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/economy

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

NOTICE OF ACCEPTANCE (NOA)

V & V Commercial, LLC
14150 N.W. 56th Court, Suite #600
Opa-Locka, FL 33054

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 "4500 Flush Glazed" Aluminum Storefront System – N.I.

APPROVAL DOCUMENT: Drawing No. **97-38**, titled "Series 4500 Alum Flush Glazed System (N.I.)", sheets 1 through 7 of 7, dated 10/15/97, with revision **J** dated 09/04/25, 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: None

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/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 NOA No. 25-0902.02** and consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

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

MIAMI-DADE COUNTY APPROVED

9/25/25

V & V Commercial, 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. 08-1212.01)

2. Drawing No. **97-38**, titled "Series 4500 Alum Flush Glazed System (N.I.)", sheets 1 through 7 of 7, dated 10/15/97, with revision **I** dated 07/28/23, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 23-1012.07)

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
along with marked-up drawings and installation diagram of a series 4500 aluminum storefront system, prepared by QAI Laboratories, Test Report No. **MED-1197a**, dated 03/17/25, signed and sealed by Idalmis Ortega, P.E.
(Submitted under NOA No. 25-0902.02)

2. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
2) Water Resistance Test, per FBC, TAS 202-94
along with marked-up drawings and installation diagram of a series 4500 aluminum storefront system, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-5705**, dated 08/07/08, signed and sealed by Carlos S. Rionda, P.E.
(Submitted under NOA No. 08-1212.01)

3. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
2) Water Resistance Test, per FBC, TAS 202-94
along with marked-up drawings and installation diagram of a series 4500 aluminum storefront system, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-5751**, dated 10/17/08, signed and sealed by Carlos S. Rionda, P.E.
(Submitted under NOA No. 08-1212.01)

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
along with marked-up drawings and installation diagram of a series 4500 aluminum storefront system, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-5778**, dated 11/03/08, signed and sealed by Carlos S. Rionda, P.E.
(Submitted under NOA No. 08-1212.01)

Manuel Pérez, P.E.
Product Control Examiner
NOA No. 25-0915.06
Expiration Date: December 04, 2029
Approval Date: October 02, 2025

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 8th Edition (2023), dated 08/06/25, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 25-0902.02)

2. Glazing complies with **ASTM E1300-09**

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 8th Edition (2023)** and of no financial interest, dated August 6, 2025, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 23-0902.02)

2. Proposal No. **23-1417** issued by the Product Control Section, dated December 11, 2023, signed by Manuel Perez, P.E.
(Submitted under NOA No. 23-0902.02)

3. Letter requesting a 1-year extension to allow time to perform verification test, dated 07/28/23, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
(Submitted under NOA No. 23-1012.07)

4. Testing agreement letter, dated 10/03/23 between (QAI) Fenestration Testing Laboratory, Inc., and Gopi Glass Sales & Services Corp., issued by QAI and signed by Lusinda Delgado, Report Writer.
(Submitted under NOA No. 23-1012.07)

G. OTHERS

1. Notice of Acceptance No. **23-1012.07**, issued to Gopi Glass Sales & Services Corp. for their Series "4500 Flush Glazed" Aluminum Storefront System – N.I., approved on 11/22/23 and expiring on 12/04/24.

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 Pérez, P.E.
Product Control Examiner
NOA No. 25-0915.06
Expiration Date: December 04, 2029
Approval Date: October 02, 2025

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **97-38**, titled "Series 4500 Alum Flush Glazed System (N.I.)", sheets 1 through 7 of 7, dated 10/15/97, with revision **J** dated 09/04/25, 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. None.

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 8th Edition (2023),** and of no financial interest, dated September 12, 2025, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

2. Letter from owners of existing NOA dated August 5, 2025, stating that they have sold all assets to the applicant, that they no longer manufacture the product and request to rescind current NOA No. **25-0902.02,** which renewed original NOA No.**23-1012.07,** signed by Marlen de Varona, president, Gopi Glass Sales & Service Corp.

3. Letter from V & V Commercial, LLC dated September 17, 2025, stating that they had legally purchased all the assets, rights and know-how of current NOA No. **25-0902.02,** which renewed original NOA No.**23-1012.07**, and request to issue the NOA in their name, signed by David Labrador, president V & V Commercial, LLC.

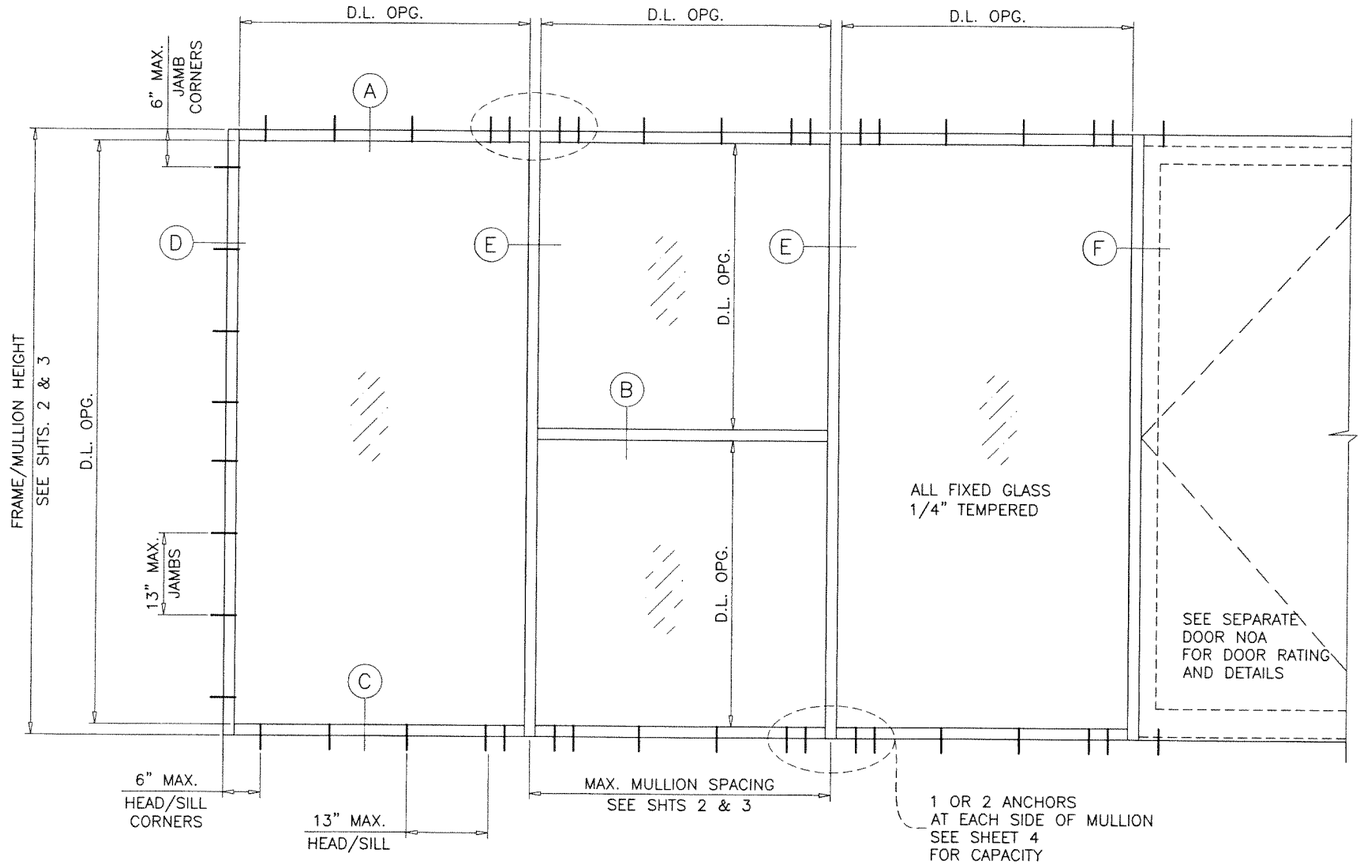
4. Name changed to **V & V Commercial, LLC** as registered in the Florida Department of State, Division of Corporation, active listing No. L25000336717, dated 07/28/25.

