilla, Colombia S.A.**, series and following statement: "Miami–Dade County Product Control Approved" unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/ or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami–Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises and renews NOA No. 21-0317.10** and consists of this page 1, evidence pages E-1, E-2, E-3, E-4 and E-5, as well as approval document mentioned above.

The submitted documentation was reviewed by **Manuel Perez, P.E.**

MIAMI-DADE COUNTY APPROVED

1/3/24

NOA No. 23-1012.13
Expiration Date: July 01, 2025
Approval Date: January 11, 2024

Tecnoglass, LLC

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS

1. Manufacturer's die drawings and sections.
(Submitted under NOA No. 04-0517.02)

2. Drawing No. **W04-25,** titled "HP3060 Alum. Window Wall System (S.M.I.)", sheets 1 through 7 of 7, dated 03/22/04, with revision **H** dated 11/20/20, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 21-0317.10)

B. TESTS

1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Small Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Safety Performance Test, (class A) per ANSI Z97.1 Class A
7) Forced Entry Test, Type "D-A" fixed window, Grade 10, Level LV 1 per ASTM F 588 and per FBC 2411 3.2.1, TAS 202–94
along with marked-up drawings and installation diagram of an aluminum window wall system, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-5739** dated 01/20/09, signed and sealed by Carlos S. Rionda, P.E.
(Submitted under NOA No. 09-0812.15)

2. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Small Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Safety Performance Test, (class A) per ANSI Z97.1 Class A
7) Forced Entry Test, Type "D-A" fixed window, Grade 10, Level LV 1 per ASTM F 588 and per FBC 2411 3.2.1, TAS 202–94
along with marked-up drawings and installation diagram of an aluminum window wall system, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-5692,** dated 08/22/08, signed and sealed by Carlos S. Rionda, P.E.
And Test Report No. **FTL-5320**, Drop Test dated 07/05/07, signed and sealed by Michael R. Wenzel, P.E.
(Submitted under NOA No. 08-1119.06)

Manuel Perez, P.E.
Product Control Examiner
NOA No. 23-1012.13
Expiration Date: July 01, 2025
Approval Date: January 11, 2024

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's (CONTINUED)

B. TESTS (CONTINUED)

3. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Small Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Safety Performance Test, (class A) per ANSI Z97.1 Class A
7) Forced Entry Test, Type "D-A" fixed window, Grade 10, Level LV 1 per ASTM F 588 and per FBC 2411 3.2.1, TAS 202–94
along with marked-up drawings and installation diagram of an aluminum window wall system, prepared by Fenestration Testing Laboratory, Inc., Test Reports No. **FTL-3541** and **FTL-3542**, dated 08/19/02, both signed and sealed by Edmundo J. Largaespada, P.E.
(Submitted under NOA No. 04-0517.02)

4. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Small Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Safety Performance Test, (class A) per ANSI Z97.1 Class A
7) Forced Entry Test, Type "D–A" fixed window, Grade 10, Level LV 1 per ASTM F 588 and per FBC 2411 3.2.1, TAS 202–94
along with marked-up drawings and installation diagram of an aluminum window wall system, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-2993** dated 03/19/01, signed and sealed by Luis Antonio Figueredo, P.E.
(Submitted under NOA No. 04-0517.02)

5. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Small Missile Impact Test per FBC, TAS 201-94
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
6) Safety Performance Test, (class A) per ANSI Z97.1 Class A
along with marked-up drawings and installation diagram of an aluminum window wall system, prepared by Hurricane Engineering and Testing, Inc., Test Reports No. **HETI-02-1269** and **HETI-02-1266**, dated 11/15/02 and 11/26/02 respectively; and **HETI-02-T096**, Tensile Test dated 12/31/02, all signed and sealed by Rafael E. Droz-Seda, P.E
(Submitted under NOA No. 04-0517.02)

Manuel Perez

Manuel Perez, P.E.
Product Control Examiner
NOA No. 23-1012.13
Expiration Date: July 01, 2025
Approval Date: January 11, 2024

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's (CONTINUED)

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC 5th Edition *(*2014), dated 04/25/16, updated on 09/21/17 to comply with FBC 6th Edition *(*2017) and further updated on 02/12/21 to comply with FBC 7th Edition *(*2020), prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 21-0317.10)

2. Glazing complies with **ASTM E 1300-09**

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **18-0725.11** issued to **Kuraray America, Inc.** for their "**Kuraray SentryGlas® Xtra™ (SGX™) Clear Glass Interlayer**" dated 05/23/19, expiring on 05/23/24.

2. Notice of Acceptance No. **19-0305.02** issued to **Kuraray America, Inc.** for their "**Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers**" dated 05/09/19, expiring on 07/08/24.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 7th Edition (2020),** and of no financial interest, dated February 12, 2021, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 21-0317.10)

2. Asset purchase agreement dated 06/19/14, signed by Mr. Raul Casares, for and on behalf of R.C. Aluminum Industries, Inc. and Mr. José M. Daes, for and on behalf of Tecnoglass, LLC.
(Submitted under NOA No. 12-0330.10):

3. Statement letter dated 07/15/14, issued by R.C. Aluminum Industries, Inc. of sales of asset and relinquishing of all rights of NOA No. **12-0330.09**, signed by Raul Casares, for and on behalf of R.C. Aluminum Industries, Inc.
(Submitted under NOA No. 12-0330.10):

4. Department of State Certification of **TECNOGLASS, LLC** as a limited liability company, active and organized under the laws of the State of Florida, dated 03/03/14 and signed by Ken Detzner, Secretary of State.
(Submitted under NOA No. 12-0330.10):

Manuel Perez, P.E.
Product Control Examiner
NOA No. 23-1012.13
Expiration Date: July 01, 2025
Approval Date: January 11, 2024

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's (CONTINUED)

F. STATEMENTS (CONTINUED)

5. Laboratory compliance letters prepared by Fenestration Testing Laboratory, Inc., for Test Report No. **FTL-5739** and **FTL-5692**, dated 01/20/09 and 08/22/08, both signed and sealed by Carlos S. Rionda, P.E.
(Submitted under NOA No. 09-0812.15 and 08-1119.06)

6. Laboratory compliance letters prepared by Fenestration Testing Laboratory, Inc., for Test Report No. **FTL-5320**, dated 07/05/07, signed and sealed by Michael R. Wenzel
(Submitted under NOA No. 08-1119.06)

7. Laboratory compliance letters prepared by Fenestration Testing Laboratory, Inc., for Test Report No. **FTL-3541** and **FTL-3542**, dated 08/19/03, both signed and sealed by Edmundo Largaespada, P.E.
(Submitted under NOA No. 04-0517.02)

8. Laboratory compliance letters prepared by Fenestration Testing Laboratory, Inc., for Test Report No. **FTL-2993**, dated 03/19/01, signed and sealed by Luis Antonio Figueredo, P.E.
(Submitted under NOA No. 04-0517.02):

9. Laboratory compliance letters prepared by Hurricane Engineering and Testing, Inc., for Test Reports No. **HETI-02-T096**, **HETI-02-1269** and **HETI-02-1266**, dated 12/31/02, 11/26/02 and 11/15/02, respectively, all signed and sealed by Rafael E. Droz-Seda, P.E.
(Submitted under NOA No. 04-0517.02)

G. OTHERS

1. Notice of Acceptance No. **18-0821.07**, issued to Tecnoglass, LLC., for their Series "**HP-3060" Aluminum Window Wall System – S.M.I.**", approved on 10/04/18 and expiring on 07/01/24.

