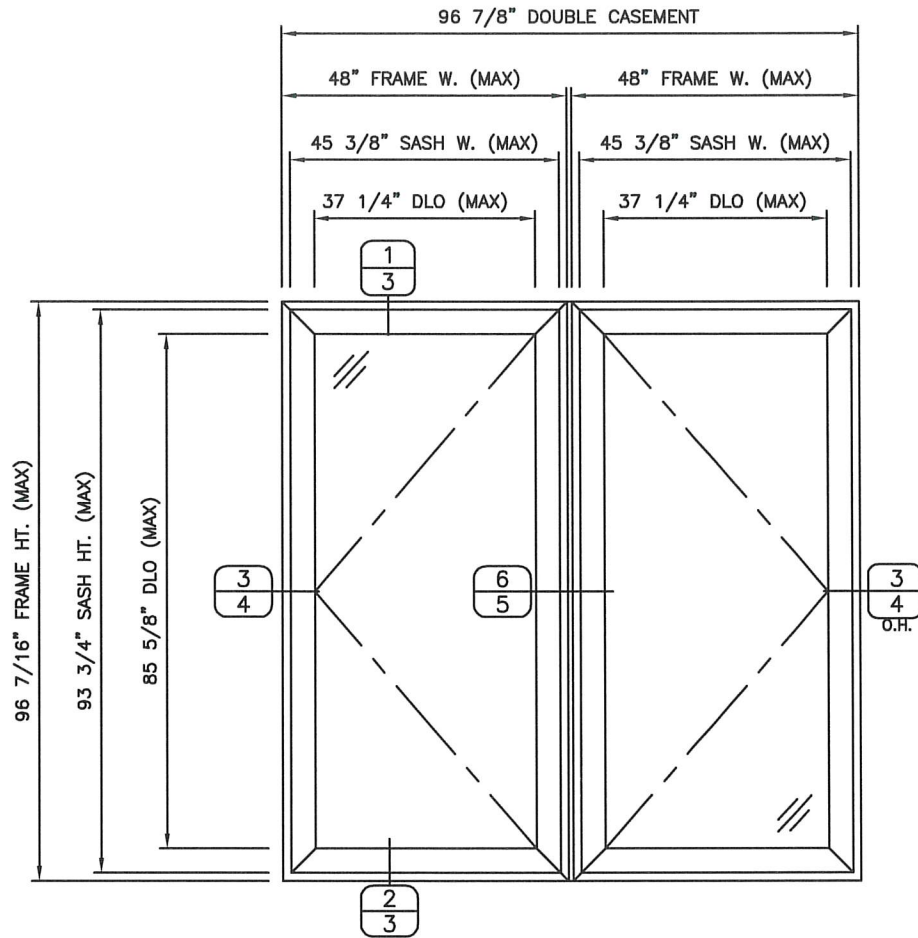


GENERAL NOTES:

1. ALLOWABLE DESIGN PRESSURE: +/- 65 PSF
2. THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO TAS 201, 202, & 203 PROTOCOLS IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE (FBC), INCLUDING THE HVHZ PROVISIONS.
3. THIS PRODUCT AS SHOWN HEREIN IS LARGE AND SMALL MISSILE IMPACT RESISTANT FOR INSTALLATIONS UP TO 30 FT ABOVE GRADE. (SHUTTERS ARE REQUIRED FOR INSTALLATIONS > 30 FT ABOVE GRADE).
4. WOOD OR MASONRY OPENINGS, BUCKS, AND BUCK FASTENERS, BY OTHERS, SHALL BE PROPERLY DESIGNED AND INSTALLED TO TRANSFER LOADS TO THE STRUCTURE.
5. ANCHOR TYPE, SIZE, SPACING, AND EMBEDMENT SHALL BE AS INDICATED IN THIS APPROVAL. ANCHOR EMBEDMENT TO SUBSTRATE SHALL BE BEYOND WALL DRESSING OR STUCCO.
6. ALL FASTENERS PENETRATING INTO PRESSURE TREATED WOOD SHALL BE CAPABLE OF PREVENTING CORROSION DUE TO REACTION WITH PRESSURE TREATMENT CHEMICALS.
7. DISSIMILAR MATERIALS THAT COME INTO CONTACT SHALL BE PROTECTED TO PREVENT GALVANIC REACTIONS.
8. NO STRESS INCREASES WERE USED IN THE DESIGN OR ANALYSIS OF THIS PRODUCT. A WIND LOAD DURATION FACTOR $C_d = 1.6$ WAS USED FOR THE ANALYSIS OF WOOD SCREWS ONLY.

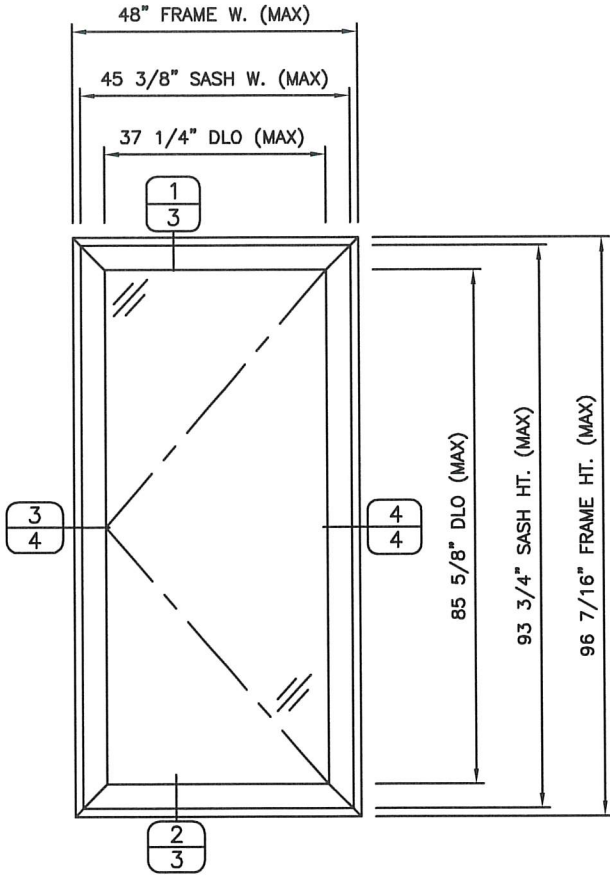
CORNER CONSTRUCTION:

9. WINDOW FRAME CORNERS ARE MITERED AND CRIMPED OVER 0687853.00 AND 0687952.00 CORNER KEYS, AND SECURED WITH REYNASEAL DUO.
10. WINDOW SASH CORNERS ARE MITERED AND CRIMPED OVER (2) 0687771.00 CORNER KEYS, SECURED WITH REYNASEAL DUO, AND SEALED WITH REYNAPROTECTOR.



