

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

NOTICE OF ACCEPTANCE (NOA)

11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599

PRODUCT CONTROL SECTION

www.miamidade.gov/economy

MIAMI-DADE COUNTY

E.S. Windows, LLC 10653 NE Quaybridge Ct. Miami, Fl.33138

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 "ES-6500 Ultra" Aluminum Sliding Glass Doors w/ reinforcements-LMI

APPROVAL DOCUMENT: Drawing No. **W14-13 Rev G**, titled "ES-6500 Ultra Alum Sliding Glass Door (LMI)", sheets 1 through 13 of 13, prepared by Al-Farooq Corporation, dated 04-07-14 and last revised on SEP 15, 2023, signed and sealed by Jalal Farooq, P.E., bearing the Miami-Dade County Product Control Renewal stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large Missile Impact Resistant Limitations:

- 1. See Design Pressures (DP) VS reinforcements & glazing options charts in sheet <u>1</u>. See Head anchors capacity charts in sheet <u>4</u> with sill anchor note, secured jambs (Elev. Sheet <u>2</u>). Also see unsecured <u>free</u> jambs (Elev. Sheet <u>3</u>) anchor capacity charts Head/sill, free jamb anchor in sheet <u>4</u> and free jamb capacity in sheet <u>11</u> w/wo jamb reinforcements. Lower DP shall control from the charts for the entire system.
- 2. (4) Panels or less configured options (see sheet $\underline{5}$), not to exceed tested frame/panel area and tested panel height.
- 3. See sheet <u>5</u>, for fixed panel arrangement using alum clip item M-29 (top/bottom), threshold cover item #E-11 and head cover item #E-18.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, Barranquilla, Columbia and series and following statement: "Miami-Dade County Product Control Approved", 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 & renews NOA # 20-1118.11 consists of this page 1 and evidence pages E-1, E-2, E-3 and E-4, as well as approval document mentioned above.

The submitted documentation was reviewed by Ishaq I. Chanda, P.E.

MIAMI-DADE COUNTY
APPROVED

Ishag 1. Chands

NOA No. 23-0918.03 Expiration Date: September 19, 2028 Approval Date: November 22, 2023

Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. Evidence submitted in previous files

A. DRAWINGS

- 1. Manufacturer's die drawings and sections.
- 2. Drawing No. **W14-13**, titled "ES-6500 Ultra Alum Sliding Glass Door (LMI)", sheets 1 through 13 of 13, prepared by Al-Farooq Corporation, dated APR 09, 2015, signed and sealed by Javad Ahmad, P.E.

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) Large Missile Impact Test per FBC, TAS 201-94
 - 6) Cyclic Wind Pressure Loading per FBC, TAS 203-94
 - 7) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94

Along with marked-up drawings and installation diagram of OXXO aluminum SGD, prepared by Fenestration Testing Laboratories, Test Report No. FTL- 7651 (FTL13074), dated 02/04/14, signed and sealed by Idalmis Ortega, P.E.

- 2. Additional Referenced 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) Large Missile Impact Test per FBC, TAS 201-94
 - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
 - 6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94

along with marked-up drawings and installation diagram of OXXX aluminum sliding glass door, prepared by, prepared by Fenestration Testing Laboratories, Test Report No. FTL- 7130 (FTL 12093), dated 04/05/13 and FTL- 6990 (FTL 12051) dated 08/06/12, both signed and sealed by Marlin D. Brinson, P.E.

C. CALCULATIONS

- 1. Anchor verification calculations and structural analysis, complying with FBC-2014, prepared by Al Farooq Corporation, dated JUL 15, 2014, NOV 12, 2014, 01/16/15 and last revised on 04/09/15, signed and sealed by Javad Ahmad, P.E.
- 2. Engineering structural analysis of reinforced rails wider than 48", prepared by Al Farooq Corporation, dated NOV 12, 2012, signed and sealed by Javad Ahmad, P.E.
- 3. Glazing complies w/ ASTME-1300-02, -04 & -09.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

Notice of Acceptance No. **11-0624.02** issued to E.I. DuPont De Nemours & Co., Inc. for their "**DuPont Sentryglas** ® **Interlayer**", expiring on 01/14/17.

Ishaq I. Chands

Ishaq I. Chanda, P.E. Product Control Unit Supervisor NOA No. 23-0918.03

Expiration Date: September 19, 2028 Approval Date: November 22, 2023

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS

- 1. Statement letter of conformance to FBC 2014(5th edition) and letter of no financial interest, prepared by Al Farooq Corporation, dated 07/15/14 and 04/09/15, signed and sealed by Javad Ahmad, P.E.
- 2. Lab compliance as part of the above referenced test report.
- 3. Statement letter of clarification via e-mail dated 01/20/15 for test report FTL-7651, issued by Fenestration testing lab, signed by Ms. Iliana Sanchez.
- 4. ES Windows Distribution agreement -Energia Solar, S.A. and ES Windows, LLC, dated 09/12/13, signed by Ms. Adriana Montoya, Manager and Andres Chamorro, General manager respectively on behalf of the companies.

G. OTHER

- 1. This NOA revises NOA # 14-0527.03, expiring SEP 19, 2018.
- 2. Test proposals prepared by Al-Farooq Corp. and approved by RER dated 04/11/13 & 01/21/15.
- 3. Technical cut sheet data for EPDM, rubber compound by Solucionesencaucho, Columbia.

2. Evidence submitted under previous approval.

A. DRAWINGS

1. Drawing No. **W14-13 Rev F,** titled "ES-6500 Ultra Alum Sliding Glass Door (LMI)", sheets 1 through 13 of 13, prepared by Al-Farooq Corporation, dated 04-07-14 and last revised on NOV 10, 2020, signed and sealed by Jalal Farooq, P.E.

B. Test

1. None.

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC-2017 (6th Edition), prepared by Al Farooq Corporation, dated APR 23, 2018, signed and sealed by Javad Ahmad, P.E.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **17-0808.02** issued to Kuraray America, Inc. (Former E.I. DuPont De Nemours) for the "**Sentry Glass ® clear & white interlayer**", expiring on 07/04/23.

F. STATEMENTS

1. Statement letter of conformance to FBC 2017 (6th Edition) and "No financial interest" dated 04/23/18, prepared by the manufacturer, signed and sealed by Thomas J. Sotos, P.E.

G. OTHER

1. This NOA revises & renews NOA # 15-0413.08, expiring 06/05/23.

Ishaq I. Chanda, P.E.

Product Control Unit Supervisor NOA No. 23-0918.03

Expiration Date: September 19, 2028 Approval Date: November 22, 2023

E.S. Windows, LLC

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

3. Evidence submitted under previous approval

A. DRAWINGS

1. Drawing No. **W14-13 Rev F**, titled "ES-6500 Ultra Alum Sliding Glass Door (LMI)", sheets 1 through 13 of 13, prepared by Al-Farooq Corporation, dated 04-07-14 and last revised on NOV 10, 2020, signed and sealed by Jalal Farooq, P.E.

B. TESTS

1. None.

C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC 7th Edition** (2020), dated 11/10/20, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **17-0808.02** issued to Kuraray America, Inc. (former E.I. DuPont DE Nemours & Co., Inc.) for the "**Sentry Glass** ® **Interlayer**", expiring on 07/4/23.

D. STATEMENTS

- 1. Statement letter of conformance, complying with **FBC** 7th **Edition (2020)**, dated 11/10/20, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
- 2. Distribution agreement between Energia Solar, S.A.-ES Windows and ES Windows, LLC, dtd 08/03/15, signed by Ms. Carla Garcia (MGR) and Andres Chamorro (Gen. MGR) respectively (original copy in various ES approved NOA(s) files.

G. OTHER

1. This NOA revises NOA No. 18-0426.28, expiring 09/19/23.

Ishaq I. Chands

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0918.03
Expiration Date: September 19, 2028

Approval Date: November 22, 2023

E.S. Windows, LLC

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

4. New Evidence submitted

A. DRAWINGS

1. Drawing No. **W14-13 Rev G**, titled "ES-6500 Ultra Alum Sliding Glass Door (LMI)", sheets 1 through 13 of 13, prepared by Al-Farooq Corporation, dated 04-07-14 and last revised on SEP 15, 2023, 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. **23-0717.30** issued to Kuraray America, Inc. (former E.I. DuPont DE Nemours & Co., Inc.) for the "Sentry Glass ® Interlayer", expiring on 07/4/28.

