

PLY GEM WINDOWS SERIES 1500 SINGLE HUNG WINDOW

(IMPACT)

NOTES:

- THIS INSTALLATION HAS BEEN EVALUATED FOR USE IN LOCATIONS ADHERING TO THE FLORIDA BUILDING CODE OUTSIDE THE HVHZ, AND WHERE PRESSURE REQUIREMENTS AS DETERMINED BY ASCE 7 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES DO NOT EXCEED THE DESIGN PRESSURE RATINGS HEREIN.
- THIS PRODUCT IS MISSILE LEVEL D, WIND ZONE 3 IMPACT RESISTANT. WHEN USED IN WIND ZONE 3 OR BELOW AREAS, THIS PRODUCT DOES NOT REQUIRE THE USE OF APPROVED IMPACT PROTECTIVE DEVICES (SHUTTERS).
- ANCHOR TYPE, SIZE, SPACING, EMBEDMENT, AND EDGE DISTANCE SHALL BE AS SPECIFIED IN THESE DRAWINGS. USE APPROPRIATE ANCHORAGE FROM TABLE I ACCORDING TO SUBSTRATE TYPE. A MINIMUM CENTER-TO-CENTER SPACING OF 3" SHALL BE MAINTAINED BETWEEN ALL INSTALLATION FASTENERS IN ANY DIRECTION.
- ANCHOR EMBEDMENT TO SUBSTRATE SHALL BE BEYOND WALL DRESSING OR STUCCO. FOR MASONRY OPENINGS WITH WOOD BUCKS LESS THAN 1-1/2" THICK, EMBEDMENT SHALL BE BEYOND WOOD BUCKS, IF USED, AND INTO MASONRY SUBSTRATE. WOOD BUCKS WITH MASONRY ARE OPTIONAL.
- WOOD, METAL, OR MASONRY OPENINGS, BUCKS, AND BUCK FASTENERS, BY OTHERS, SHALL BE PROPERLY DESIGNED AND INSTALLED BY OTHERS TO TRANSFER SUPERIMPOSED LOADS TO THE STRUCTURE. ADEQUACY OF THE STRUCTURE TO RECEIVED THESE LOADS SHALL BE VERIFIED BY THE CONTRACTOR OR AUTHORITY HAVING JURISDICTION (AHJ).
- IT IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD OR AS APPROVED BY THE AHJ TO SELECT PLY GEM PRODUCTS TO MEET ALL APPLICABLE LOCAL LAWS, BUILDING CODES, ORDINANCES, OR OTHER SAFETY REQUIREMENTS FOR EACH INSTALLATION.
- SHIMS ARE REQUIRED WHERE GAPS OF GREATER THAN 1/16" EXIST BETWEEN OPENING AND FRAME. MAX. SHIM STACK IS 1/4". SHIMS SHALL BE LOAD-BEARING AND CAPABLE OF TRANSFERRING LOADS TO THE SUBSTRATE.
- SEALING AND FLASHING STRATEGIES FOR OVERALL WATER INFILTRATION RESISTANCE OF THE INSTALLED PRODUCT SHALL BE THE RESPONSIBILITY OF OTHERS USING ASTM E 2112 AND IS NOT ADDRESSED BY THIS DOCUMENT.
- INSTALLED GLAZING SHALL COMPLY WITH ASTM E 1300.
- ALL FASTENERS PENETRATING INTO PRESSURE TREATED WOOD SHALL BE CAPABLE OF PREVENTING CORROSION DUE TO REACTION WITH PRESSURE TREATMENT CHEMICALS. ANY DISSIMILAR MATERIALS THAT COME INTO CONTACT SHALL BE PROTECTED TO PREVENT REACTIONS IN ACCORDANCE WITH CODE REQUIREMENTS.
- A WIND LOAD DURATION FACTOR $C_d = 1.6$ WAS USED FOR THE ANALYSIS OF WOOD SCREWS ONLY.
- PRODUCTS SHALL BE CONSTRUCTED AS SPECIFIED IN TEST REPORTS NATIONAL CERTIFIED TESTING LABORATORIES I10-I5597-1, I10-I6245-1, I10-I5653-1 & -2, I10-I6054-1 AND I10-I6416-3.
- DESIGNATION "X" IS FOR OPERABLE PANEL AND "O" IS FOR FIXED PANEL.
- USE A BACKER ROD ON ALL JOINTS $>3/4"$ DEEP AND/OR WIDER THAN $1/4"$. FINISHED CAULK JOINT SHOULD BE A MINIMUM OF $3/8"$ DEEP.

SIZE CHART				
OVERALL SIZE		PRODUCT RATING	MAX. DESIGN PRESSURE	MISSILE IMPACT RATING
WIDTH	HEIGHT			
38-1/16"	77-1/16"	LC-PG50	+50/-60 PSF	LARGE & SMALL IMPACT RATED
52-1/8"	62"	LC-PG50	+50/-60 PSF	LARGE & SMALL IMPACT RATED
52-1/8"	71"	LC-PG50	+50/-50 PSF	LARGE & SMALL IMPACT RATED

TABLE OF CONTENTS	
SHEET	SHEET DESCRIPTION
1	INSTALLATION & GENERAL NOTES
2	ELEVATIONS & ANCHOR SCHEDULE
3	GLAZING DETAILS
4	VERTICAL SECTIONS
5	HORIZONTAL SECTIONS

TABLE I: INSTALLATION FASTENERS TABLE

ID	SUBSTRATE TYPE	ANCHOR TYPE	MIN. EMBED.	MIN. EDGE DISTANCE
FIN INSTALLATION				
A	2X MIN. SPRUCE-PINE-FIR WOOD (G=0.42)	#8 WOOD SCREW	1-1/2"	7/16"
B	16 GAUGE (0.060") STEEL 36 KSI MIN. OR 1/8" ALUM. 6063-T5 MIN.	#10-16 SELF-DRILLING SCREW (TEKS/DRIL-FLEX/KWIK-FLEX)	FULL, PLUS 3 THREADS MIN.	7/16"
FRAME OR CLIP INSTALLATION				
C	CONCRETE (2 KSI MIN.)	3/16" ITW TAPCON	1-1/2"	1-1/8"
D	HOLLOW OR GROUT-FILLED CMU (117 PCF MIN.)	3/16" ITW TAPCON	1"	2"
E	2X MIN. SOUTHERN PINE WOOD (G=0.55)	3/16" ITW TAPCON	1-3/8"	7/8"
F	CONCRETE (2.85 KSI MIN.)	3/16" ELCO ULTRACON	1-3/4"	1-1/8"
G	HOLLOW OR GROUT-FILLED CMU (ASTM C-90)	3/16" ELCO ULTRACON	1-1/4"	2-1/2"
H	2X MIN. SOUTHERN PINE WOOD (G=0.55)	#10 WOOD SCREW	1-3/8"	7/8"
I	16 GAUGE (0.060") STEEL 36 KSI MIN. OR 1/8" ALUM. 6063-T5 MIN.	#10-16 SELF-DRILLING SCREW (TEKS/DRIL-FLEX/KWIK-FLEX)	FULL, PLUS 3 THREADS MIN.	1/2"

NOTE: ALL SCREWS AND TAPCONS SHALL HAVE MOD. TRUSS, PAN, OR HEX WASHER HEAD, 0.42" MIN. HEAD OR WASHER DIAMETER FOR FIN ANCHORS, 0.355" MIN. HEAD OR WASHER DIAMETER FOR FRAME ANCHORS.