Manuel Pérez, P.E.
Product Control Examiner
NOA No. 23-1012.13
Expiration Date: July 01, 2025
Approval Date: January 11, 2024

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **W04-25,** titled "HP3060 Alum. Window Wall System (S.M.I.)", sheets 1 through 7 of 7, dated 03/22/04, with revision **I** dated 09/20/23, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

B. TESTS

1. None

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **22-1116.01** issued to **Kuraray America, Inc.** for their **"SentryGlas® (Clear and White) Glass Interlayers**" dated 12/15/22, expiring on 07/04/28.

2. Notice of Acceptance No. **20-0915.22** issued to **Kuraray America, Inc.** for their "**Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers**" dated 11/19/20, expiring on 07/08/24.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 7th Edition (2020),** with **FBC 8th Edition (2023)** and of no financial interest, dated September 26, 2023, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

2. Letter from professional engineer requesting a 1-year extension to allow time to perform verification test, dated 09/26/23, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

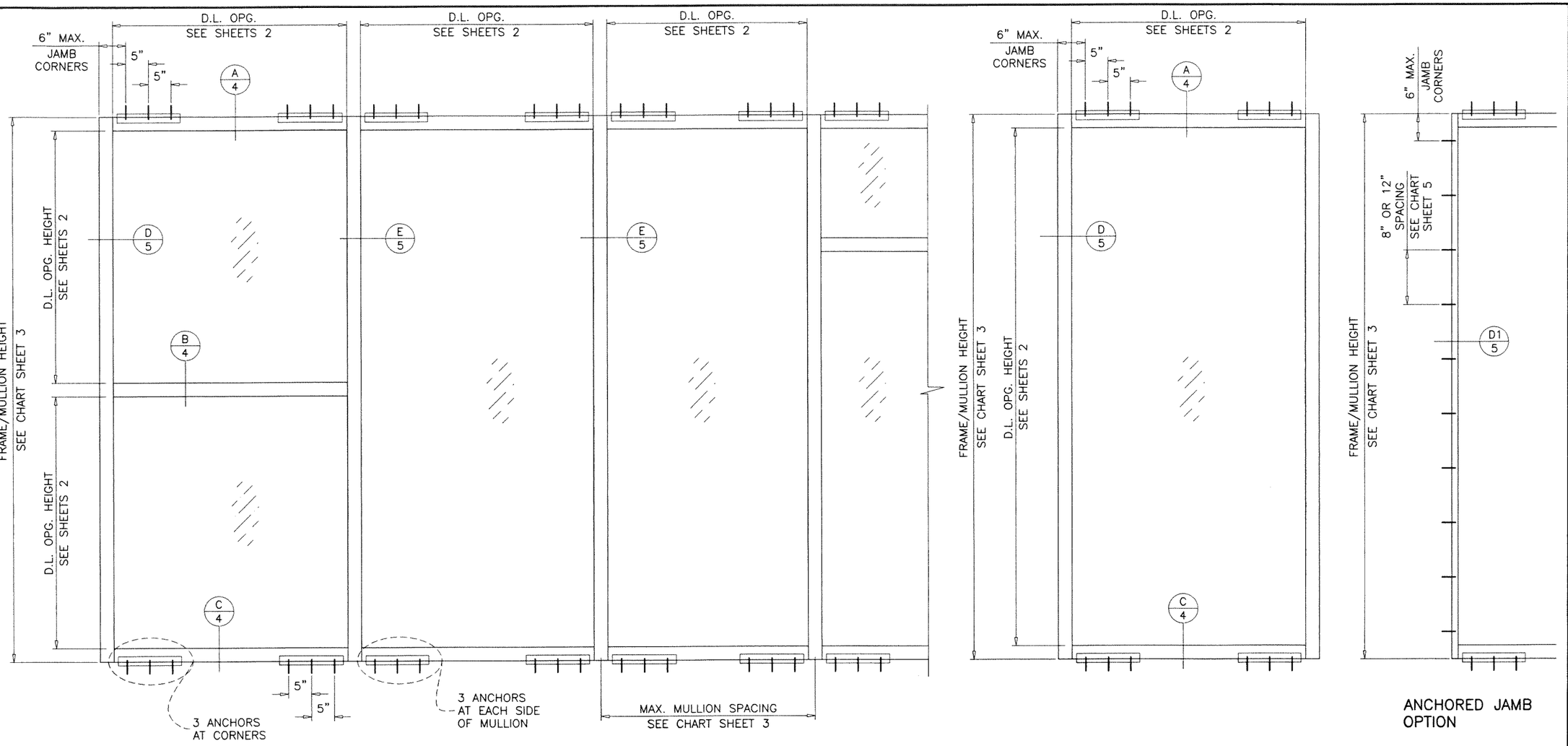
3. Testing agreement letter, dated 09/27/23, between QAI Laboratories and Tecnoglass, LLC, issued by QAI Laboratory, Inc. and signed by Lusinda Delgado, Technical Report Writer.

G. OTHERS

1. Notice of Acceptance No. **21-0317.10**, issued to Tecnoglass, LLC, for their Series "HP-3060" Aluminum Window Wall System – S.M.I., approved on 05/13/21 and expiring on 07/01/24.

2. This is a one-year approval, subjected to successful verification test, the final approval will be issued for a total of 5 years.

Manuel Perez, P.E.
Product Control Examiner
NOA No. 23-1012.13
Expiration Date: July 01, 2025
Approval Date: January 11, 2024



ANCHORED JAMB
OPTION

HP3060 ALUM. WINDOW WALL SYSTEM (S.M.I.)

THIS SYSTEM IS RATED FOR SMALL MISSILE IMPACT.
MIAMI-DADE COUNTY APPROVED IMPACT RESISTANT SHUTTERS
REQUIRED FOR INSTALLATIONS UP TO 30 FT. OF GRADE.
SHUTTERS NOT REQD. FOR INSTALLATIONS ABOVE 30 FT. OF GRADE.

CODE REQUIREMENTS FOR SAFEGUARDS MUST BE OBSERVED.

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).

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.

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)'.

TYPICAL ELEVATIONS

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

STEP 1 DETERMINE DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.

STEP 2 SEE CHARTS ON SHEETS 2 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE.

STEP 3 CHECK MULLION CAPACITY FOR A GIVEN SPACING AND HEIGHT USING MULLION CHARTS ON SHEET 3
THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.

STEP 4 THE LOWEST VALUE RESULTING FROM STEPS 2 AND 3 SHALL APPLY TO ENTIRE SYSTEM.

WINDOW WALL SYSTEM WITH GLASS TYPES 'A', & 'C' COMPLIES WITH REQUIREMENTS OF ANSI Z97.1.

LAMINATED GLASS
SMALL MISSILE IMPACT

PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. 23-1012.13
Expiration Date: 07/01/2025
By: Manuel Perez
Miami-Dade Product Control
SEP 22 2023

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

STORE\W04-25RC

HP3060 ALUM. WINDOW WALL SYSTEM (S.M.I.)

