

K RESEARCH & DEVELOPMENT, LLC
SPA 100 HORIZONTAL SLIDING GLASS WINDOW SYSTEM - L.M.I.

GENERAL NOTES:

- THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 8TH EDITION FLORIDA BUILDING CODE (2023) INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).
- WINDOWS RATED FOR LARGE AND SMALL MISSILE IMPACT. LMI SYSTEM TO BE USED FOR INSTALLATIONS UP TO 30 FT OF GRADE. FOR ABOVE 30 FT OF GRADE, SMI TO BE USED. IMPACT SHUTTERS ARE NOT REQUIRED.
- THIS WINDOW 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 8TH EDITION FLORIDA BUILDING CODE (2023) SECTION AS APPLICABLE.
- 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 7-22, 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.
- 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.

SEALANT:

ALL FRAME CORNERS, JOINTS, MULLION SEAMS AND PERIMETER GLAZING BEAD TO FRAME INSTALLATION FASTENERS SEALED WITH SILICONE SEALANT.

USE CHARTS AS FOLLOWS.

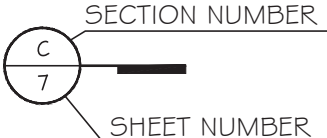
STEP 1: DETERMINE DESIGN WIND LOAD REQUIREMENTS BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7-22 STANDARD OR WIND TUNNEL REPORTS.

STEP 2: SEE SHEET E1 FOR TYPICAL WINDOW ELEVATION.

STEP 3: SEE SHEET A I FOR ANCHOR OPTIONS. SEE SHEET E I FOR NUMBER OF ANCHORS REQUIRED.

ABBREVIATIONS AND SYMBOLS

D.L.O. - DAYLITE OPENING
F.H. - FRAME HEIGHT
F.W. - FRAME WIDTH
W/ - WITH
W/O - WITHOUT
O.C. - ON CENTER

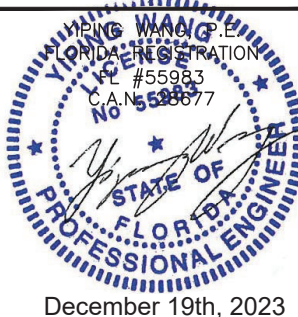


LIMITATIONS OF USE

- 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 WORKING 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 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.
- E- THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD

FLORIDA APPROVAL:

FL # 45994

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1/4" HEAT STRENGTHED GLASS

0.090" TROSIFOL PVB INTERLAYER
BY 'KURARAY AMERICA, INC'

1/4" HEAT STRENGTHED GLASS

DC 791 NEUTRAL CURE SEALANT

(25) @ 1/4 POINTS

(7)

1/2" GLASS BITE

EXTERIOR

GLASS TYPE 'G1' (L.M.I.)

9/16" NOMINAL OVERALL

NOTE:
GLASS COMPLIES WITH ASTM E 1300-09
(3 SEC. GUSTS).

YIPING WANG, P.E.
 PEIDA REGISTRATION
 No. #55983
 C.A.N.G. 23877

STATE OF FLORIDA
 PROFESSIONAL ENGINEER

December 19th, 2023

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SPA100 Sliding Glass Window SYSTEM - L.M.I.&S.M.I.
K RESEARCH & DEVELOPMENT, LLC
202 RINGLING BOULEVARD SUITE 301
SARASOTA, FLORIDA
P: (941) 266-0300 ☐

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

TYPICAL ANCHOR TYPES:
SEE ELEVATIONS FOR SPACING

TYPE "A": 1/4" DIA. ULTRACON+ BY 'DEWALT' ($F_u=164$ KSI, $F_y=148$ KSI)
DIRECTLY INTO CONCRETE
WITH 1 3/4" MIN. EMBED INTO CONCRETE

INTO 2BY WOOD BUCKS OR WOOD STRUCTURES
WITH 1 1/2" MIN. EMBED
OR THRU WOOD BUCK INTO CONCRETE OR BLOCK
WITH 1 3/4" MIN. EMBED

