

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE
BASED ON ASTM E1300-16 (3 SEC. GUSTS)
AND FLORIDA BUILDING COMMISSION
DECLARATORY STATEMENT DCA05-DEC-219

WINDOWS NOT RATED FOR IMPACT.
INSTALLATION OF THIS SYSTEM OUTSIDE THE HVHZ AREA SHALL MEET
THE APPLICABLE REQUIREMENTS FOR WIND BORNE DEBRIS PROTECTION.

SERIES ES-P250 (N.I.)
ALUMINUM THERMALLY BROKEN CASEMENT WINDOW

APPROVAL APPLIES TO SINGLE UNITS OR SIDE BY SIDE
COMBINATIONS OF CASMT./CASMT. OR CASEMENT 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 2023 (8TH EDITION)/2026 (9TH EDITION) FLORIDA
BUILDING CODE FOR NON HIGH VELOCITY HURRICANE ZONE.

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.

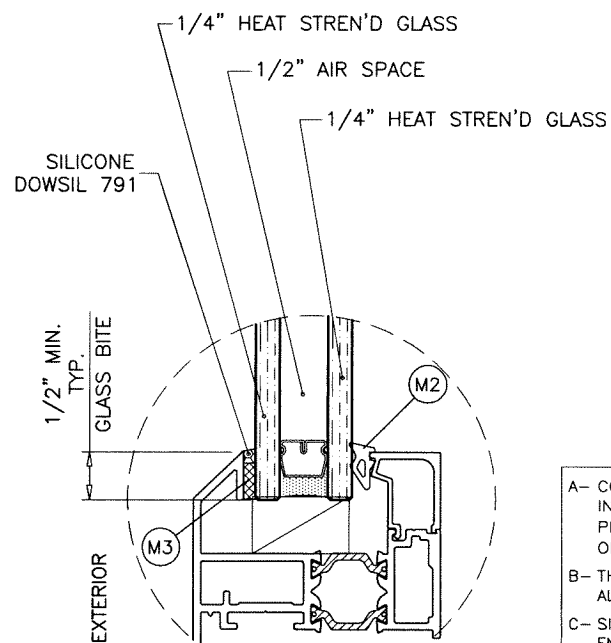
ALL SHIMS TO BE LOAD-BEARING, (HIGH DENSITY PLASTIC/COMPOSITE, METAL
OR OTHER RIGID MATERIALS).

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.