TITLE: SERIES 1500 SINGLE HUNG IMPACT WINDOW INSTALLATION AND GENERAL NOTES	DATE	BY	REVISION DESCRIPTION	NO.	DATE
	12.12.12	JLA		UPDATED FRAME ANCHOR LAYOUT.	D
			UPDATED NOTE 12.EC 19-020	E	12.04.19
			UPDATED FOR 7TH EDITION 2020 FBC	F	12.01.20
			UPDATED FOR 8TH EDITION 2023 FBC	G	12.04.23

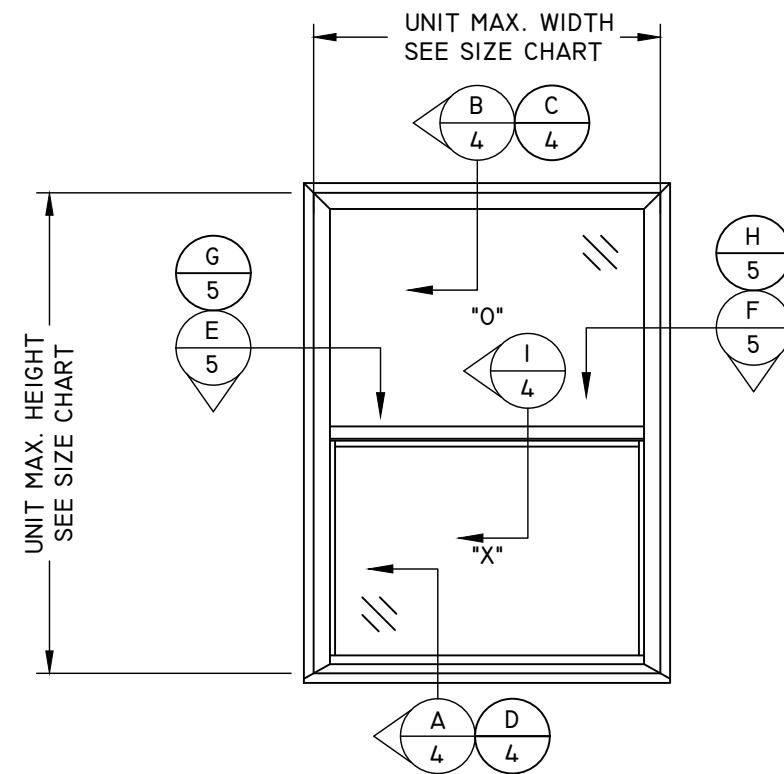


12/04/2023
LUCAS A. TURNER, P.E.
FL PE # 58201
TURNER ENGINEERING & CONSULTING, INC.
(COA # 29779)
2428 OLD NATCHEZ TRACE TRAIL, CAMDEN, TN 38320
PH. 941-380-1574

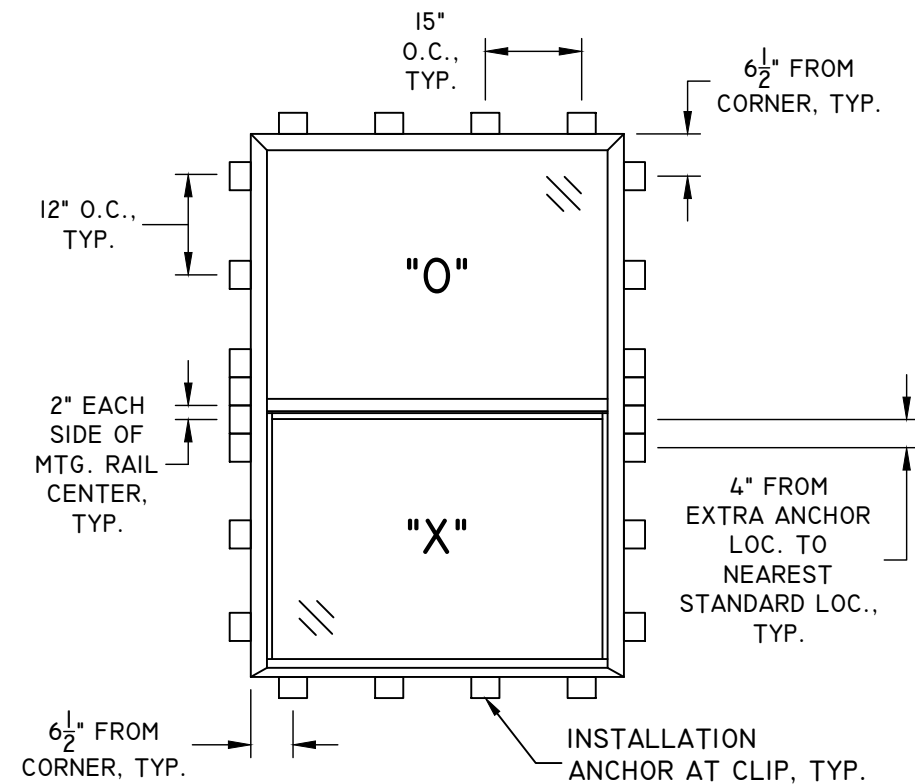
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DWG #: PGWI83FL