E. STATEMENTS

- 1. Statement letter of conformance, complying with **FBC 8th Edition (2023)**, dated 09/15/23, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E
- 2. Statement letter of conformance, complying with **FBC** 7th **Edition (2020)**, dated 11/10/20, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E. (submitted under previous approval)
- 3. Distribution agreement between Energia Solar, S.A.-ES Windows and ES Windows, LLC, dtd 08/03/15, signed by Ms. Carla Garcia (MGR) and Andres Chamorro (Gen. MGR) respectively (original copy in various ES approved NOA(s) files. (submitted under previous approval)

G. OTHER

1. This NOA revises & renews NOA No. 20-1118.11 and updates to FBC 2023, expiring 09/19/28.

Ishaq I. Chands

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 23-0918.03
Expiration Date: September 19, 2028

Approval Date: November 22, 2023

(,	DESIGN I	LOAD CAF			
		GLA	SS TYPES	'A' & 'A1	
				H REINFORCIN	
AVERAGE PANEL WIDTH	DOOR FRAME HEIGHT	TOP & BO	TTOM RAIL REINF.	TOP & BO WITH	TTOM RAIL REINF.
INCHES	INCHES	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
36		120.0	125.0	120.0	125.0
42		120.0	125.0	120.0	125.0
48	126"	120.0	125.0	120.0	125.0
50	126	115.0	120.0	120.0	125.0
52		111.0	115.0	120.0	125.0
54		106.0	111.0	120.0	125.0
36		120.0	125.0	120.0	125.0
42		120.0	125.0	120.0	125.0
48	132"	120.0	125.0	120.0	125.0
50		115.0	120.0	120.0	125.0
52		111.0	115.0	120.0	125.0
36		120.0	125.0	120.0	125.0
42	138"	120.0	125.0	120.0	125.0
48	136	120.0	125.0	120.0	125.0
50		115.0	120.0	120.0	125.0
36		120.0	125.0	120.0	125.0
42	144"	120.0	125.0	120.0	125.0
48		120.0	125.0	120.0	125.0

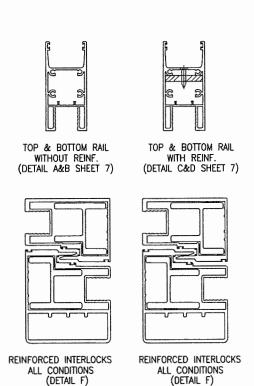


CHART ABOVE TO BE USED AS PER INSTRUCTIONS SHOWN ON SHEETS 2 & 3.

DOOR HEIGHT AND WIDTH SIZE MUST COMPLY EGRESS REQUIREMENTS PER FBC AS REQUIRED.

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

SERIES ES-6500 ULTRA ALUMINUM SLIDING GLASS DOOR

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.

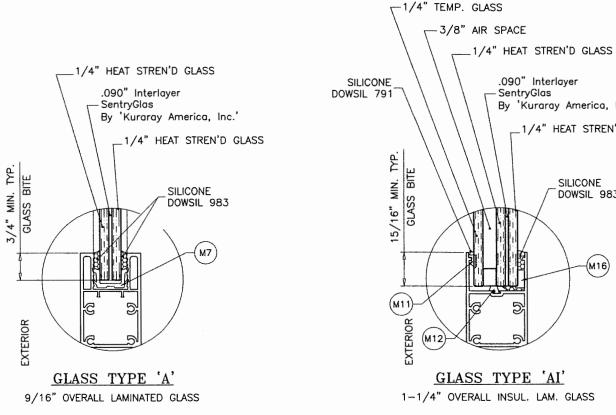
ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

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)'.



GLAZING OPTIONS

PRODUCT RENEWED as complying with the Florida **Building Code** 23-0918.03 NOA-No.

Expiration Date 09/19/2028

Miami-Dade Product Control

3/8" AIR SPACE CONSISTING OF: SPACER:

.090" Interlayer

By 'Kuraray America, Inc.'

_1/4" HEAT STREN'D GLASS

SILICONE

DOWSIL 983

'HELIMA' LOW PROFILE ALUMINUM SPACER BY 'LINGERMANN GMBH' AROUND THE PERIMETER OF THE GLASS. PERIMETER SEALANT: SILICONE

DOWSIL 791 GE 2000

> LAMINATED GLASS INSUL. LAM. GLASS LARGE MISSILE IMPACT

SEP 1 5 2023

ģ drawing no. W14 - 13

sheet 1 of 13

(C.A.N. 305) 262-

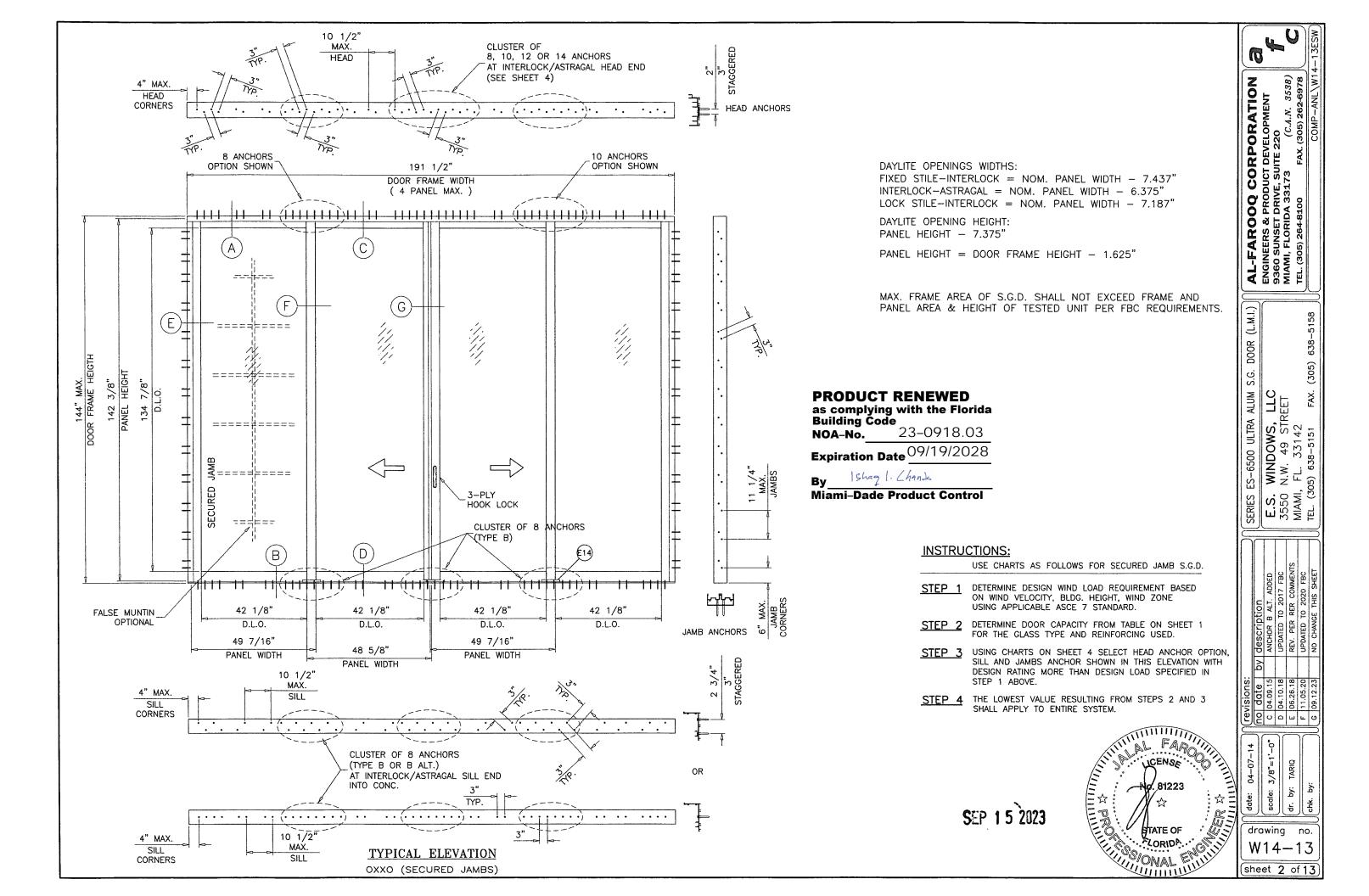
AL-FAROOQ CORPOR/ ENGINEERS & PRODUCT DEVELOP 9360 SUNSET DRIVE, SUITE 220 MIAMI, FLORIDA 33173 (C.A TEL. (305) 264-8100 FAX. (305)

