

SERIES-1100 ALUMINUM SINGLE HUNG WINDOW

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEET 2.

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 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.

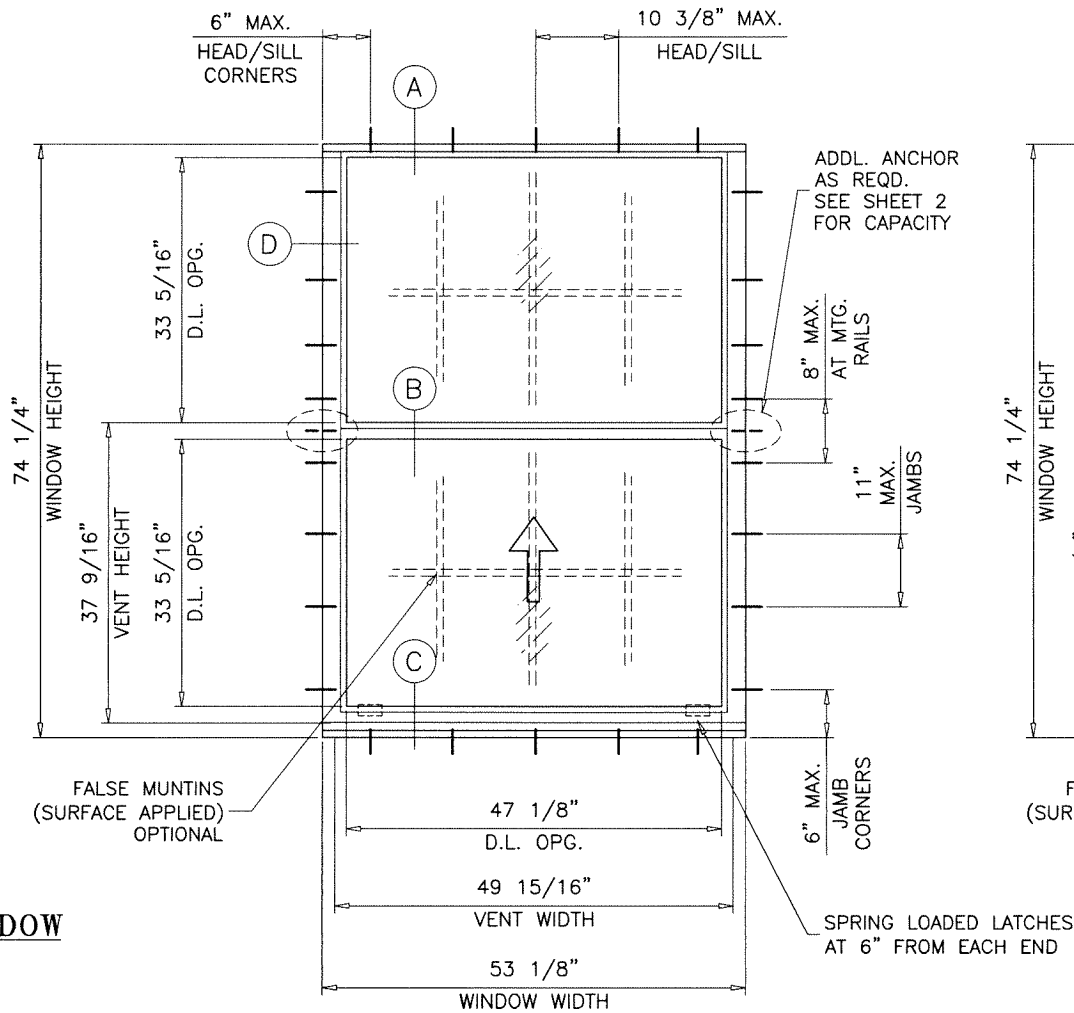
ALL SHIMS TO BE LOAD-BEARING, (HIGH DENSITY PLASTIC/COMPOSITE, METAL OR OTHER RIGID MATERIALS).

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.



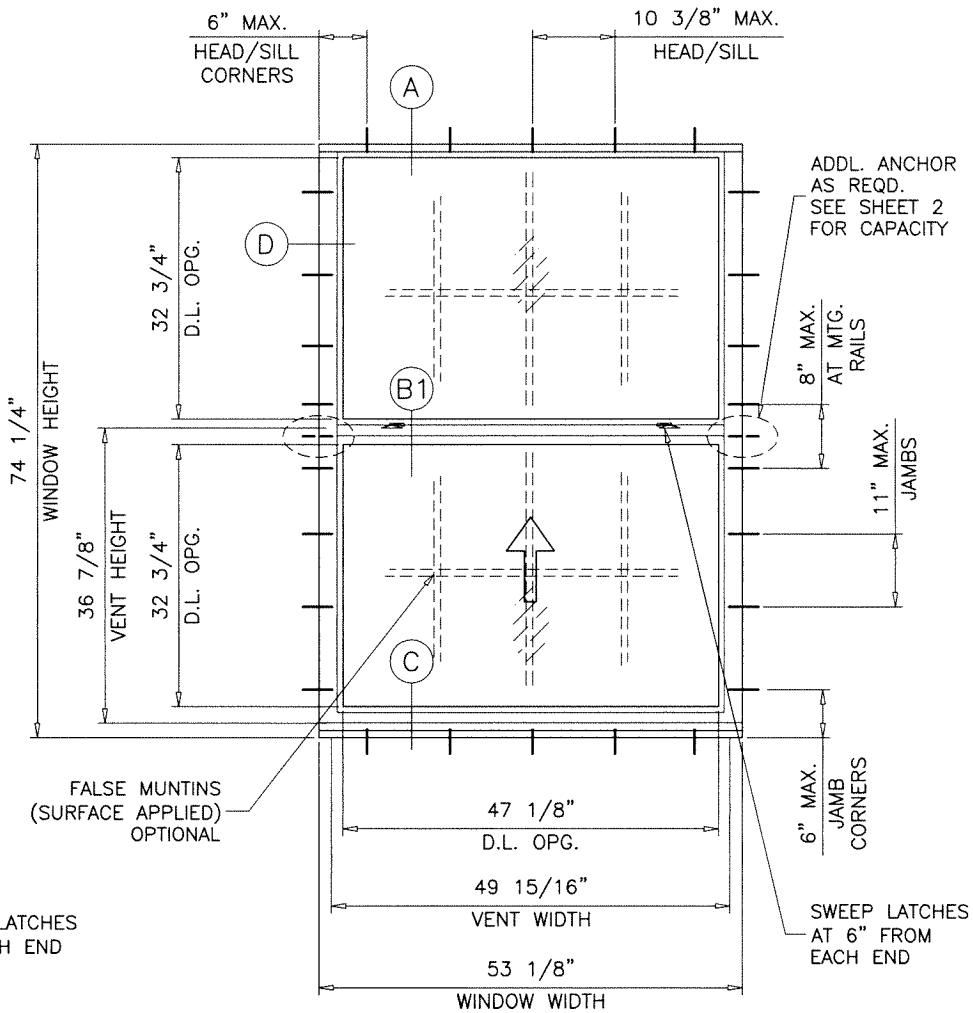
TYPICAL ELEVATION

LATCHES AT BOTTOM RAIL:

DAYLITE OPENINGS:

$$\text{DLO WIDTH} = \text{WINDOW WIDTH} - 6.000$$

$$\text{DLO HEIGHT} = \frac{\text{WINDOW HT} - 7.625}{2}$$



TYPICAL ELEVATION

LATCHES AT MTG. RAIL:

DAYLITE OPENINGS:

$$\text{DLO WIDTH} = \text{WINDOW WIDTH} - 6.000$$

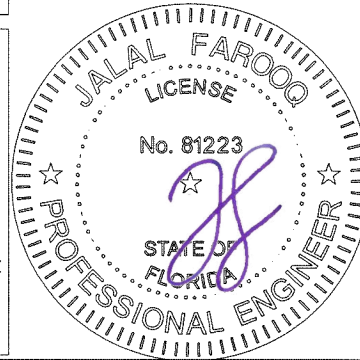
$$\text{DLO HEIGHT} = \frac{\text{WINDOW HT} - 8.750}{2}$$

Sealed: 7/10/2026

THESE WINDOWS 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.

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.

- 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.



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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

SERIES-1100 ALUM SINGLE HUNG WINDOW (S.M.I.)

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

no	date	by	description
A	07.06.26		UPDATED TO 2026 FBC

date:	07-10-25
scale:	1/2" = 1"
dr. by:	TARIQ
chk. by:	

drawing no.

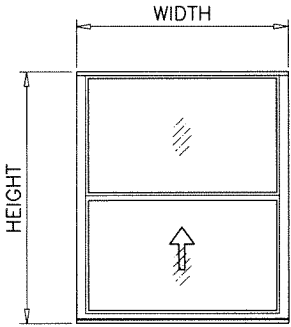
25-68F

sheet 1 of 6

COMP-ANL\25-68F-ES

EQUAL LITES WINDOWS DESIGN LOAD CAPACITY - PSF									
WINDOW DIMS.		2 ANCHORS AT MTG. RAILS		3 ANCHORS AT MTG. RAILS					
		GLASS TYPE 'A'	GLASS TYPE 'B'	GLASS TYPE 'A'	GLASS TYPE 'B'				
WIDTH	HEIGHT	EXT.(+)	1NT.(-)	EXT.(+)	1NT.(-)	EXT.(+)	1NT.(-)	EXT.(+)	1NT.(-)
19-1/8"	26" (4)	80.0	120.0	80.0	140.0	-	-	-	-
26-1/2"		80.0	120.0	80.0	140.0	-	-	-	-
32"		80.0	120.0	80.0	140.0	-	-	-	-
37"		80.0	120.0	80.0	140.0	-	-	-	-
42"		80.0	120.0	80.0	140.0	-	-	-	-
48"		80.0	120.0	80.0	140.0	-	-	-	-
53-1/8"		80.0	120.0	80.0	140.0	-	-	-	-
19-1/8"	38-3/8" (4)	80.0	120.0	80.0	140.0	-	-	-	-
26-1/2"		80.0	120.0	80.0	140.0	-	-	-	-
32"		80.0	120.0	80.0	140.0	-	-	-	-
37"		80.0	120.0	80.0	140.0	-	-	-	-
42"		80.0	120.0	80.0	140.0	-	-	-	-
48"		80.0	120.0	80.0	140.0	-	-	-	-
53-1/8"		80.0	120.0	80.0	134.9	-	-	80.0	140.0
19-1/8"	50-5/8" (6)	80.0	120.0	80.0	140.0	-	-	-	-
26-1/2"		80.0	120.0	80.0	140.0	-	-	-	-
32"		80.0	120.0	80.0	140.0	-	-	-	-
37"		80.0	120.0	80.0	140.0	-	-	-	-
42"		80.0	120.0	80.0	140.0	-	-	-	-
48"		80.0	120.0	80.0	129.3	-	-	80.0	140.0
53-1/8"		80.0	111.0	80.0	111.0	80.0	120.0	80.0	140.0
19-1/8"	58" (6)	80.0	120.0	80.0	140.0	-	-	-	-
26-1/2"		80.0	120.0	80.0	140.0	-	-	-	-
32"		80.0	120.0	80.0	140.0	-	-	-	-
37"		80.0	120.0	80.0	140.0	-	-	-	-
42"		80.0	120.0	80.0	140.0	-	-	-	-
48"		80.0	120.0	80.0	120.0	-	-	80.0	140.0
53-1/8"		80.0	102.1	80.0	102.1	80.0	120.0	80.0	140.0
19-1/8"	63" (6)	80.0	120.0	80.0	140.0	-	-	-	-
26-1/2"		80.0	120.0	80.0	140.0	-	-	-	-
32"		80.0	120.0	80.0	140.0	-	-	-	-
37"		80.0	120.0	80.0	140.0	-	-	-	-
42"		80.0	120.0	80.0	140.0	-	-	-	-
48"		80.0	115.5	80.0	115.5	80.0	120.0	80.0	140.0
53-1/8"		80.0	97.5	80.0	97.5	80.0	120.0	80.0	140.0
19-1/8"	74-1/4" (8)	80.0	120.0	80.0	140.0	-	-	-	-
26-1/2"		80.0	120.0	80.0	140.0	-	-	-	-
32"		80.0	120.0	80.0	140.0	-	-	-	-
37"		80.0	120.0	80.0	140.0	-	-	-	-
42"		80.0	120.0	80.0	140.0	-	-	-	-
48"		80.0	109.0	80.0	109.0	80.0	120.0	80.0	140.0
53-1/8"		80.0	90.5	80.0	90.5	80.0	117.5	80.0	135.7

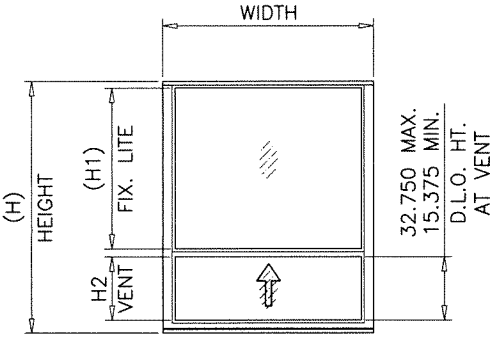
NOTE:
GLASS CAPACITIES ARE BASED ON
ASTM E1300-16 (3 SEC. GUSTS)
AND FLORIDA BUILDING COMMISSION
DECLARATORY STATEMENT DCA05-DEC-219



