

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

ES Windows, LLC 3550 NW 49th 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 "EL400" Aluminum Sliding Glass Door - L.M.I.

APPROVAL DOCUMENT: Drawing No. **W16-73 Rev C**, titled "ES-EL400 Alum. Sliding Glass Door (L.M.I.)", sheets 1 through 23 of 23, dated 11/28/16 and last revised on July 22, 2021, prepared by Al-Farooq Corporation, 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 and Small Missile Impact Resistant Limitations:

- 1. See Elevations in sheets 1, 2, 3, 4 and anchors requirements. See Header anchor capacity charts in sheet 6 and Glass capacity VS size in sheet 5. Overall Lower Design Pressure (DP) controls for entire the assembly.
- 2. See sheets 7 thru 13 for various configurations, tracks, pockets, non-pockets and allowable frame area.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, **Baranquilla**, **Columbia**, **S.A.**, series, and the 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 **renews** NOA # **21-0728.02** consists of this page 1 and 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 Ishaq I. Chanda, P.E.



Ishag 1. Chandes

NOA No. 22-0118.06 Expiration Date: July 20, 2027 Approval Date: February 24, 2022 Page 1

1. Evidence submitted under previous approval.

DRAWINGS A.

- 1. Manufacturer's die drawings and sections.
- Drawing No. W16-73, titled "ES-EL400 Alum. Sliding Glass Door (L.M.I.)", sheets 1 2. through 23 of 23, dated 11/28/16, with revision A dated 07/12/17, prepared by Al-Faroog Corporation, 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) Forced Entry Test, per FBC, and TAS 202-94
 - 6) Large Missile Impact Test per FBC, TAS 201-94
 - 7) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of an aluminum sliding glass door, prepared by Blackwater Testing, Inc., Test Report No. BT-ESW-17-009, dated 06/15/17, signed and sealed by Constantin Bortes, P.E. with Letter of Clarification issued on 07/13/17, signed and sealed by Constantin Bortes, P.E.

CALCULATIONS С.

- Anchor verification calculations and structural analysis, complying with FBC-5th 1. Edition (2014) and FBC-6th Edition (2017), dated 06/20/17 and revised on 07/13/17, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
- 2. Glazing complies with ASTM E1300-09.

D. **QUALITY ASSURANCE**

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

MATERIAL CERTIFICATIONS E.

- Notice of Acceptance No. 16-1117.01 issued to Kuraray America, Inc. for their 1. "Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers", expiring on 07/08/19.
- 2. Notice of Acceptance No. 14-0916.11 issued to Kuraray America, Inc. for their "Sentry Glass® (Clear and White) Glass Interlayer", expiring on 07/04/18.
- Notice of Acceptance No. 15-1201.11 issued to Eastman Chemical Co. (MA) for 3. their "Saflex Clear and Color Glass Interlayers" dated 03/17/16, expiring on 05/21/21.
- 4. Notice of Acceptance No. 14-0423.15 issued to Eastman Chemical Co. (MA) for their "Saflex CP - Saflex and Saflex HP Composite Glass Interlayers with PET Core" dated 06/19/14, expiring on 11/11/18.

F. **STATEMENTS**

Statement letter of conformance, complying with FBC-5th Edition (2014) and FBC-6th 1. Edition (2017) dated 07/12/17, issued by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.

Ishaq I. Chands Ishaq I. Chanda, P.E. **Product Control Unit Supervisor** NOA No. 22-0118.06 Expiration Date: July 20, 2027 Approval Date: February 24, 2022

- F. STATEMENTS (continue)
 - 2. Statement letter of no financial interest, dated 07/12/17, issued by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
 - **3.** Distributor Agreement, signed by Carlos Garcia and by Evelyn Daes.
 - 4. Laboratory compliance statement for Test Report No. **BT-ESW-17-009**, issued by Blackwater Testing, Inc., dated 06/15/17, signed and sealed by Dennis Duffy, CEO.
 - 5. Proposal No. 16-1478 issued by the Product Control Section, dated 11/17/16, signed by Ishaq I. Chanda, P.E.

2. Evidence submitted under previous approval

A. DRAWINGS

1. Drawing No. **W16-73 Rev B**, titled "ES-EL400 Alum. Sliding Glass Door (L.M.I.)", sheets 1 through 23 of 23, dated 11/28/16 and last revised on Dec 30, 2020, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

B. TESTS

1. None.

C. CALCULATIONS

- Anchor verification calculations and structural analysis, complying with FBC-7th Edition (2020), dated 11/18/20, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
- 2. Glazing complies with **ASTM E1300-09 &-16**.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

- 1. Notice of Acceptance No. 19-0305.02 issued to Kuraray America, Inc. for their "Trosifol® Ultraclear, Clear and Color PVB Glass Interlayers", expiring on 07/08/24.
- 2. Notice of Acceptance No. 17-0808.02 issued to Kuraray America, Inc. for their "SentryGlas® (Clear and White) Glass Interlayers", expiring on 07/04/23.
- 3. Notice of Acceptance No. 15-1201.11 issued to Eastman Chemical Co. (MA) for their "Saflex Clear and Color Glass Interlayers", expiring on 05/21/21.
- 4. Notice of Acceptance No. 18-0301.06 issued to Eastman Chemical Co. (MA) for their "Saflex CP – Saflex and Saflex HP Composite Glass Interlayers with PET Core", expiring on 11/11/23.

F. STATEMENTS

- 1. Statement letter of conformance, complying with FBC-7th Edition (2020) and No financial interest, dated 11/18/20, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
- 2. Test Lab Compliance statement, as part of test report.

Ishag 1. Chanda

Ishaq I. Chanda, P.E. Product Control Unit Supervisor NOA No. 22-0118.06 Expiration Date: July 20, 2027 Approval Date: February 24, 2022

G. OTHER

- 1. This NOA revises NOA No. 16-0617.02 and updates to FBC 2020 (7th Edition) expiring 07/20/22.
- 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.

Ishaq I. Chanda, P.E. Product Control Unit Supervisor NOA No. 22-0118.06 Expiration Date: July 20, 2027 Approval Date: February 24, 2022

3. Evidence submitted under previous submittal

A. DRAWINGS

- 1. Drawing No. **W16-73 Rev C**, titled "ES-EL400 Alum. Sliding Glass Door (L.M.I.)", sheets 1 through 23 of 23, dated 11/28/16 and last revised on July 22, 2021, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
- **B. TESTS** (Supplement test for sill riser part #ES-2020-041)
 - 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) Forced Entry Test, per FBC, and TAS 202-94
 - 6) Large Missile Impact Test per FBC, TAS 201-94
 - 7) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of aluminum sliding glass doors, prepared by Blackwater Testing, Inc., Test Report No. **BT-ESW-19007**, dated 12/09/19, signed and sealed by Constantin Bortes, P.E.

C. CALCULATIONS

- 1. Comparative structural section properties sill riser analysis, dated 07/07/21, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
- 2. Glazing complies with **ASTM E1300-09 &-16**.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. 21-0216.01 issued to Eastman Chemical Co. (MA) for their "Saflex Clear and Color Glass Interlayers", expiring on 05/21/26.

F. STATEMENTS

- 1. Statement letter of conformance, complying with FBC-7th Edition (2020) and No financial interest, dated 07/07/21, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.
- 2. Test Lab Compliance statement, as part of test report.

G. OTHER

- 1. This NOA revises NOA No. 20-1118.06 and updates to FBC 2020 (7th Edition) expiring 07/20/22.
- 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.
- 3. Comparative Sectional properties analysis of sill Risers.

Ishaq I. Chands

Ishaq I. Chanda, P.E. Product Control Unit Supervisor NOA No. 22-0118.06 Expiration Date: July 20, 2027 Approval Date: February 24, 2022

4. New Evidence submitted

A. DRAWINGS

1. Drawing No. **W16-73 Rev C**, titled "ES-EL400 Alum. Sliding Glass Door (L.M.I.)", sheets 1 through 23 of 23, dated 11/28/16 and last revised on July 22, 2021, prepared by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

B. TESTS

- 1. None
- C. CALCULATIONS (submitted under previous approval)
 - 1. None.

D. QUALITY ASSURANCE

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

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. 21-0216.01 issued to Eastman Chemical Co. (MA) for their "Saflex Clear and Color Glass Interlayers", expiring on 05/21/26.

F. STATEMENTS

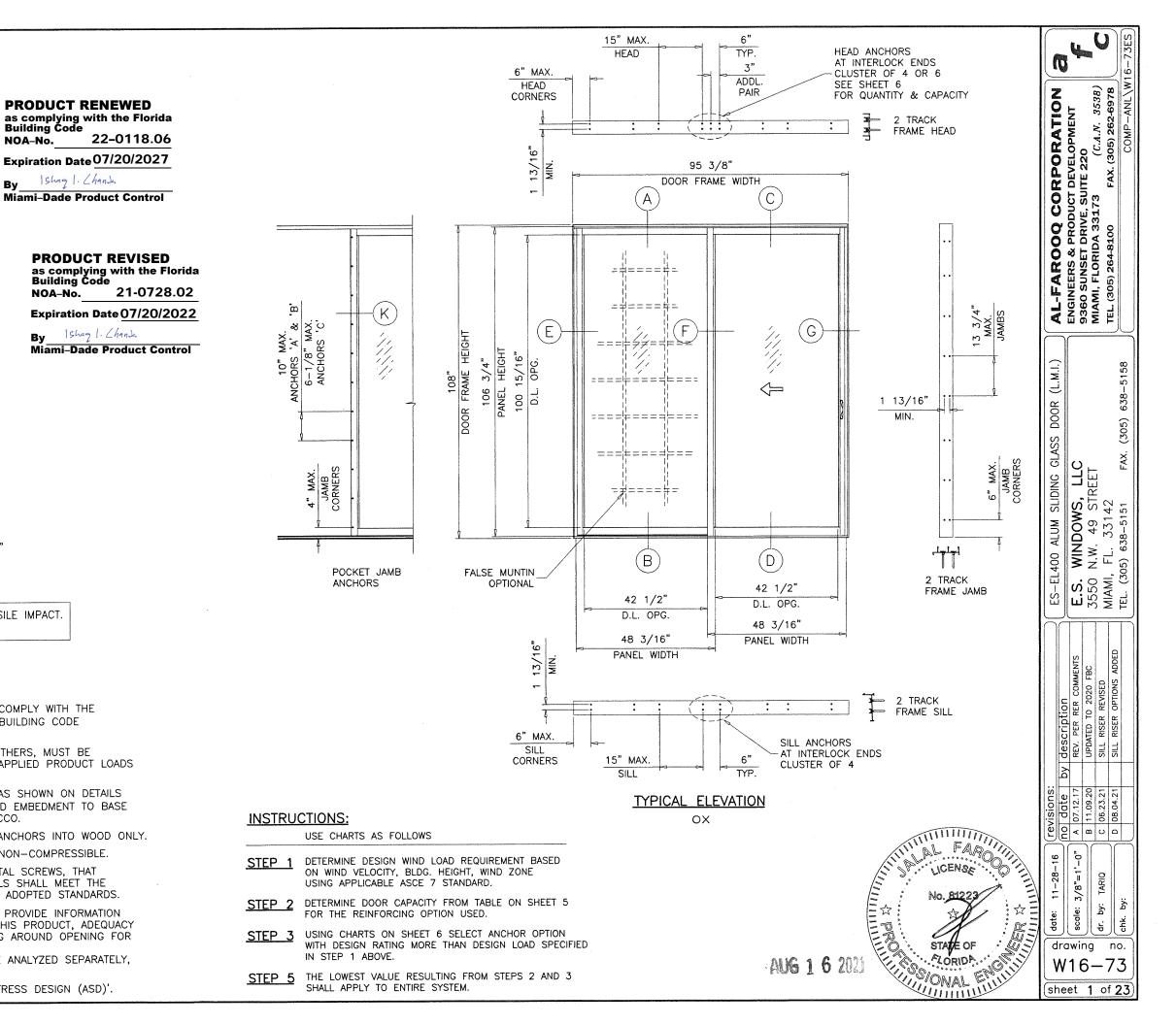
1. Statement letter of conformance, complying with FBC-7th Edition (2020) and No financial interest, dated 01/12/22, issued by Al-Farooq Corporation, signed and sealed by Jalal Farooq, P.E.

G. OTHER

- 1. This NOA renews NOA No. 21-0728.02, expiring 07/20/27.
- 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).
- 3. Comparative Sectional properties analysis of sill Risers (under previous approval)

Ishag 1. Chanda

Ishaq I. Chanda, P.E. Product Control Unit Supervisor NOA No. 22-0118.06 Expiration Date: July 20, 2027 Approval Date: February 24, 2022



DAYLITE OPENING WIDTH: PANEL WIDTH - 5.688"

DAYLITE OPENING HEIGHT PANEL HEIGHT - 5.813"

PANEL HEIGHT = DOOR FRAME HEIGHT - 1.250"

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

SERIES ES-EL400 ALUMINUM SLIDING GLASS DOOR

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH 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.

NOA-No.

By

Ishag 1. Chands

NOA-No.

By

Ishag 1. Chanda

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.