SHEET: 1-FL OF 5

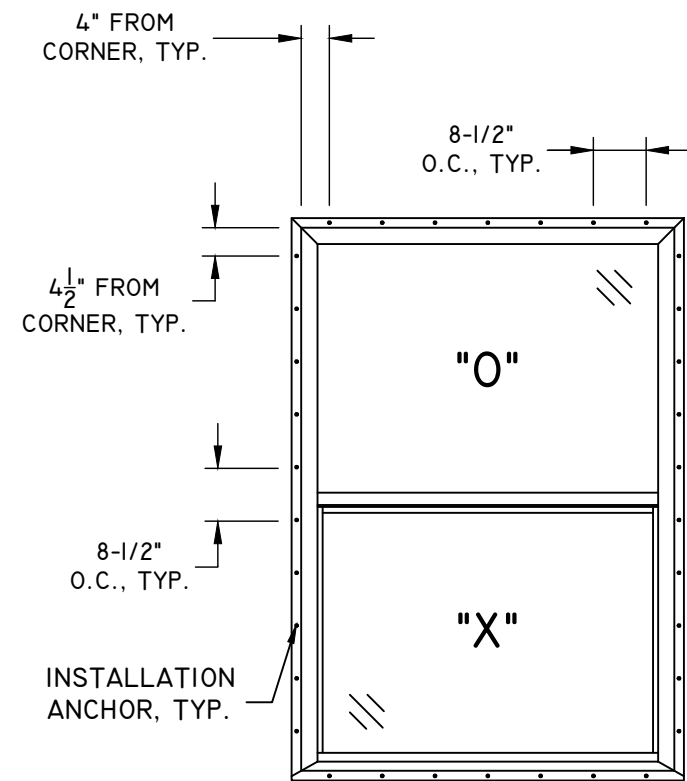


ELEVATION



ANCHOR LAYOUT

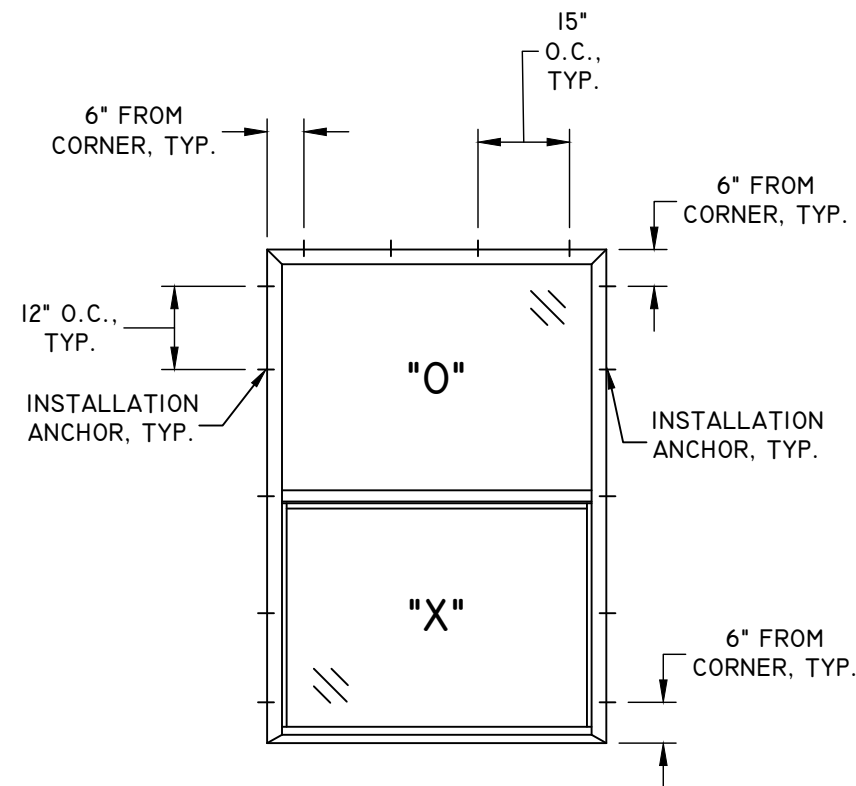
CLIP INSTALLATION



ANCHOR LAYOUT

FIN INSTALLATION

TABLE I, SHEET I
FASTENER ID "A" & "B" ONLY

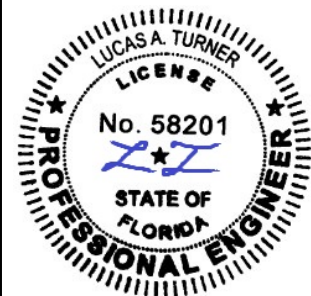


ANCHOR LAYOUT

FRAME INSTALLATION

TABLE I, SHEET I
FASTENER ID "C"- "D"- "E"- "F"- "G"- "H" & "I"

TITLE: SERIES 1500 SINGLE HUNG IMPACT WINDOW ELEVATIONS & ANCHOR SCHEDULE		NO.	REVISION DESCRIPTION	BY	DATE
DATE:	12.12.12	D	UPDATED FRAME ANCHOR LAYOUT.	LMH	10.17.18
DWN BY:	JLA	E	UPDATED NOTE 12.EC 19-020	LMH	12.04.19
CHK BY:		F	UPDATED FOR 7TH EDITION 2020 FBC	LMH	12.01.20
SCALE:	NTS	G	UPDATED FOR 8TH EDITION 2023 FBC	LMH	12.04.23

