



[DBPR HOME](#) /
 [ABOUT DBPR](#) /
 [DBPR DIVISIONS](#) /
 [CONTACT DBPR](#)

[BCIS Home](#) |
 [Log In](#) |
 [User Registration](#) |
 [Hot Topics](#) |
 [Submit Surcharge](#) |
 [Stats & Facts](#) |
 [Publications](#) |
 [Contact Us](#) |
 [BCIS Site Map](#) |
 [Links](#) |
 [Search](#)



Product Approval
USER: Public User

[Product Approval Menu](#) >
 [Product or Application Search](#) >
 [Application List](#) >
 Application Detail



FL #	FL21835-R9									
Application Type	Revision	FL-21835.2								
Code Version	2023									
Application Status	Approved									
Comments										
Archived										
Product Manufacturer	E.S. Windows, Inc.									
Address/Phone/Email	10653 NE Quaybridge Ct. Miami, FL 33138 (305) 624-7775 achamorro@eswllc.com									
Authorized Signature	Jalal Farooq veronica@afceng.com									
Technical Representative	Samir Sabagh									
Address/Phone/Email	3550 NW 49th St. Miami, FL 33142 (305) 638-5151 ssabagh@energiasolarsa.com									
Quality Assurance Representative										
Address/Phone/Email										
Category	Exterior Doors									
Subcategory	Swinging Exterior Door Assemblies									
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer <input type="checkbox"/> Evaluation Report - Hardcopy Received									
Florida Engineer or Architect Name who developed the Evaluation Report	Jalal Farooq									
Florida License	PE-81223									
Quality Assurance Entity	Keystone Certifications, Inc.									
Quality Assurance Contract Expiration Date	07/16/2025									
Validated By	Abel Carrasco, PE <input type="checkbox"/> Validation Checklist - Hardcopy Received									
Certificate of Independence	FL21835_R9_COI_SS - Certificate of Independence.pdf									
Referenced Standard and Year (of Standard)	<table border="0"> <thead> <tr> <th><u>Standard</u></th> <th><u>Year</u></th> </tr> </thead> <tbody> <tr> <td>TAS 201</td> <td>1994</td> </tr> <tr> <td>TAS 202</td> <td>1994</td> </tr> <tr> <td>TAS 203</td> <td>1994</td> </tr> </tbody> </table>	<u>Standard</u>	<u>Year</u>	TAS 201	1994	TAS 202	1994	TAS 203	1994	
<u>Standard</u>	<u>Year</u>									
TAS 201	1994									
TAS 202	1994									
TAS 203	1994									
Equivalence of Product Standards Certified By										
Sections from the Code										

Product Approval Method Method 1 Option D

Date Submitted 08/02/2023
 Date Validated 08/07/2023
 Date Pending FBC Approval 08/09/2023
 Date Approved 10/17/2023

Summary of Products

FL #	Model, Number or Name	Description
21835.1	Series ES-46T Thermal Aluminum Outswing Entrance Door	Small missile impact resistant thermal aluminum outswing entrance door.
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: +100/-120 Other: See attached drawing W17-08 for installation details.		Installation Instructions FL21835 R9 II SS - ES-46T OS Door (SMI) - DWG W17-08 2023.pdf Verified By: Jalal Farooq PE # 81223 Created by Independent Third Party: Yes Evaluation Reports FL21835 R9 AE SS - ES-46T OS Door (SMI) - PAE 2023.pdf Created by Independent Third Party: Yes
21835.2	Series ES-46T Thermal Aluminum Outswing Entrance Door	Large missile impact resistant thermal aluminum outswing entrance door.
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: +100/-120 Other: See attached drawing W17-07 for installation details and span vs load combinations.		Installation Instructions FL21835 R9 II SS - ES-46T OS Door (LMI) - DWG W17-07 2023.pdf Verified By: Jalal Farooq PE # 81223 Created by Independent Third Party: Yes Evaluation Reports FL21835 R9 AE SS - ES-46T OS Door (LMI) - PAE 2023.pdf Created by Independent Third Party: Yes

[Back](#) [Next](#)

[Contact Us :: 2601 Blair Stone Road, Tallahassee FL 32399 Phone: 850-487-1824](#)

The State of Florida is an AA/EEO employer. [Copyright 2007-2013 State of Florida](#) :: [Privacy Statement](#) :: [Accessibility Statement](#) :: [Refund Statement](#)

Under Florida law, email addresses are public records. If you do not want your e-mail address released in response to a public-records request, do not send electronic mail to this entity. Instead, contact the office by phone or by traditional mail. If you have any questions, please contact 850.487.1395. *Pursuant to Section 455.275(1), Florida Statutes, effective October 1, 2012, licensees licensed under Chapter 455, F.S. must provide the Department with an email address if they have one. The emails provided may be used for official communication with the licensee. However email addresses are public record. If you do not wish to supply a personal address, please provide the Department with an email address which can be made available to the public. To determine if you are a licensee under Chapter 455, F.S., please click [here](#).



Credit Card
Safe



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

ES-46T THERMAL ALUMINUM OUTSWING ENTRANCE DOOR

SINGLE (X) AND DOUBLE (XX) LEAF DOORS W/O TRANSOM SEE SHEETS 2, SINGLE (O/X) AND DOUBLE (O/XX) LEAF DOORS WITH TRANSOMS SEE SHEET 3, SINGLE SIDELITE OR SINGLE AND DOUBLE LEAF DOORS WITH SIDELITES SEE SHEETS 4 & 5.

LOWER VALUES FROM TRANSOM/SIDELITE CAPACITY CHART OR DOOR CAPACITY WILL APPLY TO ENTIRE SYSTEM.

DOORS APPROVED FOR INSTALLATIONS WHERE WATER INFILTRATION RESISTANCE IS REQUIRED.

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 BLOC. CODE & ADOPTED STANDARDS.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, I.E. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC.

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

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

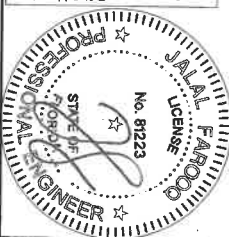
MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE. LABELING TO COMPLY WITH SECTION 1709.9.2.

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

A- CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THE PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.
B- THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
C- SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER DESIGNER THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER DRAWINGS FOR REVIEW SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

Sealed: 8/1/2023

FL #21835



ES-46T THERMAL ALUM FRENCH DOOR (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

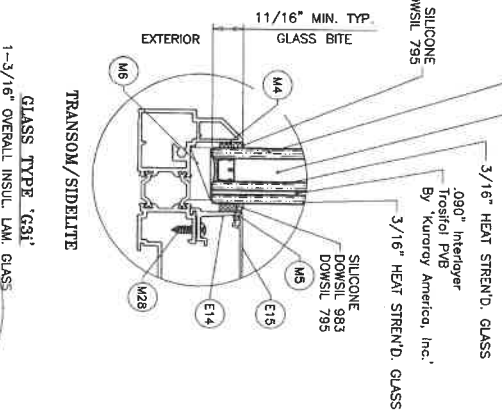
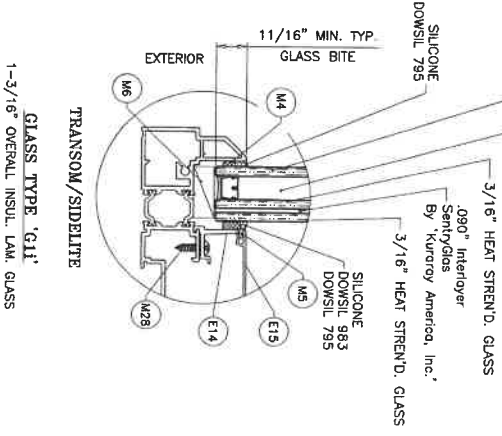
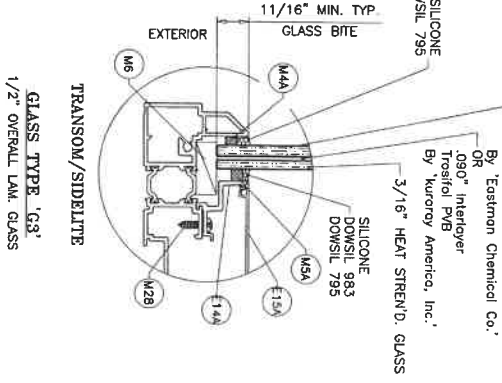
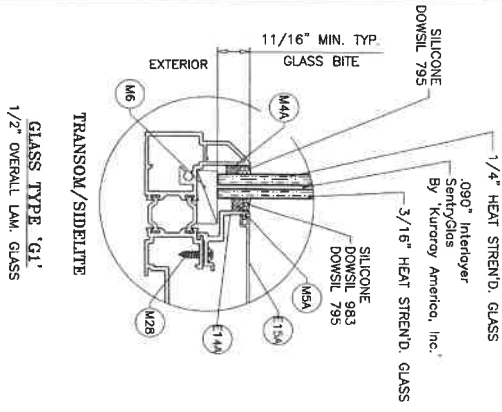
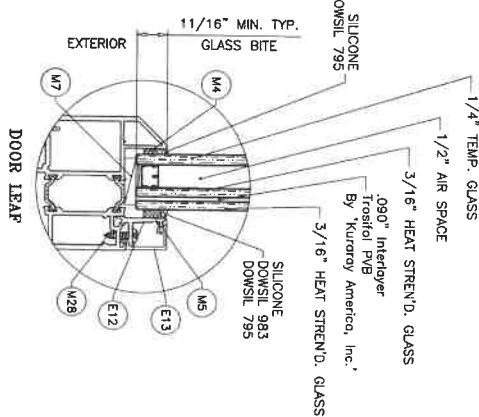
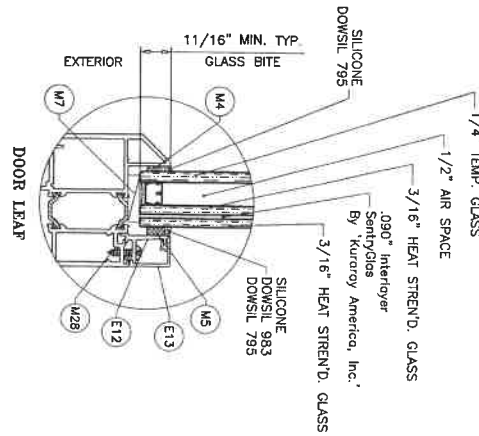
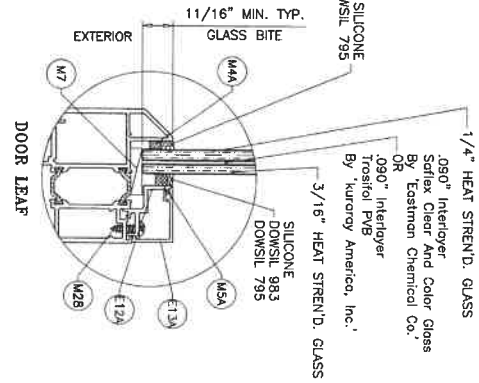
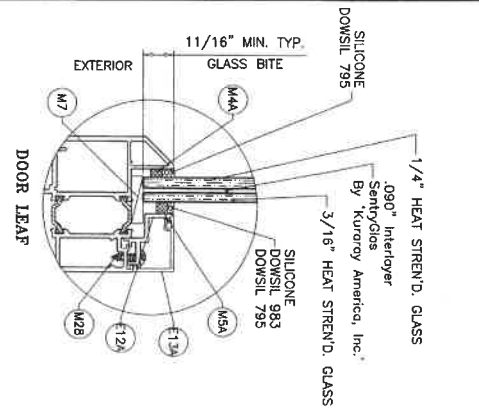
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978



COMP-ANL W17-07ES

revisions:			
no	date	by	description
E	07.09.19		ALT. SIDELITE FRAME ADDED
F	10.12.20		UPDATED TO 2020 FBC
G	02.03.21		LAM. GLASS OPTION ADDED
H	07.31.23		UPDATED TO 2023 FBC

date: 01-02-17
scale: 3/8" = 1"
dr. by: TARIQ
chk. by:
drawing no. W17-07
sheet 1 of 15



GLAZING OPTIONS

GLASS TYPE 'G1'
1/2" OVERALL LAM. GLASS

GLASS TYPE 'G3'
1/2" OVERALL LAM. GLASS

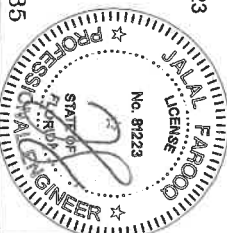
GLASS TYPE 'G11'
1-3/16" OVERALL INSUL. LAM. GLASS