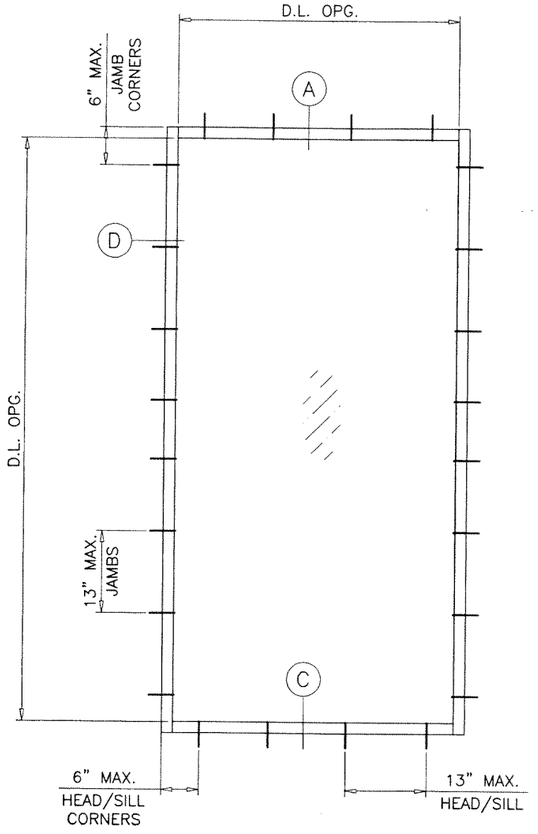
5. Asset Purchase and Sale Agreement dated July 31, 2025, between Gopi Glass Sale & Service Corp. (Seller) and V & V Commercial, LLC (Buyer), signed by respective company officials, Marlen de Varona, president and David Labrador, president.

G. OTHERS

1. Notice of Acceptance No. **25-0902.02**, issued to Gopi Glass Sales & Services Corp. for their Series "4500 Flush Glazed" Aluminum Storefront System – N.I., approved on 09/18/25 and expiring on 12/04/25.

Manuel Pérez, P.E.
Product Control Examiner
NOA No. 25-0915.06
Expiration Date: December 04, 2029
Approval Date: October 02, 2025





TYPICAL ELEVATION

SERIES-4500
ALUMINUM FLUSH GLAZED STOREFRONT SYSTEM

THIS SYSTEM IS NOT RATED FOR IMPACT.

THIS SYSTEM MAY BE USED IN CONJUCTION WITH MIAMI-DADE COUNTY APPROVED OUTSWING ENTRANCE DOORS.

CODE REQUIREMENTS FOR SAFEGUARDS MUST BE OBSERVED.

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

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

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

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

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

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

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

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

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 CHECK MULLION CAPACITY FOR A GIVEN SPACING AND HEIGHT USING CHARTS ON SHEETS 2 & 3
THE CAPACITY SHOULD EXCEED THE DESIGN LOAD.

STEP 3 USING CHART ON SHEETS 4 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.

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

INSTALLATION OF THIS PRODUCT IN THE HVHZ AREA REQUIRES THE USE OF APPROVED SHUTTERS OR EXTERNAL PROTECTION DEVICES COMPLYING WITH HVHZ REQUIREMENTS.

INSTALLATION OF THIS SYSTEM OUTSIDE THE HVHZ AREA SHALL MEET THE APPLICABLE REQUIREMENTS FOR WIND BORNE DEBRIS PROTECTION.

PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. 25-0915.06
Expiration Date: 12/04/2029
By: Manuel Perez
Miami-Dade Product Control

SEP 15 2025

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\97-38-VVC

SERIES 4500 ALUM FLUSH GLAZED SYSTEM (N.I.)

V & V Commercial LLC
14150 N.W 56th Court, Suite #600
Opa-Locka, FL. 33054
Tel. (305) 888-1042 Fax. (305) 888-4151

revisions:			
no	date	by	description
F	06.11.14		UPDATED TO 2014 FBC
G	01.25.18		UPDATED TO 2017 FBC
H	12.28.20		UPDATED TO 2020 FBC
I	07.28.23		UPDATED TO 2023 FBC
J	09.04.25		MANUF. NAME & ADDRESS REV.