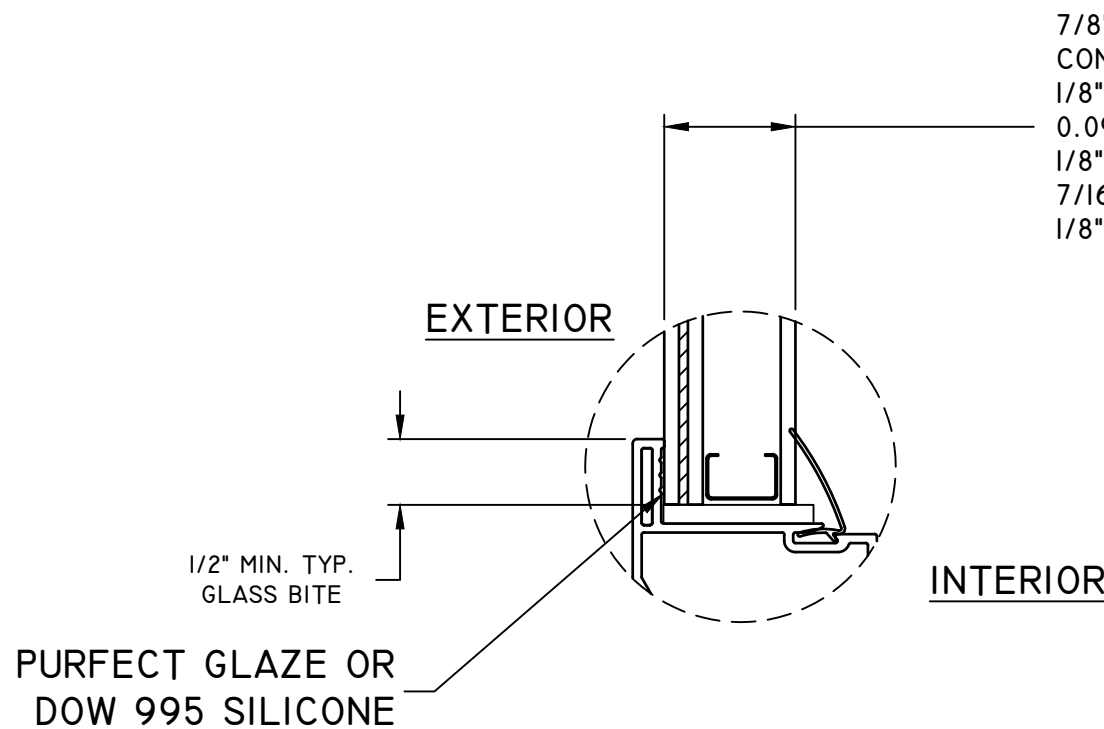


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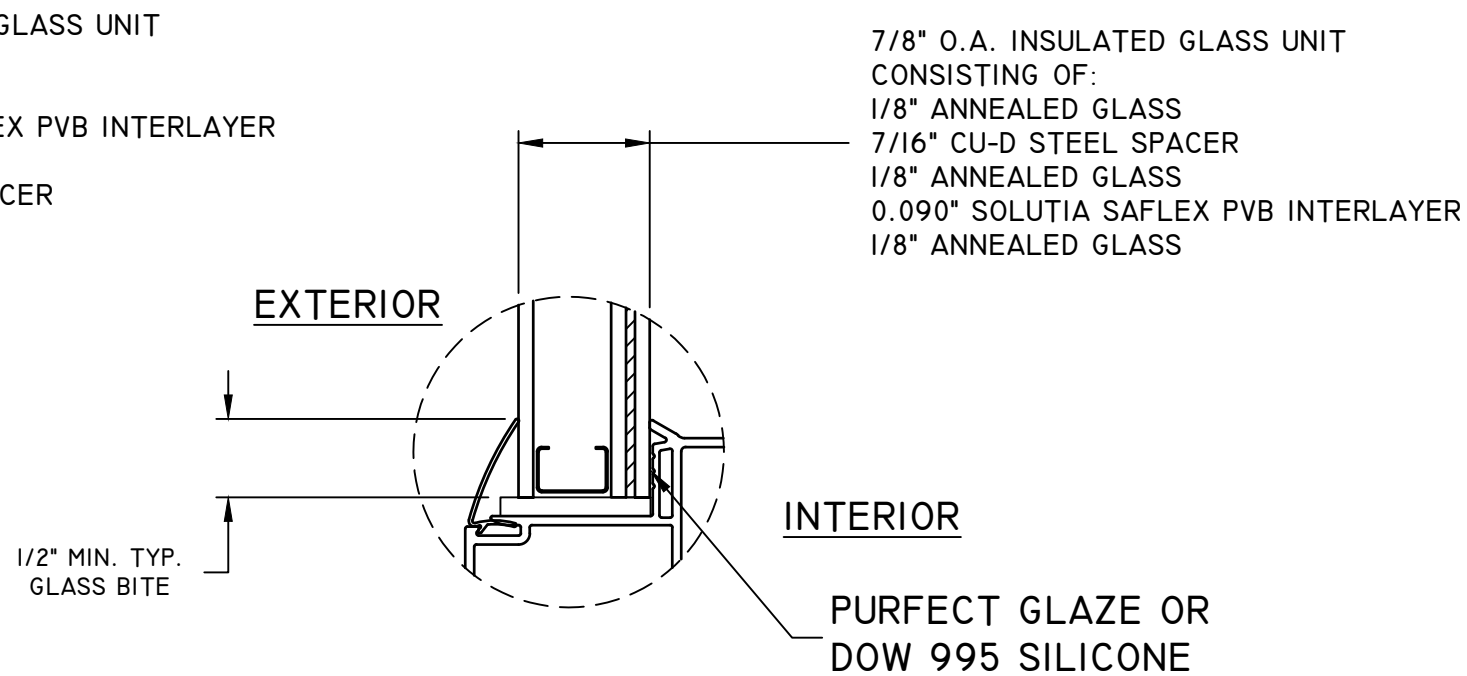
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SHEET: 2 OF 5



GLAZING DETAIL 1

FIXED LITE

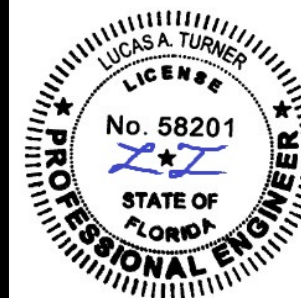


GLAZING DETAIL 2

SASH LITE

FOR INSTALLATION ABOVE 30 FT. ABOVE GRADE IN AREAS REQUIRING IMPACT RESISTANCE, ALL UNITS MUST BE SAFETY GLAZED OR COVERED BY AN IMPACT PROTECTIVE SYSTEM PER FBC SECTION 2411.3.3.7.

TITLE: SERIES 1500 SINGLE HUNG IMPACT WINDOW GLAZING DETAILS	NO.	REVISION DESCRIPTION	BY	DATE
	D	UPDATED FRAME ANCHOR LAYOUT.	LMH	10.17.18
	E	UPDATED NOTE 12.EC 19-020	LMH	12.04.19
	F	UPDATED FOR 7TH EDITION 2020 FBC	LMH	12.01.20
	G	UPDATED FOR 8TH EDITION 2023 FBC	LMH	12.04.23
DATE:	DWN BY:	CHK BY:	SCALE:	
12.12.12	JLA		NTS	

