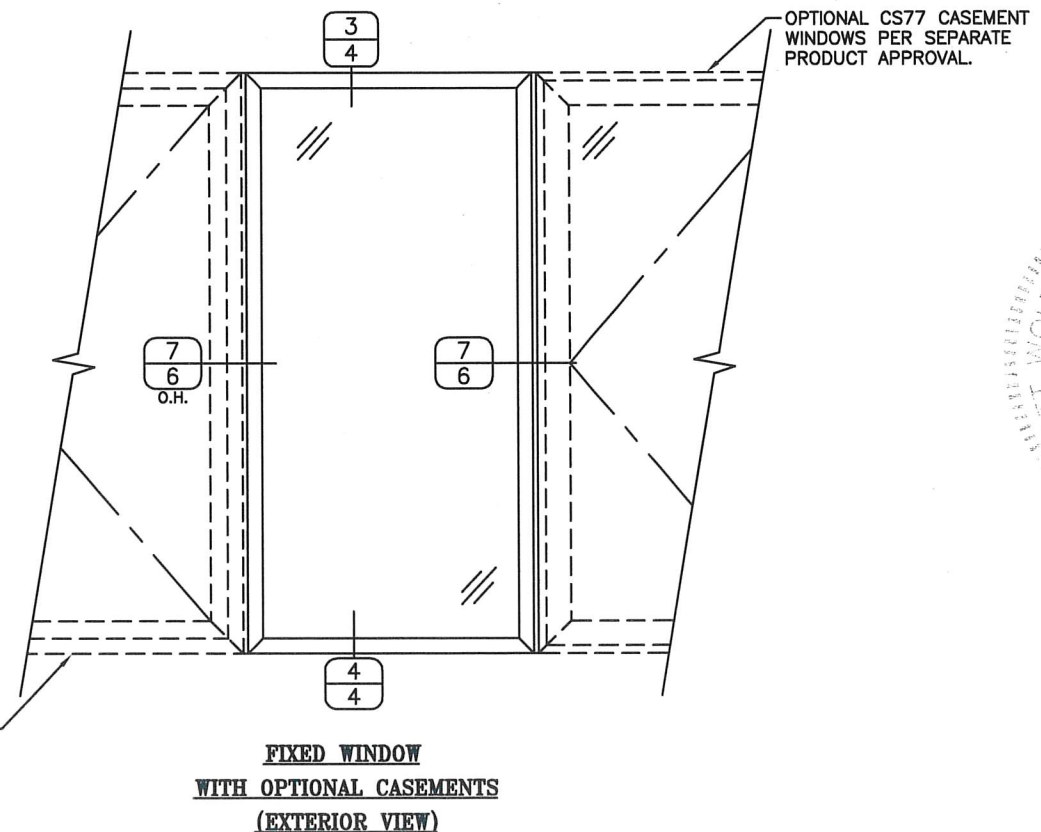
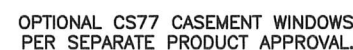
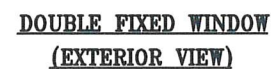


1. ALLOWABLE DESIGN PRESSURE: +/- 65 PSF
2. THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO TAS 201, 202, & 203 PROTOCOLS IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE (FBC), FOR USE OUTSIDE OF THE HVHZ.
3. THIS PRODUCT AS SHOWN HEREIN IS LARGE AND SMALL MISSILE IMPACT RESISTANT, SHUTTERS ARE NOT REQUIRED IN WINDBORNE DEBRIS REGIONS.
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.

9. WINDOW FRAME CORNERS ARE MITERED AND CRIMPED OVER 0687853.00 AND 0687952.00 CORNER KEYS, AND SECURED WITH REYNASEAL DUO.

DESIGN PRESSURE
+/- 65 PSF



OPTIONAL CS77 CASEMENT
WINDOWS PER SEPARATE
PRODUCT APPROVAL.

		CS77 SERIES FIXED WINDOW		REYNAERS, INC. info@reynaers.us www.reynaers.us	
SCOTT WOLTERS FL PE# 62354		CS77 SERIES FIXED WINDOW		NO. 1	
WOLTERS ENGINEERING (COA# 27194) 15211 97TH ROAD N. WEST PALM BEACH, FL 33412		11201 N TATUM BLVD, SUITE 300 PHOENIX, AZ 85028-6039		REVISION DESCRIPTION 2023 CODE UPDATE	
DRAWING NO.		CS77FIXLMI		DATE	
SHEET NO.		1 OF 8		10/17/23	

Technical drawing of a rectangular frame assembly. The drawing shows a central rectangular frame with a diagonal line indicating a break or a specific orientation. The frame is surrounded by a border. Dimensions and mounting points are indicated as follows:

- Top Dimension:** A horizontal dimension line at the top indicates a distance of $5 \frac{3}{4}"$ from the left edge to the first mounting point.
- Top Mounting Points:** Four diamond-shaped mounting points are located along the top edge. The distance between the first and second mounting points is labeled $13 \frac{3}{4}"$ MAX.
- Right Side Dimension:** A vertical dimension line on the right indicates a distance of $6 \frac{7}{8}"$ from the top edge to the first mounting point.
- Right Side Mounting Points:** Six diamond-shaped mounting points are located along the right edge. The distance between the second and third mounting points is labeled $13" \text{ MAX.}$.
- Bottom Mounting Points:** Four diamond-shaped mounting points are located along the bottom edge. The distance between the first and second mounting points is labeled $15 \frac{9}{16}"$ MAX.
- Bottom Dimension:** A horizontal dimension line at the bottom indicates a distance of $15 \frac{9}{16}"$ MAX. between the first and second mounting points.
- Left Side Mounting Points:** Six diamond-shaped mounting points are located along the left edge.
- Internal Features:** The frame has a central rectangular area with a diagonal line. There are small rectangular features at the corners and along the edges, possibly representing fasteners or mounting brackets.

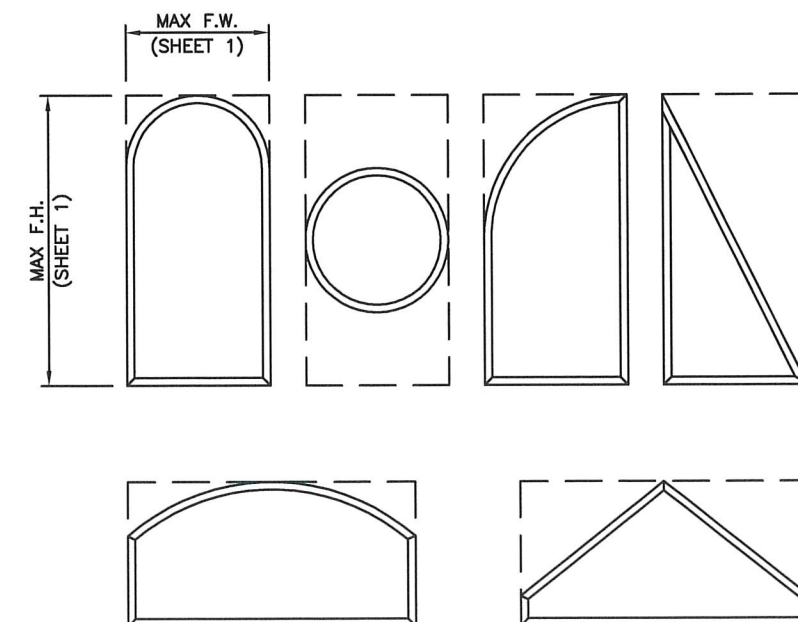
 STRAP ANCHOR 0566016 WITH (2) FASTENERS PER FRAME
ANCHOR CHART ON SHEET 7.

 WEEP SLOT AND COVER 069.6831.04, (3) PER VENT FOR FRAME
WIDTHS $\leq 48"$. FOR FRAME WIDTHS $> 48"$, LOCATED $7 \frac{1}{2}"$
FROM CORNERS AND $15 \frac{9}{16}"$ MAX. O.C.

 FIXED FRAME DECOMPRESSION (3/16" DIA.)

 GLASS SETTING BLOCK OR SIDE BLOCK.
(SETTING BLOCKS AT $1/4$ POINTS, (2) PER LITE)

