

SINGLE HUNG - IMPACT

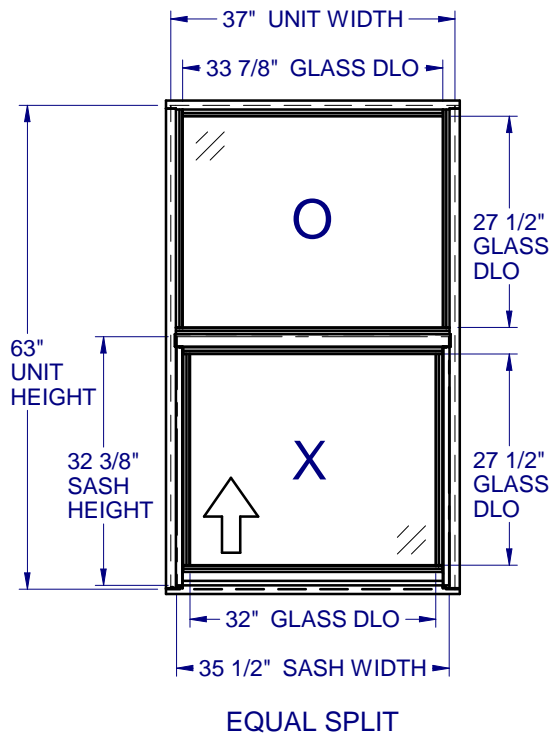
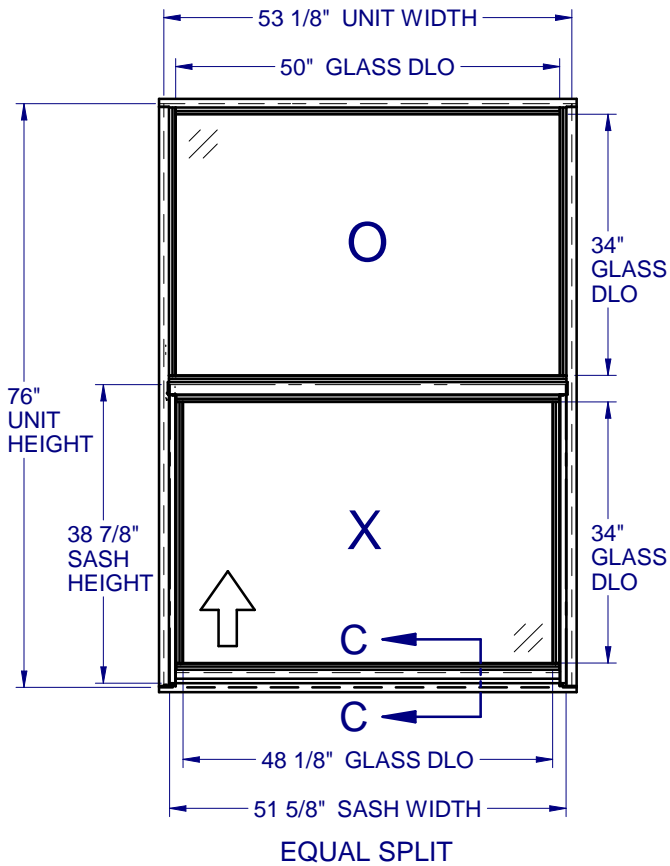
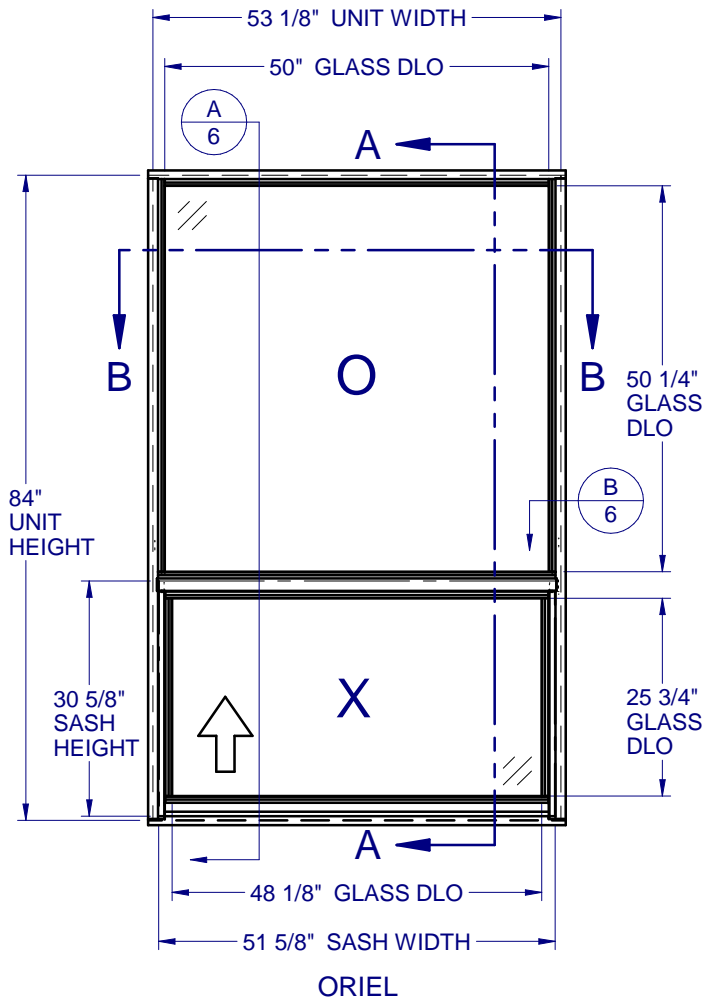


TABLE OF CONTENTS

GENERAL NOTES & ELEVATIONS.....1

GLAZING DETAILS.....2

SECTION VIEWS.....3

BOM & EXTRUSIONS.....4

ANCHOR SCHEDULE & NOTES.....5

INSTALLATION DETAILS.....6

GENERAL NOTES:

1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE FLORIDA BUILDING CODE (FBC), CURRENT EDITION INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ) AND IS RATED FOR WIND ZONE 4 MISSILE LEVEL D IMPACT USE AS DEFINED IN ASTM E 1996 PER THE FBC.
2. GLAZING DETAILS: (SEE SHEET 2)
3. CONFIGURATIONS: "O/X"
4. DESIGN PRESSURES:
-NEGATIVE DESIGN LOADS BASED ON TESTED PRESSURE AND GLASS TABLES ASTM E-1300-04e01/09.
-POSITIVE DESIGN LOADS BASED ON TESTED PRESSURE, WATER INFILTRATION TEST PRESSURE, AND GLASS TABLES ASTM E-1300-04e01/09.
5. ANCHORAGE: THE 33 1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. SEE SHEET 6 FOR INSTALLATION DETAIL. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
6. PRODUCTS APPROVED FOR IMPACT RESISTANCE. SHUTTERS ARE NOT REQUIRED.
7. ALL FRAMES AND SASHES ARE PROCESSED AND SCREWED TOGETHER. SMALL JOINT SEALANT USED AT ALL FRAME JOINTS.
8. SERIES / MODEL DESIGNATION SH-3100. (A.K.A. SH-3700)
9. THE DESIGNATION X AND O STAND FOR THE FOLLOWING:
X = OPERABLE SASH, O = FIXED SASH
10. SECTION CALLOUTS APPLY TO ALL CONFIGURATIONS.