DOUBLE CASEMENT WINDOW
(EXTERIOR VIEW)

DESIGN PRESSURE
+/- 65 PSF

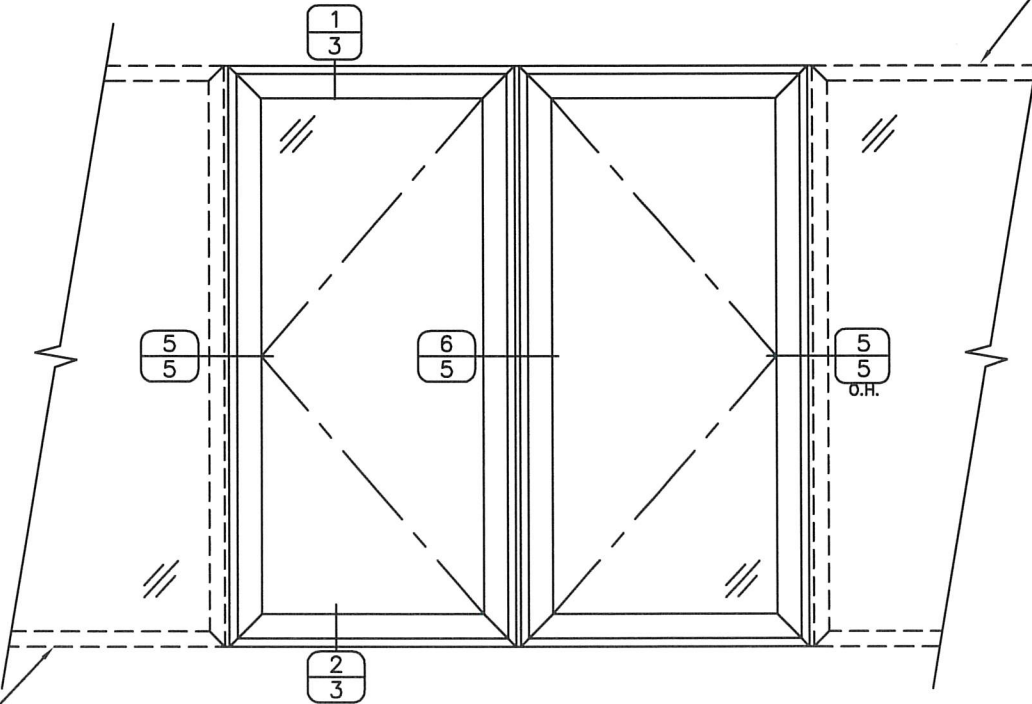


CASEMENT WINDOW
(EXTERIOR VIEW)

APPROVED WINDOW COMBINATIONS

NOTES:
1. See separate approval for CS77 Fixed Window dimensions and details.
2. Fixed and Casement Windows may be installed in unlimited overall widths, provided the individual window frames do not exceed the dimensions shown here or in separate CS77 Fixed Window approval.

OPTIONAL CS77 FIXED WINDOWS
PER SEPARATE PRODUCT APPROVAL.



DOUBLE CASEMENT WINDOW
WITH OPTIONAL FIXED SIDELITES
(EXTERIOR VIEW)

OPTIONAL CS77 FIXED WINDOWS
PER SEPARATE PRODUCT APPROVAL.

FOR FASTENER AND HARDWARE
LOCATIONS SEE SHEET 2/7.

NO.	REVISION DESCRIPTION	DATE
1	2023 CODE UPDATE	10/17/23

CS77 SERIES CASEMENT WINDOW (HVHZ)

REYNAERS, INC.

11201 N TATUM BLVD, SUITE 300
PHOENIX, AZ 85028-6039
info@reynaers.us
www.reynaers.us

SCOTT WOLTERS
FL PE# 62354

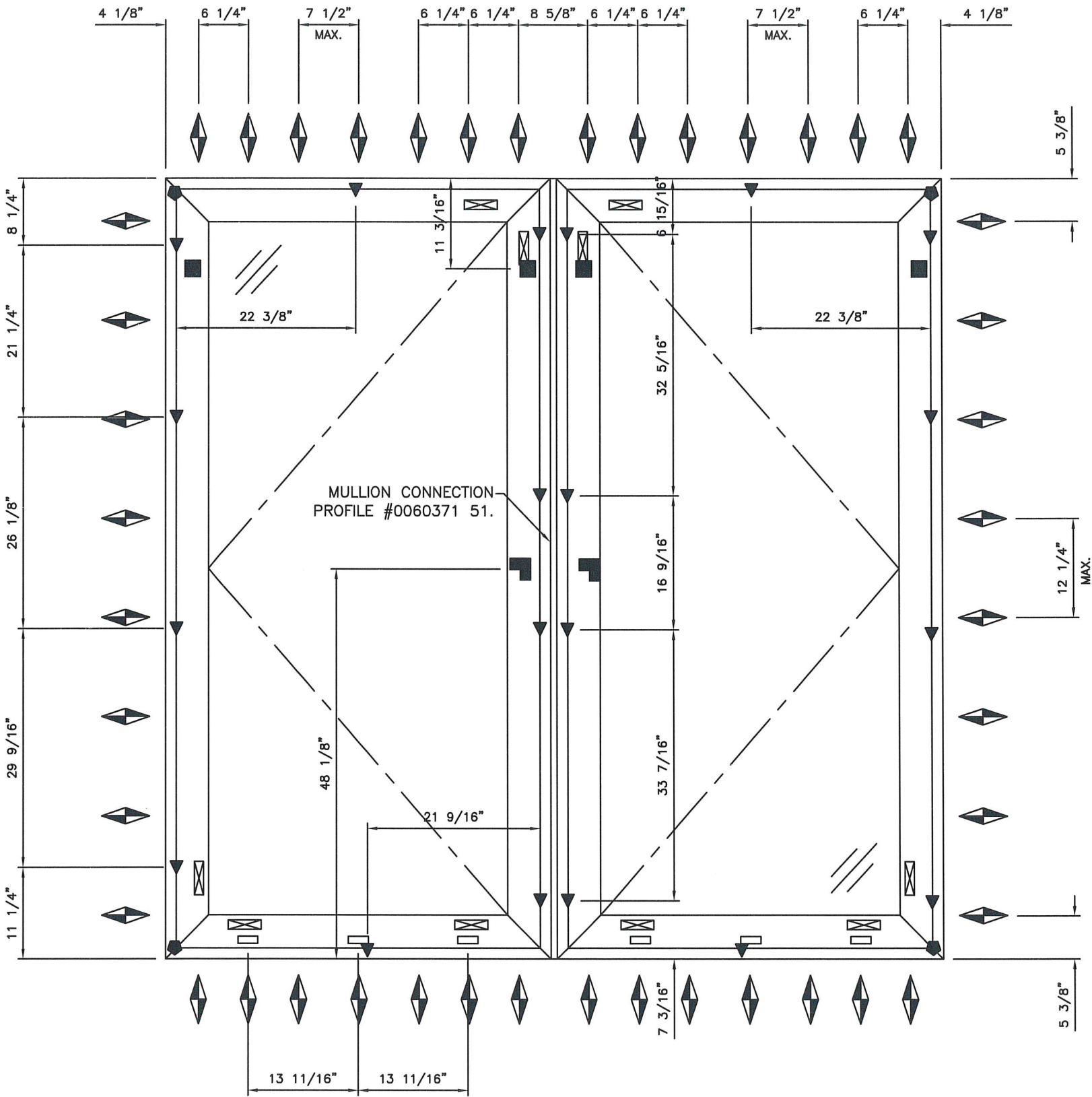
WOLTERS ENGINEERING
(COA# 27194)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412

STATE OF FLORIDA
OCT 17 2023

DRAWING NO.
CS77CASE-HZ

SHEET NO.
1 OF 7

FASTENER AND HARDWARE LOCATIONS



- SYMBOL LEGEND:**
- STRAP ANCHOR 0566016 WITH (2) FASTENERS PER FRAME ANCHOR CHART ON SHEET 6/7.
 - SOBINCO LOCKING HARDWARE, (10) PER VENT (FOR MORE INFO SEE BILL OF MATERIALS ON SHEET 7/7).
 - SOBINCO HINGES 060.9012 (LEFT) OR 060.9013 (RIGHT), (2) PER VENT.
 - SOBINCO LOCK HANDLE 060.6543.
 - WEEP SLOT AND COVER 069.6831.04, (3) PER VENT.
 - VENT DECOMPRESSION (3/16" DIA.)
 - GLASS SETTING BLOCK OR CORNER BLOCK.