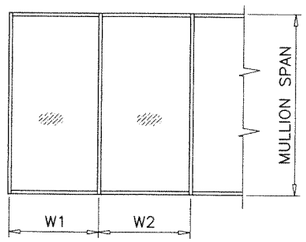
date: 10-15-97
scale: 1/2"=1'-0"
dr. by: TARIQ
chk. by:

drawing no. 97-38

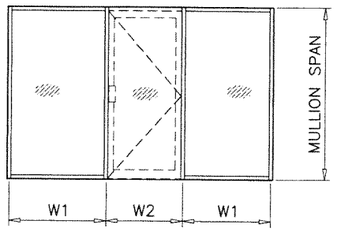
sheet 1 of 7

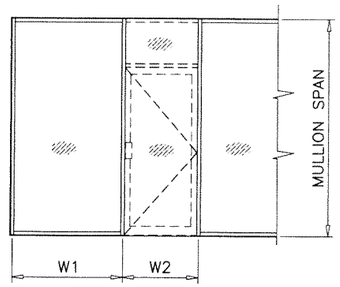
MULLION LOAD CAPACITY – PSF WITHOUT INTERMEDIATE HORIZONTALS			
NOMINAL DIMS.		MULLION W/O REINF.	MULLION WITH REINF.
WIDTH (W)	FRAME HEIGHT	EXT. (+) INT. (–)	EXT. (+) INT. (–)
24"	72"	110.0	110.0
30"		110.0	110.0
36"		110.0	110.0
42"		105.6	110.0
48"		96.2	110.0
54"		89.7	110.0
60"		85.5	110.0
66"		83.0	110.0
72"		82.1	110.0
75"		82.2	110.0
24"	78"	110.0	110.0
30"		110.0	110.0
36"		100.2	110.0
42"		88.3	110.0
48"		79.9	110.0
54"		73.9	103.2
60"		69.7	97.3
66"		66.8	93.3
72"		65.2	91.0
75"		64.8	90.4
24"	84"	110.0	110.0
30"		100.7	110.0
36"		85.5	110.0
42"		75.0	104.8
48"		67.5	94.3
54"		62.1	86.7
60"		58.1	81.1
66"		55.2	77.1
72"		53.3	74.4
75"		52.6	73.5
24"	90"	107.6	110.0
30"		87.2	110.0
36"		73.9	103.2
42"		64.6	90.2
48"		57.9	80.9
54"		53.0	74.0
60"		49.3	68.8
66"		46.5	64.9
72"		44.5	62.2
75"		44.5	60.0
24"	96"	94.3	110.0
30"		76.3	106.6
36"		64.5	90.1
42"		56.3	78.6
48"		50.3	70.2
54"		45.8	63.9
60"		42.4	59.2
66"		39.8	55.6
72"		37.9	52.9
75"		37.1	51.8

MULLION LOAD CAPACITY – PSF WITHOUT INTERMEDIATE HORIZONTALS			
NOMINAL DIMS.		MULLION W/O REINF.	MULLION WITH REINF.
WIDTH (W)	FRAME HEIGHT	EXT. (+) INT. (–)	EXT. (+) INT. (–)
24"	102"	–	110.0
30"		–	94.1
36"		–	79.4
42"		–	69.1
48"		–	61.6
54"		–	55.9
60"		–	51.5
66"		–	48.2
72"		–	45.6
75"		–	44.5
24"	108"	–	103.6
30"		–	83.6
36"		–	70.5
42"		–	61.2
48"		–	54.4
54"		–	49.3
60"		–	45.3
66"		–	42.2
72"		–	39.8
75"		–	38.8
24"	114"	–	92.9
30"		–	74.9
36"		–	63.0
42"		–	54.7
48"		–	48.5
54"		–	43.8
60"		–	40.2
66"		–	37.4
72"		–	35.1
75"		–	34.1
24"	120"	–	83.7
30"		–	67.4
36"		–	56.7
42"		–	49.1
48"		–	43.5
54"		–	39.3
60"		–	35.9
66"		–	33.3
72"		–	31.2

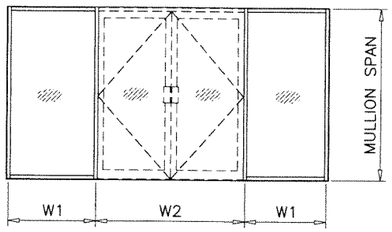


$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$

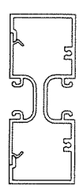




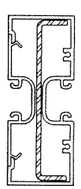
$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$



$$\text{WIDTH (W)} = \frac{W1}{2} + \frac{W2}{4}$$



MULLION W/O REINF.

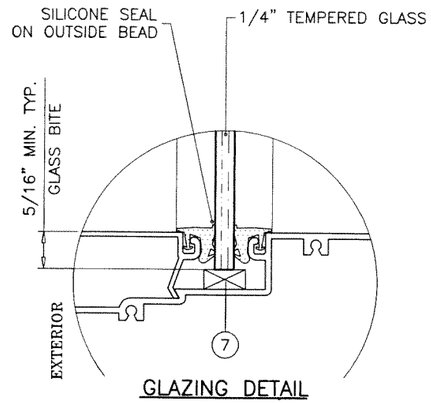


MULLION WITH REINF.

Ix IN^4	Sx IN^3
3.2423	1.441

	Ix IN^4	Sx IN^3
ALUMINUM	3.243	1.441
STEEL	1.317	.620
TOTAL Ix ALUM + Ix STL X 2.9	7.0623	

LOADS SHOWN IN CHARTS ARE FOR INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS NOT REQUIRED. LIMIT EXTERIOR LOADS TO +72.0 PSF FOR INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS REQUIRED.



GLAZING DETAIL

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

PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. 25-0915.06
Expiration Date: 12/04/2029
By: Manuel Perez
Miami-Dade Product Control

SEP 15 2025

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\97-38-WC

SERIES 4500 ALUM FLUSH GLAZED SYSTEM (N.I.)

