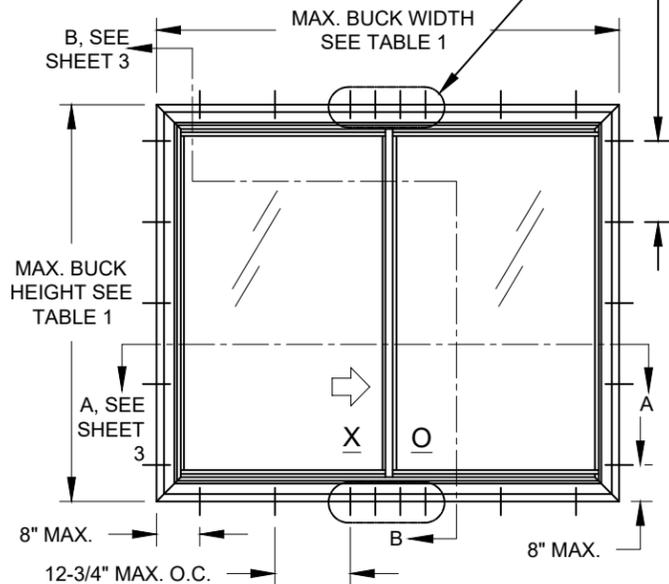
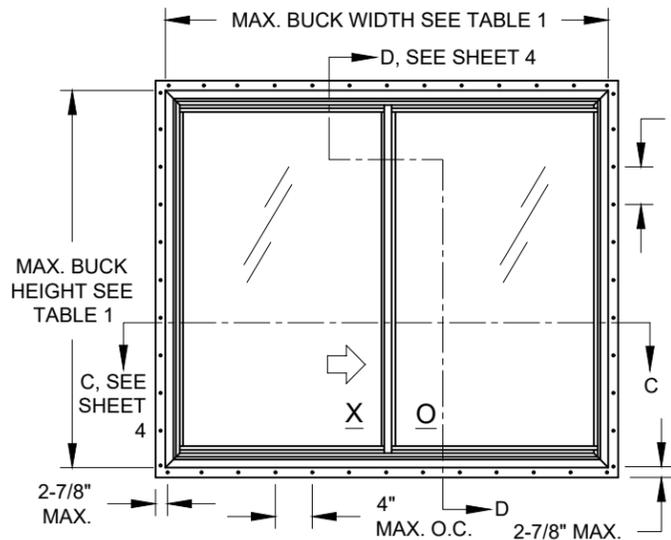


FLORIDA PRODUCT APPROVAL #1844

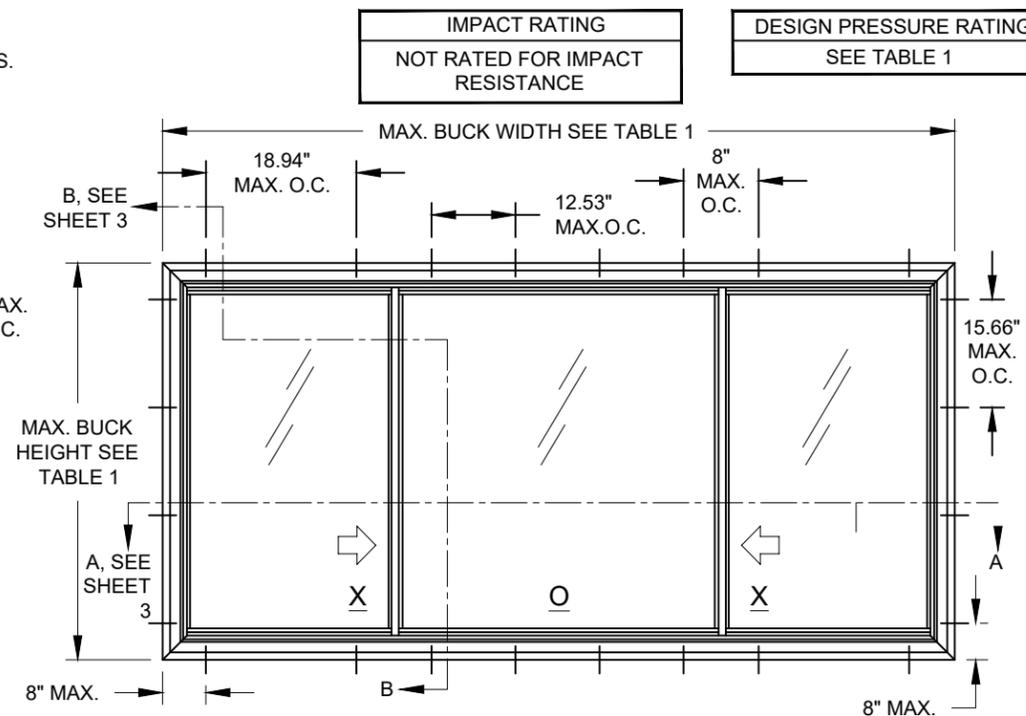
2 ANCHORS @ 8" MAX. O.C. IF THE WINDOW BUCK HEIGHT IS 63" OR LESS.  
 4 ANCHORS @ 4" MAX. O.C. IF THE WINDOW BUCK HEIGHT IS OVER 63".  
 19" MAX. O.C. IF THE WINDOW BUCK HEIGHT IS 63" OR LESS.  
 14" MAX. O.C. IF THE WINDOW BUCK HEIGHT IS OVER 63".