GLASS TYPE 'G31'
1-3/16" OVERALL INSUL. LAM. GLASS

1/2" AIR SPACE CONSISTING OF:
SEAGER HELIMA LOW PROFILE ALUMINUM SPACER
BY 'LINGERMANN GMBH'
AROUND THE PERIMETER OF THE GLASS.
PERIMETER SEALANT:
SILICONE DOWSIL 791
GE 2000

Sealed: 8/11/2023

FL #21835



date:	01-02-17
scale:	3/8" = 1"
dr. by:	TARIO
chk. by:	
drawing no.	W17-07
Sheet	1 of 15

revisions:	
no.	date by description

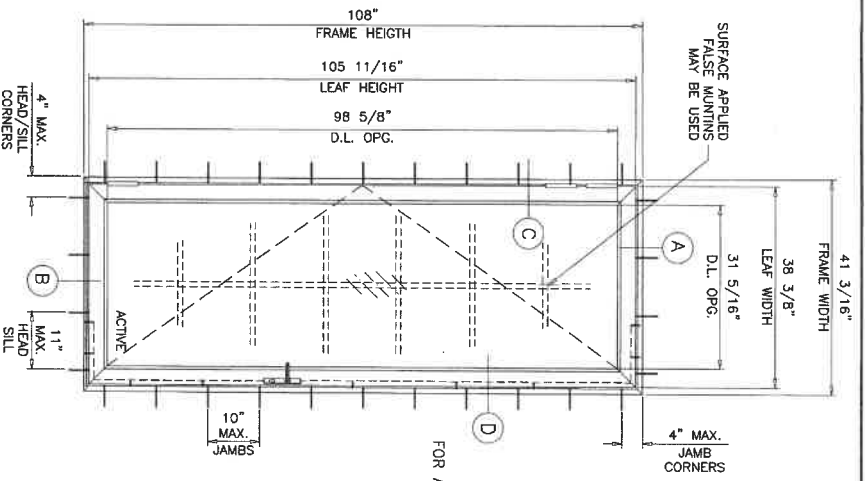
ES-46T THERMAL ALUM FRENCH DOOR (L.M.I.)

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

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

a f c

COMP-ANL W17-07ES



TYPICAL ELEVATION (X)

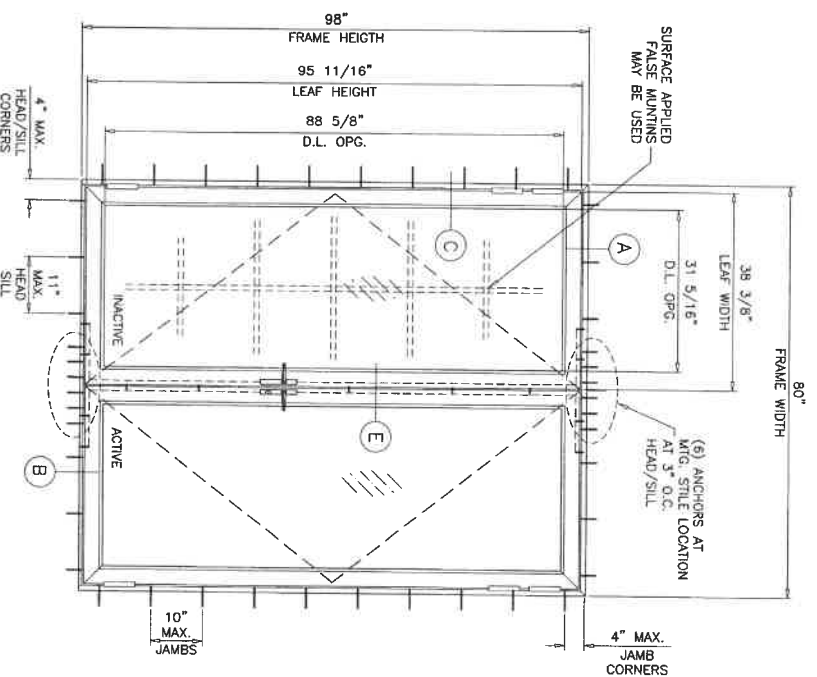
DOORS LOAD CAPACITY - PSF SINGLE DOORS (X)		
SINGLE DOOR (X) DIMS.	GLASS TYPES 'G1' & 'G11'	
FRAME HEIGHT	EXT.(+)	INT.(-)
41-3/16"	108"	100.0
38-3/16"	120"	80.0

DOORS LOAD CAPACITY - PSF SINGLE DOORS (X)		
SINGLE DOOR (X) DIMS.	GLASS TYPES 'G1', 'G11' & 'G3', 'G31'	
FRAME HEIGHT	EXT.(+)	INT.(-)
41-3/16"	98"	90.0
		100.0

DOORS LOAD CAPACITY - PSF SINGLE DOORS (X)		
SINGLE DOOR (X) DIMS.	GLASS TYPE 'G1'	
FRAME HEIGHT	EXT.(+)	INT.(-)
41-3/16"	120"	100.0
		120.0

* REQUIRES EXTRA HINGE AT MID HEIGHT

FOR ALTERNATE UNIT SIZES SEE CHARTS BELOW.



TYPICAL ELEVATION (XX)

DOORS LOAD CAPACITY - PSF DOUBLE DOORS (XX)		
DOUBLE DOOR (XX) DIMS.	GLASS TYPES 'G1', 'G11' & 'G3', 'G31'	
FRAME HEIGHT	EXT.(+)	INT.(-)
80"	98"	90.0
		100.0

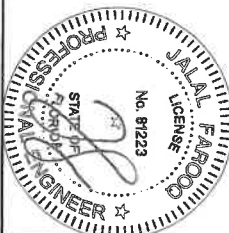
DOORS LOAD CAPACITY - PSF DOUBLE DOORS (XX)		
DOUBLE DOOR (XX) DIMS.	GLASS TYPE 'G11'	
FRAME HEIGHT	EXT.(+)	INT.(-)
74"	120"	80.0
		80.0

DOORS LOAD CAPACITY - PSF DOUBLE DOORS (XX)		
DOUBLE DOOR (XX) DIMS.	GLASS TYPE 'G1'	
FRAME HEIGHT	EXT.(+)	INT.(-)
76-1/2"	120"	80.0
		80.0

ASTRAGAL STILE DETAIL 'E1'

GLASS D.L.O. FORMULAE:
 D.L.O. WIDTH = (FRAME WIDTH - 9.750") (X DOORS)
 D.L.O. HEIGHT = (FRAME HEIGHT - 17.125")/2 (XX DOORS)

Sealed: 8/1/2023
 FL #21835



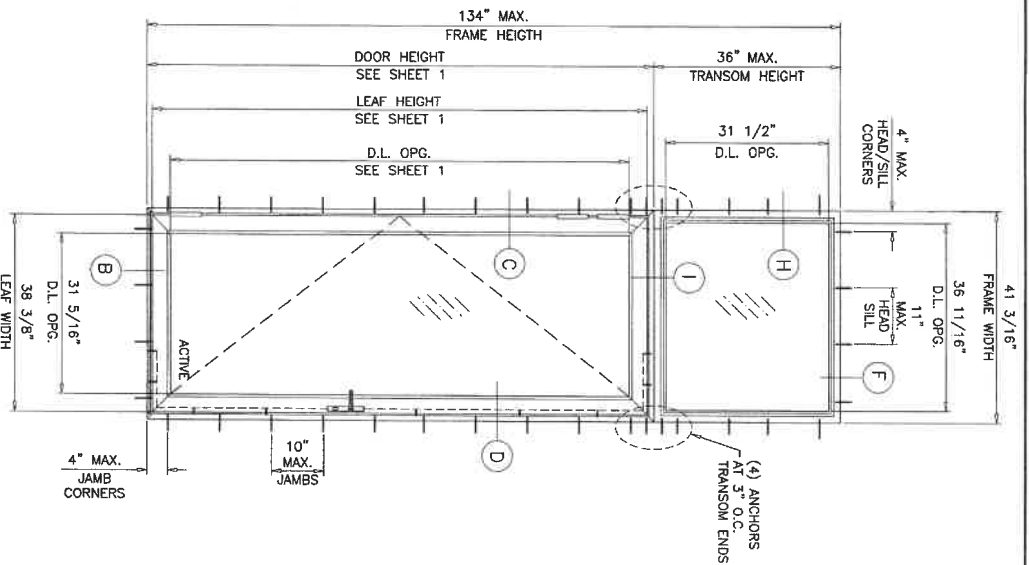
date:	01-02-17
scale:	1/2"=1'-0"
dr. by:	TARIO
chk. by:	

revisions:		
no.	date	description

ES-46T THERMAL ALUM FRENCH DOOR (L.M.I.)
 E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

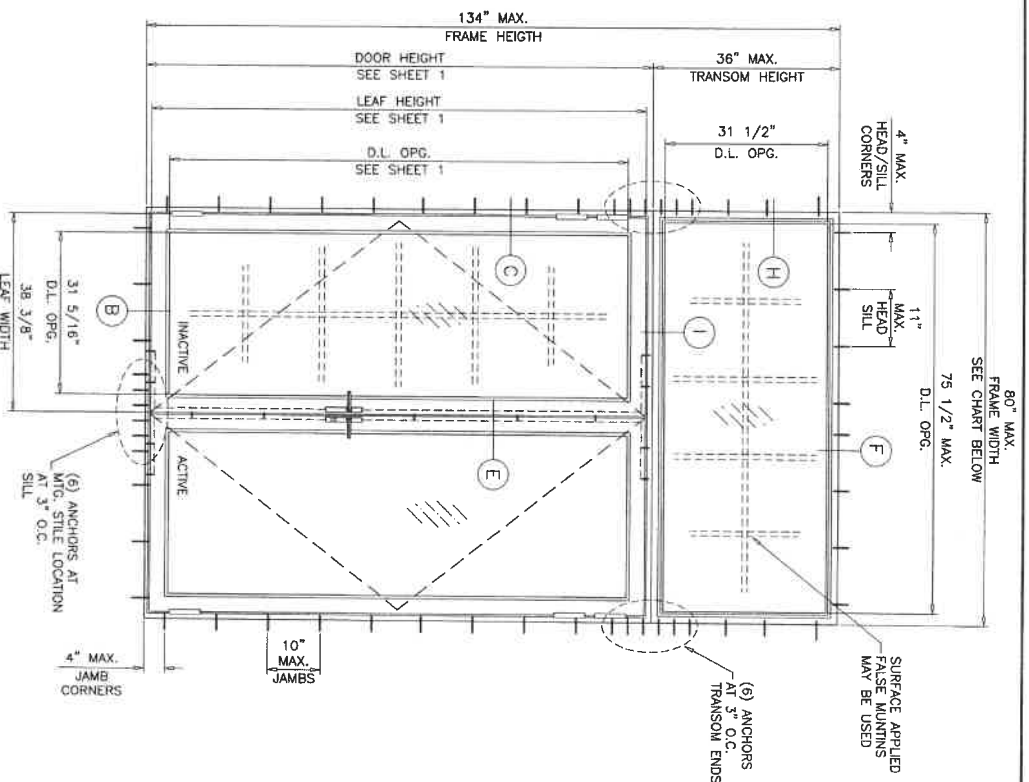
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173 (C.A.N. 3538)
 TEL. (305) 264-8100 FAX. (305) 262-6978





TYPICAL ELEVATION
(O/X)

TRANSOM LOAD CAPACITY - PSP SINGLE DOORS WITH TRANSOM (O/X)			
FRAME (O/X) DIMS.	GLASS TYPES 'G11' & 'G31'	EXT.(+)	INT.(-)
FRAME WIDTH	FRAME HEIGHT	90.0	100.0
41'-3/16"	134"		



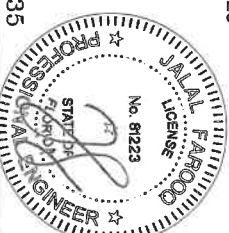
TYPICAL ELEVATION
(O/XX)

TRANSOM LOAD CAPACITY - PSP DOUBLE DOORS WITH TRANSOM (O/XX)			
FRAME (O/XX) DIMS.	GLASS TYPES 'G11' & 'G31'	EXT.(+)	INT.(-)
FRAME WIDTH	FRAME HEIGHT	90.0	100.0
80"	134"	79.8	79.8
		57.5	57.5

NOTE:
FOR DOOR CAPACITY SEE CHARTS ABOVE.
FOR LOWER VALUES FROM TRANSOM CHARTS OR
DOOR CAPACITY CHART WILL APPLY.