V & V Commercial LLC
14150 N.W 56th Court, Suite #600
Opa-Locka, FL. 33054
Tel. (305) 888-4151 Fax. (305) 888-1042

revisions:			
no	date	by	description
F	06.11.14		NO CHANGE THIS SHEET
G	01.25.18		UPDATED TO 2017 FBC
H	12.28.20		UPDATED TO 2020 FBC
I	07.28.23		NO CHANGE THIS SHEET
J	09.04.25		MANUF. NAME & ADDRESS REV.

date: 10-15-97
scale: –
dr. by: TARIQ
chk. by:

drawing no. 97–38

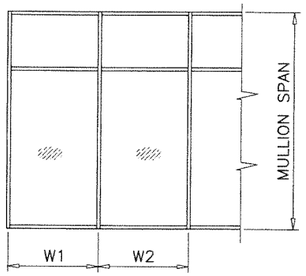
sheet 2 of 7

MULLION LOAD CAPACITY – PSF WITH INTERMEDIATE HORIZONTALS

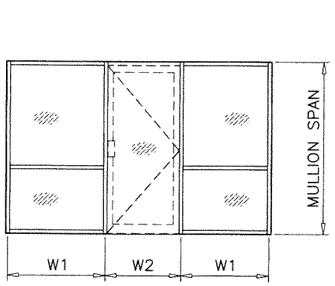
NOMINAL DIMS.		MULLION W/O REINF.	MULLION WITH REINF.
WIDTH (W)	FRAME HEIGHT	EXT. (+) INT. (–)	EXT. (+) INT. (–)
24"	72"	110.0	110.0
30"		110.0	110.0
36"		109.5	110.0
42"		93.8	110.0
48"		82.1	110.0
54"		73.0	102.4
60"		65.7	92.1
66"		59.7	83.8
72"		54.7	76.8
75"		52.5	73.7
24"	78"	110.0	110.0
30"		110.0	110.0
36"		93.3	110.0
42"		80.0	110.0
48"		70.0	98.1
54"		62.2	87.2
60"		56.0	78.5
66"		50.9	71.4
72"		46.6	65.4
75"		44.8	62.8
24"	84"	110.0	110.0
30"		96.5	110.0
36"		80.4	110.0
42"		68.9	96.7
48"		60.3	84.6
54"		53.6	75.2
60"		48.3	67.7
66"		43.9	61.5
72"		40.2	56.4
75"		38.6	54.2
24"	90"	105.1	110.0
30"		84.1	110.0
36"		70.1	98.3
42"		60.1	84.2
48"		52.5	73.7
54"		46.7	65.5
60"		42.0	59.0
66"		38.2	53.6
72"		35.0	49.1
75"		35.0	49.1
24"	96"	92.4	110.0
30"		73.9	103.7
36"		61.6	86.4
42"		52.8	74.0
48"		46.2	64.8
54"		41.1	57.6
60"		36.9	51.8
66"		33.6	47.1
72"		30.8	43.2
75"		29.6	41.5

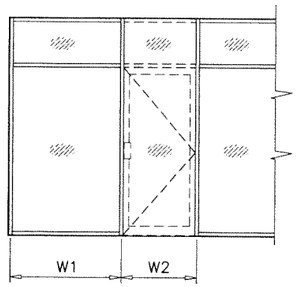
MULLION LOAD CAPACITY – PSF WITH INTERMEDIATE HORIZONTALS

NOMINAL DIMS.		MULLION W/O REINF.	MULLION WITH REINF.
WIDTH (W)	FRAME HEIGHT	EXT. (+) INT. (–)	EXT. (+) INT. (–)
24"	102"	–	110.0
30"		–	91.8
36"		–	76.5
42"		–	65.6
48"		–	57.4
54"		–	51.0
60"		–	45.9
66"		–	41.7
72"		–	38.3
75"		–	36.7
24"	108"	–	102.4
30"		–	81.9
36"		–	68.2
42"		–	58.5
48"		–	51.2
54"		–	45.5
60"		–	40.9
66"		–	37.2
72"		–	34.1
75"		–	32.8
24"	114"	–	91.9
30"		–	73.5
36"		–	61.3
42"		–	52.5
48"		–	45.9
54"		–	40.8
60"		–	36.8
66"		–	33.4
72"		–	30.6
75"		–	29.4
24"	120"	–	82.9
30"		–	66.3
36"		–	55.3
42"		–	47.4
48"		–	41.5
54"		–	36.9
60"		–	33.2
66"		–	30.2
72"		–	27.6

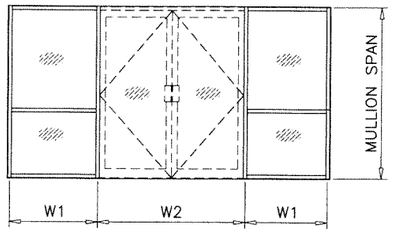


$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$

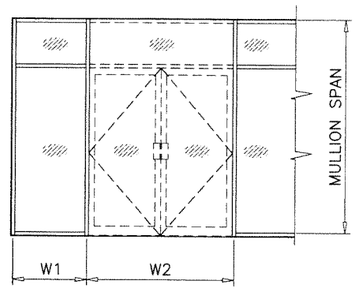




$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$

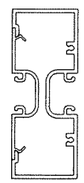


$$\text{WIDTH (W)} = \frac{W1}{2} + \frac{W2}{4}$$



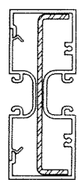
$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$

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



MULLION
W/O REINF.

Ix IN^4	Sx IN^3
3.2423	1.441



MULLION
WITH REINF.

	Ix IN^4	Sx IN^3
ALUMINUM	3.243	1.441
STEEL	1.317	.620
TOTAL Ix ALUM + Ix STL X 2.9	7.0623	

LOADS SHOWN IN CHARTS ARE FOR INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS NOT REQUIRED.
LIMIT EXTERIOR LOADS TO +72.0 PSF FOR INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS REQUIRED.

PRODUCT REVISED
As complying with the Florida Building Code
NOA–No. 25-0915.06
Expiration Date: 12/04/2029
By: Manuel Perez
Miami–Dade Product Control

SEP 15 2025

JALAL FAROOQ LICENSE No. 61223 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\97–38–VVC

SERIES 4500 ALUM FLUSH GLAZED SYSTEM (N.I.)

V & V Commercial LLC
14150 N.W 56th Court, Suite #600
Opa–Locka, FL. 33054
Tel. (305) 888–4151 Fax. (305) 888–1042

revisions:			
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date: 10–15–97
scale: –
dr. by: TARIQ
chk. by:

drawing no. 97–38

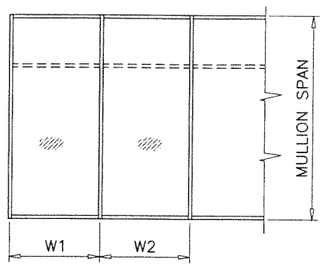
sheet 3 of 7

ANCHOR LOAD CAPACITY – PSF
WITH OR WITHOUT INTERMEDIATE HORIZONTALS
EXT.(+) & INT.(–)