INTO HOLLOW BLOCK(JAMB ONLY)
WITH 1 1/4" MIN. EMBED

INTO GROUT FILLED BLOCKS(JAMB ONLY)
WITH 1 3/4" MIN. EMBED

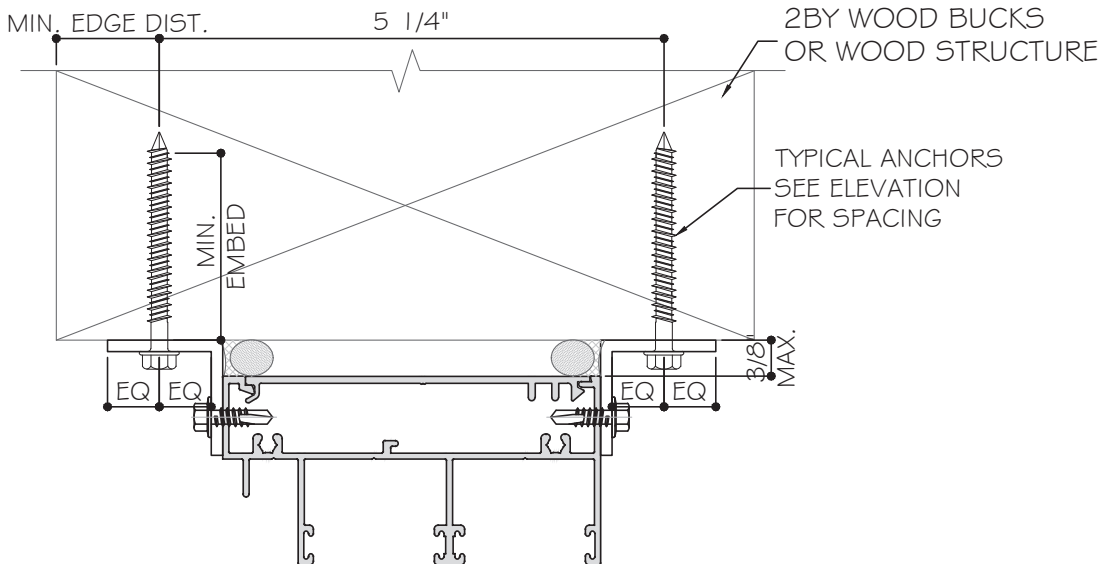
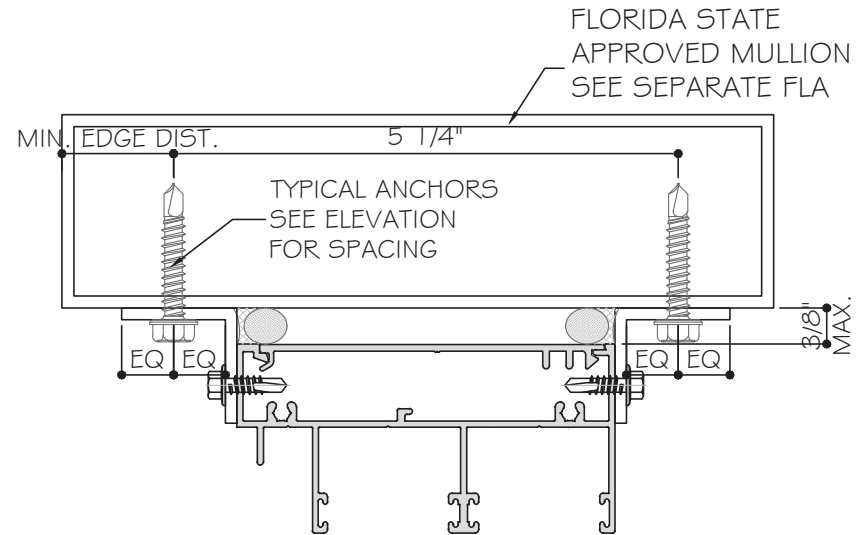
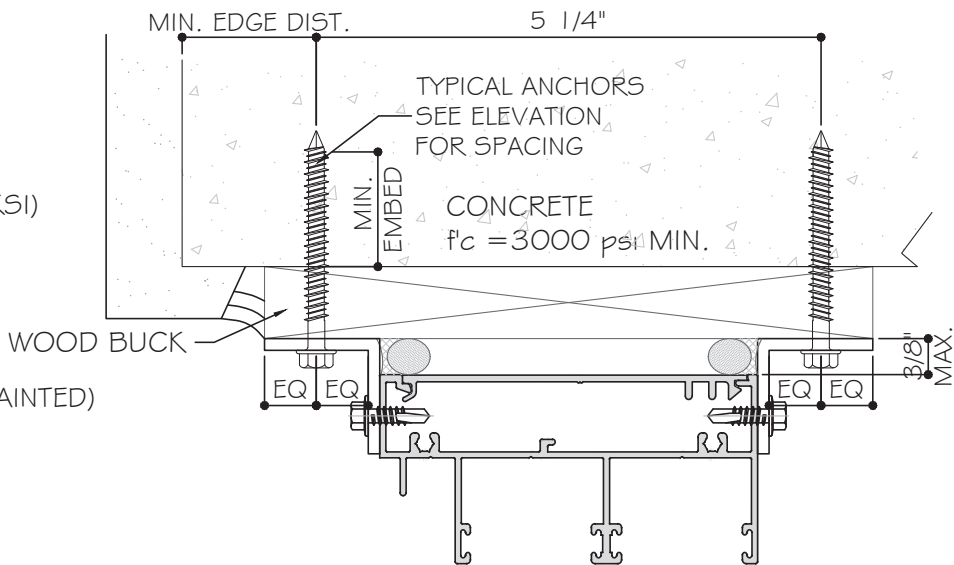
