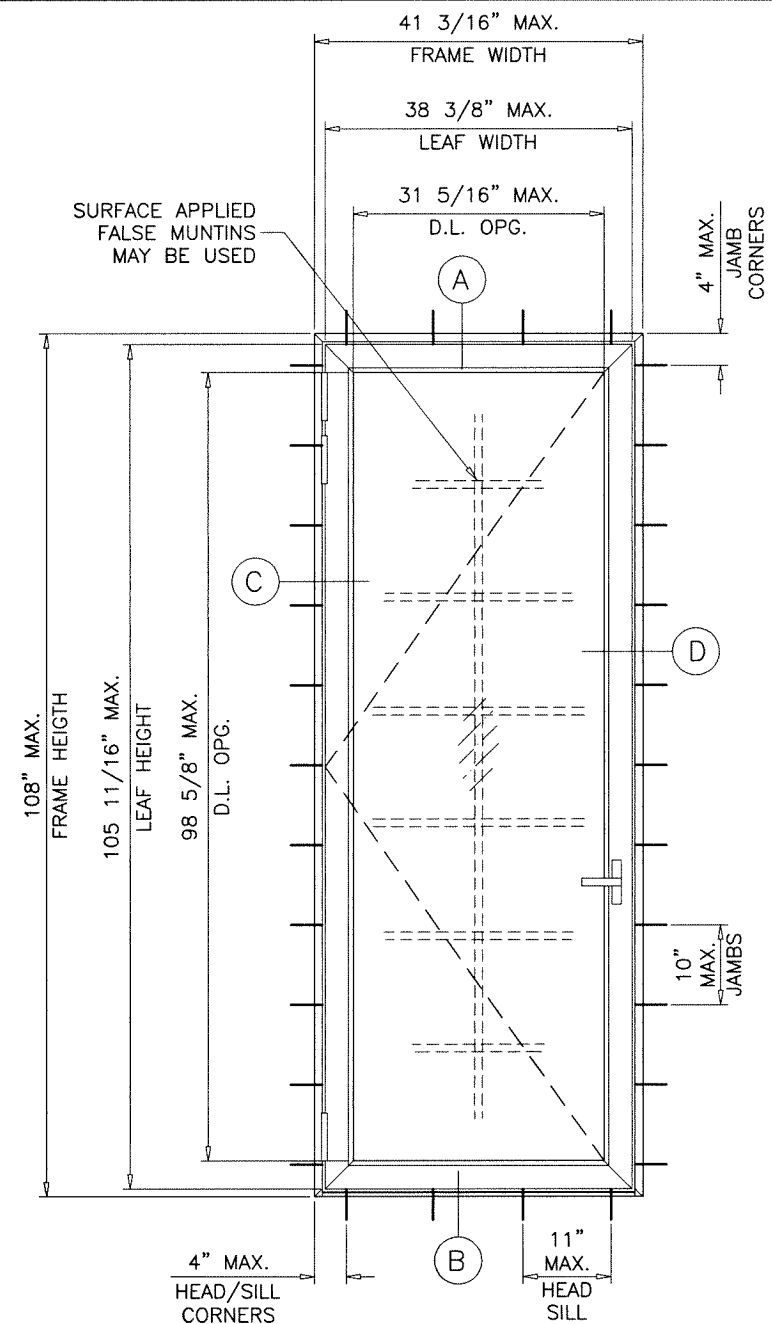
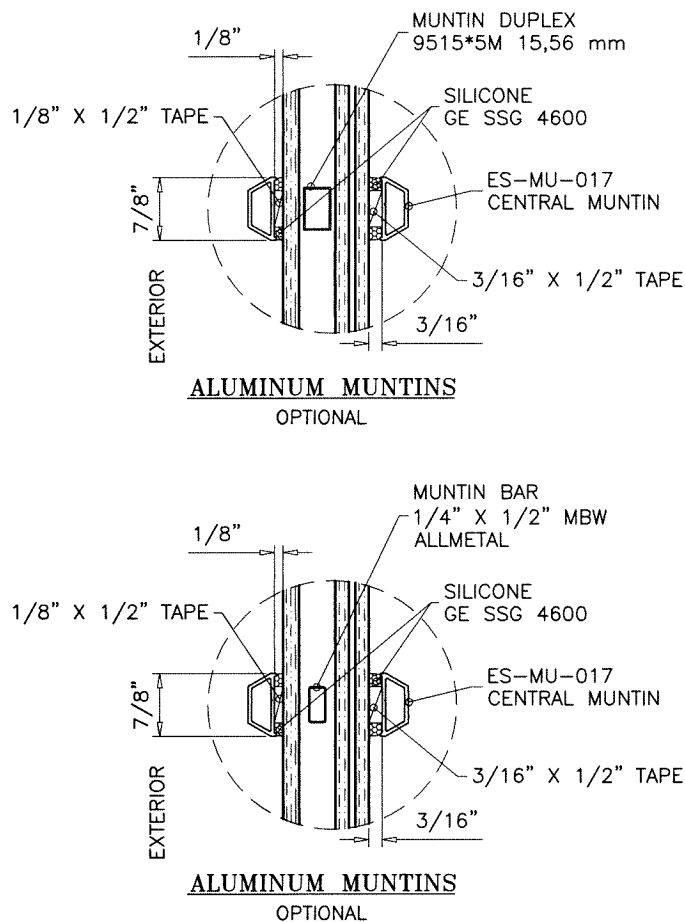
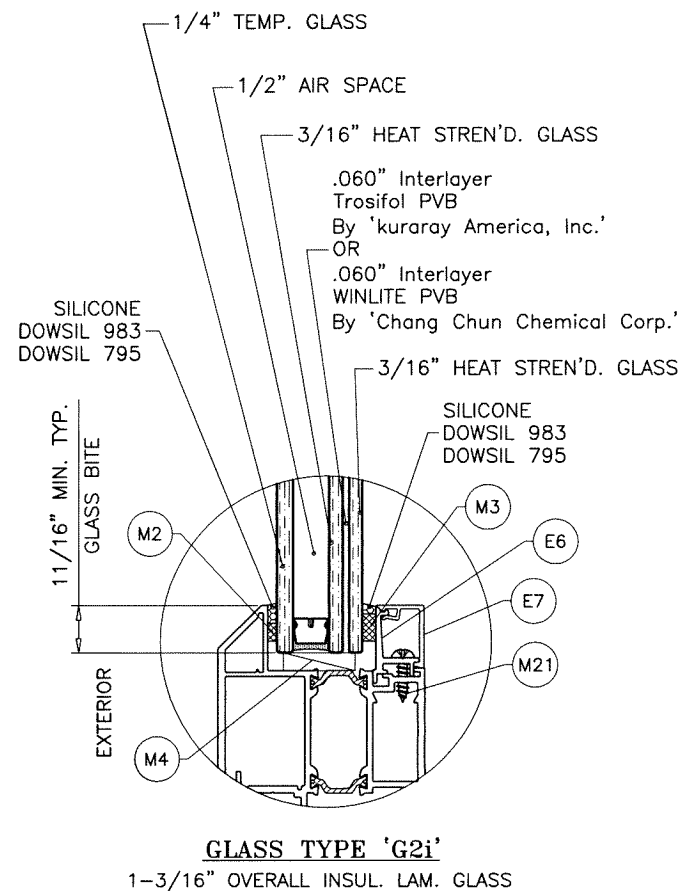