EQUAL LITES

UNEQUAL LITES (ORIEL TYPES) WINDOWS DESIGN LOAD CAPACITY - PSF					
WINDOW DIMS.		2 ANCHORS AT MTG. RAILS			
		GLASS TYPE 'A'	GLASS TYPE 'B'		
WIDTH	HEIGHT	EXT.(+)	1NT.(-)	EXT.(+)	1NT.(-)
19-1/8"	50-5/8" (5)	80.0	120.0	80.0	140.0
26-1/2"		80.0	120.0	80.0	140.0
32"		80.0	120.0	80.0	140.0
37"		80.0	120.0	80.0	140.0
42"		80.0	120.0	80.0	140.0
48"		80.0	120.0	80.0	140.0
53-1/8"		80.0	120.0	80.0	140.0
19-1/8"	58" (6)	80.0	120.0	80.0	140.0
26-1/2"		80.0	120.0	80.0	140.0
32"		80.0	120.0	80.0	140.0
37"		80.0	120.0	80.0	140.0
42"		80.0	120.0	80.0	140.0
48"		80.0	120.0	80.0	140.0
19-1/8"	63" (7)	80.0	120.0	80.0	140.0
26-1/2"		80.0	120.0	80.0	140.0
32"		80.0	120.0	80.0	140.0
37"		80.0	120.0	80.0	140.0
42"		80.0	120.0	80.0	140.0
48"		80.0	120.0	80.0	140.0
19-1/8"	74-1/4" (7)	80.0	120.0	80.0	140.0
26-1/2"		80.0	120.0	80.0	140.0
32"		80.0	120.0	80.0	140.0
37"		80.0	120.0	80.0	140.0
42"		80.0	120.0	80.0	140.0
48"		80.0	120.0	80.0	140.0

* NO. IN PARENTHESIS INDICATE NO. OF ANCHORS PER JAMB.



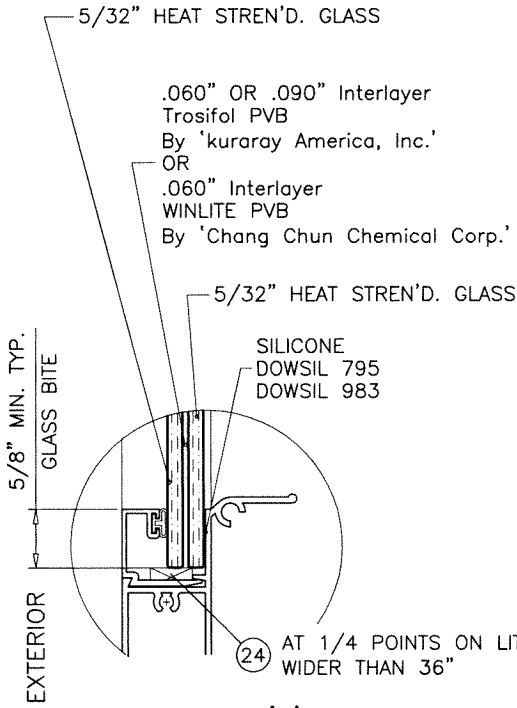
UNEQUAL LITES (ORIEL TYPE)

ORIEL TYPE WITH LATCHES AT BOTTOM RAIL:

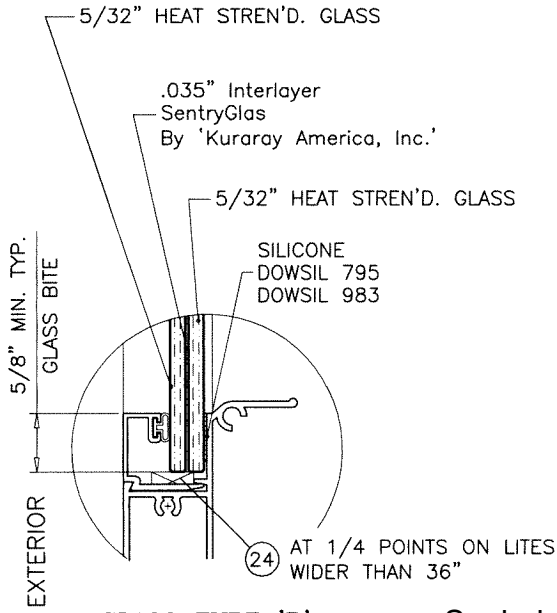
FIXED LITE DLO HEIGHT (H1) = H - 7.625 - H2

ORIEL TYPE WITH LATCHES AT MTG. RAIL:

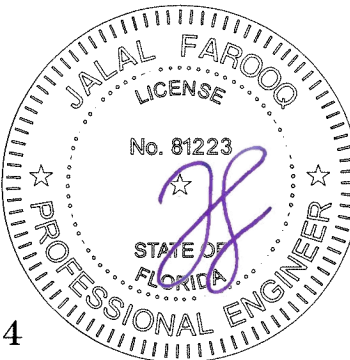
FIXED LITE DLO HEIGHT (H1) = H - 8.750 - H2



GLASS TYPE 'A'



GLASS TYPE 'B'