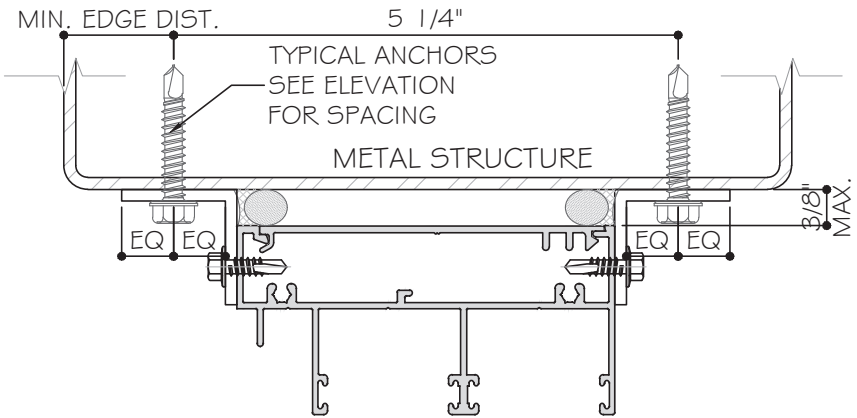
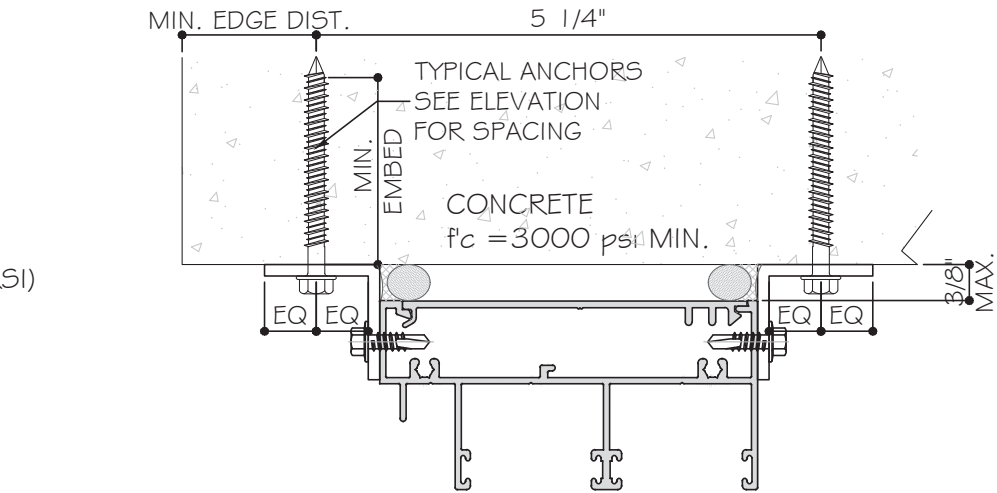
TYPE "B": 1/4" SMS ($F_u=74$ KSI, $F_y=57$ KSI)
OR SELF DRILLING SCREW(GRADE 5) ($F_u=120$ KSI, $F_y=90$ KSI)
INTO APPROVED MULLIONS
(1/8" THK. MIN.) INTO METAL STRUCTURE