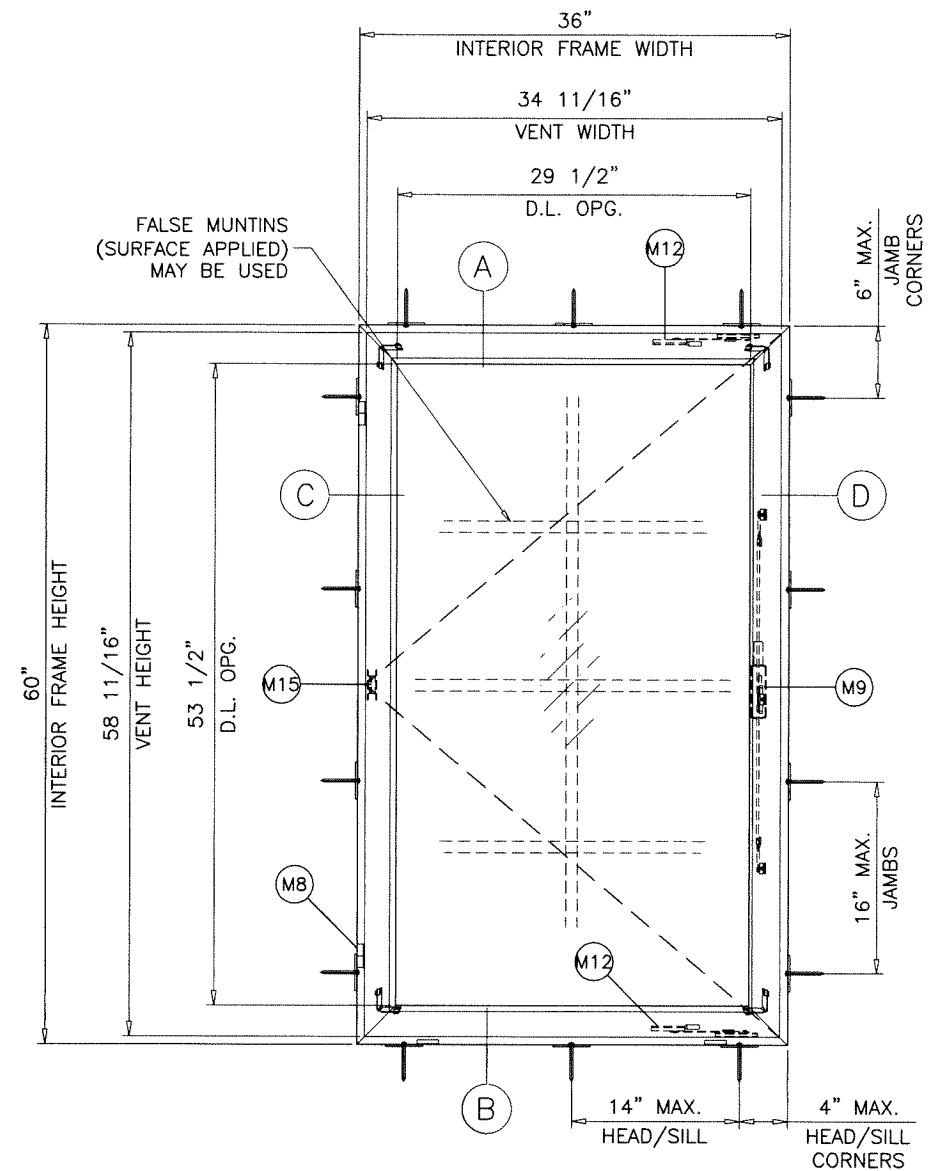
THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION
FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY
OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR
WATER INFILTRATION RESISTANCE ETC.
CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY,
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.



GLAZING DETAIL
1" OVERALL INSUL. GLASS



TYPICAL ELEVATION

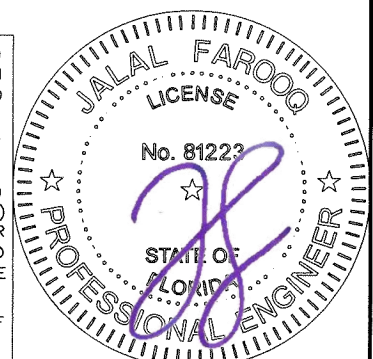
MAXIMUM DESIGN LOAD RATING = + 70.0 PSF
(FOR SIZE SHOWN ABOVE OR SMALLER) **- 70.0 PSF**

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.

Sealed: 9/17/2026

FL #19068

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.



AL-FAROOQ CORPORATION
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COMP-ANL\W15-76ESW

ES-P250 ALUM THERMALLY BROKEN CASEMENT W. (N.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
	A	10.13.17		UPDATED TO 2017 FBC
	B	01.22.21		UPDATED TO 2020 FBC
	C	09.27.23		UPDATED TO 2023 FBC
	D	09.15.26		UPDATED TO 2026 FBC

