

**ES-H340 (L.M.I.)**

**THERMAL ALUMINUM SINGLE HUNG WINDOW**

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEET 3.

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE COMBINATIONS OF S.H./S.H. OR SINGLE HUNG WITH OTHER WINDOW TYPES IN MODULES OF TWO OR MORE WINDOWS USING F.B.C. APPROVED MULLIONS IN BETWEEN.

LOWER DESIGN PRESSURE FROM WINDOWS OR MULLION APPROVAL WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH EDITION)/2023 (8TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

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

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

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

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

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2020/2023 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

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

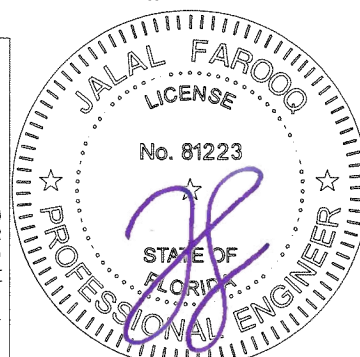
CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

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

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.

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

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.



Sealed: 10/18/2023

FL #17892

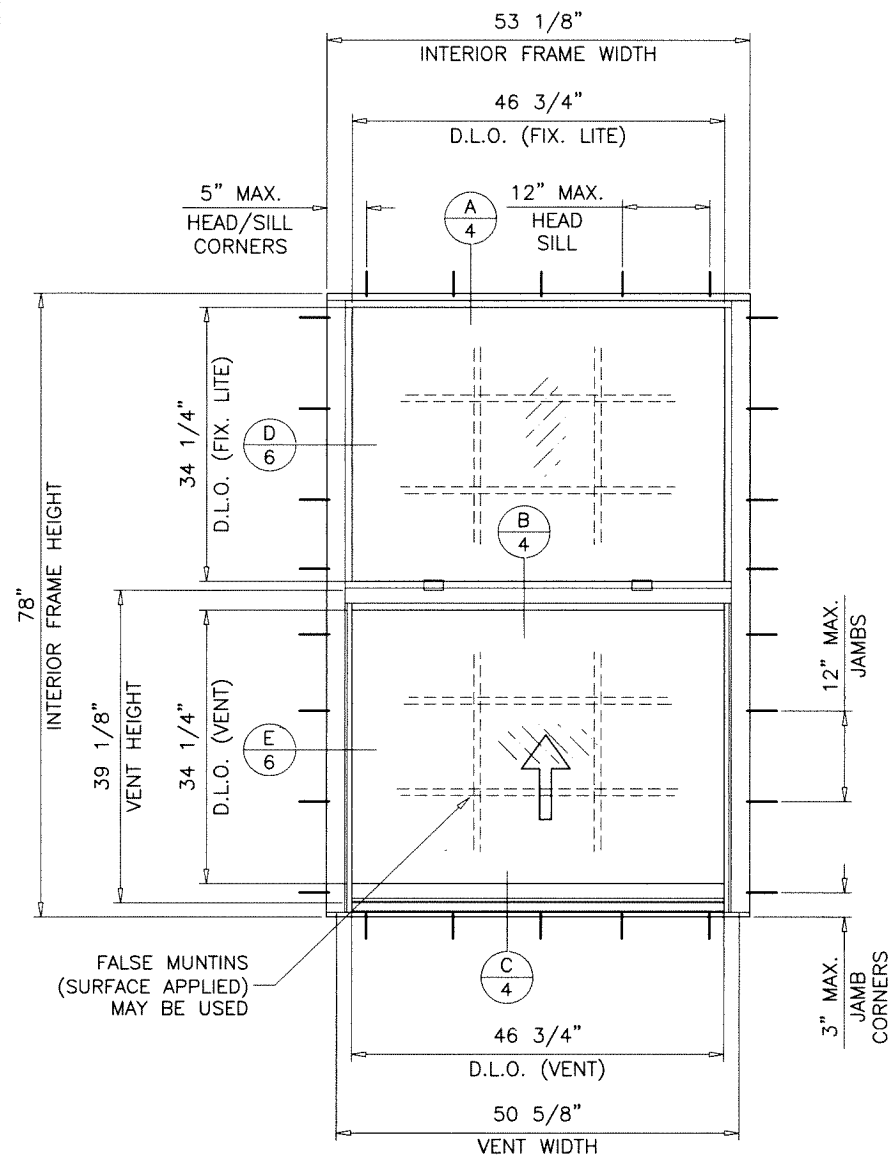
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**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173 (C.A.N. 3538)  
TEL. (305) 264-8100 FAX. (305) 262-6978  
COMP-ANL\20-40F-ESW

ES-H340 THERMAL ALUM SINGLE HUNG WDW. (L.M.I.)  
**E.S. WINDOWS, LLC**  
3550 N.W. 49 STREET  
MIAMI, FL. 33142  
TEL. (305) 638-5151 FAX. (305) 638-5158

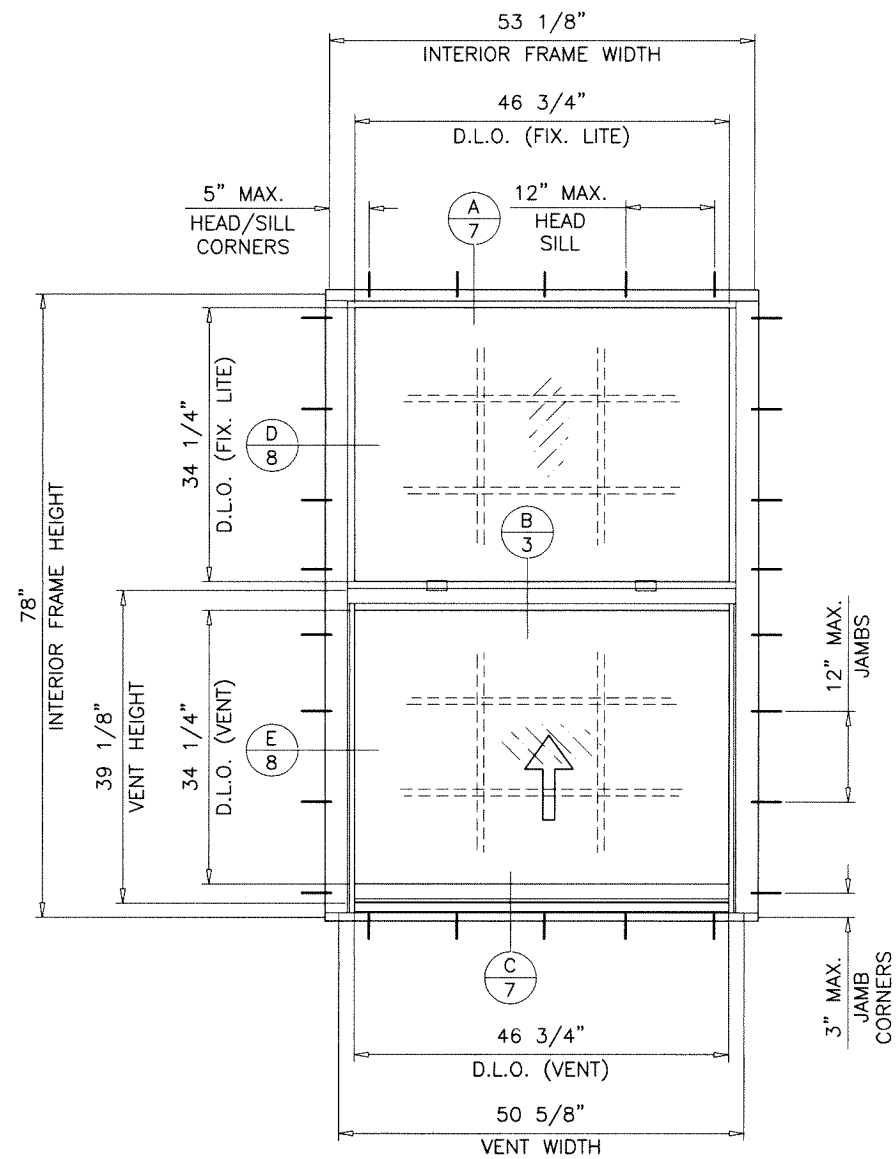
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B	03.30.21		NAIL FIN ADDED
C	04.28.23		NAIL FIN REV.
D	10.16.23		UPDATED TO 2023 FBC

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chk. by:

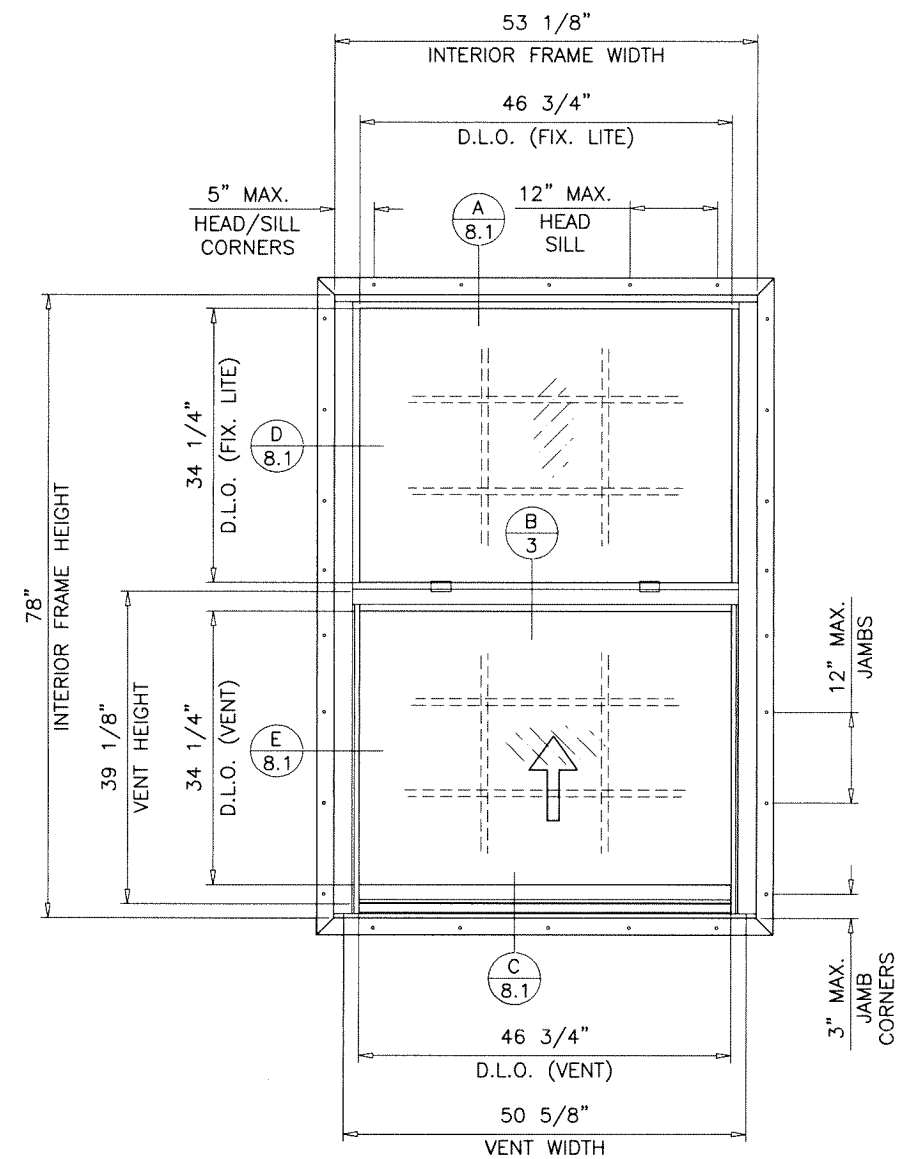
drawing no.  
**20-40F**  
sheet 1 of 11



**TYPICAL ELEVATION**  
**EQUAL LITES**  
**FLUSH FRAMES**



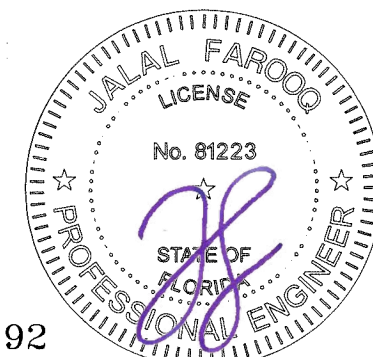
**TYPICAL ELEVATION**  
**EQUAL LITES**  
**FLANGE FRAMES**