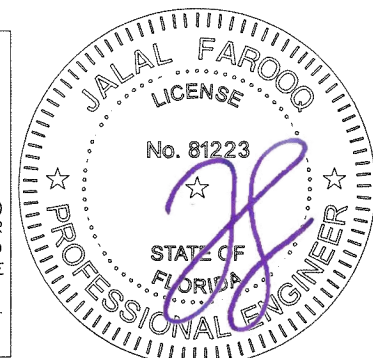
TYPICAL ELEVATION

GLASS TYPE 'G2i'
MAXIMUM DESIGN LOAD RATING = + 100.0 PSF
(FOR SIZES SHOWN ABOVE OR SMALLER) - 120.0 PSF
AS PERMITTED BY FBC

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

Sealed:7/13/2026

FL #21835



THESE DOORS ARE RATED FOR SMALL MISSILE IMPACT.
F.B.C. APPROVED IMPACT RESISTANT SHUTTERS REQUIRED
FOR INSTALLATIONS UP TO 30 FT. OF GRADE.
SHUTTERS NOT REQD. FOR INSTALLATIONS ABOVE 30 FT. OF GRADE.

ES-46T THERMAL ALUMINUM OUTSWING ENTRANCE DOOR

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE
REQUIREMENTS OF THE 2023 (8TH EDITION)/2026 (9TH 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 LOAD-BEARING, (HIGH DENSITY PLASTIC/COMPOSITE, METAL
OR OTHER RIGID MATERIALS).

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT
COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE
REQUIREMENTS OF THE 2023/2026 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)'.

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.

DOORS APPROVED FOR INSTALLATIONS WHERE WATER INFILTRATION
RESISTANCE IS REQUIRED.

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

FASTENERS AND CONNECTORS (AS APPLICABLE) SHOWN IN THIS APPROVAL MAY NOT MEET
CORROSION RESISTANCE REQUIREMENTS FOR COASTAL OR SALT WATER EXPOSURE ZONES.
COMPLIANCE WITH THESE CONDITIONS TO BE CHECKED PER FBC 1711.

NOTE:
GLASS CAPACITIES ARE BASED ON
ASTM E1300-16 (3 SEC. GUSTS).

GLASS D.L.O. FORMULAE:
D.L.O. WIDTH = FRAME WIDTH - 9.750"
D.L.O. HEIGHT = FRAME HEIGHT - 9.375"

A- CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND
INSTALLATION OF THIS PRODUCT BASED ON THIS 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
USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED
ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE
SPECIFIC DRAWINGS FOR REVIEW.
D- THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF
THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