Sealed: 8/1/2023

FL #21835

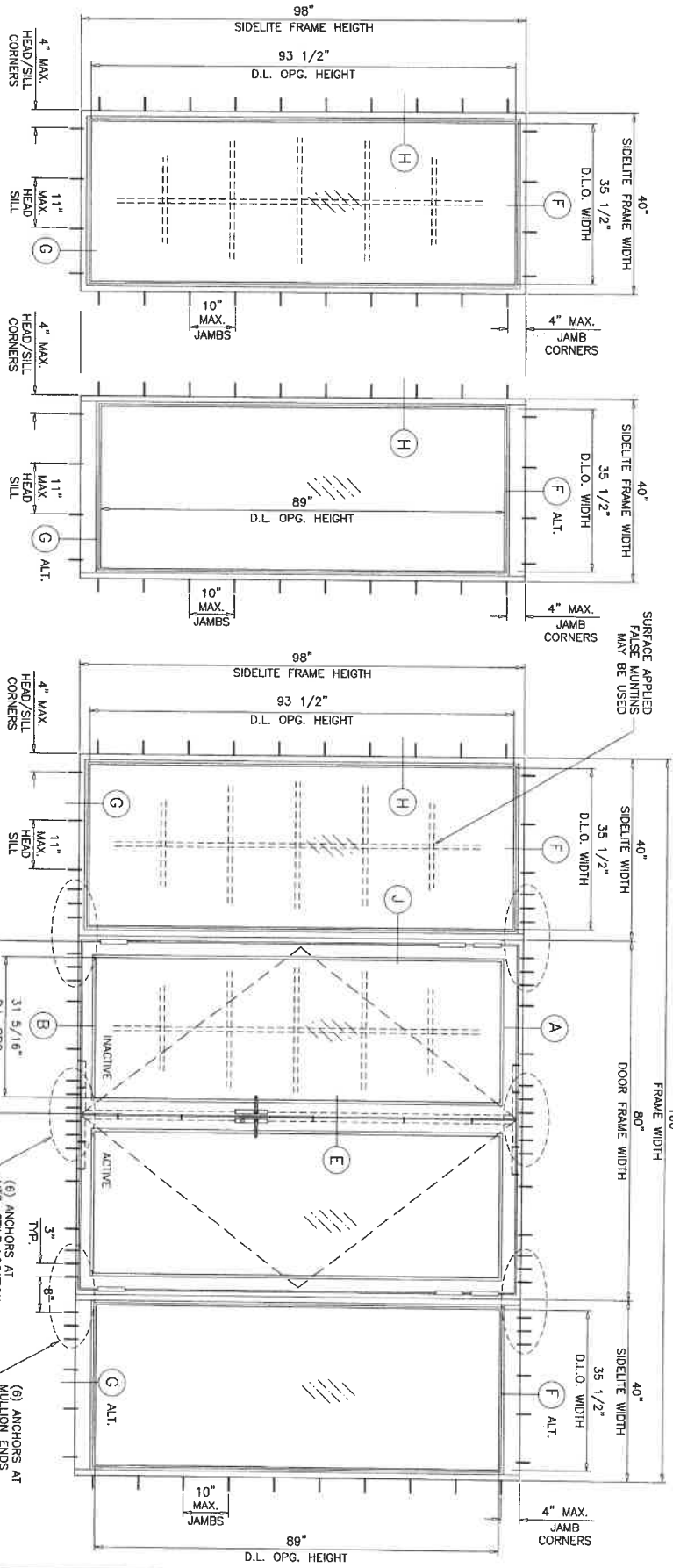


date:	01-02-17	revisions:	
scale:	1/2"=1'-0"	no.	date
dr. by:	TARIO	by	description
chk. by:			

ES-46T THERMAL ALUM FRENCH DOOR (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

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 W17-07ES





TYPICAL ELEVATION
(O)

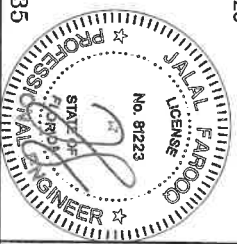
TYPICAL ELEVATION
(O-XX-O)

SIDELITE LOAD CAPACITY - PSF		STATIONARY PANEL (O)	
SIDELITE (O)	THRESHOLD TYPE	STD. SILL	INT.(-)
DIMS.			
FRAME WIDTH	FRAME HEIGHT	EXT.(+)	INT.(-)
40"	98"	90.0	100.0

D.L.O. HEIGHT (SIDELITE) = FRAME HEIGHT - 4.50"
D.L.O. WIDTH (SIDE LITE) = FRAME WIDTH - 4.50"

Sealed: 8/1/2023

FL #21835



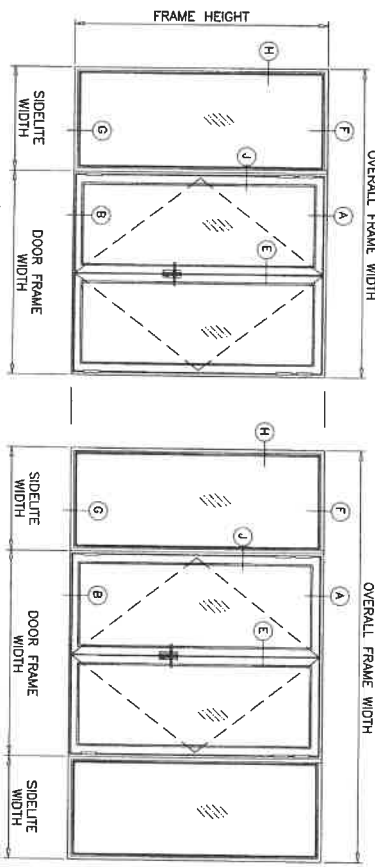
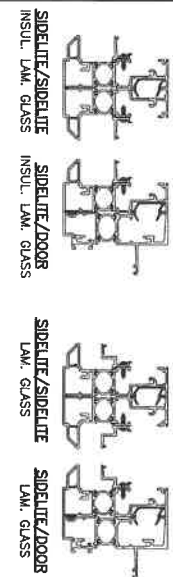
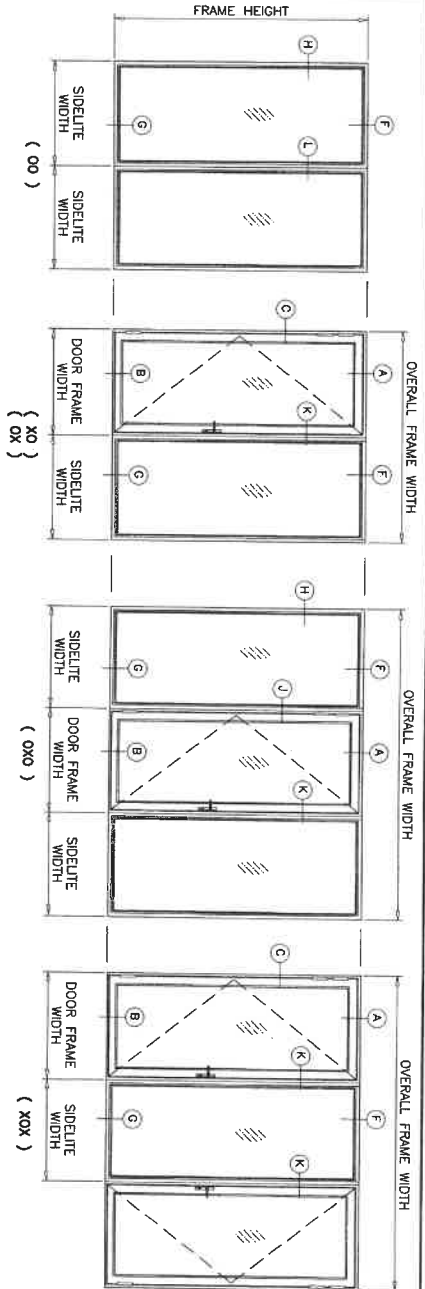
date: 01-02-17	revisions:	ES-46T THERMAL ALUM FRENCH DOOR (L.M.I.)
scale: 1/2"=1'-0"	no. date by description	E.S. WINDOWS, LLC
dr. by: TARIQ		3550 N.W. 49 STREET
chk. by:		MIAMI, FL. 33142
		TEL. (305) 638-5151 FAX. (305) 638-5158

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 W17-07ES

DESIGN LOAD CAPACITY - PSP

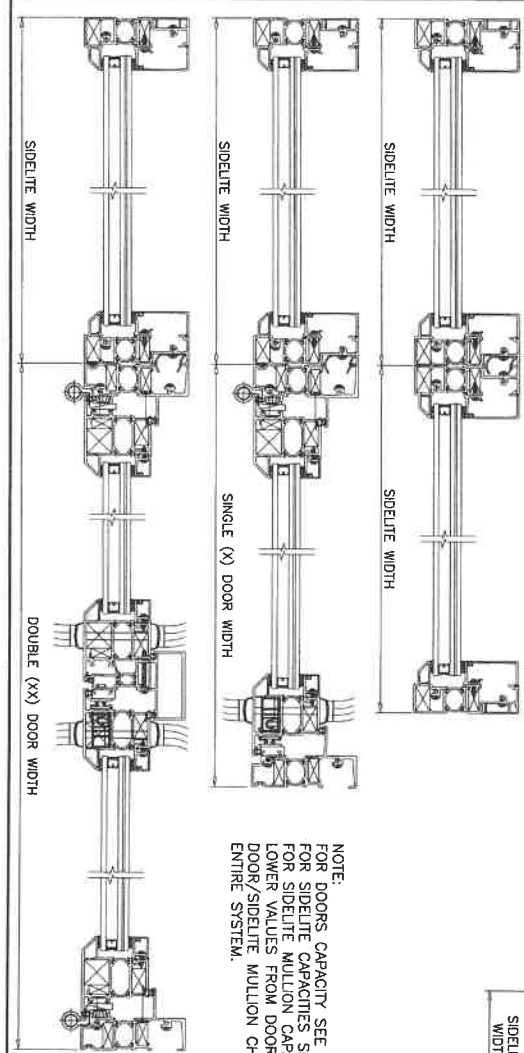
SIDELITE WIDTH INCHES	FRAME HEIGHT INCHES	INSUL. LAM. MILLION		LAM. GLASS MILLION	
		EXT (+)	INT (-)	EXT (+)	INT (-)
18	84	90.0	100.0	90.0	100.0
24		90.0	100.0	90.0	100.0
30	90	90.0	100.0	90.0	100.0
36		90.0	100.0	90.0	100.0
40	98	90.0	100.0	90.0	100.0
42		90.0	100.0	90.0	100.0
18	90	90.0	100.0	90.0	100.0
24		90.0	100.0	90.0	100.0
30	98	90.0	100.0	90.0	100.0
36		90.0	100.0	90.0	100.0
40	90.0	90.0	100.0	90.0	100.0
42		90.0	100.0	90.0	100.0



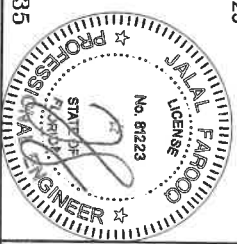
APPROVED CONFIGURATIONS

NOTE:
FOR DOORS CAPACITY SEE SHEET 2
FOR SIDELITE CAPACITIES SEE SHEET 4
FOR SIDELITE MILLION CAPACITY SEE CHART ABOVE
LOWER VALUES FROM DOORS, SIDELITE OR
DOOR/SIDELITE MILLION CHART WILL APPLY TO
ENTIRE SYSTEM.