**TYPICAL ELEVATION**  
**EQUAL LITES**  
**FLUSH FRAMES WITH FINs**

NOTE:  
 FOR FLUSH FRAME WINDOWS WITH NAIL FINs  
 LIMIT MAX. DESIGN LOADS TO  
 +70.0, -75.0 PSF

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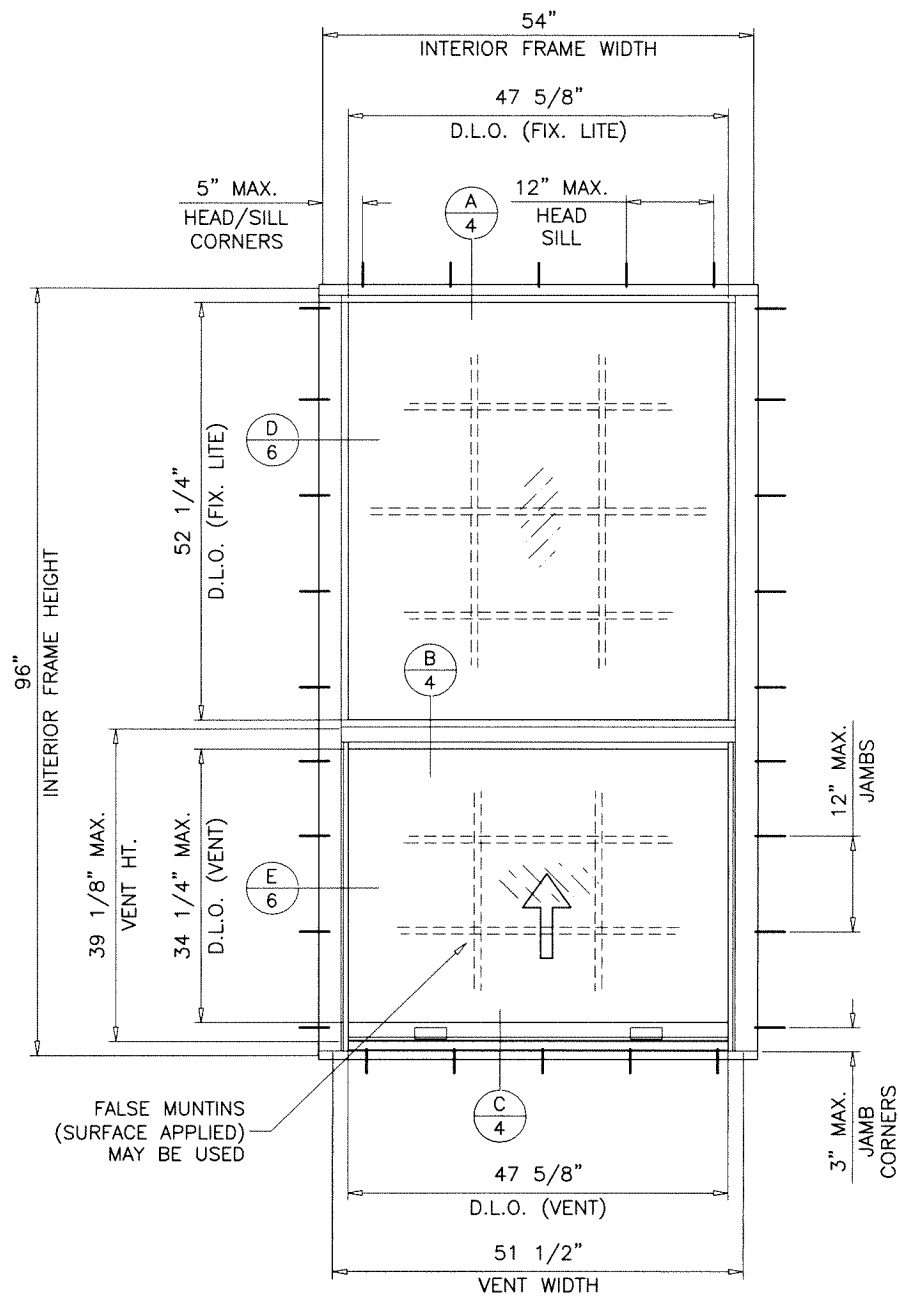
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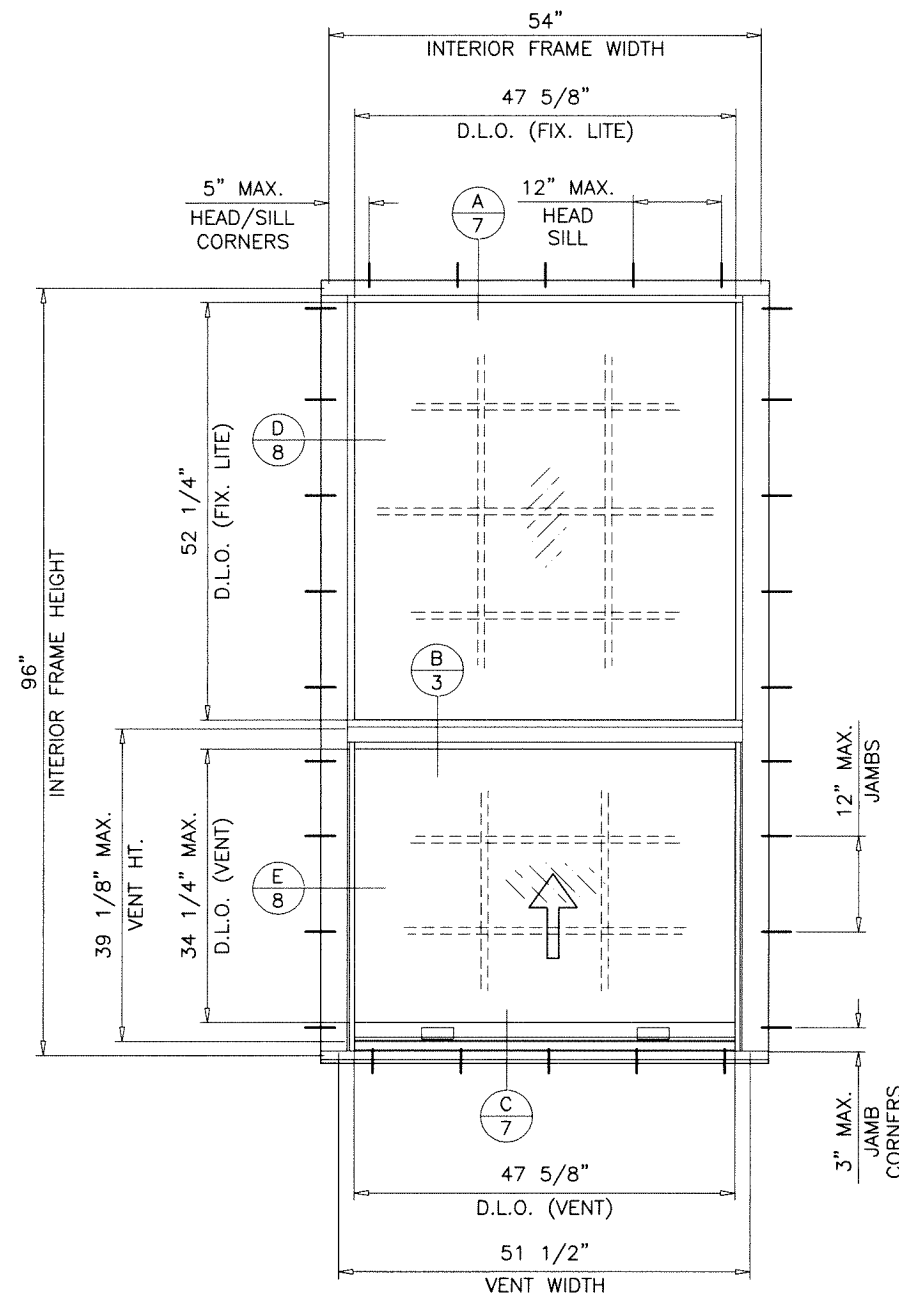
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 chk. by:

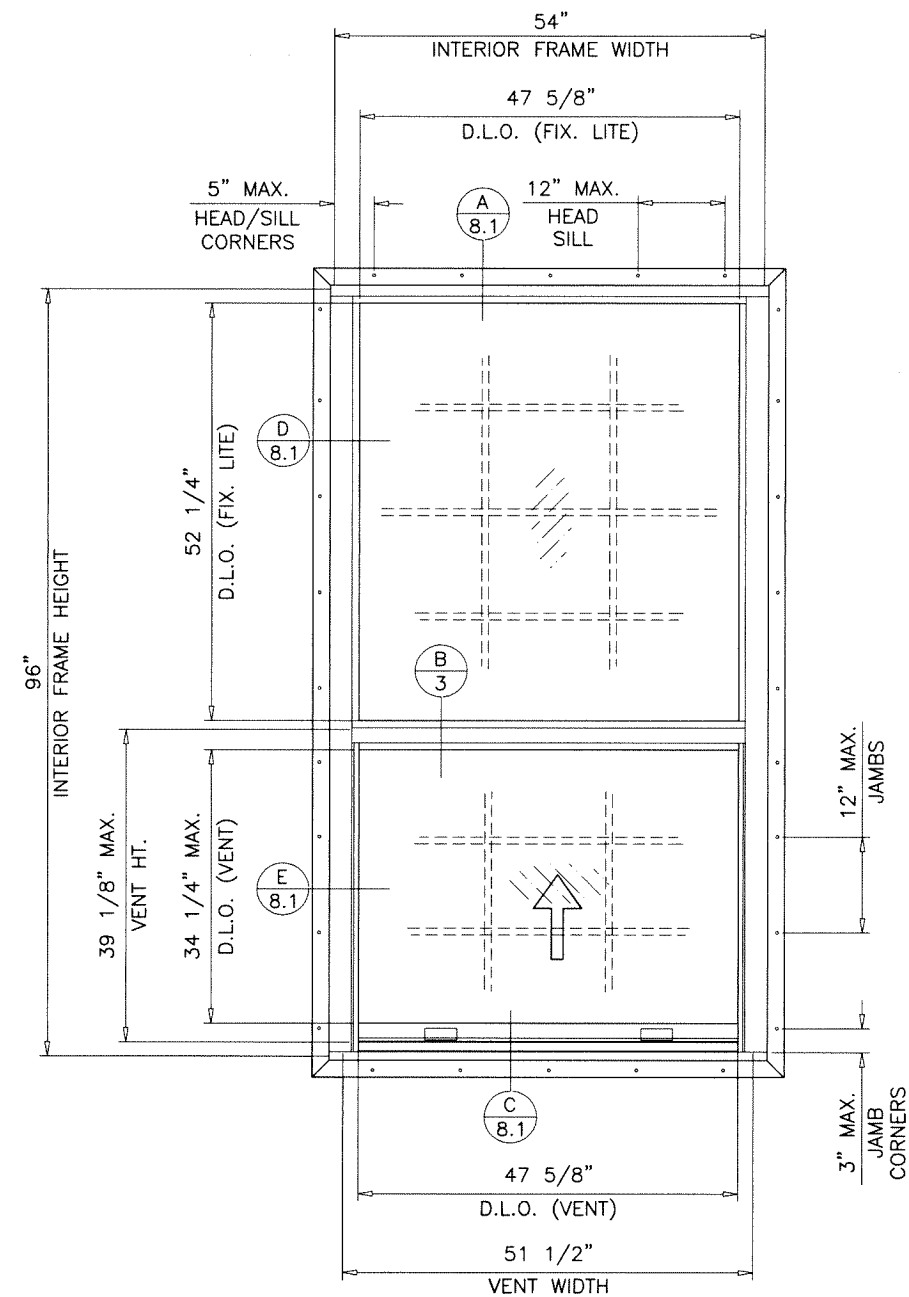
drawing no.  
**20-40F**  
 sheet 1.1 of 11