STEEL: 1/8" MIN. ($F_y=36$ KSI MIN.)
ALUMINUM: 1/8" THK. MIN. (6063-T6 MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE ISOLATED OR PAINTED)

TYPICAL ANCHOR EDGE DISTANCE:
INTO CONCRETE AND MASONRY = 2 1/2" MIN.
INTO WOOD STRUCTURE = 1" MIN.
INTO METAL STRUCTURE = 3/4" MIN.

WOOD SG = 0.55 MIN.
CONCRETE $f'_c = 3000$ psi MIN.
C-90 HOLLOW/FILLED BLOCK $f'_m = 2000$ psi MIN.

GLAZING BEAD AT FRAME SILL SEALED TO GLASS WITH DOW CORNING 791.
FRAME CORNERS SEALED WITH DOW CORNING 791 OR EQUAL COMPATIBLE



1X OR 2X WOOD BUCKS AND METAL STRUCTURES BY OTHERS MUST
SUPPORT LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER
THEM TO THE BUILDING STRUCTURE.

FLORIDA APPROVAL:
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C.A.N. 559877
December 19th, 2023

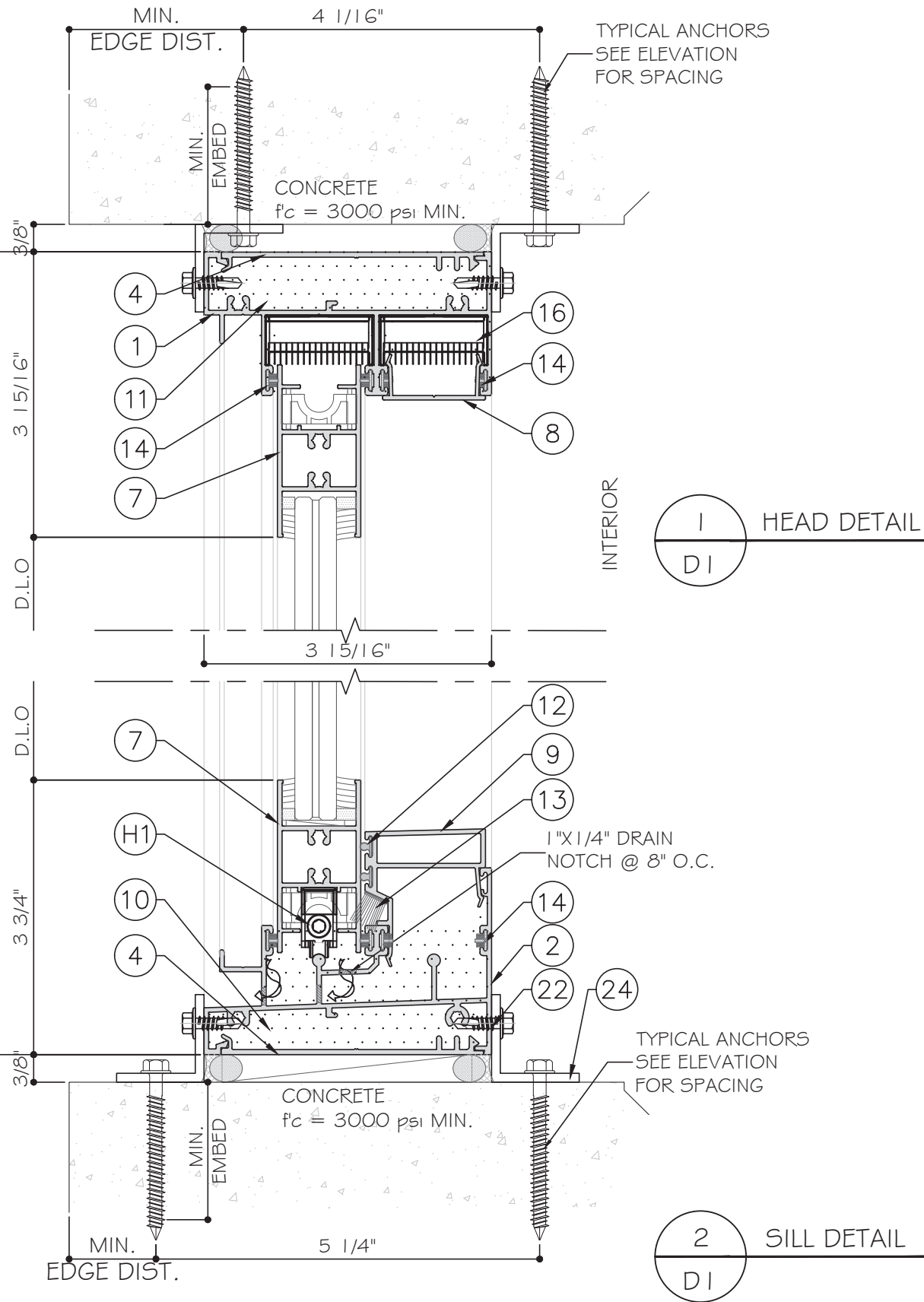
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Rev. No.	Date	Drawn By	Description
1	12.19.2023	James	NEW APPLICATION
Drawn Date 12.19.2023			
SCALE AS SHOWN			
DRAWING NO. AD23-54			
A1			
Sheet No. 3 OF 8			