Sealed: 8/1/2023



FL #21835



date:	01-02-17
scale:	1/2"=1'-0"
dr. by:	TARIQ
chk. by:	

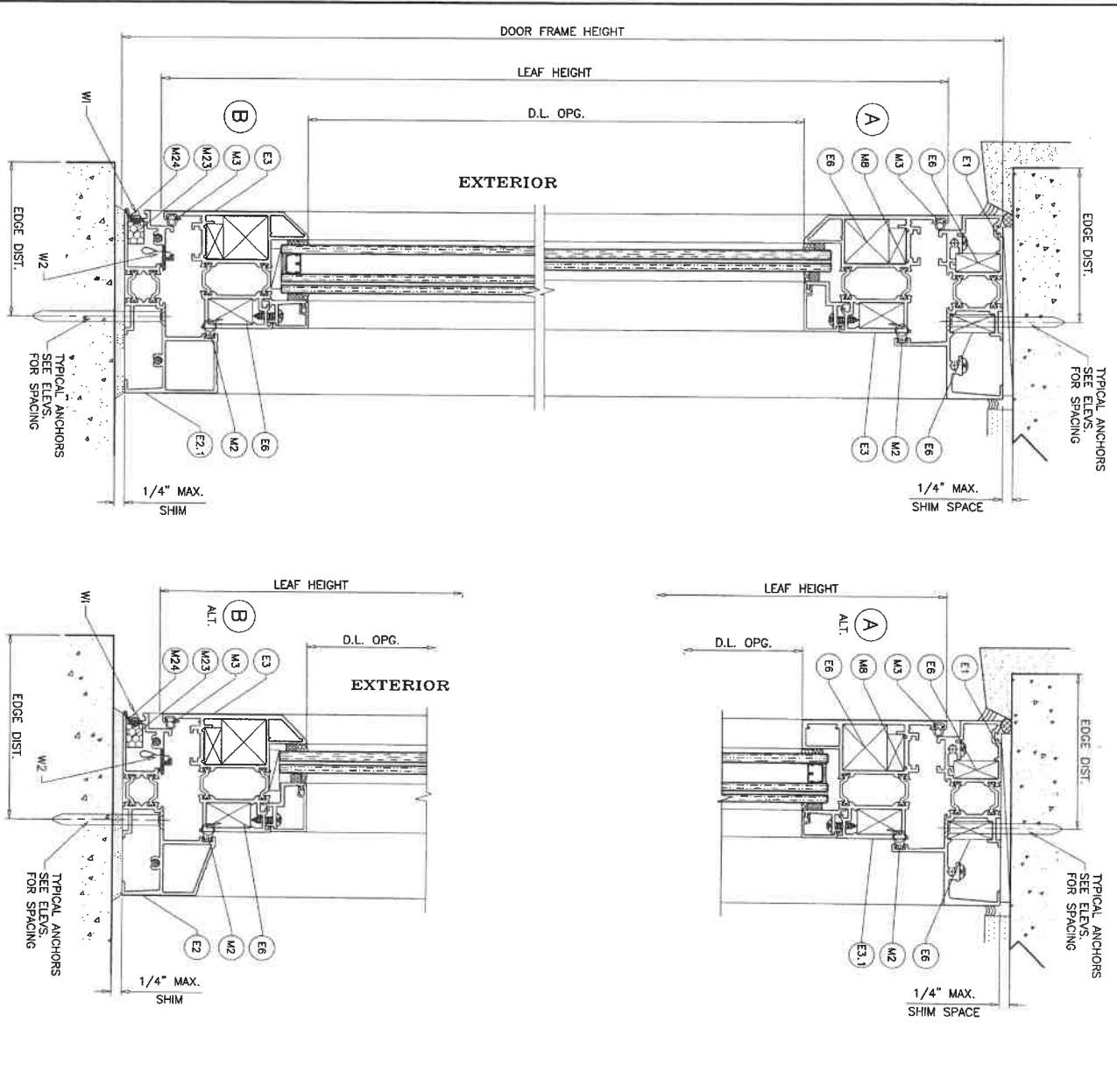
revisions:	
no.	date by description

ES-46T THERMAL ALUM FRENCH DOOR (L.M.I.)
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

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



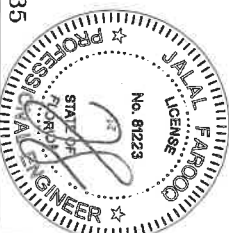
COMP-ANL\W17-07ES



WEEPHOLES:
 W1 = 1-7/8" X 5/16" WEEP HOLES AT 6" FROM EACH END
 WITH PVC BAFFLE
 W2 = 1" X 7/16" WEEP HOLES AT 6" FROM EACH END

Sealed: 8/1/2023

DOOR DETAILS



FL #21835

drawing no. W17-07	date: 01-02-17	revisions:
	scale: 3/8" = 1"	no. date by description
	dr. by: TARIQ	
	chk. by:	

ES-46T THERMAL ALUM FRENCH DOOR (L.M.I.)
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

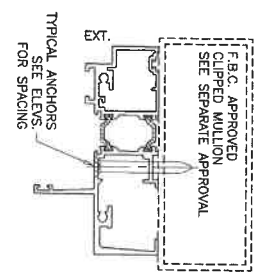
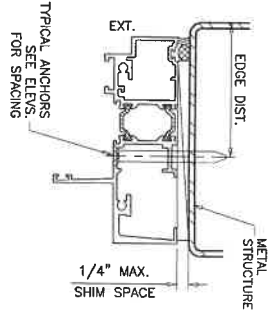
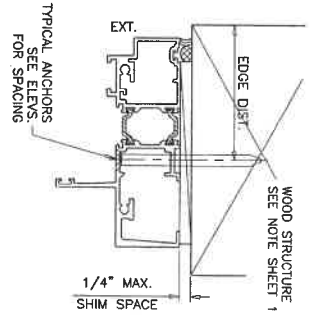
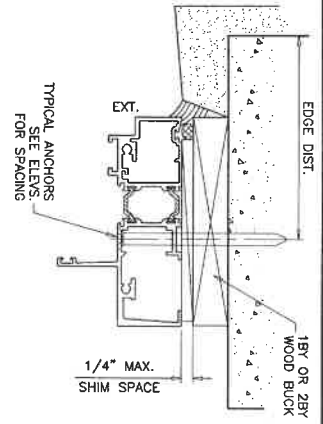
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173 (C.A.N. 3538)
 TEL. (305) 264-8100 FAX. (305) 262-6978



COMP-ANL\W17-07ES

Sheet 6 of 15

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



TYPICAL ANCHORS: SEE ELEV. FOR SPACING

#14 DIA. CRETE-FLEX SS4 BY 'DEWALT' (F_u=190 KSI, F_y=127 KSI)

1/4" DIA. ULTRACON+ BY 'DEWALT' (F_u=190 KSI, F_y=164 KSI)

1/4" DIA. ULTRACON+ BY 'DEWALT' (F_u=164 KSI, F_y=148 KSI)

INTO WOOD STRUCTURES

2" MIN. PENETRATION INTO WOOD (HEAD/JAMBS)

THRU 1BY OR 2BY BUCKS INTO CONC. OR BLOCKS

1-1/4" MIN. EMBED INTO CONCRETE (HEAD/JAMBS)

1-3/8" MIN. EMBED INTO GROUT FILLED BLOCKS (JAMBS)

DIRECTLY INTO CONCRETE OR BLOCKS

2" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)

2" MIN. EMBED INTO GROUT FILLED BLOCKS (JAMBS)

1/4" DIA. TEKS OR SELF-DRILLING SCREWS (GRADE 5 CRS)

1/4" DIA. DRIL-FLEX SELF-DRILLING SCREWS BY 'DEWALT' (GRADE 5 CRS)

INTO METAL STRUCTURES (HEAD/JAMBS)

(3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS

ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.)

STEEL: 1/8" THK. MIN. (F_y = 36 KSI MIN.)

(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

#14 SMS OR SELF-DRILLING SCREWS (GRADE 2 CRS)

INTO MIAMI-DADE COUNTY APPROVED MULLIONS

(3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS

ALUMINUM: 1/8" THK. MIN. (6063-T5 MIN.) (NO SHIMS)

STEEL: 1/8" THK. MIN. (F_y = 36 KSI MIN.) (NO SHIMS)

(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.

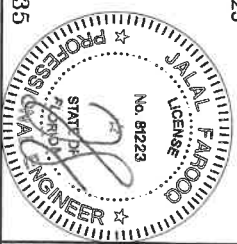
WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.

CONCRETE AT HEAD, SILL OR JAMBS f'_c = 3000 PSI MIN.

C-90 HOLLOW/FILLED BLOCK AT JAMBS f'_m = 2000 PSI MIN.

DOOR DETAILS

Sealed: 8/1/2023



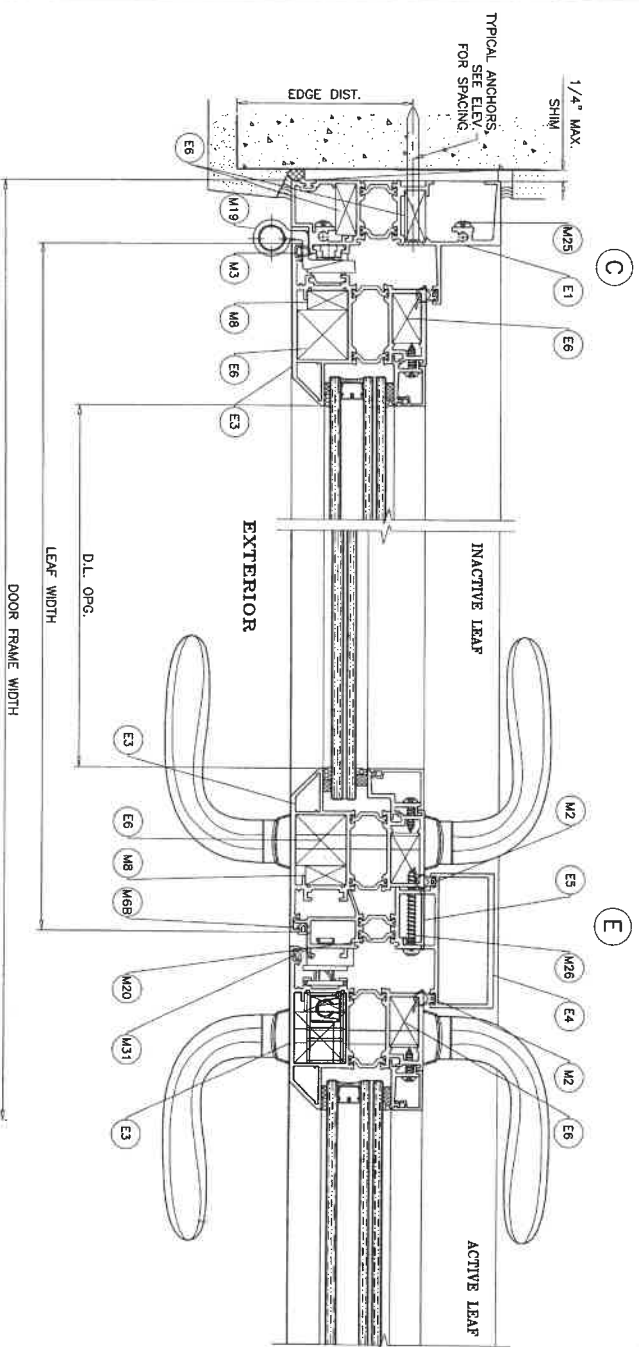
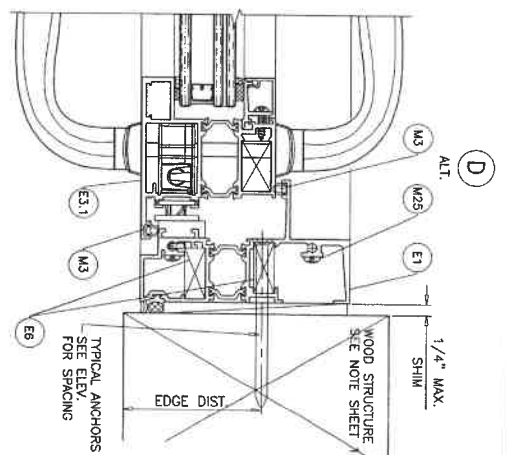
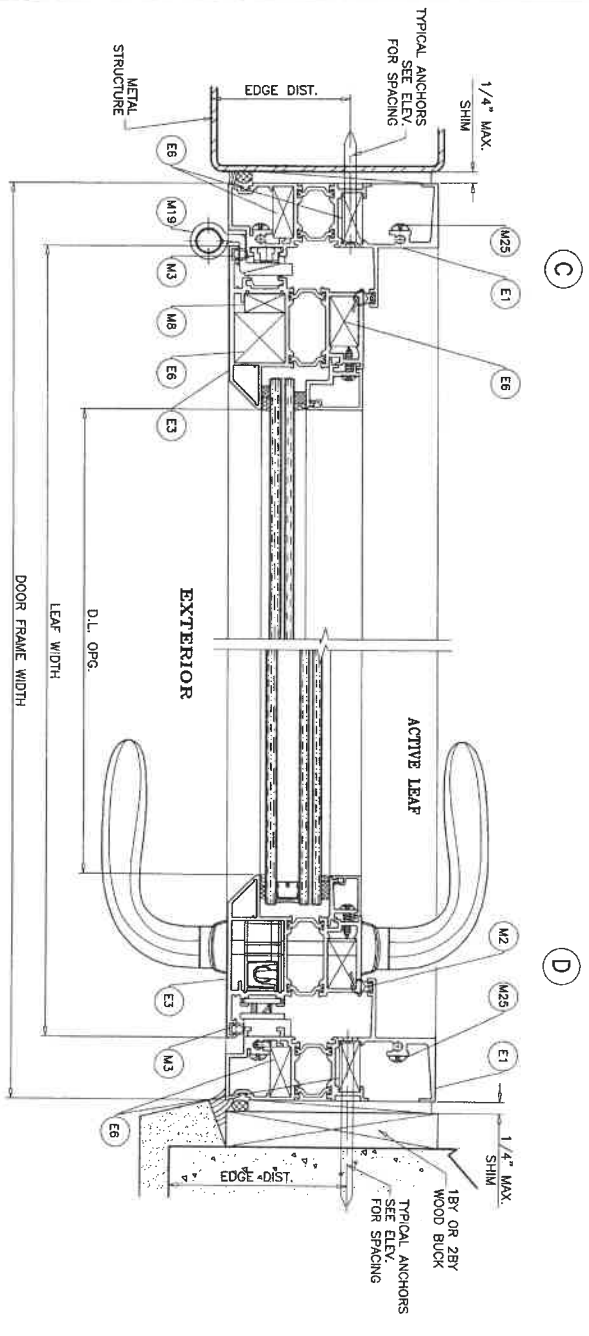
FL #21835

date:	01-02-17	revisions:	no.	date	by	description
scale:	3/8" = 1"					
dr. by:	TARIQ					
chk. by:						