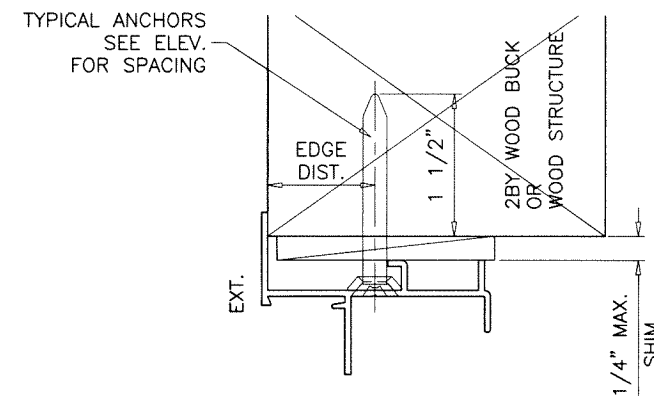
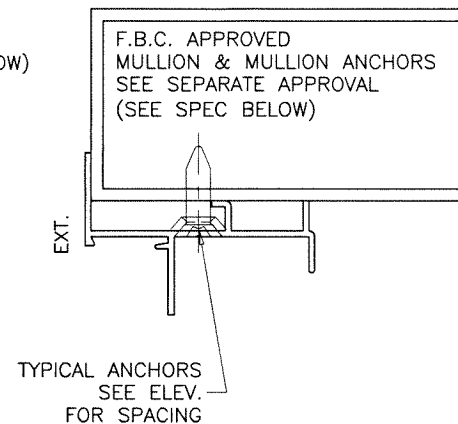
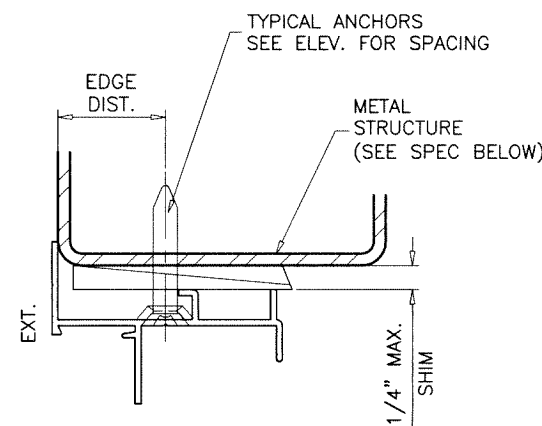
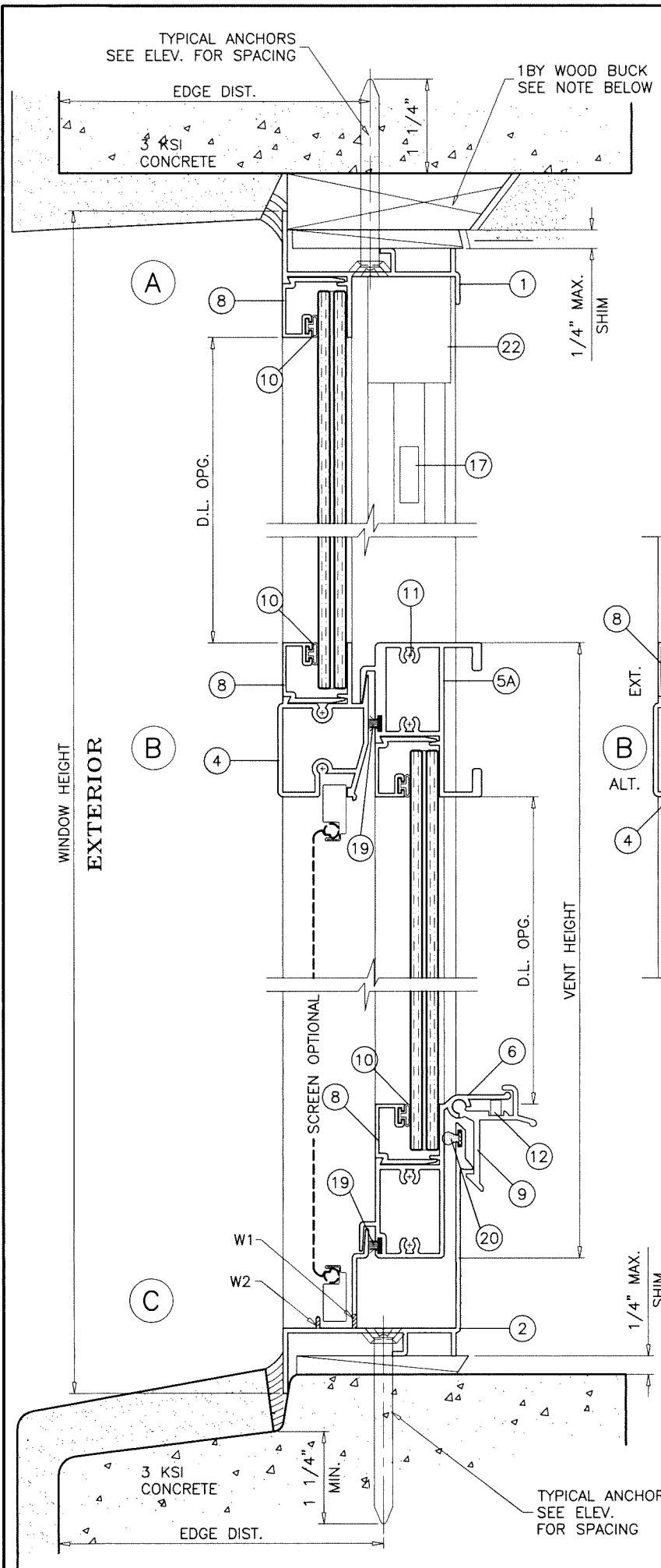
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FL #46884

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AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\25-68F-ES

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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: 07-10-25
scale: 1/2" = 1"
dr. by: TARIQ
chk. by:
drawing no.
25-68F
sheet 2 of 6



TYPICAL ANCHORS: SEE ELEV. FOR SPACING

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

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

#12 SMS OR SELF DRILLING SCREWS (GRADE 2 CRS)
 INTO F.B.C. 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. (Fy = 36 KSI MIN.) (NO SHIMS)
 (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

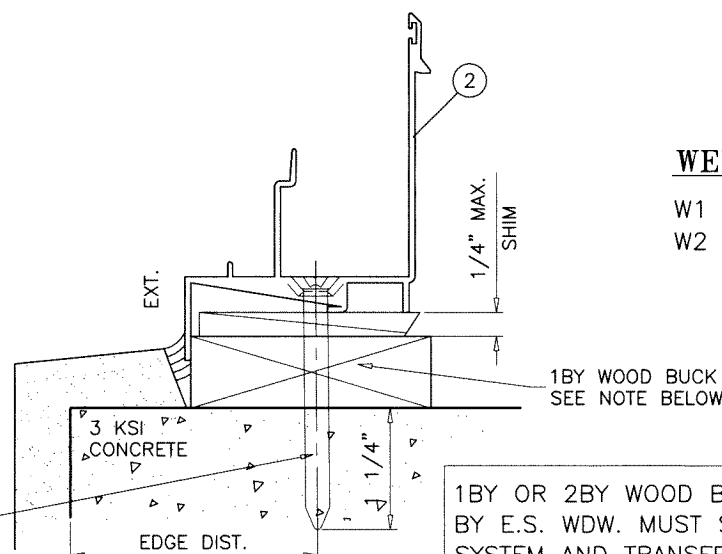
TYPICAL EDGE DISTANCE

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.