CONFIG.	MAX. UNIT SIZE	DESIGN PRESSURE RATING	IMPACT RATING
ORIEL	53-1/8" x 84"	+/- 70 PSF	LARGE MISSILE IMPACT
EQUAL	53-1/8" x 76"	+/- 70 PSF	
EQUAL	37" x 63"	+/- 80 PSF	



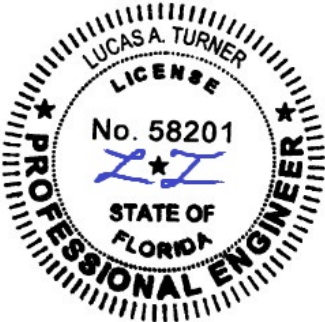
1900 SW 44TH AVE.
OCALA, FLORIDA 34474
WWW.CWS.CC

3100 ALUM.
SINGLE HUNG
IMPACT

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CUSTOM WINDOW SYSTEMS, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CUSTOM WINDOW SYSTEMS, INC IS PROHIBITED.

FLORIDA APPROVAL NO.:
15699



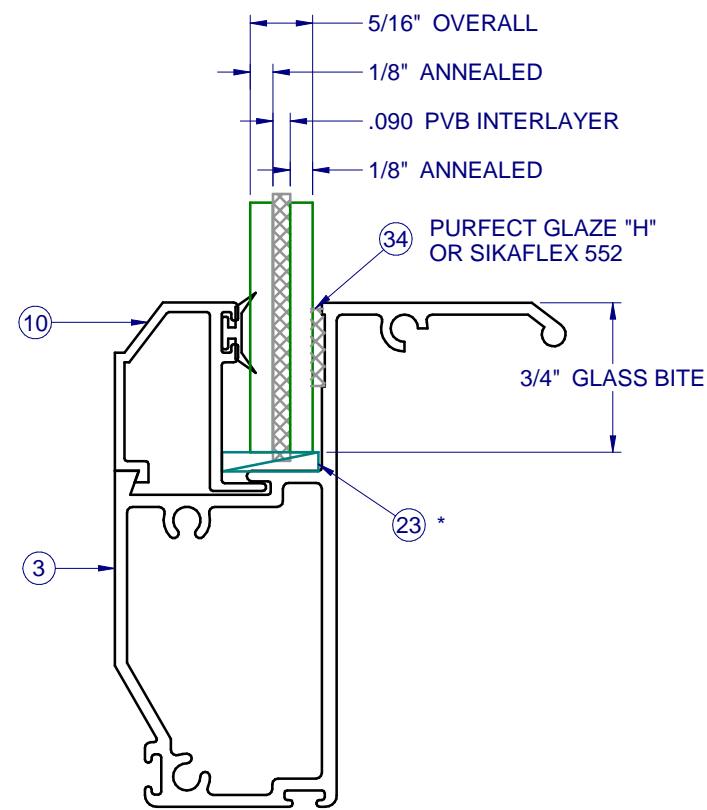
9/20/2023

LUCAS A. TURNER, P.E.
FL PE # 58201
Turner Engineering & Consulting, Inc.
2428 Old Natchez Trc Trl
Camden, TN 38320
PH. 941-380-1574

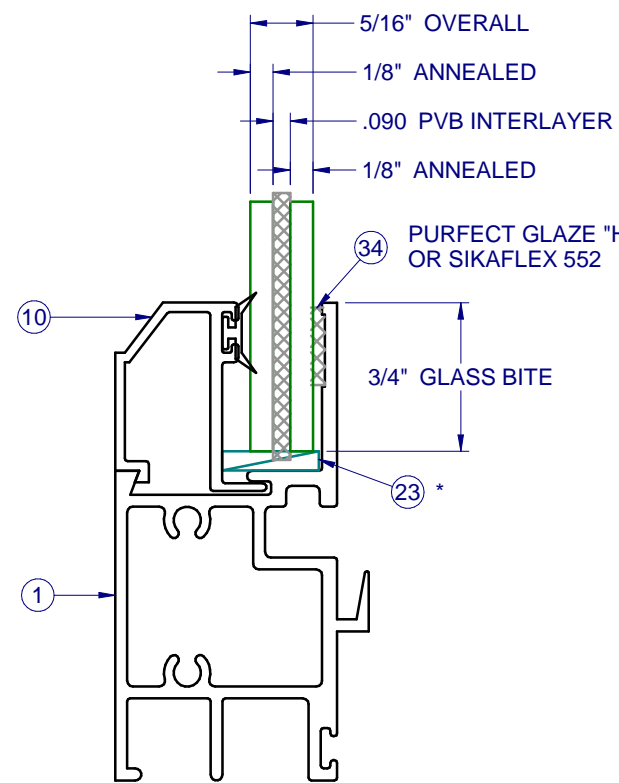
SHEET DESCRIPTION:

GENERAL NOTES AND ELEVATIONS

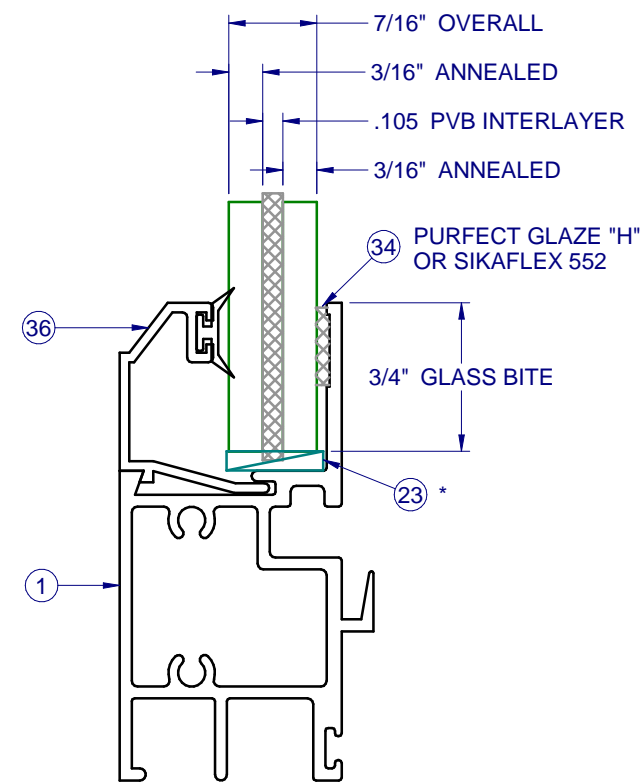
DRAWN BY:	DATE:
MCS	9/14/2023
DWG #:	REV.:
CWS-726	E
SCALE:	SHEET
1:25	1 OF 6