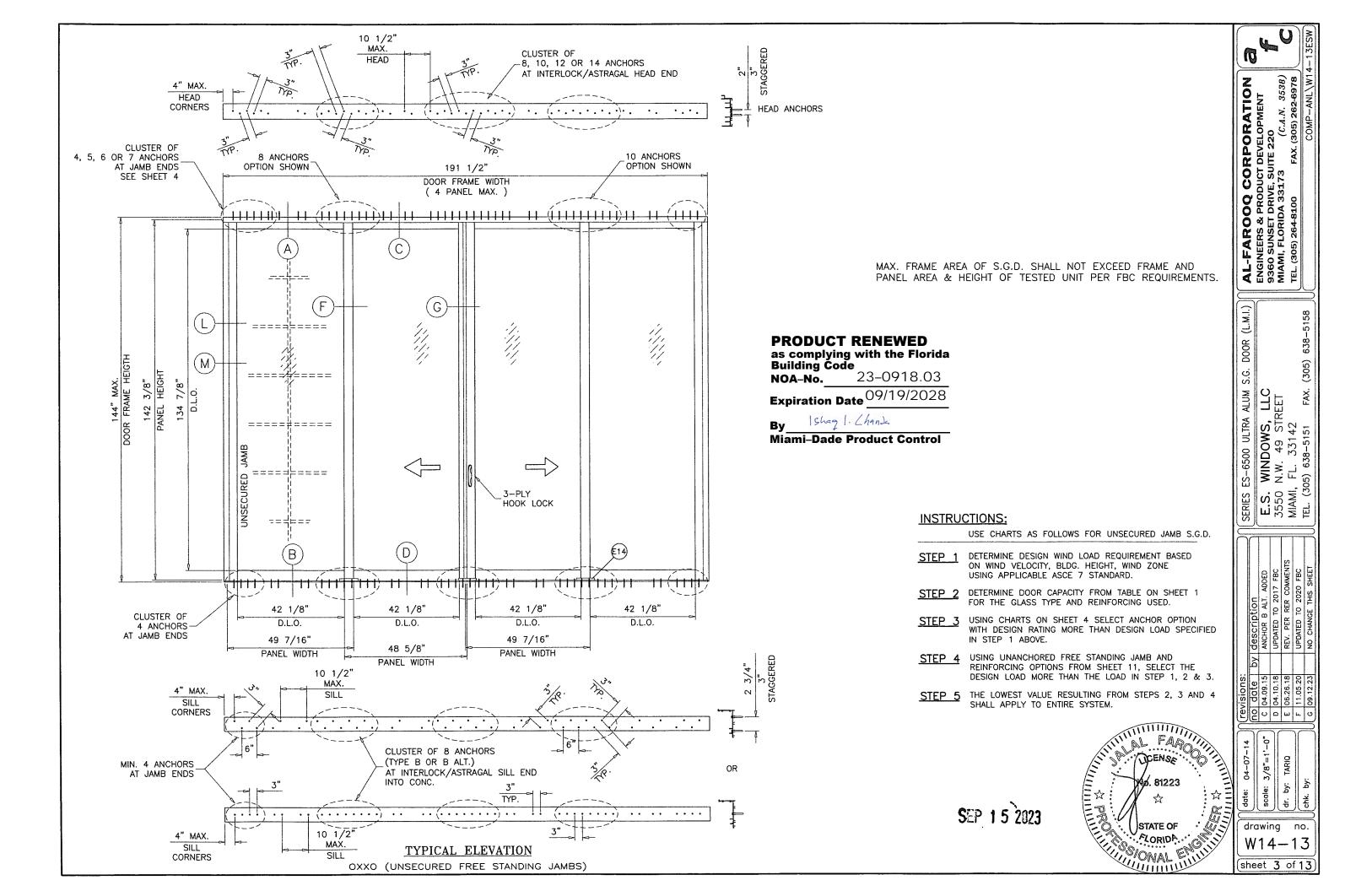
S.G.

ALUM

E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL. (305) 638–5151 FAX.

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





				F	FRAME H	EAD ANCH	OR CAPA	CITY - F	SF (APP	LICABLE 7	O FREE	AND SEC	URED JA	MBS)					
								ANCH	ORS TYP	E 'A' &	'B'							ANCHO	RS 'C'
ANCHOR	TYPE	1/4" M	AX. SHIM		3/8	" MAX. S	SHIM SPA	ACE				1/2"	MAX. S	HIM SPA	CE			3/8" M	AX. SHIM
AVERAGE PANEL WIDTH	DOOR FRAME HEIGHT		HORS AT	1	IORS AT		HORS AT	1	HORS AT		IORS AT ILE ENDS		HORS AT		HORS AT ILE ENDS		HORS AT ILE ENDS		HORS AT TLE ENDS
INCHES	INCHES	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)	EXT. (+)	INT. (-)						
36		120.0	125.0	120.0	125.0	120.0	125.0	120.0	125.0	120.0	121.0	120.0	125.0	120.0	125.0	120.0	125.0	120.0	125.0
42		120.0	125.0	120.0	125.0	120.0	125.0	120.0	125.0	103.7	103.7	120.0	124.5	120.0	125.0	120.0	125.0	120.0	125.0
48	100	120.0	125.0	113.1	113.1	120.0	125.0	120.0	125.0	90.8	90.8	108.9	108.9	120.0	125.0	120.0	125.0	120.0	125.0
50	126	120.0	125.0	108.6	108.6	120.0	125.0	120.0	125.0	87.1	87.1	104.6	104.6	120.0	122.0	120.0	125.0	120.0	125.0
52		120.0	125.0	104.4	104.4	120.0	125.0	120.0	125.0	83.8	83.8	100.5	100.5	117.3	117.3	120.0	125.0	120.0	125.0
54		120.0	125.0	100.5	100.5	120.0	120.6	120.0	125.0	80.7	80.7	96.8	96.8	112.9	112.9	120.0	125.0	120.0	125.0
36		120.0	125.0	120.0	125.0	120.0	125.0	120.0	125.0	115.5	115.5	120.0	125.0	120.0	125.0	120.0	125.0	120.0	125.0
42		120.0	125.0	120.0	123.4	120.0	125.0	120.0	125.0	99.0	99.0	118.8	118.8	120.0	125.0	120.0	125.0	120.0	125.0
48	132	120.0	125.0	108.0	108.0	120.0	125.0	120.0	125.0	86.6	86.6	104.0	104.0	120.0	121.3	120.0	125.0	120.0	125.0
50		120.0	125.0	103.6	103.6	120.0	124.4	120.0	125.0	83.2	83.2	99.8	99.8	116.4	116.4	120.0	125.0	120.0	125.0
52		120.0	125.0	99.7	99.7	119.6	119.6	120.0	125.0	80.0	80.0	96.0	96.0	112.0	112.0	120.0	125.0	120.0	125.0
36		120.0	125.0	120.0	125.0	120.0	125.0	120.0	125.0	110.5	110.5	120.0	125.0	120.0	125.0	120.0	125.0	120.0	125.0
42	138	120.0	125.0	118.0	118.0	120.0	125.0	120.0	125.0	94.7	94.7	113.6	113.6	120.0	125.0	120.0	125.0	120.0	125.0
48	138	120.0	125.0	103.3	103.3	120.0	123.9	120.0	125.0	82.9	82.9	99.4	99.4	116.0	116.0	120.0	125.0	120.0	125.0
50		120.0	125.0	99.1	99.1	119.0	119.0	120.0	125.0	79.6	79.6	95.5	95.5	111.4	111.4	120.0	125.0	120.0	125.0
36		120.0	125.0	120.0	125.0	120.0	125.0	120.0	125.0	105.9	105.9	120.0	125.0	120.0	125.0	120.0	125.0	120.0	125.0
42	144	120.0	125.0	113.1	113.1	120.0	125.0	120.0	125.0	90.8	90.8	108.9	108.9	120.0	125.0	120.0	125.0	120.0	125.0
48		120.0	125.0	99.0	99.0	118.8	118.8	120.0	125.0	79.4	79.4	95.3	95.3	111.2	111.2	120.0	125.0	120.0	125.0
		FREE S	HORS AT TANDING ENDS	FREE S	HORS AT TANDING ENDS	FREE S	IORS AT TANDING ENDS	FREE S	IORS AT TANDING ENDS	FREE S	IORS AT TANDING ENDS	FREE S	IORS AT TANDING ENDS	FREE S	HORS AT TANDING ENDS	FREE S	HORS AT TANDING ENDS	FREE S	HORS AT TANDING ENDS