**TYPICAL ELEVATION**  
**UNEQUAL LITES (ORIEL TYPES)**  
**FLUSH FRAMES**



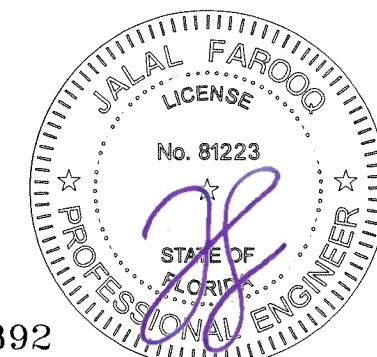
**TYPICAL ELEVATION**  
**UNEQUAL LITES (ORIEL TYPES)**  
**FLANGE FRAMES**



**TYPICAL ELEVATION**  
**UNEQUAL LITES (ORIEL TYPES)**  
**FLUSH FRAMES WITH FINS**

NOTE:  
 FOR FLUSH FRAME WINDOWS WITH NAIL FINS  
 LIMIT MAX. DESIGN LOADS TO  
 +70.0, -75.0 PSF

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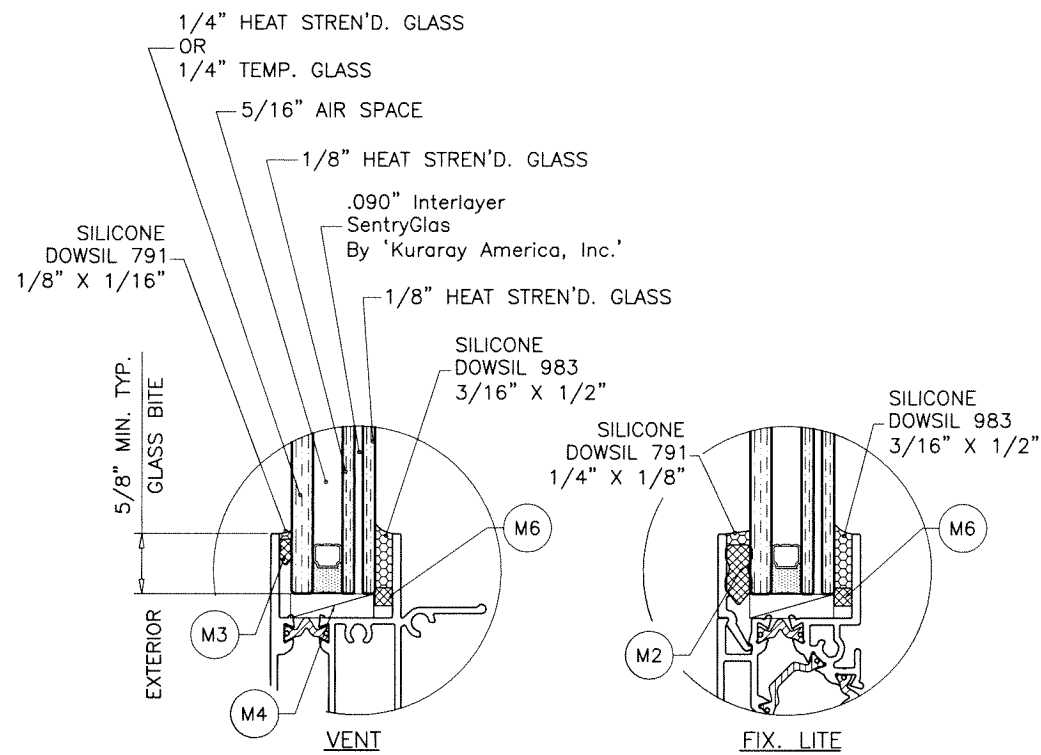
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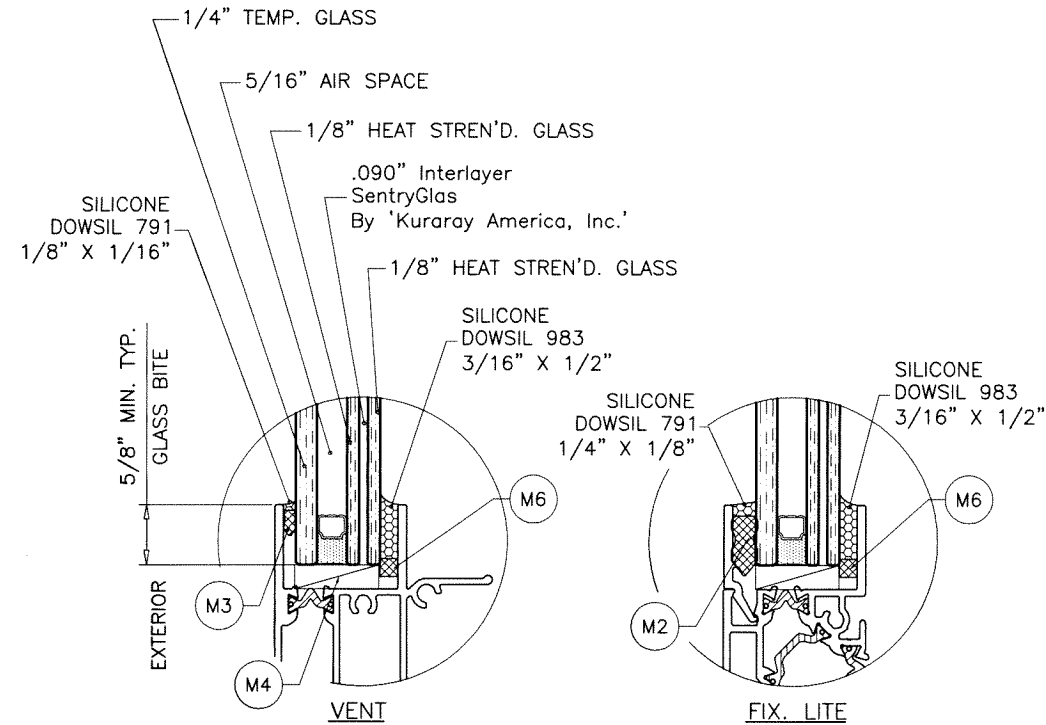
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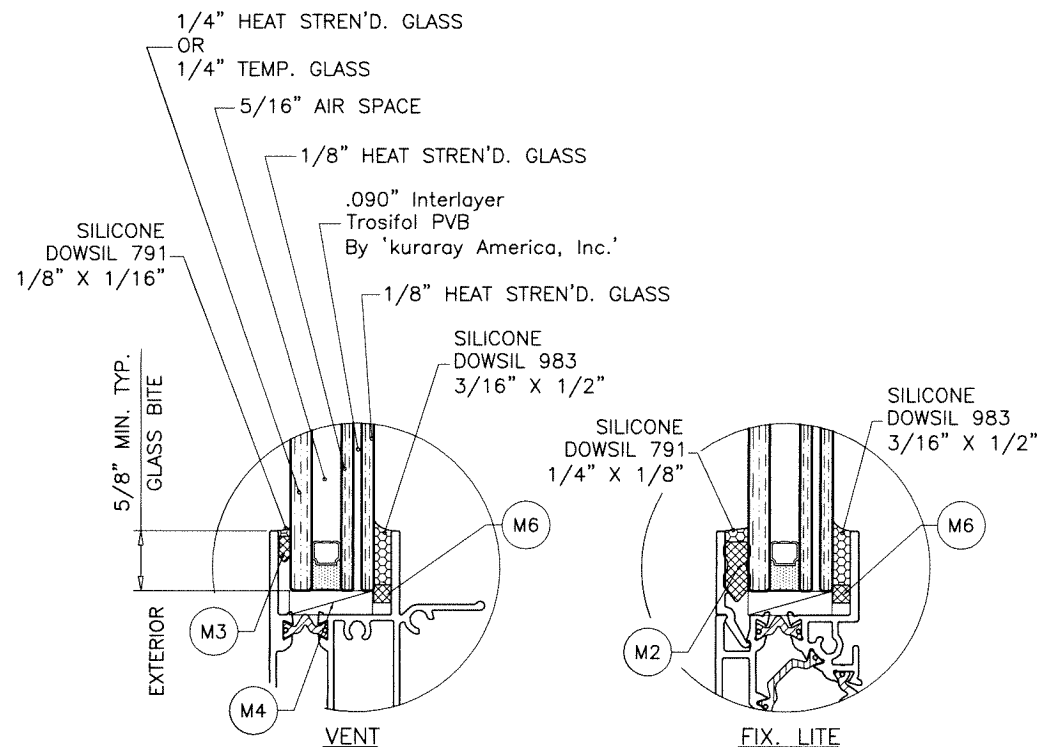
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**20-40F**  
 sheet 1.2 of 11



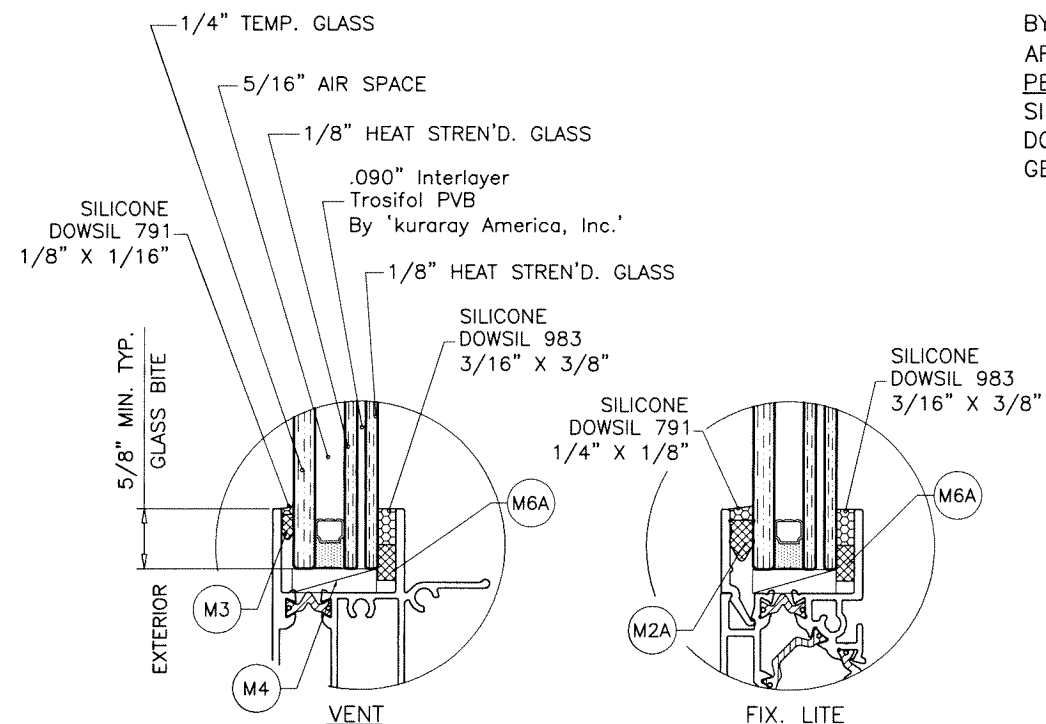
**GLASS TYPE 'A'**  
7/8" OVERALL NOM. THK.



**GLASS TYPE 'A1'**  
7/8" OVERALL NOM. THK.



**GLASS TYPE 'B'**  
7/8" OVERALL NOM. THK.



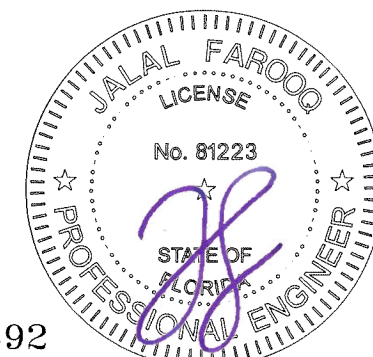
**GLASS TYPE 'B1'**  
7/8" OVERALL NOM. THK.

**5/16" 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

**GLAZING OPTIONS**

NOTE:  
TO QUALIFY FOR SMALL MISSILE IMPACT RATING  
EXTERIOR PLY OF GLASS TYPES 'A' & 'B' MUST BE TEMPERED.

Sealed: 10/18/2023



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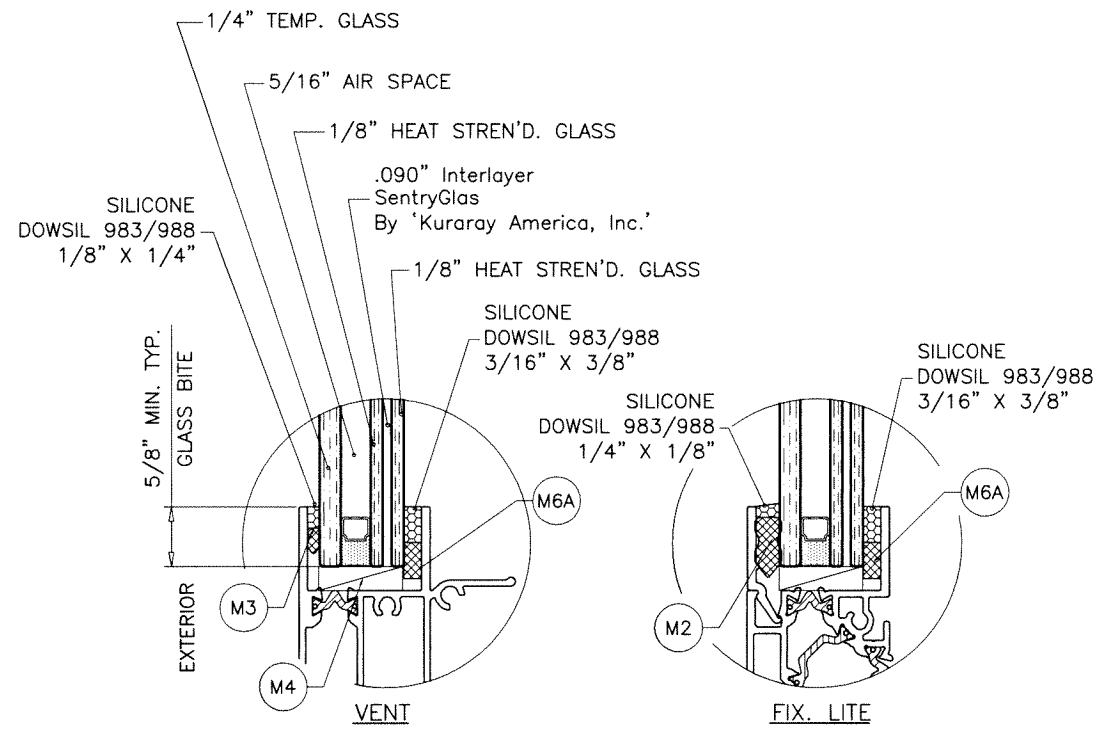
**af c**  
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no	date	description

date: 04-12-20  
scale: 1/2" = 1"  
dr. by: TARIQ  
chk. by:

drawing no.  
**20-40F**  
sheet 2 of 11



**GLASS TYPE 'C'**  
7/8" OVERALL NOM. THK.

**5/16" 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

Sealed: 10/18/2023



FL #17892

**afc**

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 COMP-ANL\20-40F-ESW

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revisions:	
no	date by description

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 chk. by:

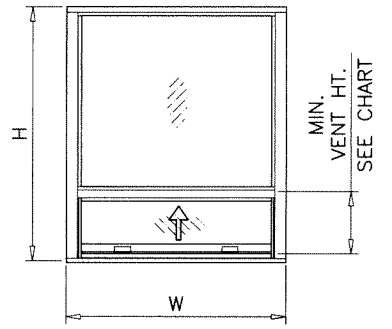
drawing no.  
**20-40F**  
 sheet 2.1 of 11



UNEQUAL LITES (ORIEL TYPE) WDWS. DESIGN LOAD CAPACITY - PSF									
INTERIOR FRAME DIMS.		MIN. VENT HEIGHT	1/4" ANCHORS 1/4" MAX. SHIM				5/16" ANCHORS 1/4" MAX. SHIM		
			GLASS TYPE 'B1'		GLASS TYPES 'A' & 'B'		GLASS TYPE 'C'		
WIDTH	HEIGHT		EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	
18-1/8"	49-5/8"	24-13/16"	70.0	75.0	80.0	90.0	90.0	160.0	
25-1/2"			70.0	75.0	80.0	90.0	90.0	160.0	
31"			70.0	75.0	80.0	90.0	90.0	160.0	
36"			70.0	75.0	80.0	90.0	90.0	160.0	
39"			70.0	75.0	80.0	90.0	90.0	160.0	
43"			(5)	70.0	75.0	80.0	90.0	90.0	110.0
47"			70.0	75.0	80.0	90.0	90.0	110.0	
52-1/8"			70.0	75.0	80.0	90.0	90.0	110.0	
53-1/8"			70.0	75.0	80.0	90.0	90.0	110.0	
54"			70.0	75.0	80.0	90.0	90.0	110.0	
18-1/8"	55"	27-1/2"	70.0	75.0	80.0	90.0	90.0	160.0	
25-1/2"			70.0	75.0	80.0	90.0	90.0	160.0	
31"			70.0	75.0	80.0	90.0	90.0	160.0	
36"			70.0	75.0	80.0	90.0	90.0	160.0	
39"			(6)	70.0	75.0	80.0	90.0	90.0	160.0
43"			70.0	75.0	80.0	90.0	90.0	110.0	
47"			70.0	75.0	80.0	90.0	90.0	110.0	
52-1/8"			70.0	75.0	80.0	90.0	90.0	110.0	
53-1/8"			70.0	75.0	80.0	90.0	90.0	110.0	
54"			70.0	75.0	80.0	90.0	90.0	110.0	
18-1/8"	62"	31"	70.0	75.0	80.0	90.0	90.0	160.0	
25-1/2"			70.0	75.0	80.0	90.0	90.0	160.0	
31"			70.0	75.0	80.0	90.0	90.0	160.0	
36"			70.0	75.0	80.0	90.0	90.0	110.0	
39"			(6)	70.0	75.0	80.0	90.0	90.0	110.0
43"			70.0	75.0	80.0	90.0	90.0	110.0	
47"			70.0	75.0	80.0	90.0	90.0	110.0	
52-1/8"			70.0	75.0	80.0	90.0	90.0	110.0	
53-1/8"			70.0	75.0	80.0	90.0	90.0	110.0	
54"			70.0	75.0	80.0	88.9	90.0	110.0	
18-1/8"	69"	34-1/2"	70.0	75.0	80.0	90.0	90.0	160.0	
25-1/2"			70.0	75.0	80.0	90.0	90.0	160.0	
31"			70.0	75.0	80.0	90.0	90.0	110.0	
36"			70.0	75.0	80.0	90.0	90.0	110.0	
39"			(7)	70.0	75.0	80.0	90.0	110.0	
43"			70.0	75.0	80.0	90.0	90.0	110.0	
47"			70.0	75.0	80.0	90.0	90.0	110.0	
52-1/8"			-	-	-	-	90.0	110.0	
53-1/8"			-	-	-	-	90.0	110.0	
54"			-	-	-	-	90.0	110.0	
18-1/8"	73-1/4"	36-5/8"	70.0	75.0	80.0	90.0	90.0	160.0	
25-1/2"			70.0	75.0	80.0	90.0	90.0	160.0	
31"			70.0	75.0	80.0	90.0	90.0	110.0	
36"			70.0	75.0	80.0	90.0	90.0	110.0	
39"			(7)	70.0	75.0	80.0	90.0	110.0	
43"			70.0	75.0	80.0	90.0	90.0	110.0	
47"			-	-	-	-	90.0	110.0	
52-1/8"			-	-	-	-	90.0	110.0	
53-1/8"			-	-	-	-	90.0	110.0	
54"			-	-	-	-	90.0	107.3	