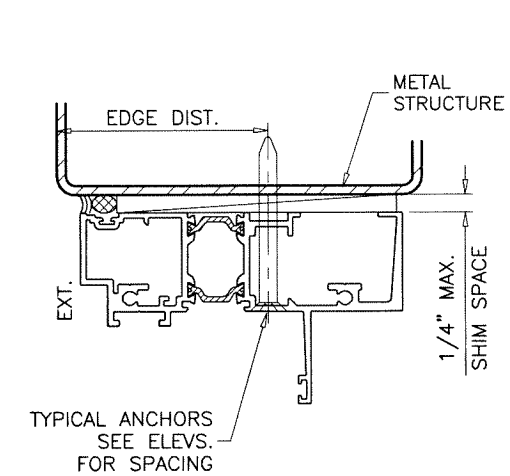
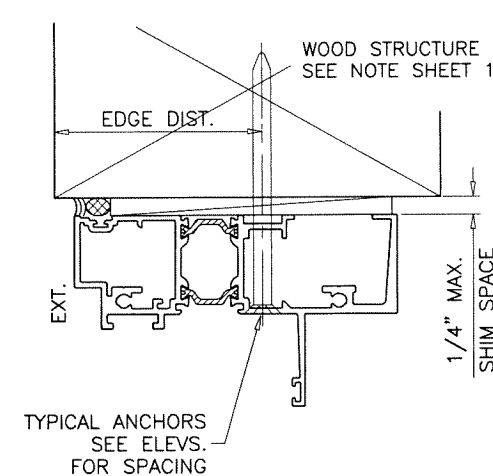
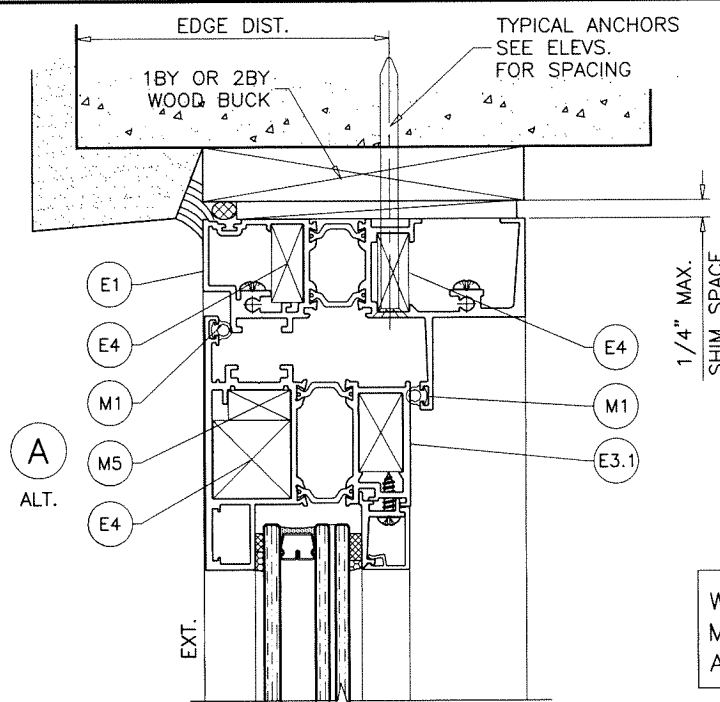
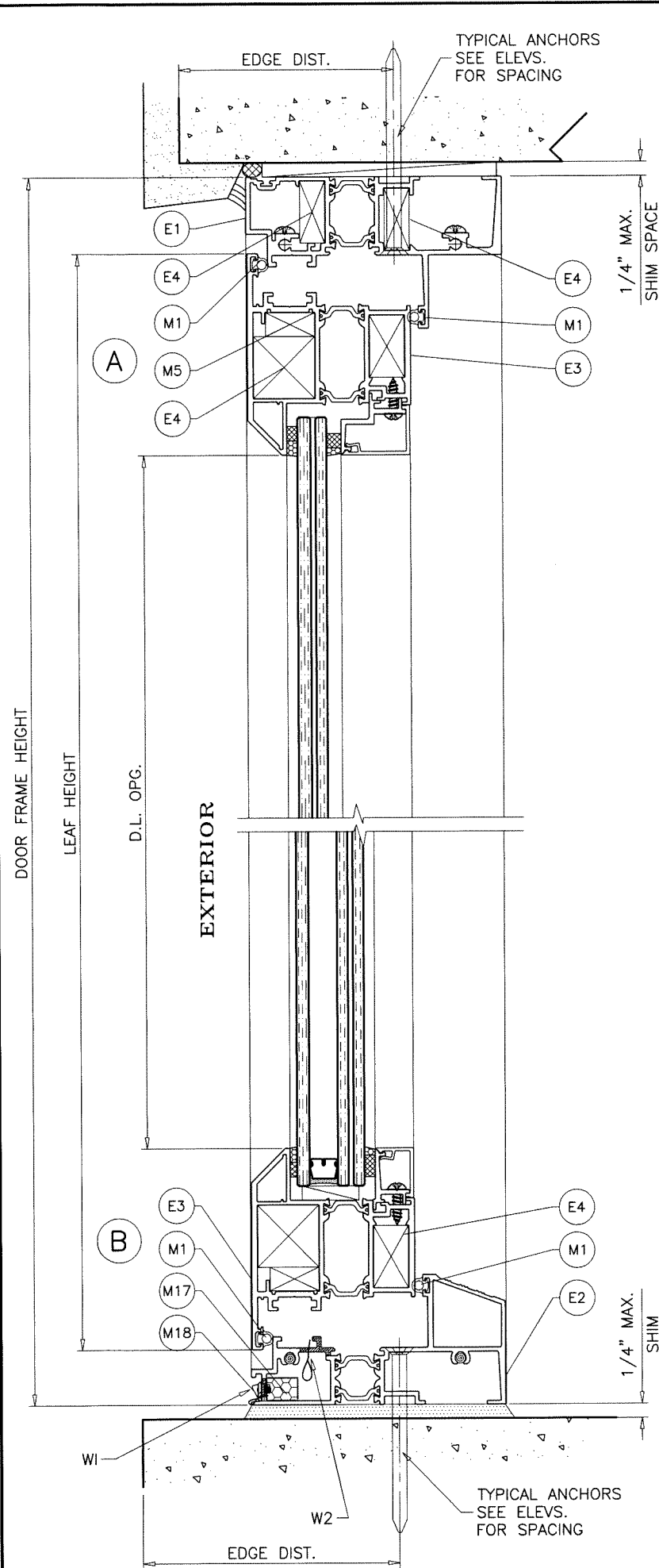
af c
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
C.A.N. 3538

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

revisions:	no	date	description	by
	E	02.09.21	LAM. GLASS OPTION ADDED.	
	F	07.31.23	UPDATED TO 2023 FBC	
	G	08.26.24	WINLITE INTERLAYER ADDED	
	H	02.27.26	INSUL. GLASS MUNTIN ADDED	
	I	07.10.26	UPDATED TO 2026 FBC	

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

drawing no.	W17-08
sheet	1 of 6



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 SS4 410 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)

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

INTO F.B.C. APPROVED MULLIONS

OR

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)

ANCHOR EDGE DISTANCES

INTO CONCRETE AND BLOCKS = 2-1/2" MIN.

INTO WOOD STRUCTURE = 1" MIN.

INTO METAL STRUCTURE = 3/4" MIN.

WOOD AT HEAD OR JAMBS SG = 0.55 MIN.