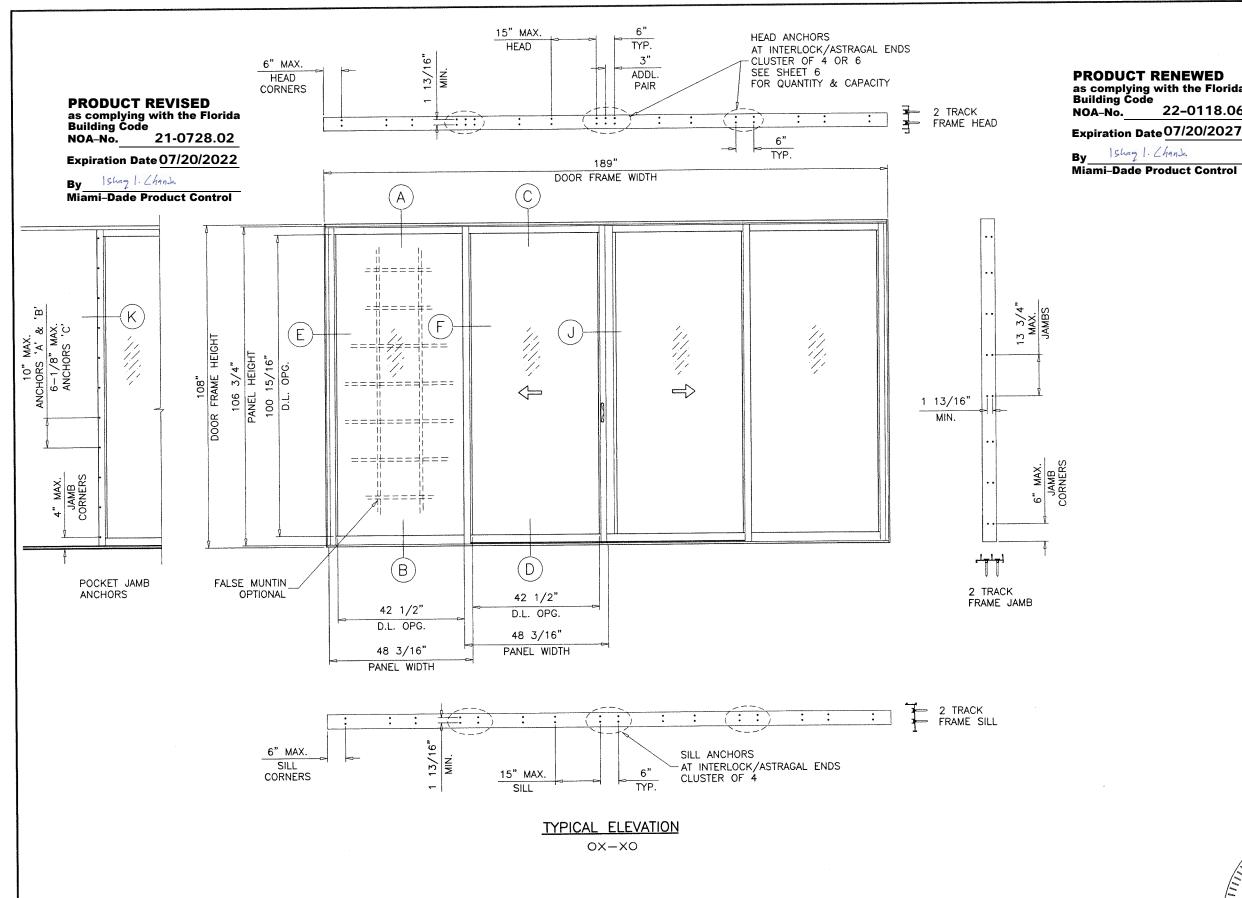
ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2020 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.

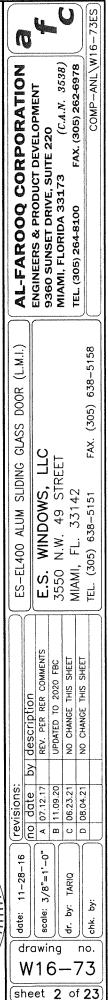
CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

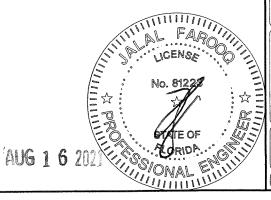
DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

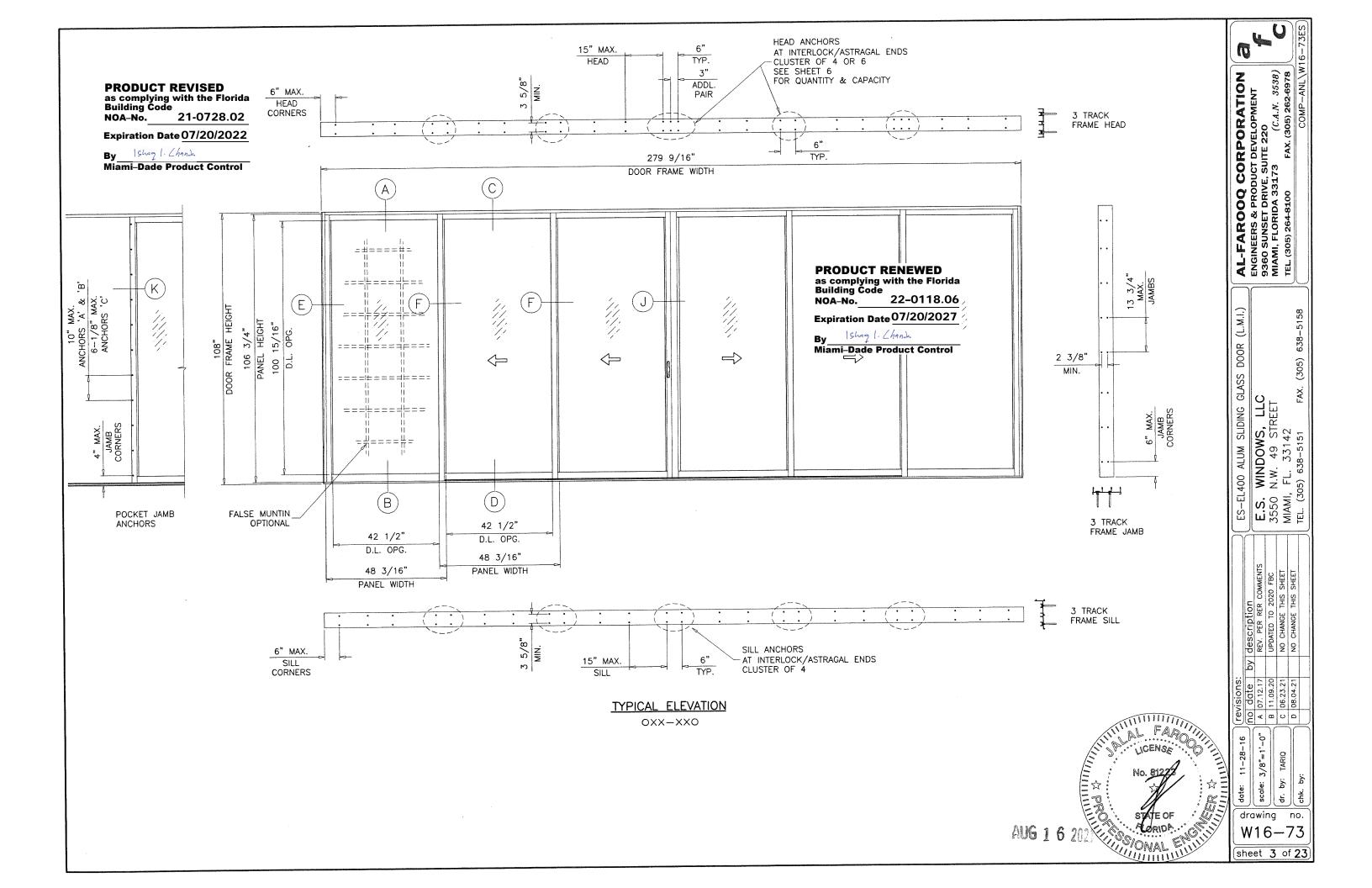


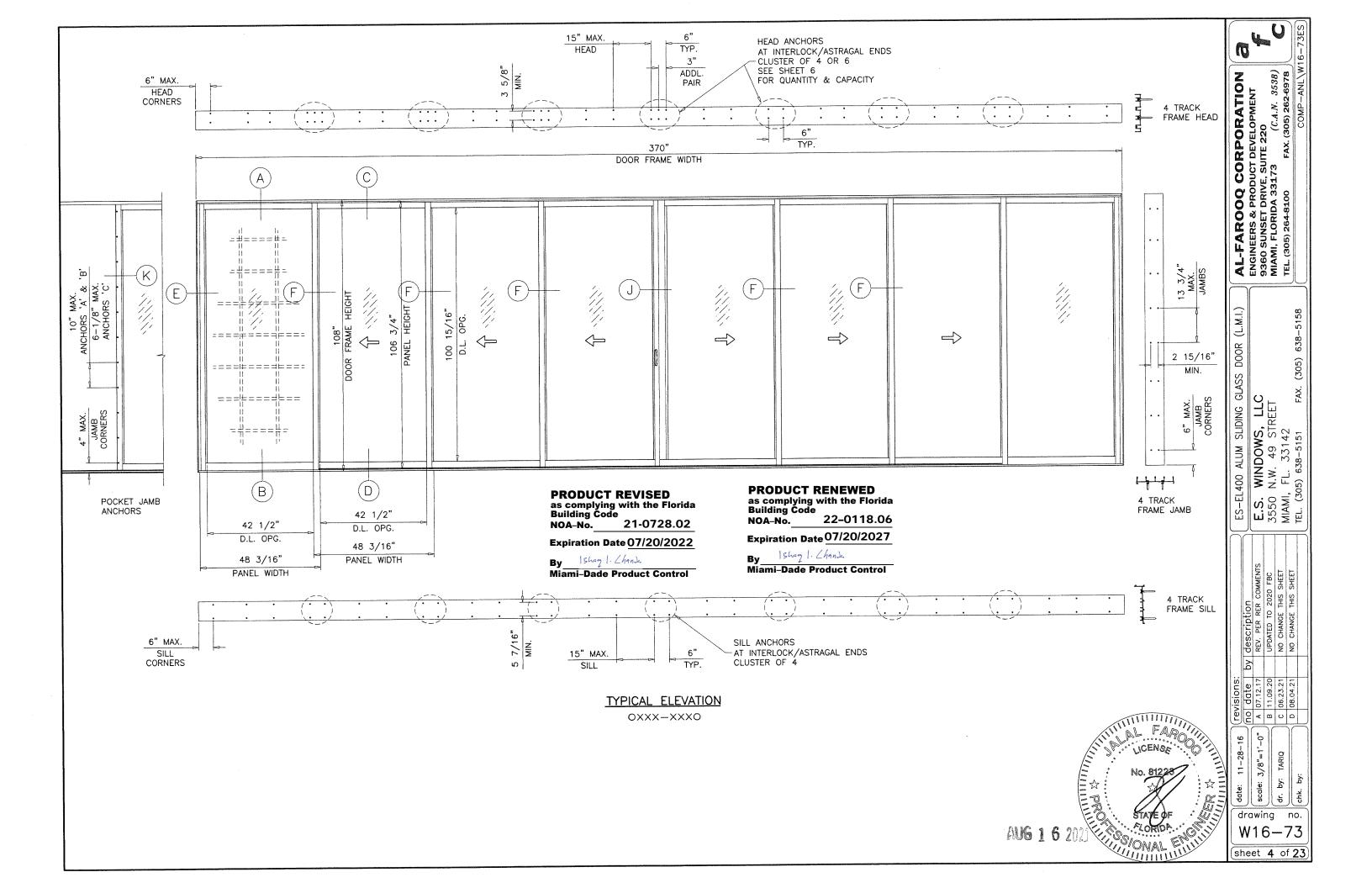
PRODUCT RENEWED as complying with the Florida Building Code 22-0118.06

Miami-Dade Product Control

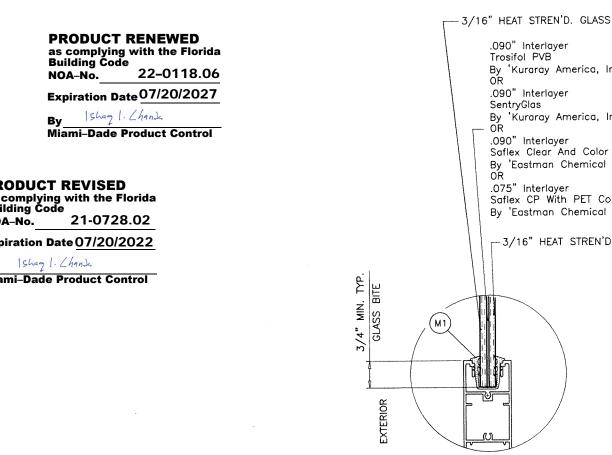






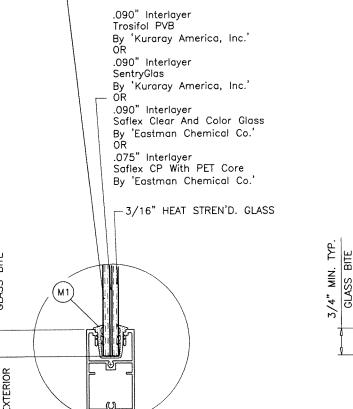


		- PSF	PACITY		DESIGN	
	l stiles	INTERL ASTRAGA WITH	L STILES	INTERL ASTRAGA WITHOUT	DOOR FRAME	AVERAGE
	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	HEIGHT INCHES	PANEL WIDTH INCHES
F	80.0	80.0	60.0	60.0		30
a B	80.0	80.0	60.0	60.0		36
N	80.0	80.0	60.0	60.0		42
E	80.0	80.0	60.0	60.0	82	47-1/4
-	78.8	78.8	59.1	59.1		48
B	70.0	70.0	52.5	52.5		54
N	47.3	47.3		_		60
	80.0	80.0	60.0	60.0		30
	80.0	80.0	60.0	60.0		36
PRODUCT as complying	80.0	80.0	60.0	60.0		42
Building Cod	80.0	80.0	60.0	60.0	84	47-1/4
NOA-No.	78.8	78.8	59.1	59.1		48
Expiration D	70.0	70.0	52.5	52.5		40 54
By Shag!	47.3	47.3				54 60
Miami-Dade	47.5 80.0	47.3 80.0	60.0	60.0		
	80.0	80.0	60.0	60.0 60.0		30 36
						36
	80.0	80.0	60.0	60.0	90	42
	80.0	80.0	60.0	60.0		47-1/4
	78.8	78.8	59.1	59.1		48
	52.5	52.5	-	-		54
	80.0	80.0	60.0	60.0		30
	80.0	80.0	60.0	60.0		36
	80.0	80.0	60.0	60.0	96	42
	80.0	80.0	60.0	60.0		47-1/4
	59.1	59.1		-		48
	60.0	60.0	-	-		30
	60.0	60.0	-			36
ALL EXT.(+)	60.0	60.0	-		102	42
WHERE WATE	60.0	60.0		-		47-1/4
FOR DOOR IN	59.1	59.1				48
REQUIRED LIN FOR 3-11/1	60.0	60.0	-	-		30
FOR $3-1/7$ FOR $3-1/8$ "	60.0	60.0	-		108	36
FOR 2-3/4"	60.0	60.0	-		100	42
SEE SHEET 1	60.0	60.0		-		47-1/4
		I]		7)	
		(E19				ET
(E12)E12A		C	\sim	0	2	U.C.
ASTRAGA	RLOCKS			ASTRAGA		INTERLO