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PHOENIX, AZ 85028-6039

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SCOTT WOLTERS
FL PE# 62354

WOLTERS ENGINEERING
(COA# 27184)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412

STATE OF
FLORIDA
Professional Engineer
No 62354
8/17/2023

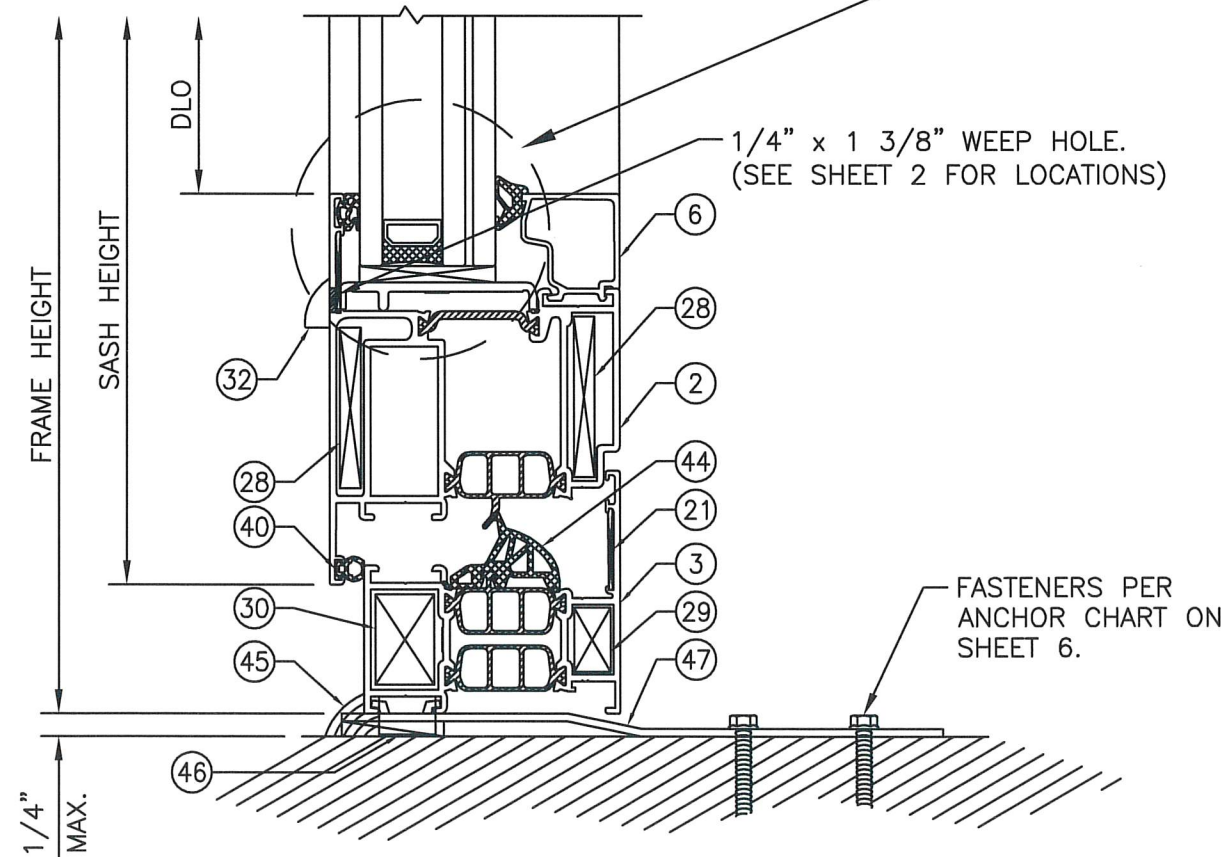
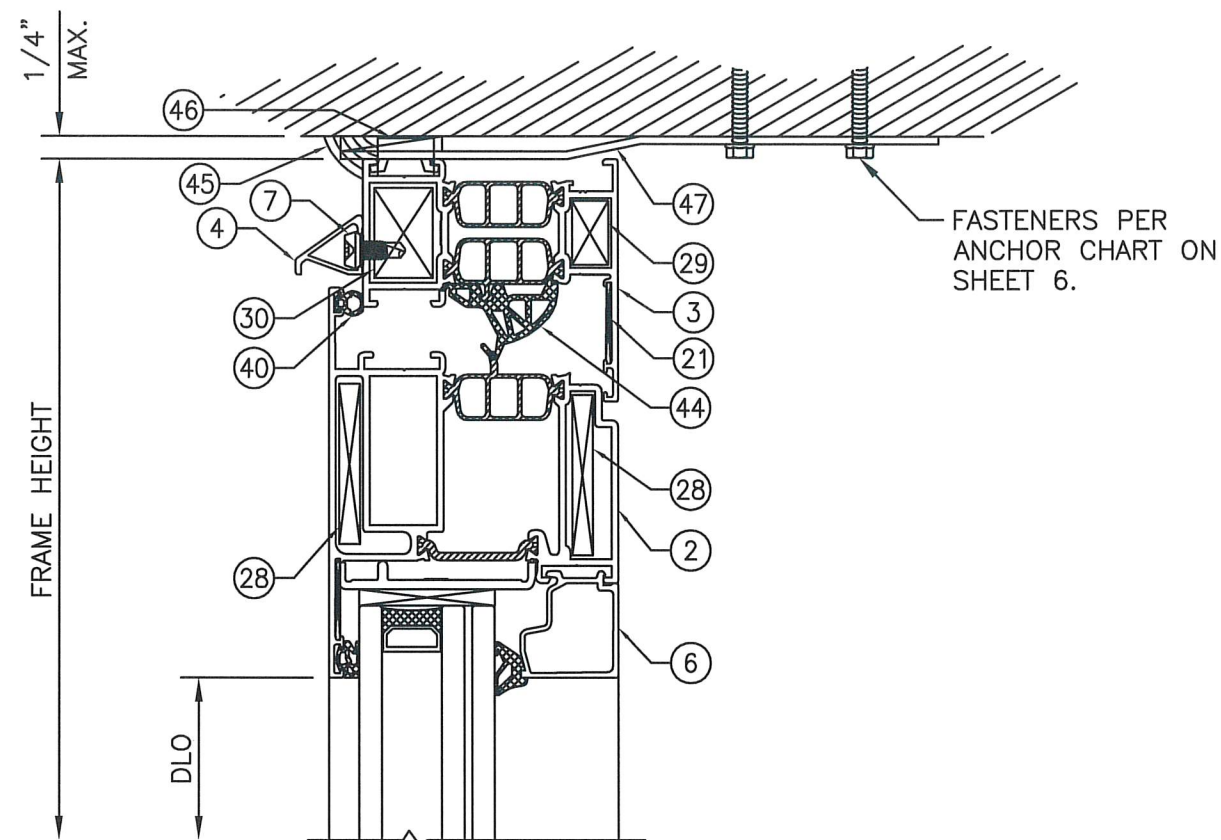
DRAWING NO.
CS77CASE-HZ