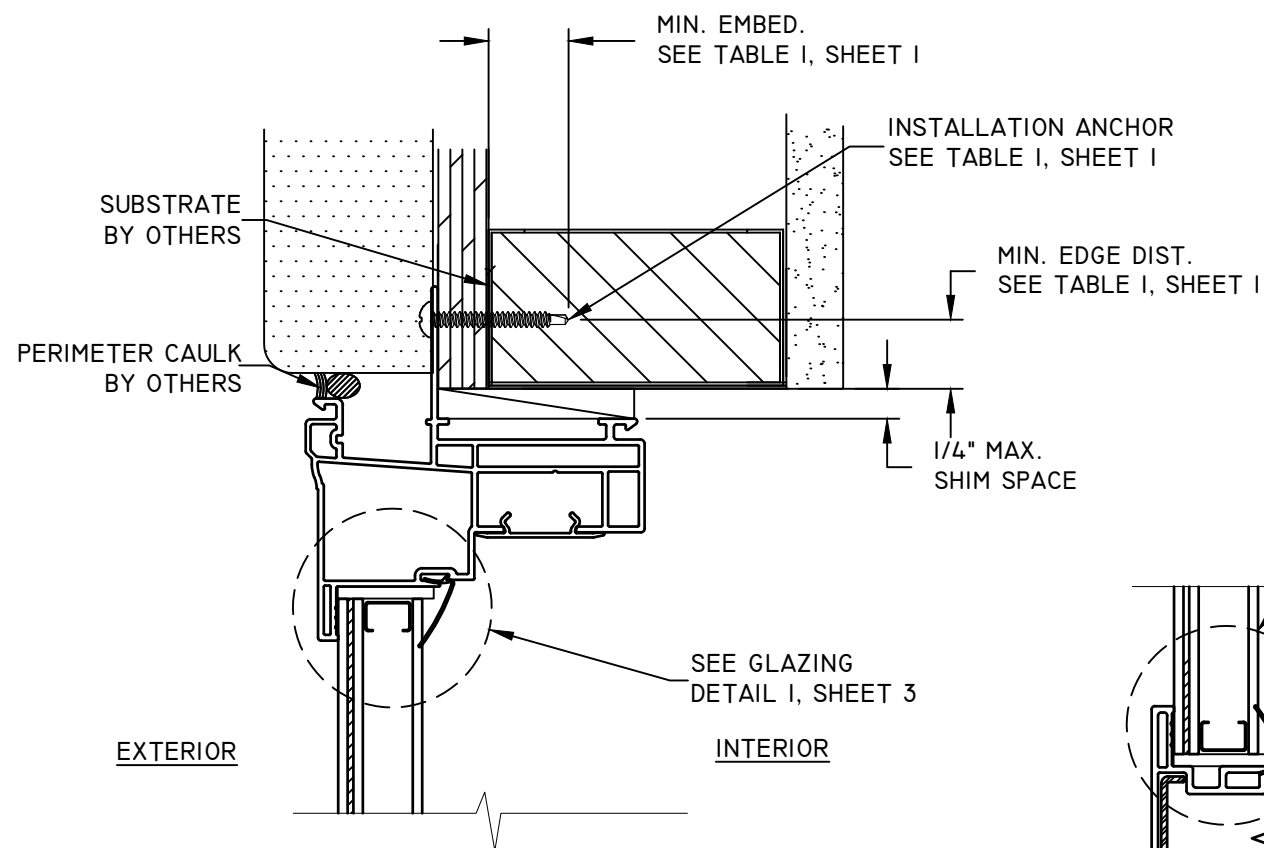


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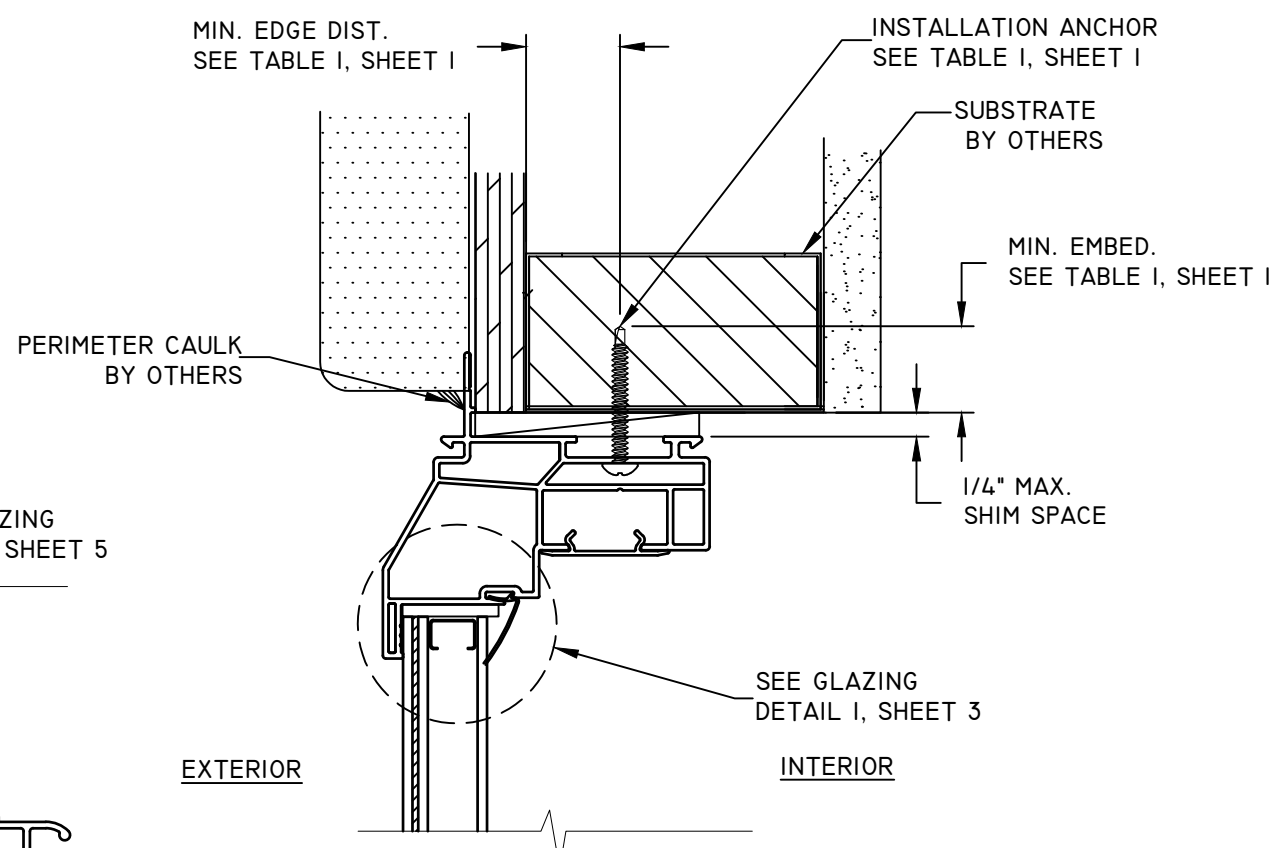
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DWG #: PGWI83FL