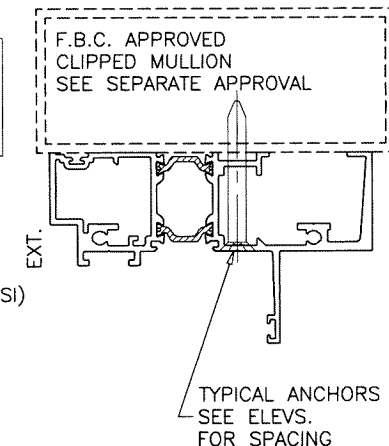
CONCRETE AT HEAD, SILL OR JAMBS $f'_c = 3000$ PSI MIN.

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

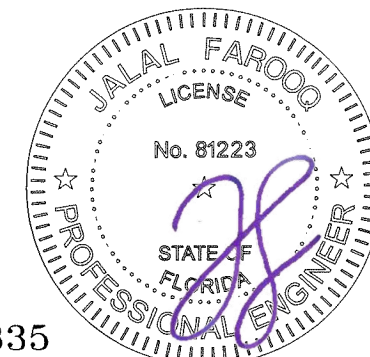
WEEPHOLES:

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: 7/13/2026



FL #21835

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

COMP-ANL W17-08ES

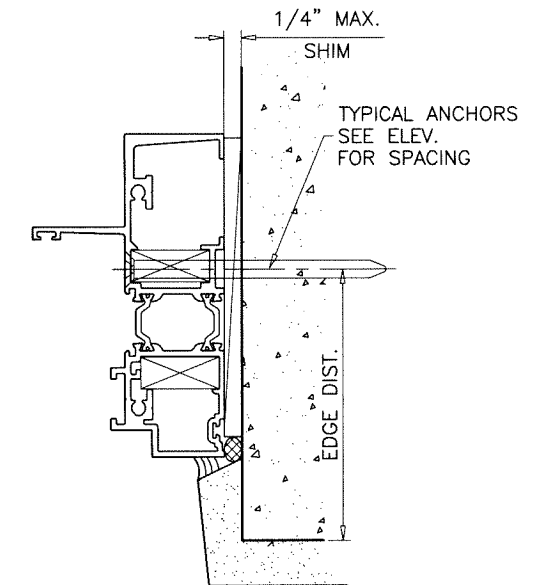
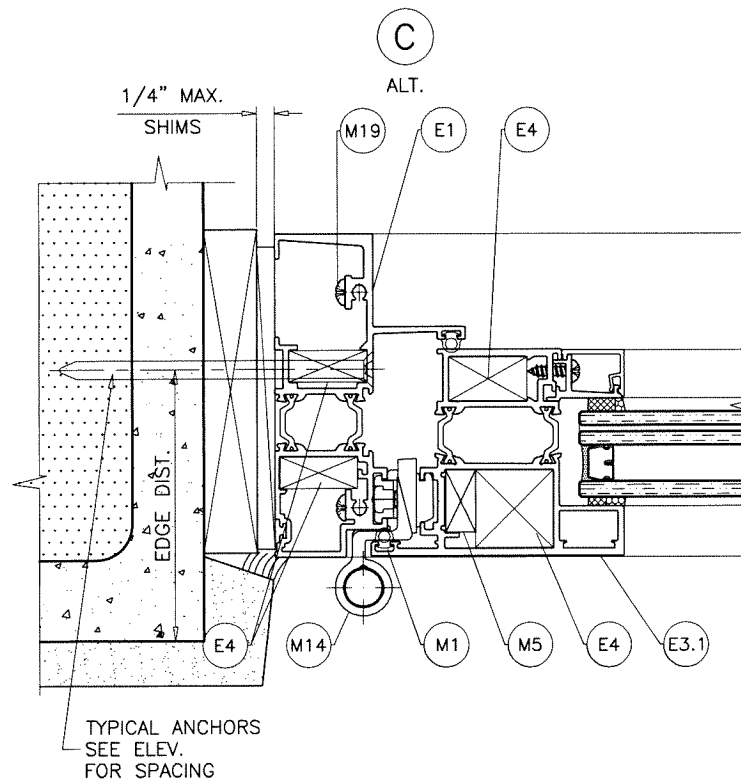
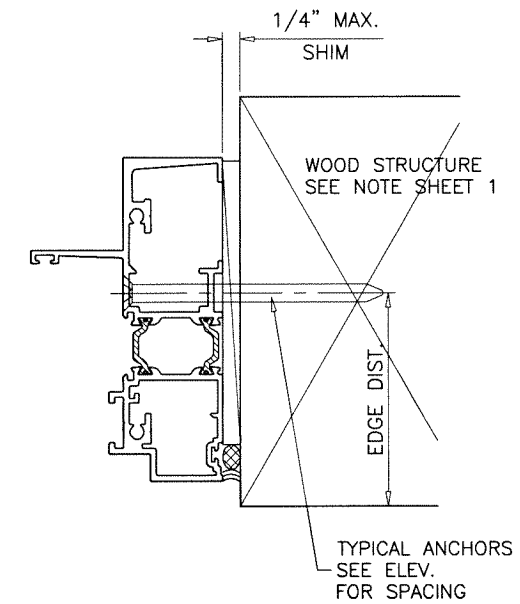
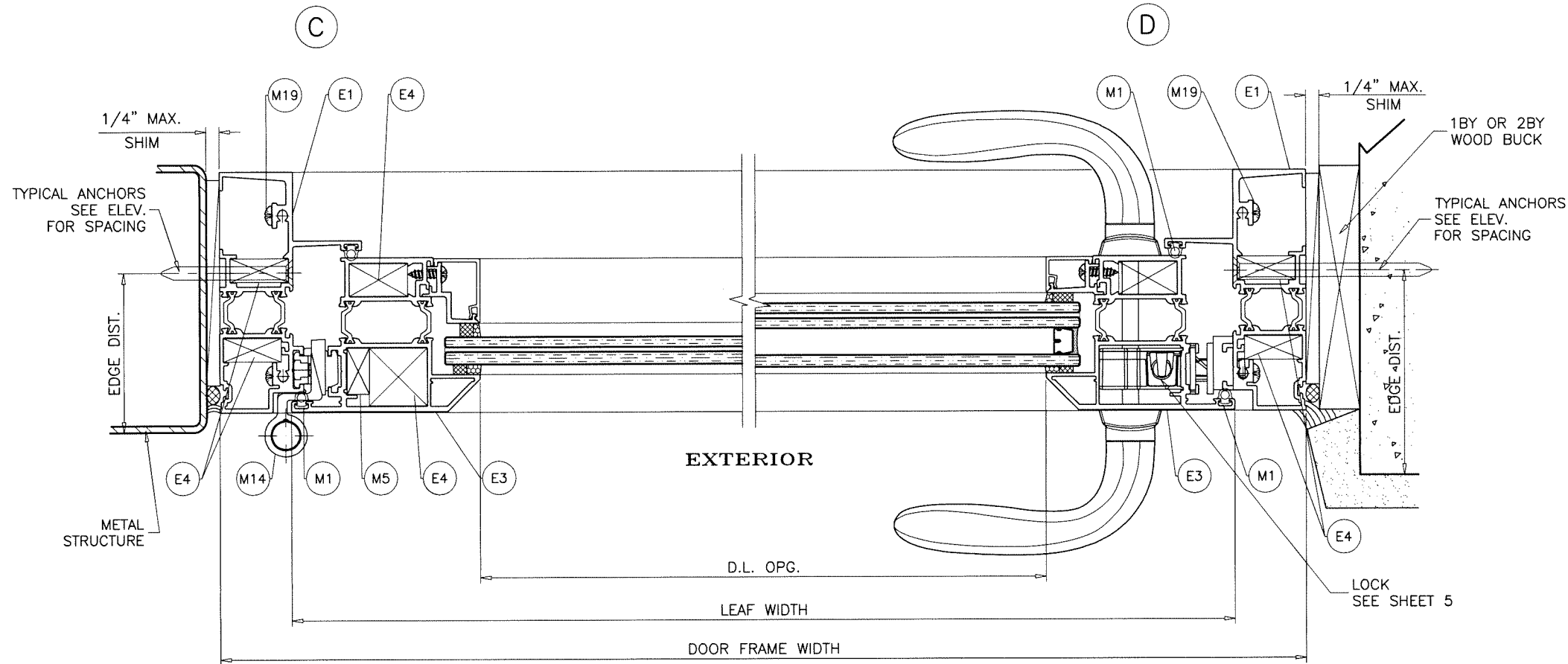
ES-46T THERMAL ALUM FRENCH DOOR (S.M.I.)