SHEET NO.
2 OF 7

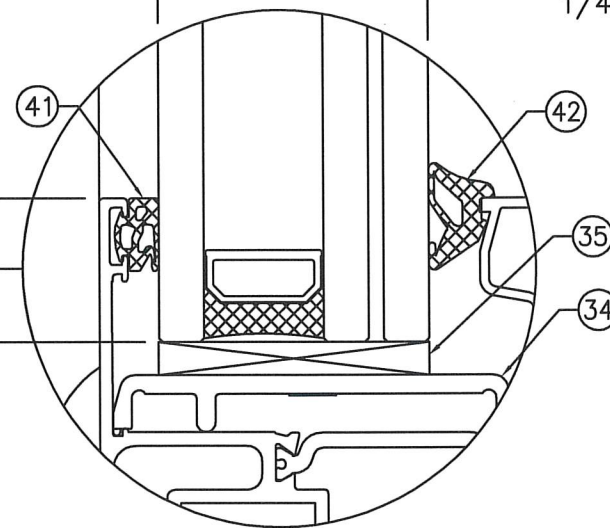
1
3

2
3

EXTERIOR



3/4" GLASS
BITE



GLAZING DETAIL

1 7/16" INSULATED LAMINATED
1/4" HEAT STRENGTHENED
5/8" AIR SPACE WITH ALUM.
SPACER (BUTYL/SILICONE
SEAL)
1/4" HEAT STRENGTHENED
0.090" SENTRYGLAS INTERLAYER
1/4" HEAT STRENGTHENED

