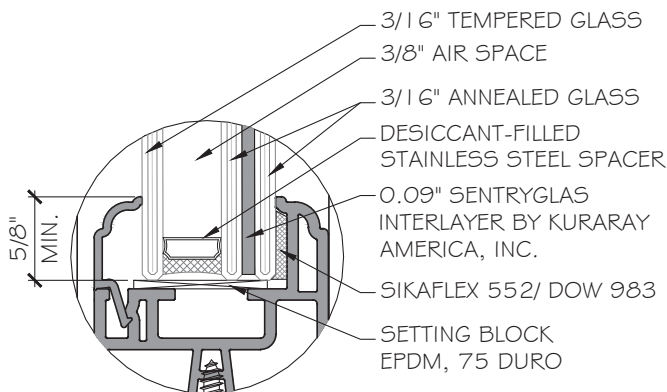
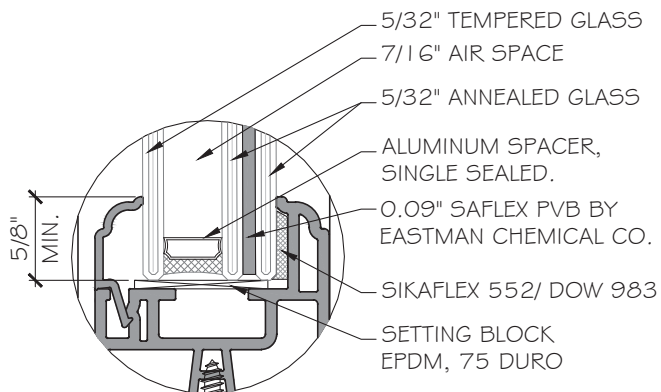


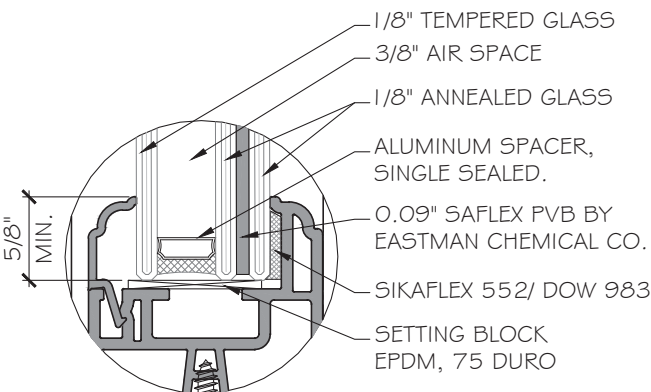
ES WINDOWS, INC.
ES V400 VINYL SLIDING GLASS DOOR -LARGE MISSILE IMPACT



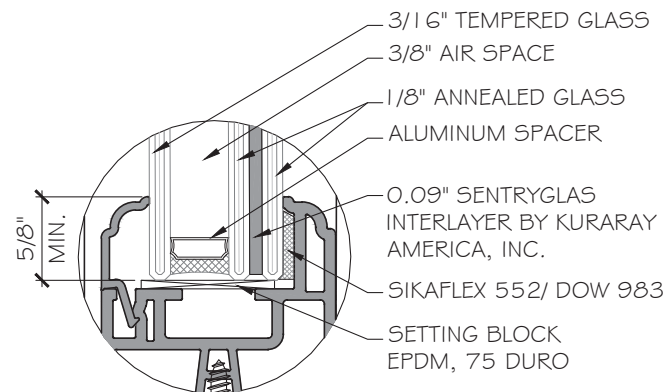
G1 INSULATED LAMINATED GLASS
1" NOMINAL OVERALL



G2 INSULATED LAMINATED GLASS
1" NOMINAL OVERALL



G3 INSULATED LAMINATED GLASS
1" NOMINAL OVERALL



G4 INSULATED LAMINATED GLASS
1" NOMINAL OVERALL

GENERAL NOTES:

- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 7TH EDITION FLORIDA BUILDING CODE (2020) / 8TH EDITION FLORIDA BUILDING CODE (2023) INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).
- PRODUCTS ARE RATED FOR LARGE MISSILE IMPACT. IMPACT SHUTTERS ARE NOT REQUIRED.
- PRODUCTS ARE APPROVED FOR AIR AND WATER INFILTRATION.
- ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS. ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
- ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.
- MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 7TH EDITION FLORIDA BUILDING CODE (2020) / 8TH EDITION FLORIDA BUILDING CODE (2023) SECTION AS APPLICABLE.
- WOOD BUCKS AND METAL STRUCTURES BY OTHERS TO BE DESIGNED TO SUPPORT THE LOADS IMPOSED BY THIS GLAZING SYSTEM AND TO TRANSFER SUCH LOADS TO THE BUILDING MAIN STRUCTURE.
- ULTIMATE LOAD OBTAINED FROM ASCE 7-16 / ASCE 7-22, MULTIPLY BY 0.6 SHALL BE LESS THAN OR EQUAL TO MAX. DESIGN LOAD IN THIS DOCUMENT. THE DESIGN LOADS SHOWN IN THIS DOCUMENT ARE ALLOWABLE DESIGN LOADS.
- ALL JOINT AND FRAME CONNECTION SEALED WITH SILICONE SEALANT.
- 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.

INSTRUCTIONS:

USE CHARTS AS FOLLOWS.

- STEP 1: DETERMINE DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7-16 / ASCE 7-22 STANDARD.
- STEP 2: SEE SHEET E1 TO E4 FOR APPROVED TYPICAL ELEVATION.
- STEP 3: SEE SHEET COVER FOR GLASS TYPE.
- STEP 4: ANCHOR OPTION SEE SHEET A1 & A2. ANCHOR LAYOUT SEE ELEVATION.
- STEP 5: THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.

NOTE:
GLASS COMPLIES WITH ASTM E1300-16
(3 SEC. GUSTS).

ABBREVIATIONS AND SYMBOLS	
G.B. - GLASS BITE	
D.L.O. - DAYLITE OPENING	
F.H. - FRAME HEIGHT	
F.W. - FRAME WIDTH	
W/ - WITH	
W/O - WITHOUT	
O.C. - ON CENTER	

SECTION NUMBER

C
7

SHEET NUMBER

LIMITATIONS OF USE	
A.	THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; I.E. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.E.D.
B.	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.
C.	THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
D.	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.
E.	THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

FL44037.1	
YIPING WANG PROFESSIONAL REGISTRATION C.E.#58983 P.E.#28677 STATE OF FLORIDA PROFESSIONAL ENGINEER	
November 15th, 2023	

MCY ENGINEERING, INC.
GLAZING CONSULTANTS
12781 MIRAMAR PARKWAY #301
MIRAMAR, FL 33027
P: 305.271.0117
www.MCYEngineering.com mcy@mcyengineering.com

ES WINDOWS, INC.
3550 N.W. 49 STREET
Miami, FL 33142
TEL: (305) 638-5151 EMAIL: ssabagh@energiasola.com

ES V400 Vinyl Sliding Glass Door- Large Missile Impact	
Drawn Date	Scale
10.27.2023	
DRAWING NO.	
AD23-40	
COVER	
Sheet No.	
01 OF 16	

[illegible]

DESIGN LOAD (PSF)		
FOR SIZE SHOWN ABOVE OR SMALLER AS PERMITTED BY FBC		
G1/G4	G2	G3
+/- 65.0	+/- 50.0	+/- 46.5

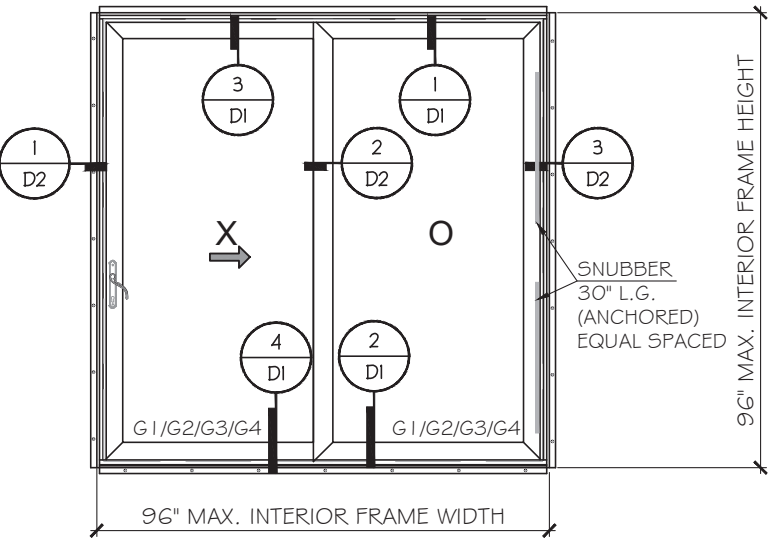
Sheet No.
02 OF 16

YIPING WANG P.E.
FLORIDA REGISTRATION
FL 55989
C.A.N. 28877

STATE OF FLORIDA
PROFESSIONAL ENGINEER

November 15th, 2022

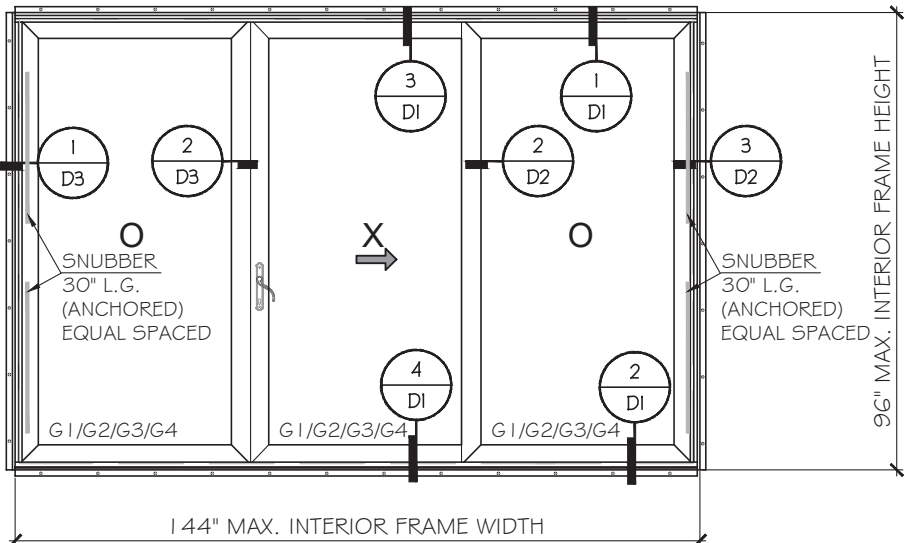
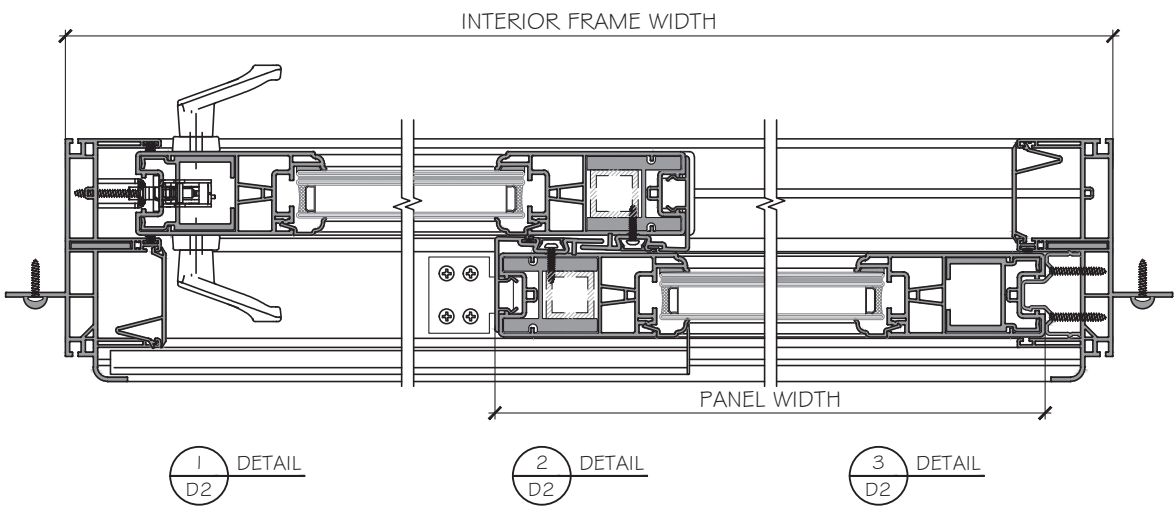
APPROVED CONFIGURATION DOORS
(FIN FRAME)