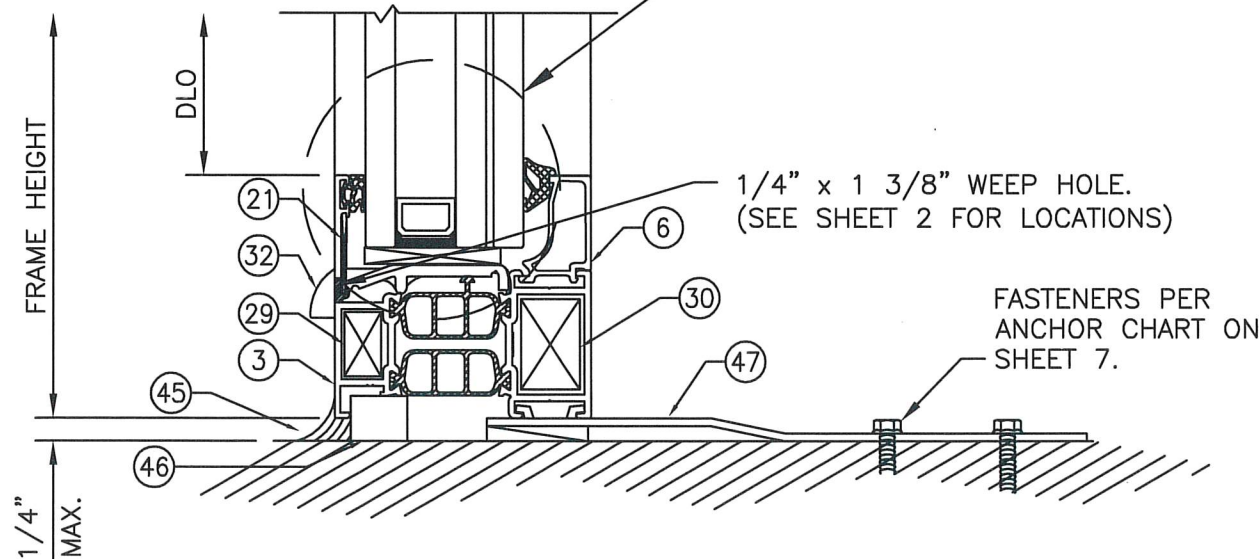
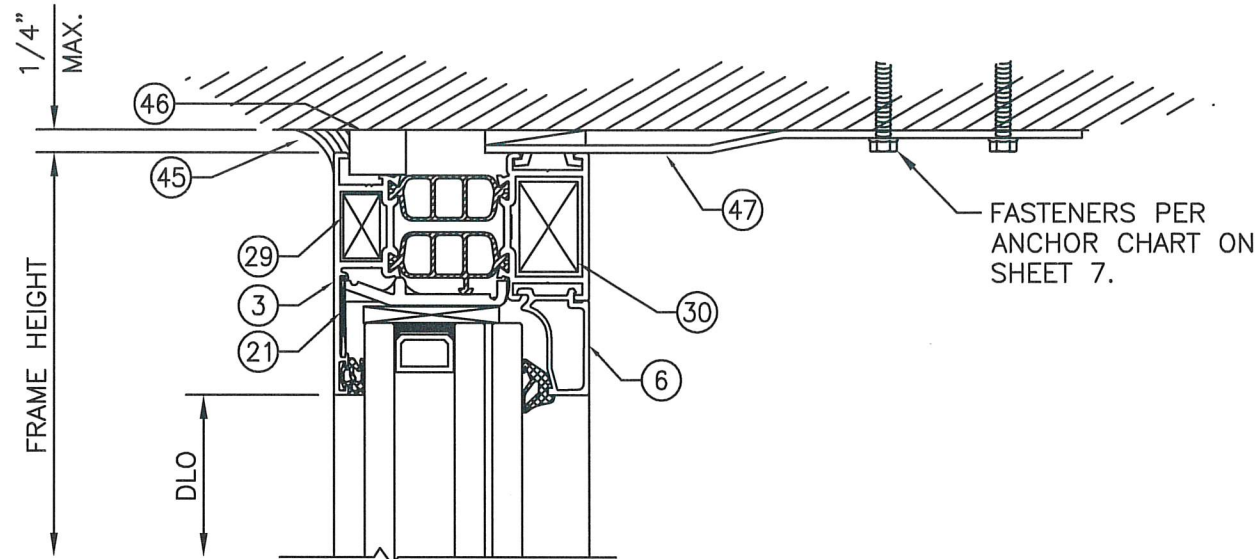
Alternate window shapes, including but not limited to those shown below, are approved for use provided they fit inside the overall frame dimensions shown on Sheet 1.

[illegible]

1
3

2
3

EXTERIOR

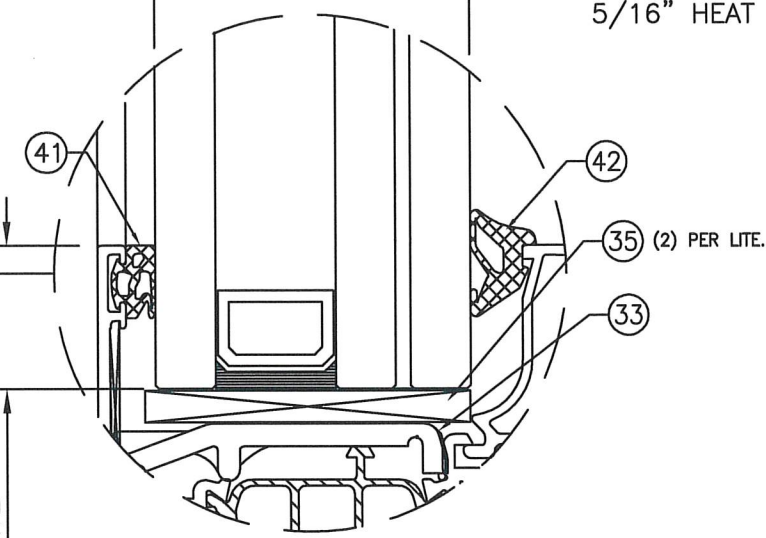


3/4" GLASS
BITE

GLAZING DETAIL

GLASS TYPE 1

1 11/16" INSULATED LAMINATED
5/16" HEAT STRENGTHENED
5/8" AIR SPACE WITH ALUM.
SPACER (BUTYL/SILICONE
SEAL)
5/16" HEAT STRENGTHENED
0.090" SENTRYGLAS INTERLAYER
5/16" HEAT STRENGTHENED



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CS77 SERIES FIXED WINDOW

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
(CO.# 27184)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412

DRAWING NO.