UNEQUAL LITES (ORIEL TYPE) WDWS. DESIGN LOAD CAPACITY - PSF									
INTERIOR FRAME DIMS.		MIN. VENT HEIGHT	1/4" ANCHORS 1/4" MAX. SHIM				5/16" ANCHORS 1/4" MAX. SHIM		
			GLASS TYPE 'B1'		GLASS TYPES 'A' & 'B'		GLASS TYPE 'C'		
WIDTH	HEIGHT		EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	
18-1/8"	75"	37-1/2"	70.0	75.0	80.0	90.0	90.0	160.0	
25-1/2"			70.0	75.0	80.0	90.0	90.0	160.0	
31"			70.0	75.0	80.0	90.0	90.0	110.0	
36"			70.0	75.0	80.0	90.0	90.0	110.0	
39"			70.0	75.0	80.0	90.0	90.0	110.0	
43"			(8)	70.0	75.0	80.0	90.0	90.0	110.0
47"			-	-	-	-	90.0	110.0	
52-1/8"			-	-	-	-	90.0	110.0	
53-1/8"			-	-	-	-	90.0	108.8	
54"			-	-	-	-	90.0	106.1	
18-1/8"	78"	39"	70.0	75.0	80.0	90.0	90.0	160.0	
25-1/2"			70.0	75.0	80.0	90.0	90.0	160.0	
31"			70.0	75.0	80.0	90.0	90.0	110.0	
36"			70.0	75.0	80.0	90.0	90.0	110.0	
39"			(8)	70.0	75.0	80.0	90.0	90.0	110.0
43"			-	-	-	-	90.0	110.0	
47"			-	-	-	-	90.0	110.0	
52-1/8"			-	-	-	-	90.0	110.0	
53-1/8"			-	-	-	-	90.0	107.0	
54"			-	-	-	-	90.0	104.2	
18-1/8"	81"	39-1/8"	70.0	75.0	80.0	90.0	90.0	160.0	
25-1/2"			70.0	75.0	80.0	90.0	90.0	110.0	
31"			70.0	75.0	80.0	90.0	90.0	110.0	
36"			70.0	75.0	80.0	90.0	90.0	110.0	
39"			(8)	70.0	75.0	80.0	90.0	90.0	110.0
43"			-	-	-	-	90.0	110.0	
47"			-	-	-	-	90.0	110.0	
52-1/8"			-	-	-	-	90.0	108.7	
53-1/8"			-	-	-	-	90.0	105.4	
54"			-	-	-	-	90.0	102.7	
18-1/8"	96"	39-1/8"	-	-	-	-	90.0	160.0	
25-1/2"			-	-	-	-	90.0	110.0	
31"			-	-	-	-	90.0	110.0	
36"			-	-	-	-	90.0	110.0	
39"			(9)	-	-	-	90.0	110.0	
43"			-	-	-	-	90.0	110.0	
47"			-	-	-	-	90.0	110.0	
52-1/8"			-	-	-	-	90.0	106.6	
53-1/8"			-	-	-	-	90.0	103.0	
54"			-	-	-	-	90.0	100.0	

\* NUMBER IN PARENTHESIS INDICATE  
MIN. NO. OF ANCHORS PER JAMB.



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

Sealed: 10/18/2023



FL #17892

**af c**  
**AL-FAROOQ CORPORATION**  
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 COMP-ANL\20-40F-ESW

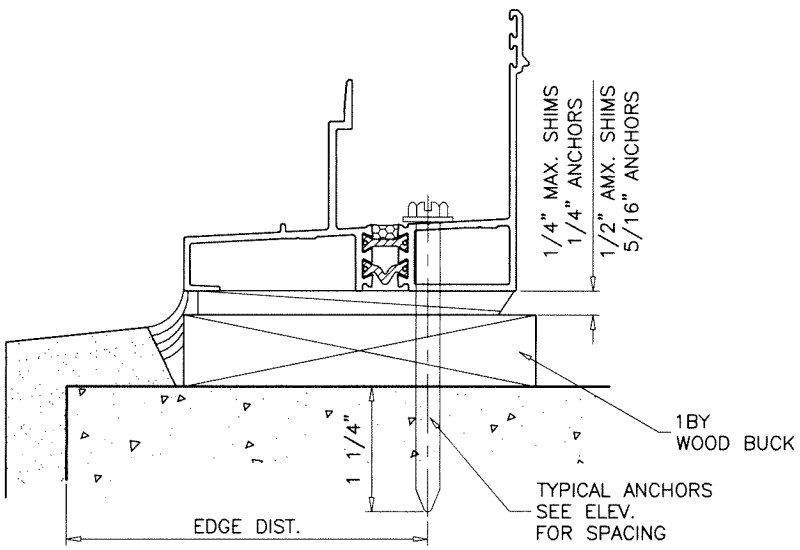
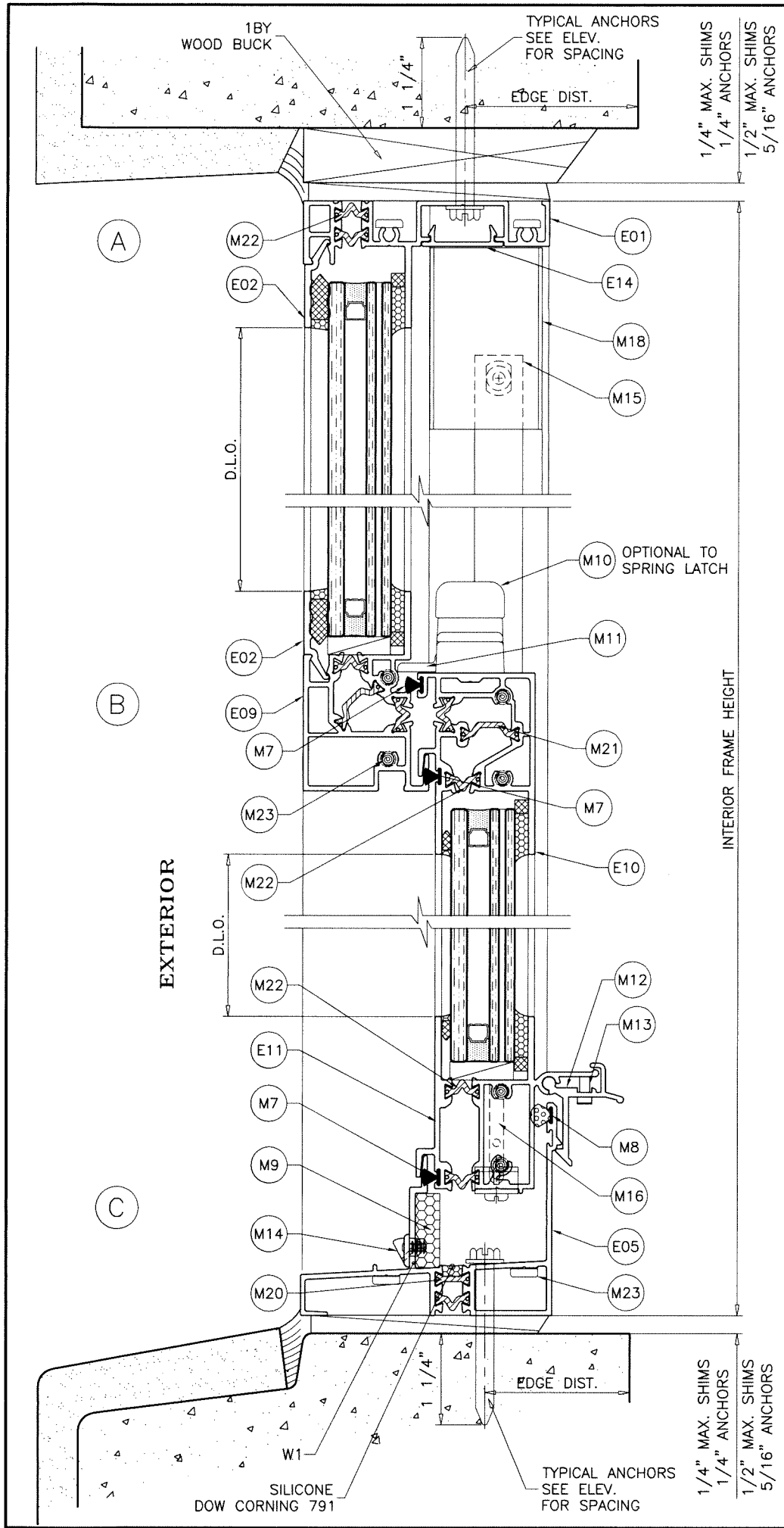
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no	date	by	description

date: 04-12-20  
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 dr. by: TARIQ  
 chk. by:

drawing no.  
**20-40F**  
 sheet 3.1 of 11



**WEEPHOLES:**

W1 = 1-7/8" X 1/4" WEEPHOLES AT 6-1/2" FROM EACH END

Sealed: 10/18/2023

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**afc**

**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\20-40F-ESW

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ES-H340 THERMAL ALUM SINGLE HUNG WDW. (L.M.I.)

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

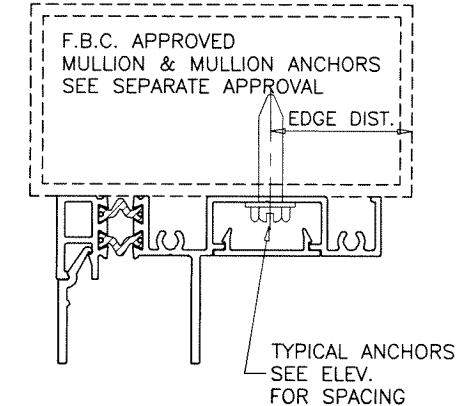
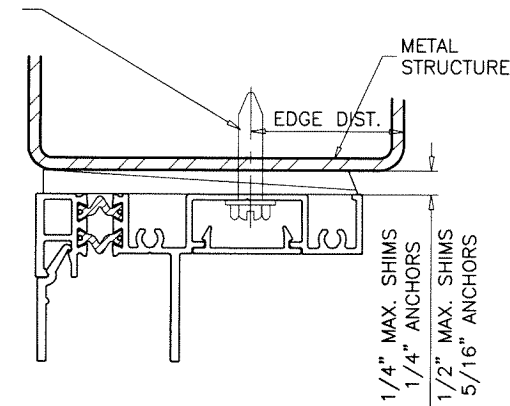
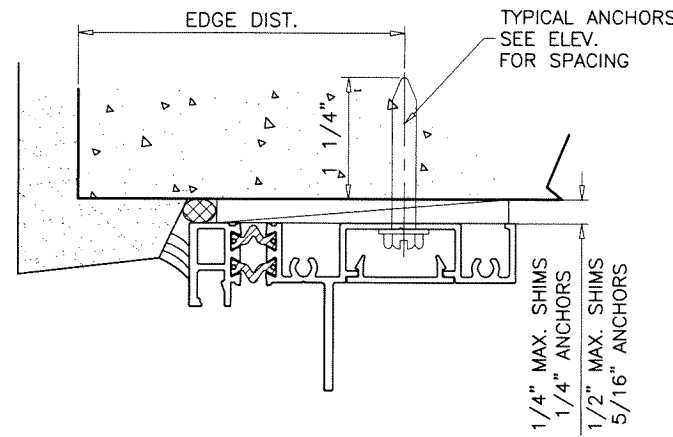
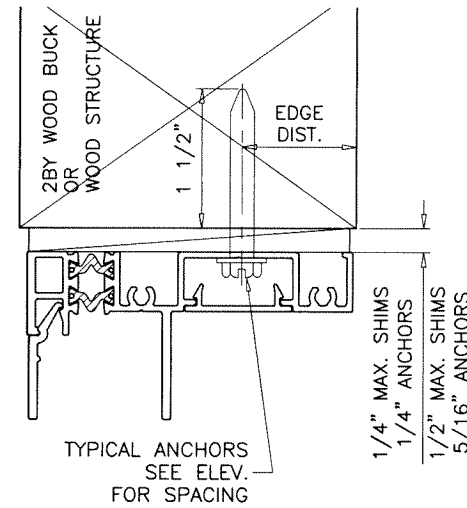
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drawing no.  
**20-40F**

sheet 4 of 11





**TYPICAL ANCHORS:** SEE ELEV. FOR SPACING

**1/4" MAX. SHIMS**

**1/4" DIA. CRETE-FLEX SS4 BY 'DEWALT'** (Fu=190 KSI, Fy=127 KSI)

**1/4" DIA. AGGRE-GATOR 300 BY 'DEWALT'** (Fu=96 KSI, Fy=57 KSI)

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

INTO 2BY WOOD BUCKS OR WOOD STRUCTURES

1-1/2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)

THRU 1BY BUCKS INTO CONC. OR BLOCKS

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

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

DIRECTLY INTO CONC. OR BLOCKS

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

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

**1/4" DIA. ULTRACON SS4 410 BY 'DEWALT'** (Fu=190 KSI, Fy=164 KSI)

INTO 2BY WOOD BUCKS OR WOOD STRUCTURES

1-1/2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)

THRU 1BY BUCKS INTO CONC. OR BLOCKS

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

1-1/4" MIN. EMBED INTO GROUT-FILLED BLOCKS (JAMBS)

DIRECTLY INTO CONC. OR BLOCKS

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

1-1/4" MIN. EMBED INTO GROUT-FILLED BLOCKS (JAMBS)

**1/4" DIA. BI-FLEX 300 SELF DRILLING SCREWS BY 'DEWALT'**

**1/4" DIA. DRIL-FLEX SELF DRILLING SCREWS BY 'DEWALT'** (Fu=100 KSI, Fy= 65 KSI)

INTO F.B.C. APPROVED MULLIONS

OR

INTO METAL STRUCTURES (HEAD/SILL/JAMBS)

(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)

**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, 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.

**TYPICAL ANCHORS:** SEE ELEV. FOR SPACING

**1/2" MAX. SHIMS**

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

INTO 2BY WOOD BUCKS OR WOOD STRUCTURES

1-1/2" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)

THRU 1BY BUCKS INTO CONC. OR BLOCKS

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

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

DIRECTLY INTO CONCRETE OR BLOCKS

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

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

**5/16" DIA. DRIL-FLEX SELF DRILLING SCREWS BY 'DEWALT'** (Fu=100 KSI, Fy= 65 KSI)

INTO F.B.C. APPROVED MULLIONS

OR

INTO METAL STRUCTURES (HEAD/SILL/JAMBS)

(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)

**TYPICAL EDGE DISTANCE**

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

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

INTO METAL STRUCTURE = 3/4" MIN.