WEEPHOLES:

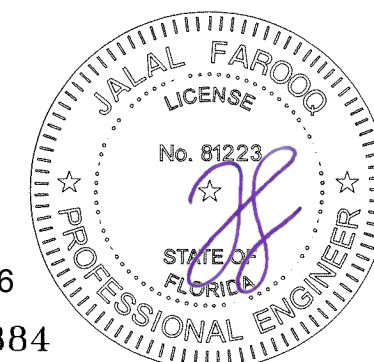
W1 = 1-1/2" X 3/16" WEEPHOLES AT 4" FROM EACH END
 W2 = 1-5/16" NOTCH AT EACH END



1BY OR 2BY WOOD BUCKS AND METAL STRUCTURE NOT
 BY E.S. WDW. MUST SUSTAIN LOADS IMPOSED BY GLAZING
 SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

Sealed: 7/10/2026

FL #46884



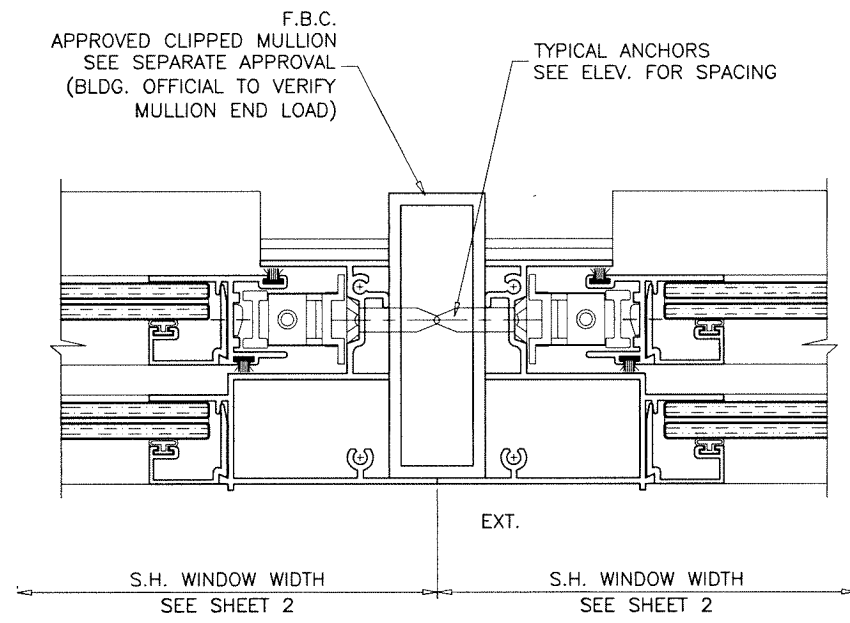
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 ENGINEERS & PRODUCT DEVELOPMENT
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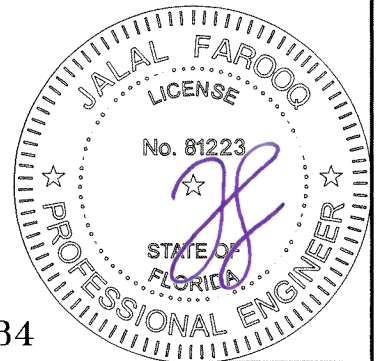
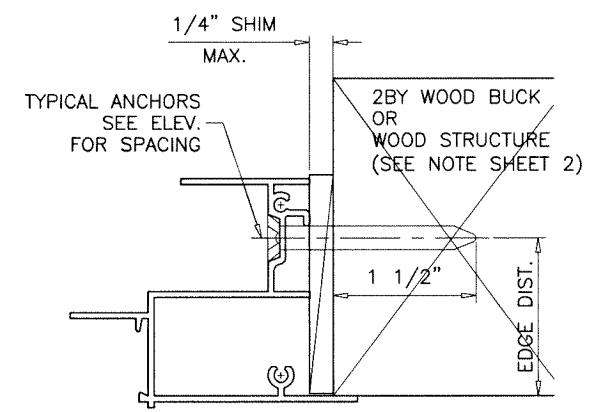
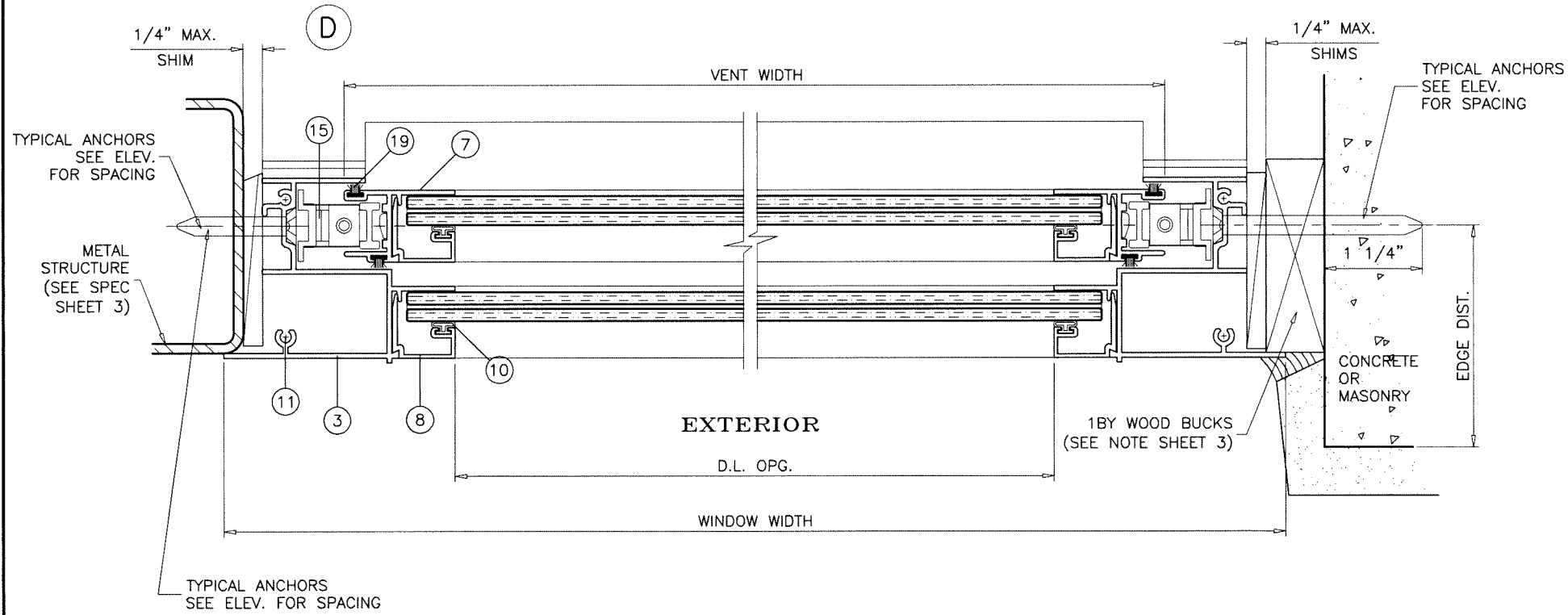
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 dr. by: TARIQ
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drawing no.
25-68F
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ITEM #	PART #	REQD.	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	ES1001	1	FRAME HEAD	6063-T6	-
2	ES1101	1	FRAME SILL	6063-T6	-
3	ES1003	2	FRAME JAMB	6063-T6	-
4	ES1005	1	FIXED MTG. RAIL (FOR SPRING LATCH)	6063-T6	-
4A	ES1051	1	FIXED MTG. RAIL (FOR SWEEP LATCH)	6063-T6	-
5A	ES2004	1	HEAVY DUTY VENT TOP RAIL (FOR SPRING LATCHES)	6063-T6	-
5A.1	ES2004A	1	HEAVY DUTY VENT TOP RAIL (FOR SPRING LATCHES)	6063-T6	ALTERNATE TO 5A
5C	ES1053	1	HEAVY DUTY VENT TOP RAIL (FOR SWEEP LATCHES)	6063-T6	-
5C.1	ES1053A	1	HEAVY DUTY VENT TOP RAIL (FOR SWEEP LATCHES)	6063-T6	ALTERNATE TO 5C
6	ES1006	1	VENT BOTTOM RAIL	6063-T6	-
7	ES1007	2	VENT SIDE RAIL	6063-T6	-
8	ES1103	AS REQD.	GLAZING BEAD	6063-T6	-
9	ES1009	2/ VENT	SPRING LOADED VENT LATCH	6063-T5	AT 12" FROM EACH END
9A	-	2/ VENT	SWEEP LATCH	ZAMAK	AT 12" FROM EACH END
9B	#8 X 1"	2/ LATCH	LATCH INSTALLATION SCREWS	-	FH SMS
10	ES1104	AS REQD.	GLAZING GASKET	NEOPRENE	-
11	#8 SMS	20/ WDW.	FRAME & VENT ASSEMBLY SCREWS	-	#8 X 1" P.H.
12	ES1012	1/ LATCH	LATCH SPRING	ST. STEEL	-
13	-	2/ VENT	BLOCK & TACKLE BALANCES	-	SERIES 120 BY BSI
14	103F	1/ BALANCE	BALANCE TOP GUIDE	NYLON	BY BSI (NOT SHOWN)
15	110F	1/ BALANCE	BALANCE BOTTOM GUIDE	NYLON	BY BSI
16	135	1/ BALANCE	BALANCE TERMINAL CLIP	ST. STEEL	(NOT SHOWN)
17	121	2	BALANCE TAKE OUT CLIP	PLATED STEEL	-
18	ES1011	2/ VENT	SASH CAM	CELCON	-
19	W23211NG	AS REQD.	VENT & FIXED RAIL W'STRIPPING	-	ULTRAFAB OR EQUIV.
20	Q300X190	AS REQD.	FRAME SILL W'STRIPPING	-	Q-LON2
21	-	1	SCREEN (OPTIONAL)	-	5/16" BOX
22	ES1013-1	2	SASH STOP	-	-
23	ES1505	-	FLUSH FRAME ADAPTER	6063-T6	OPTIONAL
24	27-372	2/ LITE	SETTING BLOCK, 7/16" X 3/16" X 3-1/2" LONG	EPDM	DUROMETER 75±5 SHORE A