ES-46T THERMAL ALUM FRENCH DOOR (L.M.I.)
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

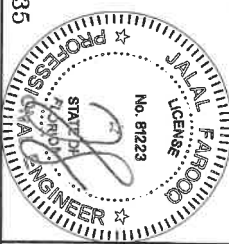
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173 (C.A.N. 3538)
 TEL. (305) 264-8100 FAX. (305) 262-6978
 COMP-ANL\W17-07ES





Sealed: 8/1/2023

DOOR DETAILS



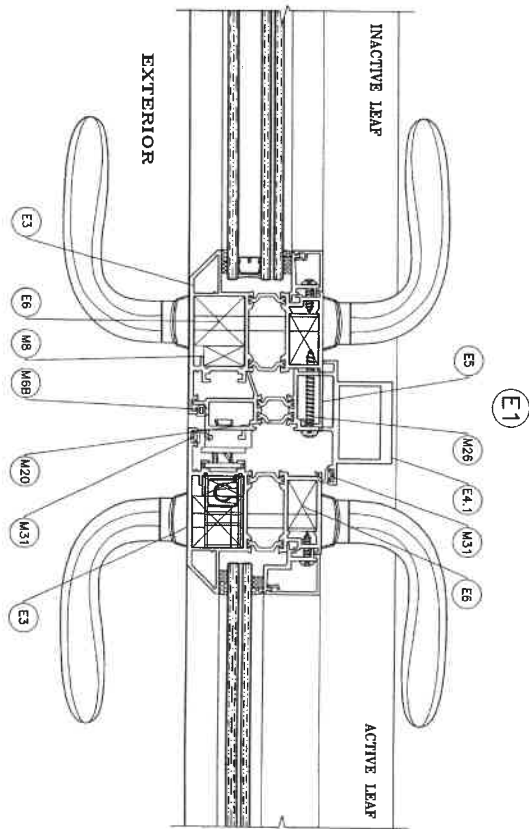
FL #21835

date:	01-02-17	revisions:
scale:	3/8" = 1"	no date by description
dr. by:	TARIO	
chk. by:		

ES-46T THERMAL ALUM FRENCH DOOR (L.M.I.)
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

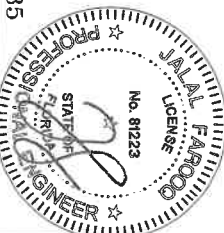
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173 (C.A.N. 3538)
 TEL. (305) 264-8100 FAX. (305) 262-6978





Sealed: 8/1/2023

DOOR DETAILS



FL #21835

Sheet 8 of 15	date: 01-02-17	revisions:
	scale: 3/8" = 1"	no. date by description
	dr. by: TARIQ	
	chk. by:	

ES-46T THERMAL ALUM FRENCH DOOR (L.M.I.)

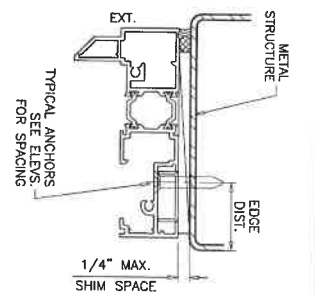
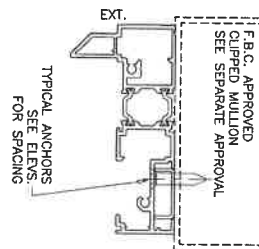
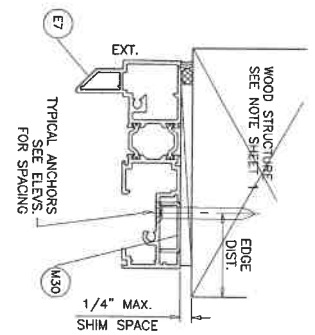
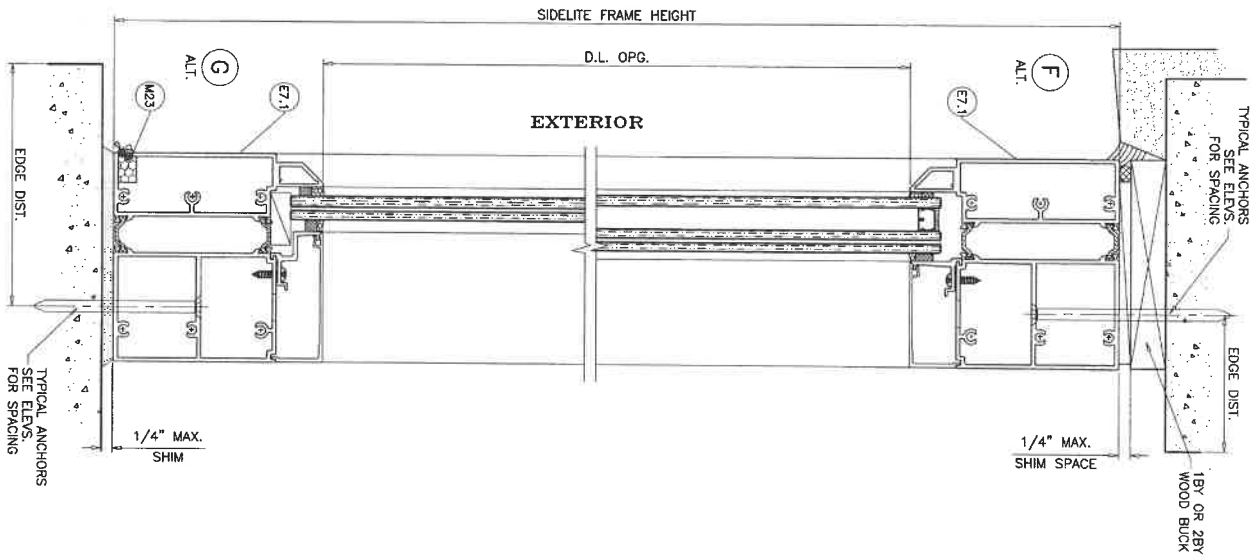
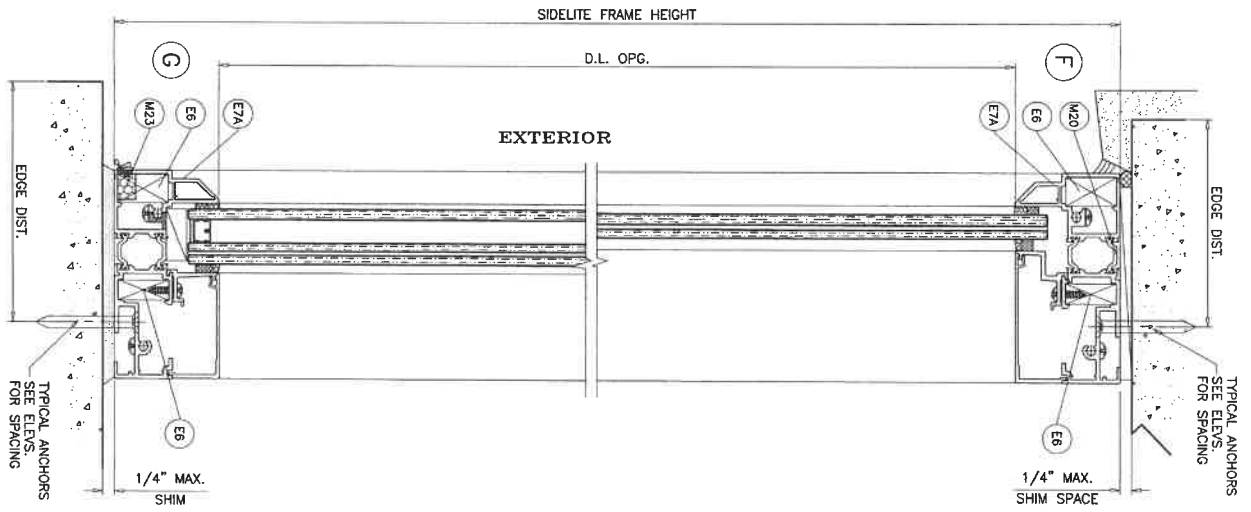
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

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\W17-07ES

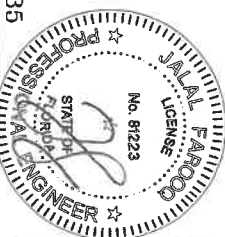




SIDELITE DETAILS

Sealed: 8/1/2023

FL #21835

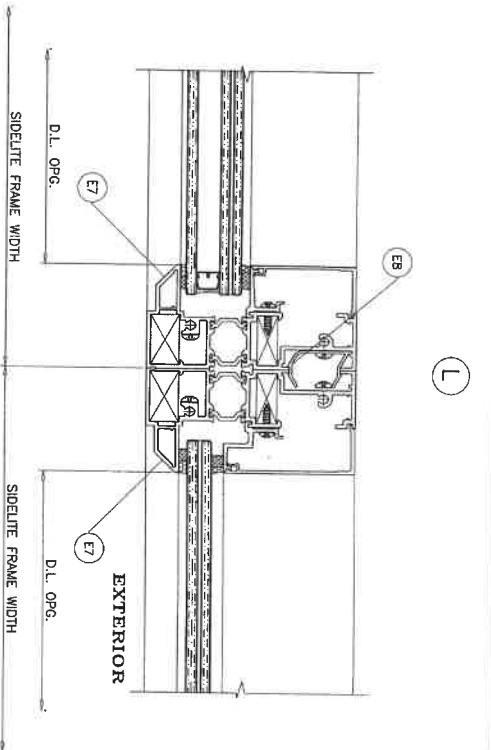
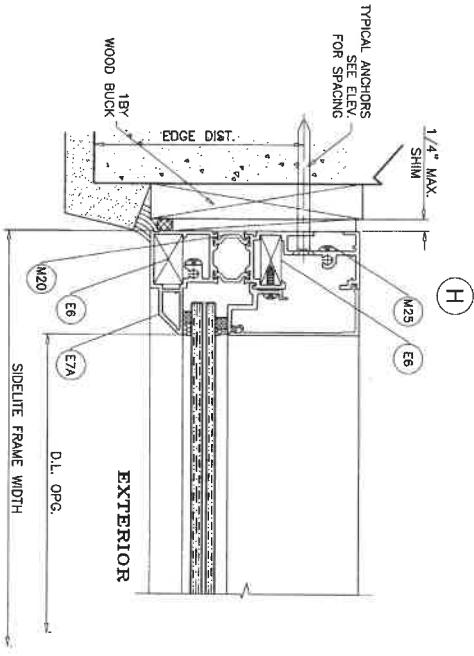
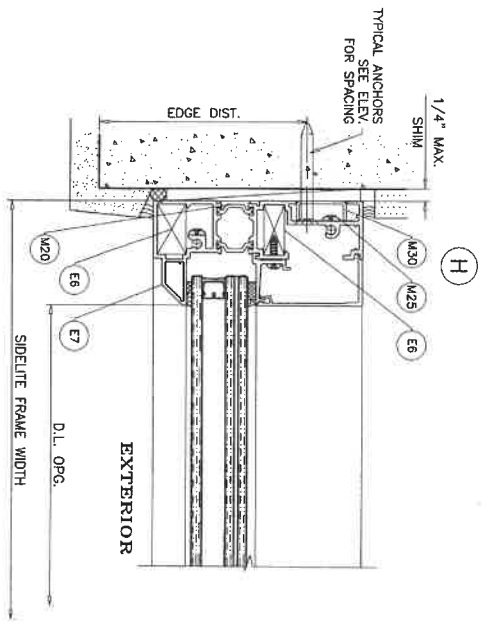


no.	date	by	description

ES-46T THERMAL ALUM FRENCH DOOR (L.M.I.)
 E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