date: 10-09-15

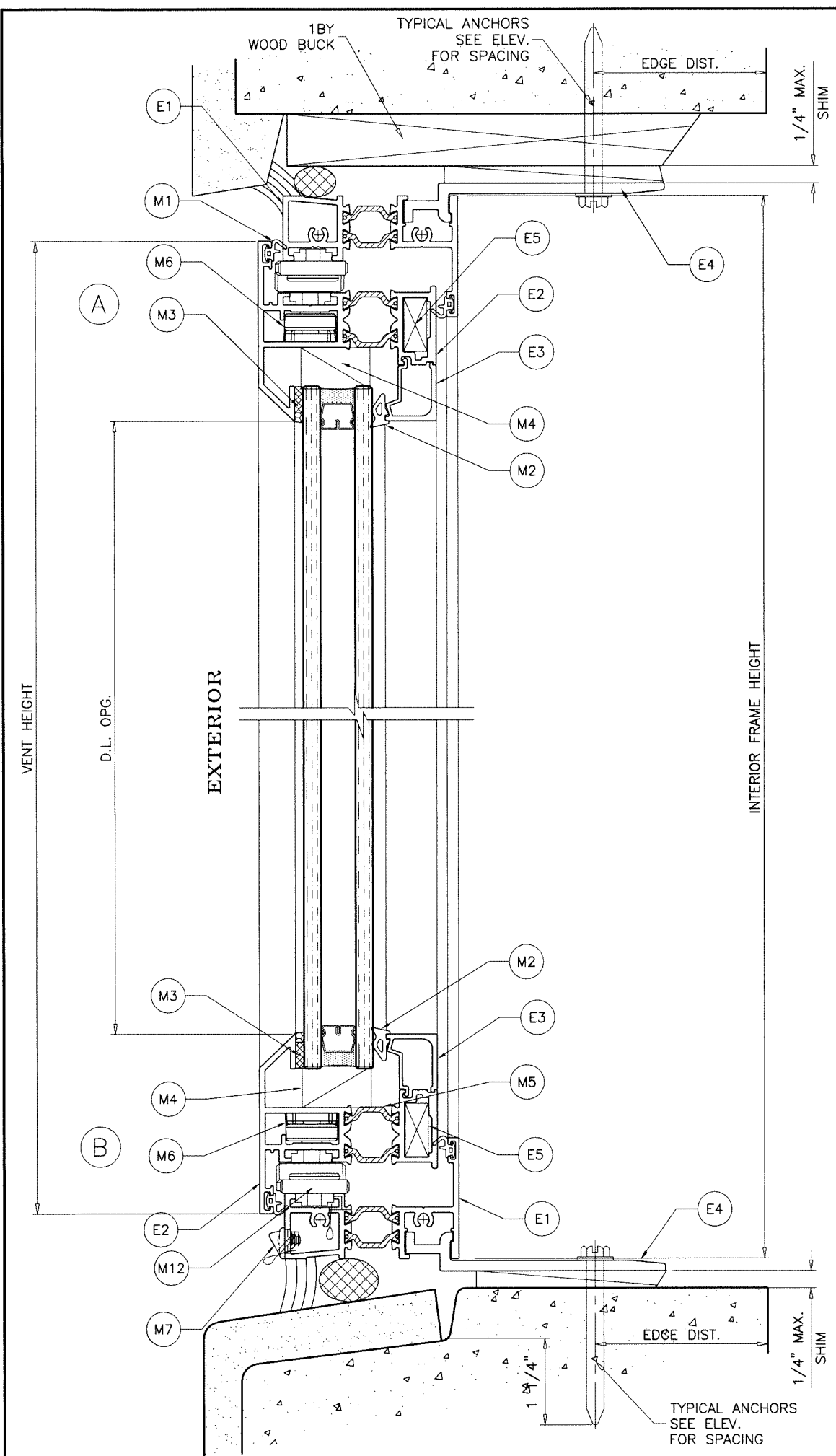
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dr. by: TARIQ

chk. by:

drawing no.
W15-76

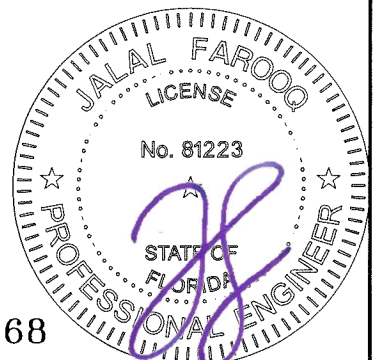
sheet 1 of 5



WEEPHOLES:

W1 = 1-1/4" X 1/4" WEEPHOLES WITH WEEP COVERS AT 7" FROM EACH END

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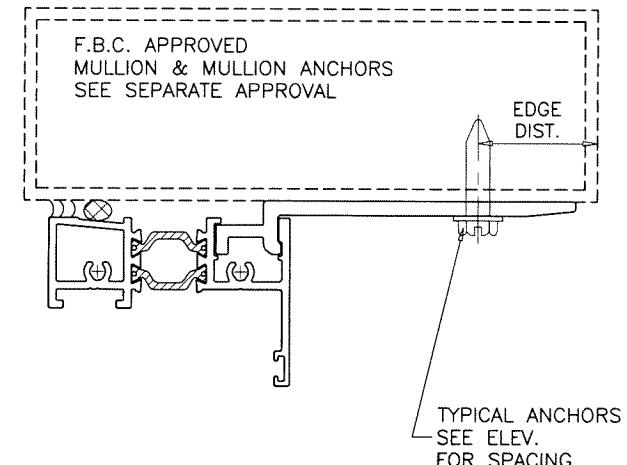
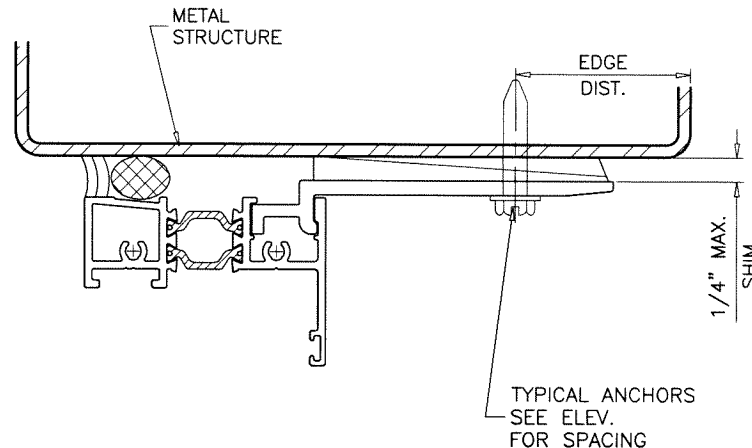
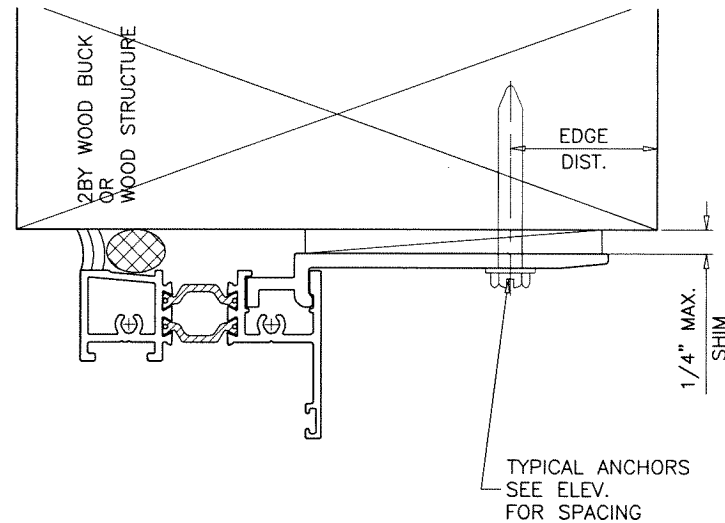
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dr. by: TARIQ
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W15-76
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TYPICAL ANCHORS: SEE ELEV. FOR SPACING

#14 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)

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

DIRECTLY INTO CONC. OR BLOCKS

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

1-1/4" MIN. EMBED INTO CONC. OR 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)

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

DIRECTLY INTO CONC. OR BLOCKS

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

1-1/4" MIN. EMBED INTO CONC. OR 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' (GRADE 5 CRS)

INTO F.B.C. APPROVED MULLIONS

AND

INTO METAL STRUCTURES (HEAD/SILL/JAMBS)

(3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS

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

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

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

ANCHOR EDGE DISTANCES

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

INTO WOOD STRUCTURE = 1" MIN.

INTO METAL STRUCTURE = 3/4" MIN.

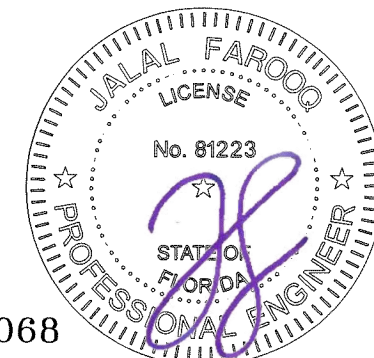
WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.