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PHOENIX, AZ 85028-6039

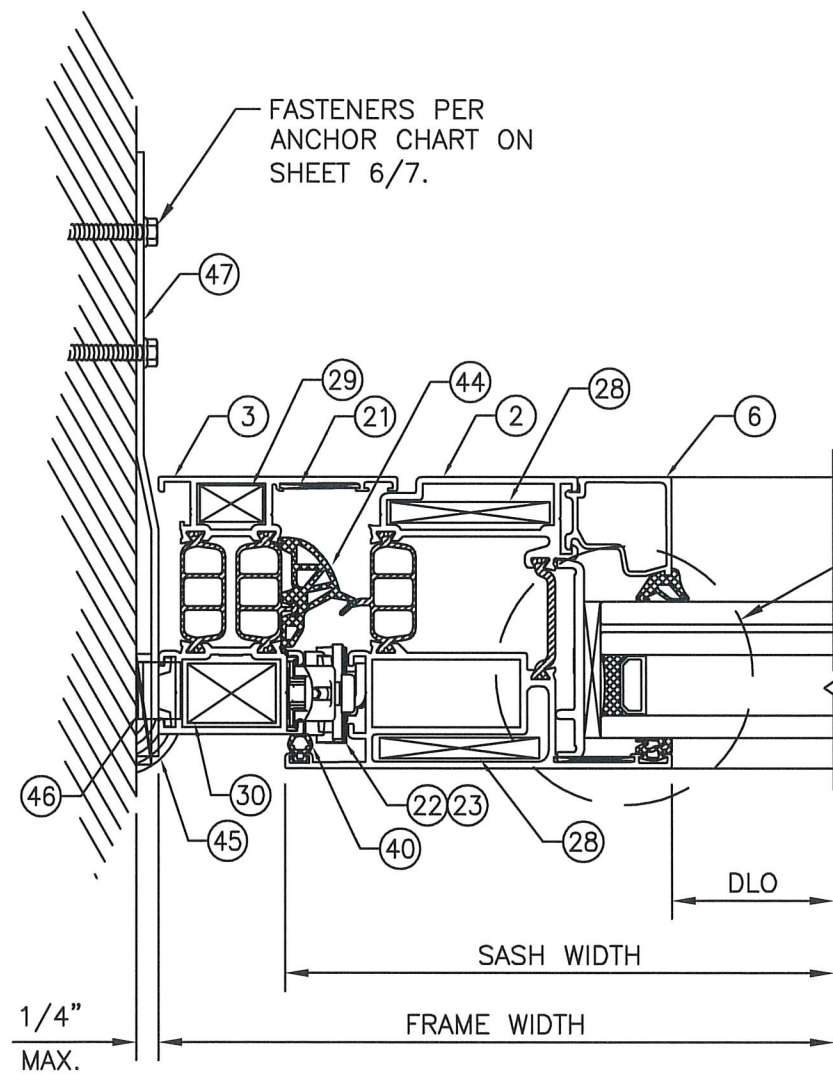
info@reynaers.us
www.reynaers.us

SCOTT WOLTERS
FL PE# 62354

WOLTERS ENGINEERING
(COA# 27180)
15211 97TH ROAD, N
WEST PALM BEACH, FL 33412

DRAWING NO.
CS77CASE-HZ

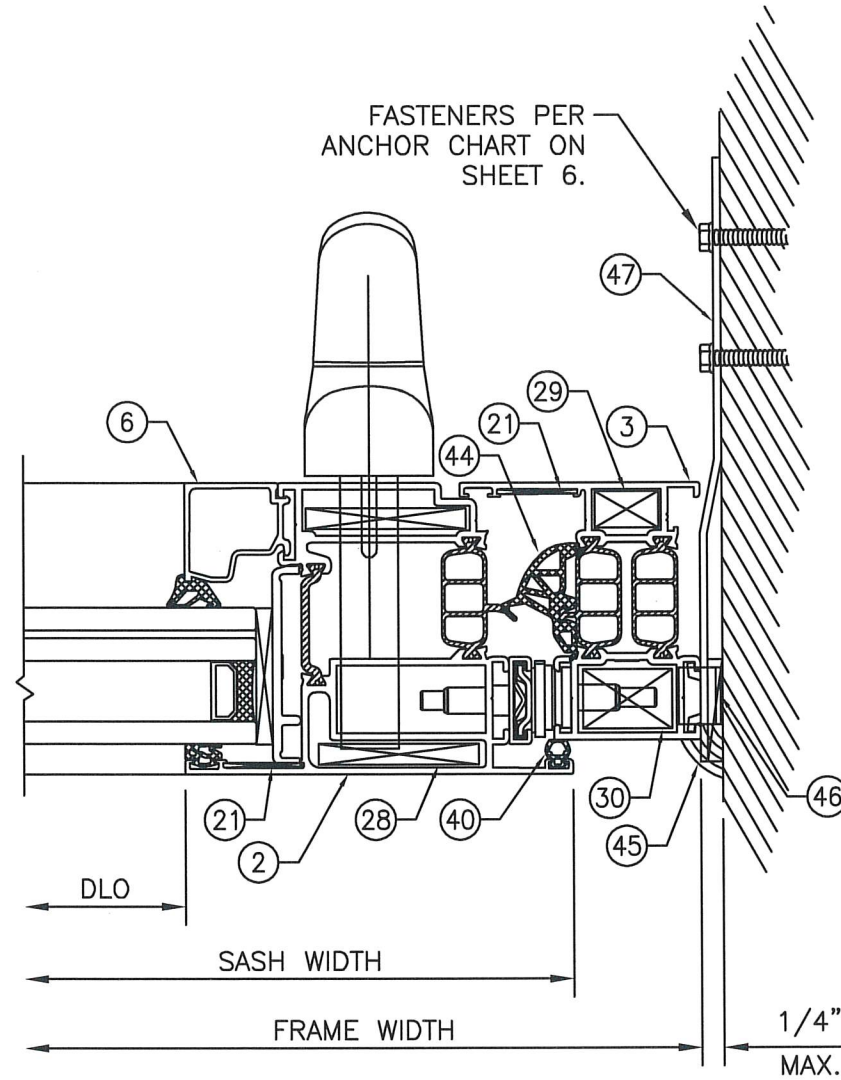
SHEET NO.
3 OF 7



SEE GLAZING DETAIL
ON SHEET 3.

EXTERIOR

3
4



4
4

NO.	REVISION DESCRIPTION	DATE
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CS77 SERIES CASEMENT WINDOW (HVHZ)

REYNAERS, INC.

11201 N TATUM BLVD, SUITE 300
PHOENIX, AZ 85028-6039

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www.reynaers.us

SCOTT WOLTERS
FL PE# 62354

WOLTERS ENGINEERING
(COA# 27194)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412

SEAL

STATE OF FLORIDA

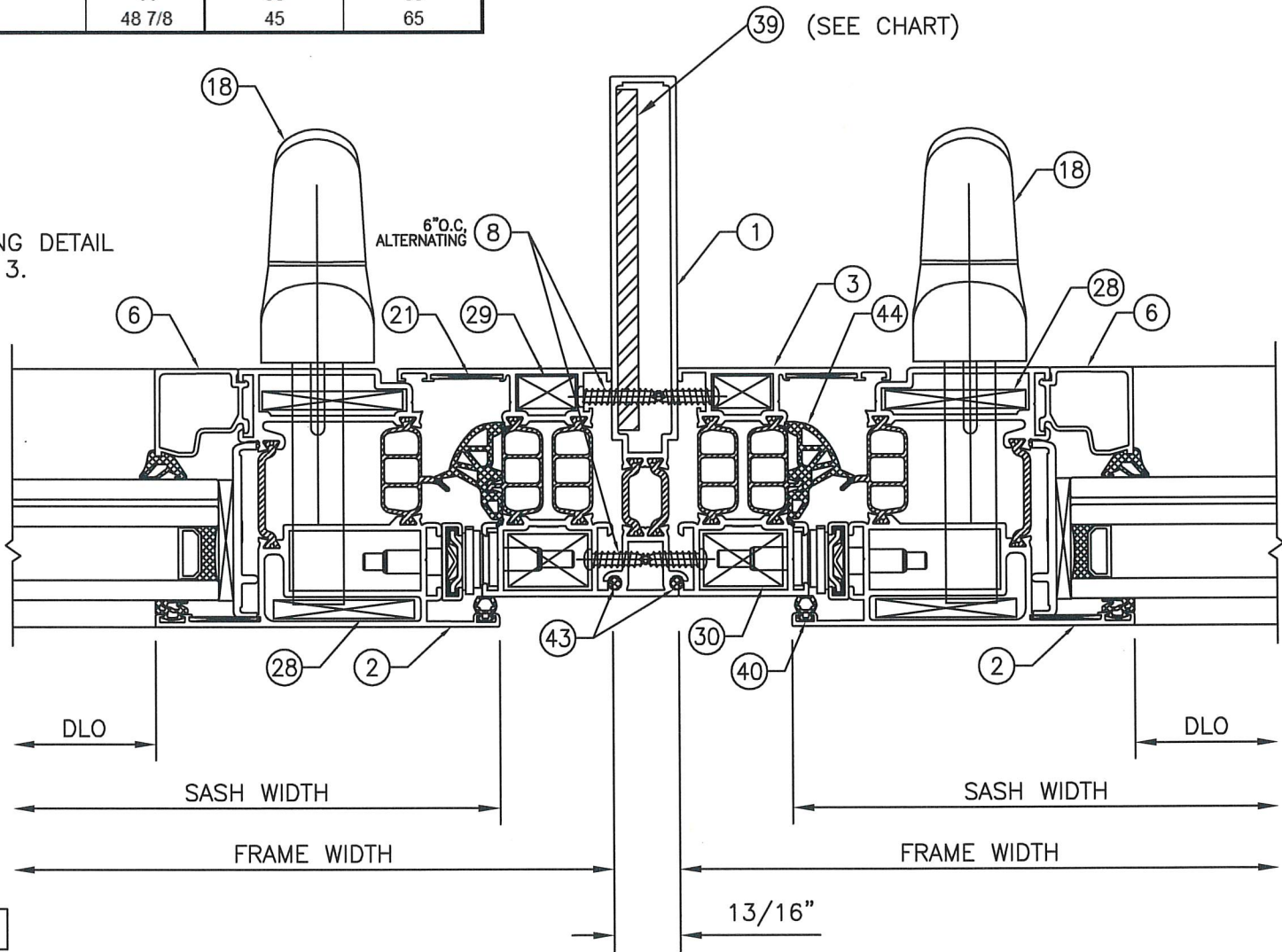
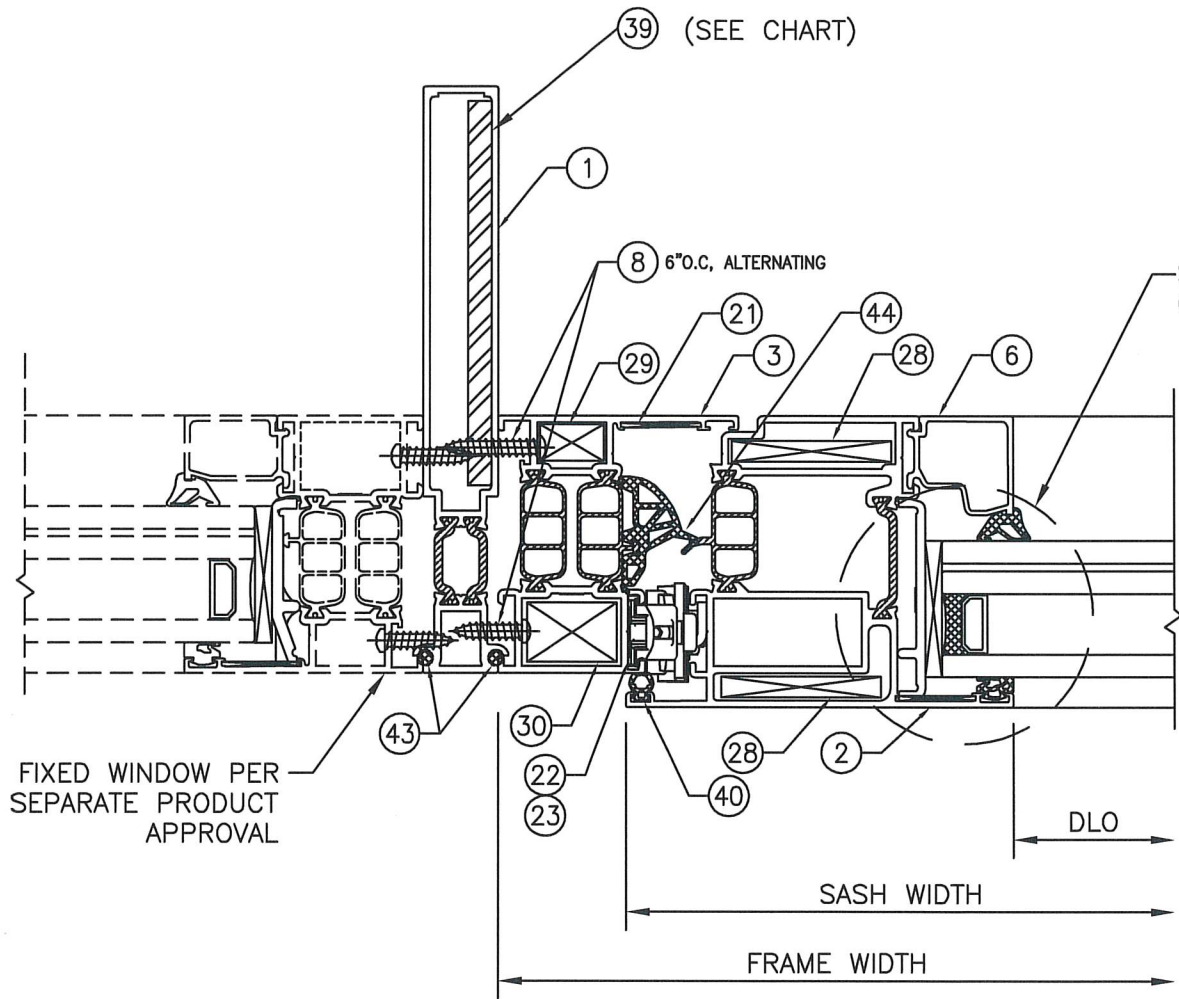
NO 62354