CS77FIXLMI

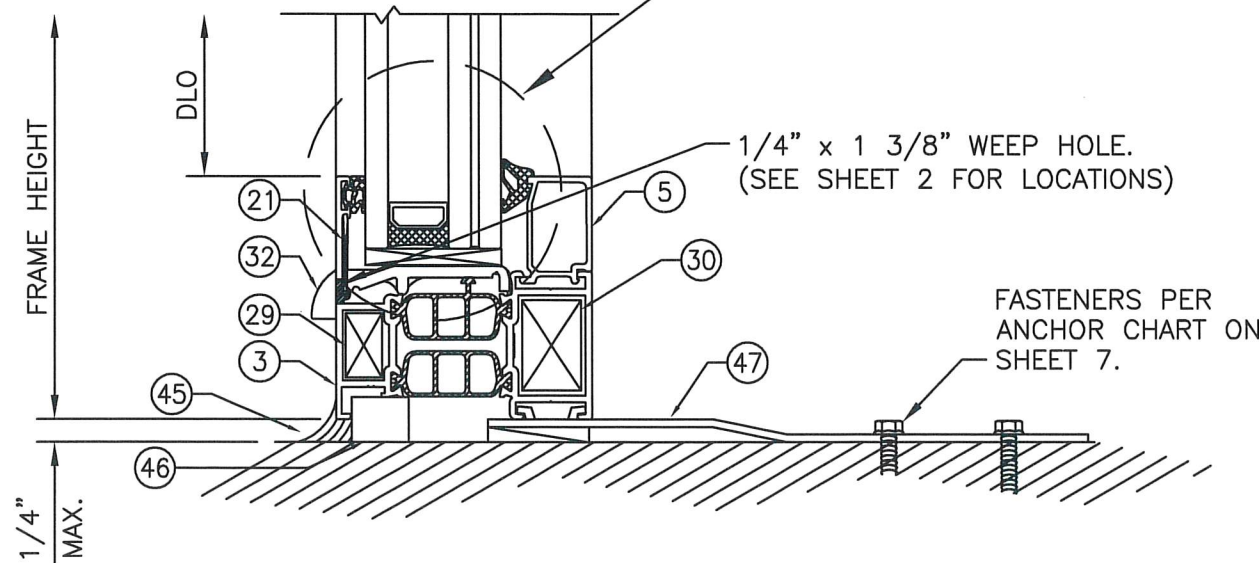
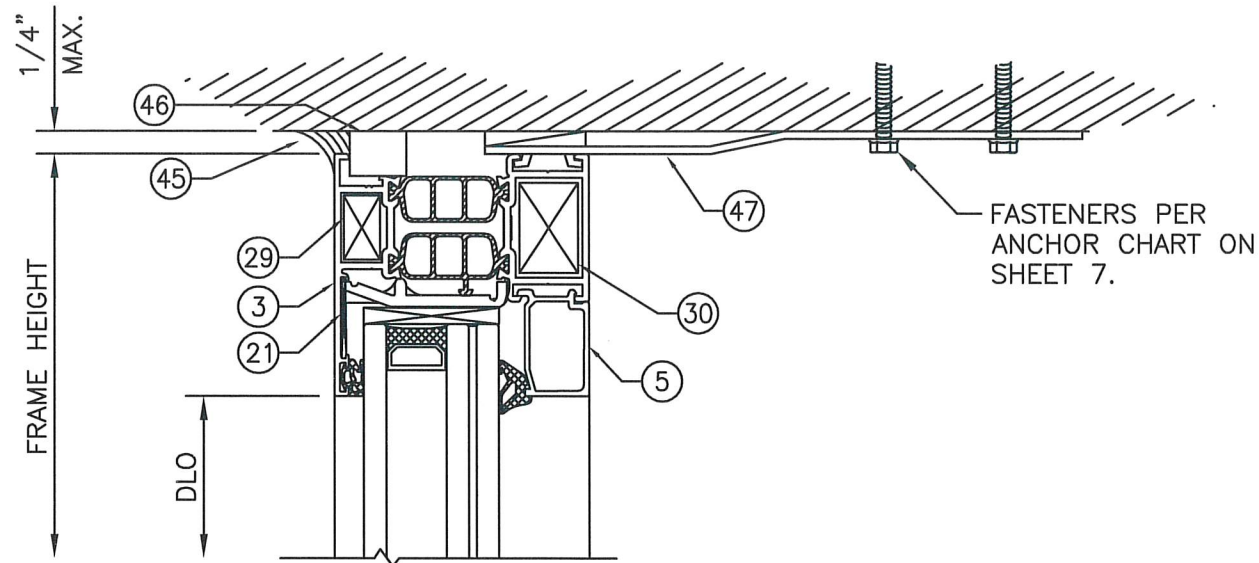
SHEET NO.