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

revisions:

no	date	by	description
E	08.05.14		MANUF. NAME REV.
F	05.13.16		UPDATED TO 2014 FBC
G	10.04.17		REV. PER RER COMMENTS
H	11.20.20		UPDATED TO 2020 FBC
I	09.20.23		UPDATED TO 2023 FBC

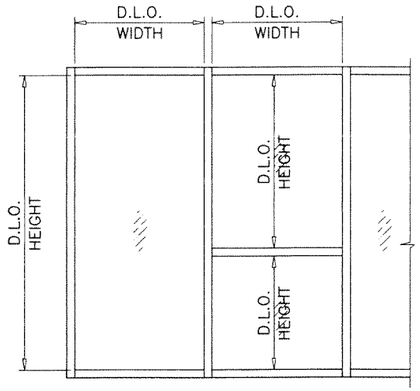
date: 03-22-04
scale: 1/2"=1'-0"
dr. by: TARIQ
chk. by:

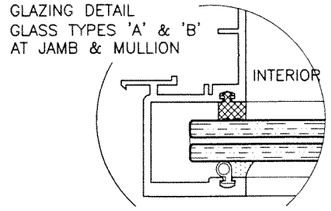
drawing no.
W04-25

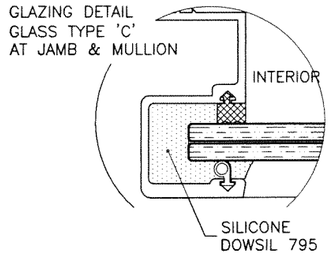
sheet 1 of 7

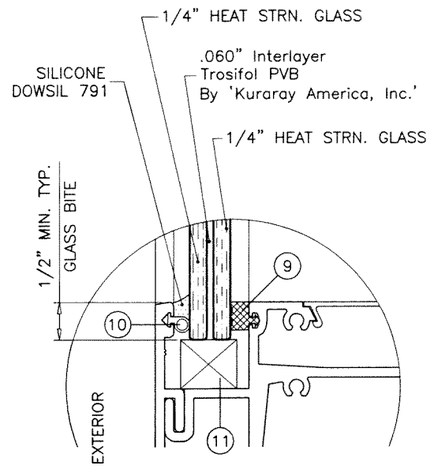
GLASS DESIGN LOAD CAPACITY – PSF			
NOMINAL DIMS		GLASS TYPES 'A' & 'B'	GLASS TYPE 'C'
D.L.O. WIDTH	D.L.O. HEIGHT	EXT. (+) INT. (–)	EXT. (+) INT. (–)
36"	66"	140.0	140.0
39"		140.0	140.0
42"		140.0	140.0
45"		140.0	140.0
48"		140.0	140.0
51"		140.0	140.0
54"		140.0	140.0
57"		140.0	140.0
60"		140.0	140.0
63"		140.0	140.0
66"		140.0	140.0
69"		140.0	140.0
72"		140.0	140.0
36"	72"	140.0	140.0
39"		140.0	140.0
42"		140.0	140.0
45"		140.0	140.0
48"		140.0	140.0
51"		140.0	140.0
54"		140.0	140.0
57"		140.0	140.0
60"		140.0	140.0
63"		140.0	140.0
66"		140.0	140.0
69"		–	140.0
36"	78"	140.0	140.0
39"		140.0	140.0
42"		140.0	140.0
45"		140.0	140.0
48"		140.0	140.0
51"		140.0	140.0
54"		140.0	140.0
57"		140.0	140.0
60"		140.0	140.0
63"		–	140.0
36"	84"	140.0	140.0
39"		140.0	140.0
42"		140.0	140.0
45"		140.0	140.0
48"		140.0	140.0
51"		140.0	140.0
54"		140.0	140.0
60"		–	140.0
36"	90"	140.0	140.0
39"		140.0	140.0
42"		140.0	140.0
45"		140.0	140.0
48"		140.0	140.0
51"		140.0	140.0
54"		–	140.0

GLASS DESIGN LOAD CAPACITY – PSF			
NOMINAL DIMS		GLASS TYPES 'A' & 'B'	GLASS TYPE 'C'
D.L.O. WIDTH	D.L.O. HEIGHT	EXT. (+) INT. (–)	EXT. (+) INT. (–)
36"	96"	140.0	140.0
39"		140.0	140.0
42"		140.0	140.0
45"		140.0	140.0
48"		140.0	140.0
51"		–	140.0
36"	102"	140.0	140.0
39"		140.0	140.0
42"		140.0	140.0
45"		140.0	140.0
48"		–	140.0
36"	108"	140.0	140.0
39"		140.0	140.0
42"		140.0	140.0
45"		–	140.0
36"	114"	140.0	140.0
39"		140.0	140.0
42"		–	140.0
36"	120"	140.0	140.0
39"		140.0	140.0
42"		–	140.0
36"	126"	140.0	140.0
39"		–	140.0

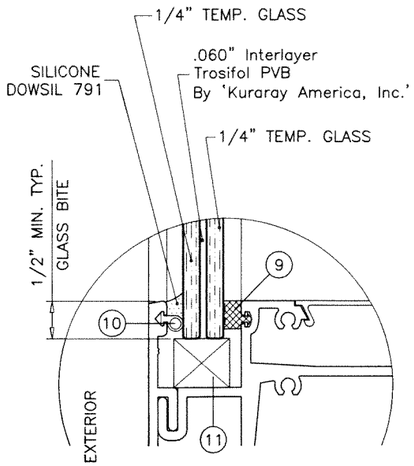




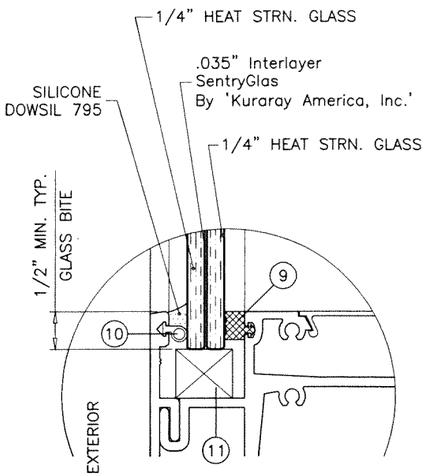




GLASS TYPE 'A'
9/16" OVERALL GLASS



GLASS TYPE 'B'
9/16" OVERALL GLASS



GLASS TYPE 'C'
9/16" OVERALL GLASS

GLAZING OPTIONS

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

PRODUCT REVISED
As complying with the Florida Building Code
NOA–No. 23-1012.13
Expiration Date: 07/01/2025
By: Manuel Perez
Miami–Dade Product Control
SEP 22 2023

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

STORE\W04–25RC

HP3060 ALUM. WINDOW WALL SYSTEM (S.M.I.)