06117 2023

DRAWING NO.
CS77CASE-HZ

SHEET NO.
4 OF 7

MULLION ALLOWABLE DESIGN PRESSURE			
MULLION LENGTH (in)	MULLION SPACING (in)	MULLION ONLY (psf)	MULLION WITH STEEL (psf)
80	36	65	65
	42	65	65
	48 7/8	65	65
84	36	65	65
	42	65	65
	46	65	65
	48 7/8	62	65
90	36	65	65
	39	65	65
	44	60	65
	48 7/8	54	65
96	33	65	65
	36	61	65
	40	55	65
	44	50	65
	48 7/8	45	65



DATE
10/17/23

REVISION DESCRIPTION
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NO.
1

CS77 SERIES CASEMENT WINDOW (HVHZ)

REYNAERS, INC.

11201 N TATUM BLVD, SUITE 300
PHOENIX, AZ 85028-6039

info@reynaers.us
www.reynaers.us

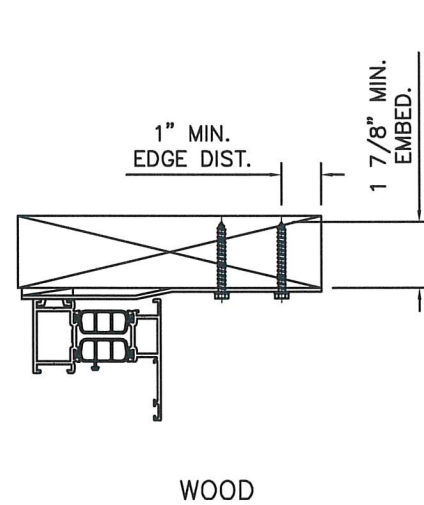
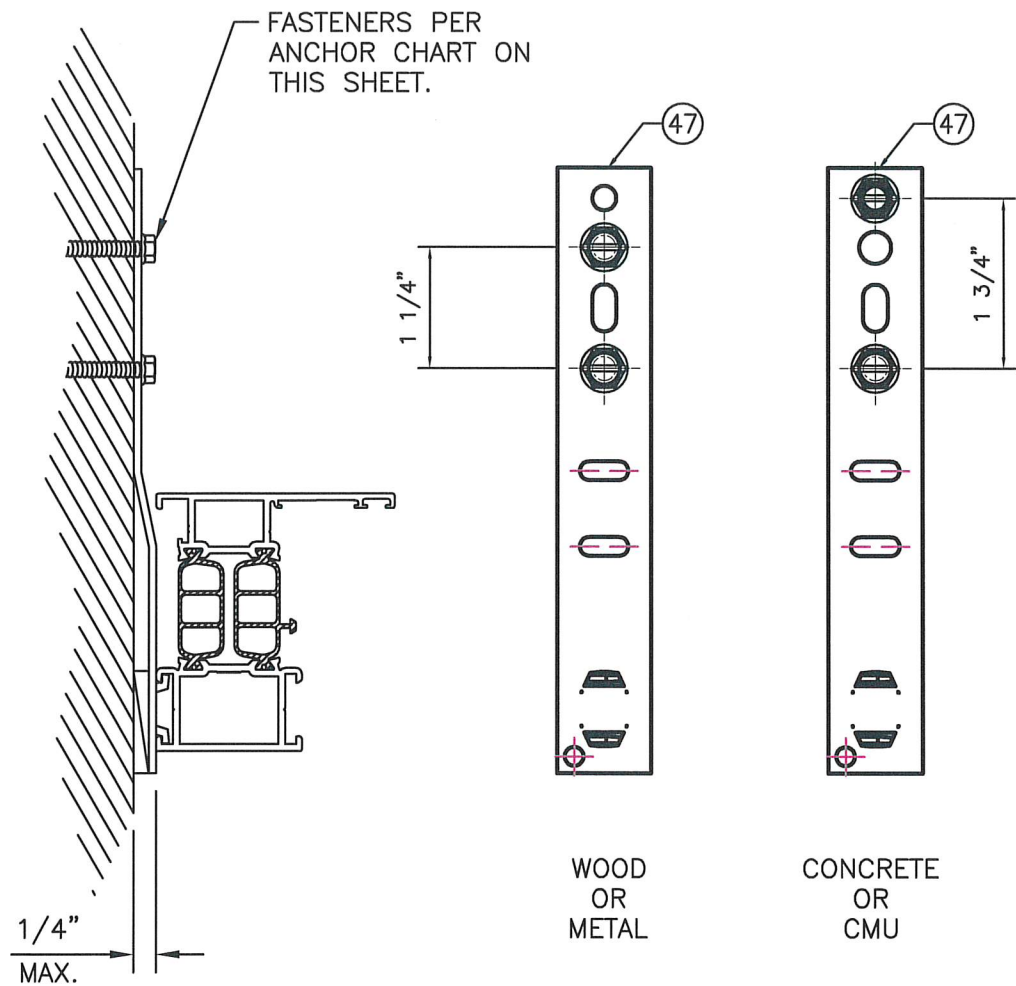
SCOTT WOLTERS
FL PE# 62354