SEE ELEVATION ON SHEET 3

THESE TABLES APPLY TO ANCHORS AT FRAME HEAD

NOTE: SILL ANCHORS IN CLUSTER OF 8 (INCLUSIVE TO ALL SHIM SPACES) AT INTERLOCK/ASTRAGAL ENDS, AND 4 AT FREE STANDING JAMB ENDS (ALL SIZES) MEET ALL LOAD REQUIREMENTS AND DO NOT REQUIRE SEPARATE TABLES

SEE ELEVATION IN SHEET 2, FOR DOORS WITH SECURED JAMBS WITH ANCHOR SPACING FOR ALL SIZES.

SEE ELEVATION IN SHEET 3, FOR DOORS WITH UNSECURED JAMBS (FREE JAMBS). SEE SHEET 11 FOR JAMB DESIGN CAPACITY WITH REINFORCING USED.

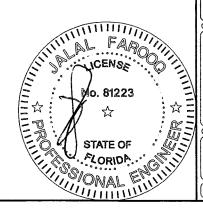
SEE CHARTS IN SHEET 1, FOR DESIGN LOAD CAPACITY FOR DESIRED GLASS SIZE AND REINFORCING USED AT INTERLOCKS AND RAILS (APPLICABLE TO BOOTH SECURED AND UNSECURED (FREE) JAMBS)

LOWER DESIGN PRESSURE FROM DESIGN LOAD CHARTS (SHEET 1), HEAD ANCHOR CHARTS AND SILL ANCHOR NOTE SHEET 4 OR FREE STANDING JAMBS (SHEET 11), CAPACITY CHART SHALL APPLY TO ENTIRE SYSTEM.

PRODUCT RENEWED as complying with the Florida Building Code 23-0918.03 NOA-No.

Expiration Date 09/19/2028

Miami-Dade Product Control



Tevisions

no date

c 04.09.15

D 04.10.18

E 06.26.18

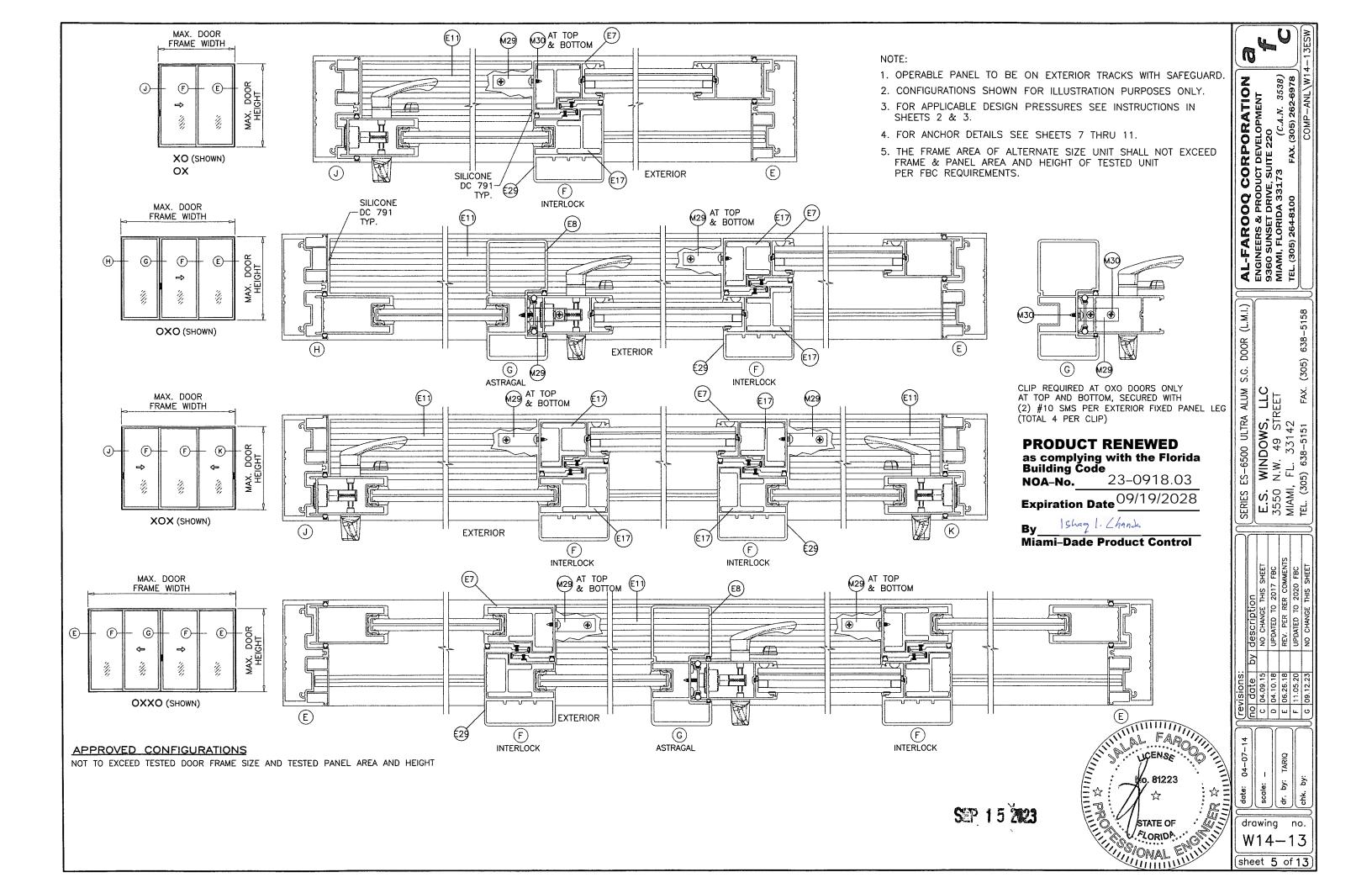
F 11.05.20 W14 - 13

SEP 1 5 2023

SERIES ES-6500 ULTRA ALUM S.G. DI E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL. (305) 638-5151 FAX. (305)

drawing no.