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

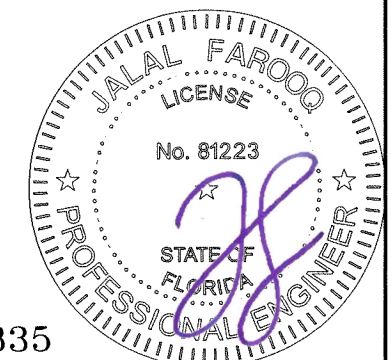
revisions:

no	date	by	description

date: 01-02-17 scale: 3/8" = 1" dr. by: TARIQ ch. by:
drawing no. **W17-08** sheet 2 of 6



Sealed:7/13/2026



FL #21835

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

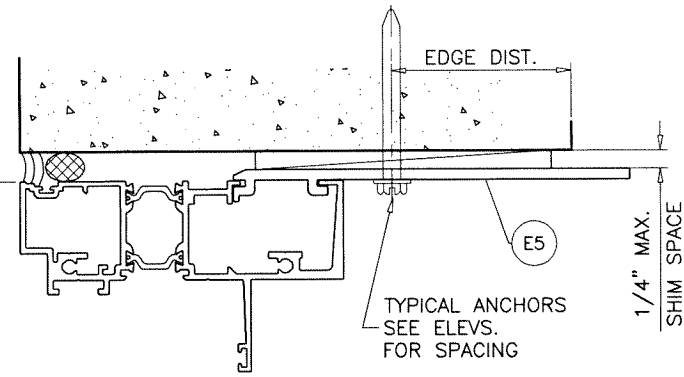
ES-46T THERMAL ALUM FRENCH DOOR (S.M.I.)

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

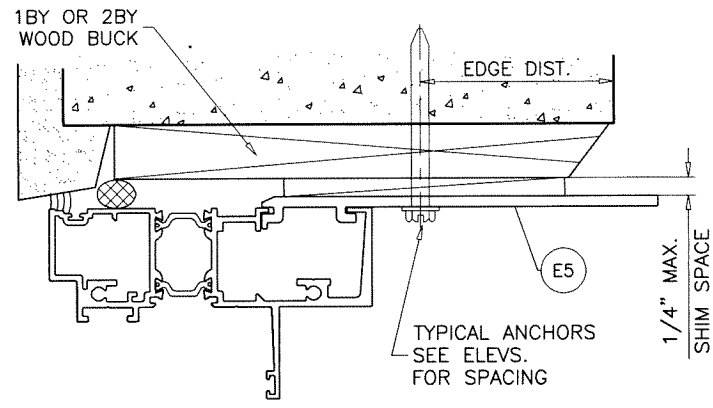
revisions:		no date by description	
date:	01-02-17	scale:	3/8" = 1"
dr. by:	TARIQ	chk. by:	
drawing no.		W17-08	
sheet		3 of 6	