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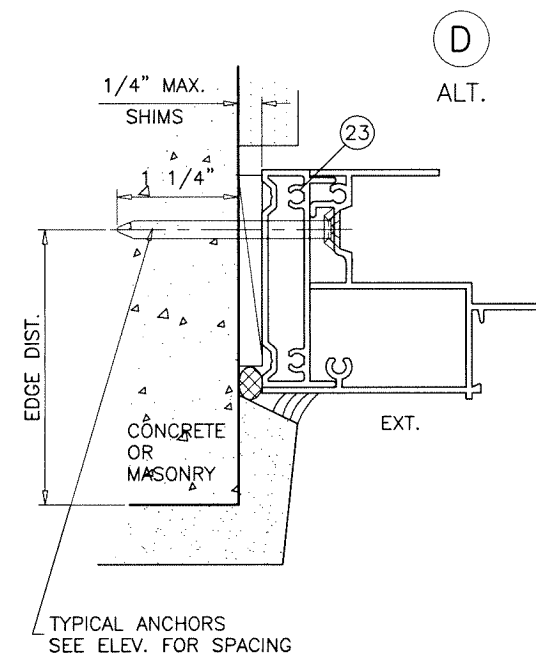
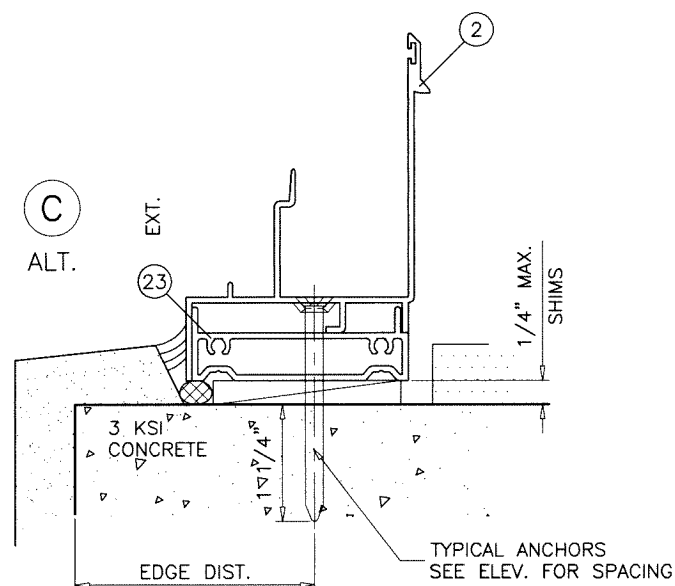
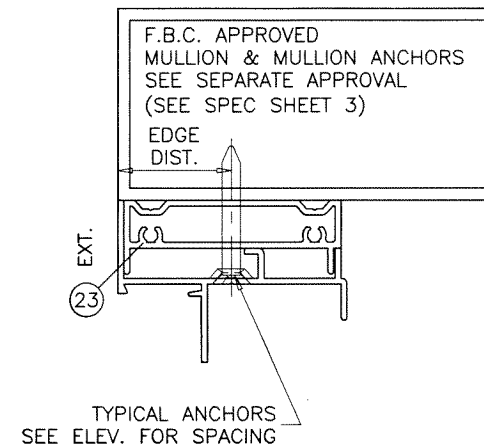
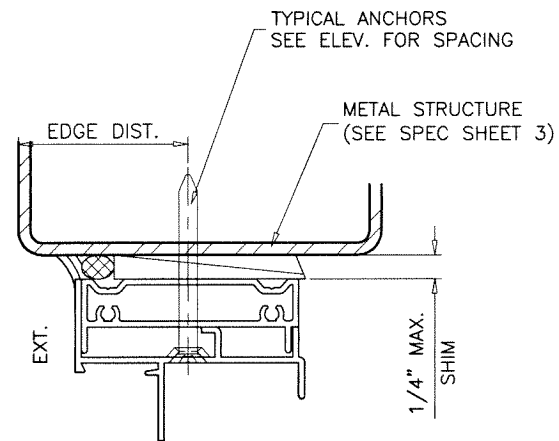
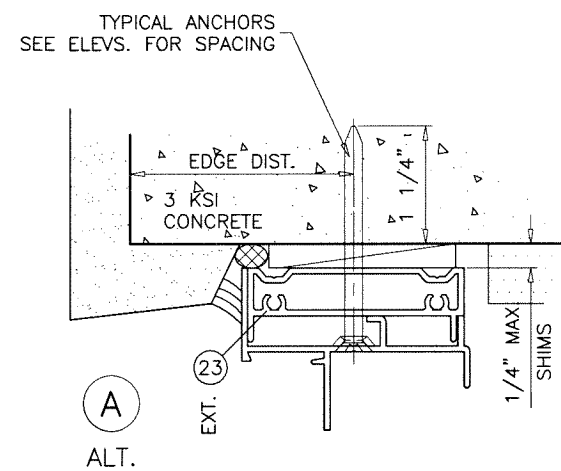
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3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151
FAX. (305) 638-5158