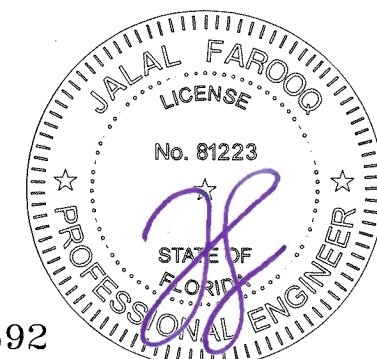
WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.

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

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

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

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FL #17892

**af c**  
**AL-FAROOQ CORPORATION**  
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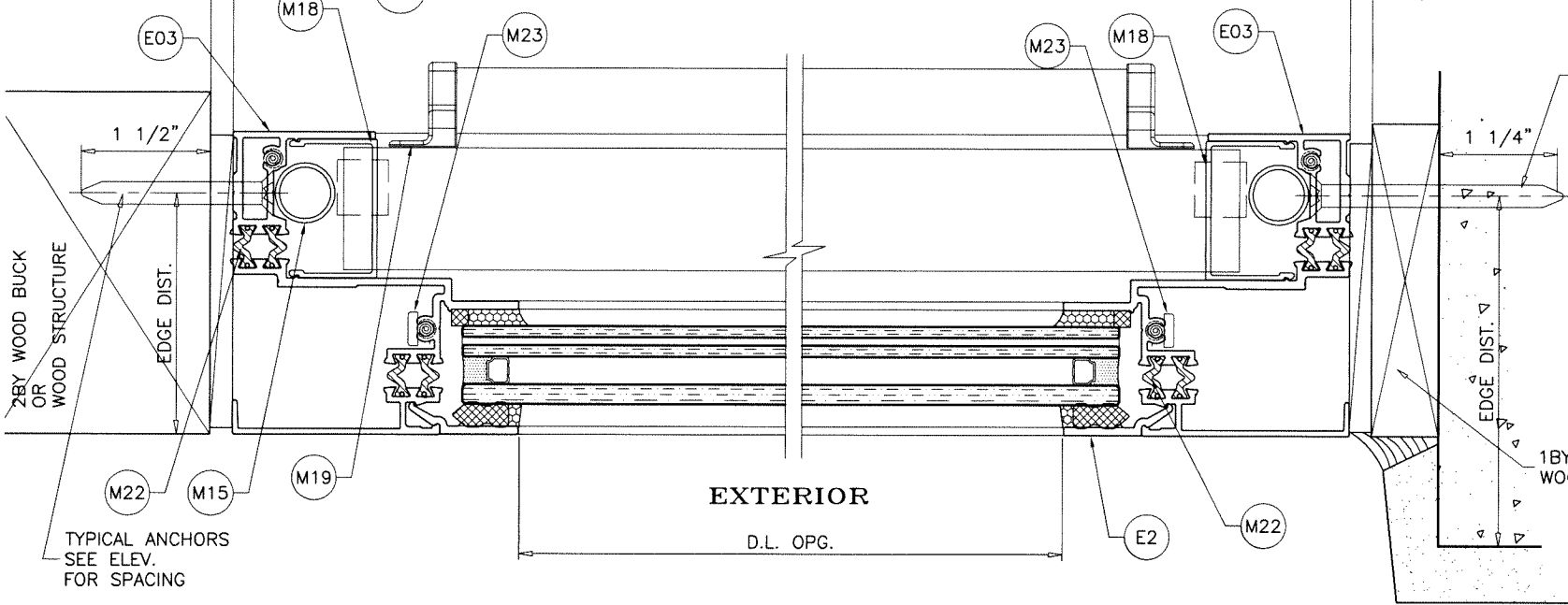
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revisions:	
no	date by description

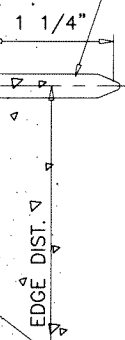
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chk. by:

drawing no.  
**20-40F**  
sheet 5 of 11

1/4" MAX. SHIMS  
1/4" ANCHORS  
1/2" MAX. SHIMS  
5/16" ANCHORS

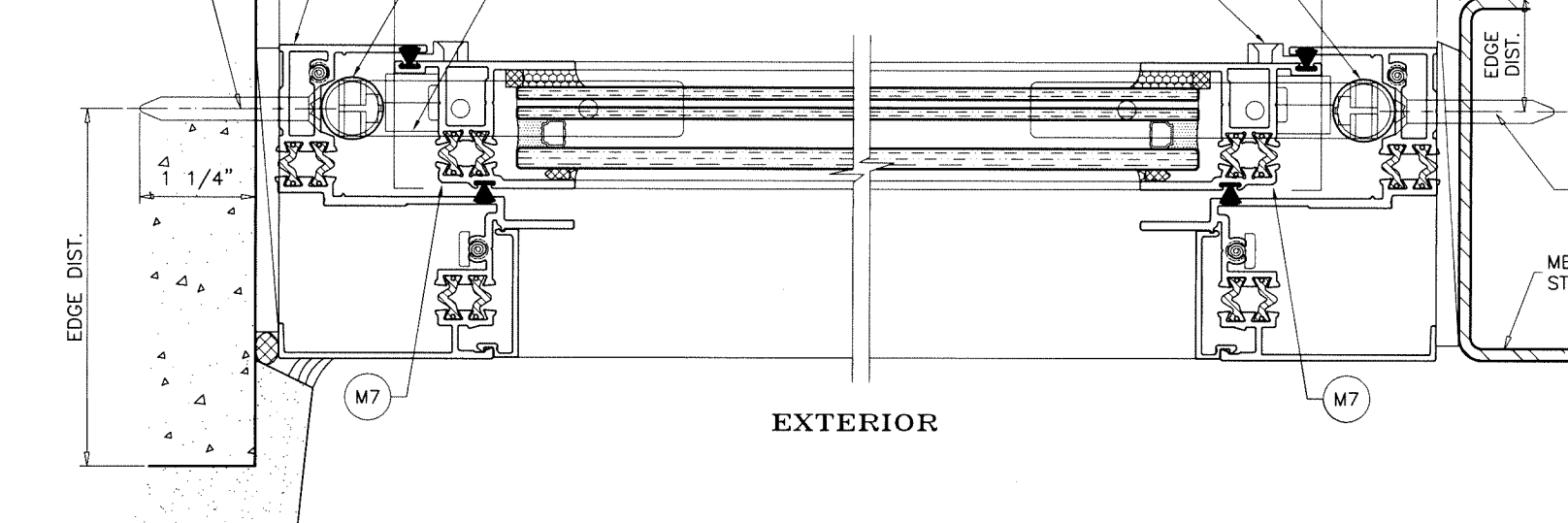


TYPICAL ANCHORS  
SEE ELEV.  
FOR SPACING

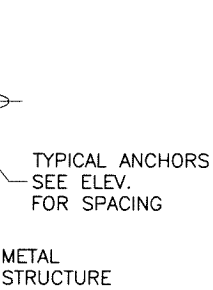


1/4" MAX. SHIMS  
1/4" ANCHORS  
1/2" MAX. SHIMS  
5/16" ANCHORS

TYPICAL ANCHORS  
SEE ELEV.  
FOR SPACING

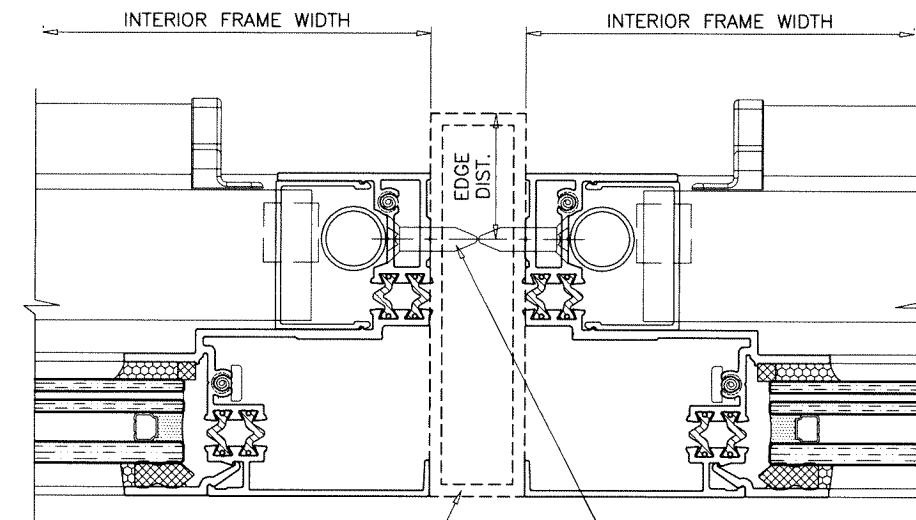


1/4" MAX. SHIMS  
1/4" ANCHORS  
1/2" MAX. SHIMS  
5/16" ANCHORS



TYPICAL ANCHORS  
SEE ELEV.  
FOR SPACING

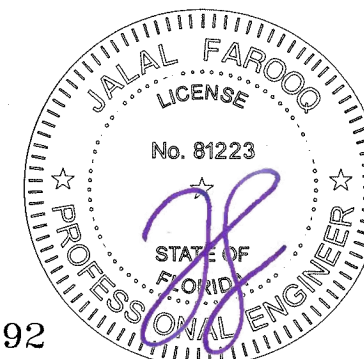
METAL  
STRUCTURE



F.B.C.  
APPROVED MULLION  
SEE SEPARATE APPROVAL

TYPICAL ANCHORS  
SEE ELEV.  
FOR SPACING

Sealed: 10/18/2023



FL #17892

**afc**

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COMP-ANL \ 20-40F-ESW

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revisions:  
no date by description