COMP-ANL\W17-08ES

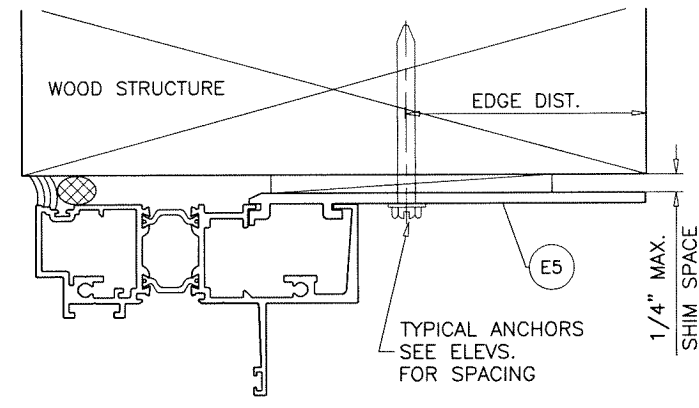
DOOR FRAME HEIGHT



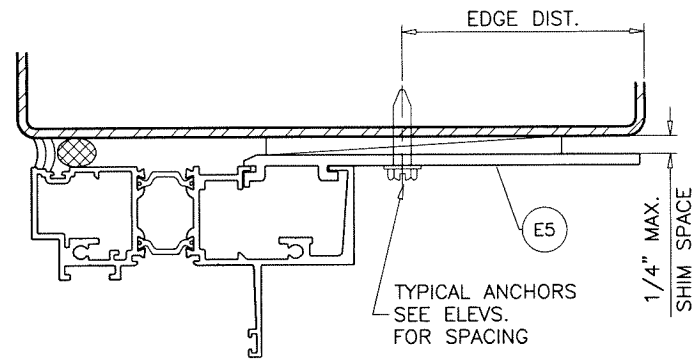
DOOR HEAD/JAMB



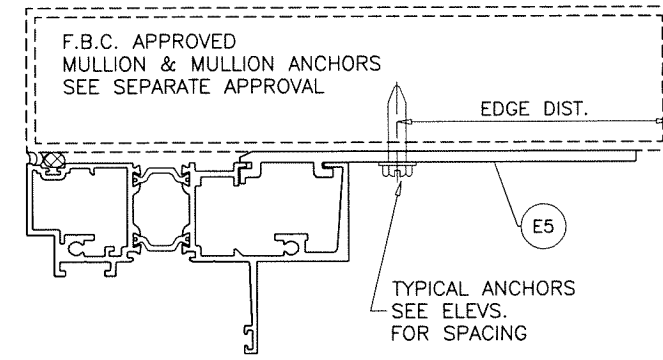
DOOR HEAD/JAMB



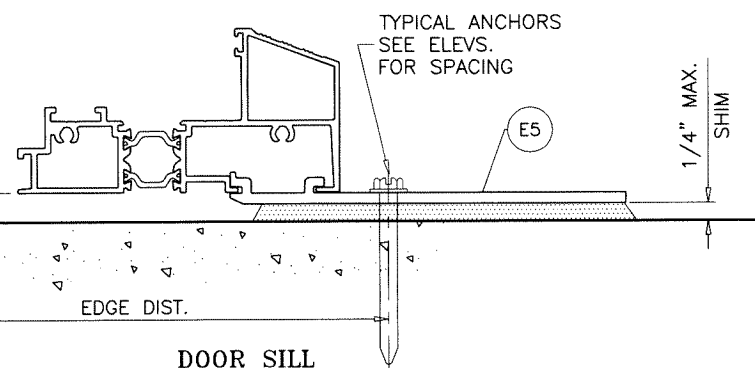
DOOR HEAD/JAMB



DOOR HEAD/JAMB



DOOR HEAD/JAMB

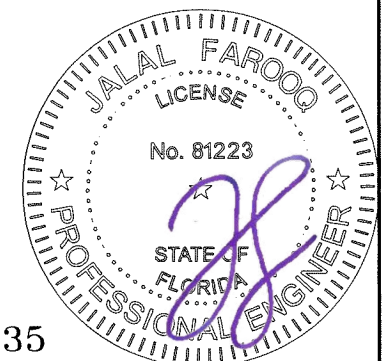


DOOR SILL

INSTALLATION DETAILS WITH STRAP ANCHOR

Sealed:7/13/2026

FL #21835



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

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

revisions:
no date by description

date: 01-02-17
scale: 3/8" = 1"

dr. by: TARIQ

chk. by:

drawing no.