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

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

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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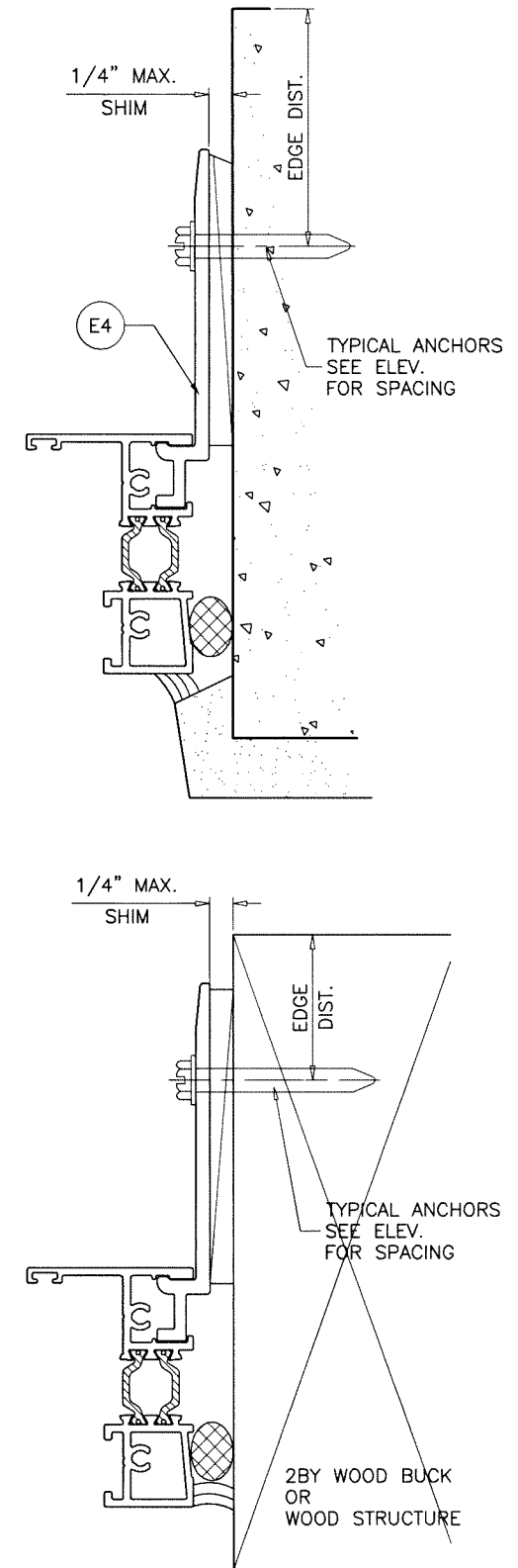