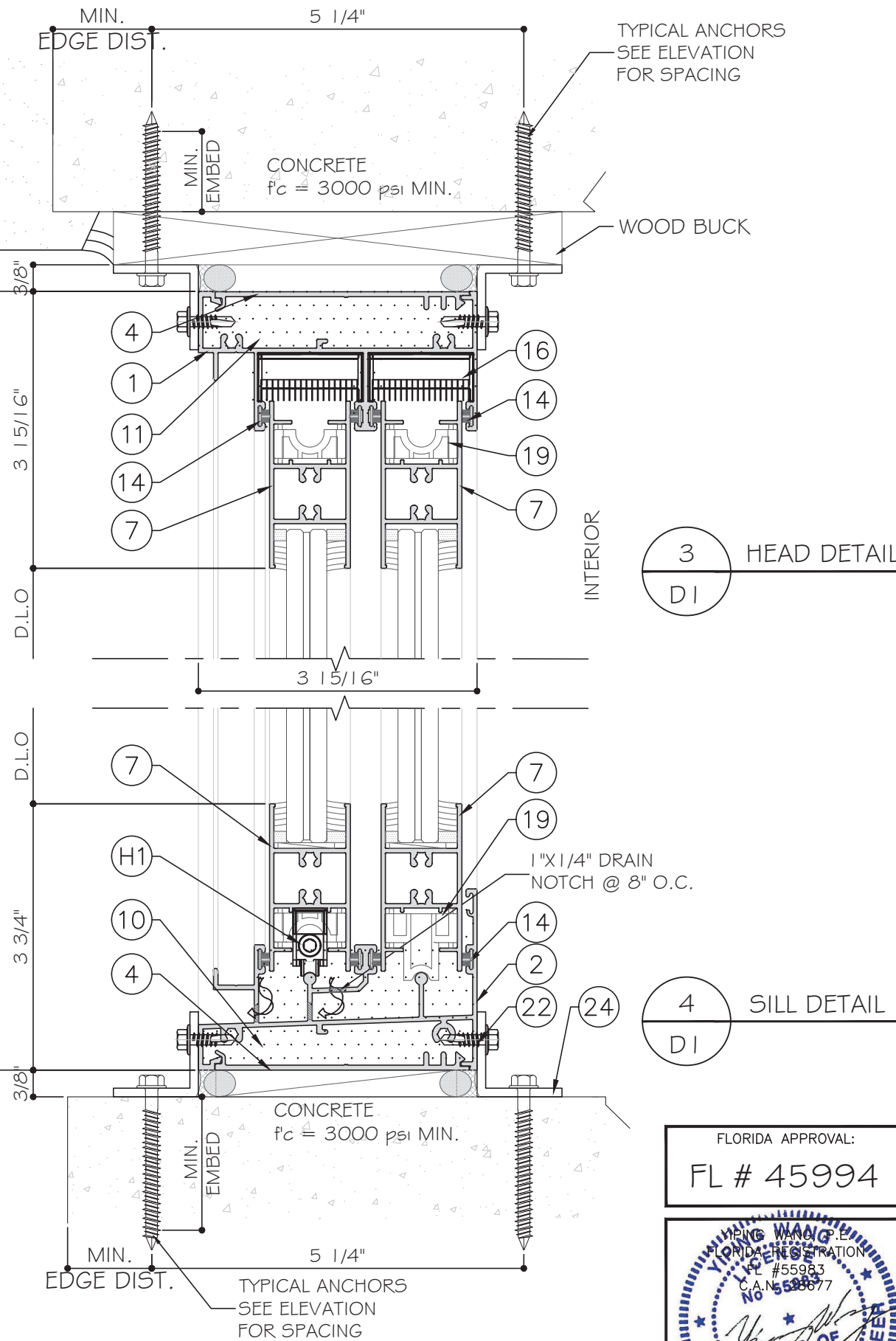
EXTERIOR

WINDOW FRAME HEIGHT



EXTERIOR

WINDOW FRAME HEIGHT



FLORIDA APPROVAL:
FL # 45994

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#55983
CAN 558677

December 19th, 2023

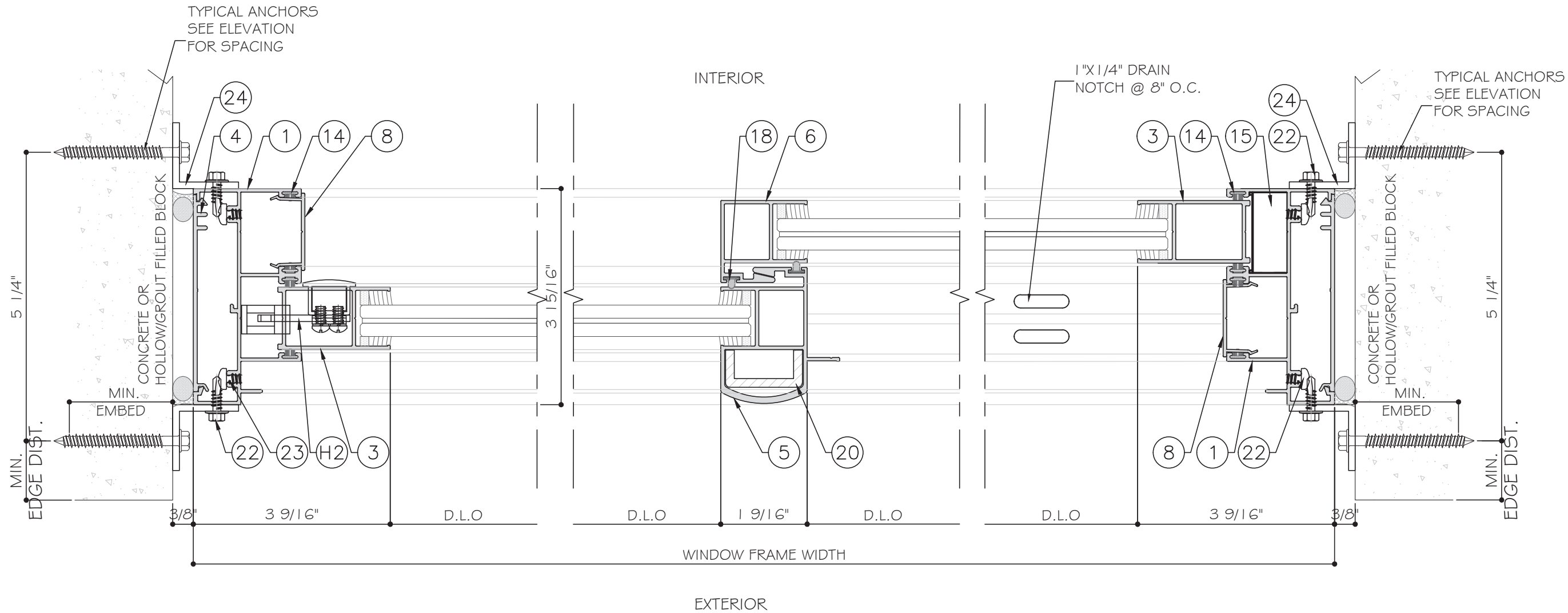
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Drawn Date: 12.19.2023
SCALE: AS SHOWN
DRAWING NO.: AD23-54
Sheet No.: 4 OF 8



1 JAMB DETAIL
D2

2 INTERLOCK DETAIL
D2

3 JAMB DETAIL
D2

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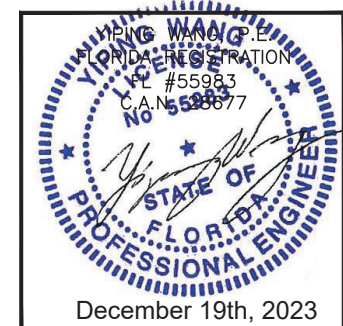
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CAN. #558677

December 19th, 2023

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Rev. No.	Date	Drawn By	Description
1	12.19.2023	James	NEW APPLICATION
D2			
5 OF 8			

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SPA100 Sliding Glass Window SYSTEM - L.M.I.&S.M.I..