EXT.(+) LOADS SHOWN IN CHART ARE FOR DOOR INSTALLATIONS ERE WATER INFILTRATION RESISTANCE IS NOT REQUIRED. DOOR INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS QUIRED LIMIT EXT.(+) LOADS AS FOLLOWS. 3-11/16" SILL HEIGHT LIMIT EXT.(+) LOADS TO 80.0 PSF

3-1/8" SILL HEIGHT LIMIT EXT.(+) LOADS TO 66.6 PSF 2-3/4" SILL HEIGHT LIMIT EXT.(+) LOADS TO 53.3 PSF SHEET 14 FOR DETAILS



GLASS TYPE 'A' 7/16" OVERALL LAM. GLASS

GLAZING OPTIONS

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

SEE CHART ABOVE FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE AND REINFORCING TYPES.

SEE CHART ON SHEET 6 FOR HEAD ANCHOR CAPACITY.

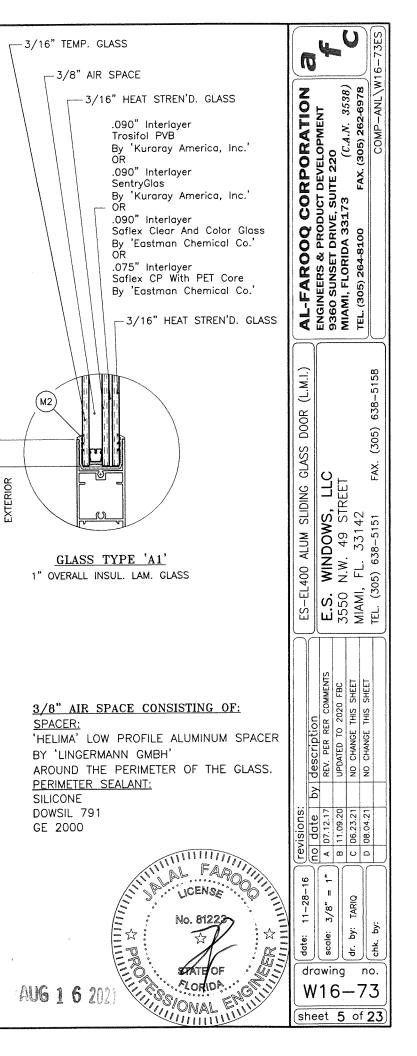
LOWER DESIGN PRESSURES FROM DESIGN LOAD CHART OR HEAD ANCHOR CHART WILL APPLY TO ENTIRE SYSTEM.

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

AVERAGE PANEL WIDTH =

DOOR FRAME WIDTH

NUMBER OF PANELS



			HEAI	D ANCHOR LO	AD CAPACITY	Y – PSF			
		ANCHOR TYPES 'A' & 'B'						ANCHOR TYPE 'C'	
		1/4" MA			3/8" MAX. SHIM 1/2" MAX			3/8" MAX. SHIM	
AVERAGE	DOOR FRAME	4 ANCHORS AT MTG. STILE ENDS	6 ANCHORS AT MTG. STILE ENDS	4 ANCHORS AT MTG. STILE ENDS	6 ANCHORS AT MTG. STILE ENDS	4 ANCHORS AT MTG. STILE ENDS	6 ANCHORS AT MTG. STILE ENDS	4 ANCHORS AT MTG. STILE ENDS	6 ANCHORS AT MTG. STILE END
PANEL WIDTH		EXT. (+) INT. (-)	EXT. (+) INT. (-)						
30		80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
36		80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
42		80.0	80.0	80.0	80.0	71.5	80.0	80.0	80.0
47-1/4	82	80.0	80.0	80.0	80.0	63.6	80.0	80.0	80.0
48		80.0	80.0	80.0	80.0	62.6	80.0	80.0	80.0
54		80.0	80.0	71.6	80.0	55.6	74.2	72.7	80.0
60		72.7	80.0	64.4	80.0	50.1	66.8	65.4	80.0
30		80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
36		80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
42		80.0	80.0	80.0	80.0	69.8	80.0	80.0	80.0
47-1/4	84	80.0	80.0	79.8	80.0	62.1	80.0	80.0	80.0
48		80.0	80.0	78.6	80.0	61.1	80.0	79.8	80.0
54		78.9	80.0	69.9	80.0	54.3	72.4	71.0	80.0
60		71.0	80.0	62.9	80.0	48.9	65.2	63.9	80.0
30		80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
36		80.0	80.0	80.0	80.0	76.1	80.0	80.0	80.0
42		80.0	80.0	80.0	80.0	65.2	80.0	80.0	80.0
47-1/4	90	80.0	80.0	74.5	80.0	57.9	77.3	75.7	80.0
48		80.0	80.0	73.4	80.0	57.0	76.1	74.5	80.0
54		73.6	80.0	65.2	80.0	50.7	67.6	66.2	80.0
30		80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
36		80.0	80.0	80.0	80.0	71.3	80.0	80.0	80.0
42	96	80.0	80.0	78.6	80.0	61.1	80.0	79.8	80.0
47-1/4		78.9	80.0	69.9	80.0	54.3	72.4	71.0	80.0
48		60.0	60.0	60.0	60.0	53.5	60.0	60.0	60.0
30	+	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
36		60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
42	102	60.0	60.0	60.0	60.0	57.5	60.0	60.0	60.0
47-1/4		60.0	60.0	60.0	60.0	51.1	60.0	60.0	60.0
48		60.0	60.0	60.0	60.0	50.3	60.0	60.0	60.0
30		60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
36		60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
42	108	60.0	60.0	60.0	60.0	54.3	60.0	60.0	60.0
47-1/4		60.0	60.0	60.0	60.0	48.3	60.0	60.0	60.0

PRODUCT as complyin Building Cod	g with the Florida
NOA-No.	21-0728.02

Expiration Date <u>07/20/2022</u>

By Ishag I. Chank Miami-Dade Product Control

PRODUCT RENEWED as complying with the Florida Building Code NOA-No. 22-0118.06 Expiration Date 07/20/2027

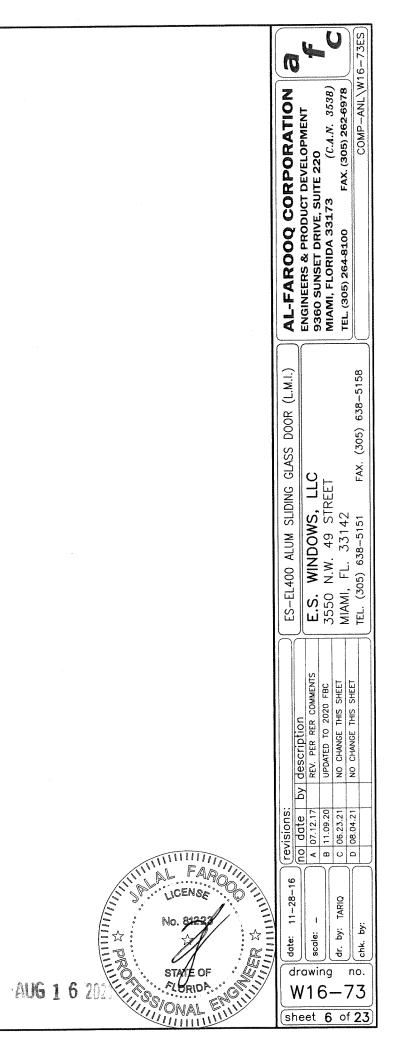
Ishag 1. Chank By Miami-Dade Product Control