(2) PANELS TYPICAL EXTERIOR ELEVATIONS

OX / XO

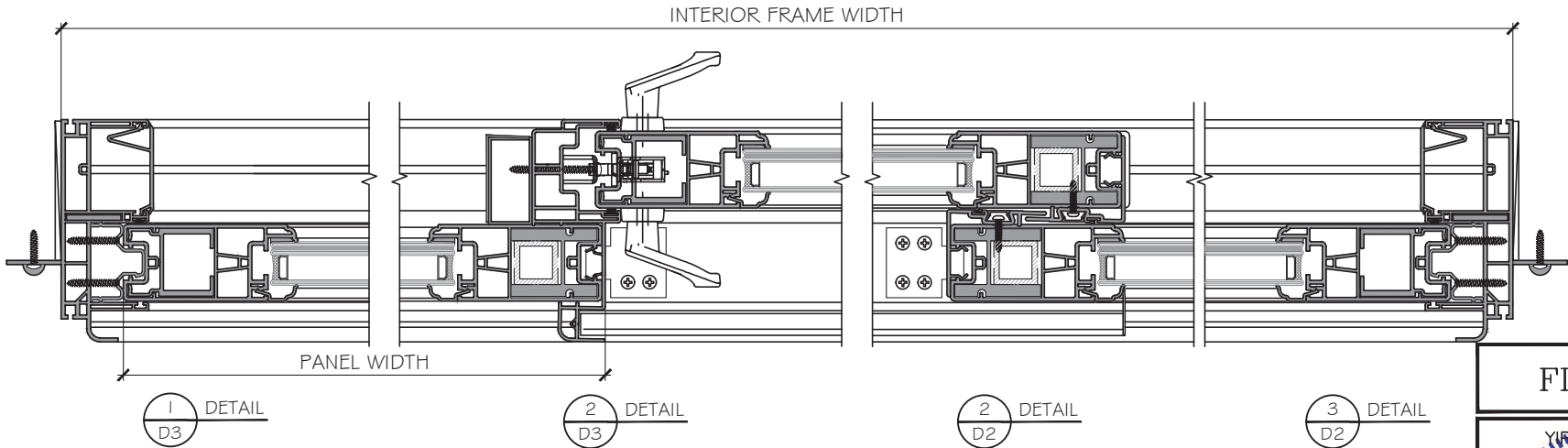
DESIGN LOAD (PSF)		
FOR SIZE SHOWN ABOVE OR SMALLER AS PERMITTED BY FBC		
G1/G4	G2	G3
+/- 65.0	+/- 50.0	+/- 46.5



(3) PANELS TYPICAL EXTERIOR ELEVATIONS

OXO / OXO

DESIGN LOAD (PSF)		
FOR SIZE SHOWN ABOVE OR SMALLER AS PERMITTED BY FBC		
G1/G4	G2	G3
+/- 65.0	+/- 50.0	+/- 46.5



- NOTES:
1. CONFIGURATIONS SHOWN FOR ILLUSTRATION PURPOSES ONLY.
 2. SEE SHEET COVER FOR GLASS OPTIONS.
 3. FOR ANCHOR TYPES SEE SHEET A1, ANCHOR LAYOUT SEE SHEET E1.
 4. DOOR SHALL MEET EGRESS REQUIREMENTS AS APPLICABLE PER FBC.

FL44037.1

YIPING WANG
PROFESSIONAL ENGINEER
FLORIDA REGISTRATION
No 55983
L.A.N. 28677

November 15th, 2023

MCY ENGINEERING, INC.
GLAZING CONSULTANTS

M C Y

12781 MIRAMAR PARKWAY #301
MIRAMAR, FL 33027
P: 305.271.0117
www.MCYEngineering.com mcy@mcyengineering.com

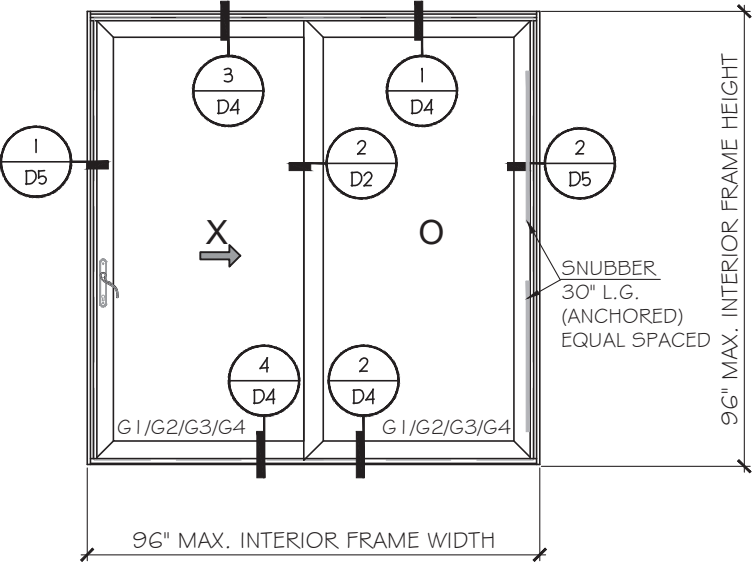
ES V400 Viny Sliding Glass Door- Large Missile Impact

ES WINDOWS, INC.

3550 N.W. 49 STREET
Miami, FL 33142
TEL: (305) 638-5151 EMAIL: ssabagh@energiasolar.com

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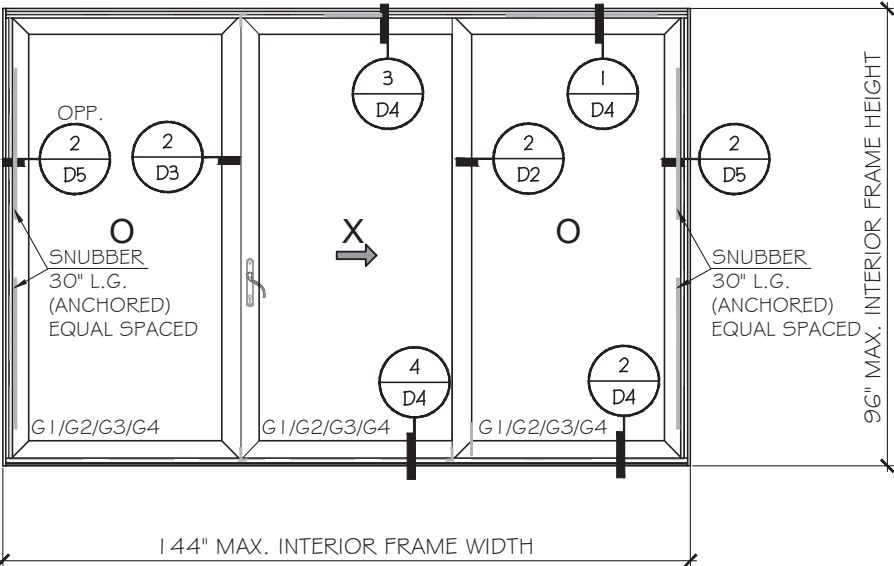
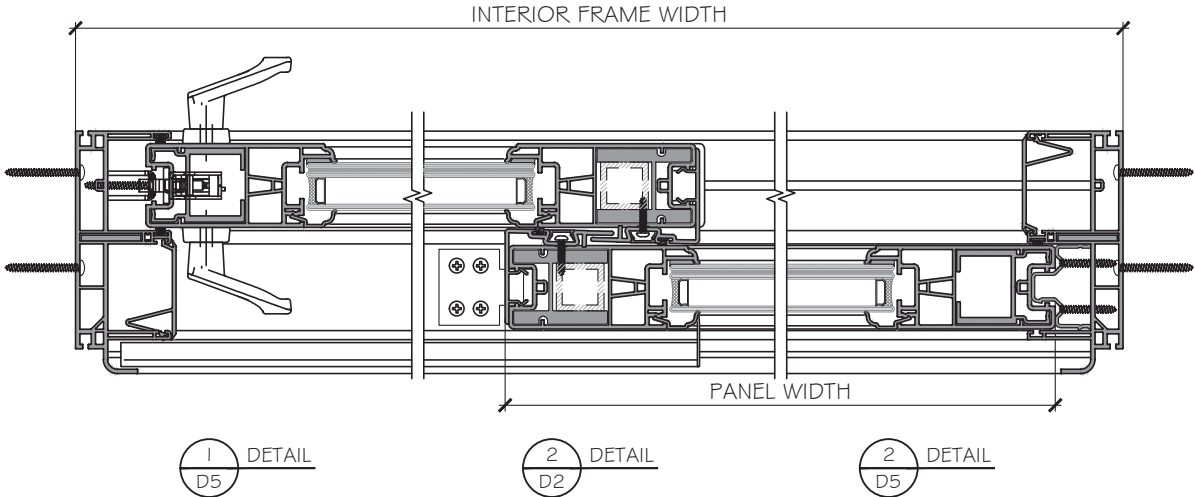
APPROVED CONFIGURATION DOORS
(FLUSH FRAME)