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

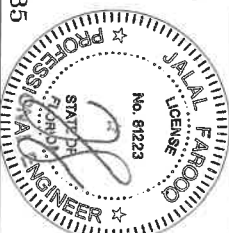




SIDE LITE DETAILS

Sealed: 8/1/2023

FL #21835

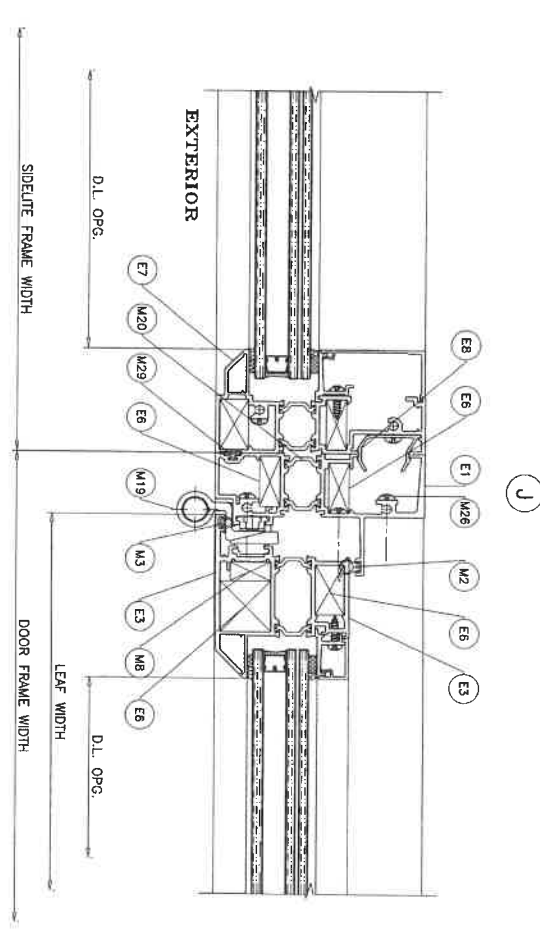
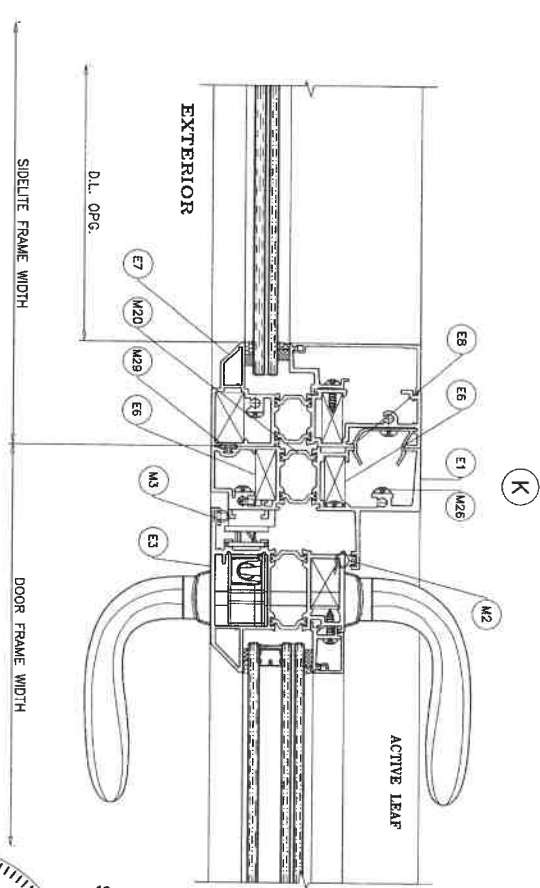
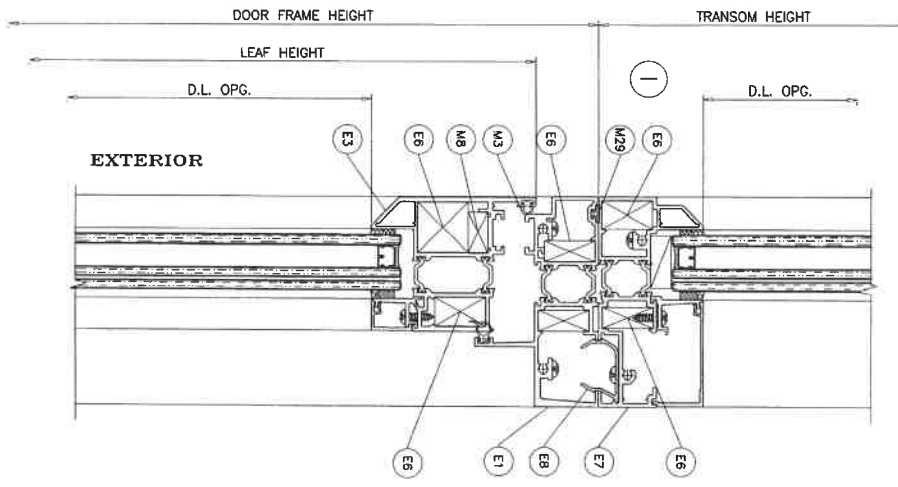


drawing no. W17-07	date: 01-02-17	revisions:
	scale: 3/8" = 1"	no. date by description
	dr. by: TARIQ	
	chk. by:	

ES-46T THERMAL ALUM FRENCH DOOR (L.M.I.)
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

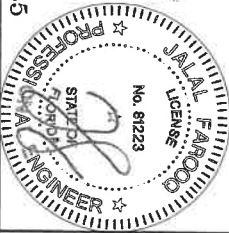
AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 9360 SUNSET DRIVE, SUITE 220
 MIAMI, FLORIDA 33173 (C.A.N. 3538)
 TEL. (305) 264-8100 FAX. (305) 262-6978





TRANSOM DETAIL
SIDELITE WITH DOOR DETAIL

FL #21835



Sealed: 8/1/2023

Sheet 10 of 15	date: 01-02-17	revisions:
	scale: 3/8" = 1"	no. date by description
	dr. by: TARIQ	
	chk. by:	

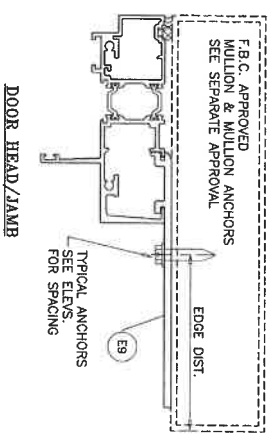
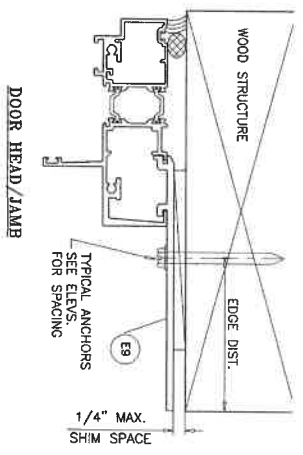
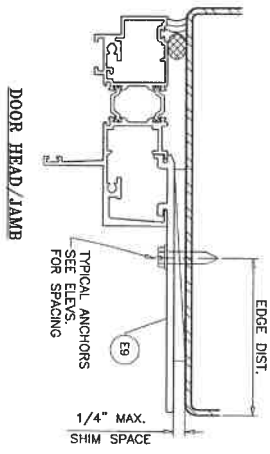
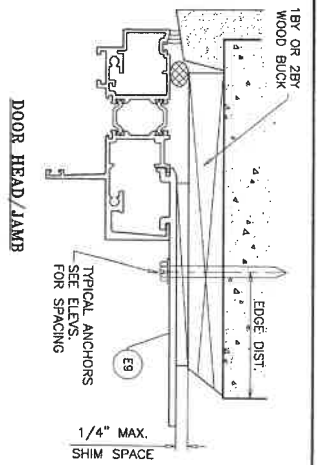
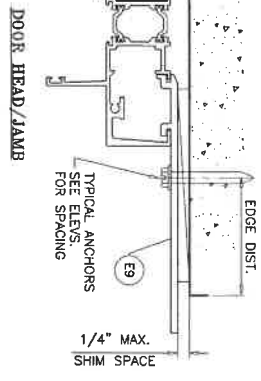
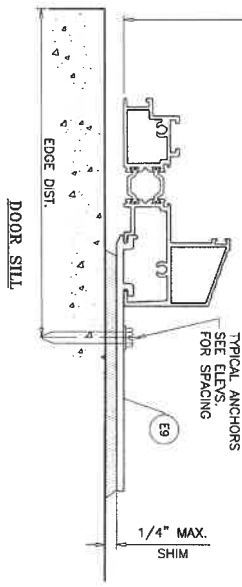
ES-46T THERMAL ALUM FRENCH DOOR (L.M.I.)
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

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\W17-07ES

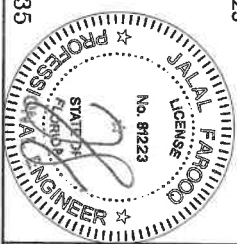
DOOR FRAME HEIGHT



DOOR FRAME
INSTALLATION DETAILS WITH STRAP ANCHOR

Sealed: 8/1/2023

FL #21835



revisions:	date	by	description

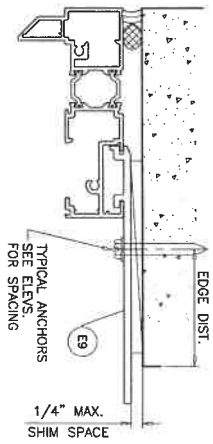
date: 01-02-17
scale: 3/8" = 1"
dr. by: TARIO
chk. by:

drawing no. W17-07
Sheet 11 of 15

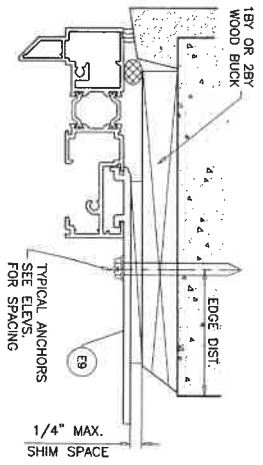
ES-46T THERMAL ALUM FRENCH DOOR (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

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

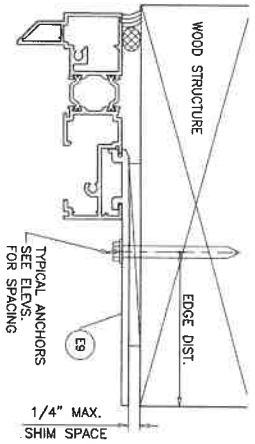
a f c
COMP-ANL\W17-07ES



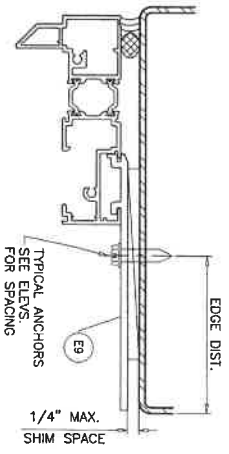
SIDELITE HEAD/SILL/JAMB



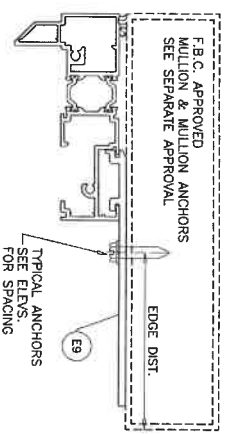
SIDELITE HEAD/SILL/JAMB



SIDELITE HEAD/SILL/JAMB



SIDELITE HEAD/SILL/JAMB

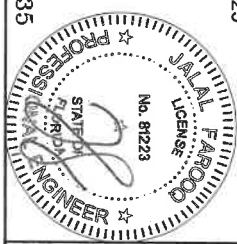


SIDELITE HEAD/SILL/JAMB

SIDELITE/TRANSOM FRAME
INSTALLATION DETAILS WITH STRAP ANCHOR

Sealed: 8/1/2023

FL #21835



drawing no. W17-07	date: 01-02-17	revisions:
	scale: 3/8" = 1"	no date by description
	dr. by: TARIQ	
	chk. by:	