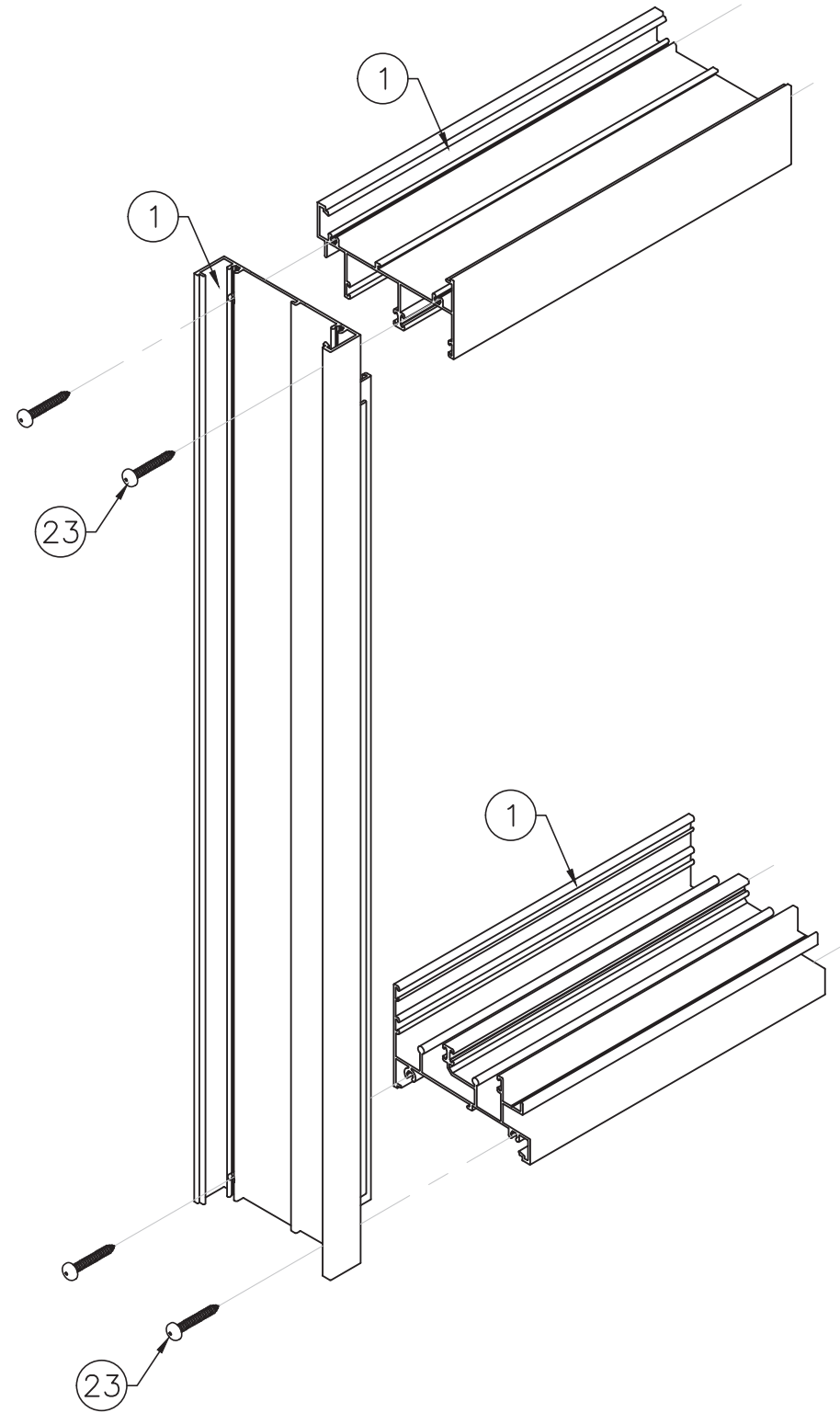
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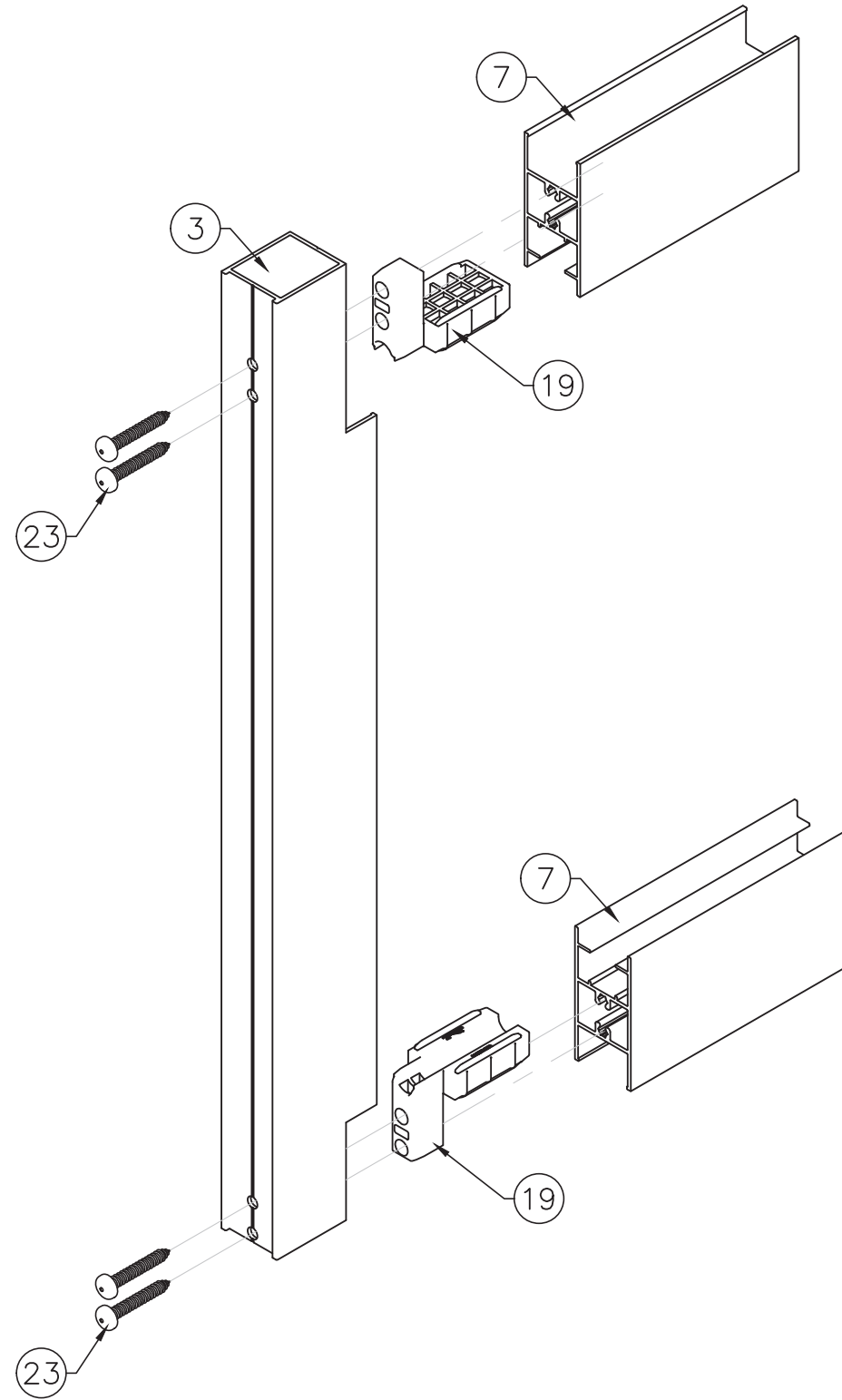
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mcj@mcengineering.com