3 OF 8

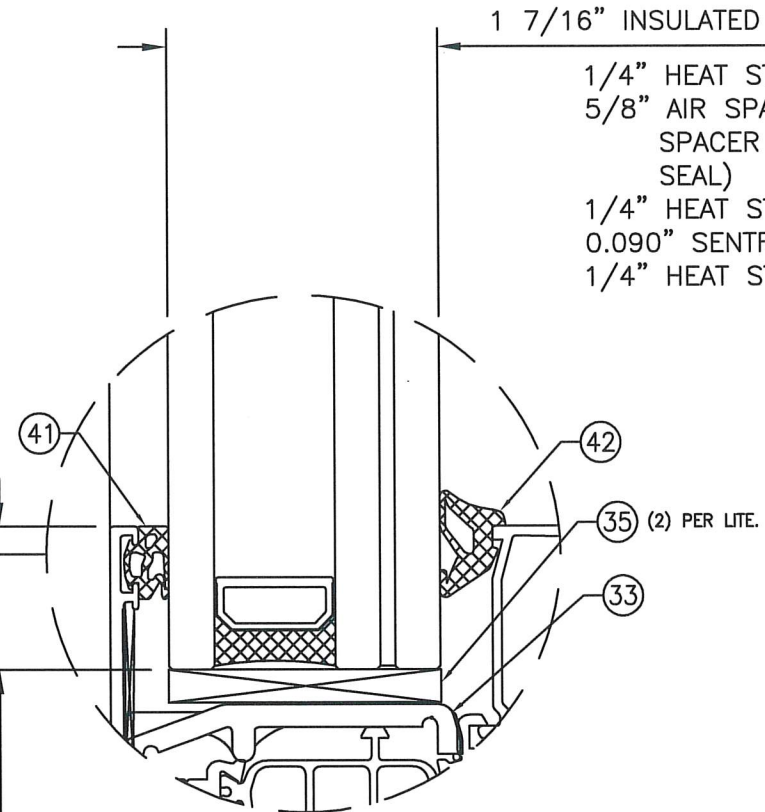
3
4

4
4

EXTERIOR



3/4" GLASS
BITE



GLASS TYPE 2

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

GLAZING DETAIL

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CS77 SERIES FIXED WINDOW

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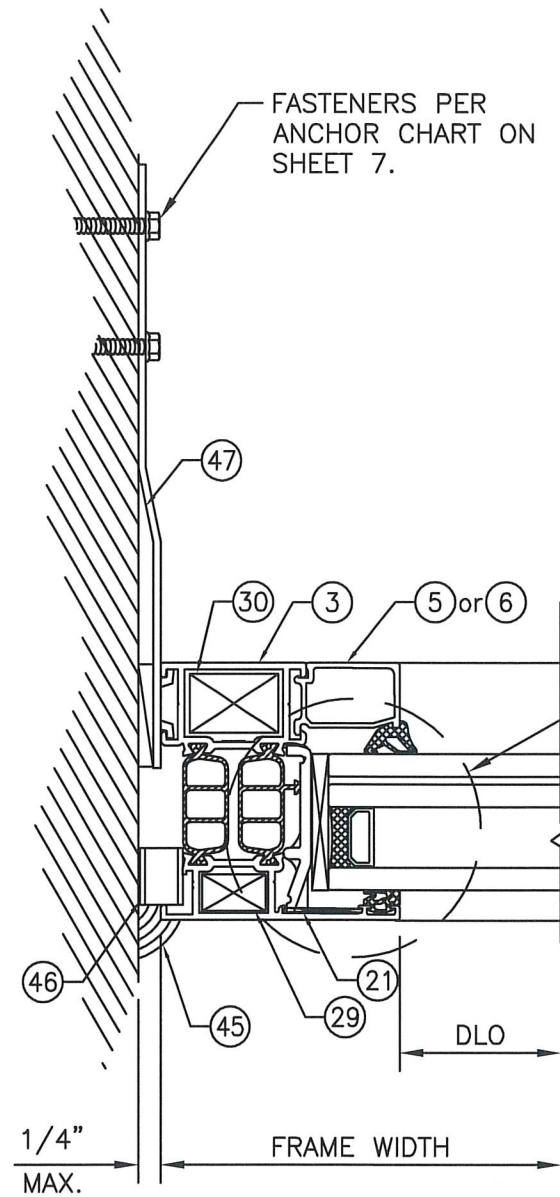
SCOTT WOLTERS
FL PE# 62354