revisions:	no	date	by	description

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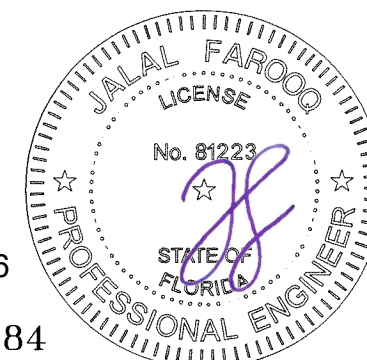
drawing no.	25-68F
sheet	4 of 6



INSTALLATION DETAILS WITH FLUSH FRAME ADAPTER

Sealed: 7/10/2026

FL #46884



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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

SERIES-1100 ALUM SINGLE HUNG WINDOW (S.M.I.)

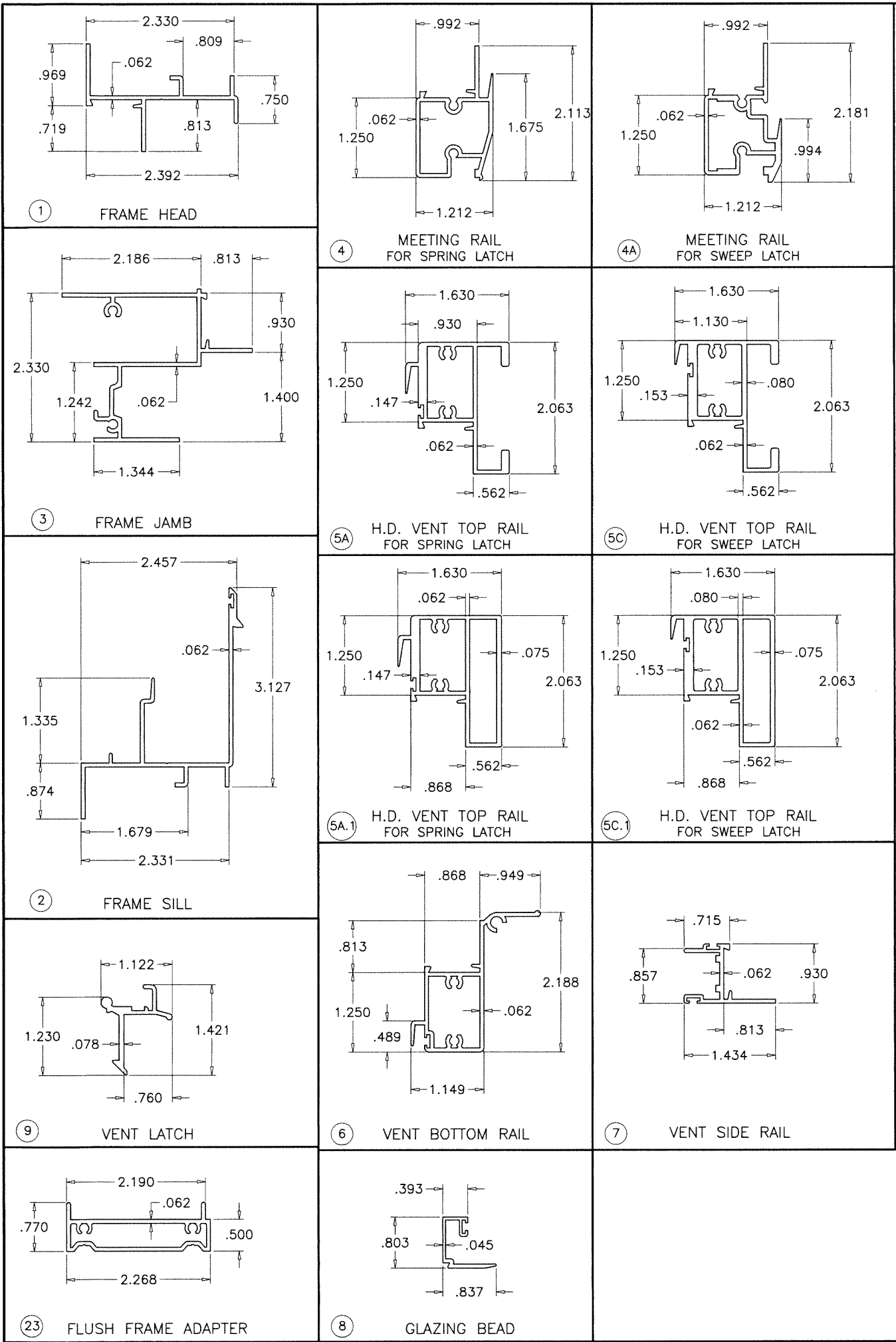
E.S. WINDOWS, LLC
3550 N.W. 49 STREET
MIAMI, FL. 33142
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:	no	date	by	description