sheet 4 of 13



ITTEM #	D.L.D.M. #	OHAMMA	DECCRIPTION	MARRIDIAN	MANE (CUIDULED /DEMARKS
ITEM #	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
E1	ES-6500-001	1	STANDARD FRAME HEAD	6063-T6	ne-
E2	ES-6500-002	1	FRAME SILL	6063-T6	
E4	ES-6500-004	2	FRAME JAMB	6063-T6	
E5	ES-6500-005	2/ PANEL	TOP AND BOTTOM RAIL (INSUL. LAM. GLASS)	6063-T6	_
E5A	ES-6500-024	2/ PANEL	TOP AND BOTTOM RAIL (LAM. GLASS)	6063-T6	
E6	ES-6500-006	1/ PANEL	LOCK STILE (INSUL. LAM. GLASS)	6063-T6	
E6A	ES-6500-023	1/ PANEL	LOCK STILE (LAM. GLASS)	6063-T6	
E7	ES-6500-007	1/ PANEL	INNER PANEL INTERLOCK STILE (INSUL. LAM. GLASS)	6005-T5	_
E7A	ES-6500-025	1/ PANEL	INNER PANEL INTERLOCK STILE (LAM. GLASS)	6005T5	
E8	ES-6500-025	1	ASTRAGAL STILE (INSUL. LAM. GLASS)	6005-T6	
E8A	ES-6500-031	1	ASTRAGAL STILE (LAM. GLASS)	6005-T5	
E9	ES-6500-009	1	ASTRAGAL ADAPTER	6063-T6	
E10	ES-6500-010	1	ADD-ON TRACK	6063-T6	
E11	ES-6500-011	1	THRESHOLD (LENGTH = OPNG. WIDTH BETWEEN FIXED PANELS)	6063-T6	_
E12	ES-6500-012	2	SNAP-IN JAMB COVER (OPTIONAL)	6063-T5	_
E13	ES-6500-013	1	TRACK INSERT	6063-T6	_
E14	ES-6500-014A	_	RETAINER CLIP, 4" LONG	6063-T6	-
£15	ES-6500-015	AS REQD.	SCREEN RAIL	6063-T6	_
E17	ES-6500-017	AS REQD.	INTERLOCK REINFORCEMENT, FULL PANEL LENGTH	6005-T5	_
E18	ES-6500-018	AS REQD.	HEAD COVER FULL LENGTH	6063-T5	_
E19	-	AS REQD.	INNER INTERLOCK STILE (LAM. GLASS)	6063-T5	-
E22	ES-6011	AS REQD.	SCREW COVER (OPTIONAL)	6063-T6	_
E29	ES-6500-028	1/ PANEL	OUTER PANEL INTERLOCK STILE (INSUL. LAM. GLASS)	6005-T5	-
E29A	ES-6500-030	1/ PANEL	OUTER PANEL INTERLOCK STILE (LAM. GLASS)	6005-T5	_
E30	ES-6500-027	1	SILL SCREW COVER	6063-T5	_
E32	ES-6500-033	2	FIXED PANEL BOTTOM GUIDE	6005-T5	-
E33		AS REQD.	FRAME JAMB ALUMINUM REINFORCING	6063-T6	-
E34	_	AS REQD.	FRAME JAMB STEEL REINFORCING	STEEL	ASTM A36 GRADE B
M1	#12 X 1 1/2"	3/ CORNER	FRAME ASSEMBLY SCREWS	ST. STEEL	P.H. SMS
M2	#10 X 1 1/2"	4/ CORNER	PANEL ASSEMBLY SCREWS	ST. STEEL	P.H. SMS
М3	#8 X 1"	2/ LOCK	LOCK FASTENERS	ST. STEEL	F.H. SMS
M4	#8 X 3/4"	2/ HANDLE	HANDLE SET FASTENERS	ST. STEEL	P.H. SMS
М6	#10 X 1/2"	2/ CLIP	RETAINER CLIP FASTENERS	ST. STEEL	F.H. SMS
M7	ES-6500-G01A	4/ PANEL	GLAZING GASKET (LAM. GLASS)	SILICONE	DUROMETER 65±5 SHORE A, EXTRUSIONES S.A.
М8	E-214	AS REQD.	ASTRAGAL ADAPTER W'STRIPPING	VINYL	THERMOPLASTIC ELASTOMER
M10	ES-8011	AS REQD.	SPACER GASKET	EPDM	DUROMETER 80±5 SHORE A, EXTRUSIONES S.A.
M11	27-445	AS REQD.	GLAZING WEDGE GASKET	EPDM	DUROMETER 75±5 SHORE A, SOLUCIONESENCAUCHO
M12	27-448	AS REQD.	BOTTOM RAIL GLAZING GASKET	EPDM	DUROMETER 68±5 SHORE A, SOLUCIONESENCAUCHO
M13	27-449	AS REQD.	GLAZING GASKET AT TOP RAIL AND STILES	EPDM	DUROMETER 75±5 SHORE A, SOLUCIONESENCAUCHO
M16	1/4" X 1/2"	AS REQD.	GLAZING TAPE (INSUL. LAM. GLASS)	FOAM	
M17	Q300T190	AS REQD.	FABRIC COATED FOAM WEATHERSEAL	POLYETHYLENE	Q-LON
M18	Q200T190	AS REQD.	WEATHERSEAL EXTERIOR	POLYETHYLENE	Q-LON
M19	Q150T270	AS REQD.	INTERLOCK BUMPER	POLYETHYLENE	Q-LON
M20	W223012K	AS REQD.	PILE W'STRIPPING	POLYPROPYLENE	
M21		2/ MOV. PANEL	TANDEM ACETAL WHEELS IN METALLIC HOUSING		_
M22	PS01-1015-00B	1	MORTISE LOCK KEEPER	_	INTERLOCK
M23	PS01-0035-00B	1	TWO POINT 3-PLY HOOK LOCK	_	INTERLOCK
M24	PS01-0016-XXX	1/ MOV. PANEL	HANDLE SET		INTERLOCK
M26	52019	AS REQD.	THRESHOLD W'STRIPPING		AMESBURY
M27	ES-7000 G01	AS REQD.	SILL W'STRIPPING	SILICONE	DUROMETER 60±5 SHORE A
M29	ALU-A-027	_	FIX. PANEL ANGLE, 2" X 2" X 1/8" X 7/8" LONG	6063-T5	HEAD/SILL (FIXED PANEL)
M30	#10 X 1"	4/ CLIP	FIX. PANEL ANGLE FASTENERS		HWH SMS
M32	ES-6500-S01	_	1/4" SPACER FOR JAMB	NYLON	_
М33	ES-6500-034		1/2" SPACER FOR ASTRAGAL	NYLON	_
M35	P6304 AFK	_	ADHESIVE PILE PAD (4" X 1" X 1/2")		ULTRAFAB
м36	_	AS REQD.	TOP & BOTTOM RAIL REINFORCING	6063-T6	1/4" X 1-1/2" X FULL LENGTH
M37	#10 X 1 1/4"	2/ BAR	REINFORCING BAR FASTENERS, AT 6" FROM EACH END	ST. STEEL	F.H. SMS