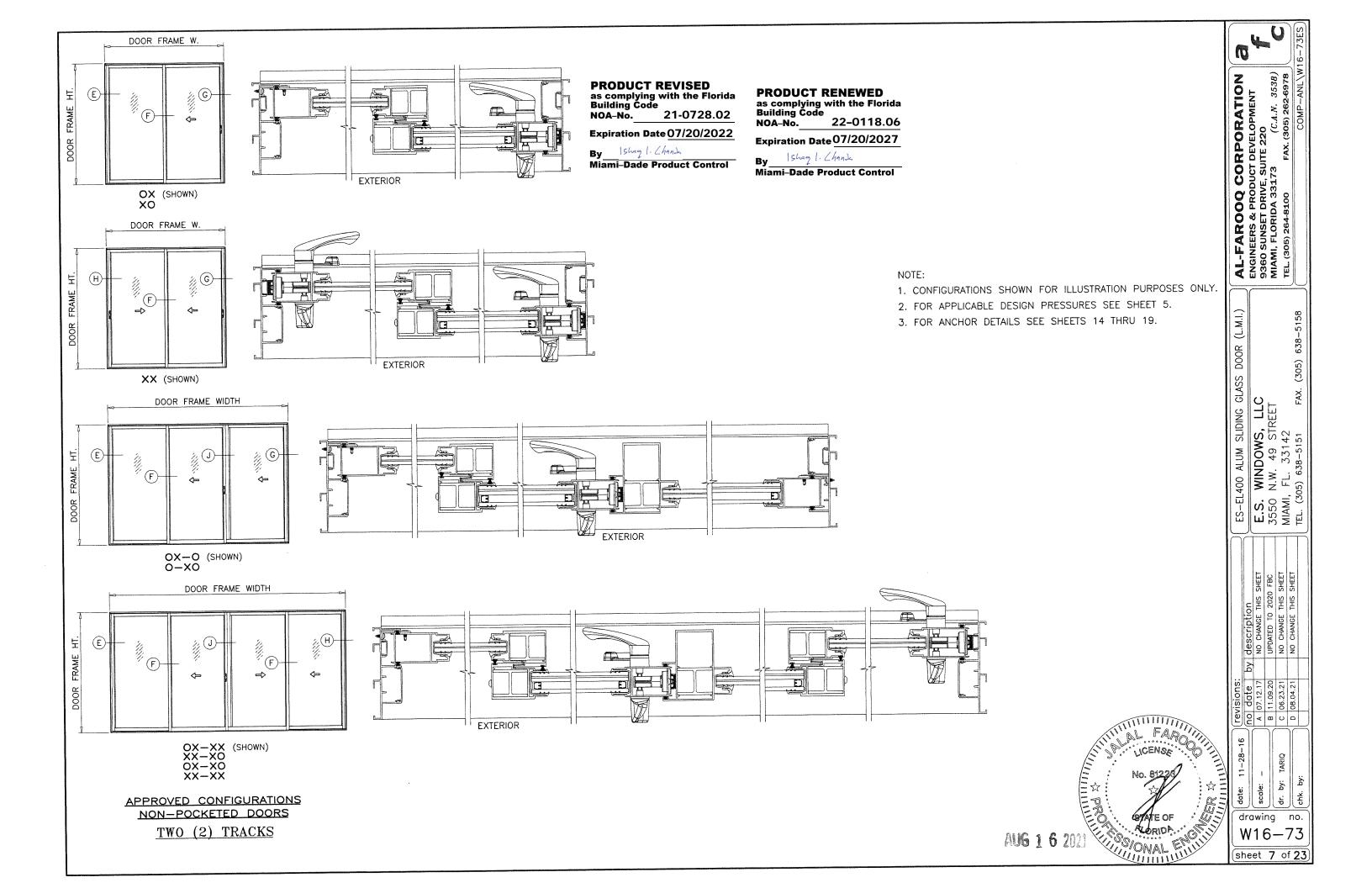
\$

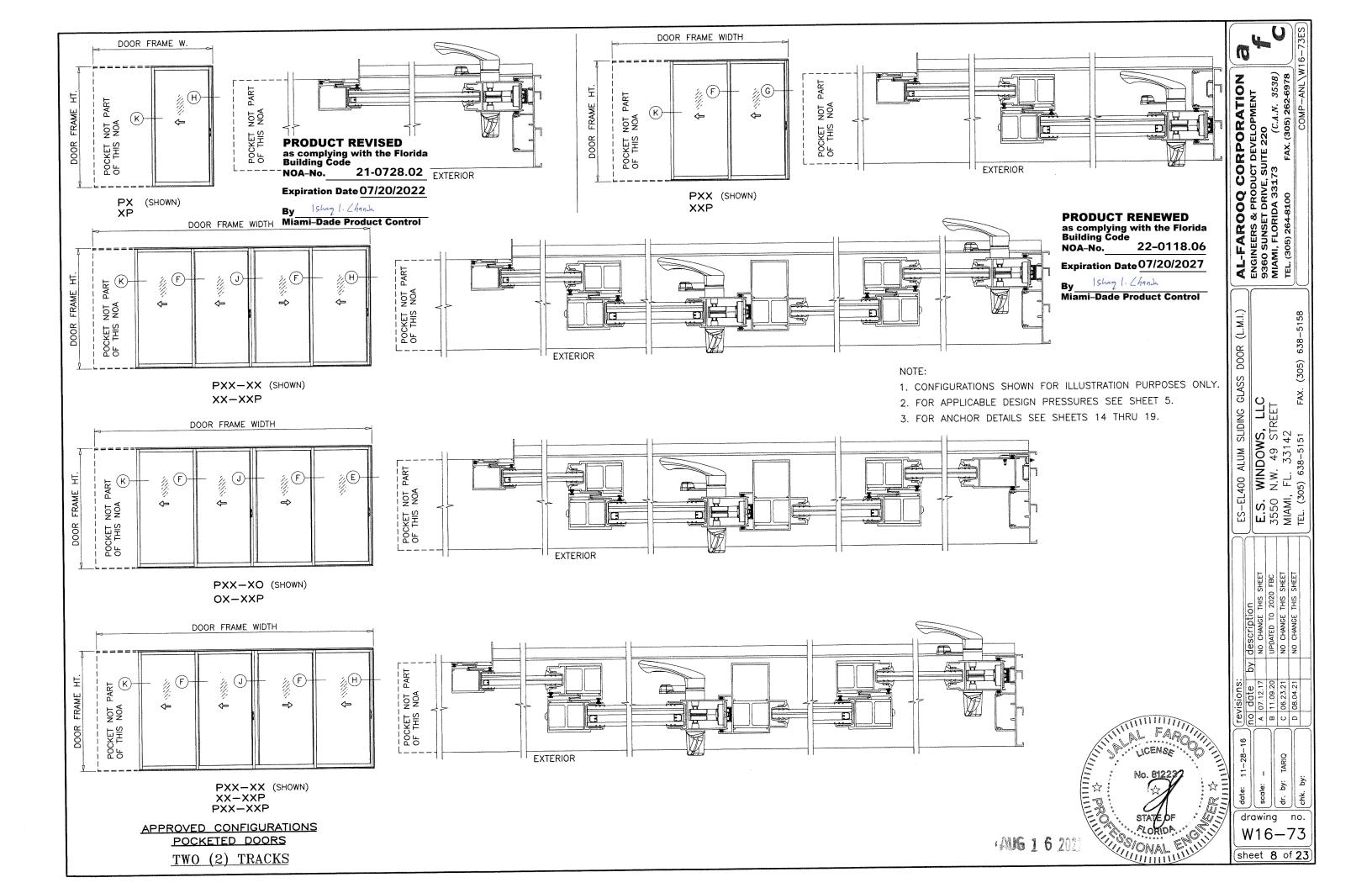
SEE CHART ON SHEET 5 FOR DESIGN LOAD CAPACITY OF DESIRED GLASS SIZE AND REINFORCING TYPES.

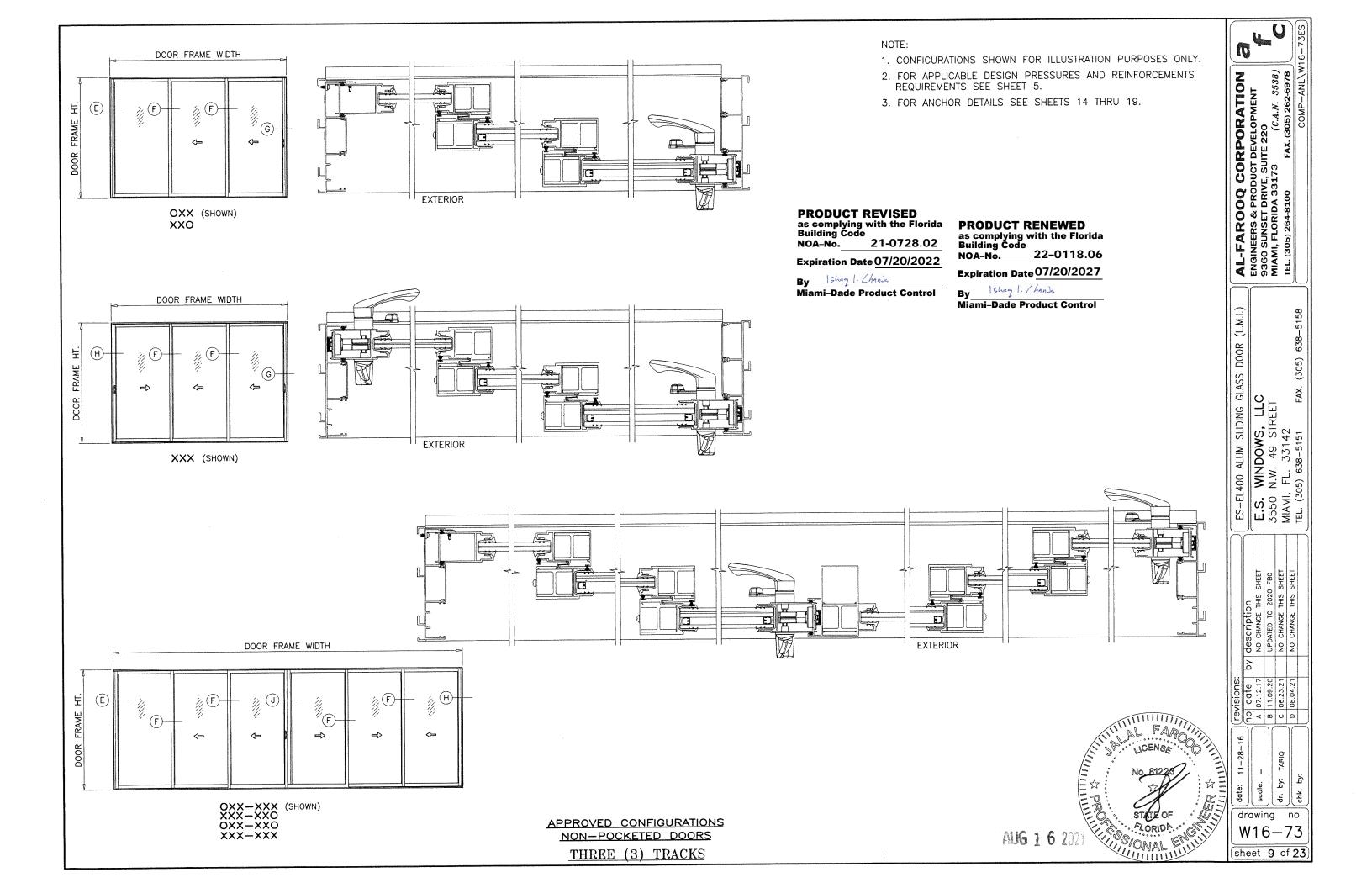
SEE CHART ABOVE FOR HEAD ANCHOR CAPACITY.

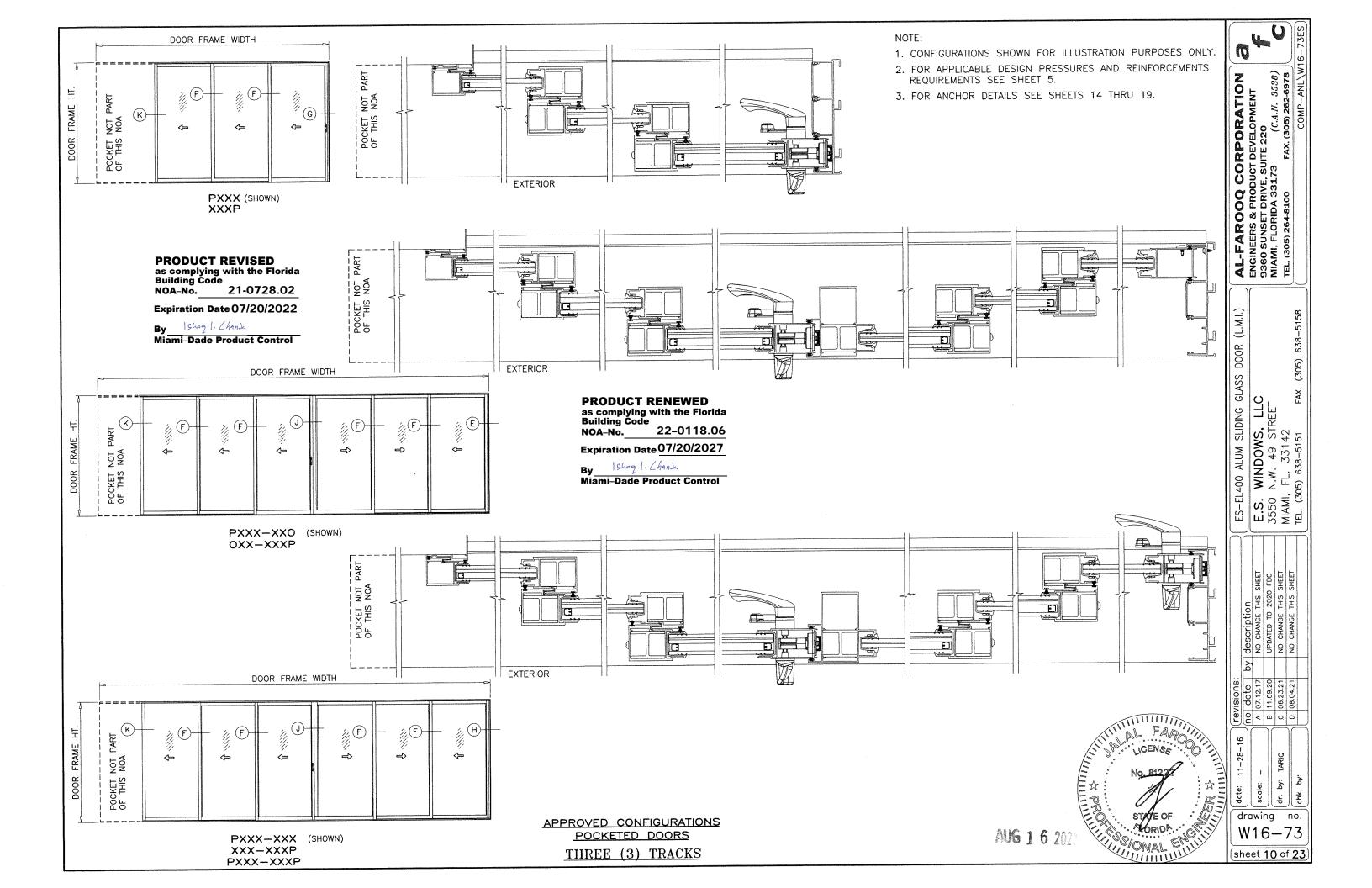
LOWER DESIGN PRESSURES FROM DESIGN LOAD CHART OR HEAD ANCHOR CHART WILL APPLY TO ENTIRE SYSTEM.