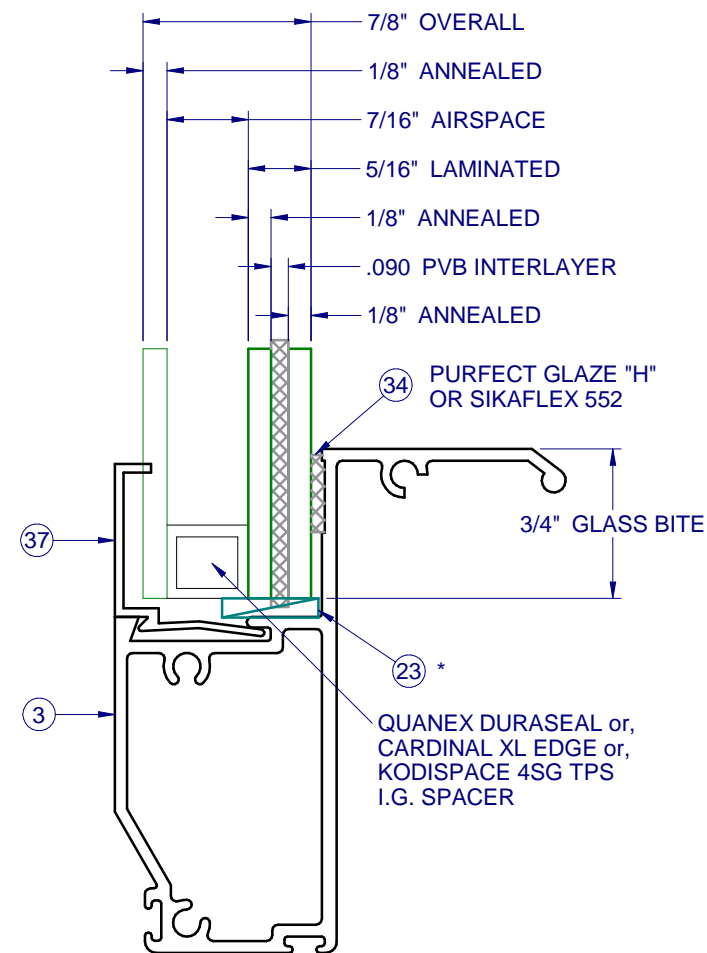
GLASS TYPE A - SASH



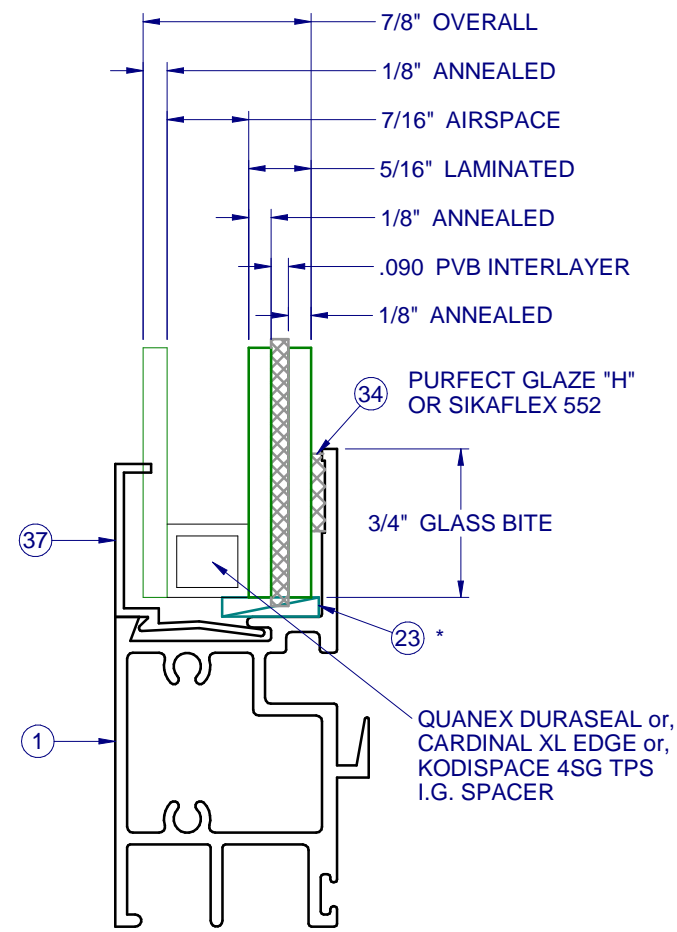
GLASS TYPE A - FIXED



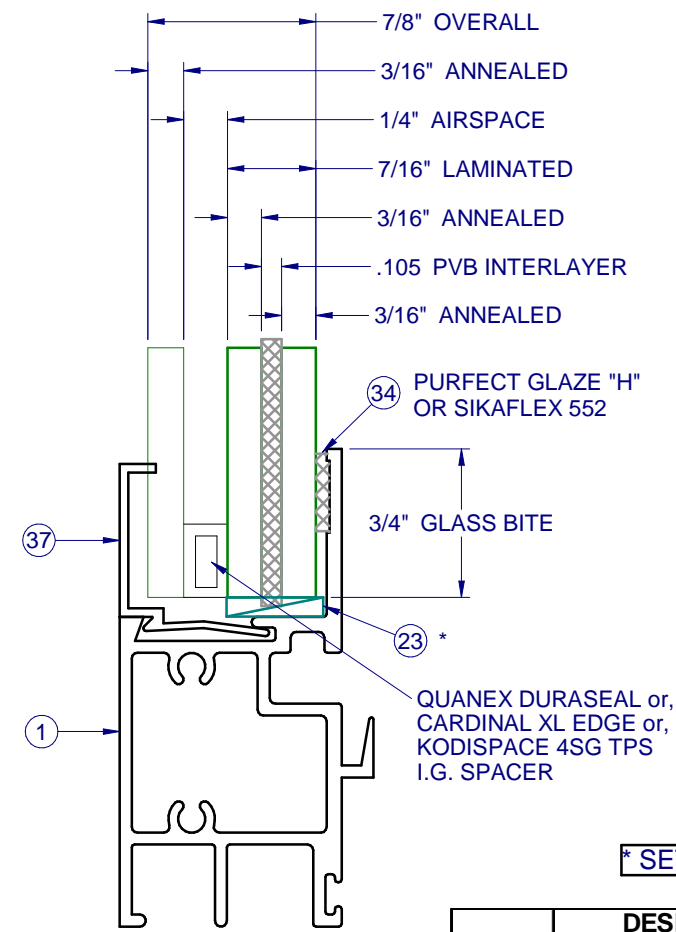
GLASS TYPE B - FIXED



GLASS TYPE C - SASH



GLASS TYPE C - FIXED



GLASS TYPE D - FIXED

* SETTING BLOCKS PER FBC 2411.3.3.1

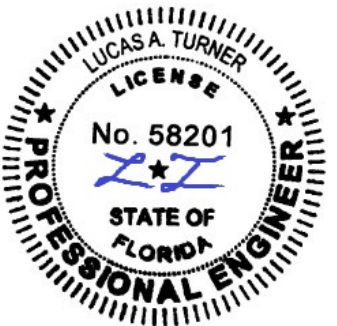
TYPE	DESIGN PRESSURE (PSF)	MAX. SIZE	SASH GLASS	FIXED GLASS
EQUAL	+/- 80	37" x 63"	A or C	A or C
	+/- 70	53" x 76"	A or C	A or C
ORIEL	+/- 70	53" x 84"	A or C	B or D

3100 ALUM. SINGLE HUNG IMPACT

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN
THIS DRAWING IS THE SOLE
PROPERTY OF CUSTOM WINDOW
SYSTEMS, INC. ANY
REPRODUCTION IN PART OR AS A
WHOLE WITHOUT THE WRITTEN
PERMISSION OF CUSTOM WINDOW
SYSTEMS, INC IS PROHIBITED.