BILL OF MATERIALS				
ITEM	PART	DESCRIPTION	MATERIAL	MANUF. / REMARKS
1	SPA10061	WINDOW FRAME	ALUM. 6063-T5	-
2	SPA10062	WINDOW TRACK	ALUM. 6063-T5	-
3	SPA10076	WINDOW STILE	ALUM. 6063-T5	-
4	SPA10007	FLUSH ADAPTOR	ALUM. 6063-T5	-
5	SPA10095	HEAVY DUTY INTERLOCK	ALUM. 6063-T5	-
6	SPA10064	STANDARD INTERLOCK	ALUM. 6063-T5	-
7	SPA10065	TOP & BOTTOM RAIL	ALUM. 6063-T5	-
8	SPA10067	FRAME ADAPTOR	ALUM. 6063-T5	-
9	SPA10170	SILL ADAPTOR	ALUM. 6063-T5	-
10	SPA10062W	3M WATERPROOF SEAL	-	-
11	SPA10061W	3M WATERPROOF SEAL	-	-
12	KS211	FOAMING GASKET(HARDNESS:9±2A)	-	-
13	8-11	PILE WEATHER STRIPPING WITH FIN(0.335"X0.445")	-	-
14	7-3.5-4	PILE WEATHER STRIPPING WITH FIN(0.268"X0.161")	-	-
15	ACSPA010	FIX PANEL STOPPER	-	-
16	ACSPA009	TOP SEALING BLOCK AND STOPPER	-	-
17	-	TYPICAL ANCHOR	-	-
18	KS201	FOAMING GASKET(HARDNESS:9±2A)	-	-
19	ACSPA027	CONNECTING AND STRUT MEMBER	-	-
20	REI-SW001	INTERLOCK REINFORCEMENT	GALVANIZED STEEL	-
22		3/16" x 5/8" TEKS SCREW, 12" O.C.		
23		3/16"(#10) TEKS ASSEMBLY SCREW	-	-
24	0325	1 3/16"X1 3/16"X1/8" THK. ALUMINUM ANGLE	6063-T6	-
25		1/16" X 3/4" SETTING BLOCK, 70-90 SHORE A DUROMETER	NEOPRENE	-
H1	-	WINDOW ROLLER	-	HOPO
H2	ALU CS NHM0030	HOOK LOCK	-	SIEGENIA
FLORIDA APPROVAL: FL # 45994 YIPING WANG P.E. FLORIDA REGISTRATION FL #55983 CAN #559877 STATE OF FLORIDA PROFESSIONAL ENGINEER December 19th, 2023 Drawn Date 12.19.2023 SCALE AS SHOWN DRAWING NO. AD23-54 BOM Sheet No. 7 OF 8				
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FRAME CORNER ASSEMBLY



SASH CORNER ASSEMBLY

FLORIDA APPROVAL:
FL # 45994

Professional Engineer Seal for YIPING WANG, P.E., State of Florida, License No. 55983. The seal includes a signature and the date December 19th, 2023.

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