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

STATE OF
FLORIDA
06117 2023

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CS77FIXLMI

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4 OF 8



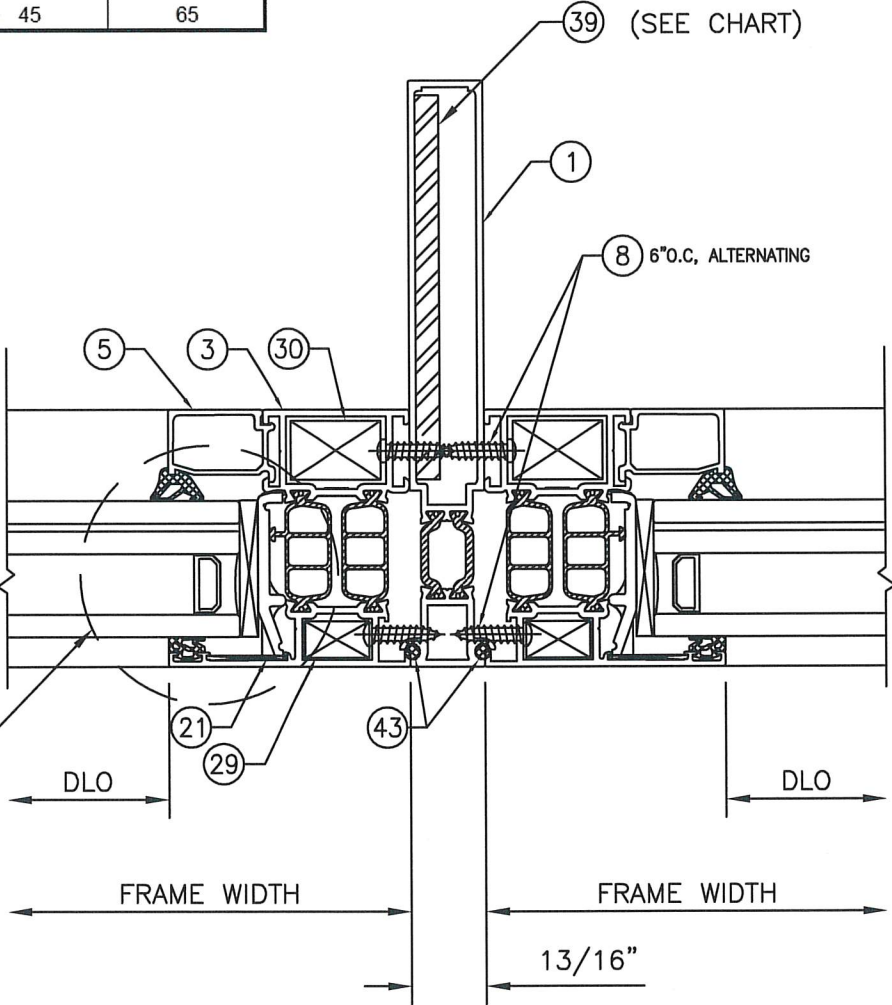
5
5

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

SEE GLAZING DETAIL ON SHEETS 3 or 4.

SEE GLAZING DETAIL ON SHEETS 3 or 4.

EXTERIOR



6
5

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

CS77 SERIES FIXED WINDOW

REYNAERS, INC.

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

info@reynaers.us
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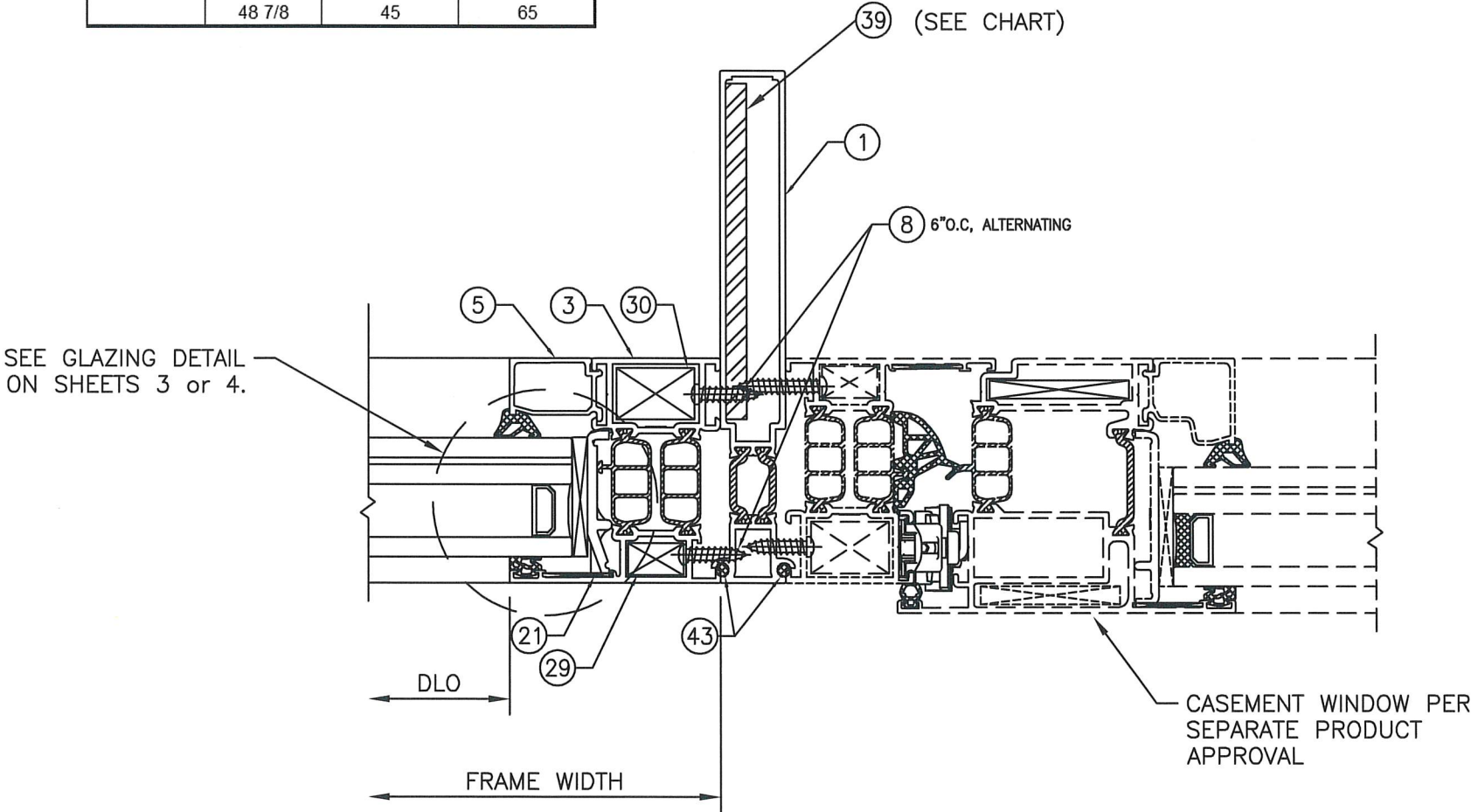
SCOTT WOLTERS
FL PE# 62354