FLORIDA APPROVAL NO.:

15699



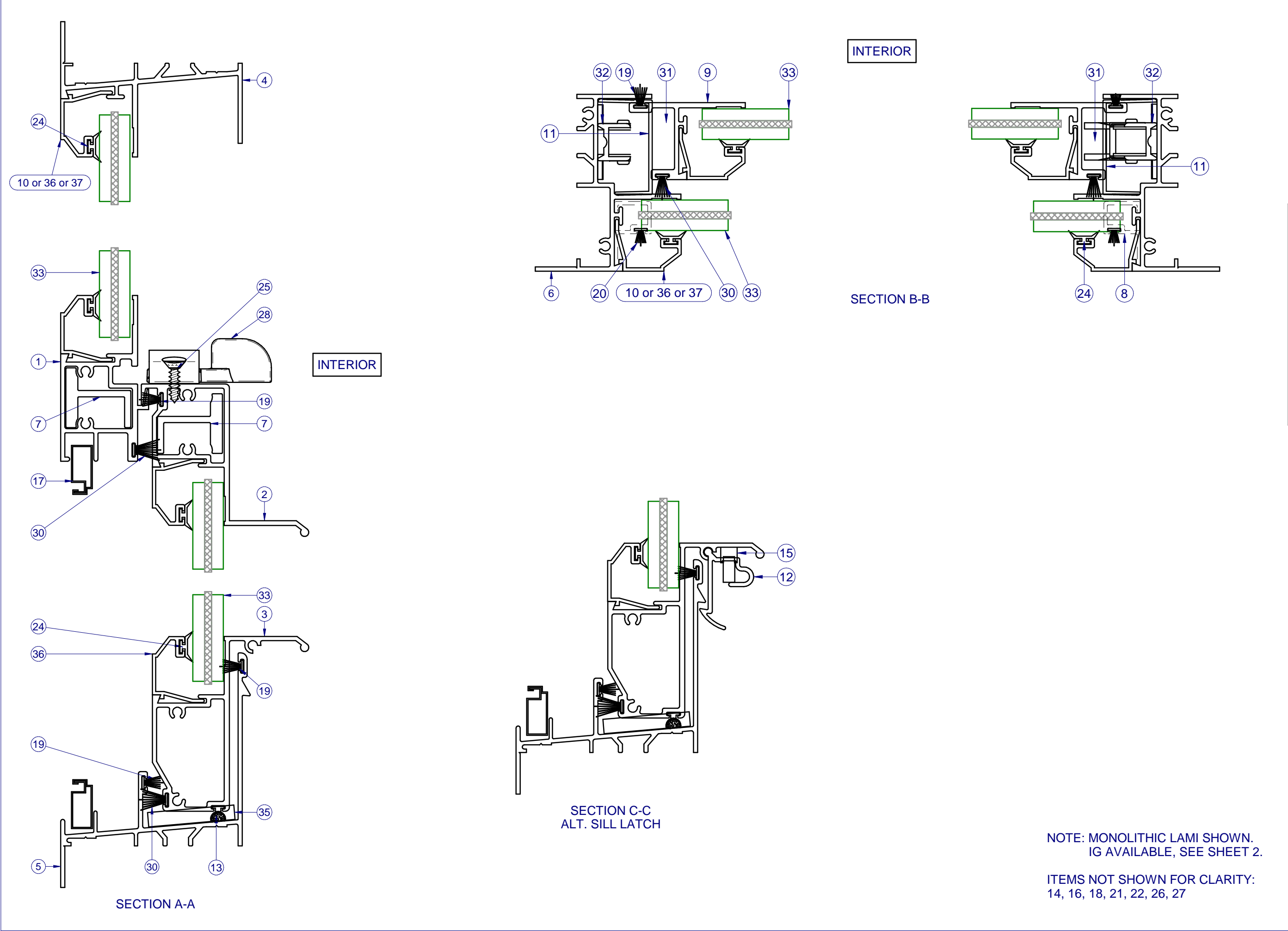
9/20/2023


LUCAS A. TURNER, P.E.
FL PE # 58201
Turner Engineering &
Consulting, Inc.
2428 Old Natchez Trc Trl
Camden, TN 38320
PH. 941-380-1574

SHEET DESCRIPTION:

GLAZING DETAILS

DRAWN BY:	DATE:
MCS	9/14/2023
DWG #:	REV.:
CWS-726	E
SCALE:	SHEET
1:1	2 OF 6





1900 SW 44TH AVE.
OCALA, FLORIDA 34474
WWW.CWS.CC

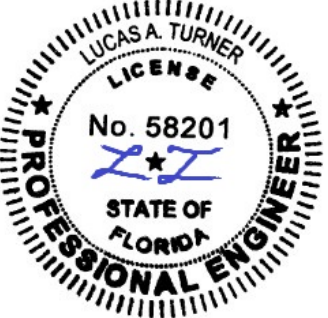
**3100 ALUM.
SINGLE HUNG
IMPACT**

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN
THIS DRAWING IS THE SOLE
PROPERTY OF CUSTOM WINDOW
SYSTEMS, INC. ANY
REPRODUCTION IN PART OR AS A
WHOLE WITHOUT THE WRITTEN
PERMISSION OF CUSTOM WINDOW
SYSTEMS, INC IS PROHIBITED.

FLORIDA APPROVAL NO.:

15699



9/20/2023

LUCAS A. TURNER, P.E.
FL PE # 58201
Turner Engineering &
Consulting, Inc.
2428 Old Natchez Trc Trl
Camden, TN 38320
PH. 941-380-1574

SHEET DESCRIPTION:

SECTION VIEWS

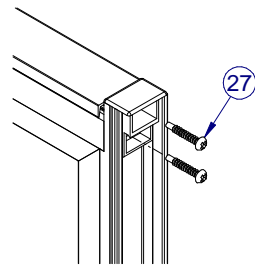
DRAWN BY:	DATE:
MCS	9/14/2023
DWG #:	REV.:
CWS-726	E
SCALE:	SHEET
1:1	3 OF 6