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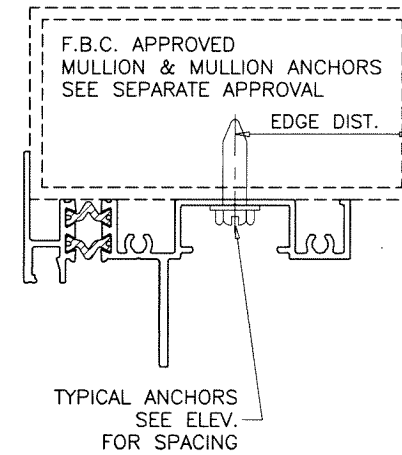
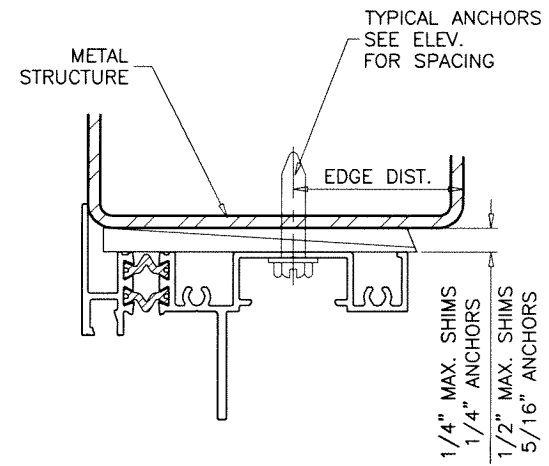
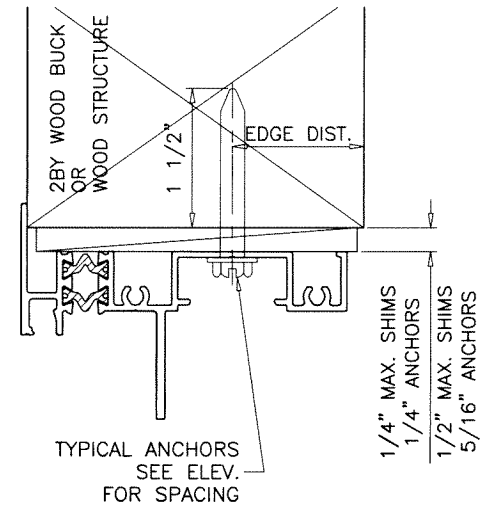
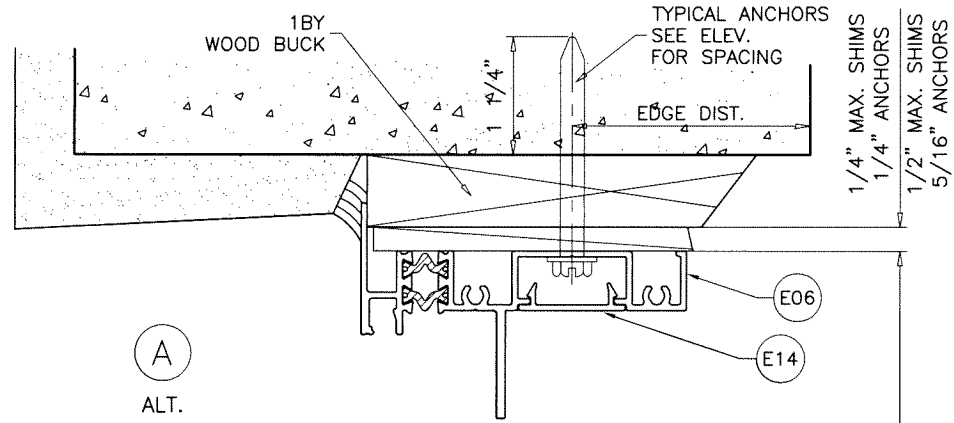
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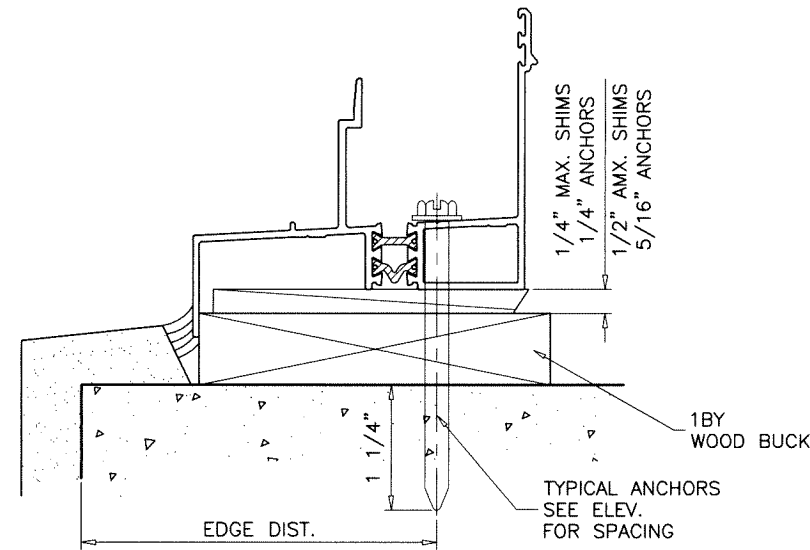
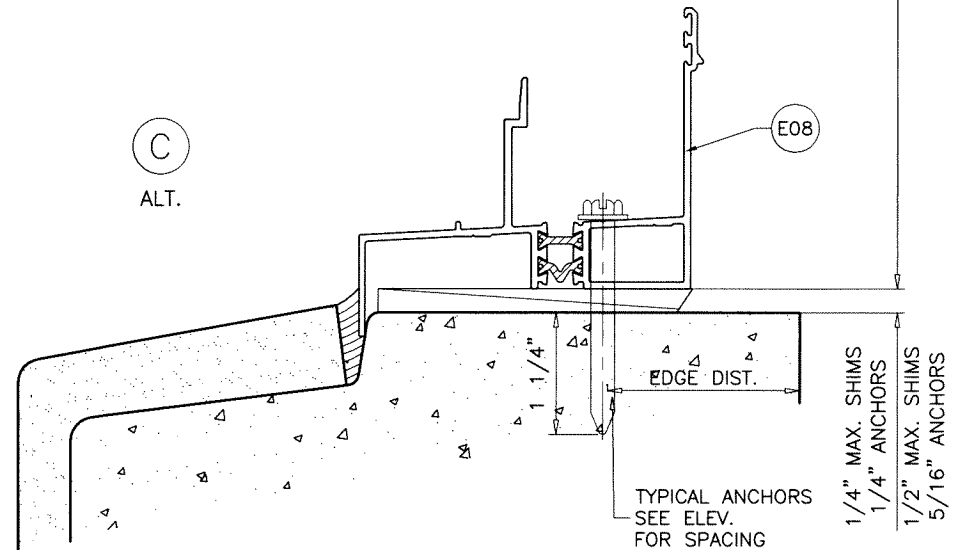
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drawing no.  
**20-40F**

sheet 6 of 11



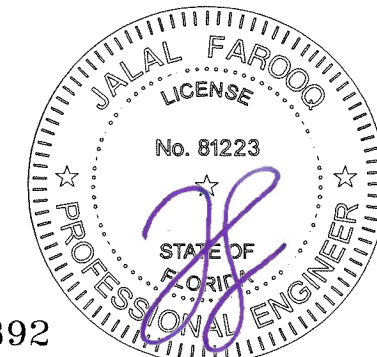
INTERIOR FRAME HEIGHT



**INSTALLATION DETAILS FLANGE FRAMES**

SEE SHEETS 4 THRU 6 FOR WINDOW DETAILS

Sealed: 10/18/2023



FL #17892

ES-H340 THERMAL ALUM SINGLE HUNG WDW. (L.M.I.)

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no	date	by	description

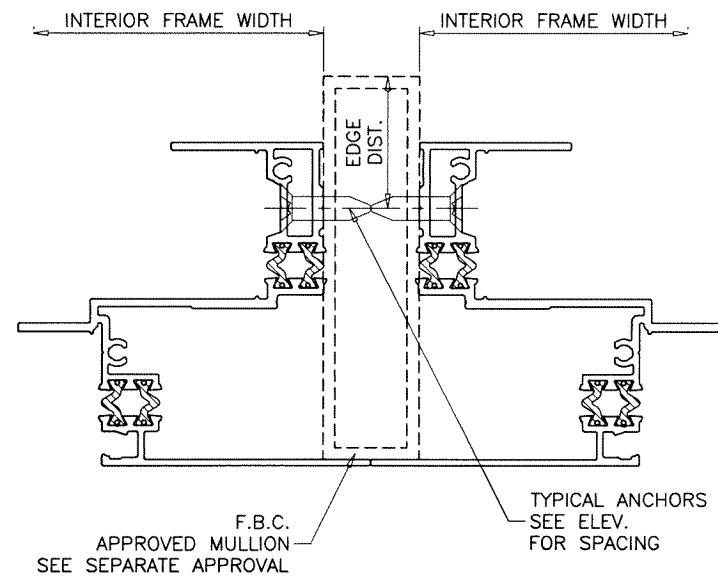
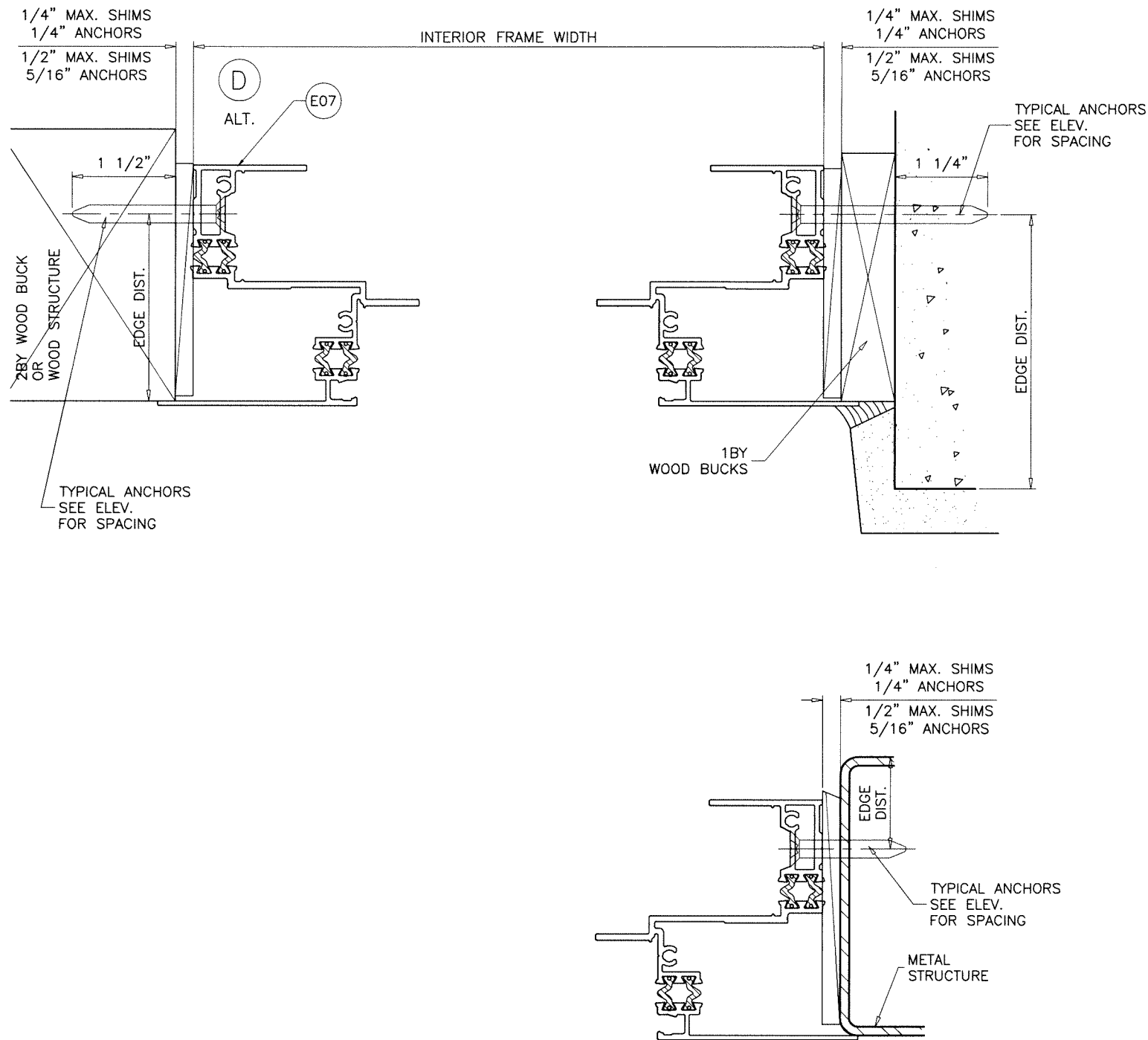
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drawing no.  
**20-40F**  
sheet 7 of 11

**af c**

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9360 SUNSET DRIVE, SUITE 220  
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(C.A.N. 3538)

COMP-ANL 20-40F-ESW



**INSTALLATION DETAILS FLANGE FRAMES**

SEE SHEETS 4 THRU 6 FOR WINDOW DETAILS

Sealed: 10/18/2023



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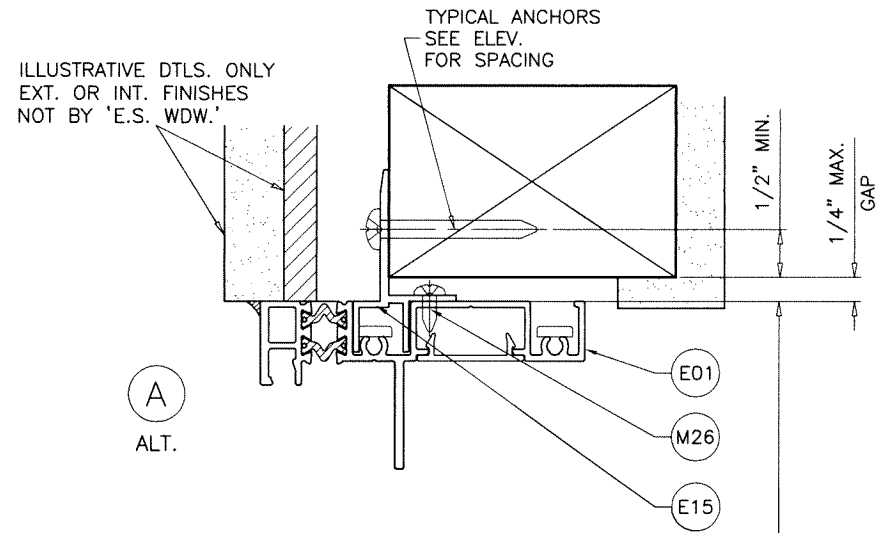
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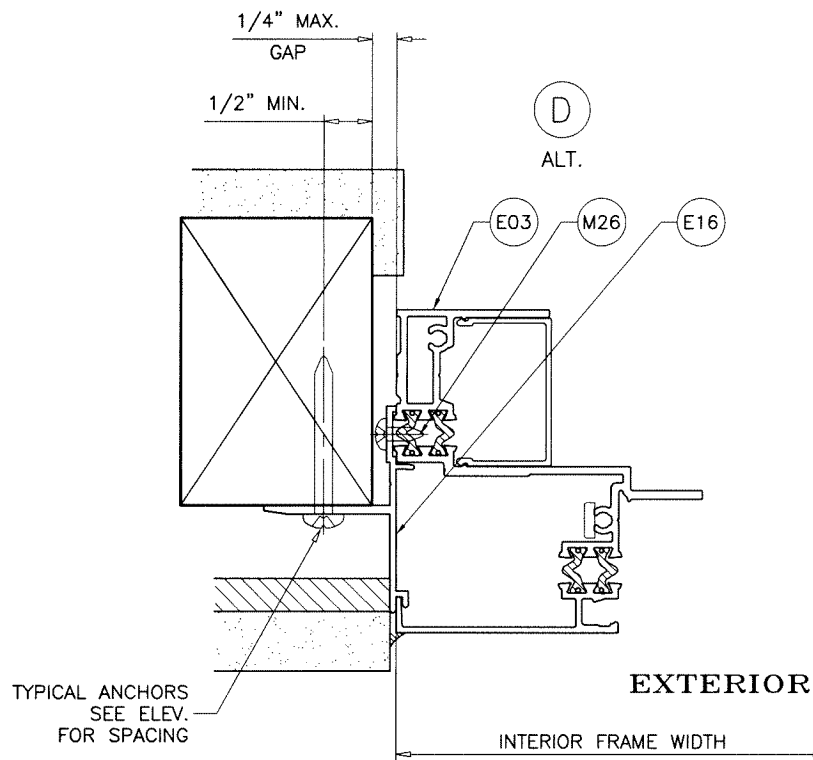
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drawing no.  
**20-40F**  
 sheet 8 of 11