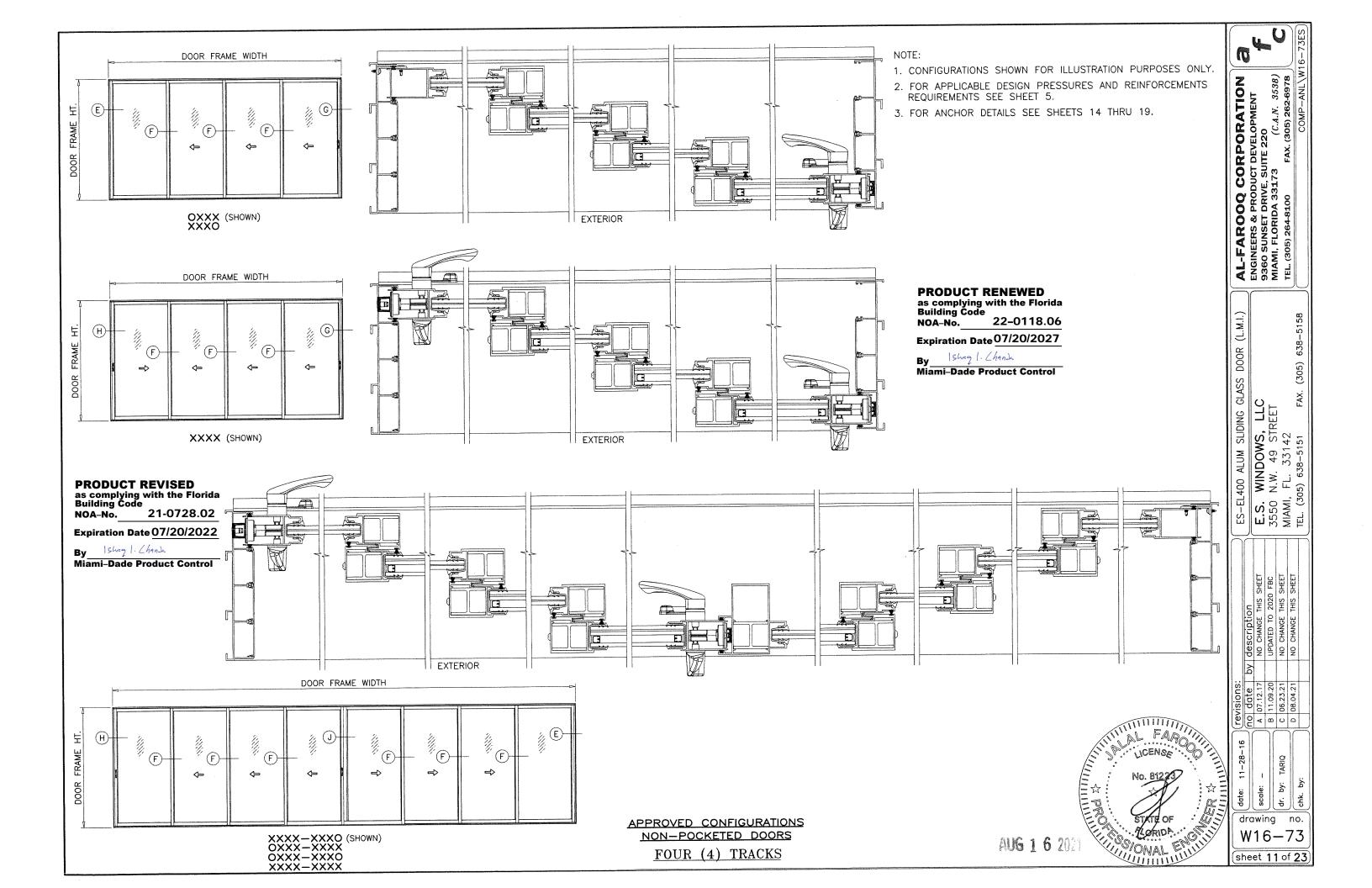


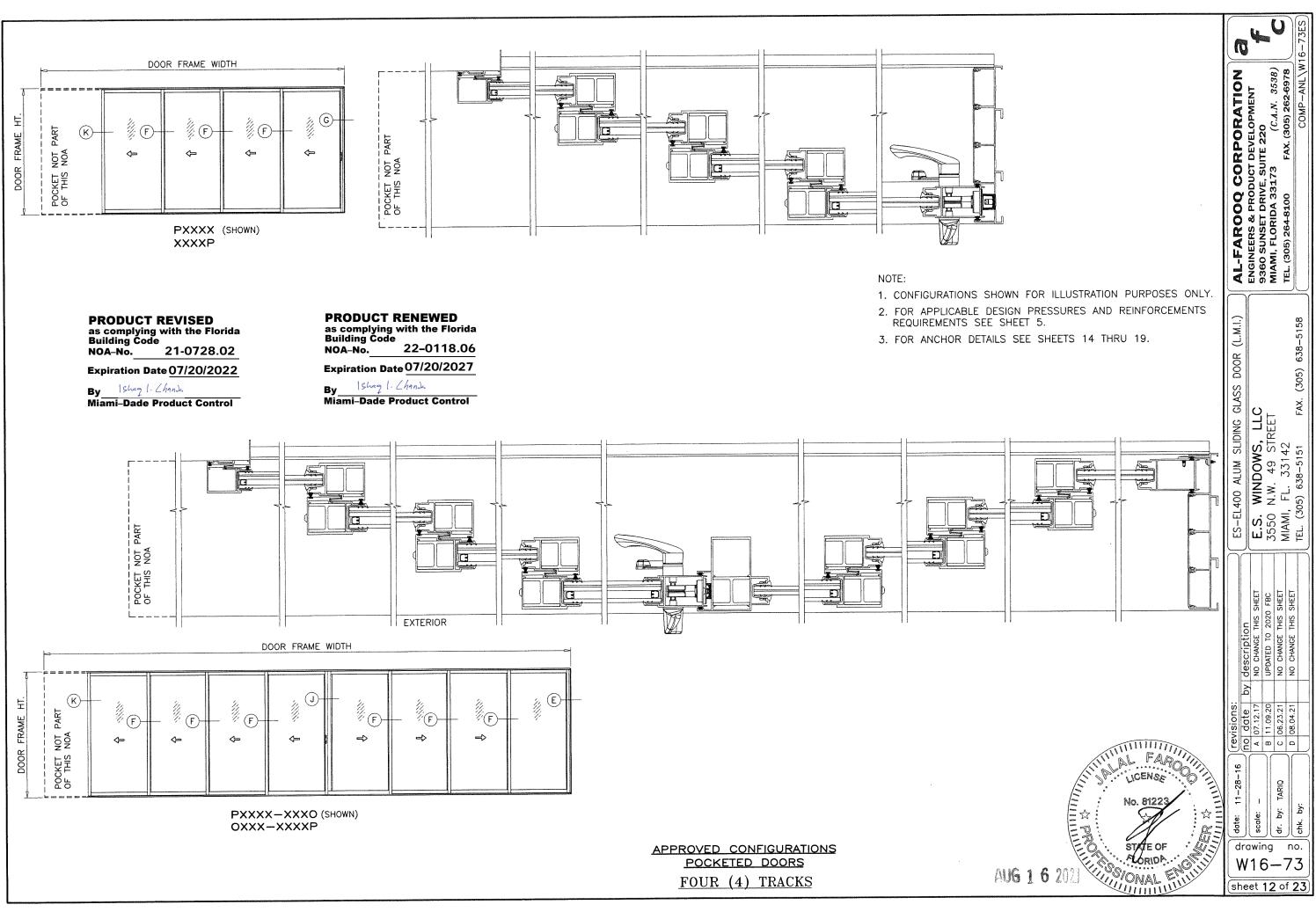












NOTE:

PRODUCT REVISED

as complying with the Florida Building Code 21-0728.02 NOA-No.

Expiration Date 07/20/2022

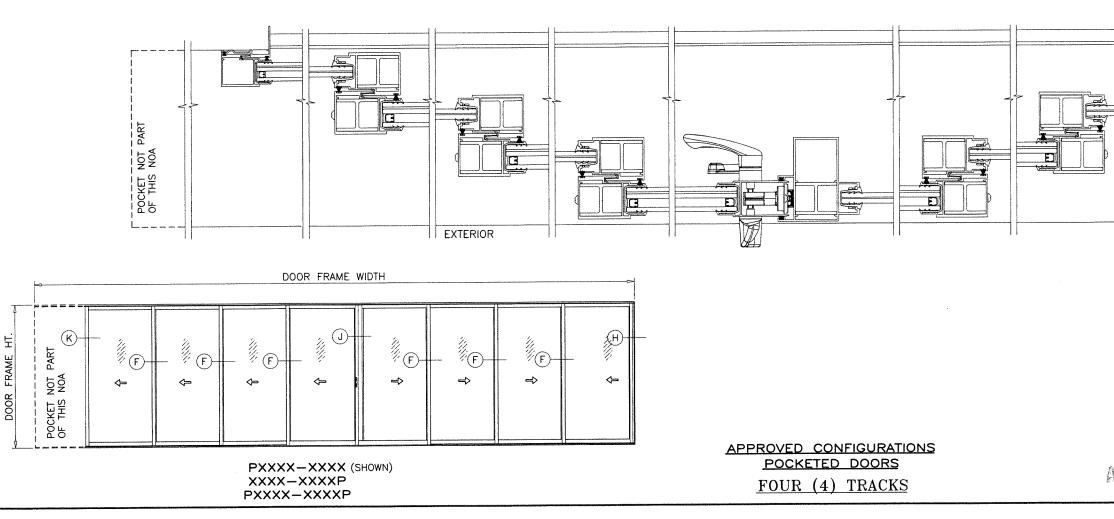
By Ishag I. Chank Miami-Dade Product Control

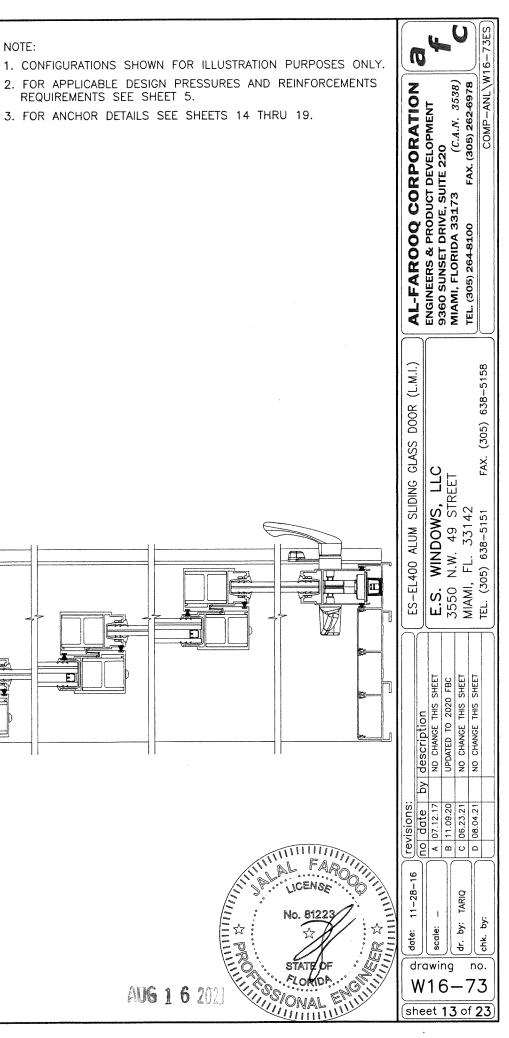
PRODUCT RENEWED

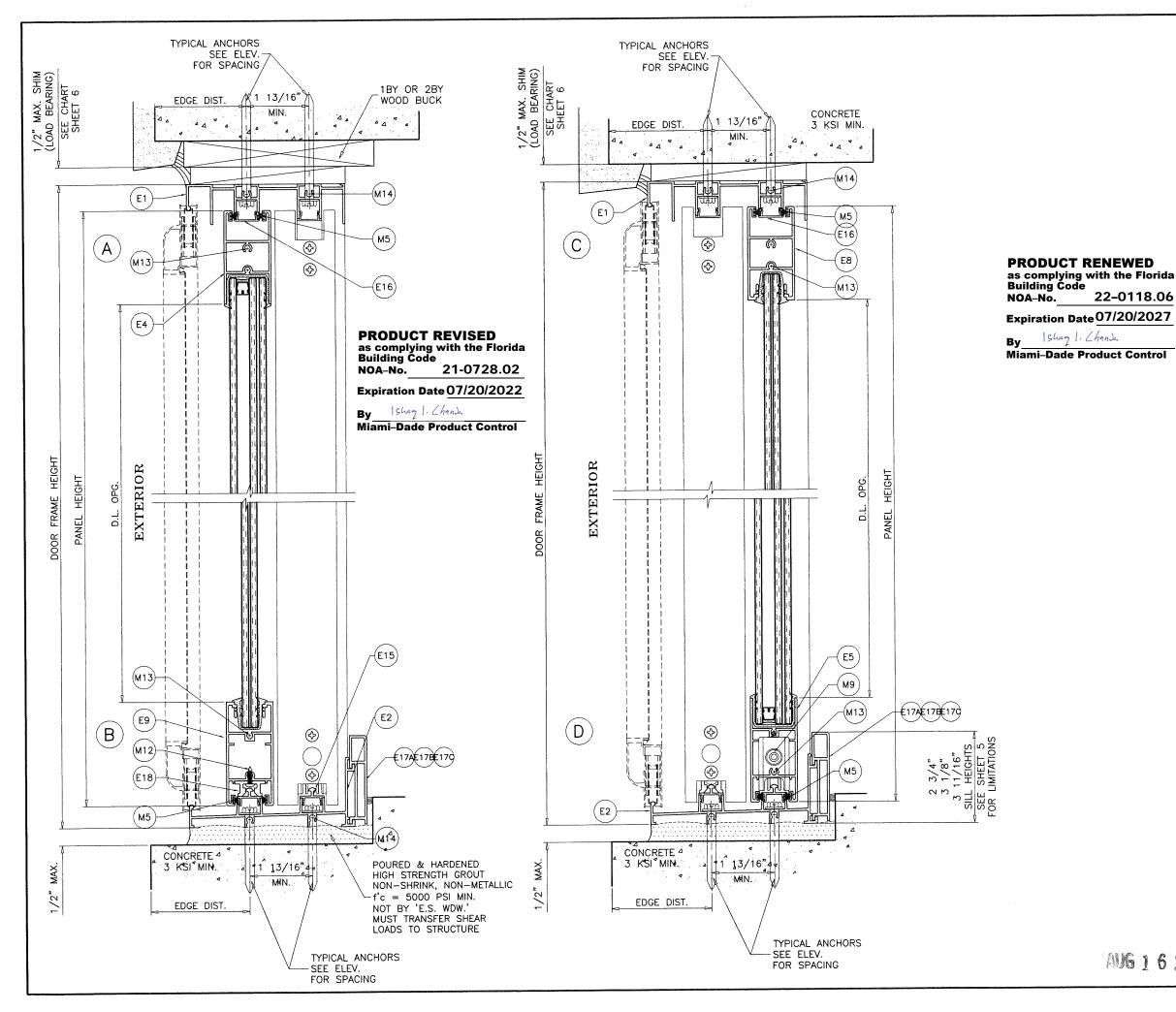
as complying with the Florida Building Code 22-0118.06 NOA-No. Expiration Date 07/20/2027