PARTS LIST			
ITEM	PART #	DESCRIPTION	MATERIAL
1	H-1934	Fxd. Mtg. Rail	Aluminum
2	H-1946	Sash Meet. Rail	Aluminum
3	H-1947	Sash Bot./Pull Rail	Aluminum
4	S-1931	Fr. Head	Aluminum
5	S-1932	Fr. Sill	Aluminum
6	S-1933	Fr. Jamb	Aluminum
7	S-1935	Reinforcement	Aluminum
8	S-1936	Scrn. Adapt.	Aluminum
9	S-1939	Sash Side/Top Rail	Aluminum
10	S-2133	GLAZING BEAD, 5/16" Lami, 3100-3200	Aluminum
11	S-1954	Sash Stop	Aluminum
12	S-1956	Sill Latch	Aluminum
13	P-3018	Wstp., .300 x .187 Bulb Vinyl	Nylon
14	P-4755	SCREEN CORNER KEY (Rollform Scrn 1" Offset "w/ safet	Steel
15	P-3195	SPRING, NO HOLE TENSION C-8400	SS
16	P-3046	Take Out Clip	
17	P-3218	Screen Frame	Alum
18	P-5576	Screen Spline, .125" Black PE Ribbed	Nylon
19	P-3305	Wstp., .270 x .187 Black SoftTouch Center Fin, Black	Nylon
20	P-3309	Wstp., .210 x .187 Black Soft Touch Center Fin, Black	Nylon
21	P-4754	SCREEN CORNER KEY (Rollform Screen 1" Offset "safety	Alum
22	P-3342	Seam Sealer, SM-5504	
23	P-5637	Set. Blk., 85 Dur., 1/8" x 3/8" x 2" Lg.	
24	P-5317	Glazing Bead Spacer	Nylon
25	P-3515	#8 x 0.625 Ph FH Type A SMS	Steel
26	P-4772	40" - BetterVue Charcoal Screen, 18x16	
27	P-4144	#8 x 1" w/ 1/4" lead Quad PH Type A SMS	Steel
28	P-4707	Sweep Lock	Nylon
30	P-4959	Wstp., .420 x .187 back PolyFin, Gray, SoftTouch	Nylon
31	P-5228	Sash Cam (Oriol)	
32		Balancer	
33	GLASS	See Sheet 2	
34		Purfect Glaze "H" or Sikaflex 552	
35	P-5261	Closed Cell Pad, 1 1/4" x 1 1/2" x 1/4"	
36	S-1949	Glazing Bead, (7/16" Glass)	Aluminum
37	P-6244	GLAZING BEAD, ICON, I.G., PVC	PVC

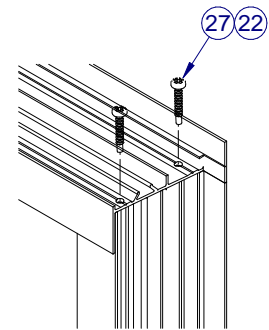
LINE ITEMS NOT USED:
29

NOTE: ALUMINUM PROFILES ARE 6063-T6 UNLES OTHERWISE NOTED.

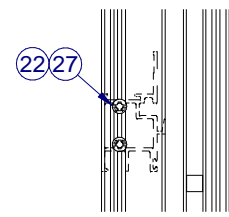
SASH CORNER
CONSTRUCTION



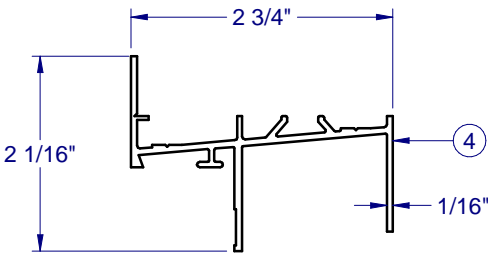
FRAME CORNER
CONSTRUCTION



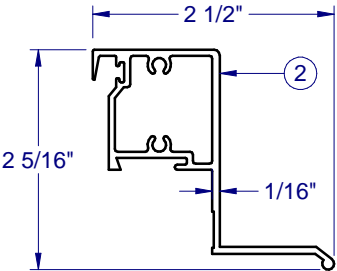
FIXED MTG RAIL
CONSTRUCTION



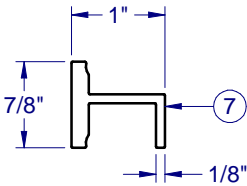
SMALL JOINT SEAM SEALANT USED AT ALL FRAME JOINTS



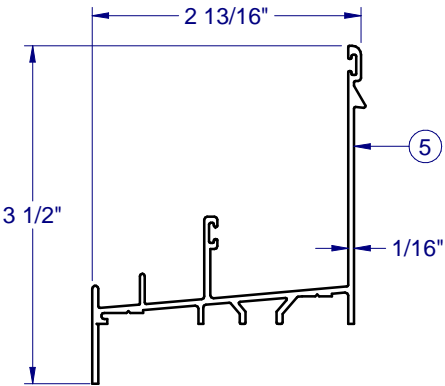
FRAME HEAD - S-1931



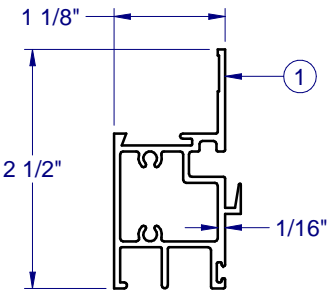
SASH MTG RAIL - H-1946



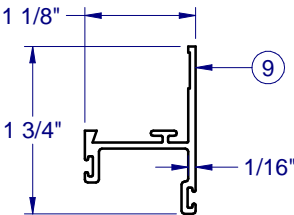
REINFORCEMENT - S-1935



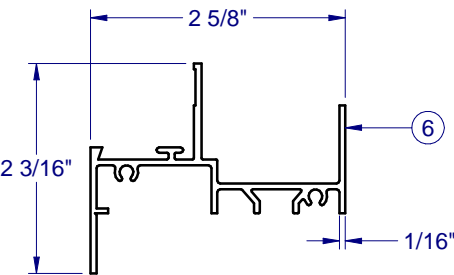
FRAME SILL - S-1932



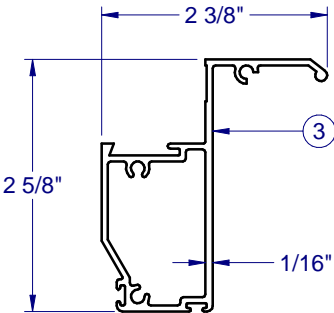
FIXED MTG RAIL - H-1934



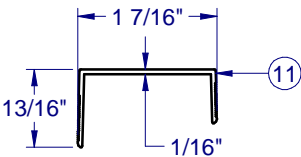
SASH SIDE RAIL - S-1939



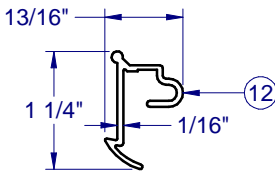
FRAME JAMB - S-1933



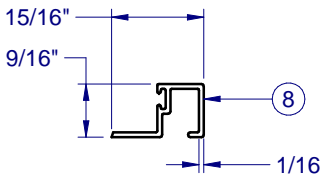
SASH BTM RAIL - H-1947



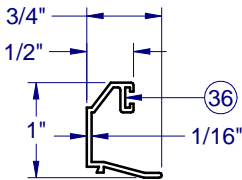
SASH STOP - S-1954



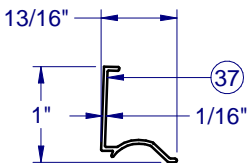
SILL LATCH - S-1956



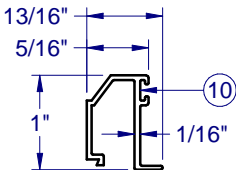
SCREEN ADAPTOR - S-1936



GLAZING BEAD, 7/16" - S-1949



PVC 7/8" GLAZE BEAD - 6244

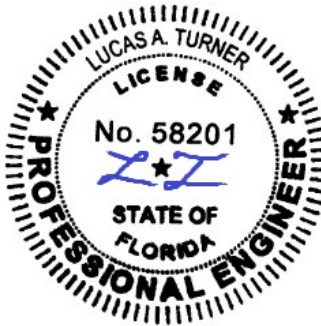


5/16" GLAZE BEAD - 2133

3100 ALUM.
SINGLE HUNG
IMPACT

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN
THIS DRAWING IS THE SOLE
PROPERTY OF CUSTOM WINDOW
SYSTEMS, INC. ANY
REPRODUCTION IN PART OR AS A
WHOLE WITHOUT THE WRITTEN
PERMISSION OF CUSTOM WINDOW
SYSTEMS, INC IS PROHIBITED.