ES-46T THERMAL ALUM FRENCH DOOR (L.M.I.)
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL. (305) 638-5151 FAX. (305) 638-5158

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 W17-07ES

LOCK SINGLE DOOR:

ACTIVE LEAF:

- (1) SURFACE MOUNT 9 POINT LOCK SYSTEM KEY OPERATED ON EXTERIOR AND THUMB TURN ON INTERIOR
- (2) LEVER TYPE HANDLE AT 38" FROM BOTTOM ACTIVATES SHOOT BOLTS ENGAGING AT HEAD AND SILL
- (3) SHOOT BOLTS ENGAGING AT HEAD AND SILL
- (4) SHOOT BOLTS ENGAGING AT SILL STILE AND (5) BOLTS ENGAGING AT JAMB STILE FASTENED WITH
 - (1) 12-28 X 2" FH MACHINE SCREWS
 - (2) #8 X 3/4" FH SMS
 - (3) 8-36 X 1/2" FH MACHINE SCREWS

KEEPERS AT JAMB:

- (1) SURFACE MOUNT METALLIC KEEPERS AT 5" 10" 24" 43" 68" AND 73" FROM BOTTOM FASTENED WITH
 - (1) 10-32 X 5/16" FH MACHINE SCREWS
 - (2) #8 X 3/4" FH SMS

LOCK DOUBLE DOOR:

ACTIVE LEAF:

- (1) SURFACE MOUNT 11 POINT LOCK SYSTEM KEY OPERATED ON EXTERIOR AND THUMB TURN ON INTERIOR
- (2) LEVER TYPE HANDLE AT 38" FROM BOTTOM ACTIVATES SHOOT BOLTS ENGAGING AT HEAD AND SILL
- (3) SHOOT BOLTS ENGAGING AT SILL AND (5) BOLTS ENGAGING AT INACTIVE STILE FASTENED WITH
 - (1) 10-32 X 5/16" FH MACHINE SCREWS

INACTIVE LEAF:

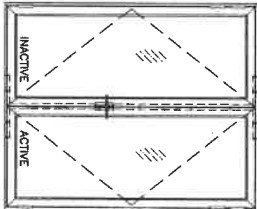
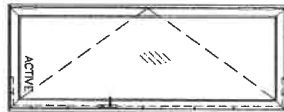
- (1) SURFACE MOUNT 6 POINT LOCK SYSTEM LEVER TYPE HANDLE AT 38" FROM BOTTOM ACTIVATES SHOOT BOLTS ENGAGING AT HEAD AND (2) SHOOT BOLTS ENGAGING AT SILL AND (2) BOLTS ENGAGING AT ACTIVE STILE FASTENED WITH
 - (1) 10-32 X 5/16" FH MACHINE SCREWS

KEEPERS AT HEAD/SILL:

- (1) SURFACE MOUNT METALLIC KEEPERS AT 28" AND 34" FROM DOOR FRAME ENDS
- (2) 10-32 X 3/8" FH MACHINE SCREW AND NUT

KEEPERS AT ASTRAGAL STILE:

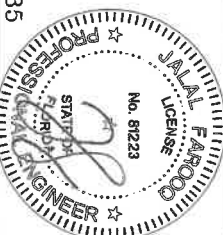
- (1) SURFACE MOUNT METALLIC KEEPERS AT 9" 23" 52" 72" AND 87" FROM BOTTOM FASTENED WITH
 - (1) 10-32 X 3/8" FH MACHINE SCREW AND NUT
- (2) SURFACE MOUNT METALLIC STRIKE PLATE AT 38" FROM BOTTOM FASTENED WITH
 - (1) #8 X 1" FH SMS



ITEM #	PART #	REQD.	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
E1	ES-45T-501	3	DOOR FRAME HEAD/JAMB	6063-T6	-
E2	ES-45T-502	1	FRAME SILL (STD.)	6063-T6	-
E2.1	ES-45T-004	1	ALT. FRAME SILL	6063-T6	-
E3	ES-45T-503	4	LEAF STILE	6063-T6	-
E3.1	ES-45T-051	4	ALT. LEAF STILE	6063-T6	-
E4	ES-45T-506	1	ASTRAGAL STILE	6063-T6	-
E4.1	ES-46T-501	1	ASTRAGAL STILE	6063-T6	-
E5	ES-45T-010	1	NOTCH TRIM	6063-T6	-
E6	ES-45T-011	AS REQD.	CORNER KEY	6063-T6	-
E7	ES-45T-505	AS REQD.	SIDELITE/TRANSOM FRAME HEAD/SILL/JAMB	6063-T6	-
E7A	ES-45T-515	AS REQD.	SIDELITE/TRANSOM FRAME HEAD/SILL/JAMB	6063-T6	-
E7.1	ES-45T-521	AS REQD.	ALT. SIDELITE FRAME HEAD/SILL	6063-T6	-
E8	ES-45T-016	AS REQD.	SIDELITE/TRANSOM SWAP CLIP	6063-T6	-
E9	ES-45T-019	AS REQD.	STRAP ANCHOR CLIP	6063-T6	-
E11	ES-45T-037	1	STD. THRESHOLD	6063-T6	-
E12	ES-45T-024	4/ LEAF	GLASS STOP (DOOR) (INSUL. LAM. GLASS)	6063-T6	-
E12A	ES-46T-002	4/ LEAF	GLASS STOP (DOOR) (LAM. GLASS)	6063-T6	-
E13	ES-45T-025	4/ LEAF	GLASS STOP COVER (DOOR) (INSUL. LAM. GLASS)	6063-T6	-
E13A	ES-46T-003	4/ LEAF	GLASS STOP COVER (DOOR) (LAM. GLASS)	6063-T6	-
E14	ES-45T-026	4/ LEAF	GLASS STOP (SIDELITE) (INSUL. LAM. GLASS)	6063-T6	-
E14A	ES-46T-004	4/ LEAF	GLASS STOP (SIDELITE) (LAM. GLASS)	6063-T6	-
E15	ES-45T-027	4/ LEAF	GLASS STOP COVER (SIDELITE) (INSUL. LAM. GLASS)	6063-T6	-
E15A	ES-46T-005	4/ LEAF	GLASS STOP COVER (SIDELITE) (LAM. GLASS)	6063-T6	-
M2	ES-45T-010A.5	AS REQD.	EXTERIOR LEAF GASKET	EPDM	DUROMETER 7045 SHORE A
M3	ES-P251-009A.5	AS REQD.	INTERIOR LEAF GASKET	SILICONE	DUROMETER 7045 SHORE A
M4	-	AS REQD.	SINGLE FACE TAPE (1/8" X 1/4")	POLYURETHANE	-
M4A	V2200	AS REQD.	SINGLE FACE TAPE (3/16" X 1/4")	POLYURETHANE	NORTON
M5	-	AS REQD.	SINGLE FACE TAPE (3/16" X 3/8")	POLYURETHANE	-
M5A	V2200	AS REQD.	SINGLE FACE TAPE (1/4" X 1/4")	POLYURETHANE	NORTON
M6	ES-6025-801A	2/ LITE	SETTING BLOCKS AT 1/4 POINTS (FIX. LITE)	SILICONE	DUROMETER 8545 SHORE A
M6B	ES-45T-011	AS REQD.	EXTERIOR WEDGE	EPDM	DUROMETER 7045 SHORE A
M7	ES-21-804A.5	2/ LITE	SETTING BLOCKS AT 1/4 POINTS (DOOR)	EPDM	DUROMETER 8045 SHORE A
M8	0333	AS REQD.	CORNER JOINT	DIE CAST ALUMINUM	-
M19	A11990003 BLC	-	KLEMBAND G HINGES	ALUMINUM	-
M20	1673	-	20 MM OFFSET	POLYAMIDE	-
M22	PE304FK	AS REQD.	4" ADHESIVE PILE PAD (1/2" X 1/2")	PILE	-
M23	WPSA-NI	-	WEEP PAD (3/4" X 3/4" X 2" LONG)	RETICULATED FOAM	30PPH FOAM AT WEEP HOLES
M24	WA2L	-	WEEP HOLE COVER	RIGID PVC	-
M25	#12 X 1-3/4"	-	FRAME ASSEMBLY FASTENERS	ST/ST	PH SMS
M26	#10 X 1-3/4"	-	ASTRAGAL FASTENERS	ST/ST	PH SMS
M28	#6 X 5/8"	-	GLASS STOP FASTENERS, AT 12" O.C.	ST/ST	PH SMS
M29	27-425	AS REQD.	BULB GASKET	EPDM	DUROMETER 6545 SHORE A
M30	-	AS REQD.	SHEAR CLIP, 3" LONG AT ANCHOR LOCATIONS	6063-T6	-
M31	ES-EL300-601	AS REQD.	LEAF GASKET AT ASTRAGAL	SILICONE	-

Sealed: 8/1/2023

FL #21835



date: 01-02-17
 scale: 3/8" = 1"
 dr. by: TARIQ
 no. W17-07
 sheet 13 of 15

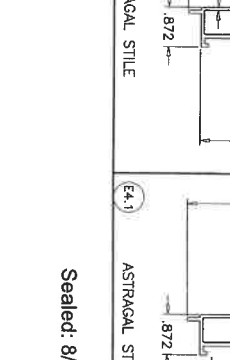
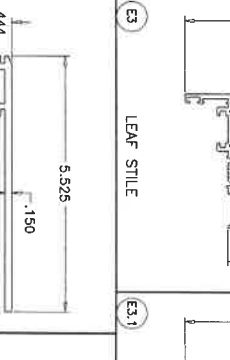
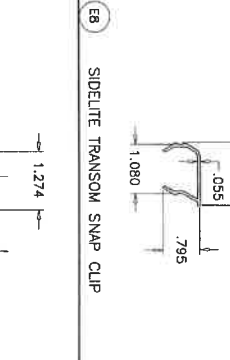
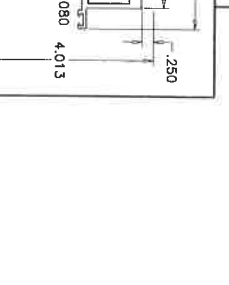
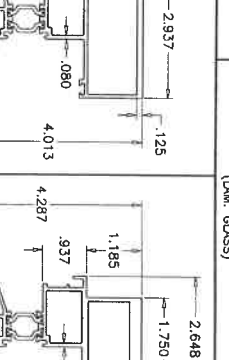
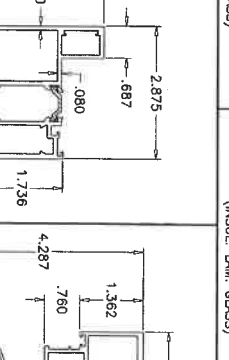
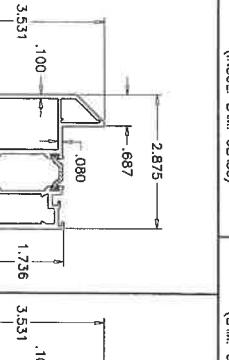
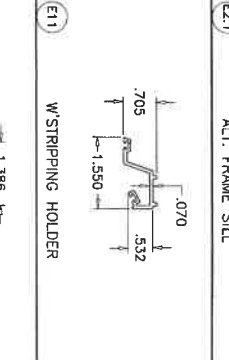
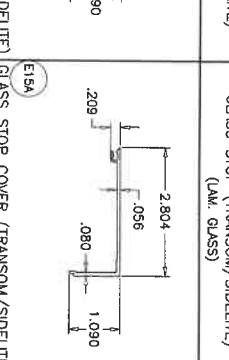
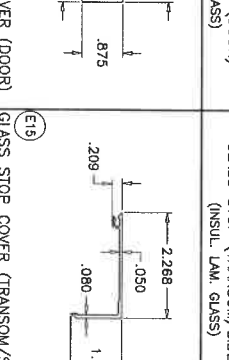
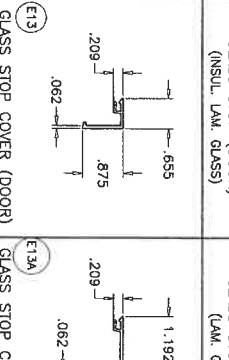
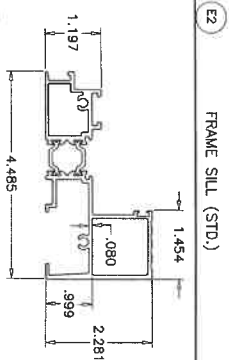
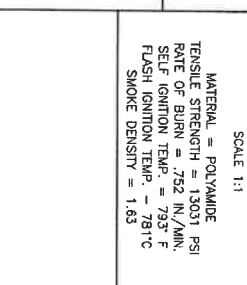
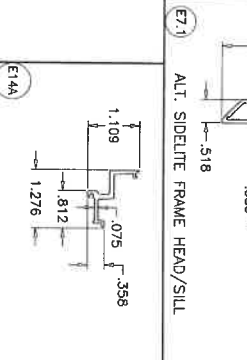
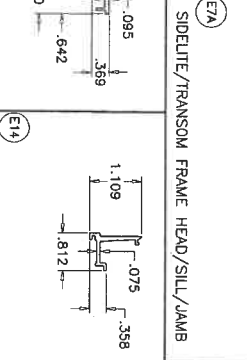
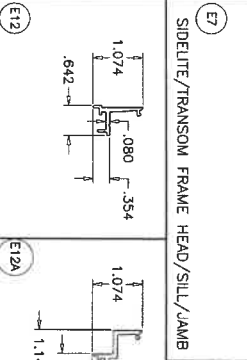
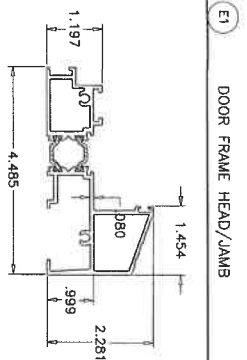
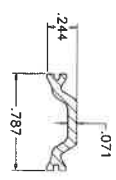
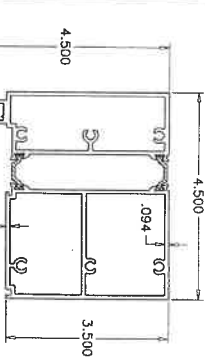
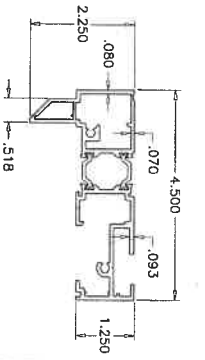
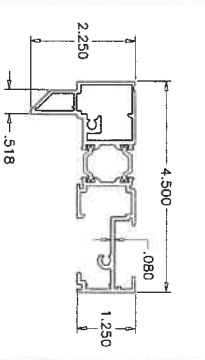
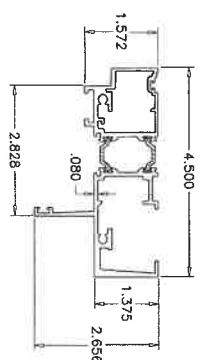
ES-46T THERMAL ALUM FRENCH DOOR (L.M.I.)