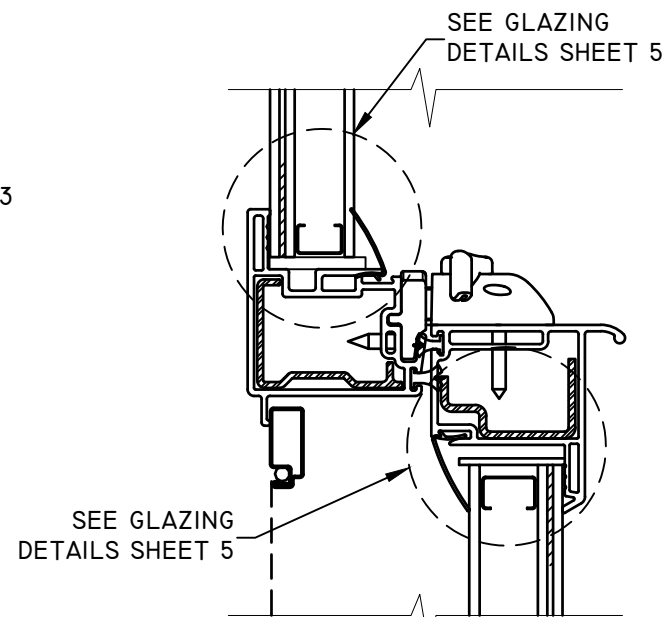
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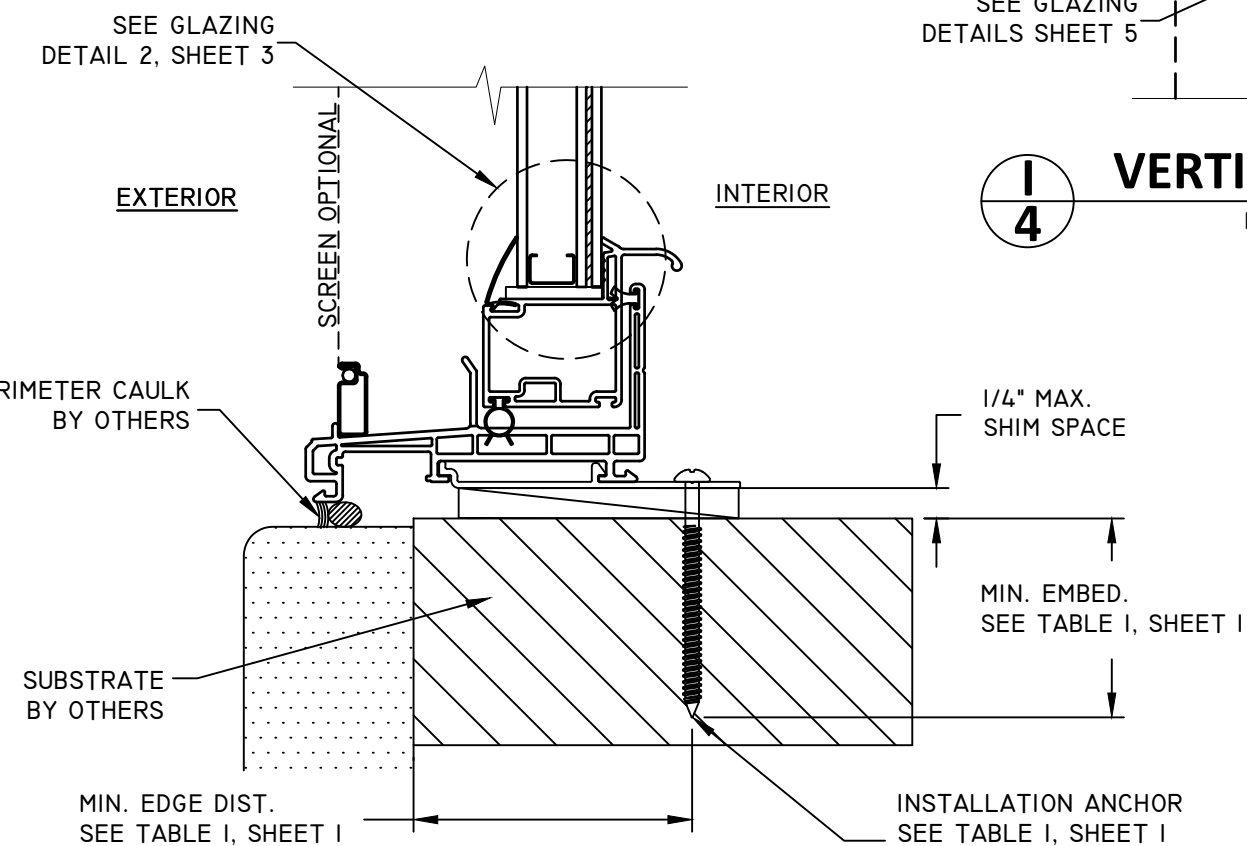
B
4
VERTICAL SECTION
HEAD
BRICKMOULD FRAME - FIN INSTALLATION