TECNOGLASS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638–5151 FAX. (305) 638–5158

revisions:

no	date	by	description
E	08.05.14		MANUF. NAME REV.
F	05.13.16		UPDATED TO 2014 FBC
G	10.04.17		REV. PER RER COMMENTS
H	11.20.20		UPDATED TO 2020 FBC
I	09.20.23		NO CHANGE THIS SHEET

date: 03–22–04
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no.
W04–25

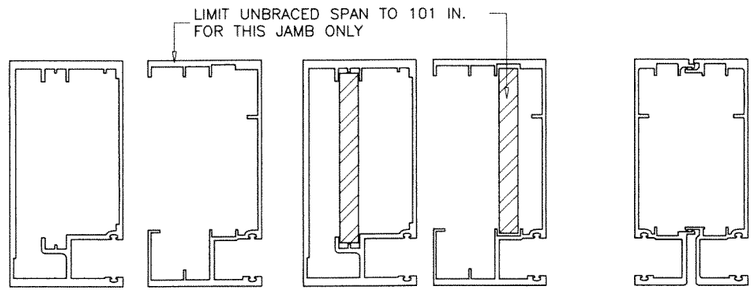
sheet 2 of 7

MULLION/JAMB DESIGN LOAD CAPACITY – PSF
WITH OR WITHOUT INTERMEDIATE HORIZONTALS

NOMINAL DIMS.		JAMB 'J1'		JAMBS 'J2'/'J3'		MULLION 'M1'		MULLION 'M2'		CORNER MULL 'C1'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)
30"	84"	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	120.0	120.0
36"		140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	120.0	120.0
42"		140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	120.0	120.0
48"		140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	120.0	120.0
54"		140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	120.0	120.0
60"		140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	120.0	120.0
66"		140.0	140.0	140.0	140.0	131.2	131.2	140.0	140.0	120.0	120.0
72"		140.0	140.0	140.0	140.0	–	–	140.0	140.0	–	–
30"	90"	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	120.0	120.0
36"		140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	120.0	120.0
42"		140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	120.0	120.0
48"		140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	120.0	120.0
54"		140.0	140.0	140.0	140.0	138.3	138.3	140.0	140.0	120.0	120.0
60"		140.0	140.0	140.0	140.0	124.5	124.5	140.0	140.0	120.0	120.0
63"		140.0	140.0	140.0	140.0	118.6	118.6	140.0	140.0	120.0	120.0
66"		140.0	140.0	140.0	140.0	–	–	140.0	140.0	–	–
72"		140.0	140.0	140.0	140.0	–	–	140.0	140.0	–	–
30"	96"	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	120.0	120.0
36"		140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	120.0	120.0
42"		140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	120.0	120.0
48"		140.0	140.0	140.0	140.0	135.5	135.5	140.0	140.0	120.0	120.0
54"		140.0	140.0	140.0	140.0	120.4	120.4	140.0	140.0	120.0	120.0
57"		140.0	140.0	140.0	140.0	114.1	114.1	140.0	140.0	120.0	120.0
60"		140.0	140.0	140.0	140.0	–	–	140.0	140.0	–	–
66"		140.0	140.0	140.0	140.0	–	–	140.0	140.0	–	–
69"		140.0	140.0	140.0	140.0	–	–	140.0	140.0	–	–
30"	102"	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	120.0	120.0
36"		140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	120.0	120.0
42"		140.0	140.0	140.0	140.0	135.9	135.9	140.0	140.0	120.0	120.0
48"		140.0	140.0	140.0	140.0	118.9	118.9	140.0	140.0	120.0	120.0
54"		140.0	140.0	140.0	140.0	105.7	105.7	140.0	140.0	120.0	120.0
60"		140.0	140.0	140.0	140.0	–	–	140.0	140.0	–	–
66"		140.0	140.0	140.0	140.0	–	–	139.4	139.4	–	–
30"	108"	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	120.0	120.0
36"		140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	120.0	120.0
42"		140.0	140.0	140.0	140.0	120.1	120.1	140.0	140.0	120.0	120.0
48"		140.0	140.0	140.0	140.0	105.1	105.1	140.0	140.0	120.0	120.0
51"		140.0	140.0	140.0	140.0	98.9	98.9	140.0	140.0	120.0	120.0
54"		140.0	140.0	140.0	140.0	–	–	140.0	140.0	–	–
60"		140.0	140.0	140.0	140.0	–	–	136.7	136.7	–	–
63"		140.0	140.0	140.0	140.0	–	–	130.2	130.2	–	–
30"	114"	140.0	140.0	140.0	140.0	–	–	140.0	140.0	–	–
36"		140.0	140.0	140.0	140.0	–	–	110.0	110.0	–	–
42"		140.0	140.0	140.0	140.0	–	–	110.0	110.0	–	–
48"		140.0	140.0	140.0	140.0	–	–	110.0	110.0	–	–
54"		140.0	140.0	140.0	140.0	–	–	110.0	110.0	–	–
60"		138.8	138.8	140.0	140.0	–	–	110.0	110.0	–	–
30"	120"	–	–	90.0	90.0	–	–	110.0	110.0	–	–
36"		–	–	90.0	90.0	–	–	110.0	110.0	–	–
42"		–	–	90.0	90.0	–	–	110.0	110.0	–	–
48"		–	–	90.0	90.0	–	–	110.0	110.0	–	–
54"		–	–	90.0	90.0	–	–	110.0	110.0	–	–
60"		–	–	90.0	90.0	–	–	110.0	110.0	–	–

MULLION/JAMB DESIGN LOAD CAPACITY – PSF
WITH OR WITHOUT INTERMEDIATE HORIZONTALS

NOMINAL DIMS.		JAMB 'J1'		JAMBS 'J2'/'J3'		MULLION 'M1'		MULLION 'M2'		CORNER MULL 'C1'	
WIDTH (W)	FRAME HEIGHT	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)	EXT.(+)	INT.(–)
30"	126"	–	–	90.0	90.0	–	–	110.0	110.0	–	–
36"		–	–	90.0	90.0	–	–	110.0	110.0	–	–
42"		–	–	90.0	90.0	–	–	110.0	110.0	–	–
48"		–	–	90.0	90.0	–	–	110.0	110.0	–	–
54"		–	–	90.0	90.0	–	–	110.0	110.0	–	–
57"		–	–	90.0	90.0	–	–	105.7	105.7	–	–
30"	132"	–	–	90.0	90.0	–	–	110.0	110.0	–	–
36"		–	–	90.0	90.0	–	–	110.0	110.0	–	–
42"		–	–	90.0	90.0	–	–	110.0	110.0	–	–
48"		–	–	90.0	90.0	–	–	110.0	110.0	–	–
54"		–	–	90.0	90.0	–	–	101.7	101.7	–	–
30"	138"	–	–	90.0	90.0	–	–	110.0	110.0	–	–
36"		–	–	90.0	90.0	–	–	110.0	110.0	–	–
42"		–	–	90.0	90.0	–	–	110.0	110.0	–	–
48"		–	–	90.0	90.0	–	–	104.7	104.7	–	–
51"		–	–	90.0	90.0	–	–	98.5	98.5	–	–
30"	145–3/4"	–	–	90.0	90.0	–	–	110.0	110.0	–	–
36"		–	–	90.0	90.0	–	–	110.0	110.0	–	–
42"		–	–	90.0	90.0	–	–	107.2	107.2	–	–
48"		–	–	90.0	90.0	–	–	93.8	93.8	–	–



JAMB 'J1'

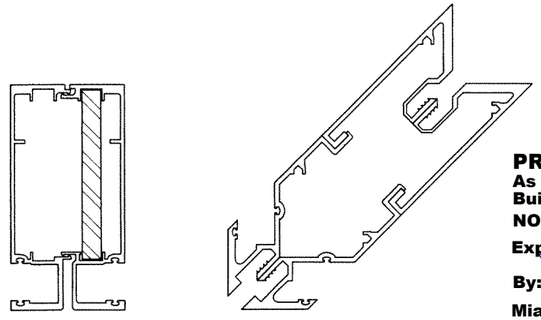
Ix IN^4	Sx IN^3
121.121	3.776

JAMB 'J2'

	Ix IN^4	Sx IN^3
ALUMINUM	12.121	3.776
STEEL	3.7969	1.6875
TOTAL Ix ALUM + Ix STL X 2.9	23.132	

JAMB 'J3'
MULLION 'M1'