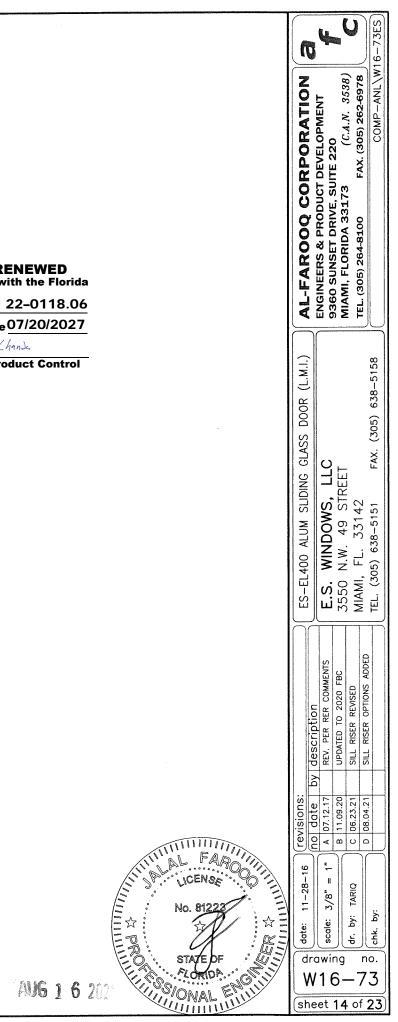
Ishag 1. Chands

By Miami-Dade Product Control





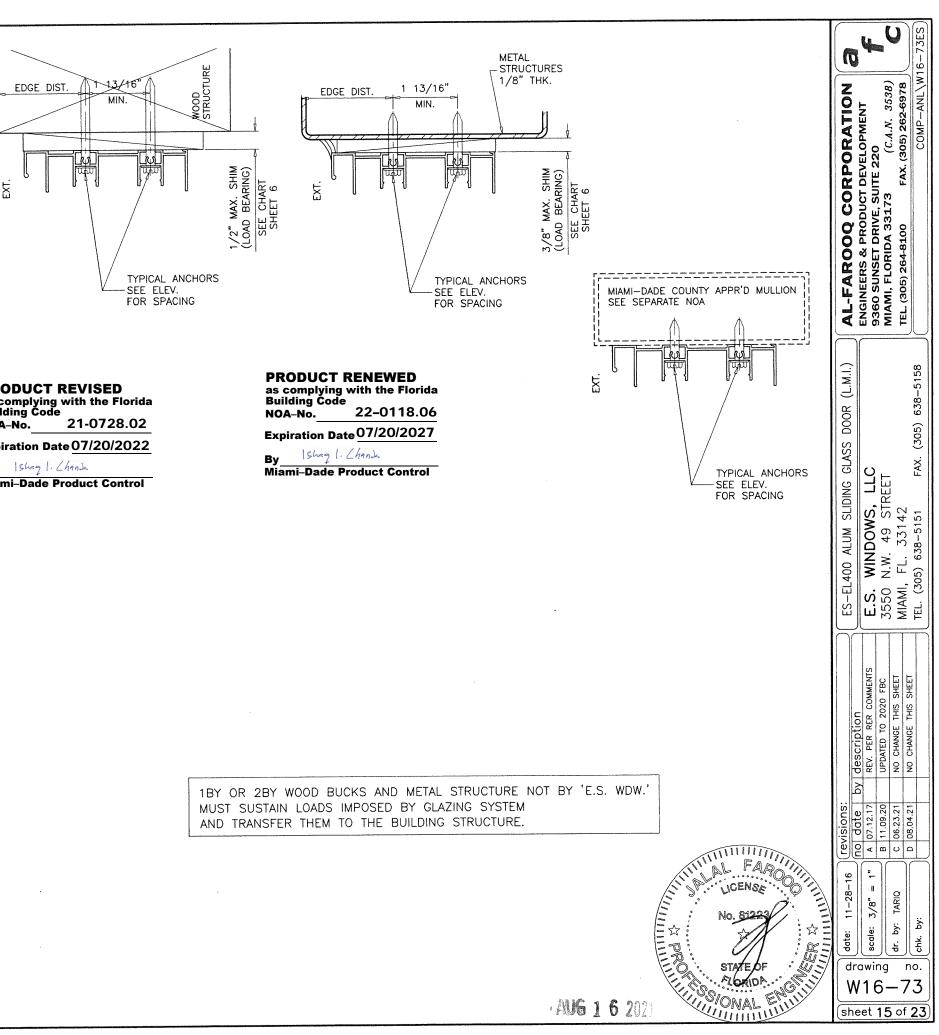


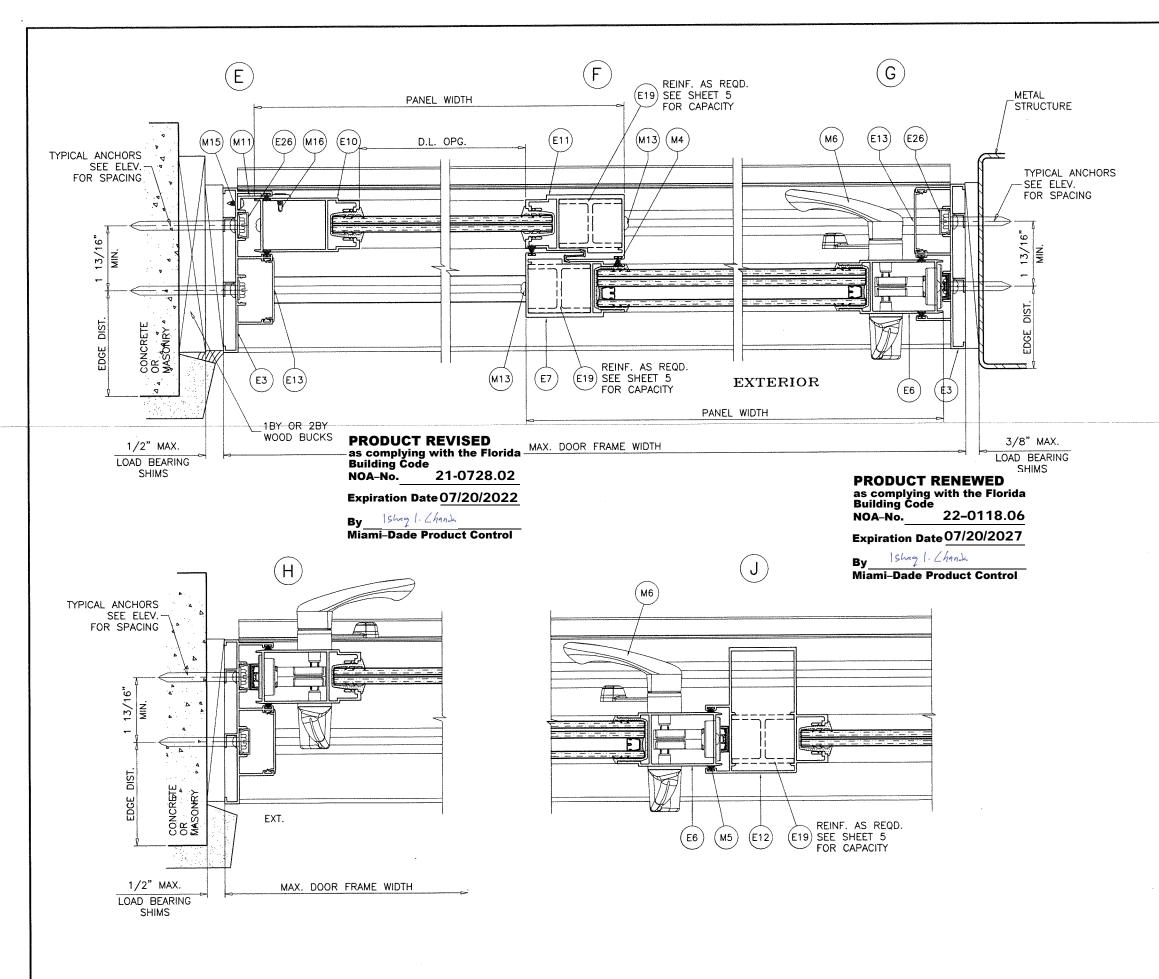


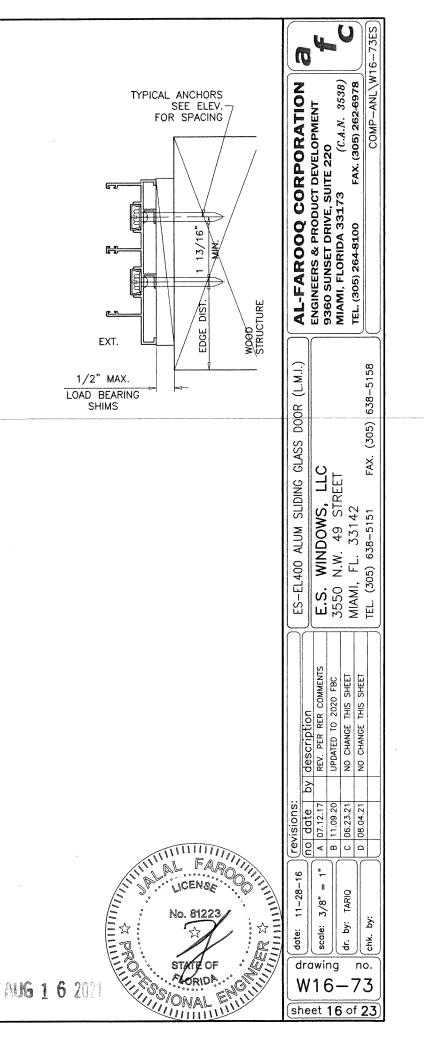
	ANCHORS: SEE ELEV. FOR SPACINGAT HEAD	
TYPE 'A'–	<u>1/4" DIA. ULTRACON+ BY 'DEWALT'</u> ($F_u=164$ KSI, $F_y=148$ KSI) INTO WOOD STRUCTURES 2" MIN. PENETRATION INTO WOOD THRU 1BY BUCKS INTO CONCRETE 1-3/4" MIN. EMBED INTO CONCRETE, 1-1/2" MIN. EDGE DIST. THRU 2BY BUCKS INTO CONCRETE 1-1/2" MIN. EMBED INTO CONCRETE, 1-1/2" MIN. EDGE DIST.	EX1.
TYPE 'B'	1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI) DIRECTLY INTO CONCRETE 2" MIN. EMBED INTO CONCRETE, 1-1/2" MIN. EDGE DIST.	
TYPE 'C'-	<pre>1/4" DIA. TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS) INTO F.B.C. APPROVED MULLIONS OR INTO METAL STRUCTURES (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)</pre>	PRODUCT REVIS as complying with t Building Code NOA-No. 21-0
·	·	Expiration Date 07/2 By Ishag I. Chank
TYPE 'B'-	AT SILL <u>1/4" DIA. ULTRACON+ BY 'DEWALT'</u> (Fu=164 KSI, Fy=148 KSI) DIRECTLY INTO CONCRETE 1-3/4" MIN. EMBED INTO CONCRETE	By <u>Isteq I. Chank</u> Miami-Dade Product
	AT JAMBS]
TYPE 'A'-	1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI) INTO WOOD STRUCTURES 2" MIN. PENETRATION INTO WOOD	· · · · · · · · · · · · · · · · · · ·
	THRU 1BY OR 2BY BUCKS INTO CONC. OR FILLED BLOCK $1-1/4$ " MIN. EMBED INTO CONCRETE $1-1/2$ " MIN. EMBED INTO FILLED BLOCKS	-
type 'B'-	1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI) DIRECTLY INTO CONCRETE OR GROUT FILLED BLOCKS 2" MIN. EMBED INTO CONCRETE 2" MIN. EMBED INTO GROUT FILLED BLOCKS	
TYPE 'C'-	 1/4" DIA. TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS) INTO F.B.C. APPROVED MULLIONS OR INTO METAL STRUCTURES (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) 	

INTO WOOD STRUCTURE = 1" 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.