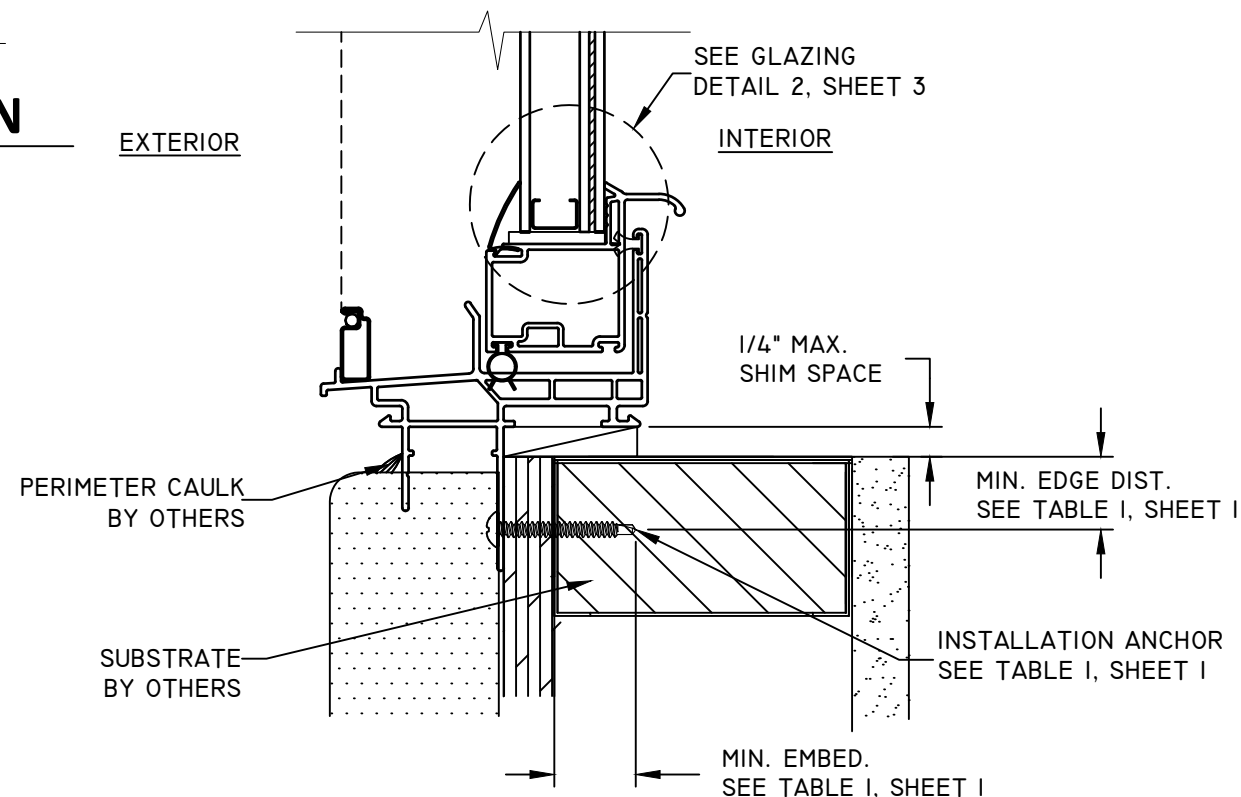
C
4
VERTICAL SECTION
HEAD
BEVELED FRAME - FRAME INSTALLATION



I
4
VERTICAL SECTION
MEETING RAIL
TYPICAL

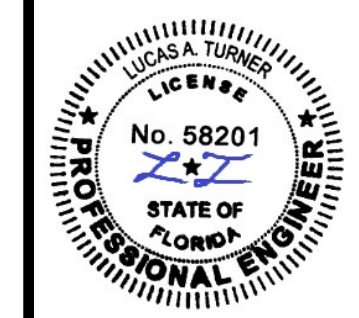


A
4
VERTICAL SECTION
SILL
BRICKMOULD FRAME - CLIP INSTALLATION



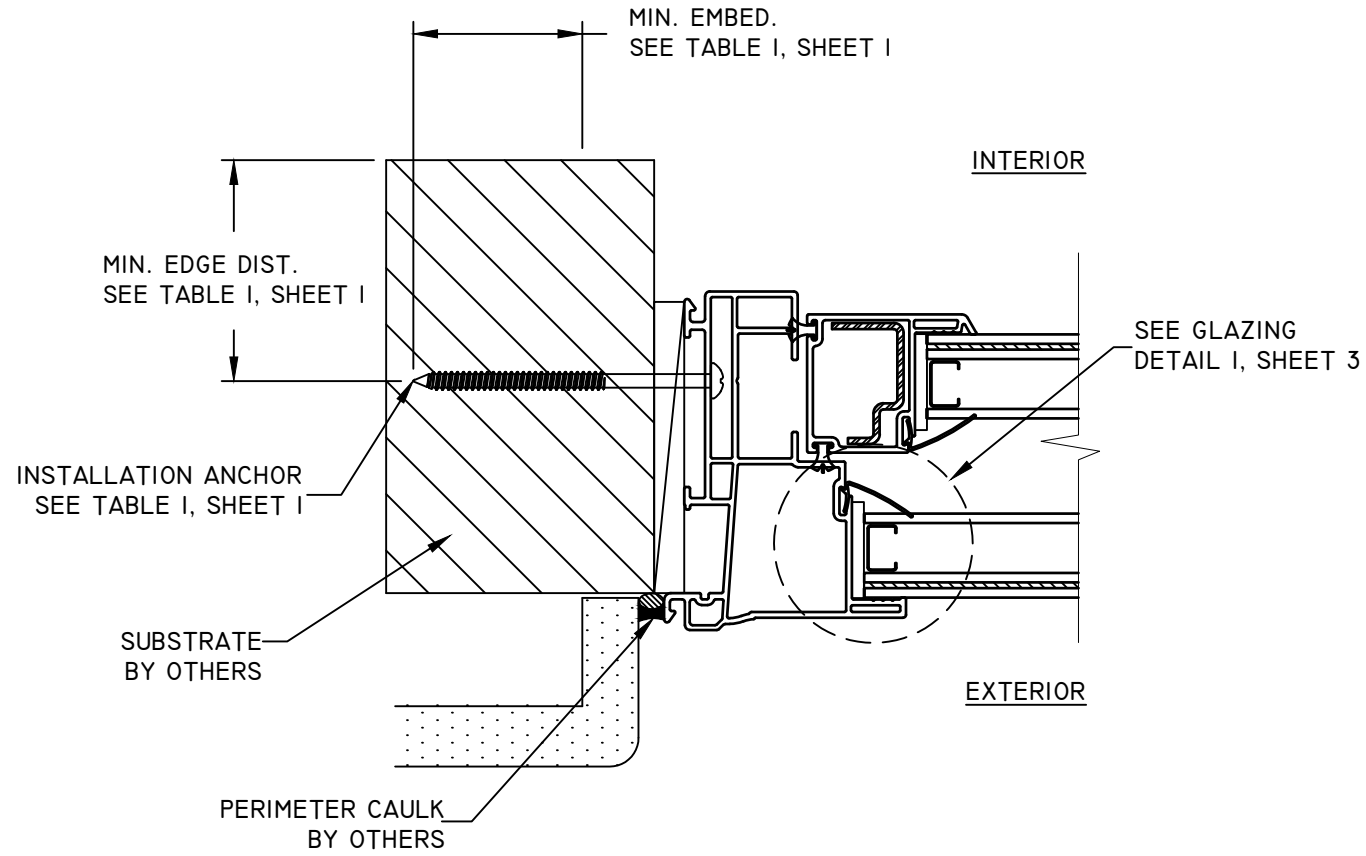
D
4
VERTICAL SECTION
SILL
BEVELED FRAME - FIN INSTALLATION

TITLE: SERIES 1500 SINGLE HUNG IMPACT WINDOW VERTICAL SECTIONS	NO.	REVISION DESCRIPTION	BY	DATE	
	D	UPDATED FRAME ANCHOR LAYOUT.	LMH	10.17.18	
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	DATE: 12.12.12	DWN BY: JLA	CHK BY:	SCALE: NTS	