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

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

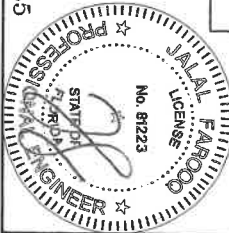


COMP-ANLW17-07ES



TECATHERM® 66 GF INSULBARS
SCALE 1:1
MATERIAL = POLYAMIDE
TENSILE STRENGTH = 130031 PSI
RATE OF BURN = .752 IN./MIN.
SELF IGNITION TEMP. = 793° F
FLASH IGNITION TEMP. = 791°C
SMOKE DENSITY = 1.63

Sealed: 8/1/2023
FL #21835



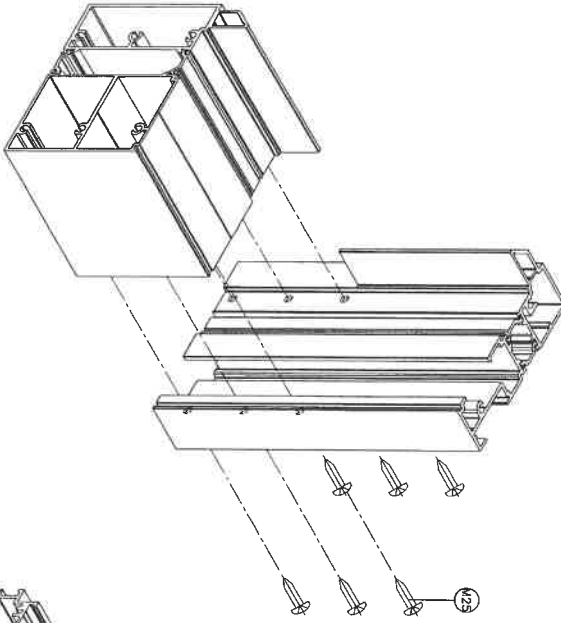
no	date	by	description

date: 01-02-17
scale: 3/8" = 1"
dr. by: TARIO
chk. by:

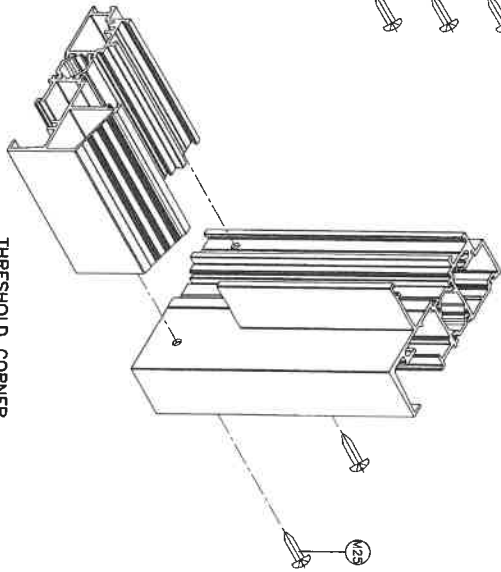
ES-46T THERMAL ALUM FRENCH DOOR (L.M.I.)
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

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\W17-07ES

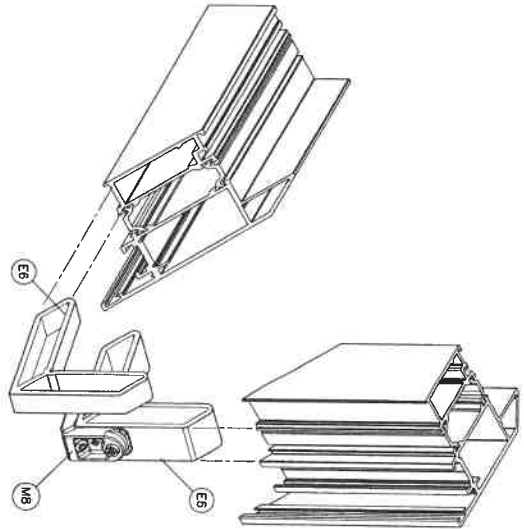
ALT. SIDELITE FRAME CORNER



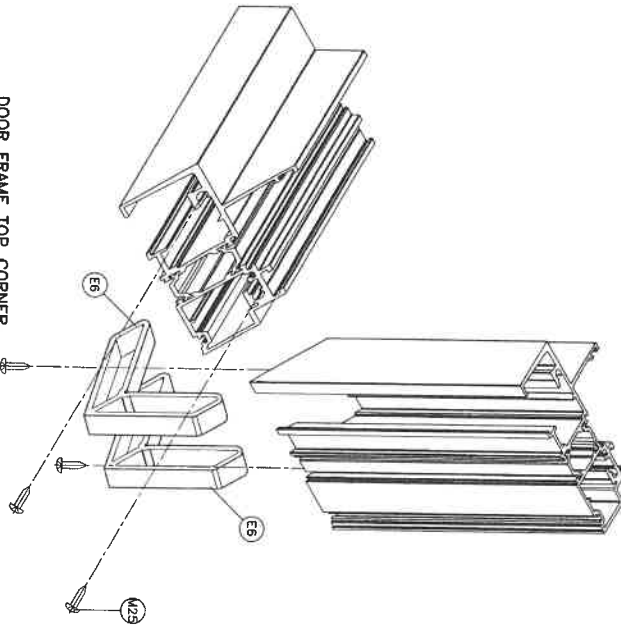
THRESHOLD CORNER



DOOR LEAF CORNER

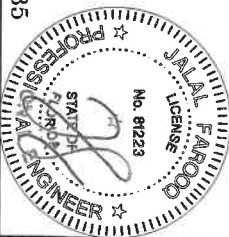


DOOR FRAME TOP CORNER
SIDELITE FRAME TOP/BOTTOM CORNER



Sealed: 8/1/2023

FL #21835



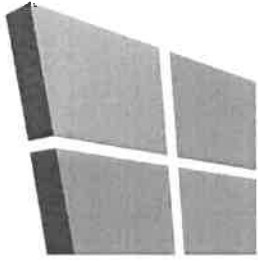
Sheet 15 of 15	date: 01-02-17	revisions:
	scale: 3/8" = 1"	no. date by description
	dr. by: TARIQ	
	chk. by:	

ES-46T THERMAL ALUM FRENCH DOOR (L.M.I.)
E.S. WINDOWS, LLC
 3550 N.W. 49 STREET
 MIAMI, FL. 33142
 TEL (305) 638-5151 FAX. (305) 638-5158

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\W17-07ES



AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

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

FL 21835

Date: 07/31/2023

Detailed Product Description:

Manufacturer: E.S. WINDOWS, LLC

Manufacturer Address: 3550 NW 49 STREET. MIAMI, FL 33142

Model Name: SERIES ES-46T THERMAL ALUMINUM OUTSWING ENTRANCE DOOR

Maximum Load: +100 PSF, -120 PSF (Large Missile Impact)

Installation Drawings # W17-07

This product complies with the High Velocity Hurricane Zone (HVHZ) testing requirements.					
For maximum sizes, combination of span vs loads and anchor type refer to installation drawings.					
Comparative analysis used <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Mandatory Tests (Tested in accordance with AAMA 101/I.S.2/NAFS/TAS-202)					
Test	Description	Test Location	Test Report Date	Test Report #	Test Sealed By
ASTM E283	Air Infiltration Leakage	Fenestration Testing Laboratory, Inc	8/4/2015 5/2/2018 1/9/2018 2/5/2021	FTL-8179 FTL-7361 FTL-8597 FTL-12233	Idalmis Ortega, P.E.
		Blackwater Testing, Inc	6/12/2018	BT-ESW-18-005	Constantin Bortes, P.E.
ASTM E331 OR ASTM 547 & TAS 202	Water Penetration	Fenestration Testing Laboratory, Inc	8/4/2015 5/2/2018 1/9/2018 2/5/2021	FTL-8179 FTL-7361 FTL-8597 FTL-12233	Idalmis Ortega, P.E.
		Blackwater Testing, Inc	6/12/2018	BT-ESW-18-005	Constantin Bortes, P.E.
ASTM E330 & TAS 202	Uniform Static Air Press.	Fenestration Testing Laboratory, Inc	8/4/2015 5/2/2018 1/9/2018 2/5/2021	FTL-8179 FTL-7361 FTL-8597 FTL-12233	Idalmis Ortega, P.E.
		Blackwater Testing, Inc	6/12/2018	BT-ESW-18-005	Constantin Bortes, P.E.
ASTM 1304	Forced Entry Test	Fenestration Testing Laboratory, Inc	8/4/2015 5/2/2018 1/9/2018 2/5/2021	FTL-8179 FTL-7361 FTL-8597 FTL-12233	Idalmis Ortega, P.E.
		Blackwater Testing, Inc	6/12/2018	BT-ESW-18-005	Constantin Bortes, P.E.

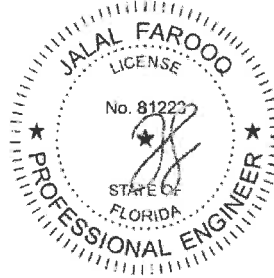
Supplemental Tests (Tested in accordance with TAS-201 and TAS-203)

Test	Description	Test Location	Test Report Date	Test Report#	Test Sealed By
FBC 1626.2 (TAS 201 & 203)	Large Missile Impact & Cyclic	Fenestration Testing Laboratory, Inc	8/4/2015	FTL-8179	Idalmis Ortega, P.E.
			5/2/2018	FTL-7361	
			1/9/2018	FTL-8597	
			2/5/2021	FTL-12233	
		Blackwater Testing, Inc	6/12/2018	BT-ESW-18-005	Constantin Bortes, P.E.

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

Evaluation Report Engineer:

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



Sealed: 8/1/2023