PRODUCT RENEWED

as compl	ying with the Florida
Building	Code
NOA-No.	22-0118.06

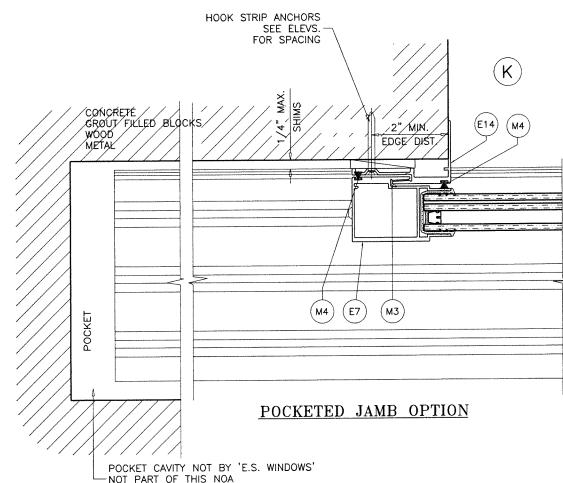
Expiration Date 07/20/2027

Ishag 1. Chank By Miami-Dade Product Control

Expiration Date 07/20/2022 Shag 1. Chande By Miami-Dade Product Control

NOA-No. 21-0728.02

PRODUCT REVISED as complying with the Florida Building Code



TO BE REVIEWED BY AHJ

1-3/4" MIN. EMBED INTO CONCRETE

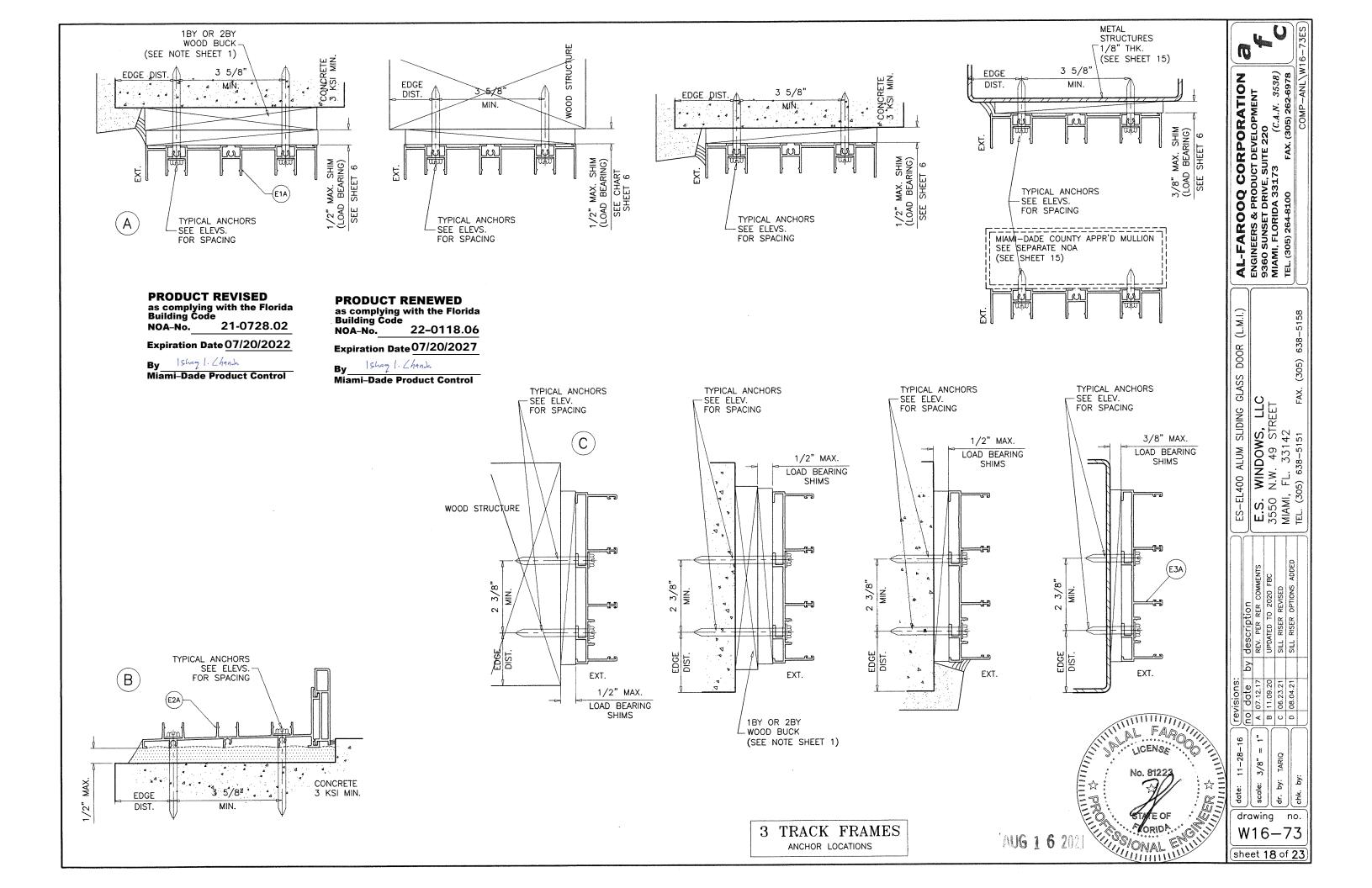
<u>#14 SMS</u> (GRADE 2 CRS)

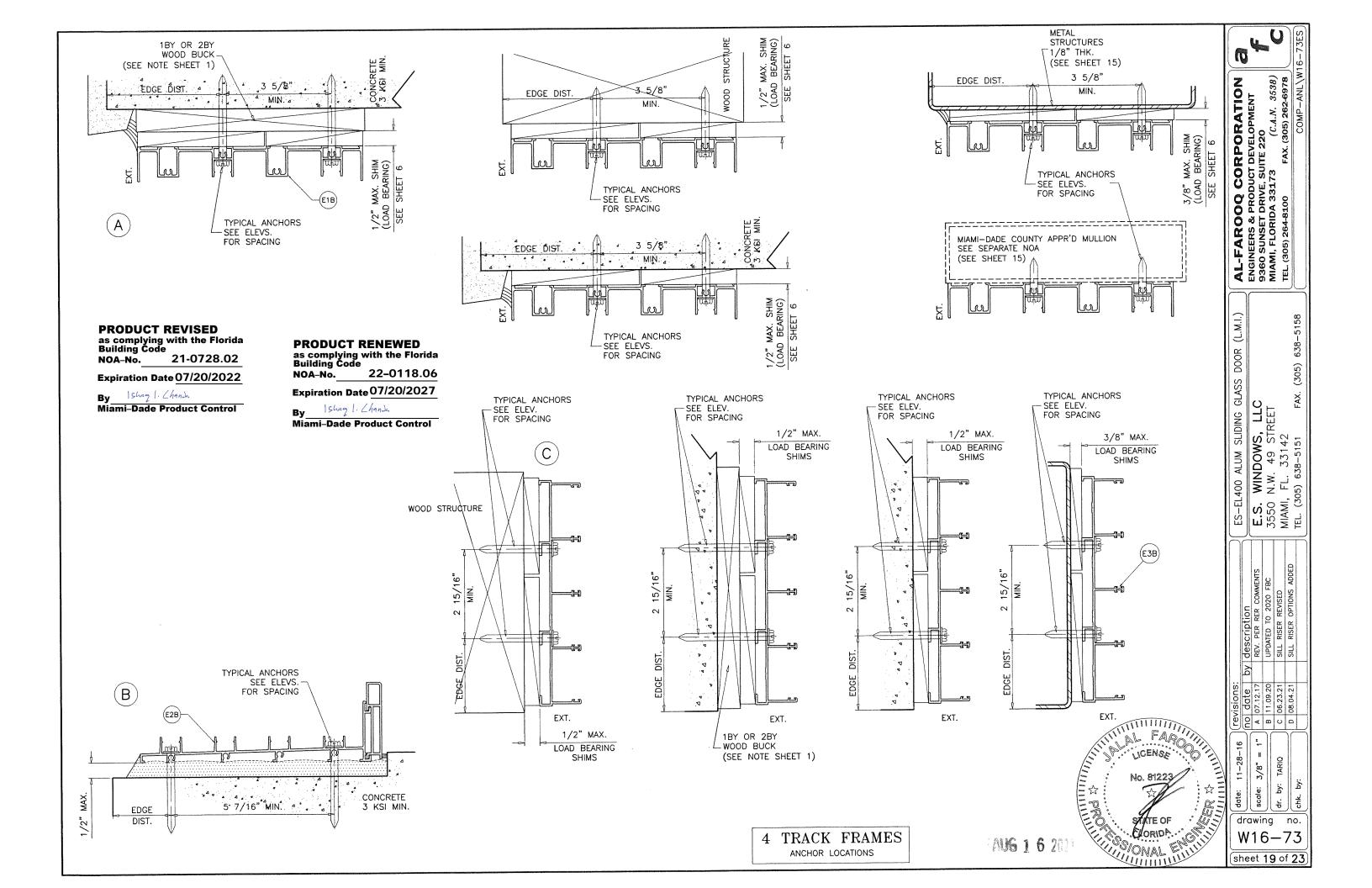
INTO METAL STRUCTURES

TYPICAL EDGE DISTANCE

INTO WOOD STRUCTURE = 1" MIN. INTO METAL STRUCTURE = 3/4" MIN.