W17-08

sheet 4 of 6

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

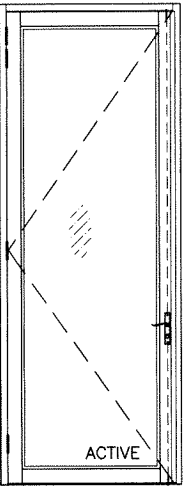
COMP-ANL W17-08ES

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	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-011	AS REQD.	CORNER KEY	6063-T6	-
E5	ES-45T-019	AS REQD.	STRAP ANCHOR CLIP	6063-T6	-
E6	ES-45T-024	4/ LEAF	GLASS STOP (INSUL. LAM. GLASS)	6063-T6	-
E6A	ES-46T-002	4/ LEAF	GLASS STOP (LAM. GLASS)	6063-T6	-
E7	ES-45T-025	4/ LEAF	GLASS STOP COVER (INSUL. LAM. GLASS)	6063-T6	-
E7A	ES-46T-003	4/ LEAF	GLASS STOP COVER (LAM. GLASS)	6063-T6	-
M1	ES-P251-G05	AS REQD.	VENT GASKET	EPDM	DUROMETER 70±5 SHORE A
M2	-	AS REQD.	SINGLE FACE TAPE (1/8" X 1/4")	POLYURETHANE	-
M2A	V2200	AS REQD.	SINGLE FACE TAPE (3/16" X 1/4")	POLYURETHANE	NORTON
M3	-	AS REQD.	SINGLE FACE TAPE (3/16" X 3/8")	POLYURETHANE	-
M3A	V2200	AS REQD.	SINGLE FACE TAPE (1/4" X 1/4")	POLYURETHANE	NORTON
M4	80-356	2/ LITE	SETTING BLOCKS AT 1/4 POINTS (DOOR)	EPDM	DUROMETER 80±5 SHORE A
M5	0337	AS REQD.	CORNER JOINT	DIE CAST ALUMINUM	-
M14	A11990003 SIL	3	KLEMMBAND G HINGES	ALUMINUM	-
M17	WPSA-NI	2	WEEP PAD (3/4" X 3/4" X 2" LONG)	RETICULATED FOAM	30PPI FOAM, AT WEEP HOLES
M18	WA2L	2	WEEP HOLE COVER	RIGID PVC	-
M19	#12 X 1-3/4"	AS REQD.	FRAME ASSEMBLY FASTENERS	ST/ST	PH SMS
M21	#8 X 5/8"	AS REQD.	GLASS STOP FASTENERS, AT 12" O.C.	ST/ST	PH SMS
M22	1673	AS REQD.	20 MM OFFSET	POLYAMIDE	-

LOCK SINGLE DOOR:

ACTIVE LEAF:

SURFACE MOUNT 9 POINT LOCK SYSTEM
KEY OPERATED ON EXTERIOR AND THUMB TURN ON INTERIOR
LEVER TYPE HANDLE AT 38" FROM BOTTOM ACTIVATES SHOOT BOLTS ENGAGING AT HEAD AND SILL AND (7) BOLTS ENGAGING AT JAMB/INACTIVE STILE FASTENED WITH
(2) #8 X 3/4" FH SMS
(1) 12-28 X 2" FH MACHINE SCREWS
(2) 8-36 X 1/2" FH MACHINE SCREWS



JAMB FACING LOCK:

(6) 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

(1) SURFACE MOUNT METALLIC KEEPERS AT 38" FROM BOTTOM FASTENED WITH
(3) #8 X 3/4" FH SMS

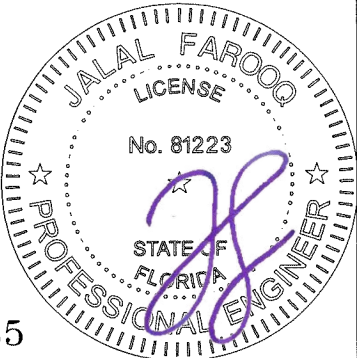
HINGES:

SURFACE MOUNT METALLIC PIVOT HINGES
(3) HINGES FOR DOORS UPTO 108" HEIGHT
(4) HINGES FOR DOORS ABOVE 108" HEIGHT
BOTTOM HINGE AT 8" FROM BOTTOM
TOP HINGES AT 8" AND 16" FROM TOP
ADDL. HINGE FOR DOORS ABOVE 108" HEIGHT AT MIDSPAN
FASTENED TO FRAME AND LEAF WITH
(2) 1/4-28 X 1/2" FH MACHINE SCREWS
AND (1) METALLIC BACKING PLATE.
BACKING PLATE FASTENED WITH
(2) 1/4-28 X 3/8" SOCKET SET SCREWS

SEALANTS:

ALL FRAME JOINTS AND SEAMS SEALED WITH SCHNEE-MOREHEAD SM5504 ACRYL-R SEAM SEALER.