(2) PANELS TYPICAL EXTERIOR ELEVATIONS

OX / XO

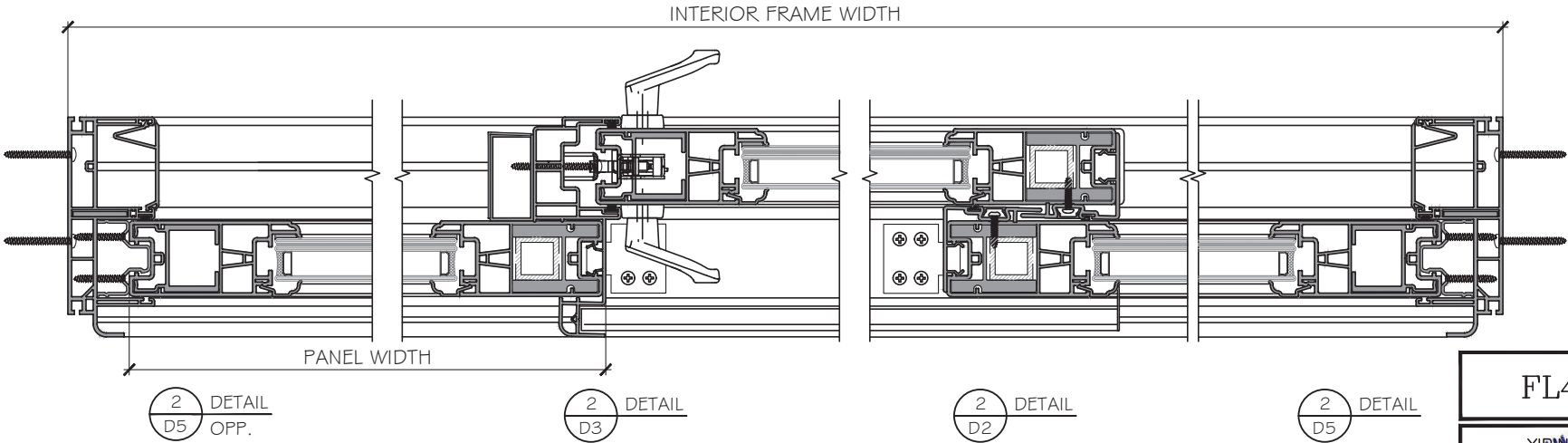
DESIGN LOAD (PSF)		
FOR SIZE SHOWN ABOVE OR SMALLER AS PERMITTED BY FBC		
G1/G4	G2	G3
+/- 65.0	+/- 50.0	+/- 46.5



(3) PANELS TYPICAL EXTERIOR ELEVATIONS

OXO / OXO

DESIGN LOAD (PSF)		
FOR SIZE SHOWN ABOVE OR SMALLER AS PERMITTED BY FBC		
G1/G4	G2	G3
+/- 65.0	+/- 50.0	+/- 46.5



- NOTES:
- 1. CONFIGURATIONS SHOWN FOR ILLUSTRATION PURPOSES ONLY.
 - 2. SEE SHEET COVER FOR GLASS OPTIONS.
 - 3. FOR ANCHOR TYPES SEE SHEET A2, ANCHOR LAYOUT SEE SHEET E2.
 - 4. DOOR SHALL MEET EGRESS REQUIREMENTS AS APPLICABLE PER FBC.

FL44037.1

YIPING WANG
PROFESSIONAL ENGINEER
No 55985

YIPING WANG
PROFESSIONAL ENGINEER
No 55985
November 15th, 2023

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ES V400 Vinyl Sliding Glass Door- Large Missile Impact

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3550 N.W. 49 STREET
Miami, FL 33142
TEL: (305) 638-5151 EMAIL: ssabagh@energiasolar.com

Rev. No.	Date	Drawn By	Description
1.	10.27.2023	JAMES	NEW APPLICATION

Drawn Date 10.27.2023 Scale

DRAWING NO.
AD23-40

E4

Sheet No.
05 OF 16

NOTE: WOOD BUCKS & METAL STRUCTURES BY OTHERS MUST BE PROPERLY SECURED TO SUPPORT LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURES.

TYPICAL ANCHOR TYPES FOR DESIGN LOAD UP TO 50 PSF

ANCHOR TYPE 'A' - #8 PPH SS SCREW INTO 2BY WOOD BUCKS OR WOOD STRUCTURE, 1" MIN. PENETRATION INTO WOOD (SG=0.55 MIN.)

ANCHOR TYPE 'B' - #8 TEKS/SELF DRILLING SCREW (GRADE 5 CRS) INTO F.B.C. APPROVED MULLIONS OR INTO METAL STRUCTURES. (3) THREADS MIN. PENETRATION BEYOND METAL SUBSTRATE

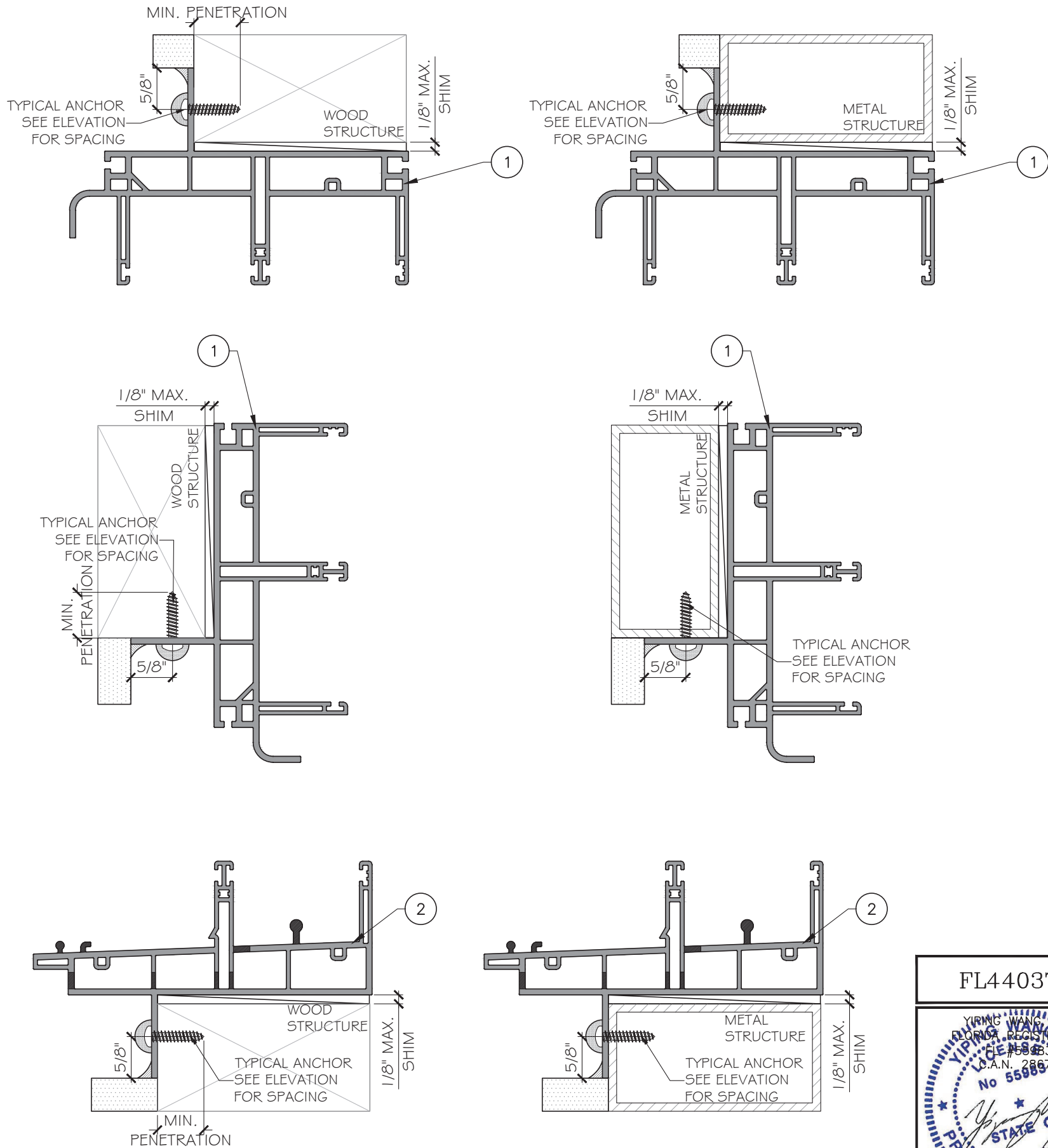
ALUMINUM: 1/8" THK. MIN. (6063-T5, MIN)
STEEL: 1/8" THK. MIN. (F_y=36KSI MIN)

TYPICAL ANCHOR TYPES FOR DESIGN LOAD > 50 PSF

ANCHOR TYPE 'A1' - #10 PPH SS SCREW INTO 2BY WOOD BUCKS OR WOOD STRUCTURE, 1" MIN. PENETRATION INTO WOOD (SG=0.55 MIN.)

ANCHOR TYPE 'B1' - #10 TEKS/SELF DRILLING SCREW (GRADE 5 CRS) INTO F.B.C. APPROVED MULLIONS OR INTO METAL STRUCTURES. (3) THREADS MIN. PENETRATION BEYOND METAL SUBSTRATE

ALUMINUM: 1/8" THK. MIN. (6063-T5, MIN)
STEEL: 1/8" THK. MIN. (F_y=36KSI MIN)



FL44037.1

YIPING WANG
PROFESSIONAL ENGINEER
No 55985
STATE OF FLORIDA

November 15th, 2023

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ES V400 Viny Sliding Glass Door- Large Missile Impact

Rev. No.

Date

Drawn By

Description

10.27.2023

JAMES

NEW APPLICATION

Drawn Date
10.27.2023

Scale

DRAWING NO.
AD23-40

Sheet No.
06 OF 16

NOTE: WOOD BUCKS & METAL STRUCTURES BY OTHERS MUST BE PROPERLY SECURED TO SUPPORT LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURES.

TYPICAL ANCHOR TYPES: (SEE ELEVATIONS FOR SPACING)

TYPE 'C' -- 3/16" DIA. ULTRA-CON+ BY 'DEWALT' (F_u=164 KSI, F_y=117 KSI)
INTO 2 BY WOOD BUCKS OR WOOD STRUCTURES.
1 1/2" MIN. PENETRATION INTO WOOD (HEAD/ JAMBS)