FLORIDA APPROVAL NO.:
15699



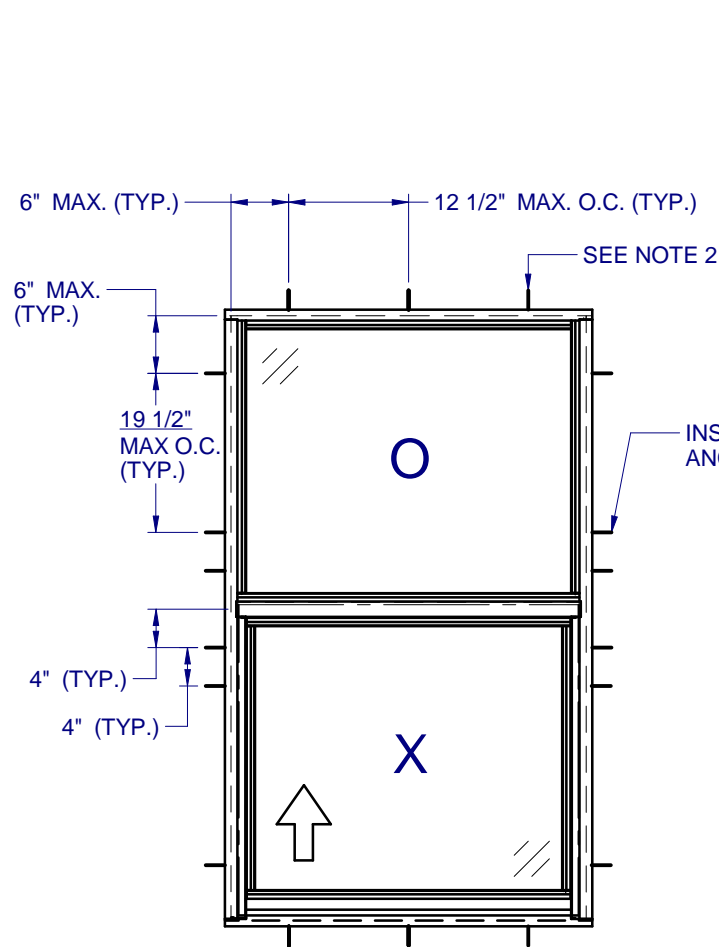
9/20/2023

LUCAS A. TURNER, P.E.
FL PE # 58201
Turner Engineering &
Consulting, Inc.
2428 Old Natchez Trc Trl
Camden, TN 38320
PH. 941-380-1574

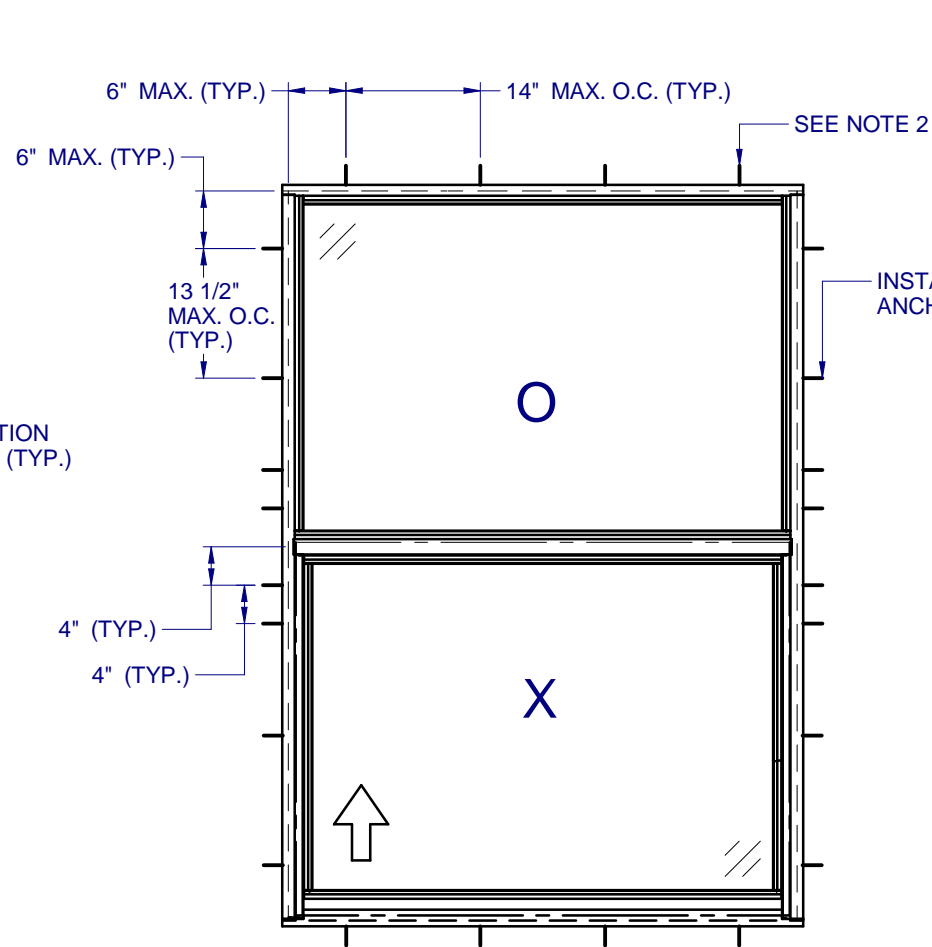
SHEET DESCRIPTION:

BOM AND EXTRUSIONS

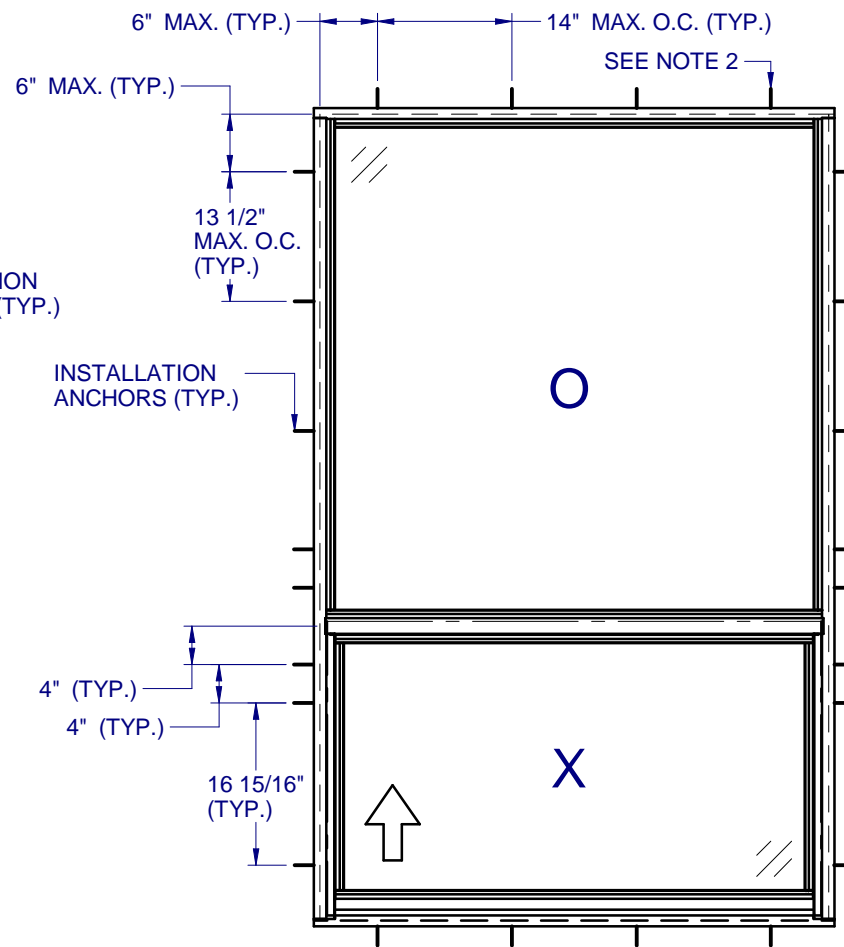
DRAWN BY:	DATE:
MCS	9/14/2023
DWG #:	REV.:
CWS-726	E
SCALE:	SHEET
1:2	4 OF 6