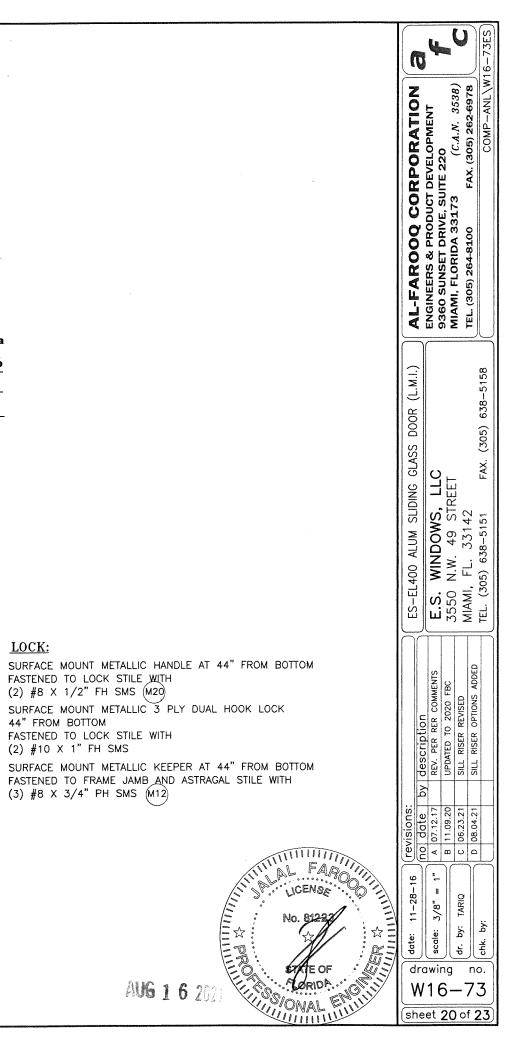


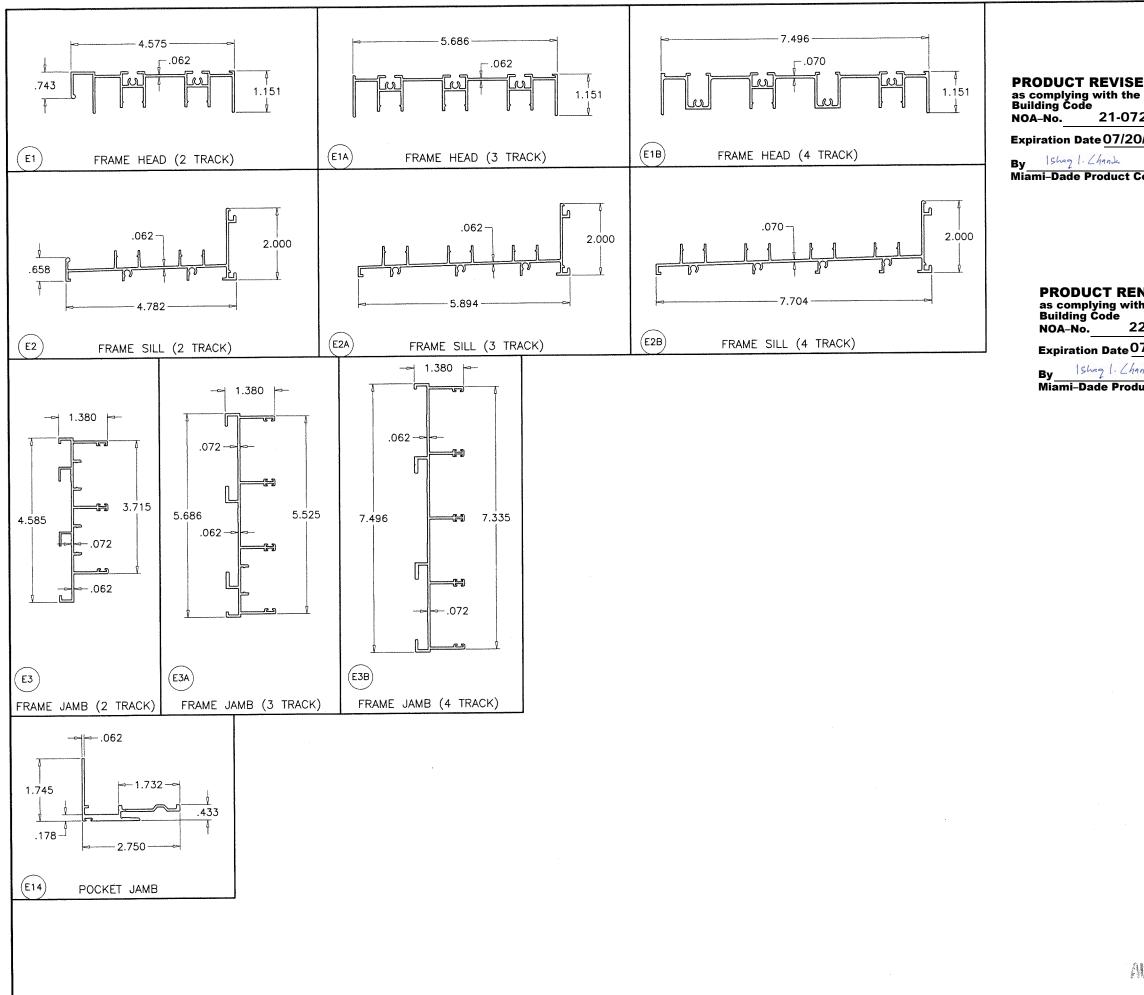
ITEM #	PART #	REQD.	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS	
E1	ES-EL400-001	1	FRAME HEAD (2 TRACK)	6063-T6	-	
E1A	ES-EL400-201	AS REQD.	FRAME HEAD (3 TRACK)	6063-T6		
E1B	ES-EL400-205	AS REQD.	FRAME HEAD (4 TRACK)	6063-T6	-	
E2	ES-EL400-002	1	FRAME SILL (2 TRACK)	6063-T6		
E2A	ES-EL400-202	AS REQD.	FRAME SILL (3 TRACK)	6063-T6	-	
E2B	ES-EL400-206	AS REQD.	FRAME SILL (4 TRACK)	6063-T6		
E3	ES-EL400-003	2	FRAME JAMB (2 TRACK)	6063-T6		
E3A	ES-EL400-203	AS REQD.	FRAME JAMB (3 TRACK)	6063-T6		T REVISED
E3B	ES-EL400-207	AS REQD.	FRAME JAMB (4 TRACK)	6063-T6	as complyi	ng with the Florida ode
E4	ES-EL400-004	1/ PANEL	TOP RAIL (INSUL. LAM. GLASS)	6063-T6	–NOA–No	21-0728.02
E5	ES-EL400-005	1/ PANEL	BOTTOM RAIL (INSUL. LAM. GLASS)	6063-T6	Expiration	Date 07/20/2022
E6	ES-EL400-006	AS REQD.	JAMB STILE (INSUL. LAM. GLASS)	6063-T6	- By Ishag	1. Chank
E7	ES-EL400-007	AS REQD.	INTERLOCK STILE (INSUL. LAM. GLASS)	6063-T6		e Product Control
E8	ES-EL400-009	1/ PANEL	TOP RAIL (LAM. GLASS)	6063-T6	-	
E9	ES-EL400-010	1/ PANEL	BOTTOM RAIL (LAM. GLASS)	6063-T6	-	
E10	ES-EL400-011	AS REQD.	JAMB STILE (LAM. GLASS)	6063-T6	-	PRODUCT RENEWED as complying with the Florida
E11	ES-EL400-012	AS REQD.	INTERLOCK STILE (LAM. GLASS)	6063-T6	_	Building Code
E12	ES-EL400-013	AS REQD.	ASTRAGAL STILE (LAM. GLASS)	6063-T6		NOA-No. 22-0118.06
E12A	ES-EL400-008	AS REQD.	ASTRAGAL STILE (INSUL. LAM. GLASS)	6063-T6	-	Expiration Date 07/20/2027
E13	ES-EL400-014	AS REQD.	JAMB COVER	6063-T5		By Ishaq I. Chanda
E14	ES-EL400-015	AS REQD.	POCKET JAMB	6063-T6		Miami-Dade Product Control
E15	ES-EL400-016	AS REQD.	SILL TRACK	6063-T6		
E16	ES-EL400-017	AS REQD.	HEAD COVER	6063-T5		
E17A	ES-2020-008	AS REQD.	SILL RISER	6063-T6		
E17B	ES-2020-007	AS REQD.	ALT. SILL RISER	6063-T6	-	
E17C	ES-2020-041	AS REQD.	ALT. SILL RISER	6063-T6		
E18	ES-EL400-020	AS REQD.	FIXED PANEL BOTTOM GUIDE	6063-T6	-	
E19	ES-EL400-021	AS REQD.	INTERLOCK REINFORCEMENT	6005-T5	-	
E26	ES-6011	AS REQD.	SCREW COVER	6063-T6	-	
М1	ES-EL400-G01	4/ PANEL	GLAZING GASKET (LAM. GLASS)	SILICONE	DUROMETER 70±3 SHORE A	
M2	ES-EL400-G02	4/ PANEL	GLAZING GASKET (INSUL. LAM. GLASS)	SILICONE	DUROMETER 70±3 SHORE A	
M3	ES2020-G04	AS REQD.	INTERLOCK BUMPER	PVC	DUROMETER 60±5 SHORE D	
M4	W33271NK	AS REQD.	PILE W'STRIPPING (INTERLOCK)	WOOL	-	
M5	W33181NK	AS REQD.	PILE W'STRIPPING	WOOL	_	SUF FAS
M6	PS01-0014	AS REQD.	DOOR HANDLE	DIE CAST ALUM	TWO POINT HANDLE	(2)
M7	PS01-1015	AS REQD.	STRIKE FOR MORTISE LOCK	ST. STEEL	-	SUF
M8	PS01-1036	AS REQD.	MORTISE 2 POINT LOCK	ST. STEEL		44"
M9	GT-R34/3-01-A	2/ PANEL	ROLLER ASSEMBLY	ZAMAK	-	FAS (2)
M10	6844.1	AS REQD.	BUMPER	ALUM/NYLON		SUF
M11	ES-EL400-FPI SL	AS REQD.	FIX. PANEL CLIP	ST. STEEL		FAS
M12	#8 X 3/4"	AS REQD.	KEEPER FASTENERS	ST. STEEL	P.H. SMS	(3)
M13	#10 X 1-1/4"	AS REQD.	PANEL ASSEMBLY FASTENERS	ST. STEEL	P.H. SMS	
M14	#12 X 1-1/2"	AS REQD.	FRAME ASSEMBLY FASTENERS	ST. STEEL	P.H. SMS	
M15	#6 X 3/8"	AS REQD.	FIX. PANEL CLIP FASTENERS	ST. STEEL	P.H. SMS	
M16	#8 X 1/2"	AS REQD.	FIX. PANEL CLIP FASTENERS	ST. STEEL	F.H. SMS	
M18	#10 X 1/2"	AS REQD.	ROLLER FASTENERS	ST. STEEL	P.H. SMS	
M19	#10 X 1"	AS REQD.	LOCK INSTALLATION FASTENERS	ST. STEEL	F.H. SMS	
	, <u>, , -</u> , , ,					1

SEALANT:

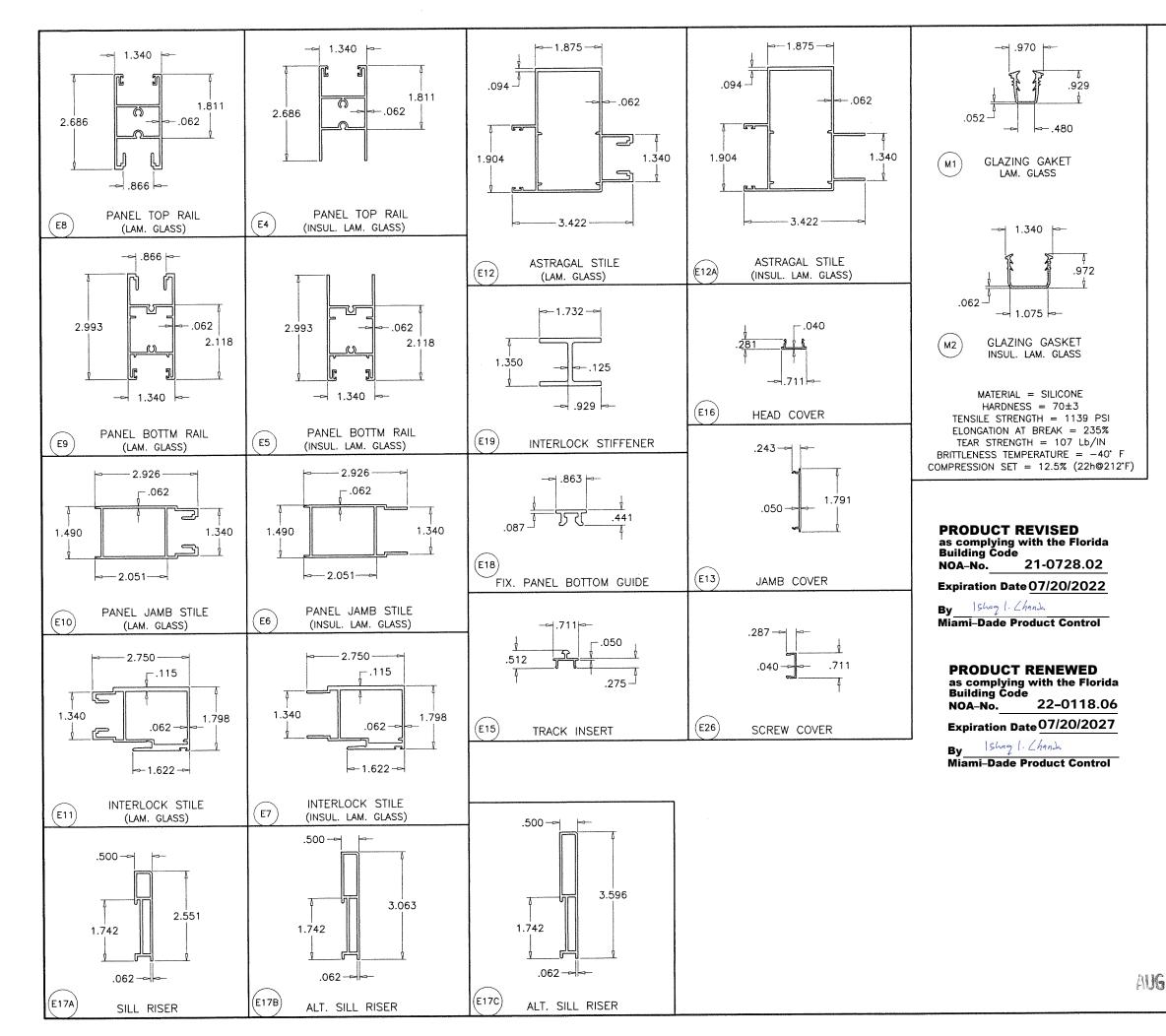
ALL JOINTS AND FRAME CONNECTIONS SEALED WITH WHITE/ALUMINUM COLORED SILICONE.

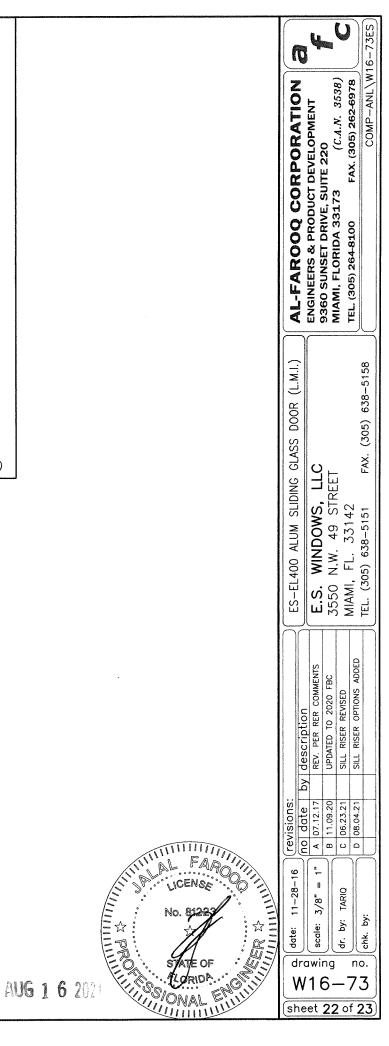
FASTENED TO LOCK STILE WITH (2) #10 X 1" FH SMS

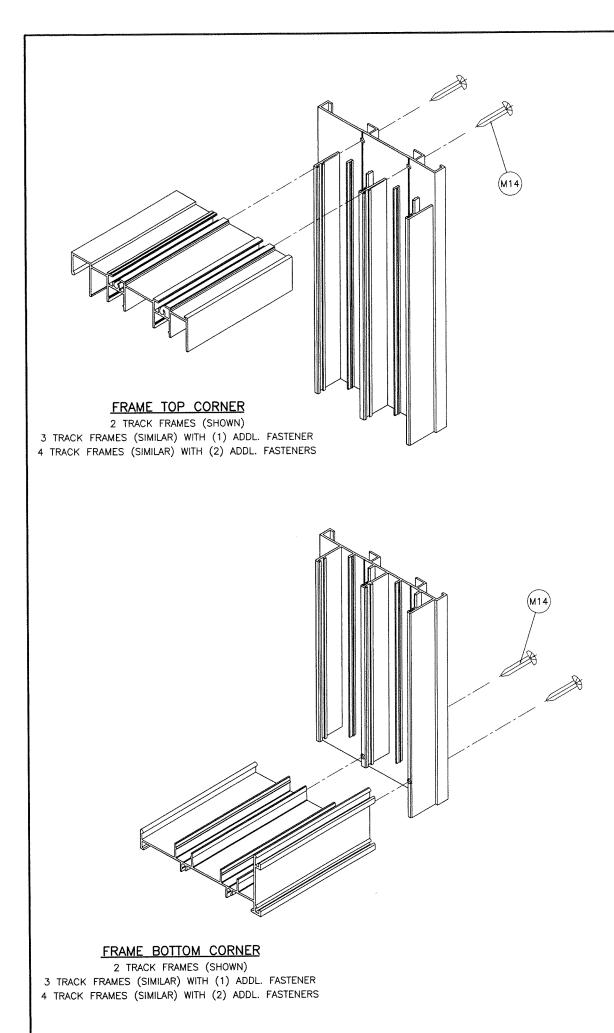




	C C C C
ED e Florida 728.02 0/2022 Control Control ,	AL-FAROOQ CORPORATION ENGINEERS & PRODUCT DEVELOPMENT 9360 SUNSET DRIVE, SUITE 220 MIAMI, FLORIDA 33173 (C.A.N. 3538) TEL. (305) 264-8100 FAX. (305) 262-6978 TEL. (305) 264-8100 COMP-ANL/W16-73ES
22-0118.06 07/20/2027 ml. Huct Control	ES-EL400 ALUM SLIDING GLASS DOOR (L.M.I.) E.S. WINDOWS, LLC 3550 N.W. 49 STREET MIAMI, FL. 33142 TEL. (305) 638-5151
No. 81223 No. 8123 No. 813 No. 8123 No. 813 No. 81	$ \begin{array}{c} \text{fervisions:} \\ \text{date: 11-28-16} \\ \text{date: 11-28-16} \\ \text{for date by description} \\ \text{date: 11-28-16} \\ \text{for date by description} \\ \text{for date by description} \\ \text{description} \\ de$







PRODUCT REVISEDas complying with the FloridaBuilding CodeNOA-No.21-0728.02

Expiration Date 07/20/2022

By Ishag I. Chank Miami-Dade Product Control

PRODUCT RENEWED

as complying with the Florida Building Code NOA-No. 22-0118.06

Expiration Date 07/20/2027

By Isheg I. Chank Miami-Dade Product Control

LAM. GLASS RAIL & STILE (SHOWN)