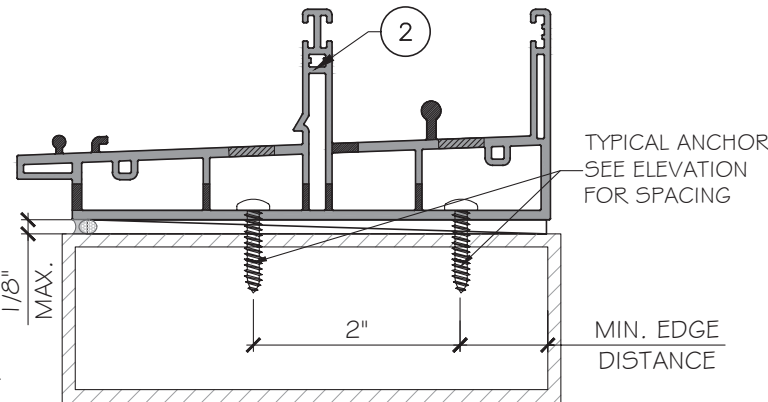
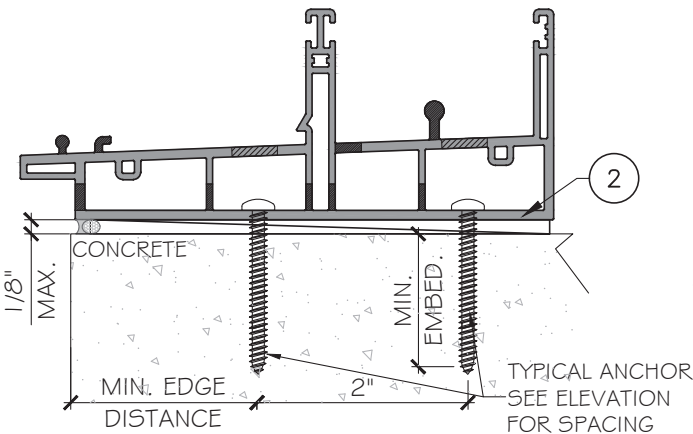
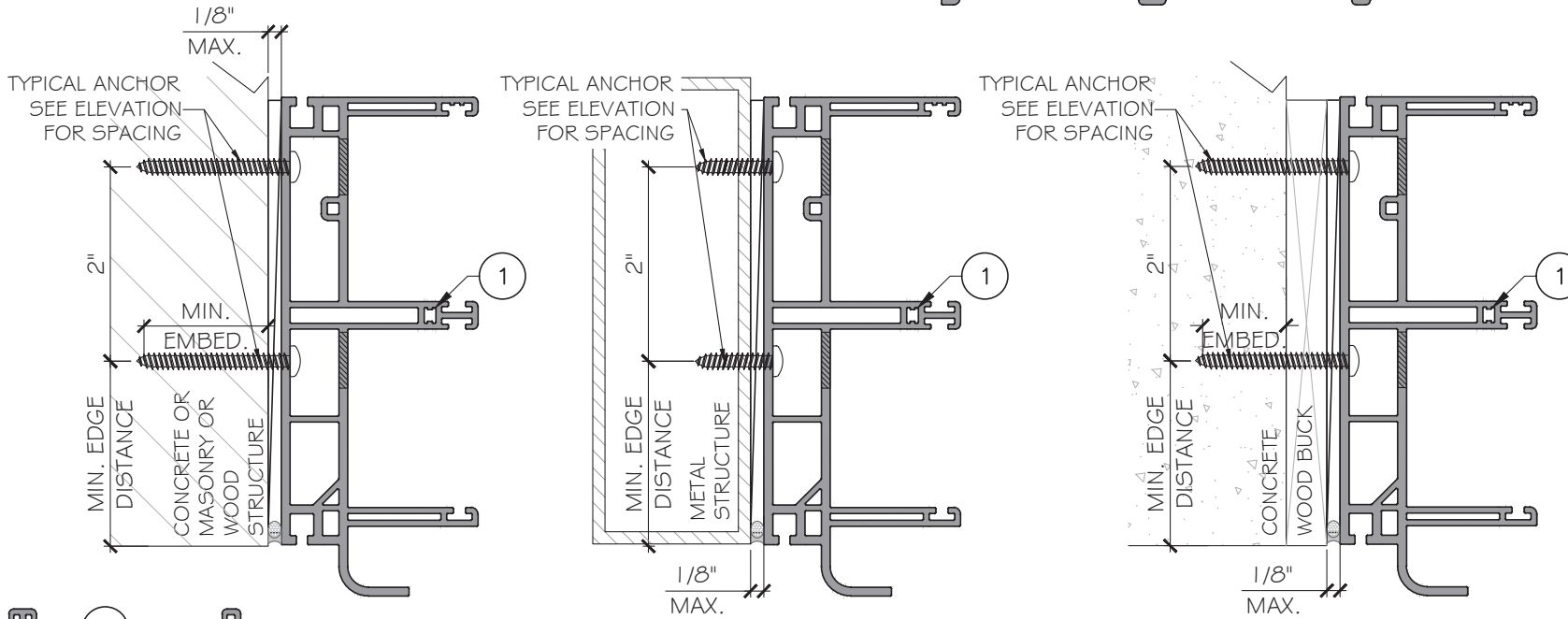
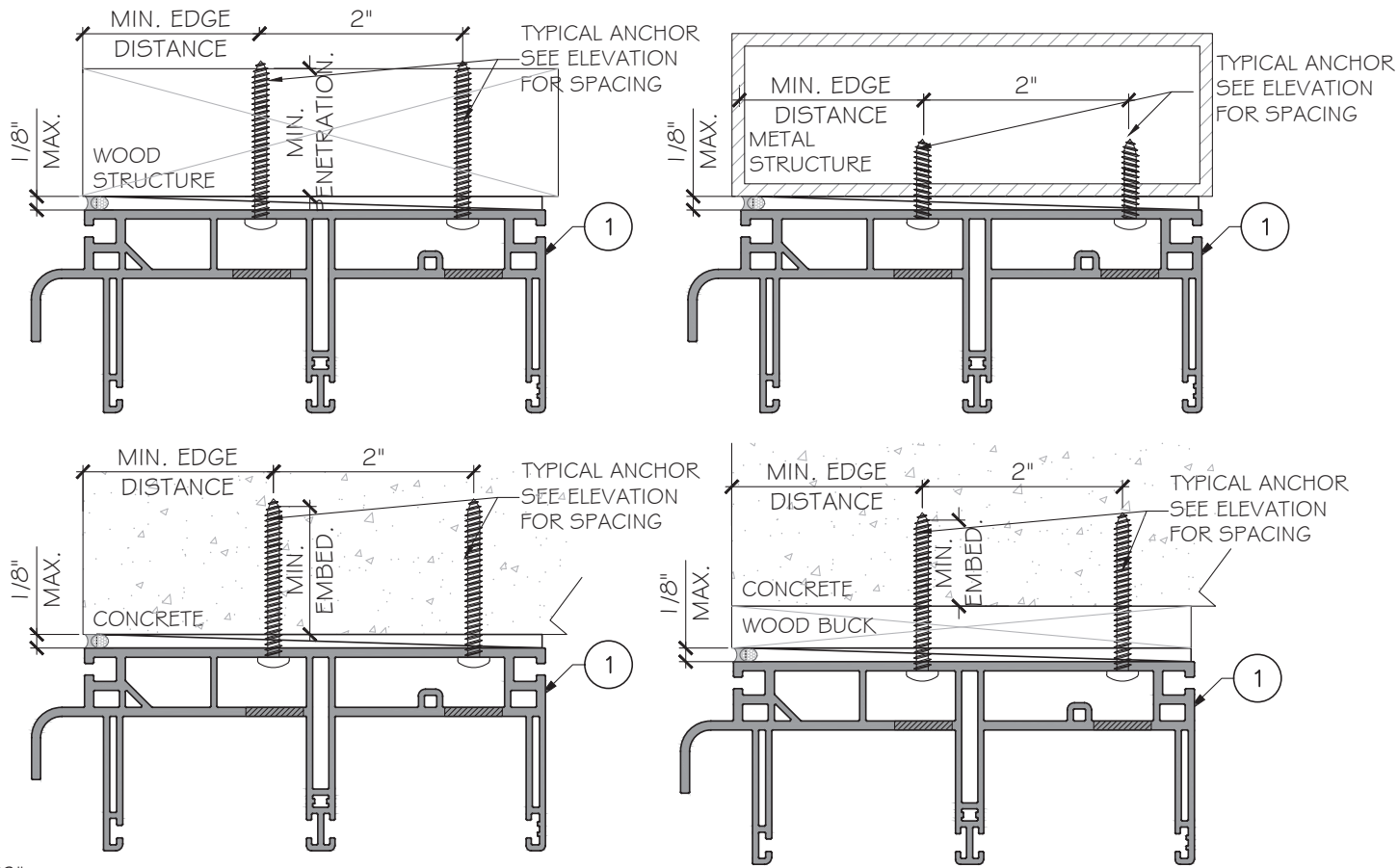
THRU 1 BY WOOD BUCKS INTO CONCRETE OR BLOCKS
1 3/4" MIN. EMBED INTO CONCRETE (HEAD/ JAMBS)
1 3/4" MIN. EMBED IN TO BLOCKS (JAMBS)

DIRECTLY INTO CONCRETE OR BLOCKS
1 3/4" MIN. EMBED IN TO CONCRETE (HEAD/ SILL/ JAMBS)
1 3/4" MIN. EMBED IN TO BLOCKS (JAMBS)

TYPE 'D' -- #10 SMS OR SELF-DRILLING SCREWS: (GRADE 2 CRS)
INTO FBC APPROVED MULLIONS, 1/8" THK. MIN.(6063-T5 MIN.)
OR INTO METAL STRUCTURES, STEEL: 1/8". MIN. (F_y=36 ksi MIN.)
(3) THREADS MIN. TO EXTEND BEYOND METAL THICKNESS

INTO CONCRETE OR BLOCK = 2-1/2" MIN.
INTO METAL STRUCTURE = 3/4" MIN.
INTO WOOD STRUCTURE = 1" MIN.

WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.
CONCRETE AT HEAD, SILL OR JAMB f'_c=3 ksi MIN.
C-90 HOLLOW/ FILLED BLOCK AT JAMBS f_m=2000 PSI MIN.



FL44037.1

YIPING WANG, P.E.
PROFESSIONAL REGISTRATION
No. 55985
STATE OF FLORIDA
PROFESSIONAL ENGINEER

November 15th, 2023

MCY ENGINEERING, INC.
GLAZING CONSULTANTS
12781 MIRAMAR PARKWAY #301
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www.MCYEngineering.com mcy@mcyengineering.com

ES WINDOWS, INC.
3550 N.W. 49 STREET
Miami, FL 33142
TEL: (305) 638-5151 EMAIL: ssabagh@energiasolar.com

Rev.	No.	Date	Drawn By	Description
1	10.27.2023	JAMES	NEW APPLICATION	

Drawn Date: 10.27.2023

Scale:

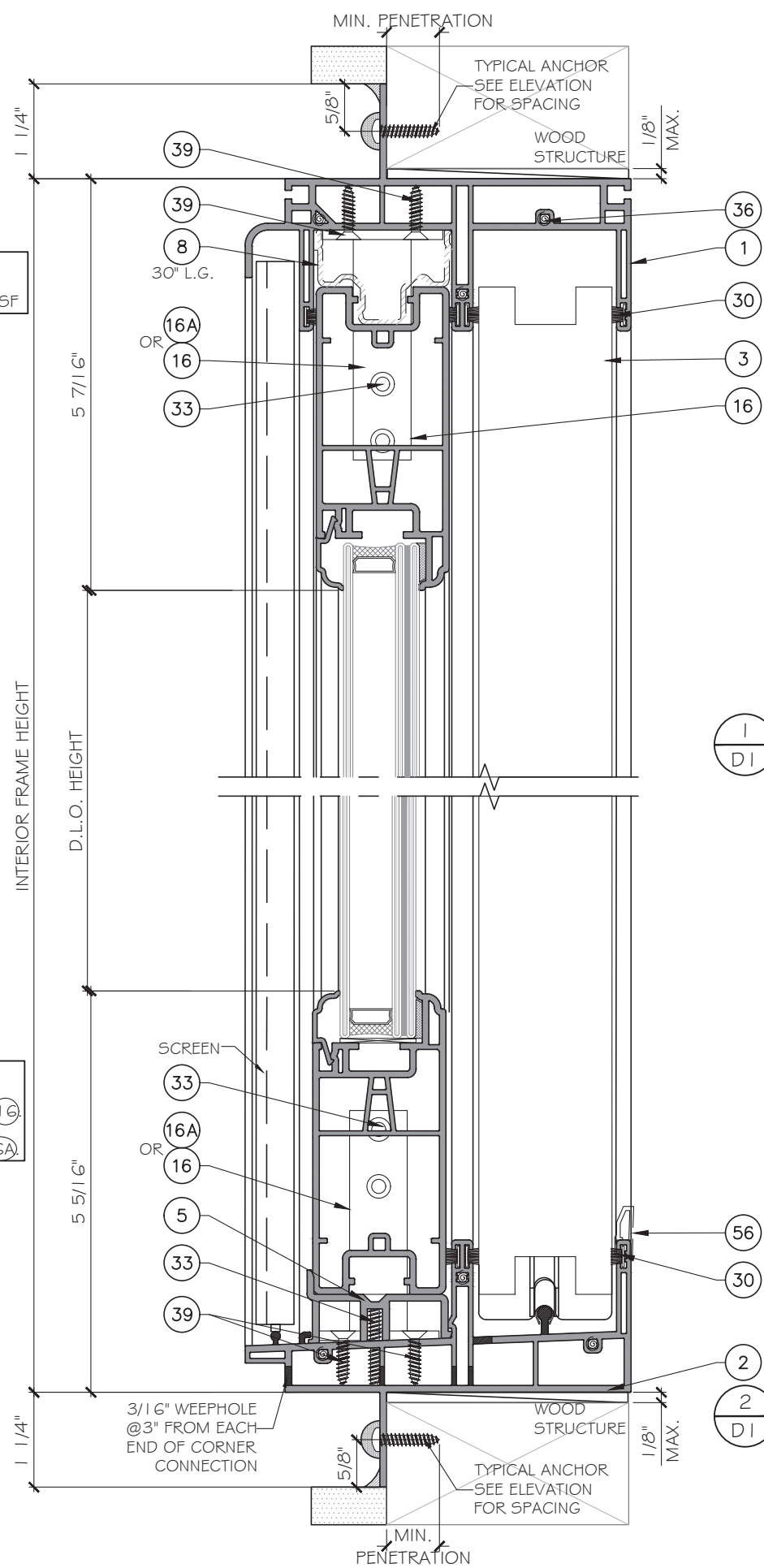
DRAWING NO. AD23-40

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NOTE:
⑧ AT HEAD FOR
DESIGN LOAD > 50 PSF

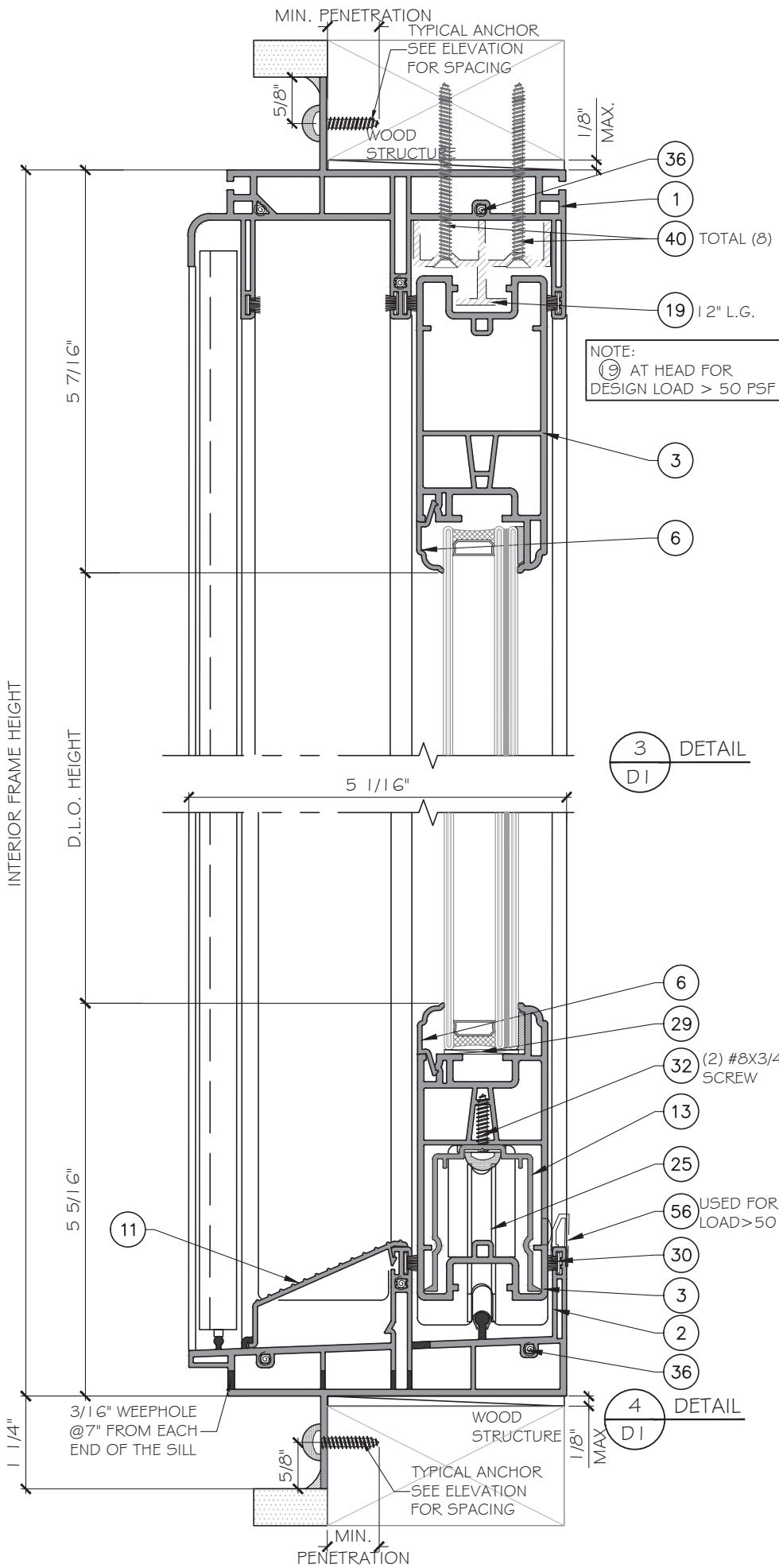
NOTE:
FOR DESIGN LOAD UP TO 50
PSF, USE "L" BRACKET PART ①G.
FOR DESIGN LOAD > 50 PSF,
USE HD "L" BRACKET PART ①GA.

EXTERIOR



①
DI
DETAIL

EXTERIOR



③
DI
DETAIL

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YIPING WANG
PROF. REGISTRATION
No 55985
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

November 15th, 2023

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ES V400 Vinyl Sliding Glass Door- Large Missile Impact

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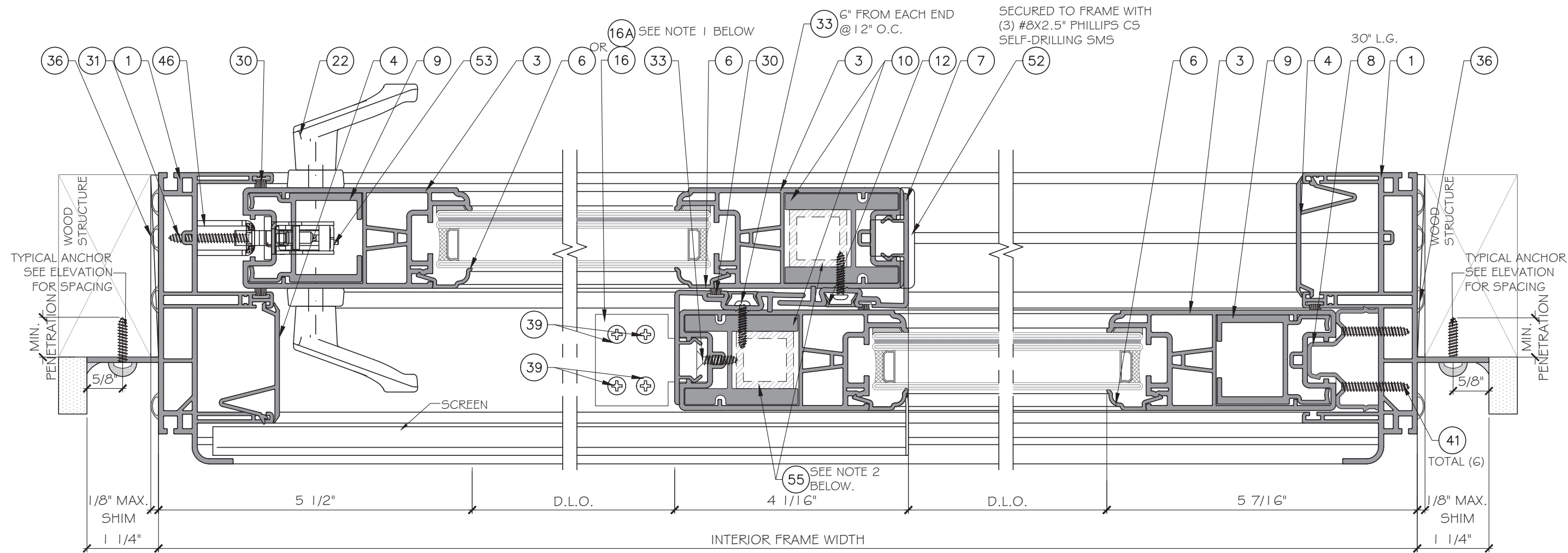
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D1

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EXTERIOR

1
D2
DETAIL

2
D2
DETAIL

3
D2
DETAIL

NOTE 1:
FOR DESIGN LOAD UP TO 50
PSF, USE "L" BRACKET PART (16).
FOR DESIGN LOAD > 50 PSF,
USE HD "L" BRACKET PART (16A).