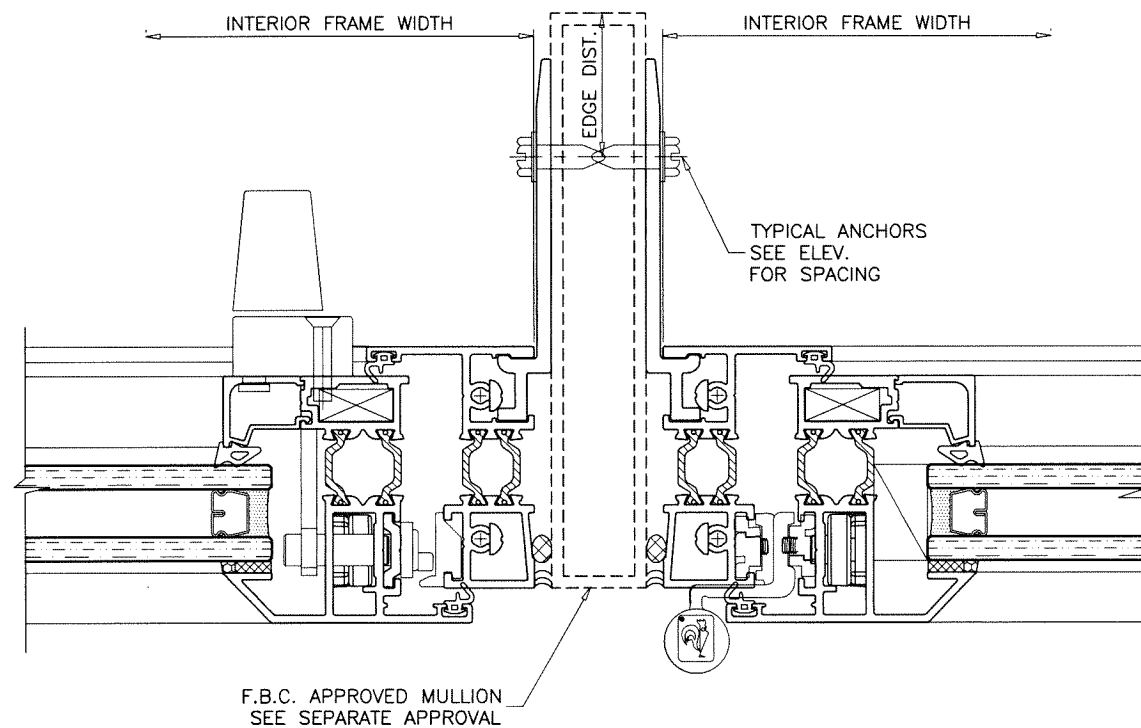
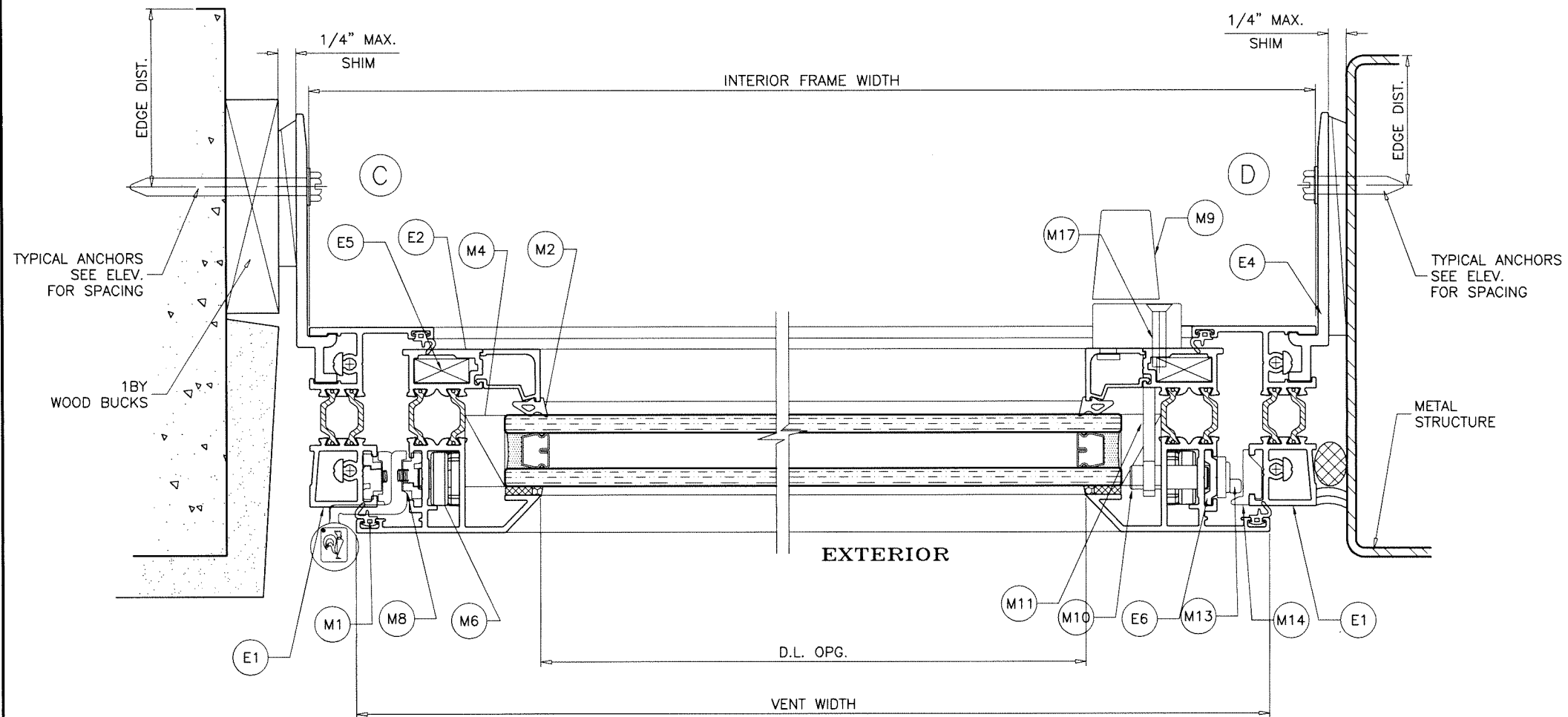
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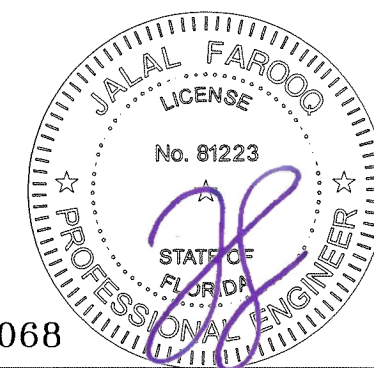
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sheet	3 of 5