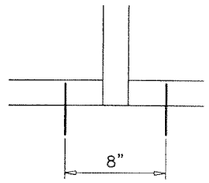
NOMINAL DIMS.		ANCHORS TYPE 'A'		ANCHORS TYPES 'B' & 'C'	
WIDTH (W)	FRAME HEIGHT	A1	A2	B1/C1	B2/C2
24"	72"	91.2	110.0	110.0	110.0
30"		76.8	110.0	110.0	110.0
36"		67.6	110.0	105.2	110.0
42"		61.3	110.0	95.5	110.0
48"		57.0	110.0	88.8	110.0
54"		54.0	108.1	84.1	110.0
60"		52.1	104.2	81.1	110.0
66"		51.0	102.0	79.4	110.0
72"		50.7	101.3	78.9	110.0
75"		50.7	101.3	79.0	110.0
24"	78"	82.9	110.0	110.0	110.0
30"		69.5	110.0	108.2	110.0
36"		60.8	110.0	94.7	110.0
42"		54.9	109.7	85.4	110.0
48"		50.7	101.3	78.9	110.0
54"		47.7	95.4	74.2	108.8
60"		45.6	91.2	71.0	104.0
66"		44.2	88.4	68.8	100.8
72"		43.4	86.9	67.6	99.0
75"		43.2	86.5	67.3	98.6
24"	84"	76.0	110.0	110.0	110.0
30"		63.4	110.0	98.8	110.0
36"		55.3	110.0	86.1	110.0
42"		49.6	99.3	77.3	110.0
48"		45.6	91.2	71.0	104.0
54"		42.7	85.3	66.4	97.3
60"		40.5	81.1	63.1	92.4
66"		39.0	78.0	60.7	89.0
72"		38.0	76.0	59.2	86.7
75"		37.7	75.3	58.6	85.9
24"	90"	70.2	110.0	109.2	110.0
30"		58.4	110.0	90.9	110.0
36"		50.7	101.3	78.9	110.0
42"		45.3	90.6	70.6	103.4
48"		41.5	82.9	64.5	94.5
54"		38.6	77.2	60.1	88.0
60"		36.5	73.0	56.8	83.2
66"		34.9	69.8	54.4	79.6
72"		33.8	67.6	52.6	77.0
75"		33.4	66.7	50.0	76.1
24"	96"	65.1	110.0	101.4	110.0
30"		54.0	108.1	84.1	110.0
36"		46.8	93.5	72.8	106.7
42"		41.7	83.4	64.9	95.1
48"		38.0	76.0	59.2	86.7
54"		35.2	70.5	54.9	80.4
60"		33.2	66.3	51.6	75.6
66"		31.6	63.2	49.2	72.0
72"		30.4	60.8	47.3	69.3
75"		29.9	59.9	46.6	68.3

ANCHOR LOAD CAPACITY – PSF
WITH OR WITHOUT INTERMEDIATE HORIZONTALS
EXT.(+) & INT.(–)

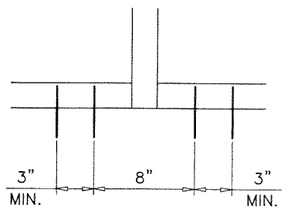
NOMINAL DIMS.		ANCHORS TYPE 'A'		ANCHORS TYPES 'B' & 'C'	
WIDTH (W)	FRAME HEIGHT	A1	A2	B1/C1	B2/C2
24"	102"	60.8	110.0	94.7	110.0
30"		50.3	100.6	78.3	110.0
36"		43.4	86.9	67.6	99.0
42"		38.6	77.2	60.1	88.0
48"		35.1	70.2	54.6	80.0
54"		32.4	64.9	50.5	74.0
60"		30.4	60.8	47.3	69.3
66"		28.8	57.7	44.9	65.8
72"		27.6	55.3	43.0	63.0
75"		27.1	54.3	42.3	61.9
24"	108"	57.0	110.0	88.8	110.0
30"		47.1	94.1	73.3	107.4
36"		40.5	81.1	63.1	92.4
42"		35.9	71.9	56.0	82.0
48"		32.6	65.1	50.7	74.3
54"		30.0	60.0	46.7	68.5
60"		28.1	56.1	43.7	64.0
66"		26.5	53.1	41.3	60.5
72"		25.3	50.7	39.4	57.8
75"		24.8	49.7	38.7	56.6
24"	114"	53.6	107.3	83.5	110.0
30"		44.2	88.4	68.8	100.8
36"		38.0	76.0	59.2	86.7
42"		33.6	67.2	52.4	76.7
48"		30.4	60.8	47.3	69.3
54"		28.0	55.9	43.5	63.8
60"		26.1	52.1	40.6	59.4
66"		24.6	49.1	38.2	56.0
72"		23.4	46.8	36.4	53.3
75"		22.9	45.8	35.6	52.2
24"	120"	50.7	101.3	78.9	110.0
30"		41.7	83.4	64.9	95.1
36"		35.8	71.5	55.7	81.6
42"		31.6	63.2	49.2	72.0
48"		28.5	57.0	44.4	65.0
54"		26.2	52.3	40.7	59.6
60"		24.3	48.6	37.9	55.5
66"		22.9	45.7	35.6	52.2
72"		21.7	43.4	33.8	49.5



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



A1, B1, C1



A2, B2, C2

ANCHORS TYPES: SEE SHEET 5 FOR DESCRIPTION

A1 = (1) ANCHORS TYPE 'A' AT EACH SIDE OF MULLION
A2 = (2) ANCHORS TYPE 'A' AT EACH SIDE OF MULLION

B1 = (1) ANCHORS TYPE 'B' AT EACH SIDE OF MULLION
B2 = (2) ANCHORS TYPE 'B' AT EACH SIDE OF MULLION

C1 = (1) ANCHORS TYPE 'C' AT EACH SIDE OF MULLION
C2 = (2) ANCHORS TYPE 'C' AT EACH SIDE OF MULLION

ALL OTHER ANCHORS TO BE SPACED AS PER ELEVATION.

PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. 25-0915.06
Expiration Date: 12/04/2029
By: Manuel Perez
Miami-Dade Product Control

SEP 15 2025

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\97-38-VVC

SERIES 4500 ALUM FLUSH GLAZED SYSTEM (N.I.)