NOTE 2:
FULL LENGTH PART (55) ONLY BE
USED WHEN DESIGN LOAD IS
BETWEEN 50 PSF AND 65 PSF

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YIPING WANG, P.E.
PROF. REGISTRATION
No. 55983
L.A.N. 28677

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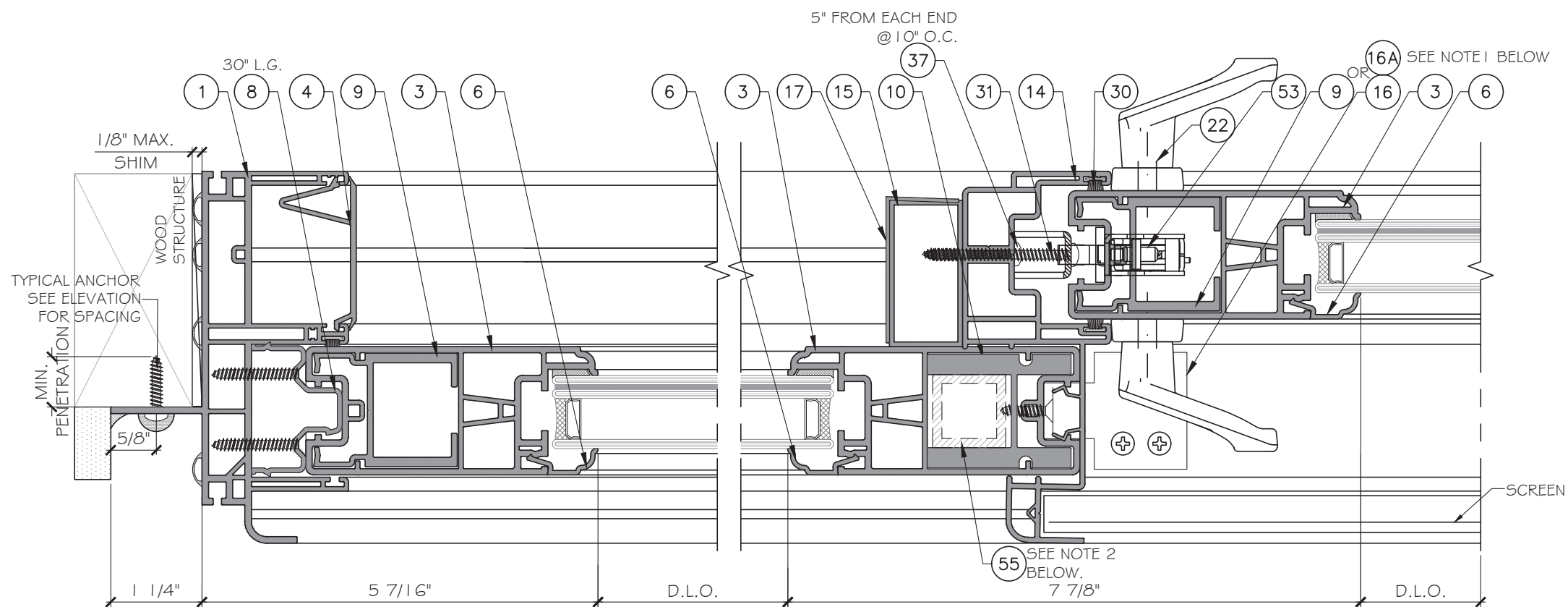
Drawn Date
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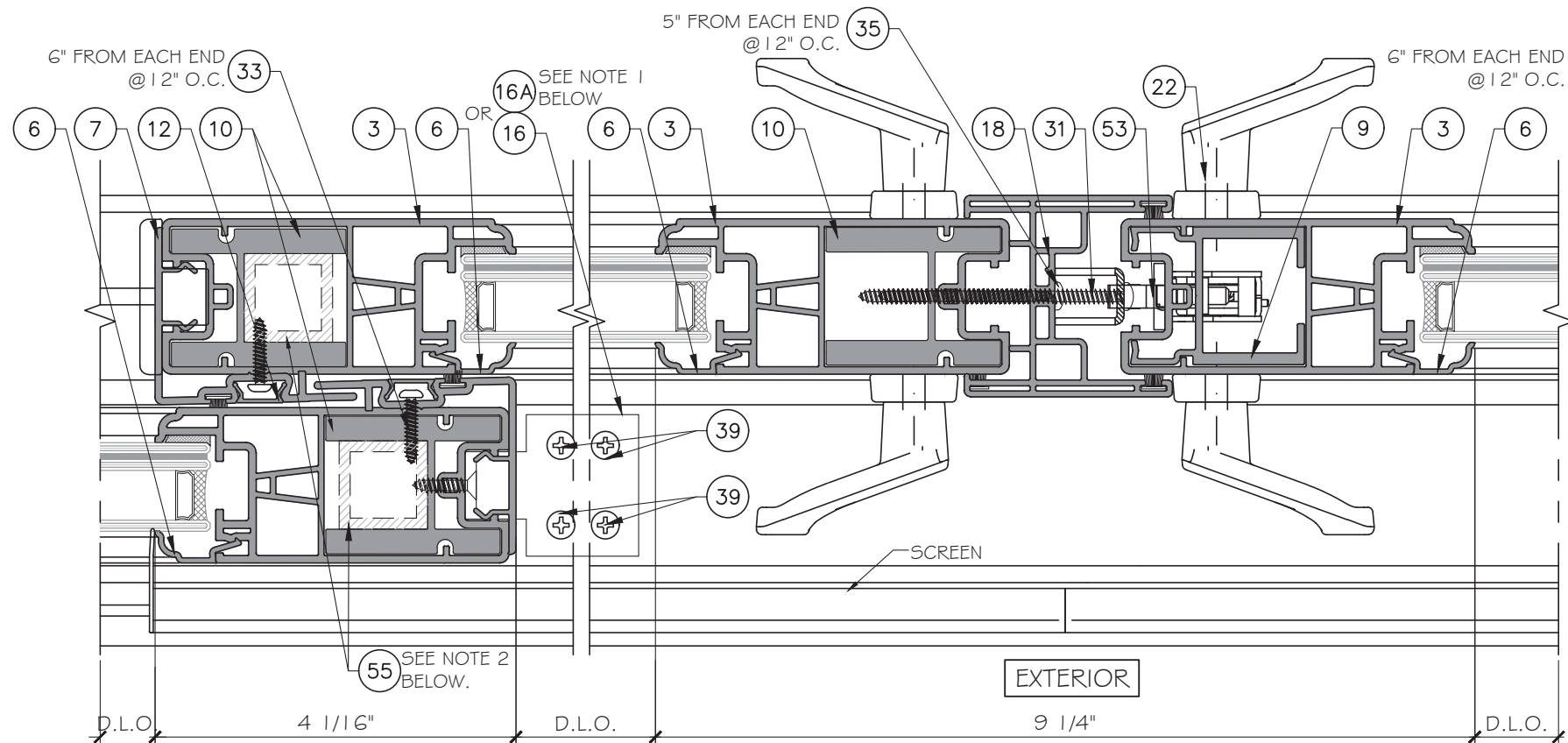
Scale

D2



1
D3
DETAIL

2
D3
DETAIL

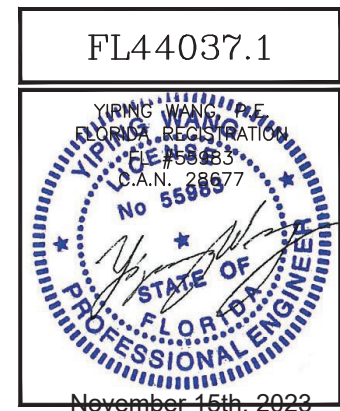


3
D3
DETAIL

4
D3
DETAIL
DESIGN LOAD
LIMITED TO +/- 50 PSF

NOTE 1:
FOR DESIGN LOAD UP TO 50
PSF, USE "L" BRACKET PART (16).
FOR DESIGN LOAD > 50 PSF,
USE HD "L" BRACKET PART (16A).

NOTE 2:
FULL LENGTH PART (55) ONLY BE
USED WHEN DESIGN LOAD IS
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ES V400 Vinyl Sliding Glass Door- Large Missile Impact

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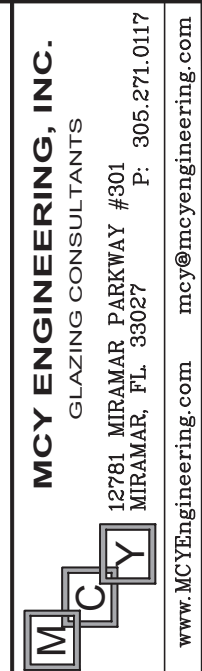
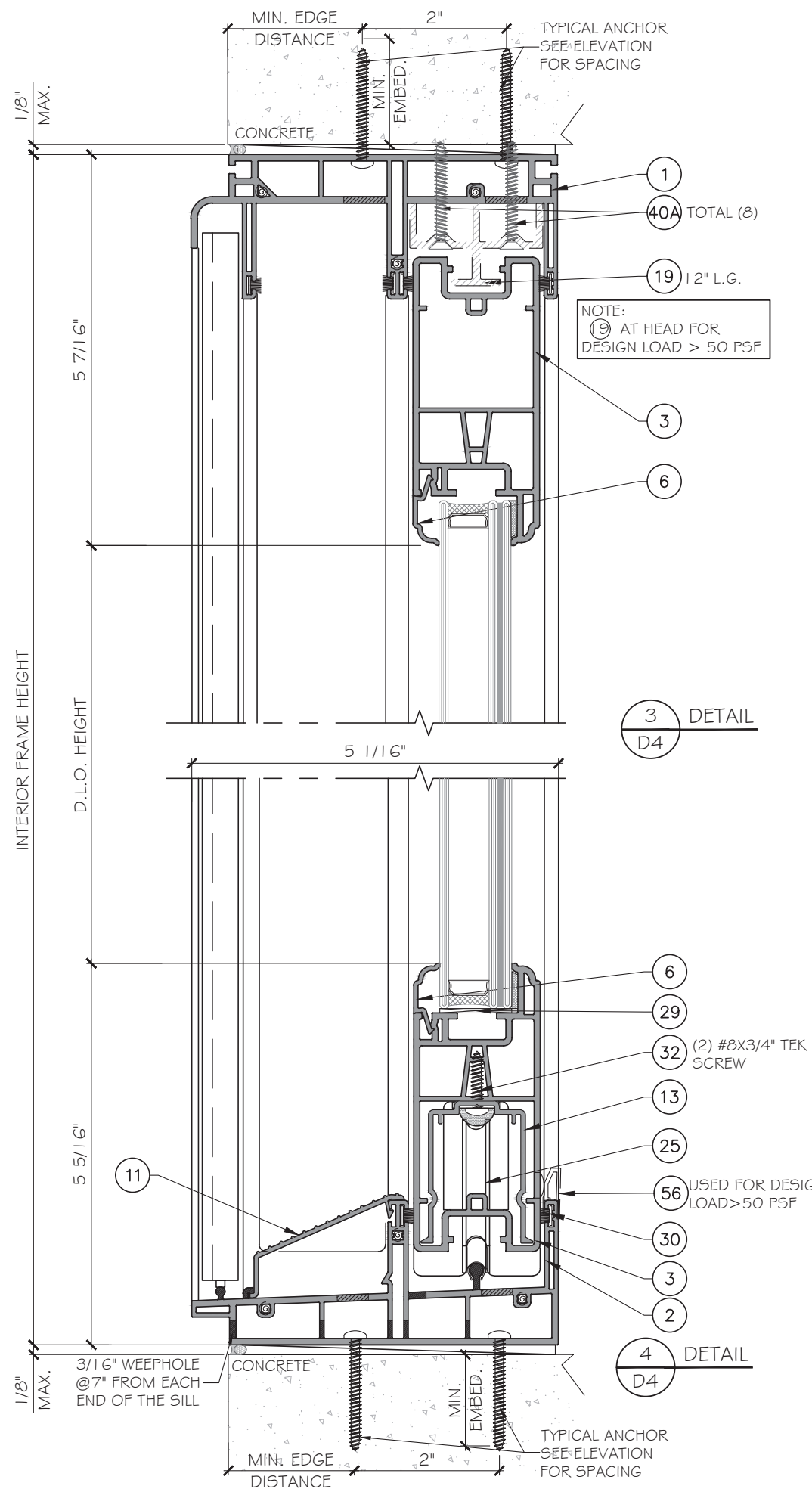
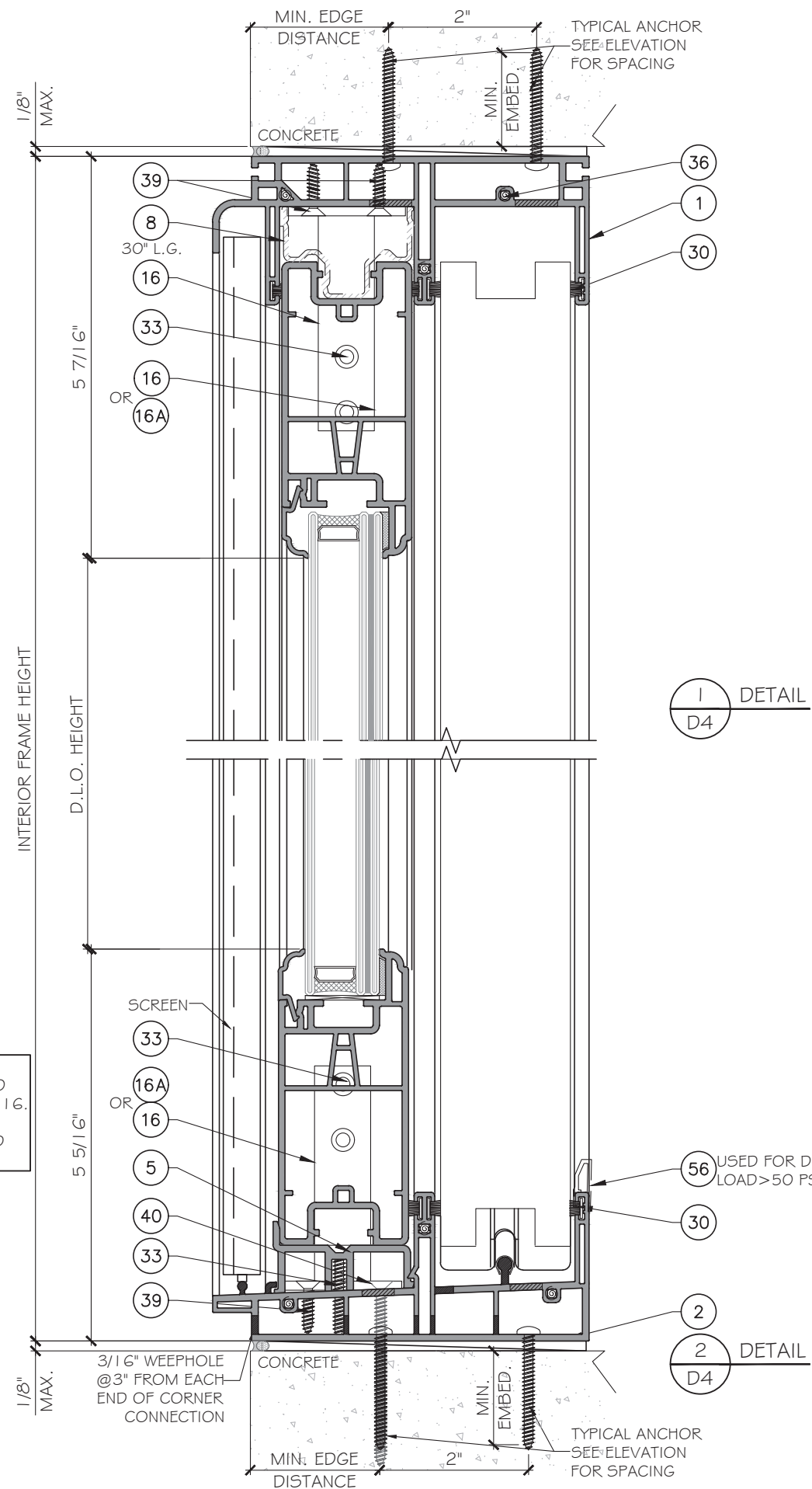
Drawn Date 10.27.2023 Scale