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

STATE OF
FLORIDA
OCT 17 2023

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SHEET NO.	5 OF 8

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

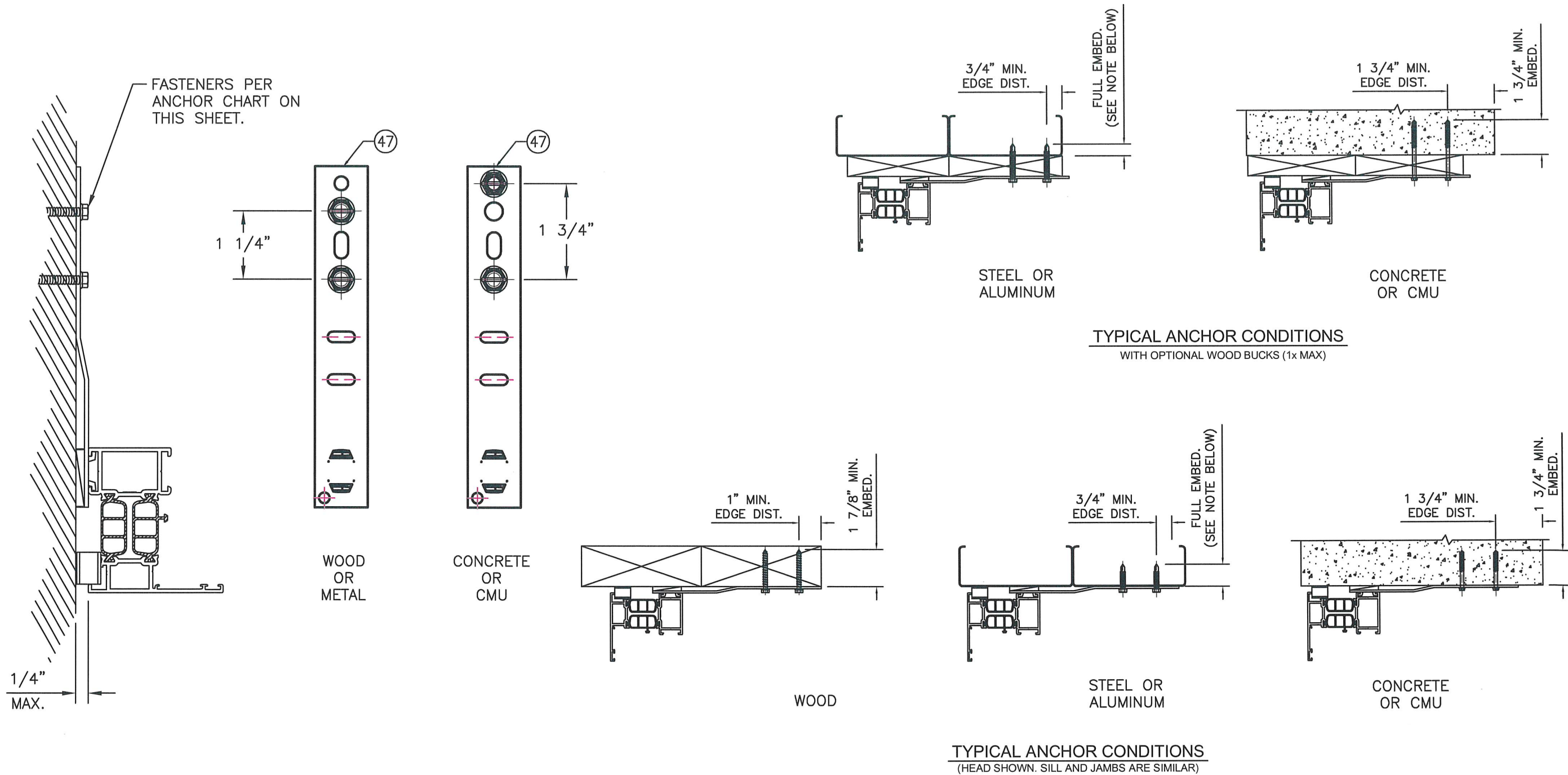


DATE	10/17/23
REVISION DESCRIPTION	2023 CODE UPDATE
NO.	1
CS77 SERIES FIXED WINDOW	
REYNAERS, INC. 11201 N TATUM BLVD, SUITE 300 PHOENIX, AZ 85028-6039 info@reynaers.us www.reynaers.us	
DRAWING NO. CS77FIXLMI	
SHEET NO. 6 OF 8	