V & V Commercial LLC
14150 N.W 56th Court, Suite #600
Opa-Locka, FL. 33054
Tel. (305) 888-1042 Fax. (305) 888-4151

revisions:			
no	date	by	description
F	06.11.14		NO CHANGE THIS SHEET
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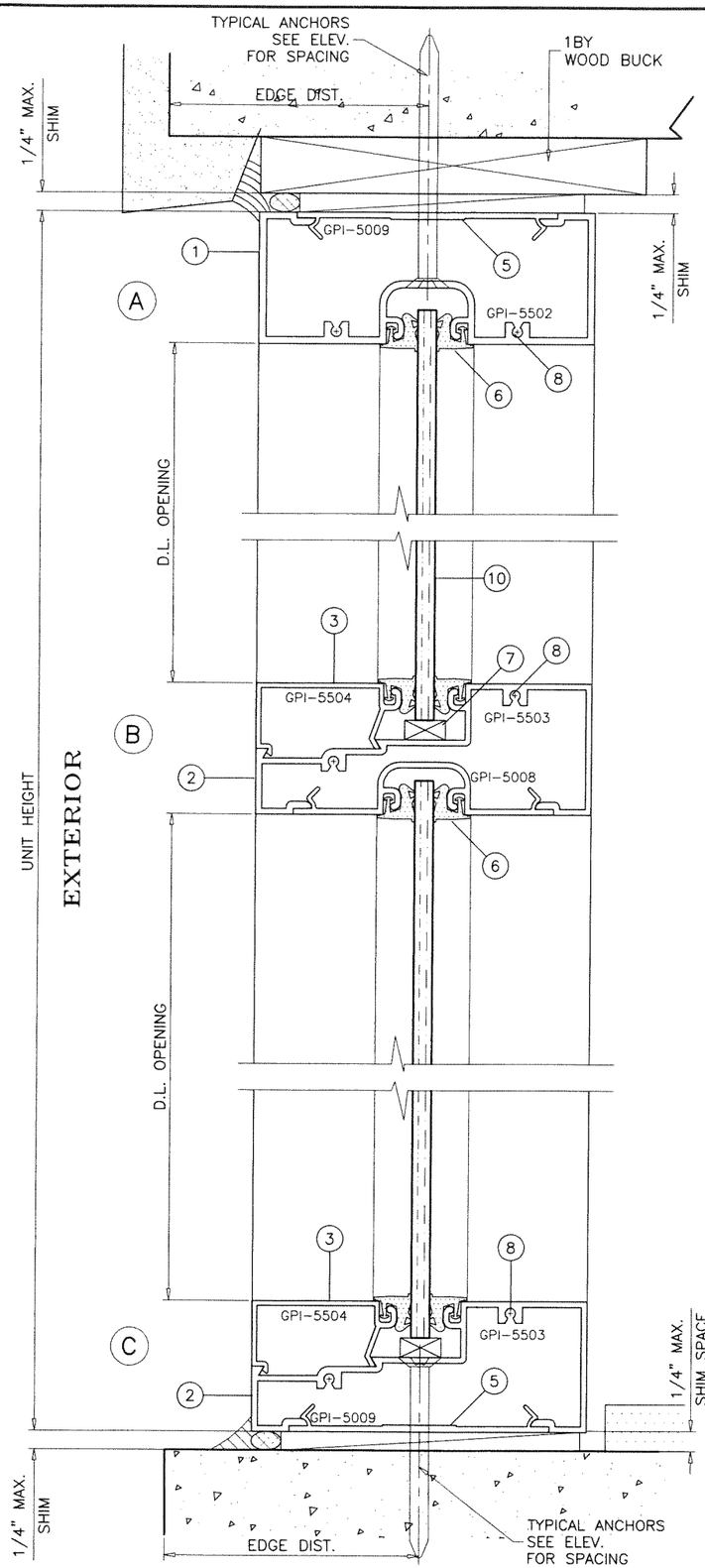
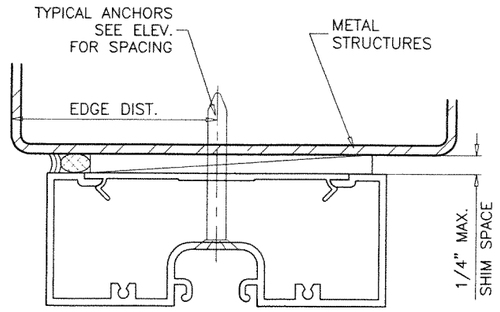
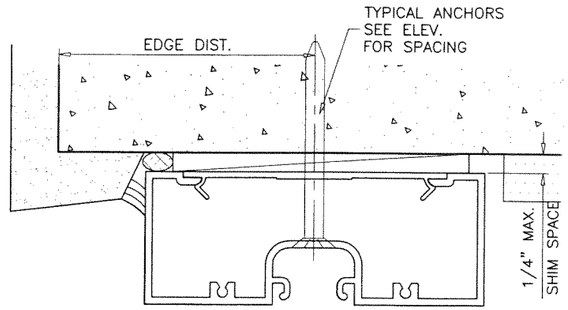
date: 10-15-97
scale: –
dr. by: TARIQ
chk. by:

drawing no. 97-38

sheet 4 of 7







WOOD BUCKS AND METAL STRUCTURES NOT BY 'V&V COMMERCIAL' 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 'DEWALT' (Fu=164 KSI, Fy=148 KSI)
INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
1–1/2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)
THRU 1BY BUCKS INTO CONC. OR BLOCKS
1–1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
1–1/4" MIN. EMBED INTO BLOCKS (JAMBS)

TYPE 'B'– 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)
DIRECTLY INTO CONCRETE OR BLOCKS
1–3/4" 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 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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NOA–No. 25-0915.06
Expiration Date: 12/04/2029
By: Manuel Perez
Miami–Dade Product Control

SEP 15 2025

SEALANTS:

GLAZING BEAD TO FRAME, MULLION AND FRAME SEAMS AND ALL FRAME CORNERS SEALED WITH CLEAR/ALUM COLORED SILICONE 'SCHNEE MOREHEAD 5504'.

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

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STORE\97–38–WVC

SERIES 4500 ALUM FLUSH GLAZED SYSTEM (N.I.)