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D3

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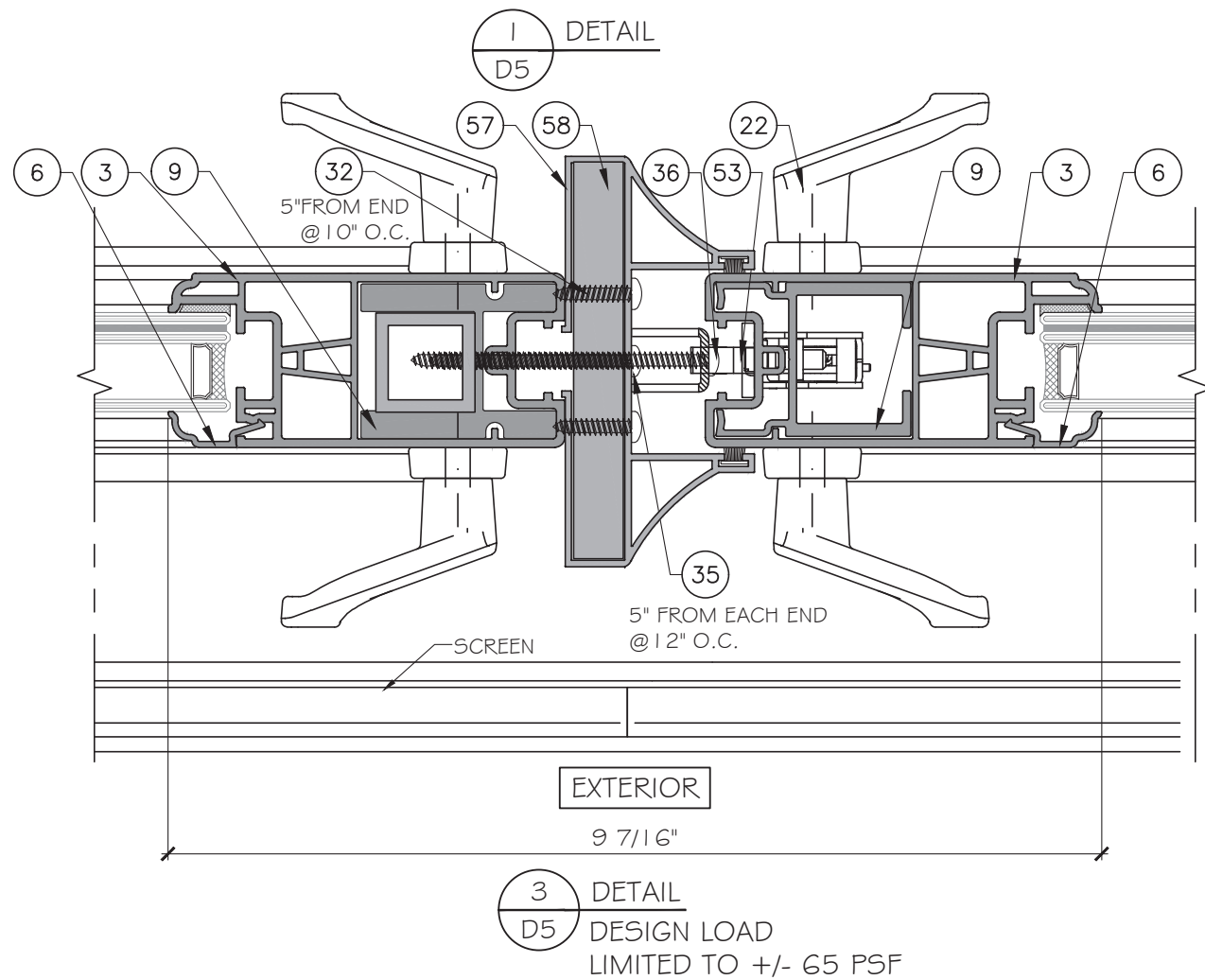
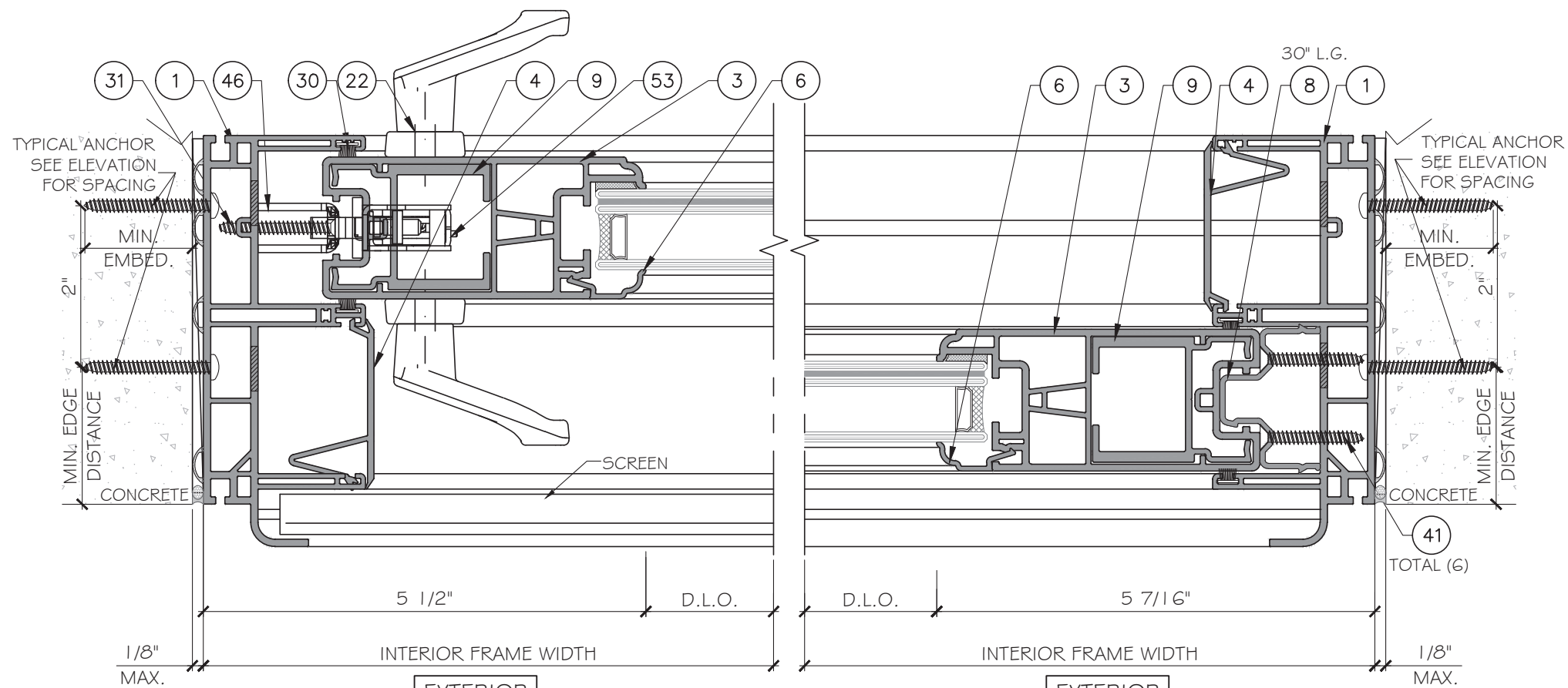
ES V400 Vinyl Sliding Glass Door- Large Missile Impact

ES WINDOWS, INC.