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0918.03

Expiration Date 09/19/2028

By | Shap | Chank
Miami-Dade Product Control

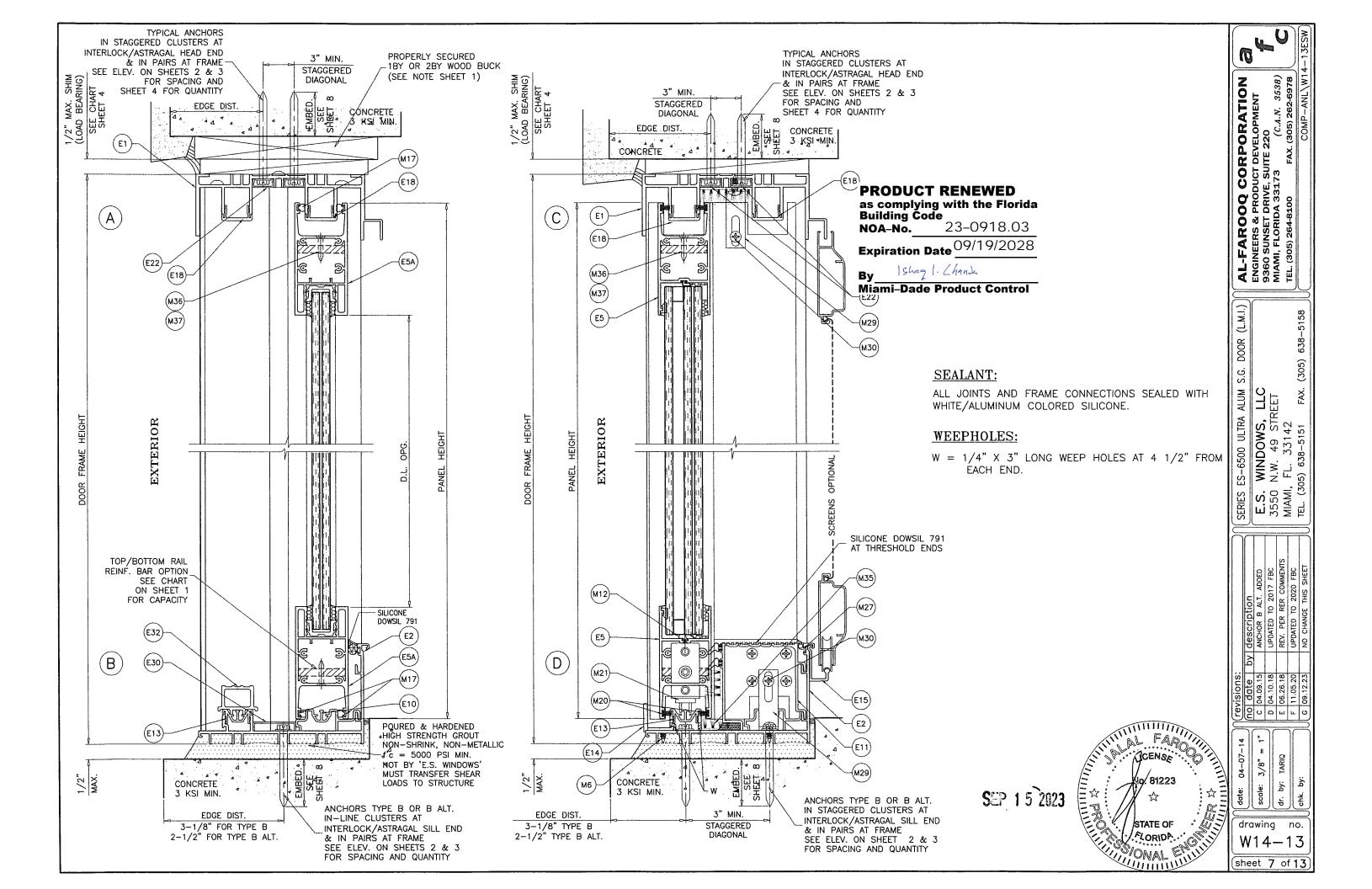
SEP 15 2023



| SERIES ES-6500 ULTRA ALUM S.G. DOOR (L.M.I.) | E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 | TEL. (305) 638-5151 FAX. (305) 638-5158 |

drawing no.

sheet 6 of 13



TYPICAL ANCHORS: SEE ELEV. FOR SPACING

— AT HEAD —

5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI) (1/2" MAX. SHIM)

INTO WOOD STRUCTURES

1-7/8" MIN. PENETRATION INTO WOOD

THRU 1BY OR 2BY WOOD BUCKS INTO CONCRETE

1-1/2" MIN. EMBED INTO CONCRETE

TYPE 'B'- 5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI) (1/2" MAX. SHIM)

DIRECTLY INTO CONCRETE 1-1/2" MIN. EMBED

TYPE 'C'-5/16" DIA. TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS) (3/8" MAX. SHIM)

INTO MIAMI-DADE COUNTY APPROVED MULLIONS

AND

INTO METAL STRUCTURES

(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)

TYPE 'B'- 5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI)

DIRECTLY INTO CONCRETE 1-1/2" MIN. EMBED

TYPE 'B' ALT. - 1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)

DIRECTLY INTO CONCRETE 1-3/4" MIN. EMBED

5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI) (1/2" MAX. SHIM)

INTO WOOD STRUCTURES

1-7/8" MIN. PENETRATION INTO WOOD

THRU 1BY OR 2BY WOOD BUCKS INTO CONCRETE OR FILLED BLOCKS

1-1/2" MIN. EMBED INTO CONCRETE OR BLOCKS

5/16" DIA. ULTRACON BY 'DEWALT' (Fu=177 KSI, Fy=155 KSI) (1/2" MAX. SHIM)

DIRECTLY INTO CONCRETE OR GROUT FILLED BLOCKS

1-1/2" MIN. EMBED

5/16" DIA. TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS) (3/8" MAX. SHIM)

INTO MIAMI-DADE COUNTY APPROVED MULLIONS

INTO METAL STRUCTURES

(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)

ANCHOR EDGE DISTANCES

INTO CONCRETE = 2-1/2" MIN. (1/4" ANCHORS)

INTO CONC. OR BLOCKS = 3-1/8" MIN. (5/16" ANCHORS)

INTO WOOD STRUCTURE = 1-1/4" MIN.

INTO METAL STRUCTURE = 3/4" MIN.

WOOD AT HEAD OR JAMBS SG = 0.55 MIN.

CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN. C-90 GROUT FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.

STRUCTURES 3" MIN. 1/8" THK. STAGGERED (SEE SPEC) DIAGONAL MIAMI-DADE COUNTY APPR'D MULLION EDGE DIST SEE SEPARATE NOA (SEE SPEC) SHEET 3 /8" M TYPICAL ANCHORS TYPICAL ANCHORS (NO SHIM) IN STAGGERED CLUSTERS AT IN STAGGERED CLUSTERS AT INTERLOCK/ASTRAGAL HEAD END INTERLOCK/ASTRAGAL HEAD END & IN PAIR'S AT FRAME & IN PAIRS AT FRAME SEE ELEV. ON SHEETS 2 & 3 SEE ELEV. ON SHEETS 2 & 3 FOR SPACING AND FOR SPACING AND SHEET 4 FOR QUANTITY SHEET 4 FOR QUANTITY

ALTERNATE SUBSTRATES

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

PRODUCT RENEWED as complying with the Florida **Building Code** 23-0918.03 NOA-No. Expiration Date 09/19/2028

Ishag 1. Chands

Miami-Dade Product Control

STATE OF . CORIDA.

Ę. dr. by drawing no. W14 - 13

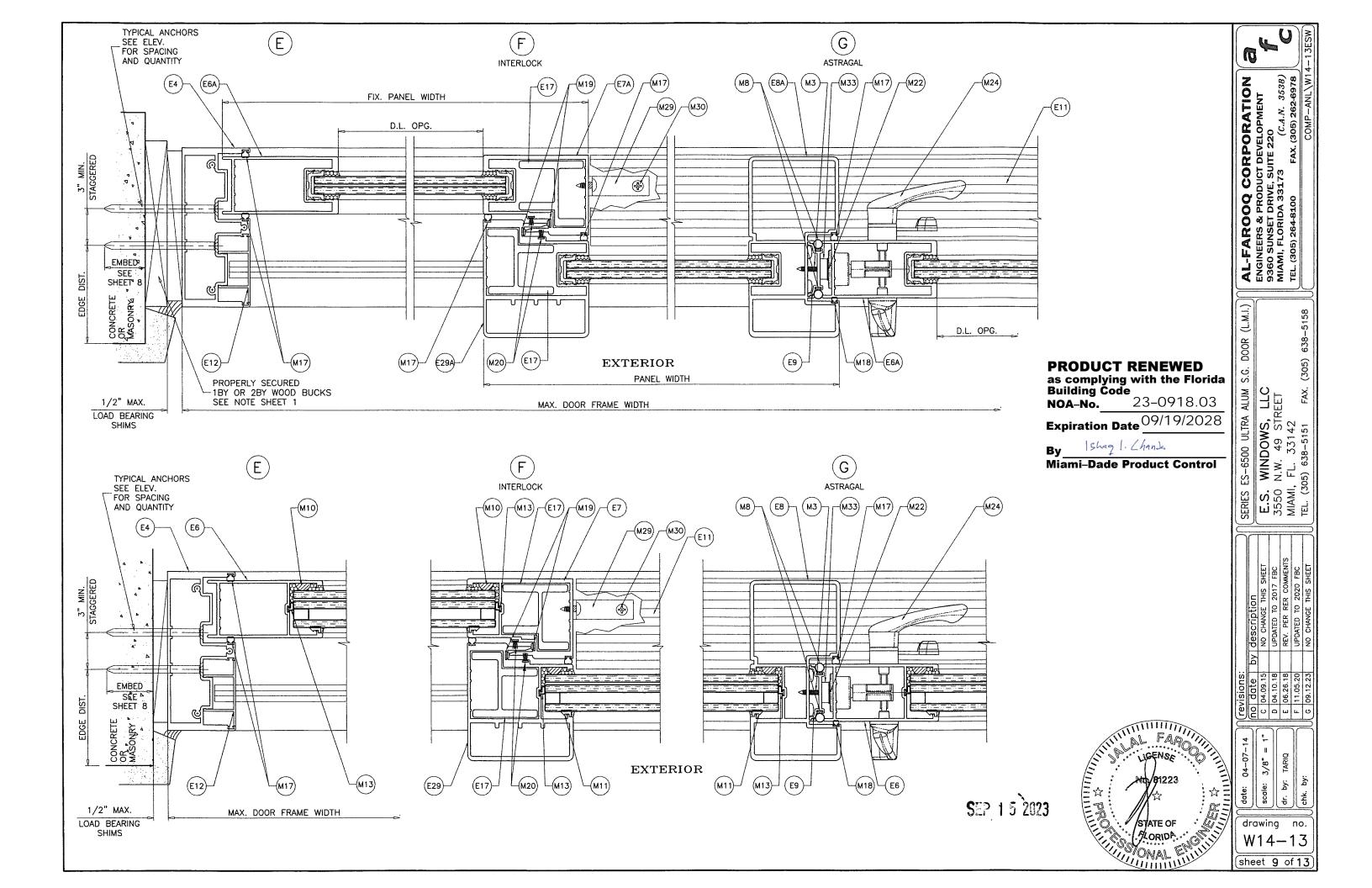
PRODUCT DEVELOPMENT DRIVE, SUITE 220
A 33173 (C.J.N. 353