Ix IN^4	Sx IN^3
14.081	4.4616

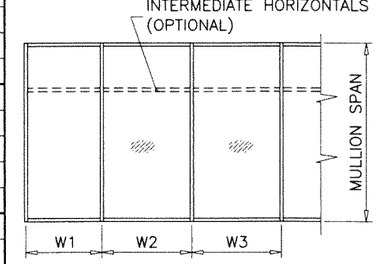


MULLION 'M2'

	Ix IN^4	Sx IN^3
ALUMINUM	14.081	4.4616
STEEL	3.7969	1.6875
TOTAL Ix ALUM + Ix STL X 2.9	25.092	

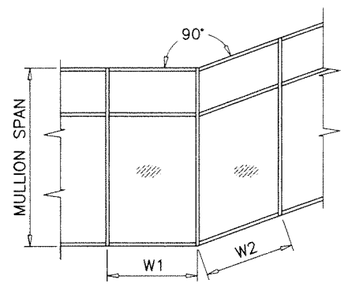
CORNER MULLION 'C1'

Ix IN^4	Sx IN^3
27.654	6.8265



WIDTH (W) = W1
AT FRAME JAMB

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



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

PRODUCT REVISED
As complying with the Florida Building Code
NOA–No. 23-1012.13
Expiration Date: 07/01/2025
By: Manuel Perez
Miami–Dade Product Control

SEP 22 2023

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

STORE\W04–25RC

HP3060 ALUM. WINDOW WALL SYSTEM (S.M.I.)

TECNOGLASS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638–5158 FAX. (305) 638–5151

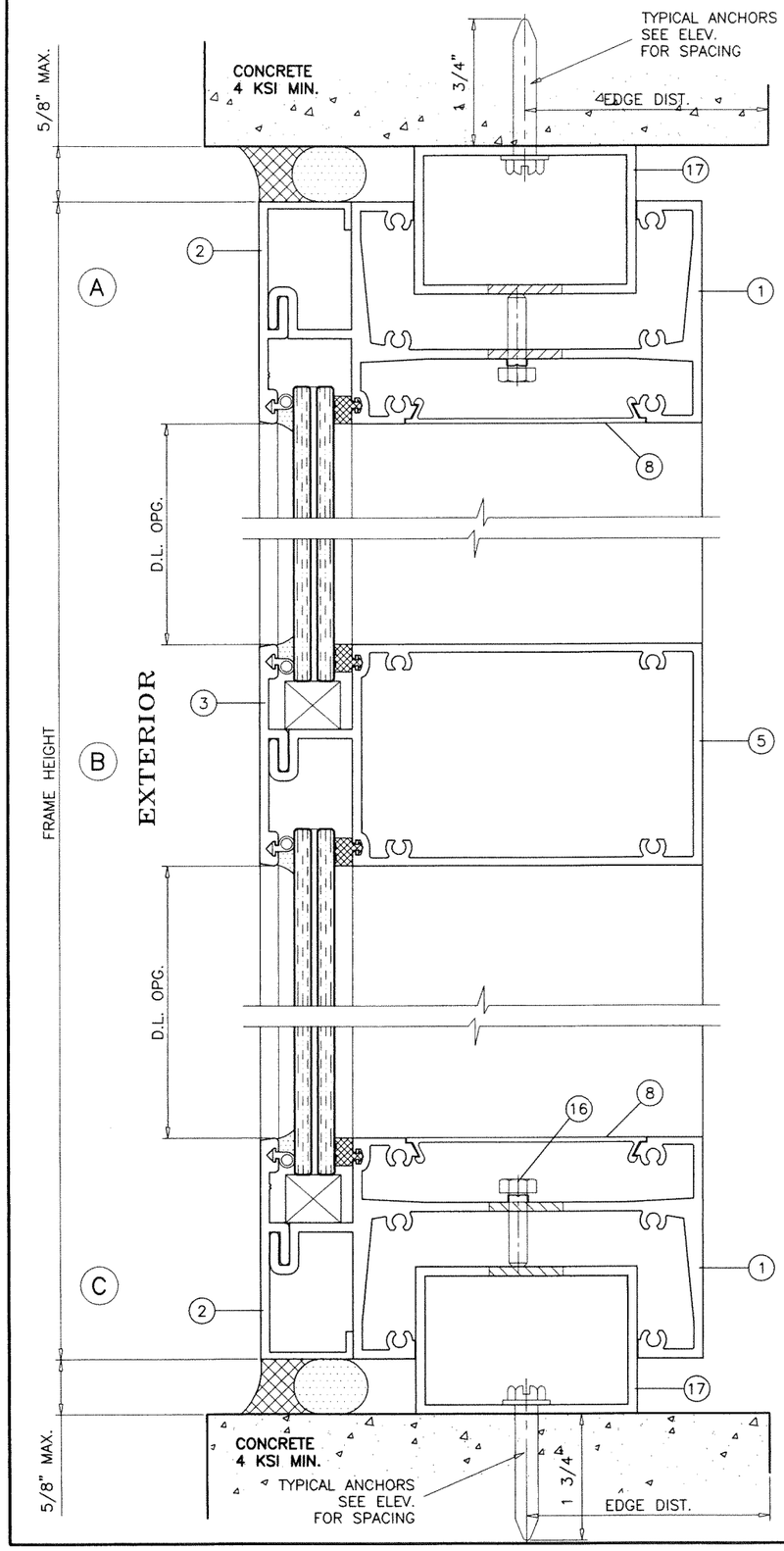
revisions:

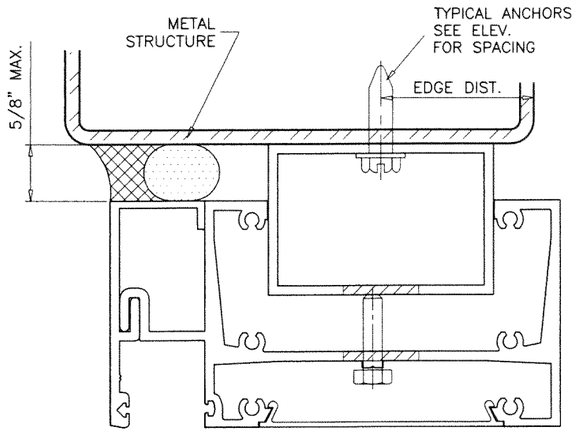
no	date	by	description
E	08.05.14		MANUF. NAME REV.
F	05.13.16		UPDATED TO 2014 FBC
G	10.04.17		REV. PER RER COMMENTS
H	11.20.20		UPDATED TO 2020 FBC
I	09.20.23		NO CHANGE THIS SHEET

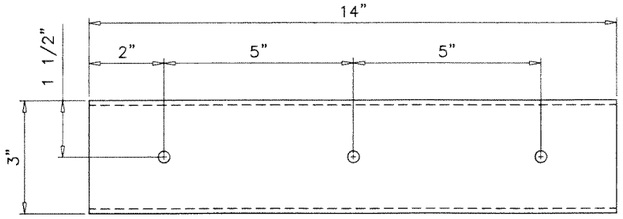
date: 03-22-04
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no. W04–25

sheet 3 of 7







ANCHOR TUBE HOLES PATTERN

METAL STRUCTURES NOT BY 'TECNOGLASS'
MUST SUPPORT LOADS IMPOSED BY GLAZING SYSTEM
AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

TYPE 'A'– 5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)
DIRECTLY INTO CONCRETE
1–3/4" MIN. EMBED INTO CONCRETE (HEAD/SILL)

TYPE 'B'– 5/16" DIA. TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS)
INTO METAL STRUCTURES (HEAD/SILL)
(3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
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 = 3–1/8" MIN.
INTO METAL STRUCTURE = 3/4" MIN.