V & V Commercial LLC
14150 N.W 56th Court, Suite #600
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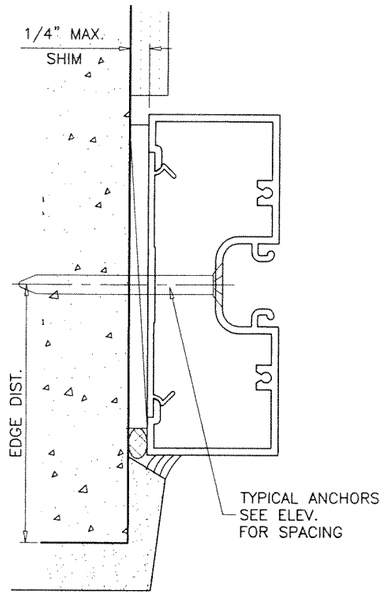
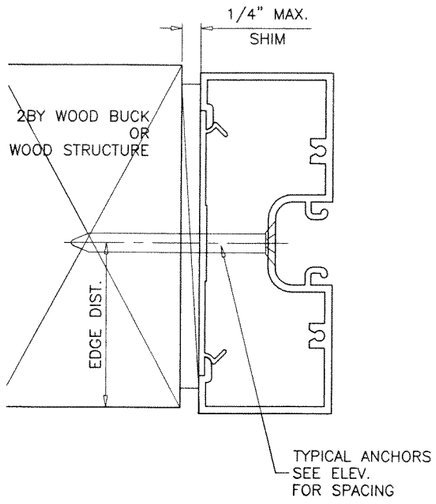
chk. by:

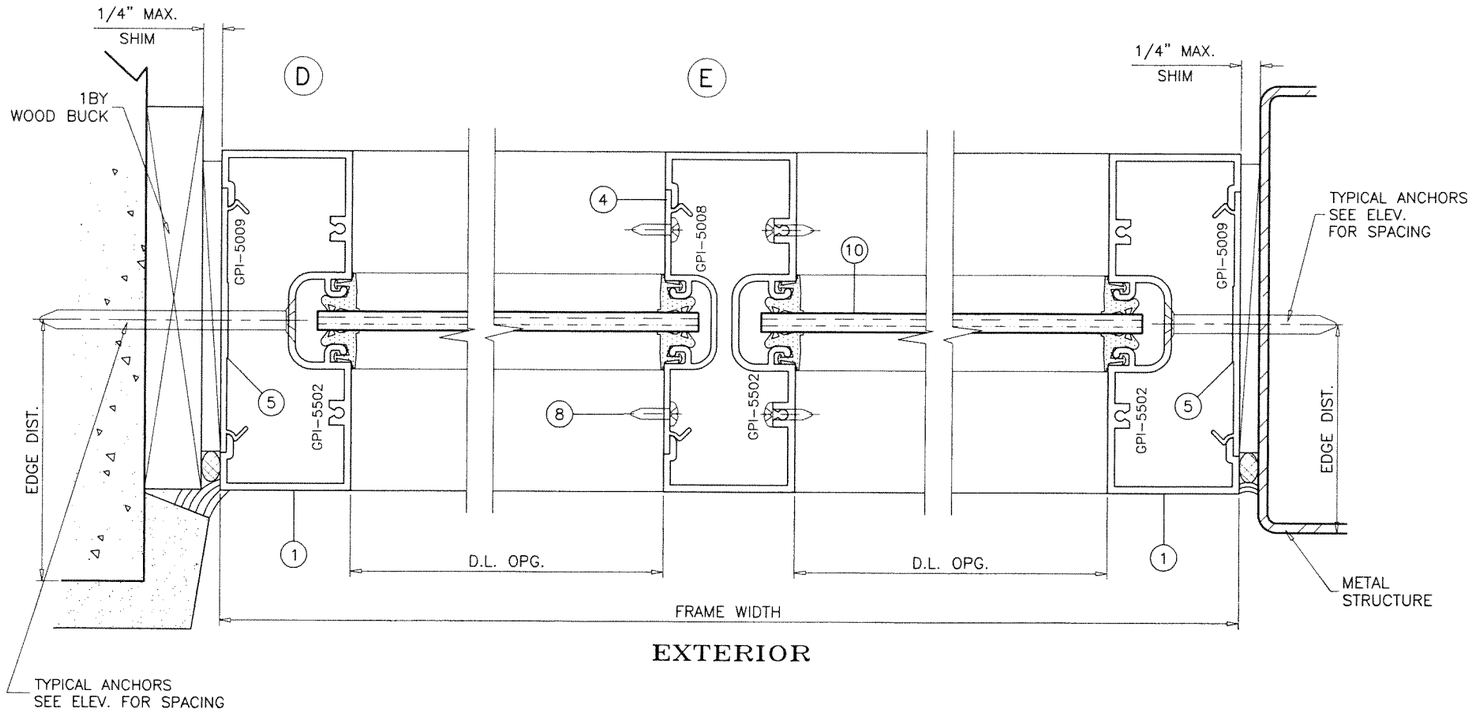
drawing no. 97–38

sheet 5 of 7

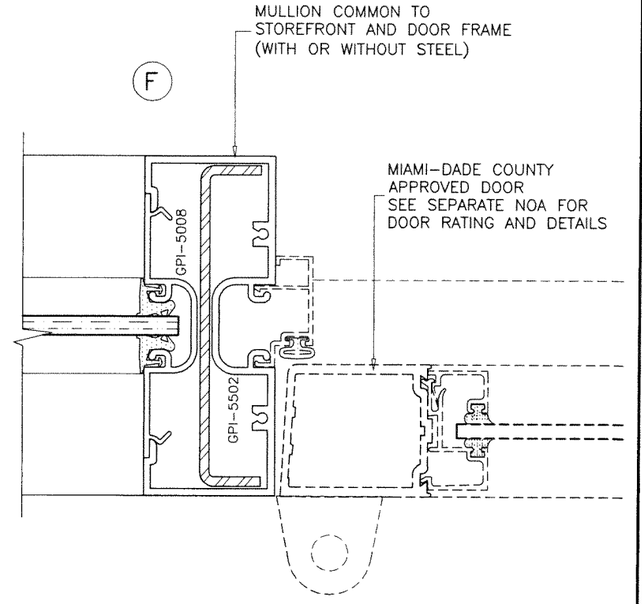




ITEM #	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	GPI-5502	AS REQD.	OPEN BACK HEAD/JAMB/MULL	6063-T6	-
2	GPI-5503	AS REQD.	FRAME SILL	6063-T6	-
3	GPI-5504	AS REQD.	GLASS STOP	6063-T5	-
4	GPI-5008	AS REQD.	POCKET FILLER	6063-T6	-
5	GPI-5009	AS REQD.	FLAT FILLER	6063-T6	-
6	-	AS REQD.	GLAZING GASKET	NEOPRENE	-
7		2/ LITE	SETTING BLOCK	EPDM	DUROMETER 87±5 SHORE A
8	#10 X 1" SMS	2/ CORNER	FRAME ASSEMBLY SCREWS	-	-
9	-	AS REQD.	REINFORCING CHANNEL	STEEL	5/8" X 4-1/4" X 5/8" X 1/8" TH.
10	-	-	1/4" TEMPERED GLASS	-	-