**TYPICAL ANCHORS:** SEE ELEV. FOR SPACING  
**#14 WOOD SCREWS** (GRADE 2 CRS)  
 INTO 2BY WOOD BUCKS OR WOOD STRUCTURES  
 1-1/2" MIN. PENETRATION INTO WOOD



**INSTALLATION DETAILS FLUSH FRAMES WITH NAIL FINIS**  
 SEE SHEETS 4 THRU 6 FOR WINDOW DETAILS

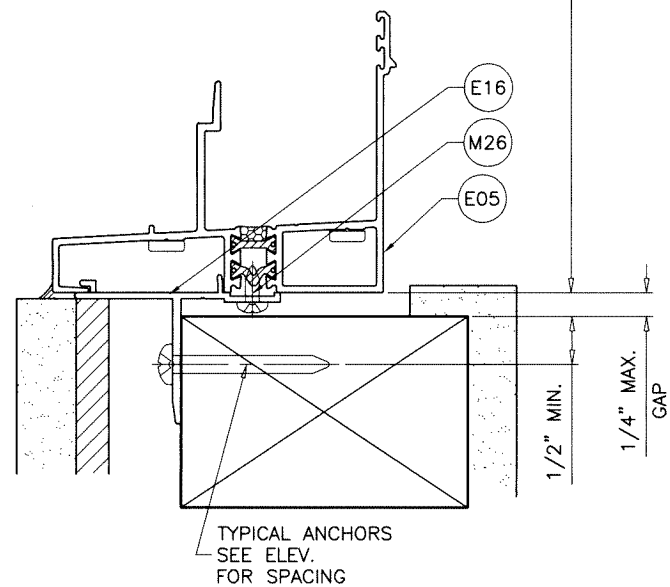
EXTERIOR

INTERIOR FRAME HEIGHT

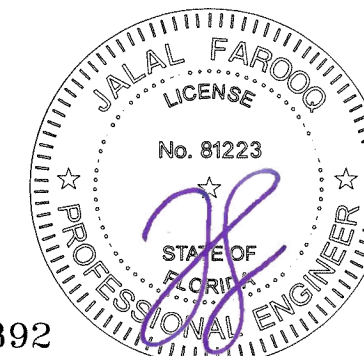
EXTERIOR

INTERIOR FRAME WIDTH

C ALT.



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**af c**  
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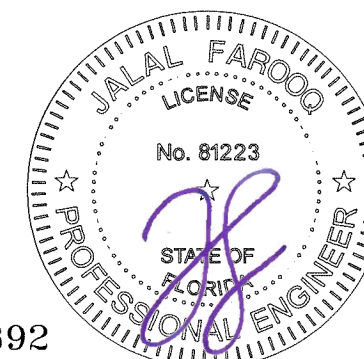
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**20-40F**  
 sheet 8.1 of 11

ITEM #	PART #	REQD.	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
E01	ES-H340-501	1	FLUSH FRAME HEAD	6063-T6	-
E02	ES-H340-003	4/ LITE	GLASS STOP	6063-T6	-
E03	ES-H340-505	2	FLUSH FRAME JAMB	6063-T6	-
E04	ES-H340-007	AS REQD.	SCREEN ADAPTER/COVER	6063-T5	-
E05	ES-H340-503	1	FLUSH FRAME SILL	6063-T6	-
E06	ES-H340-502	1	FLANGE FRAME HEAD	6063-T6	-
E07	ES-H340-506	2	FLANGE FRAME JAMB	6063-T6	-
E08	ES-H340-504	1	FLANGE FRAME SILL	6063-T6	-
E09	ES-H340-507	1	FIXED INTERLOCK	6063-T6	-
E10	ES-H340-508	1	VENT INTERLOCK	6063-T6	-
E11	ES-H340-509	1	BOTTOM RAIL	6063-T6	-
E12	ES-H340-510	2	JAMB STILE	6063-T6	-
E13	ES-H340-021	-	JAMB TRIM	6063-T5	-
E14	ES-9502	AS REQD.	HEAD FRAME COVER	6063-T5	-
E15	ES-H340-029	AS REQD.	NAIL FIN (HEAD)	6063-T6	-
E16	ES-SW340-016	AS REQD.	NAIL FIN (SILL/JAMB)	6063-T6	-
M2	ES-H340-G02	AS REQD.	EXTERIOR GLAZING WEDGE (FIX. LITE)	SILICONE	DUROMETER 60±5 SHORE A
M2A	ES-H340-G02	AS REQD.	EXTERIOR GLAZING WEDGE (FIX. LITE)	SILICONE	DUROMETER 60±5 SHORE A
M3	ES-H340-G05	AS REQD.	EXTERIOR GLAZING WEDGE (VENT)	SILICONE	DUROMETER 60±5 SHORE A
M4	ES-21-B04A	AS REQD.	SETTING BLOCK	SILICONE	DUROMETER 80±5 SHORE A
M6	-	AS REQD.	INTERIOR GLAZING TAPE	POLYURETHANE	THERMALBOND
M6A	T-BOND V2206	AS REQD.	3/16" X 3/8" INTERIOR GLAZING TAPE	POLYURETHANE	THERMALBOND
M7	W23241NK	AS REQD.	PILE W'STRIPPING	-	-
M8	Q300T190	AS REQD.	Q-LONG W'STRIPPING	-	-
M9	WPSA	1/ WEEP	FOAM PAD, 2" X 1" X 5/8"	FOAM	OPEN CELL
M10	3032	2/ VENT	SWEEP LOCK	DIE CAST ALUM.	-
M11	ES1050-PL1	-	SWEEP LOCK FLAT BOLT	ST. STEEL	-
M12	SK08-4000.000	-	VENT LATCH INTERLOCK	DIE CAST ALUM	-
M13	ES-1012	-	LATCH SPRING LS 4050	ST. STEEL	-
M14	WA2L	-	WEEP HOLE COVER	RIGID PVC	-
M15	30-31	2/ VENT	ULTRA LIFT BALANCE	STEEL ROD	-
M16	-	2/ VENT	BALANCE GUIDE	NYLON	FASTENED W/ (1) #8 X 1/2" FH SMS
M17	21803	-	NON TILT	ST. STEEL	-
M18	ES-H340-P01	-	SASH STOP	RIGID PVC	-
M19	ES-1000-P1	-	NOTCH CAP	NYLON	-
M20	2310	-	INSULBAR 10MM FLAT	POLYAMIDE	ENSINGER
M21	1673	-	INSULBAR 20MM OFFSET	POLYAMIDE	ENSINGER
M22	-	-	INSULBAR 12MM OFFSET	POLYAMIDE	ENSINGER
M23	#10 X 1-1/4"	AS REQD.	ASSEMBLY FASTENERS	ST. STEEL	PH SMS
M24	#8 X 1/2"	-	NON TILT SCREWS	ST. STEEL	PH SMS
M25	#6 X 1/2"	-	BALANCE GUIDE SCREWS	ST. STEEL	FH SMS
M26	#8 X 3/8"	-	NAIL FIN FASTENERS AT 3" FROM ENDS & 12" O.C.	ST. STEEL	PH SMS

**SEALANTS:**

FRAME AND VENT CORNERS AND INSTALLATION SCREWS AT SILL SEALED WITH WHITE/ALUMINUM COLORED GENERAL PURPOSE SILICONE SEALANT BY MACKLANBURG-DUNCAN.

Sealed: 10/18/2023



FL #17892

**afc**

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COMP-ANL\20-40F-ESW

ES-H340 THERMAL ALUM SINGLE HUNG WDW. (L.M.I.)

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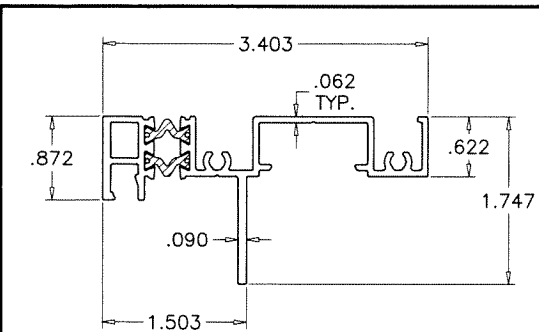
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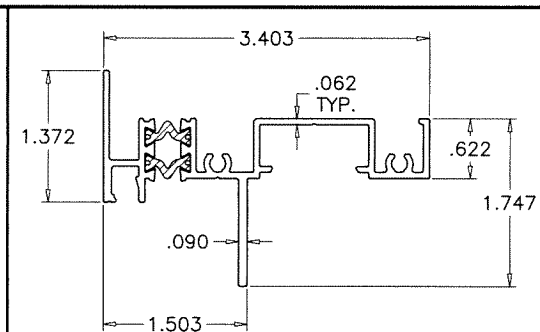
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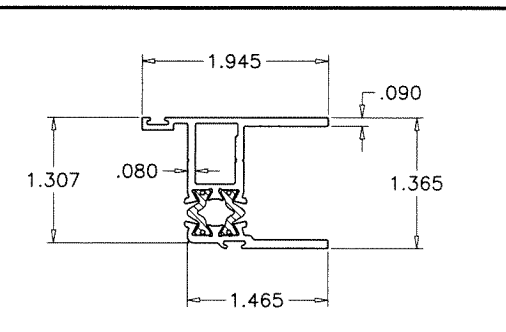
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**20-40F**  
 sheet 9 of 11



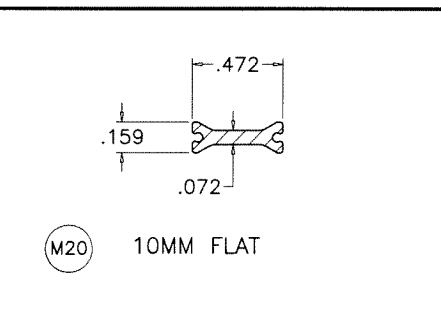
E01 FLUSH FRAME HEAD



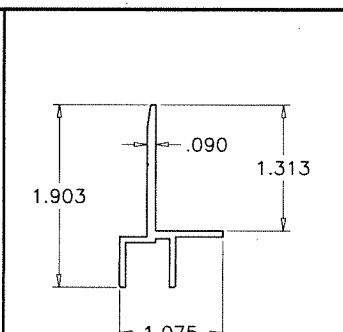
E06 FLANGE FRAME HEAD



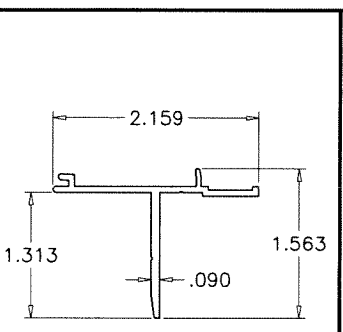
E12 VENT SIDE RAIL



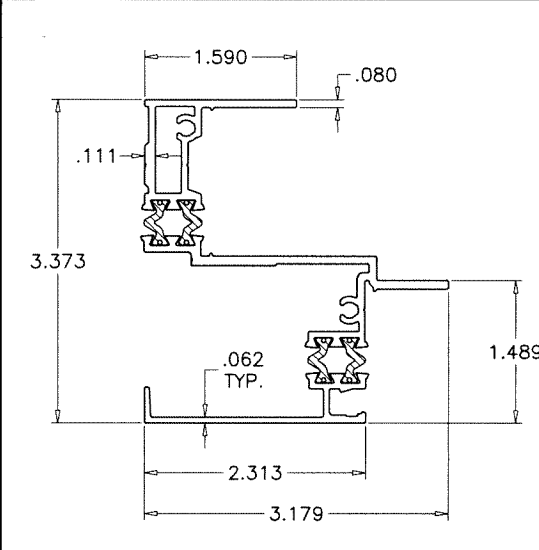
M20 10MM FLAT



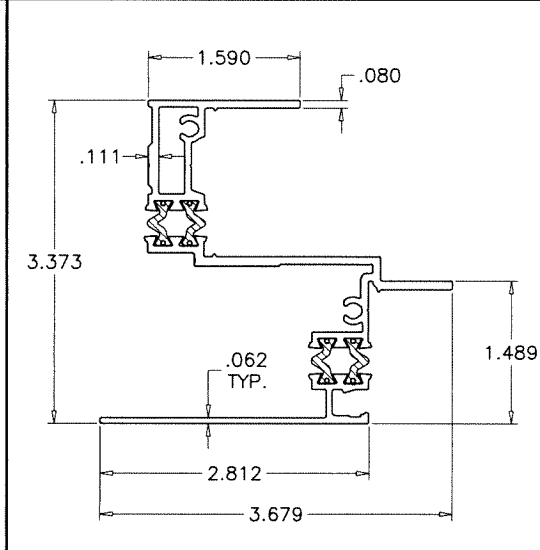
E15 NAIL FIN (HEAD)



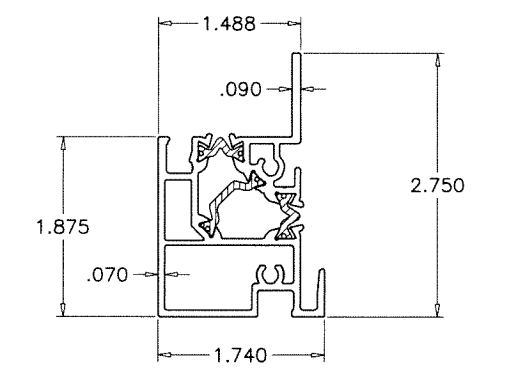
E16 NAIL FIN (SILL/JAMB)