date: 07-10-25	scale: 1/2" = 1"	dr. by: TARIQ	chk. by:
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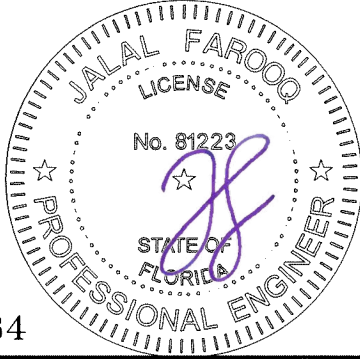
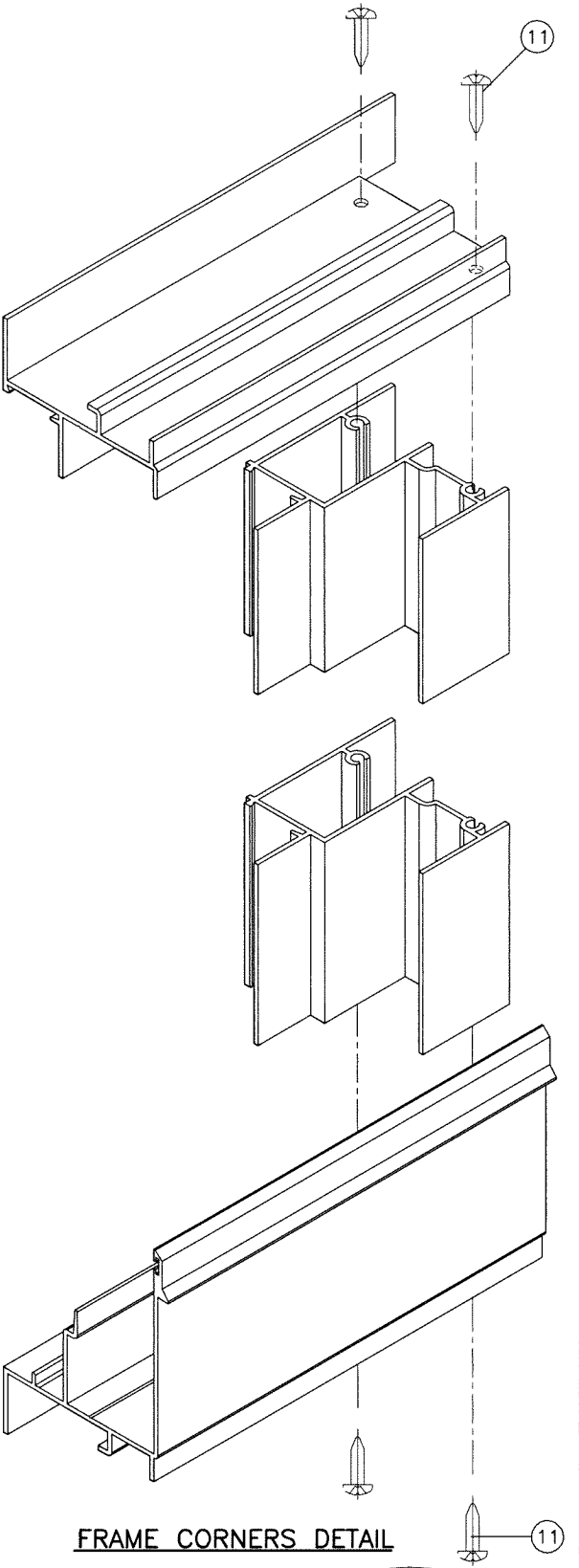
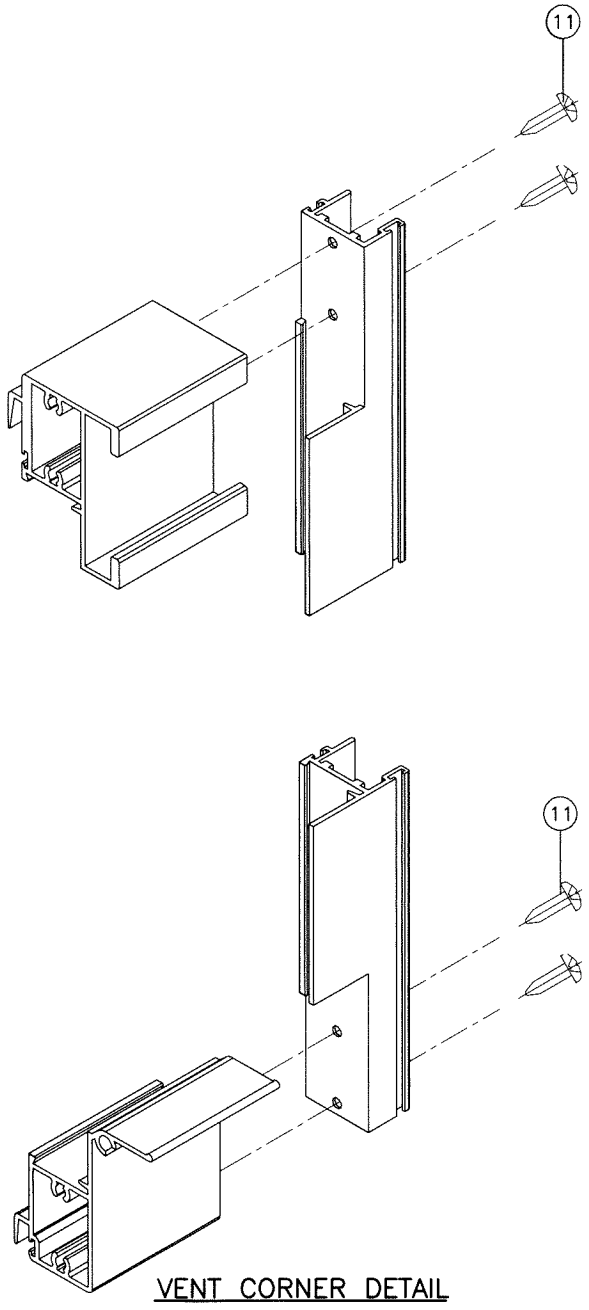
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25-68F
sheet 5 of 6

COMP-ANL\25-68F-ES



SEALANTS:

ALL JOINTS AND FRAME CONNECTIONS SEALED WITH SCHNEE MOREHEAD SEAM SEALER SM5504.



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 FL #46884

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

COMP-ANL 25-68F-ES

SERIES-1100 ALUM SINGLE HUNG WINDOW (S.M.I.)

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 MIAMI, FL. 33142
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 chk. by:

drawing no.
25-68F
 sheet 6 of 6