SCOTT WOLTERS
FL PE# 62354

WOLTERS ENGINEERING
15211 97TH ROAD N
WEST PALM BEACH, FL 33412

STATE OF
FLORIDA
OCT 17 2023



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

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CS77 SERIES FIXED WINDOW

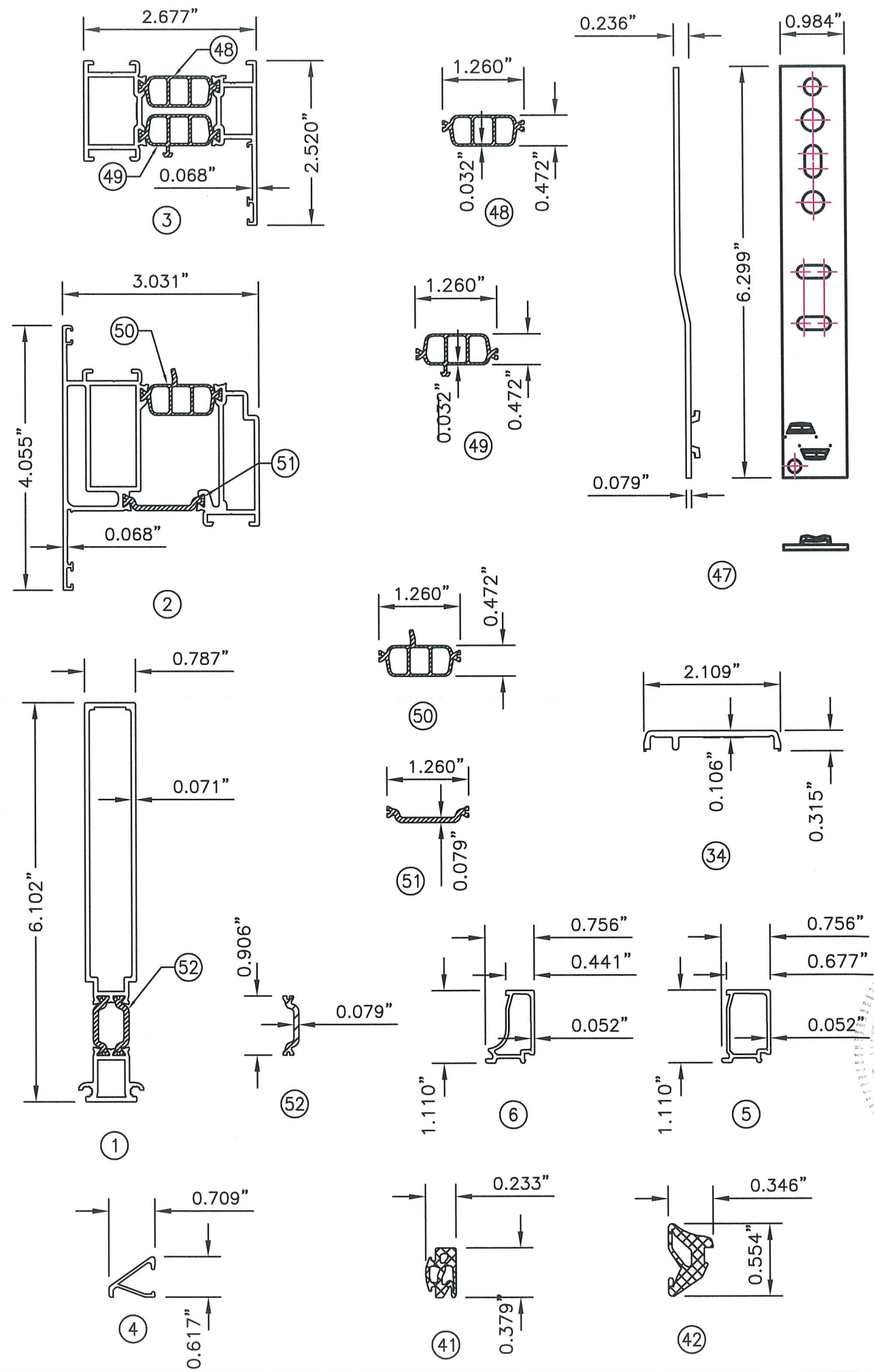
REYNAERS, INC.
 11201 N TATUM BLVD, SUITE 300
 PHOENIX, AZ 85028-6039
 info@reynaers.us
 www.reynaers.us

SCOTT WOLTERS
 FL PE# 62354
 WOLTERS ENGINEERING
 (CORP 27194)
 15211 97TH ROAD N
 WEST PALM BEACH, FL 33412

DRAWING NO.
CS77FIXLMI

SHEET NO.
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Bill of Materials					
Profiles					
ID Mark	Part Number	Description	Material	Manufacturer	Notes
1	0060371.51	Connection Profile	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	Pedeco	
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	



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info@reynaers.us
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SEAL: [Signature]
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FL PE# 62354
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15211 97TH ROAD N
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OCT 17 2023
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PROFESSIONAL ENGINEER

DRAWING NO.
CS77FIXLMI

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