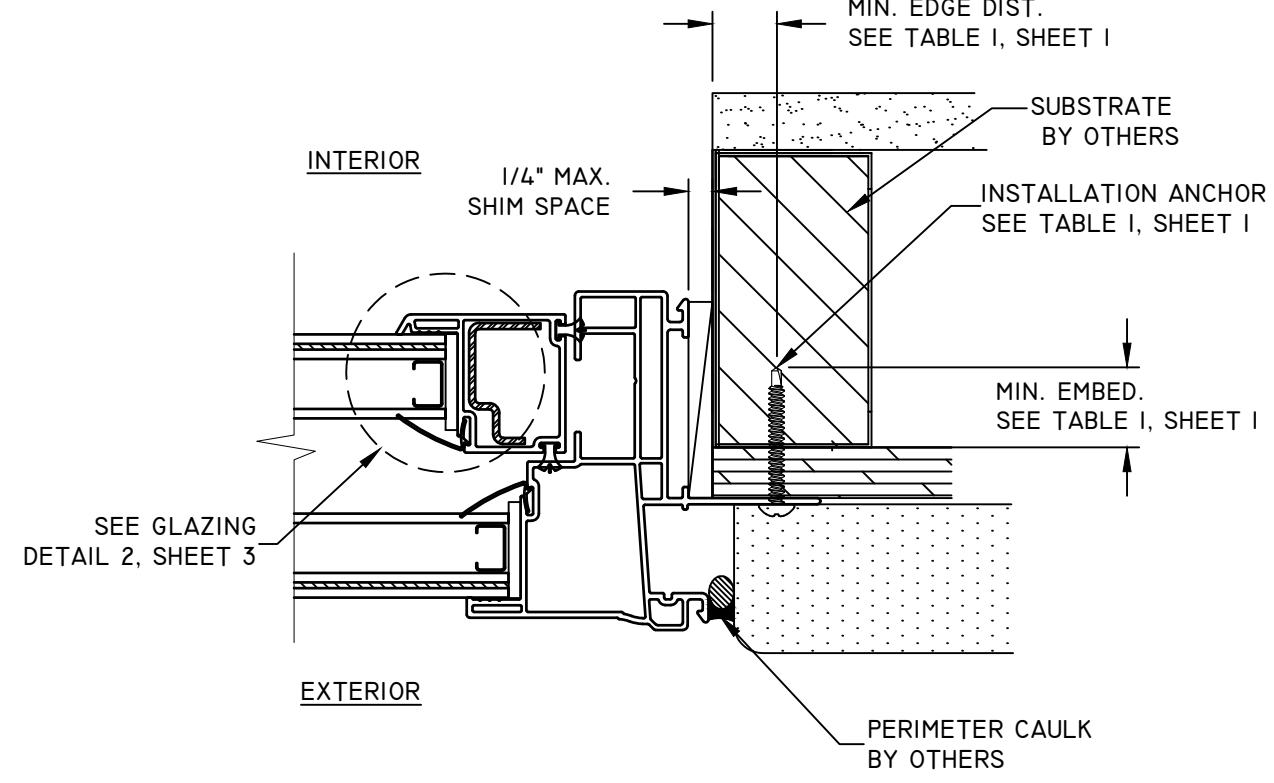


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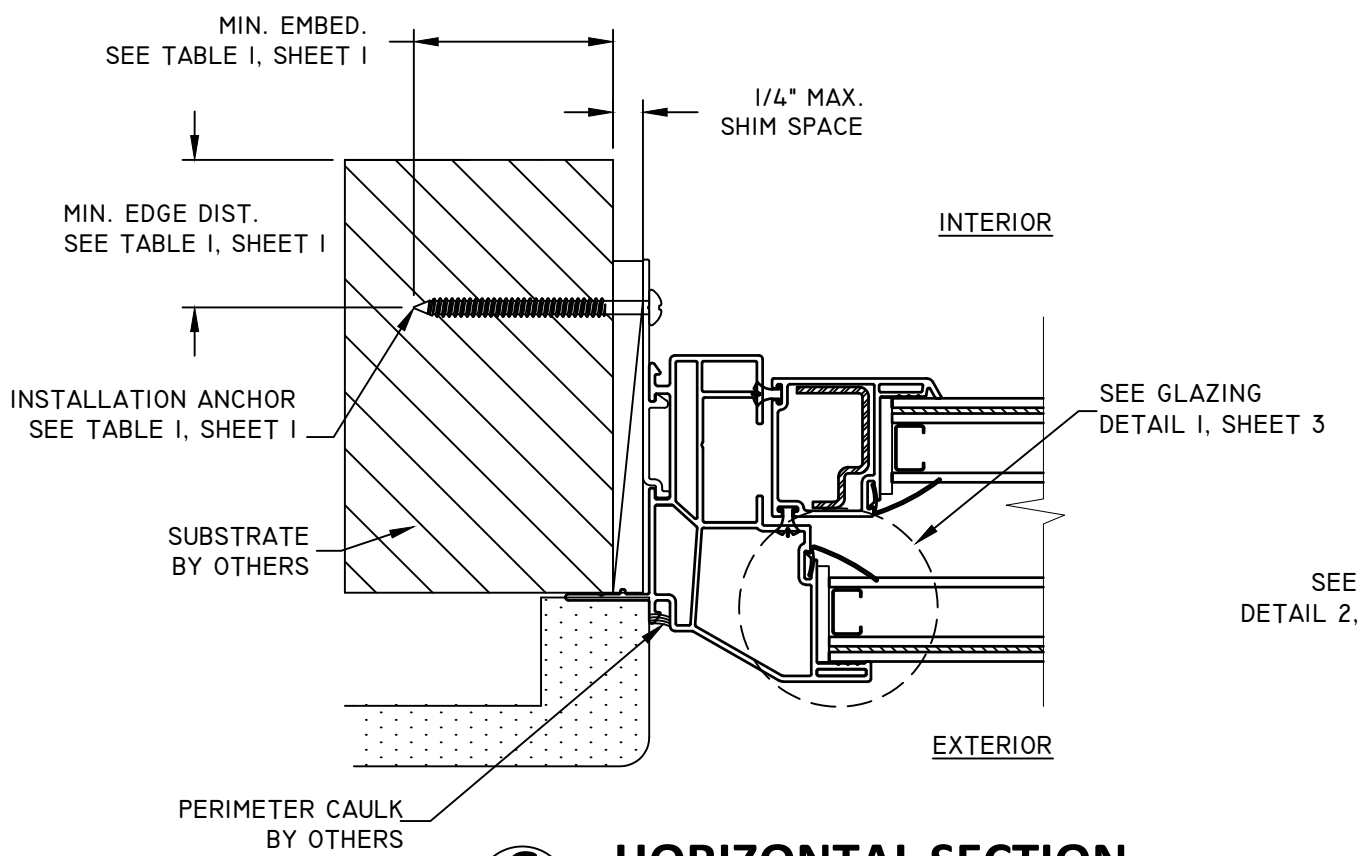
FL#: **16103**
DWG #: **PGWI83FL**
SHEET: **4 OF 5**



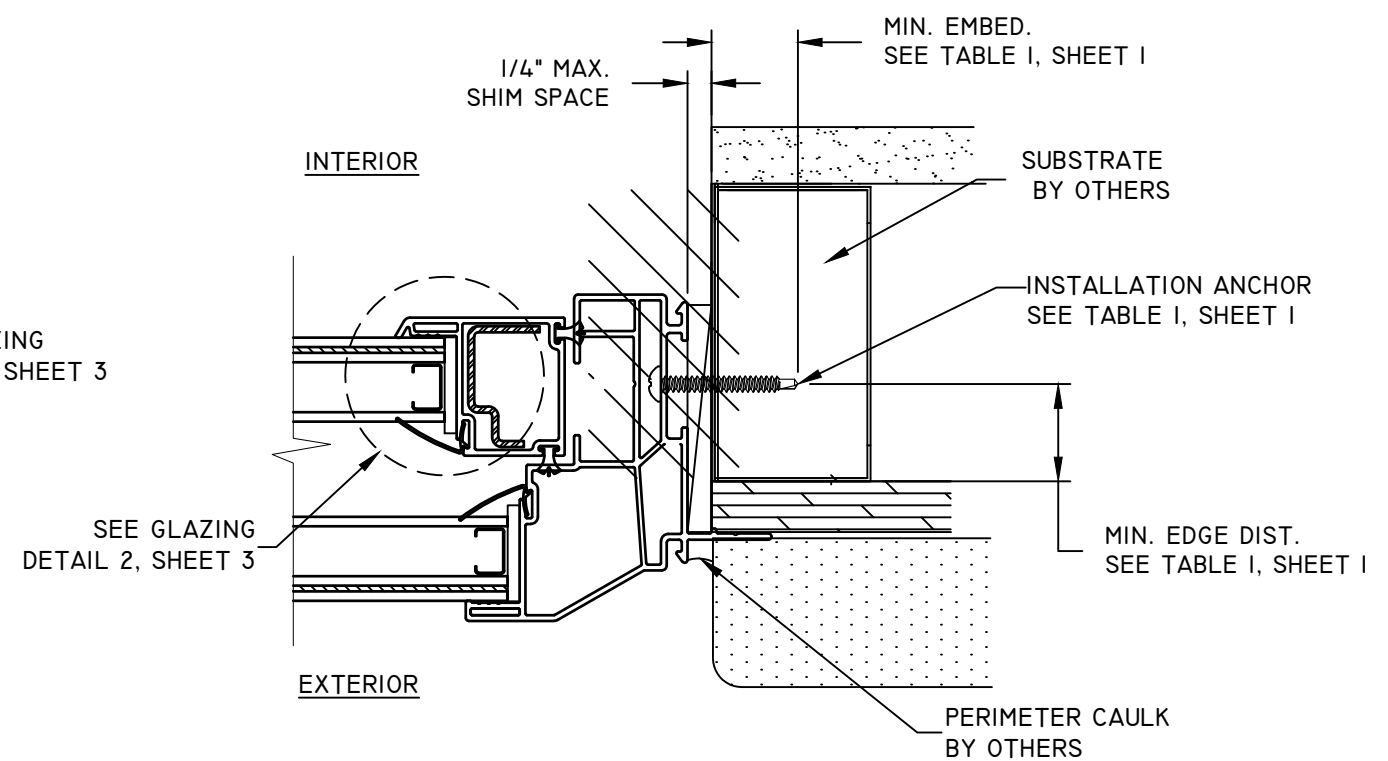
E
5 **HORIZONTAL SECTION**
JAMB
BRICKMOULD FRAME - FRAME INSTALLATION



F
5 **HORIZONTAL SECTION**
JAMB
BRICKMOULD FRAME - FIN INSTALLATION



G
5 **HORIZONTAL SECTION**
JAMB
BEVELED FRAME - CLIP INSTALLATION



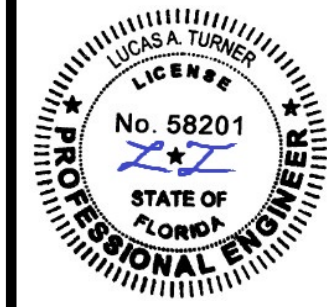
H
5 **HORIZONTAL SECTION**
JAMB
BEVELED FRAME - FRAME INSTALLATION

PlyGem
WINDOWS & DOORS
Part of the Cornerstone Building Brands Family
433 N. MAIN ST.,
PO BOX 559,
ROCKY MOUNT, VA 24151
PH: 540-484-6348
FX: 540-484-6683

TITLE: SERIES 1500 SINGLE HUNG IMPACT WINDOW
HORIZONTAL SECTIONS

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DATE:	12.12.12
DWN BY:	JLA
CHK BY:	
SCALE:	NTS



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FL#: **16103**

DWG #: **PGW183FL**

SHEET: **5 OF 5**