Sealed:7/13/2026



FL #21835

af c

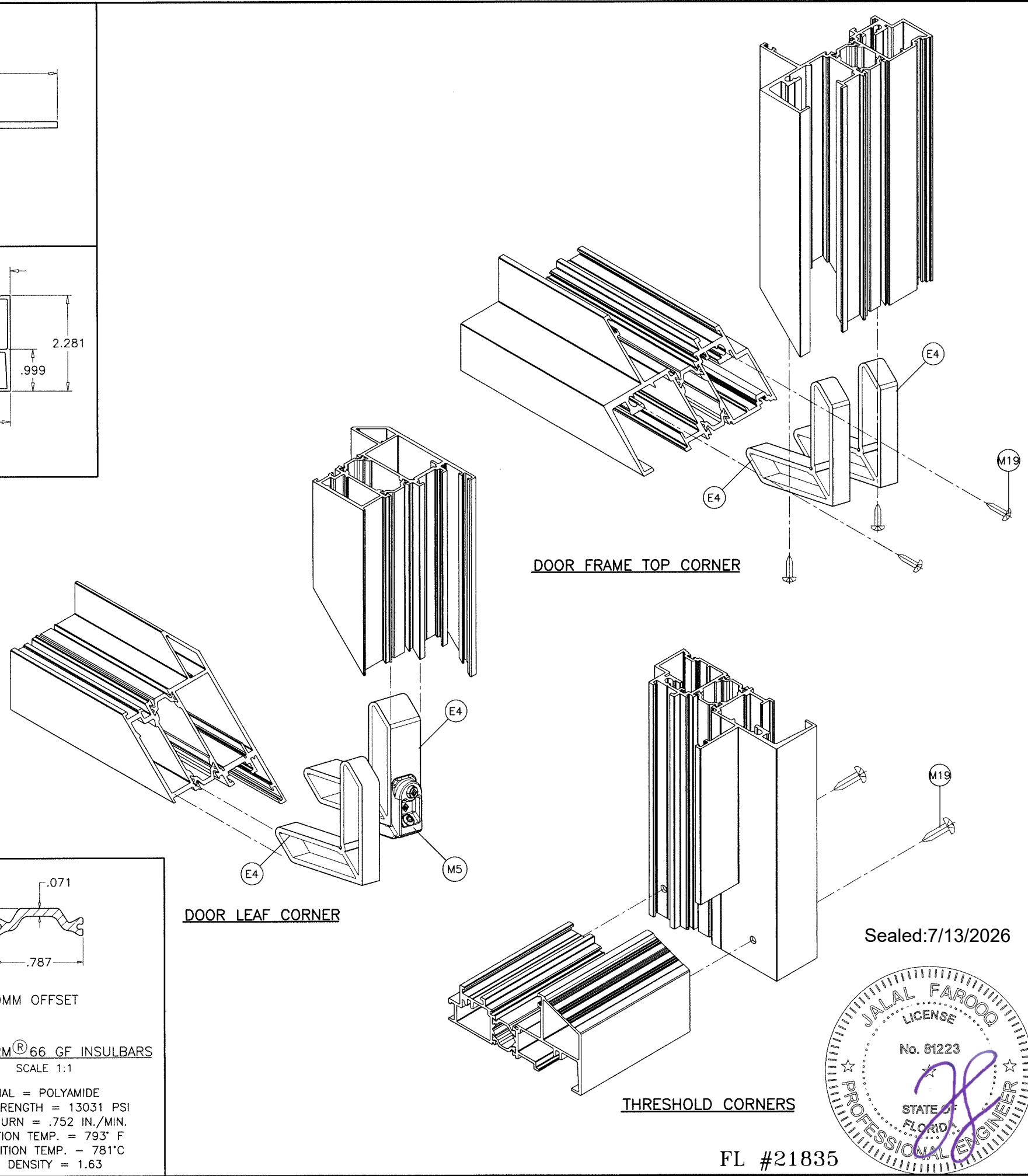
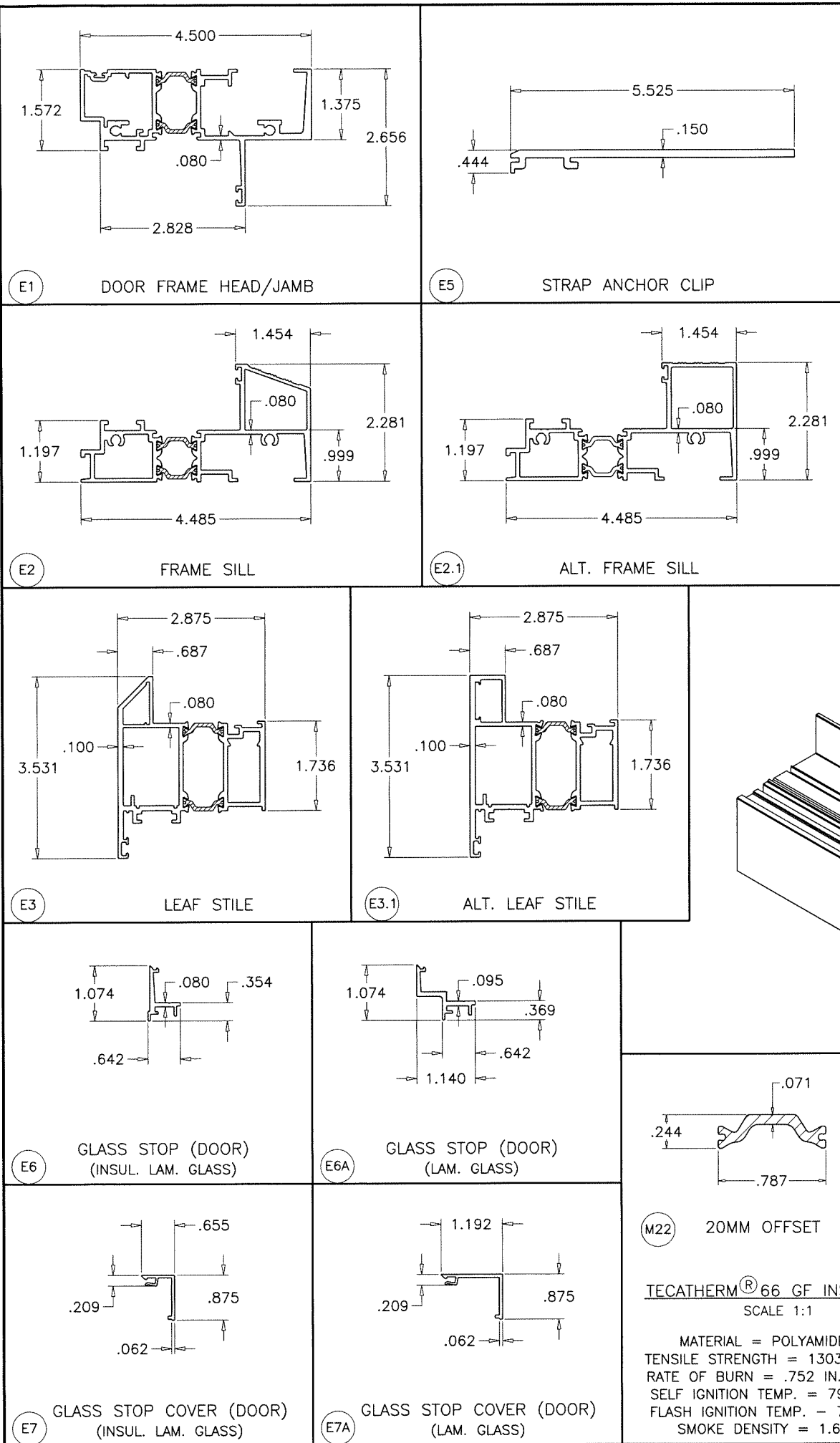
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
(C.A.N. 3538)

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

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

revisions:		no		date		by		description	
date: 01-02-17		scale: 3/8" = 1"		dr. by: TARIQ		chk. by:		drawing no. W17-08	
sheet 5 of 6									

COMP-ANL\W17-08ES



AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\W17-08ES

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

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

revisions:	
no	date by description

date: 01-02-17

scale: 3/8" = 1"

dr. by: TARIQ

chk. by:

drawing no. **W17-08**

sheet 6 of 6