CONCRETE AT HEAD OR SILL f'c = 4000 PSI MIN.

SEALANTS:

ALL FRAME CORNERS AND MULLION SEAMS SEALED WITH SILICONE.

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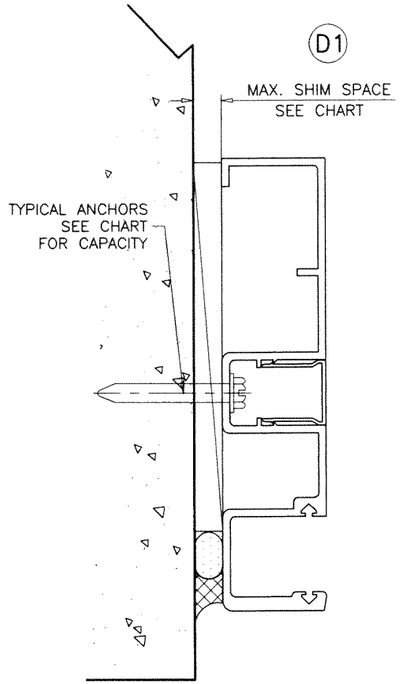
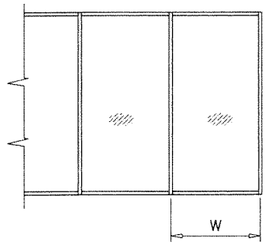
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no.
W04–25

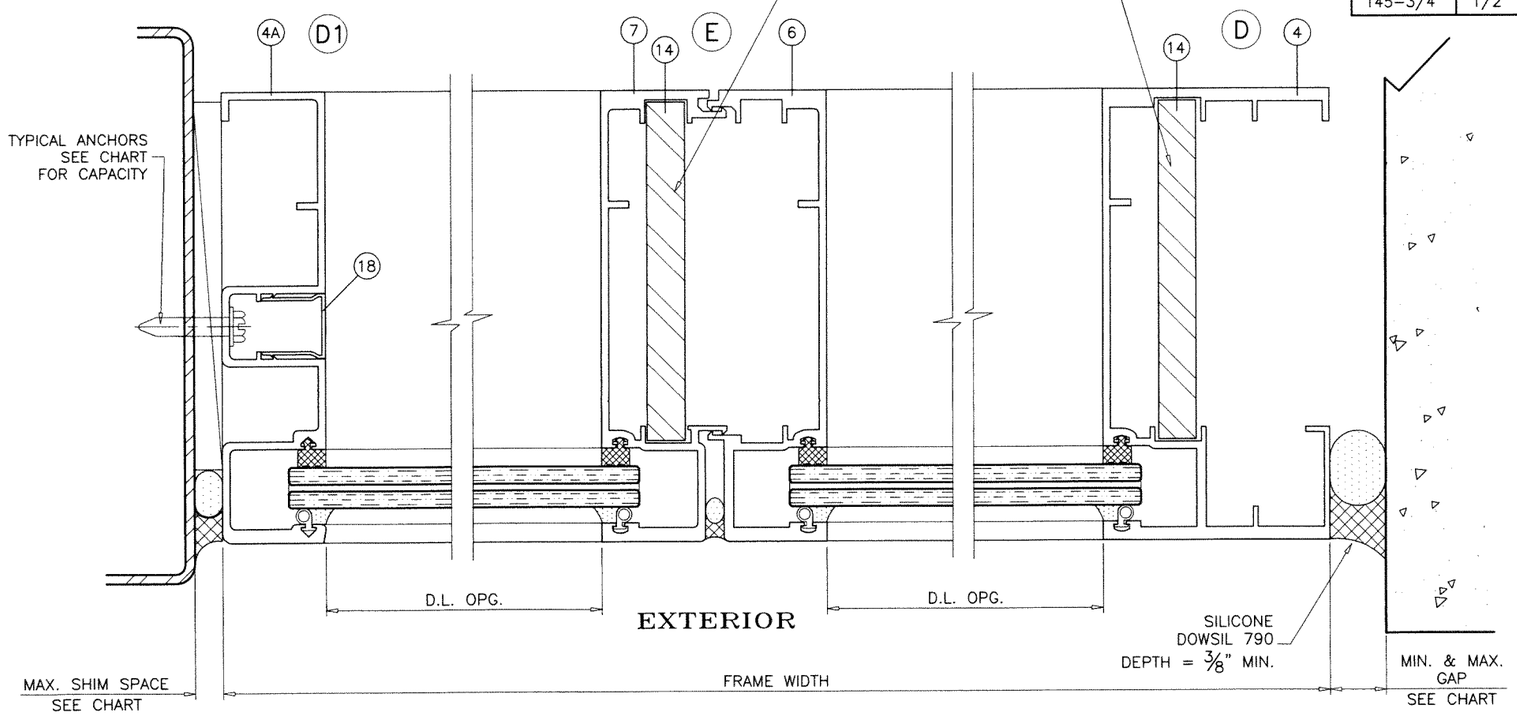
sheet 4 of 7



JAMB ANCHORS DESIGN LOAD CAPACITY – PSF							
	3/8" MAX. SHIM SPACE				1/4" MAX. SHIM SPACE		
	12" O.C.		8" O.C.		12" O.C.		8" O.C.
WIDTH (W)	TYPE 'A' EXT.(+) INT.(–)	TYPE 'B' EXT.(+) INT.(–)	TYPE 'A' EXT.(+) INT.(–)	TYPE 'B' EXT.(+) INT.(–)	TYPE 'A' EXT.(+) INT.(–)	TYPE 'B' EXT.(+) INT.(–)	TYPE 'A' EXT.(+) INT.(–)
42"	140.0	140.0	140.0	140.0	140.0	140.0	140.0
48"	130.6	140.0	140.0	140.0	140.0	140.0	140.0
54"	116.0	140.0	140.0	140.0	140.0	140.0	140.0
57"	109.9	140.0	140.0	140.0	140.0	140.0	140.0
60"	104.4	140.0	140.0	140.0	140.0	140.0	140.0
63"	99.5	140.0	140.0	140.0	140.0	140.0	140.0
66"	94.9	135.1	140.0	140.0	134.5	140.0	140.0
69"	90.8	129.3	140.0	140.0	128.7	140.0	140.0
72"	87.0	123.9	130.6	140.0	123.3	140.0	140.0

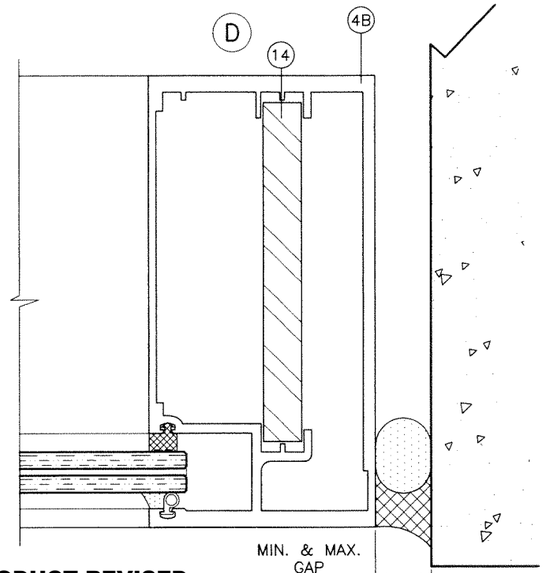


CORNER MULLION



EXTERIOR

MAX. FRAME HEIGHT	GAP	
	MIN.	MAX.
UPTO 120"	3/8"	3/4"
145–3/4"	1/2"	3/4"