WOLTERS ENGINEERING
(COA# 27194)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412

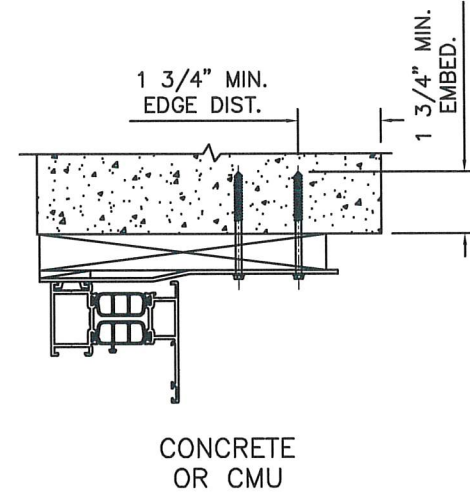
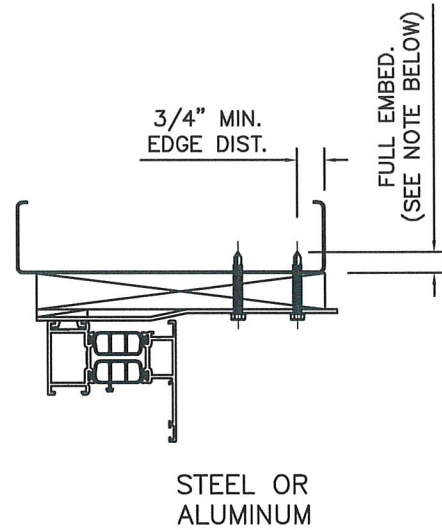
STATE OF
FLORIDA
OCT 17 2023

DRAWING NO.
CS77CASE-HZ

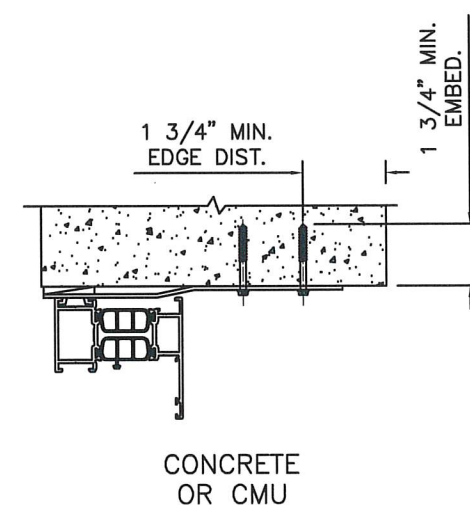
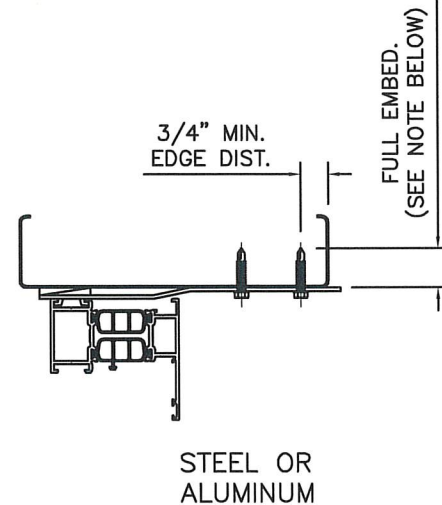
SHEET NO.
5 OF 7



TYPICAL ANCHOR CONDITIONS
(HEAD SHOWN. SILL AND JAMBS ARE SIMILAR)



TYPICAL ANCHOR CONDITIONS
WITH OPTIONAL WOOD BUCKS (1x MAX)



FRAME ANCHOR CHART:

SUBSTRATE	ANCHOR	MIN. EMBEDMENT	MIN. EDGE DISTANCE	SPACING
WOOD (2x, S.G.= 0.55 MIN)	#14 WOOD SCREW (Gr. 5 MIN)	1 7/8"	1"	1 1/4"
STEEL STUD (16 Ga, 33 KSI MIN)	1/4"-14 ITW TEKS SCREW, ELCO DRIL-FLEX, or ELCO SS BI-FLEX	FULL *	3/4"	1 1/4"
ALUM. (1/8" 6063-T5 MIN) OR STEEL (1/8", 33 KSI MIN)	1/4"-14 ITW TEKS SCREW, ELCO DRIL-FLEX, or ELCO SS BI-FLEX	FULL *	3/4"	1 1/4"
CONCRETE (3000 PSI MIN)	1/4" DIA. ITW TAPCON, ELCO ULTRACON, or ELCO SS AGGRE-GATOR	1 3/4"	1 3/4"	1 3/4"
GROUT-FILLED CMU (ASTM C90 MIN)	1/4" DIA. ITW TAPCON, ELCO ULTRACON, or ELCO SS AGGRE-GATOR	1 3/4"	1 3/4"	1 3/4"

* FULLY PENETRATES METAL WITH 3 THREADS BEYOND

CS77 SERIES CASEMENT WINDOW (HVHZ)

REVISION DESCRIPTION

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10/17/23

REYNAERS, INC.
11201 N TATUM BLVD, SUITE 300
PHOENIX, AZ 85028-6039
info@reynaers.us
www.reynaers.us



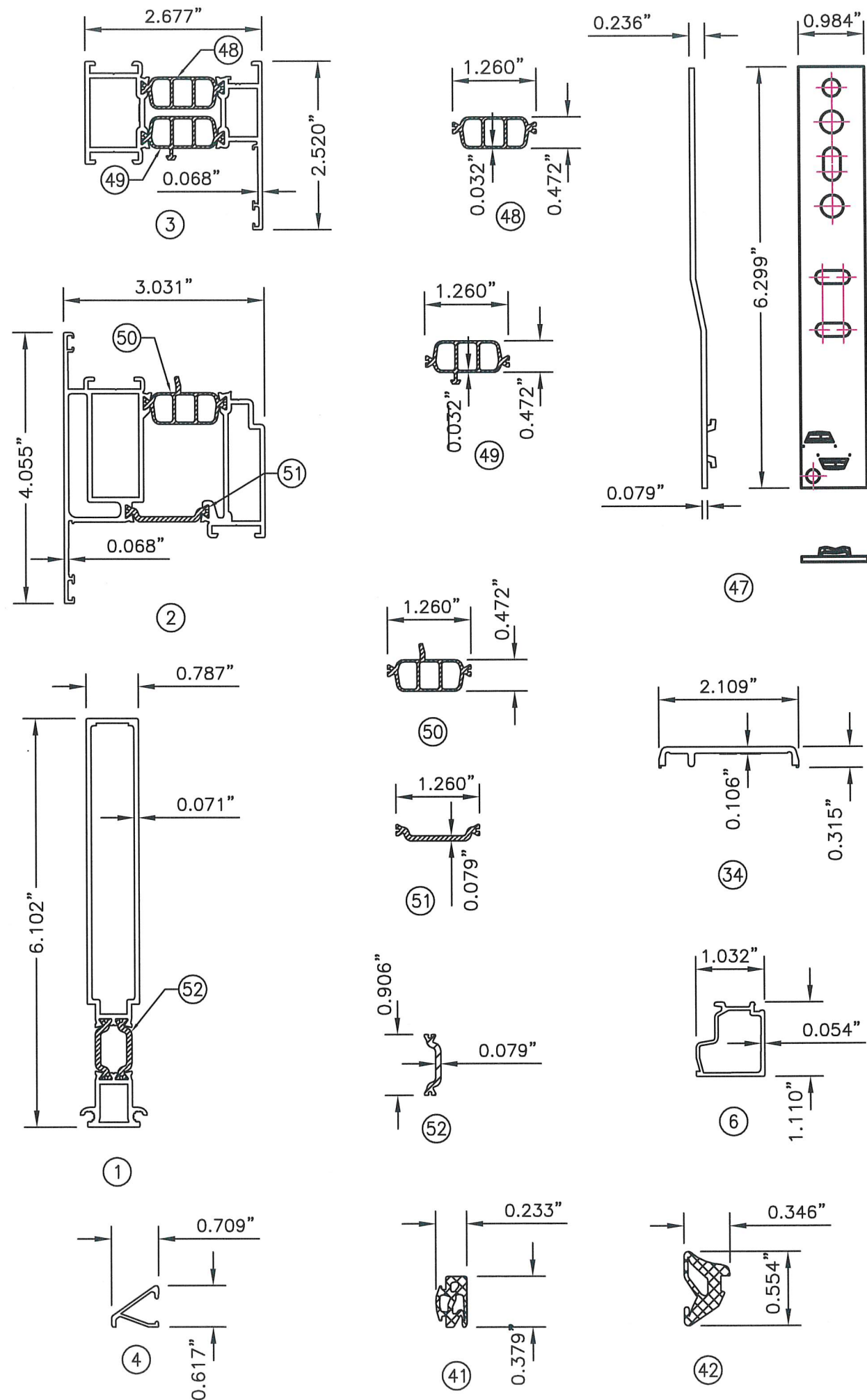
DRAWING NO.