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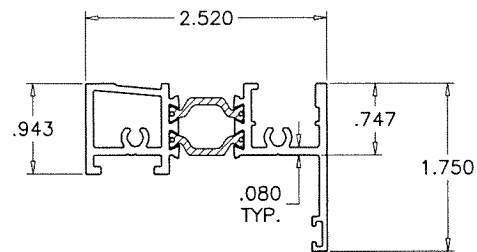
COMP-ANL W15-76ESW

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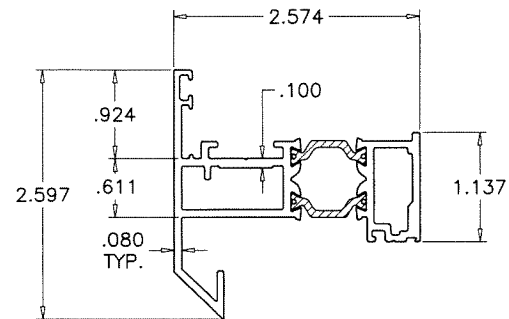
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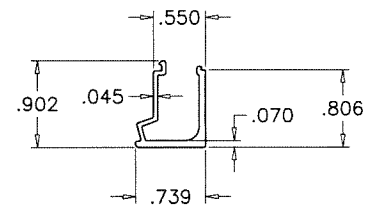
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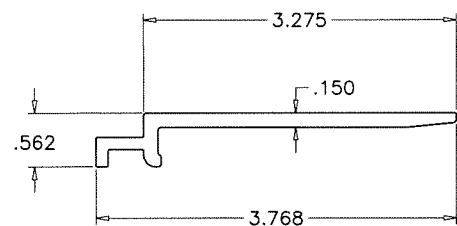
E1 FLUSH FRAME HEAD/SILL/JAMB