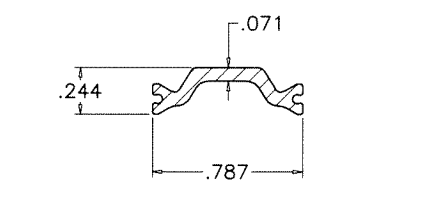
E03 FLUSH FRAME JAMB



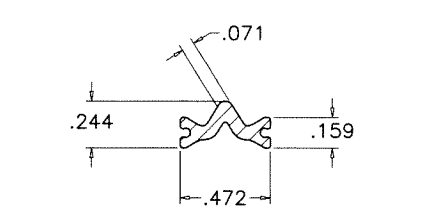
E07 FLANGE FRAME JAMB



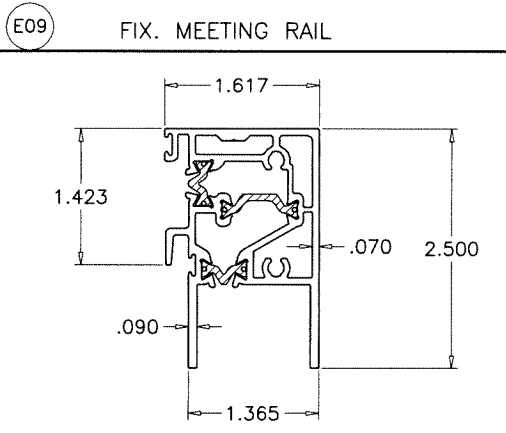
E09 FIX. MEETING RAIL



M21 20MM OFFSET

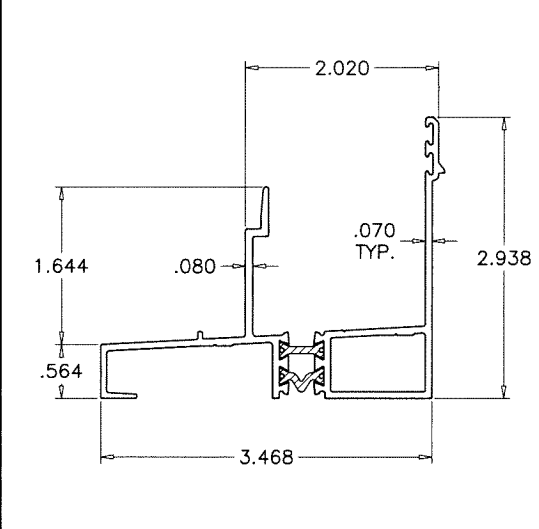


M22 12MM OFFSET

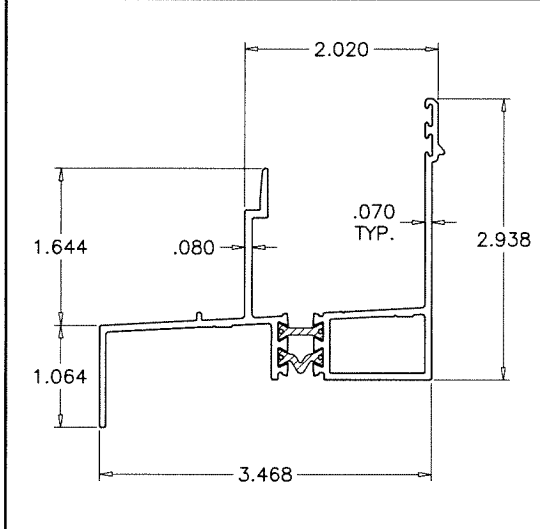


E10 VENT TOP RAIL

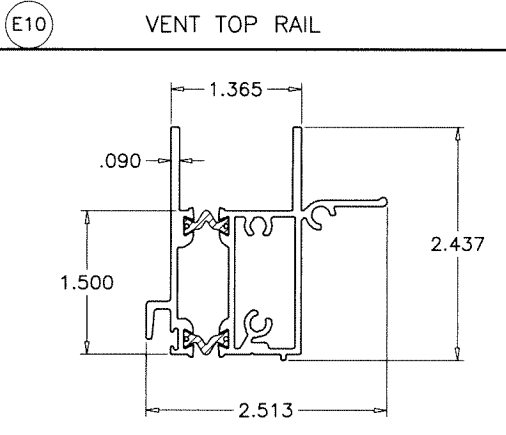
TECATHERM® 66 GF INSULBARS  
SCALE 1:1  
MATERIAL = POLYAMIDE  
TENSILE STRENGTH = 13031 PSI  
RATE OF BURN = .752 IN./MIN.  
SELF IGNITION TEMP. = 793° F  
FLASH IGNITION TEMP. = 781°C  
SMOKE DENSITY = 1.63



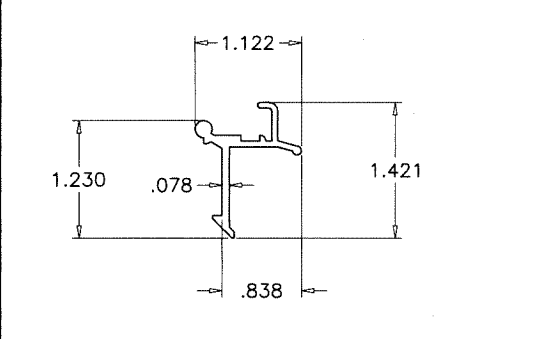
E05 FLUSH FRAME SILL



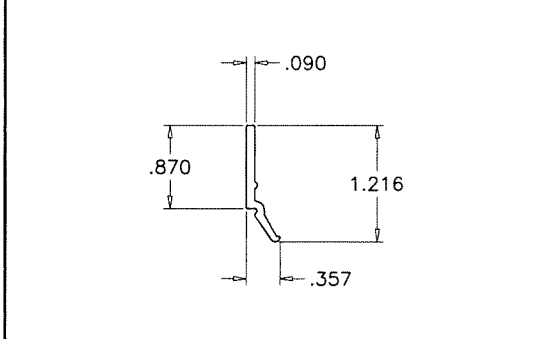
E08 FLANGE FRAME SILL



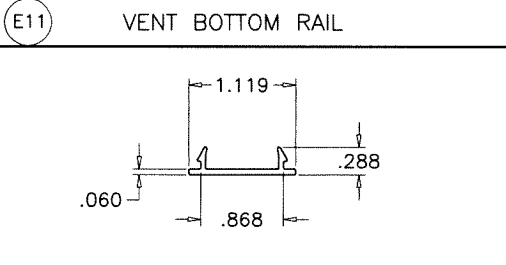
E11 VENT BOTTOM RAIL



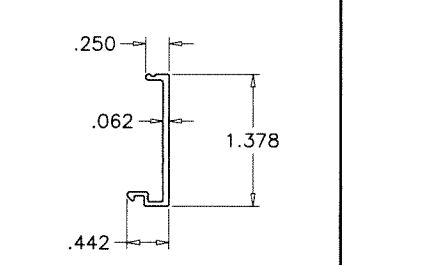
M12 SPRING LOADED LATCH



E02 GLAZING BEAD



E14 HEAD FRAME COVER



E13 JAMB TRIM

Sealed: 10/18/2023



FL #17892

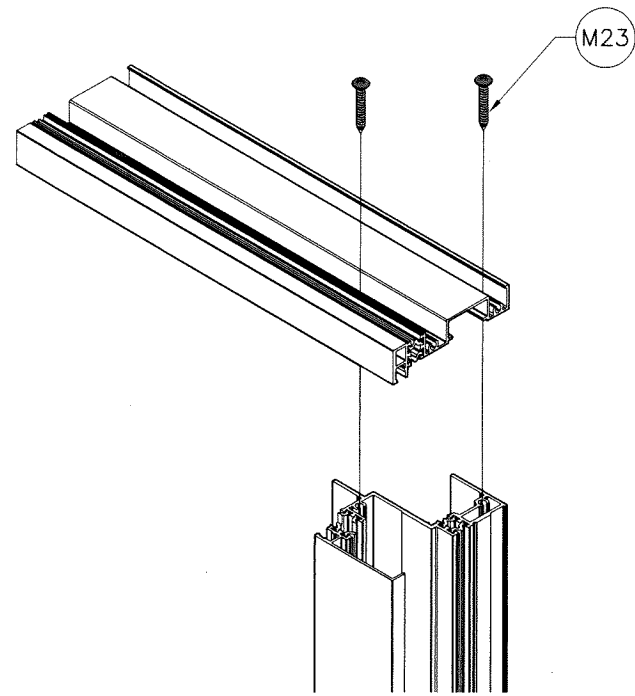
**af c**  
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
9360 SUNSET DRIVE, SUITE 220  
MIAMI, FLORIDA 33173 (C.A.N. 3538)  
TEL. (305) 264-8100 FAX. (305) 262-6978  
COMP-ANL\20-40F-ESW

ES-H340 THERMAL ALUM SINGLE HUNG WD.W. (L.M.I.)  
**E.S. WINDOWS, LLC**  
3550 N.W. 49 STREET  
MIAMI, FL. 33142  
TEL. (305) 638-5151 FAX. (305) 638-5158

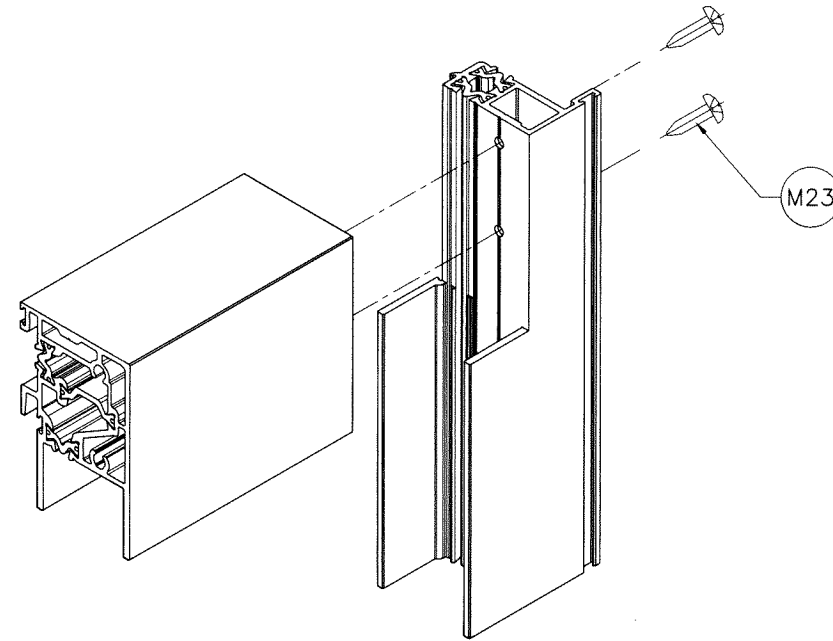
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dr. by: TARIQ  
chk. by:

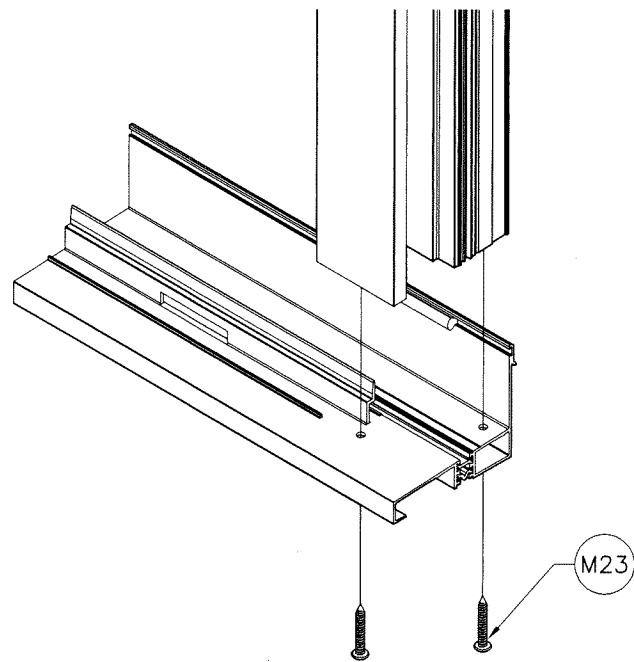
drawing no.  
**20-40F**  
sheet 10 of 11



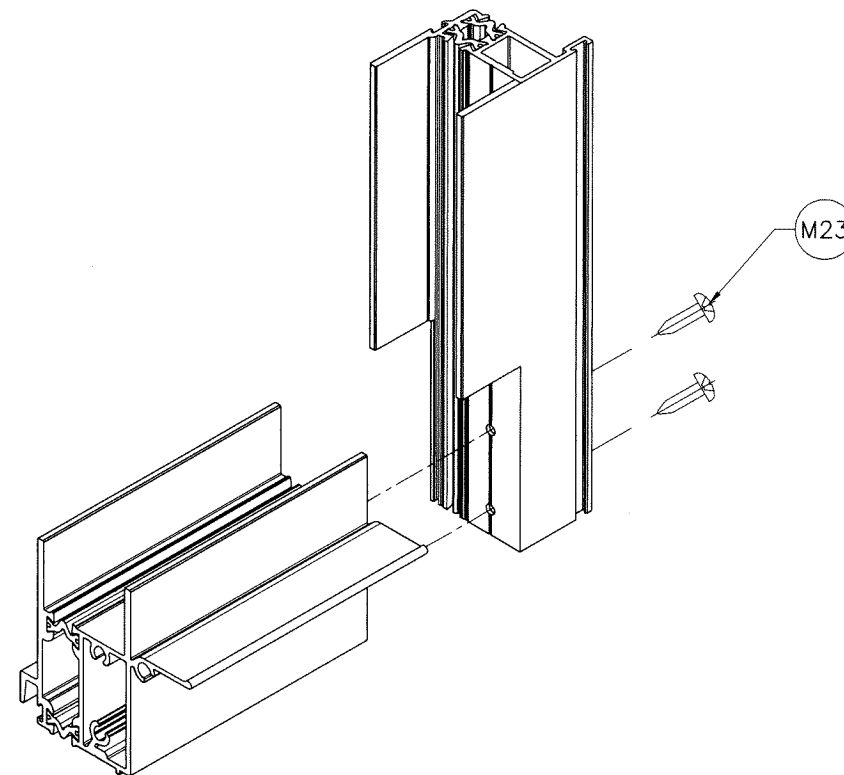
FRAME TOP CORNER



VENT TOP CORNER



FRAME BOTTOM CORNER



VENT BOTTOM CORNER

Sealed: 10/18/2023

FL #17892



**afc**  
**AL-FAROOQ CORPORATION**  
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no	date	by	description

date: 04-12-20  
 scale: 1/2" = 1"  
 dr. by: TARIQ  
 chk. by:

drawing no.  
**20-40F**  
 sheet 11 of 11