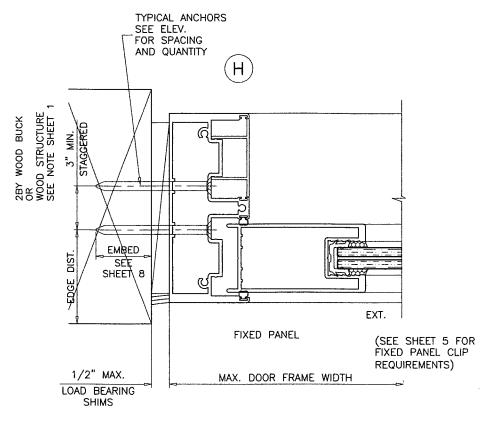
WINDOWS, LLC N.W. 49 STREET FL. 33142 15) 638–5151 FAV

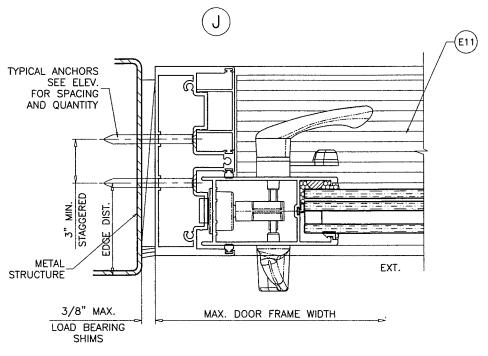
E.S. 3550 MIAMI, TEL. (30

sheet 8 of 13

SEP 1 5 2023



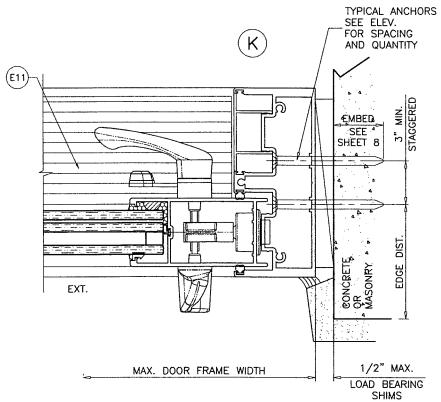


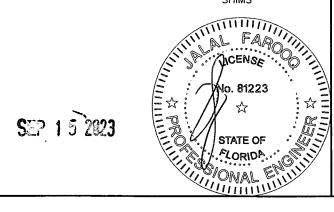


PRODUCT RENEWED as complying with the Florida Building Code 23-0918.03 NOA-No.

Expiration Date 09/19/2028

By Ishaq I. Chanda Miami-Dade Product Control





	by description	NO CHANGE THIS SHEET	UPDATED TO 2017 FBC	REV. PER RER COMMENTS	UPDATED TO 2020 FBC	NO CHANGE THIS SHEET	
revisions:	no date	C 04.09.15	D 04.10.18	E 06.26.18	F 11.05.20	G 09.12.23	
04-07-14		: 3/8" = 1"		y: TARIQ		≘ò:	

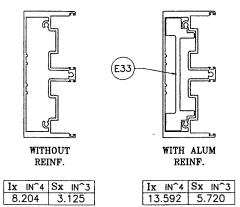
E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL. (305) 638–5151 FAX. (305)

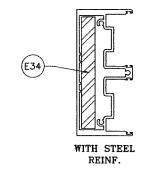
(305)

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\W14-

drawing no. W14 - 13

sheet 10 of 13





IN^4	Sx	IN^3
592	5.	720

	Ix IN^4	Sx IN^3
ALUMINUM	8.204	3.125
STEEL	4.694	2.021
TOTAL Ix ALUM + Ix STL X 2.9	21.808	

]			ING JAM PACITY	•		
AVERAGE PANEL WIDTH	DOOR FRAME HEIGHT		IOUT NF.	ľ	ALUM NF.		STEEL NF.
INCHES	INCHES	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
36		113.6	113.6	120.0	125.0	120.0	125.0
42	126"	98.6	98.6	120.0	125.0	120.0	125.0
48	126	87.5	87.5	120.0	125.0	120.0	125.0
54		79.0	79.0	120.0	125.0	120.0	125.0
36		94.1	94.1	120.0	125.0	120.0	125.0
42	132"	81.5	81.5	120.0	125.0	120.0	125.0
48	132	72.2	72.2	115.7	115.7	120.0	125.0
52		67.3	67.3	107.8	107.8	120.0	125.0
36		78.6	78.6	120.0	125.0	120.0	125.0
42	138"	68.0	68.0	108.9	108.9	120.0	125.0
48	138	60.2	60.2	96.4	96.4	120.0	125.0
50		58.0	58.0	92.9	92.9	120.0	125.0
36		66.1	66.1	105.9	105.9	120.0	125.0
42	144"	57.2	57.2	91.6	91.6	120.0	125.0
48		50.6	50.6	81.0	81.0	120.0	125.0

DATA IN THIS SHEET MAY BE USED TO QUALIFY SPECIFIED JOINT SEALANT TO BE USED AT UNANCHORED FREE STANDING JAMBS.

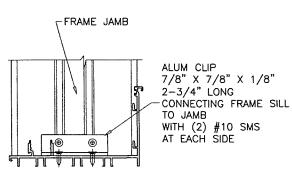
PLEASE REFER TO SEALANT MANUFACTURER'S DATA AND APPLICATION MANUAL FOR COMPATABILITY OF SEALANT TO SUBSTRATE & DOOR MATERIAL FINISH AND COMPLIANCE FOR WARRANTY. (UNDER SEPARATE REVIEW)

CONDITIONS OR OTHER SEALANTS NOT COVERED IN THIS SHEET TO BE ENGINEERED SEPARATELY AND TO BE REVIEWED BY AHJ.

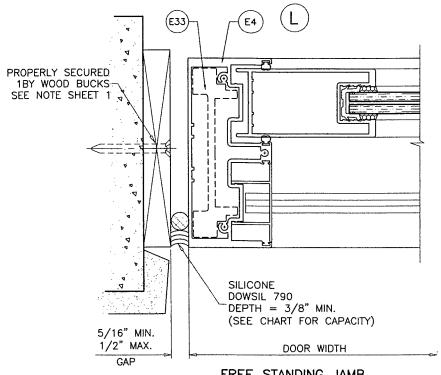
THIS CHART TO BE USED WITH DP CHART IN SHEET 1 WITH ELEVATION SHEET 3 AND ANCHOR CAPACITY CHART SHEET 4. LOWER DESIGN PRESSURE SHALL CONTROL ENTIRE ASSEMBLY. **PRODUCT RENEWED** as complying with the Florida Building Code 23-0918.03 NOA-No.