CS77CASE-HZ

SHEET NO.

6 OF 7

Bill of Materials					
Profiles					
ID Mark	Part Number	Description	Material	Manufacturer	Notes
1	0060371.51	Connection Profile	AW 6060 T66	Reynaers	
2	0083052.51	Window Vent Outward Opening	AW 6060 T66	Reynaers	
3	0083183.51	Outer Frame 64mm	AW 6060 T66	Reynaers	
4	0300019.51	Drip cap	AW 6060 T66	Reynaers	
5	0303649.51	Glazing Bead	AW 6060 T66	Reynaers	
6	0303647.51	Glazing Bead	AW 6060 T66	Reynaers	
Accessories and Hardware					
ID Mark	Part Number	Description	Material	Manufacturer	Notes
7	0215169.--	Screw Self-Drilling M5x11	stainless steel	Reynaers	
8	0525310.--	st-Screw din 7981 Inox 4.2x16	stainless steel	Nestinox	
9	0525327.--	Screw DIN 7982 Inox 4.2x25	stainless steel	Fabory	
10	0606007.--	Adjustment rod 400mm	PA6	Sobinco	
11	0606010.--	Adjustment rod 250mm	PA6	Sobinco	
12	0606013.--	Adjustment rod 400mm	PA6	Sobinco	
13	0606014.--	Connecting rod 365mm	PA6	Sobinco	
14	0606016.--	Connecting rod 160mm	PA6	Sobinco	
15	0606042.--	Lock Plate	zinc, stainless steel	Sobinco	
16	0606107.--	Adjustment rod 60mm	aluminum	Sobinco	
17	0606150.--	Connecting rod 110mm	PA6	Sobinco	
18	0606543	Handle		Sobinco	
19	0607161.--	Drive plate set outward opening		Sobinco	
20	0607162.--	Restrictor set outward opening		Sobinco	
21	0608746.00	Rebate Support 16.4x3.5	Zamac 5	Pedeo	
22	0609012.--	Hinge Side Tuti Left 671<fb<1300		Sobinco	
23	0609013.--	Hinge Side Tuti Right 671<fb<1300		Sobinco	
24	0609016.--	Reinforcement set Invision fg >130kg	Aluminum, stainless steel	Sobinco	
25	0609204.--	Central closure safe	zamac 5, stainless steel	Sobinco	
26	0609205.--	Central closure safe	zamac 5, stainless steel	Sobinco	
27	0609710.--	Handle side TUTI burglar protection		Sobinco	
28	0687771.00	Crimp Corner Cleats 10.3x43.8	die cast alu	Monticelli	
29	0687853.00	Crimp Corner Cleat 17.85x10.45	die cast alu	Monticelli or Fratelli	
30	0687952.00	Corner Cleat 26.05x17.4	die cast alu	Fratelli Comunello	
31	0696660.04	end Piece 030.0019.xx	PA	Stockplastics	
32	0696831.04	Weep hole cover	ASA	Custers kunststoffen or	
33	0698704.01	Glass Support	POM	Custers kunststoffen	
34	0698748.01	Glass Support	POM	Custers kunststoffen	
35		Glass Setting Block/Corner Block	Neoprene		(2)/Sill, (1)/ea. Jamb, (1)/Head
36	0849108.--	Reynafix	synthetic rubber	Novatio	
37	0869208.SY	Reynaprotector	silicone	Weiss Chemie + Technik	
38	0849080.--	Reynaseal duo	Cosmofen duo	Weiss Chemie + Technik	
39		1/4" x 4" Steel Reinforcing	Steel (Galv. or Primer finish)		
Gaskets					
ID Mark	Part Number	Description	Material	Manufacturer	Notes
40	0808442.04	Acoustic Gasket	EPDM + cellular EPDM	Polecex	
41	8809114.04	Outer Glazing Gasket	EPDM	Polecex	
42	8809126.04	Inner Glazing Gasket	EPDM	Polecex	
43	0809381.04	Gasket 4.3mm	EPDM foam	Polecex	Install with Sealant
44	8809657.04	Central Gasket	EPDM	Polecex	
Building Connection					
ID Mark	Part Number	Description	Material	Manufacturer	Notes
45		Silicone DC 790	silicone	Dow Corning	
46		Illmod 600 15/5-10mm	PU foam	Tremco Illbruck	
47	0566016.--	Fixing lug	low carbon galvanized steel	MS Decoupe	
Thermal Breaks					
ID Mark	Part Number	Description	Material	Manufacturer	Notes
48	000.0865.04	Frame Thermal Brake	Tecatherm 66 GF	Ensinger	
49	000.0866.04	Frame Thermal Break	Tecatherm 66 GF	Ensinger	
50	000.0867.04	Sash Thermal Break	Tecatherm 66 GF	Ensinger	
51	000.0891.04	Sash Thermal Break	Tecatherm 66 GF	Ensinger	
52	000.0840.04	Mullion Thermal Break	Tecatherm 66 GF	Ensinger	



		CS77 SERIES CASEMENT WINDOW (HVHZ)			
SCOTT WOLTERS FL PE# 62354		REYNAERS, INC.			
WOLTERS ENGINEERING (COA# 27194) 15211 97TH ROAD N WEST PALM BEACH, FL 33412		11201 N TATUM BLVD, SUITE 300 PHOENIX, AZ 85028-6039		info@reynaers.us www.reynaers.us	
DRAWING NO.		CS77CASE-HZ			
SHEET NO.		7 OF 7			