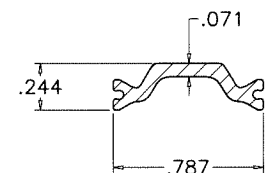
E2 VENT



E3 GLASS STOP



E4 STRAP ANCHOR



M5 20MM OFFSET

TECATHERM® 66 GF INSULBAR
SCALE 1:1

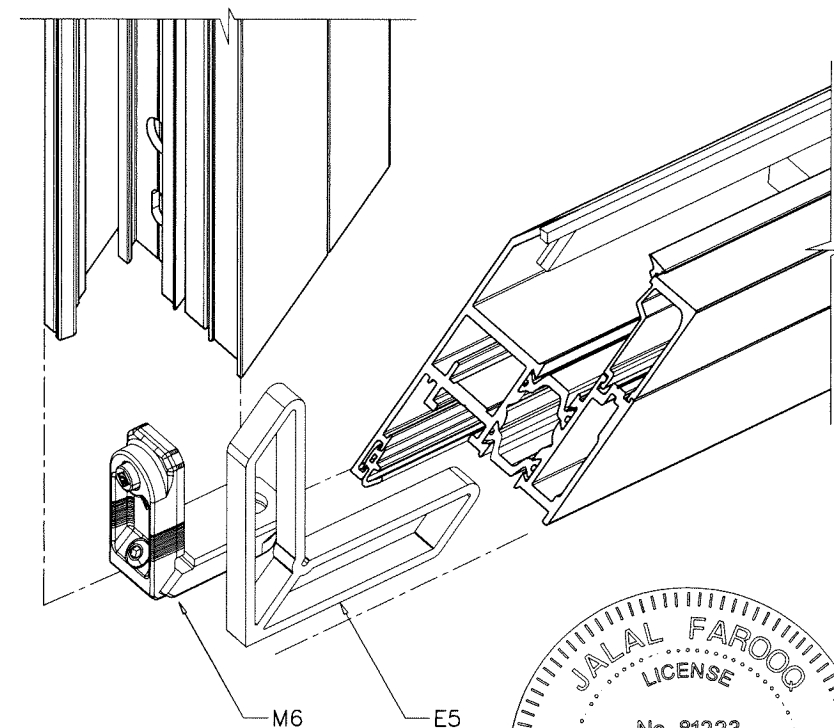
MATERIAL = POLYAMIDE
TENSILE STRENGTH = 13031 PSI
RATE OF BURN = .752 IN./MIN.
SELF IGNITION TEMP. = 793° F
FLASH IGNITION TEMP. = 781°C
SMOKE DENSITY = 1.63

ITEM #	PART #	REQD.	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
E1	ES-P250-001-002	4	WINDOW FRAME	6063-T6	-
E2	ES-P250-003-004	4	VENT	6063-T6	-
E3	ES-P250-005	4	GLASS STOP	6063-T5	-
E4	ES-P252-007	AS REQD.	STRAP ANCHOR, 4" LONG	6005-T5	-
E5	ES-P251-018	1/ CORNER	CORNER KEY, 3/8" LONG	6005-T5	-
E6	ES-EUR-001	-	EURO BAR	6063-T6	-
M1	ES-P251-G01	AS REQD.	INTERIOR AND EXTERIOR W'STRIPPING	EPDM	TREMCO TR-19602E, DUROMETER 70±5 SHORE A
M2	ES-P251-G03	AS REQD.	GLAZING GASKET (INTERIOR)	EPDM	TREMCO TR-3234E, DUROMETER 70±5 SHORE A
M3	V2200	AS REQD.	1/4" X 1/8" SINGLE FACE GLAZING TAPE	POLYURETHANE	NORTON
M4	ES-21-B02	2/ SIDE	SETTING BLOCK, 4" LONG, AT 1/4 POINTS	EPDM	SOLUCIONES EN CAUCHO, DUROMETER 80±5 SHORE A
M5	2479	AS REQD.	INSULBAR 20MM OFFSET	POLYAMIDE	ENSINGER
M6	0337	1/ CORNER	CORNER JOINT	CAST ALUMINUM	MASTER
M7	WA2L	AS REQD.	WEEP COVER	RIGID PVC	PREFERRED
M8	A105X0036	-	BUTT HINGE KLEMMBAND	ALUMINUM	DR. HAHND
M9	MHSS1500-525010	-	HANDLE SI-LINE LMDA	CAST ALUMINUM	SIEGENIA
M10	899915	-	HANDLE PIN SET	ST. STEEL	SIEGENIA
M11	895955	-	HANDLE FORK	CAST ALUMINUM	SIEGENIA
M12	876-8	-	LIMIT DEVICE	ST. STEEL	AMC
M13	717875	-	LOCKING BOLT DOUBLE	CAST ALUMINUM	SIEGENIA
M14	859322	-	STRIKER	CAST ALUMINUM	SIEGENIA
M15	857052	-	SNUBBER KIT	CAST ALUMINUM	SIEGENIA
M16	#10 X 1-1/4"	-	ASSEMBLY FASTENERS	ST/ST	PH SMS
M17	#8 X 1-1/2"	-	HANDLE ASSEMBLY FASTENER	ST/ST	FH SMS
M18	#10 X 1/2"	-	LIMIT DEVICE SECURITY SCREW	ST/ST	FH PIN IN-HEX

NOTE: HARDWARE AS SHOWN OR EQUIVALENT.

SEALANT:

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



VENT ASSEMBLY

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