33550 N.W. 49 STREET
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November 15th, 2023

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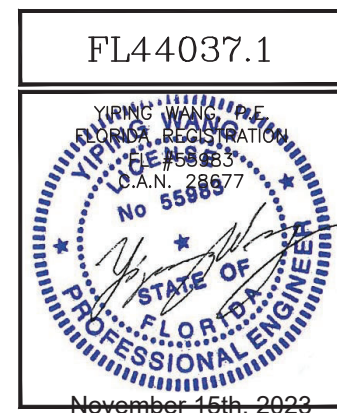
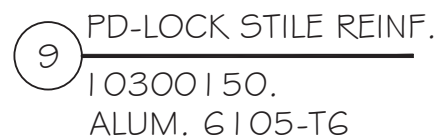
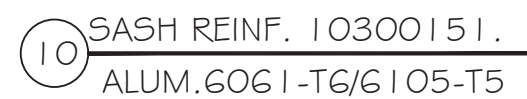
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D5

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Drawn Date	Scale
10.27.2023	

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AD23-40

PART 1

Sheet No.
13 OF 16

ES V400 Vinyl Sliding Glass Door- Large Missile Impact

ES WINDOWS, INC.

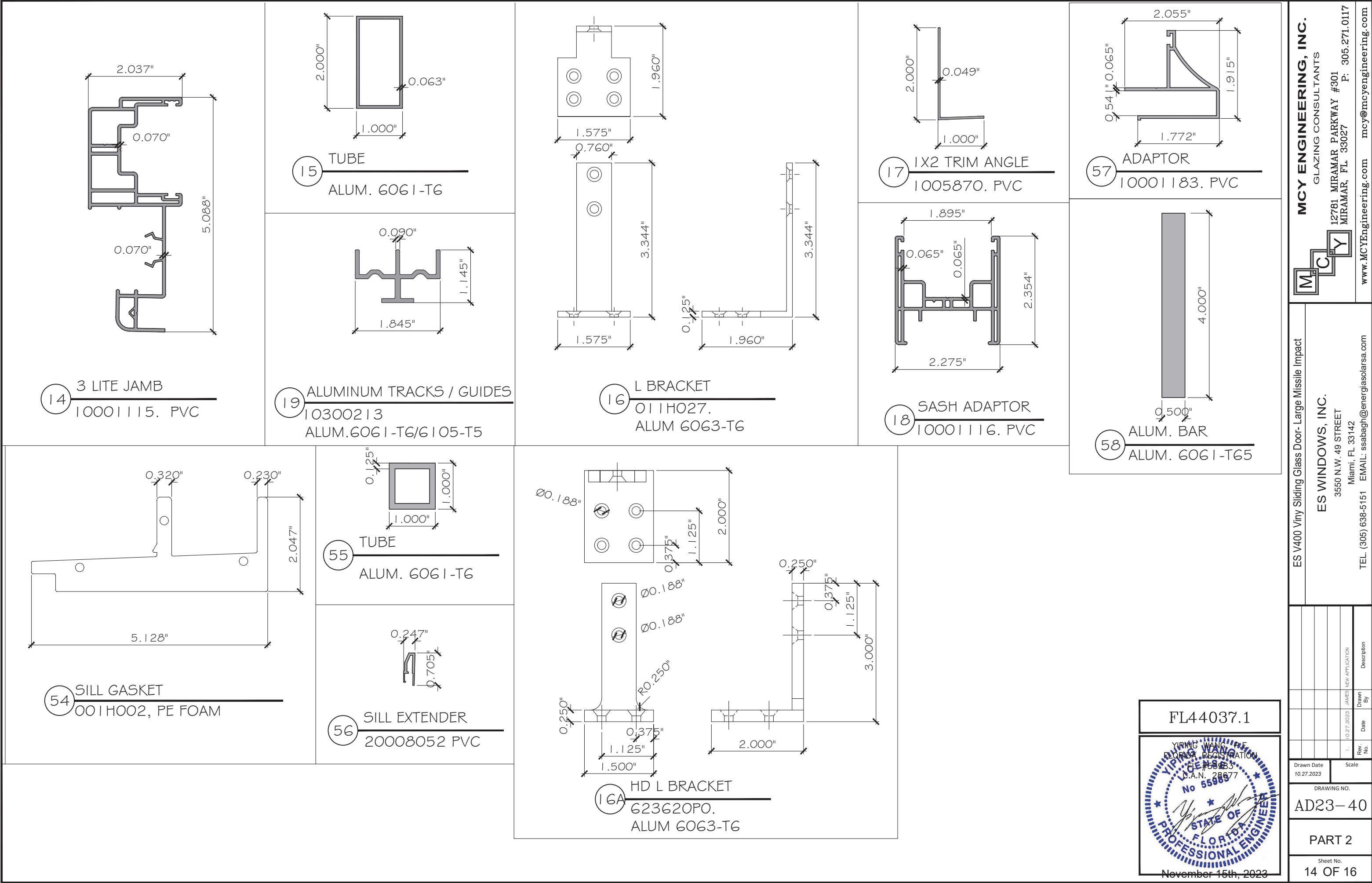
50 N.W. 49 STREET
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MIRAMAR, FL 33027 P: 305.271.0117

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55 TUBE
ALUM. 6061-T6

56 SILL EXTENDER
20008052 PVC

16A HD L BRACKET
623620P0.
ALUM 6063-T6

18 SASH ADAPTOR
10001116. PVC

57 ADAPTOR
10001183. PVC

58 ALUM. BAR
ALUM. 6061-T65

55 TUBE
ALUM. 6061-T6

56 SILL EXTENDER
20008052 PVC

16A HD L BRACKET
623620P0.
ALUM 6063-T6

18 SASH ADAPTOR
10001116. PVC

57 ADAPTOR
10001183. PVC

58 ALUM. BAR
ALUM. 6061-T65

FL44037.1

YIPING WANG, P.E.

PROF. REGISTRATION

FL #58983

C.A.N. 28677

No 55989

STATE OF FLORIDA

PROFESSIONAL ENGINEER

November 15th, 2023

ES V400 Vinyl Sliding Glass Door- Large Missile Impact		ES WINDOWS, INC.		GLAZING CONSULTANTS				12781 MIRAMAR PARKWAY #301 MIRAMAR, FL 33027		P: 305.271.0117	
		3550 N.W. 49 STREET									
		Miami, FL 33142									
		TEL. (305) 638-5151		EMAIL: ssabagh@energiasolar.com						www.MCYEngineering.com	
										mcy@mcyengineering.com	

BILL OF MATERIALS

ITEM	PART	DESCRIPTION	MATERIAL
1	10001100	HEAD/ JAMB/ FRAME	PVC
2	10001101	SILL	PVC
3	10001102	RAIL/ INTERLOCK	PVC
4	10001104	FRAME ADAPTER	PVC
5	10001105	SILL RISER	PVC
6	10001111	GLAZING BEAD	PVC
7	10001117	INTERLOCK-FIXED SASH	PVC
8	10300148	SNUBBER	ALUM.6061-T6/ ALUM.6105-T5
9	10300150	PD-LOCK STILE REINF. FULL LENGTH	ALUM.6106-T5
10	10300151	H REINF. FULL LENGTH	ALUM.6061-T6/ ALUM.6105-T5
11	10300171	G23 PD THRESHOLD	ALUMINUM
12	10001118	SCREW COVER	PVC
13	10300152	PD BOTTOM RAIL REINF.	ALUM.6005-T5/6061-T6/ 6105-T5
14	10001115	3 LITE JAMB	PVC
15		TUBE	ALUM.6061-T6
16	011H027	L BRACKET	ALUM.6063-T6
16A	623620PO	HD L BRACKET	ALUM.6063-T6
17	1005870	1X2 TRIM ANGLE	PVC
18	10001116	SASH ADAPTOR	PVC
19	100300213	ALUMINUM TRACKS / GUIDES	ALUM.6061-T6/ ALUM.6105-T5
20		LOCK SET ASSEMBLY-2817 LOCK W/ TRIMPLATE	-
21		HANDLE SET ASSEMBLY	-
22		HANDLE SET INTERIOR SWITCH	-
23		HANDLE SET INTERIOR SWITCH / KEY	-
24		HANDLE SET BLANK	-
25	1988PR5166REV55	ROLLER ASSEMBLY PRECISION 1.66" WHEEL	-
26	D6096AMWKC 0.810	DRAFT PLUG - .810 DIA.	-
27	9946	3/8" HOLE PLUG	-
28	DECU-2808-84	KEEPER - 2778 KEEPER	STAINLESS STEEL
29		SETTING BLOCK, EPDM 75 DURO.	-
30	W21255MW	WEATHER - STRIPPING - .270 X .250	-
31		#10 X 1.25" PFH - 410 SS, FOR LOCK SET	410 SS
32		#8 X 3/4" PPH - 410 SS, FOR ROLLER ASSEMBLY	410 SS
33		#8 X 1" PFH - 410 SS, FOR REINFORCEMENT TO PANEL/ L BRACKET TO SASH	410 SS
34		#8 X 5/8" PPH - 410 SS, INTERLOCK.	410 SS
35		#8 X 2" PPH - PAINTED, FOR 4 LITE ASTRAGAL.	410 SS
36		#8 X 3" PPH - 410 SS, FOR ASSEMBLY.	410 SS

YIPING WANG, P.E.
FLORIDA REGISTRATION
#55983
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ITEM	PART	DESCRIPTION	MATERIAL
37		#8 X 1.25" PPH - 410 SS, ASTRAGAL.	410 SS
38		#8 X 1.25" PFH - 410 SS, FOR SNUBBER	410 SS
39		#8 X .75" PFH - 410 SS, FOR L BRACKET TO HEAD, PAINTED	410 SS
40		#8 X 2.5" PFH - 410 SS.	410 SS
40A		#8 X 1.5" PFH - 410 SS.	410 SS
41		#8 X 1.25" PFH - 410 SS, FOR SILL RISER	410 SS
42		#8 X 2.5" PPH - 410 SS, FOR FRAME ASSEMBLY	410 SS
43		#6 X 3.75" PPH - 410 SS, FOR SCREEN KEEPER	410 SS
44	1A16719	ROLLER TRACK CAP	-
45	G-A302-Z1-G600	SILL FRAME GASKET	-
46		KEEPER GEMINI 1" TALL	-
47	DECU-2808-00	2778 KEEPER - YZD MILD STEEL	-
48	DECU-2808-84	2778 KEEPER - STAINLESS STEEL	-
49	011H040	SCREEN KEEPER	-
50	2152.525	BUMPER STOP	-
51		#8 X 2.5" PHILLIPS CS SELF DRILLING SMS, FOR IMPACT BRACKET,PAINTED.	410 SS
52	011H055	IMPACT BRACKET	NYLON
53		GEMINI II LOCK W/ 2450 TRIMPLATE	
54	011H002	1101 SILL GASKET	PE FOAM
55		1" X 1" X 1/8" TUBE	ALUM.6061-T6
56	20008052	SILL EXTENDER	PVC
57	10001183	ADAPTOR	PVC
58		ALUM. BAR 4"X0.5"	ALUM.6061-T65



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YIPING WANG, P.E.
FLORIDA REGISTRATION
#15883
D.A.N. 28677

No 55883

STATE OF
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 MCY ENGINEERING, INC. GLAZING CONSULTANTS 12781 MIRAMAR PARKWAY #301 MIRAMAR, FL 33027 P: 305.271.0117 www.MCYEngineering.com mcy@mcyengineering.com		ES V400 Viny Sliding Glass Door- Large Missile Impact		
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