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Expiration Date: 07/01/2025
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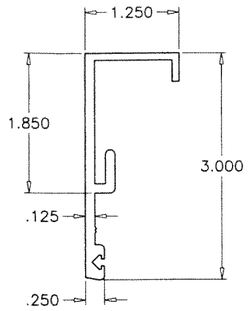
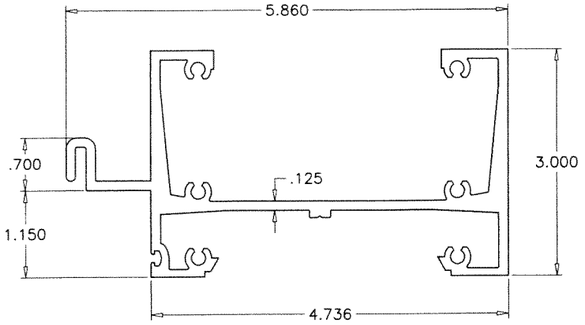
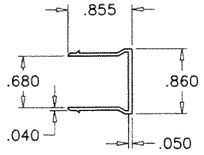
sheet 5 of 7



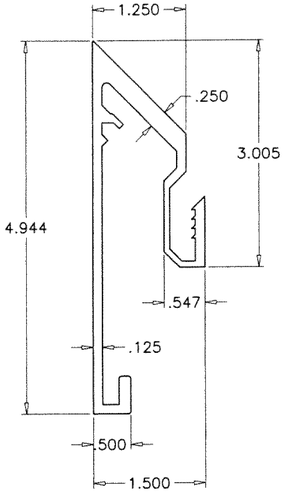
(2) GLAZING RETAINER HEAD/SILL



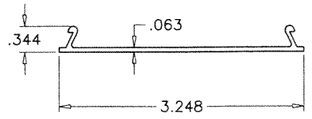
(1) FRAME HEAD/SILL



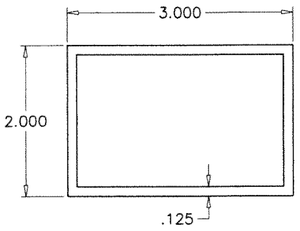
(18) SNAP-IN COVER JAMB



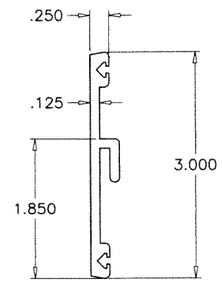
(20) CORNER MULLION (INTERIOR)



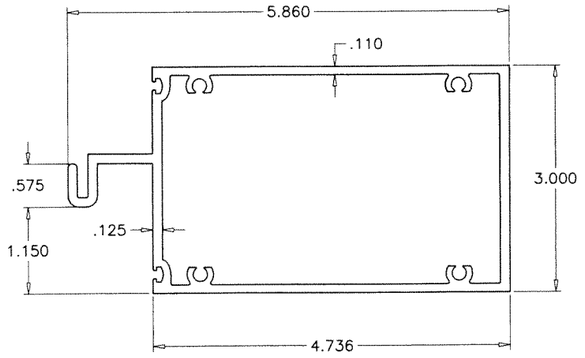
(8) SNAP-IN COVER HEAD/SILL



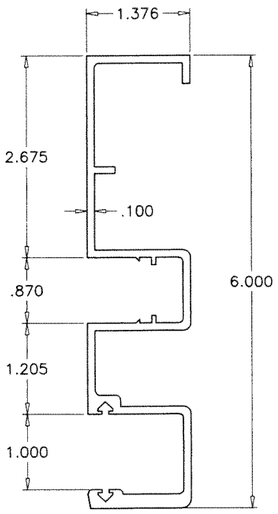
(17) ANCHOR TUBE



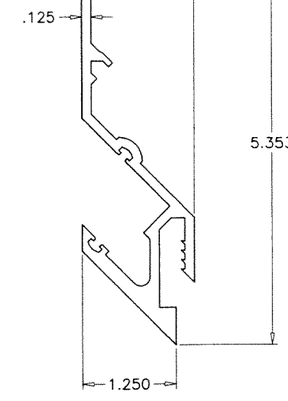
(3) GLAZING RETAINER HORIZONTAL



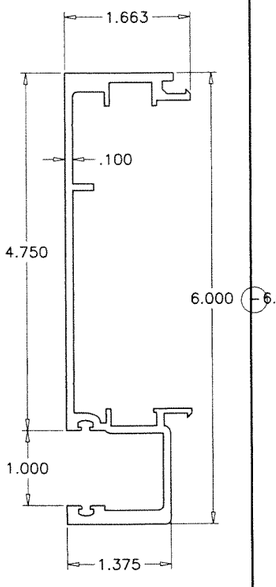
(5) HORIZONTAL



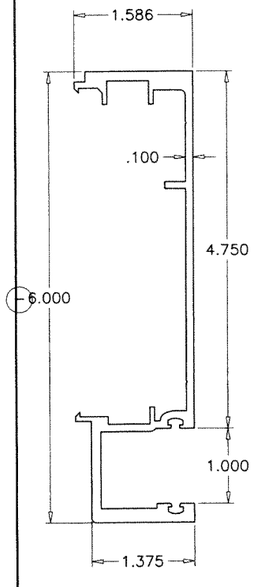
(4A) ALT. FRAME JAMB



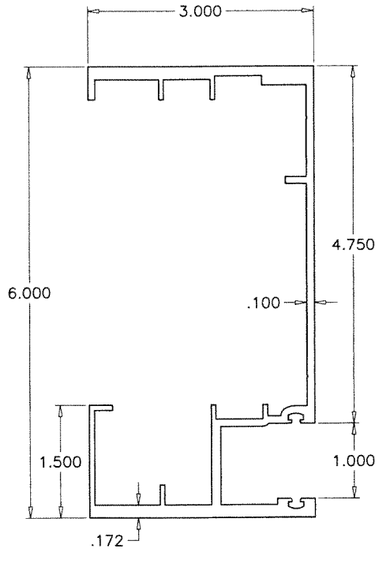
(19) CORNER MULLION (EXTERIOR)



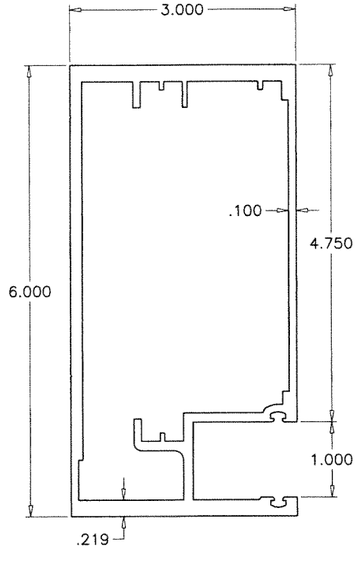
(7) MALE MULLION



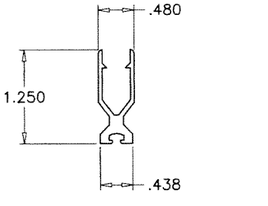
(6) FEMALE MULLION



(4) FRAME JAMB



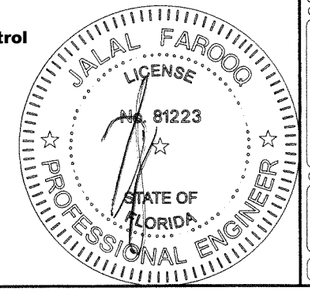
(4B) ALT. FRAME JAMB



(21) CORNER MULLION LOCK

PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. 23-1012.13
Expiration Date: 07/01/2025
By: Manuel Perez
Miami-Dade Product Control

SEP 22 2023



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\W04-25RC

HP3060 ALUM. WINDOW WALL SYSTEM (S.M.I.)