ANCHOR LAYOUT
EQUAL SPLIT 37" X 63"



ANCHOR LAYOUT
EQUAL SPLIT 53.125" X 76"



ANCHOR LAYOUT
ORIEL 53.125" X 84"

NOTES:

1. INSTALL ONE ANCHOR AT EACH INSTALLATION LOCATION. SILL ANCHOR SPACING SAME AS HEAD.
2. SHIM AS REQ AT EACH INSTALLATION ANCHOR USING LOAD BEARING SHIMS. MAX. ALLOWABLE SHIM STACK TO BE 1/4". USE SHIMS WHERE SPACE GREATER THAN 1/16" IS PRESENT. LOAD BEARING SHIMS SHALL BE CONSTRUCTED OF HIGH DENSITY PLASTIC OR BETTER. WOOD SHIMS ARE NOT ALLOWED.
3. ANCHOR TYPE, SIZE, SPACING AND EMBEDMENT SHALL BE AS SPECIFIED IN THESE DRAWINGS, SEE TABLE 1, SHEET 6.
4. ALL INSTALLATION ANCHORS MUST BE MADE OF OR PROTECTED WITH A CORROSION RESISTANT MATERIAL OR COATING. DISSIMILAR METALS OR MATERIALS IN CONTACT WITH PRESSURE TREATED WOOD MUST BE PROTECTED TO PREVENT REACTION.
5. INSTALLATION ANCHORS SHALL BE IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM SPECIFIED IN TABLE 1, SHEET 6.
6. ANCHOR EMBEDMENT TO SUBSTRATE SHALL BE BEYOND WALL DRESSING OR STUCCO. FOR CONCRETE/CMU OPENINGS, EMBEDMENT SHALL BE BEYOND WOOD BUCKS, IF USED, INTO SUBSTRATE. INSTALLATIONS TO SOLID CONCRETE OR GROUT-FILLED CMU MAY INCLUDE BUT DO NOT REQUIRE 1X WOOD BUCKS BETWEEN THE PRODUCT AND THE SUBSTRATE. INSTALLATIONS TO HOLLOW CMU REQUIRE THE USE OF 1X BUCKS BETWEEN THE PRODUCT AND SUBSTRATE.
7. A MINIMUM CENTER-TO-CENTER SPACING SHALL BE MAINTAINED BETWEEN ALL FASTENERS: 4" FOR MASONRY, 1" FOR WOOD AND METAL.
8. WOOD OR MASONRY OPENINGS, BUCKS AND BUCK FASTENERS SHALL BE PROPERLY DESIGNED BY THE ARCHITECT OR ENGINEER OF RECORD AND INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE. SUBSTRATES SHALL MEET THE MINIMUM STRENGTH REQUIREMENTS AS SHOWN IN TABLE1, SHEET 6. CONCRETE AND MASONRY SUBSTRATES MAY NOT BE CRACKED.
9. SEALING AND FLASHING STRATEGIES FOR OVERALL WATER RESISTANCE OF INSTALLATION SHALL BE DONE BY OTHERS FOLLOWING THE CURRENT VERSION OF THE REFERENCE DOCUMENTS:
FMA/AAMA 100(FIN WINDOWS), FMA/AAMA 200(FLANGE WINDOWS), FMA/WDMA 250(BOX WINDOWS), FMA/AAMA/WDMA 300(EXTERIOR DOORS)



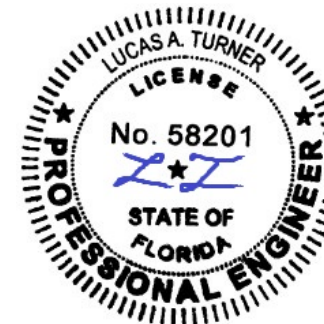
1900 SW 44TH AVE.
OCALA, FLORIDA 34474
WWW.CWS.CC

**3100 ALUM.
SINGLE HUNG
IMPACT**

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN
THIS DRAWING IS THE SOLE
PROPERTY OF CUSTOM WINDOW
SYSTEMS, INC. ANY
REPRODUCTION IN PART OR AS A
WHOLE WITHOUT THE WRITTEN
PERMISSION OF CUSTOM WINDOW
SYSTEMS, INC IS PROHIBITED.

FLORIDA APPROVAL NO.:

15699



9/20/2023

LUCAS A. TURNER, P.E.
FL PE # 58201
Turner Engineering &
Consulting, Inc.
2428 Old Natchez Trc Trl
Camden, TN 38320
PH. 941-380-1574

SHEET DESCRIPTION:

**ANCHOR SCHEDULE AND
NOTES**

DRAWN BY:	DATE:
MCS	9/14/2023
DWG #:	REV.:
CWS-726	E
SCALE:	SHEET
1:20	5 OF 6

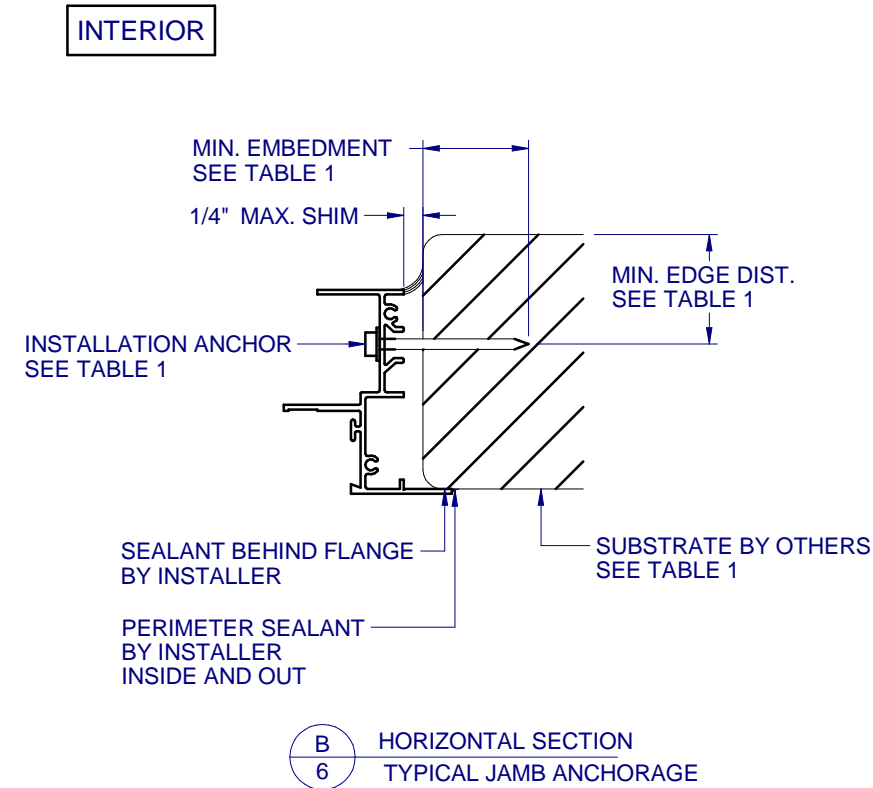
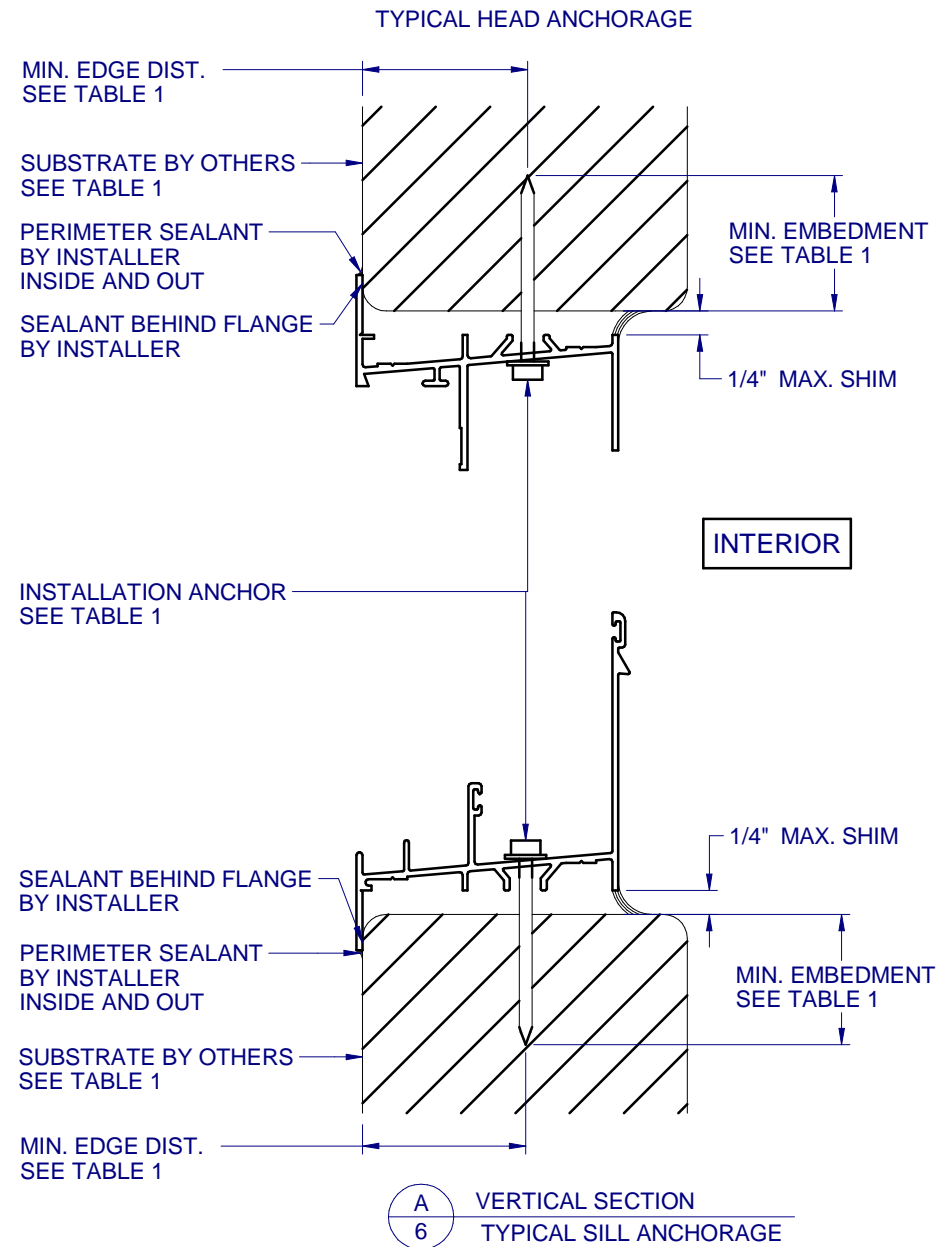


TABLE 1: APPROVED INSTALLATION FASTENERS			
SUBSTRATE TYPE	ANCHOR TYPE	MIN. EMBEDMENT	MIN. EDGE DIST.
CONCRETE (2.0 KSI MIN.)	3/16" ITW TAPCON	1-1/2"	1-1/8"
HOLLOW OR GROUT-FILLED CMU (117 PCF MIN.)	3/16" ITW TAPCON	1"	4"
CONCRETE (3.05 KSI MIN.)	3/16" DEWALT ULTRACON+	1-3/4"	1"
HOLLOW OR GROUT-FILLED CMU (ASTM C-90)	3/16" DEWALT ULTRACON+	2-1/4"	2-1/2"
2X MIN. SOUTHERN PINE (G=0.55)	3/16" ITW TAPCON OR DEWALT ULTRACON+	1-3/8"	7/8"
2X MIN. SOUTHERN PINE (G=0.55)	#10 WOOD SCREW	1-3/8"	7/8"
16 GAUGE (0.060") MIN. STEEL STUD (33 KSI YIELD MIN)	#10-16 HILTI KWIK-FLEX OR ITW TEKS SELF-DRILLING SCREW	FULL THREAD THRU 0.060"	7/16"
1/8" ALUM. (6063-T5 MIN.) OR 1/8" STEEL (33 KSI MIN.)	#10 GRADE 5 SELF-TAPPING / DRILLING SCREW	FULL THREAD THRU 0.125"	7/16"



1900 SW 44TH AVE.
OCALA, FLORIDA 34474
WWW.CWS.CC

3100 ALUM. SINGLE HUNG IMPACT

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN
THIS DRAWING IS THE SOLE
PROPERTY OF CUSTOM WINDOW
SYSTEMS, INC. ANY
REPRODUCTION IN PART OR AS A
WHOLE WITHOUT THE WRITTEN
PERMISSION OF CUSTOM WINDOW
SYSTEMS, INC IS PROHIBITED.

FLORIDA APPROVAL NO.:

15699



9/20/2023

LUCAS A. TURNER, P.E.
FL PE # 58201
Turner Engineering &
Consulting, Inc.
2428 Old Natchez Trc Trl
Camden, TN 38320
PH. 941-380-1574

SHEET DESCRIPTION:

INSTALLATION DETAILS

DRAWN BY:	DATE:
MCS	9/14/2023
DWG #:	REV.:
CWS-726	E
SCALE:	SHEET
1:2	6 OF 6