Expiration Date 09/19/2028 Ishaq I. Chands

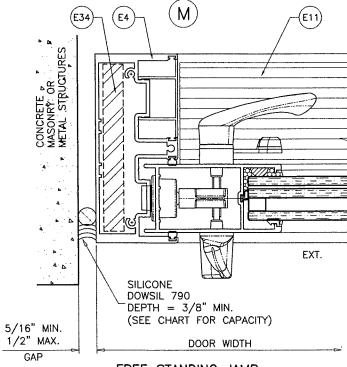
Miami-Dade Product Control



REINFORCEMENT CLIP REQUIRED AT FREE STANDING JAMB WITH STEEL REINFORCING ONLY



FREE STANDING JAMB FIXED SIDE



FREE STANDING JAMB OPERABLE SIDE

SEP 1 5 2023



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scale:	3/8" = 1"	ပ	C 04.09.15		S 0 0
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 AL-FAROOQ CORPORATION

 ENGINEERS & PRODUCT DEVELOPMENT

 9360 SUNSET DRIVE, SUITE 220

 MIAMI, FLORIDA 33173
 (C.A.N. 3538)

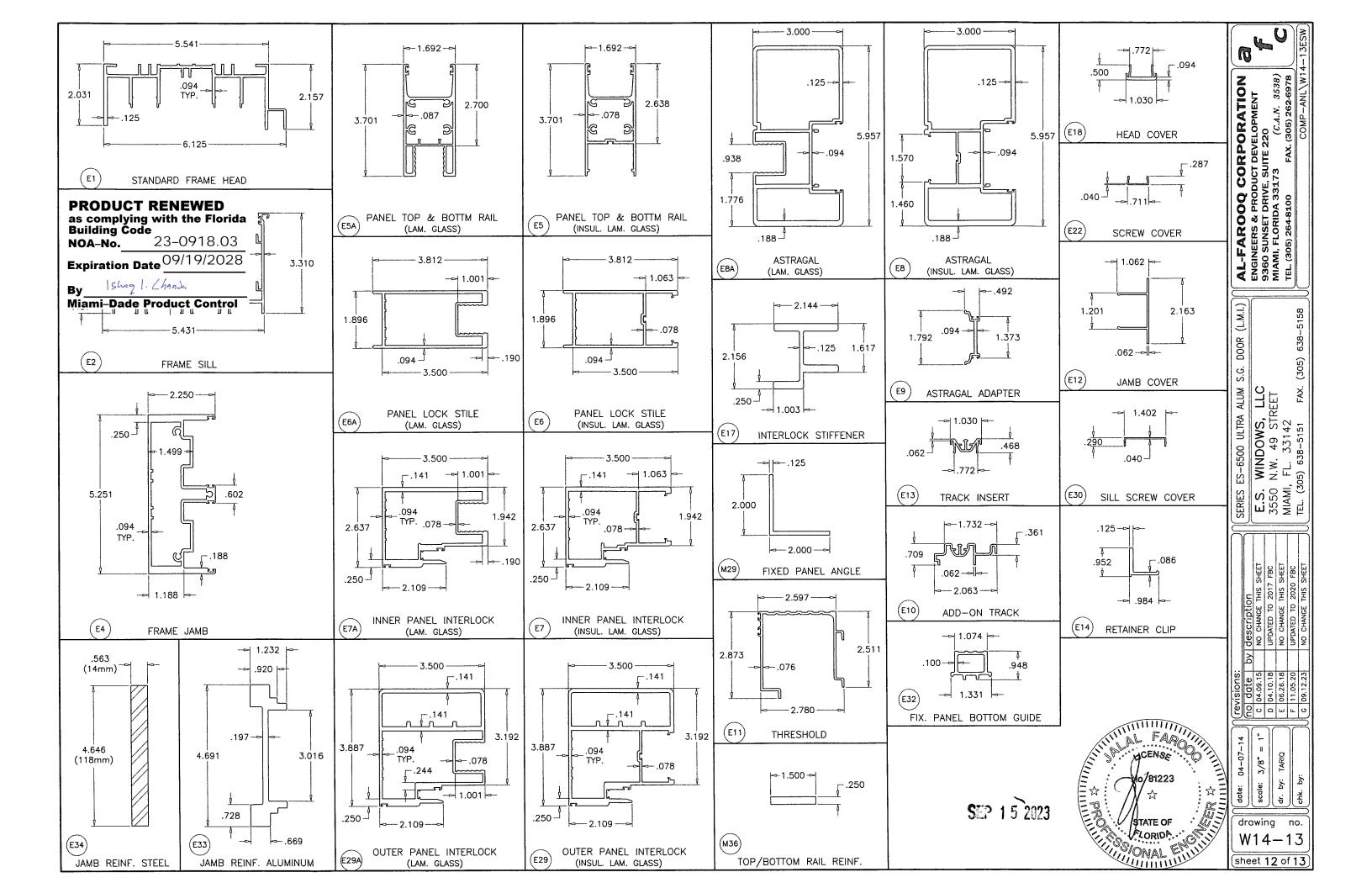
 TEL. (305) 264-8100
 FAX. (305) 262-6978

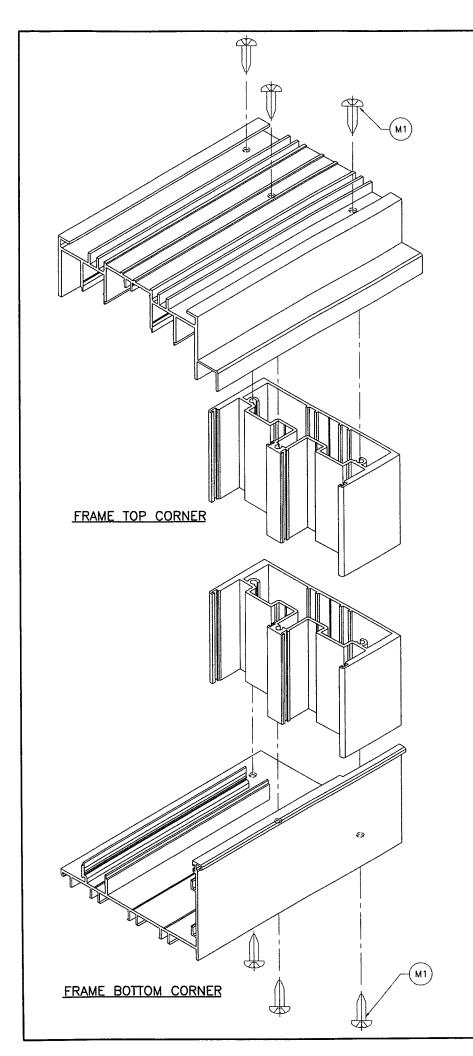
SERIES ES-6500 ULTRA ALUM S.G.

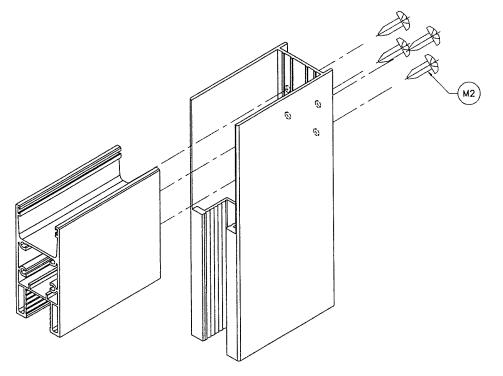
E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL (305) 638-5151 FAX. (

drawing no. W14 - 13

sheet 11 of 13







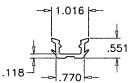
PANEL TOP/BOTTOM CORNER

LAM. GLASS RAIL & STILE (SHOWN) INSUL. LAM. GLASS RAIL & STILE (SIMILAR)

PRODUCT RENEWED
as complying with the Florida
Building Code
NOA-No. 23-0918.03

Expiration Date ____09/19/2028

By_ | Shaq |. Chande Miami-Dade Product Control



GLAZING GASKET

BASE POLYMER = EPDM RUBBER

DENSITY = 10.26 Lbs/Gal

HARDNESS = 70±5

TENSILE STRENGTH = 905 PSI

ELONGATION AT BREAK = 273%

TEAR STRENGTH = 1.343 Kip/ft

BRITTLENESS TEMPERATURE = -40° F

COMPRESSION SET = 27% (22h@158°F)

E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL. (305) 638–5151 FAX. (305)

drawing no. W14 - 13sheet **13** of **13**

SEP 15 2023