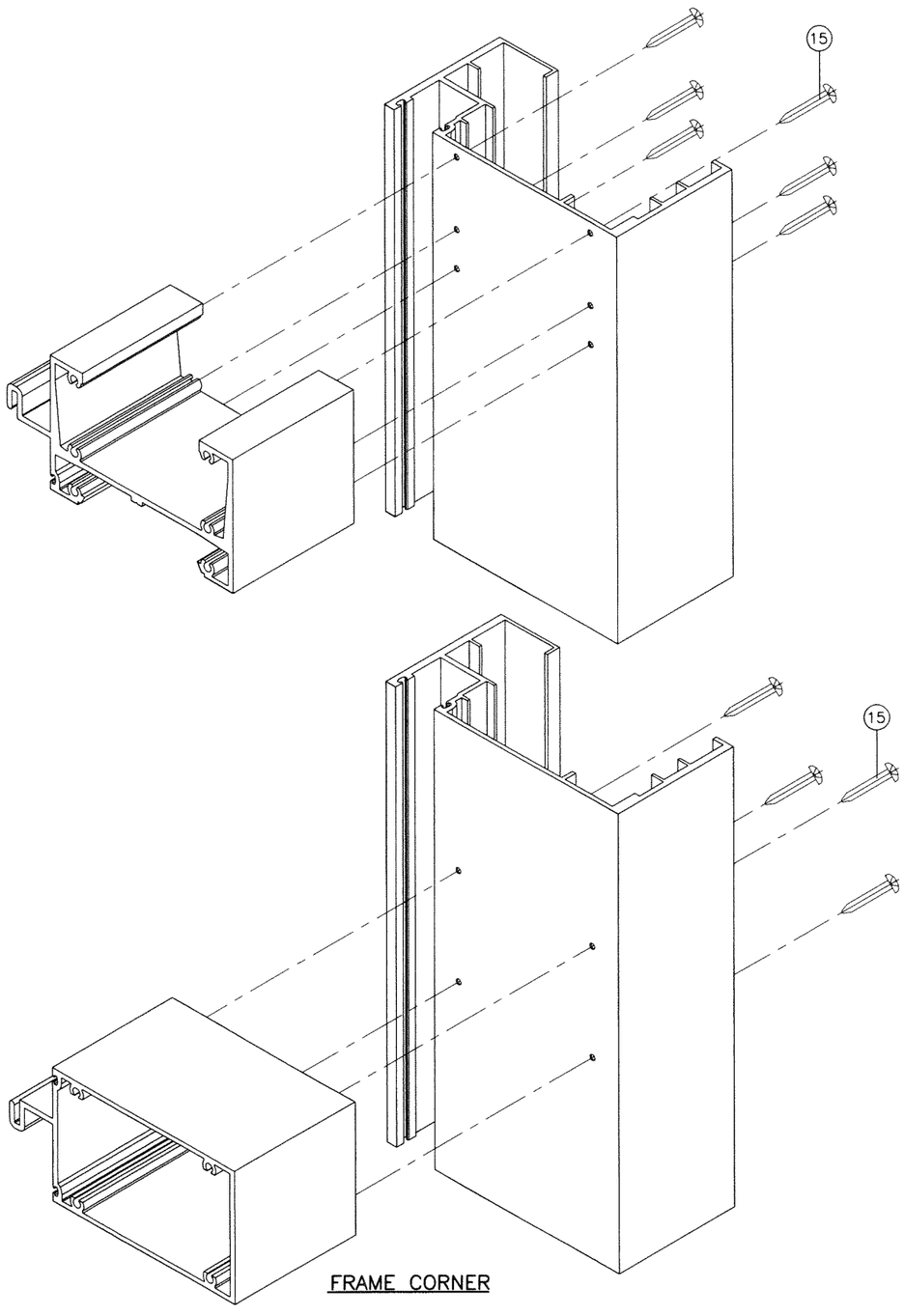
TECNOGLASS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:			
no	date	by	description
E	08.05.14		MANUF. NAME REV.
F	05.13.16		UPDATED TO 2014 FBC
G	10.04.17		NO CHANGE THIS SHEET
H	11.20.20		UPDATED TO 2020 FBC
I	09.20.23		NO CHANGE THIS SHEET

date: 03-22-04
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no. W04-25

sheet 6 of 7



FRAME CORNER

ITEM NO.	PART NUMBER	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	HP3060-051	AS REQD.	FRAME HEAD/SILL	6005-T5	-
2	FX345-006	AS REQD.	GLAZING RETAINER (HEAD/SILL)	6063-T6	-
3	FX345-005	AS REQD.	GLAZING RETAINER (HORIZONTAL)	6063-T6	-
4	HP3060-036	AS REQD.	FRAME JAMB	6063-T6	-
4A	HP3060-022	AS REQD.	ALT. FRAME JAMB	6063-T6	-
4B	HP3060-068	AS REQD.	ALT. FRAME JAMB	6063-T6	-
5	HP3060-041	AS REQD.	HORIZONTAL	6063-T6	-
6	HP3060-037	AS REQD.	FEMALE MULLION	6063-T6	-
7	HP3060-038	AS REQD.	MALE MULLION	6063-T6	-
8	HP3060-011	AS REQD.	SNAP-IN COVER HEAD/SILL	6063-T6	-
9	V-003	AS REQD.	GLAZING GASKET	TPE	MELTPOINT, DUROMETER 75±5 SHORE A
10	V-009	AS REQD.	BULB WEATHERSTRIPPING	TPE	MELTPOINT, DUROMETER 75±5 SHORE A
11	-	2/ LITE	SETTING BLOCKS (3/4" X 5/8" X 4")	EPDM	LOWE, DUROMETER 80±5 SHORE A
12	-	-	SEALANT DOW CORNING 791	SILICONE	-
13	-	-	SEALANT DOW CORNING 795	SILICONE	-
14	-	AS REQD.	REINFORCING BAR (1/2" X 4-1/2")	STEEL	SILICONED IN PLACE
15	-	AS REQD.	FRAME ASSEMBLY SCREWS	-	# 12 X 1-1/4" PH SMS
16	-	AS REQD.	LEVELING SCREWS	-	1/4-20 X 3/4" HH MS
17	-	AS REQD.	ANCHOR TUBE (2 X 3 X 1/8")	-	14" LONG
18	245FX-011	AS REQD.	SNAP-IN COVER JAMB	6063-T5	-
19	HP3060-057	AS REQD.	CORNER MULLION (EXTERIOR)	6063-T6	-
20	HP3060-058	AS REQD.	CORNER MULLION (INTERIOR)	6063-T6	-
21	HP3060-059	AS REQD.	CORNER MULLION LOCK	6063-T6	-

PRODUCT REVISED
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Expiration Date: 07/01/2025
By: Manuel Perez
Miami-Dade Product Control
SEP 22 2023

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

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sheet 7 of 7