EXTERIOR



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Miami-Dade Product Control

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STORE\97-38-WC

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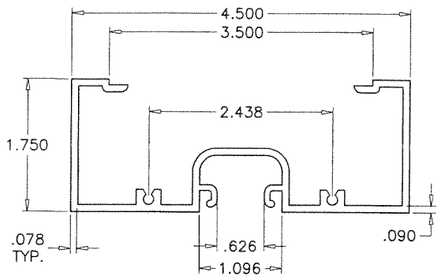
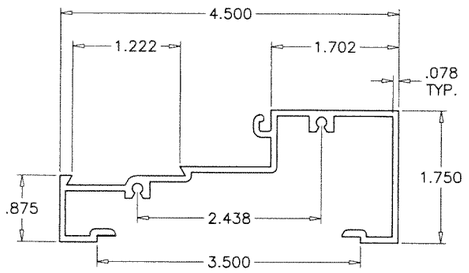
chk. by:

drawing no. 97-38

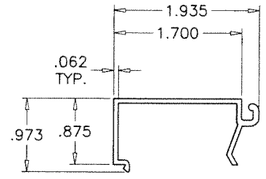
sheet 6 of 7



GPI-5502
6063-T6



GPI-5503
6063-T6



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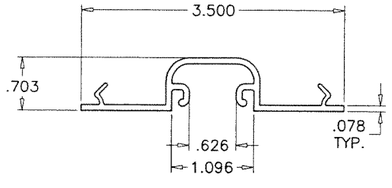
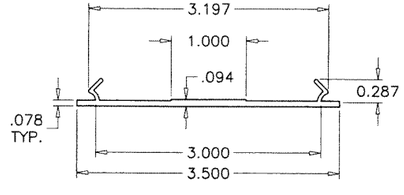
6063-T5



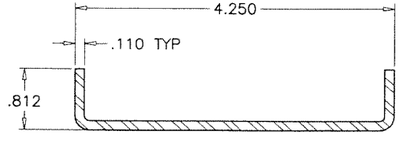
GPI-5008
6063-T6

HARDNESS = 71±5 SHORE A
TENSILE STRENGTH = 1429 PSI
ELONGATION AT BREAK = 295%
TEAR STRENGTH = 221 PPI
SPECIFIC GRAVITY = 1.21

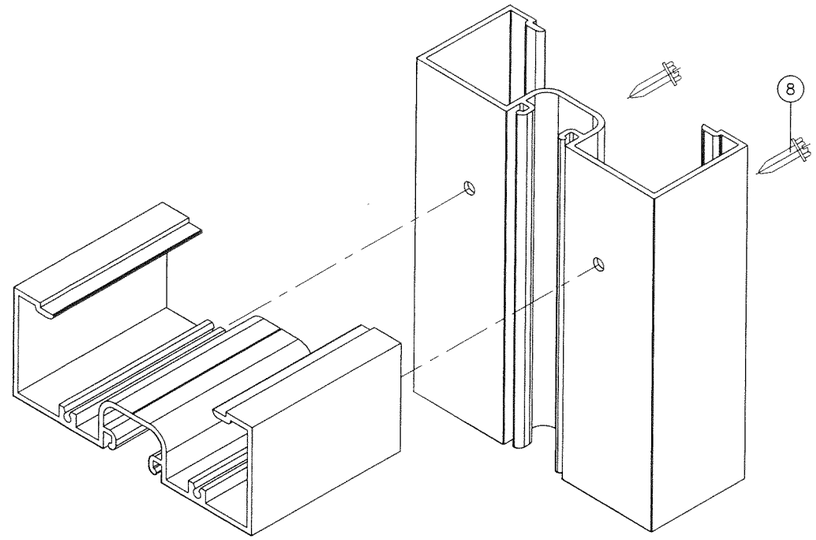
GLAZING GASKET
SCALE=2:1



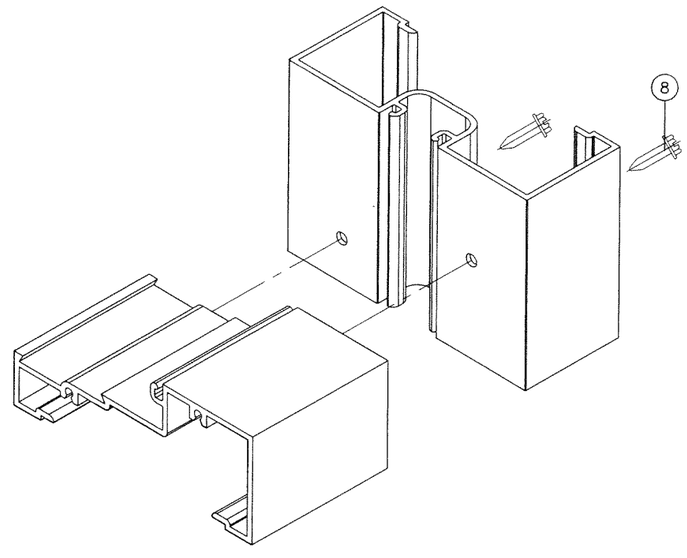
GPI-5009
6063-T6



STEEL CHANNEL REINFORCEMENT



FRAME CORNERS



PRODUCT REVISED
As complying with the Florida Building Code
NOA-No. 25-0915.06
Expiration Date: 12/04/2029
By: Manuel Perez
Miami-Dade Product Control

SEP 15 2025

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\97-38-VVC

SERIES 4500 ALUM FLUSH GLAZED SYSTEM (N.I.)

V & V Commercial LLC
14150 N.W 56th Court, Suite #600
Opa-Locka, FL. 33054
Tel. (305) 888-4151 Fax. (305) 888-1042

revisions:

no	date	by	description
F	06.11.14		NO CHANGE THIS SHEET
G	01.25.18		UPDATED TO 2017 FBC
H	12.28.20		UPDATED TO 2020 FBC
I	07.28.23		NO CHANGE THIS SHEET
J	09.04.25		MANUF. NAME & ADDRESS REV.

date: 10-15-97
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:

drawing no. 97-38

sheet 7 of 7