ELEVATION FOR TYP. EQUAL LEG/BOX & FLANGE FRAME, XO CONFIGURATION, OX SIMILAR



ELEVATION FOR TYP. FIN OR J-CANNEL FRAME, XO CONFIGURATION, OX & XOX SIMILAR



ELEVATION FOR TYP. EQUAL LEG/BOX & FLANGE FRAME, XOX CONFIGURATION  
 MAX. SASH WIDTH = 30.36"  
 MAX. FIXED LITE (BUCK WIDTH - [2 X SASH WIDTH]) = 59.28"

IMPACT RATING  
 NOT RATED FOR IMPACT RESISTANCE  
 DESIGN PRESSURE RATING  
 SEE TABLE 1

**SERIES HR5410 NON-IMPACT RESISTANT, VINYL HORIZONTAL ROLLER**

- 1) THIS PRODUCT HAS BEEN DESIGNED & TESTED TO COMPLY WITH THE REQUIREMENTS OF THE CURRENT FLORIDA BUILDING CODE.
- 2) SHUTTERS ARE REQUIRED WHEN USED IN WIND-BORNE DEBRIS REGIONS.
- 3) MASONRY ANCHORS MAY BE USED INTO WOOD AS PER TABLES 2 & 3. ALL WOOD BUCKS LESS THAN 1-1/2" THICK ARE TO BE CONSIDERED 1X INSTALLATIONS. 1X WOOD BUCKS ARE OPTIONAL IF UNIT IS INSTALLED DIRECTLY TO SUBSTRATE. WOOD BUCKS DEPICTED AS 2X ARE 1-1/2" THICK OR GREATER. 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED TO PROPERLY TRANSFER LOADS TO THE STRUCTURE. WOOD BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD.
- 4) ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO. USE ANCHORS OF SUFFICIENT LENGTH. ANCHORS AND FRAME CORNERS SHOULD BE SEALED. OVERALL SEALING/FLASHING STRATEGY FOR WATER RESISTANCE OF INSTALLATION SHALL BE DONE BY OTHERS AND IS BEYOND THE SCOPE OF THESE INSTRUCTIONS.
- 5) SHIMS ARE REQUIRED AT EACH ANCHOR LOCATION WHERE THE PRODUCT IS NOT FLUSH TO THE SUBSTRATE. USE SHIMS CAPABLE OF TRANSFERRING APPLIED LOADS. WOOD BUCKS, BY OTHERS, MUST BE SUFFICIENTLY ANCHORED TO RESIST LOADS IMPOSED ON THEM BY THE WINDOW.
- 6) THE ANCHORAGE METHODS SHOWN HAVE BEEN DESIGNED TO RESIST THE WIND LOADS CORRESPONDING TO THE REQUIRED DESIGN PRESSURE. THE 33-1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. THE 1.6 LOAD DURATION FACTOR WAS USED FOR THE EVALUATION OF ANCHORS INTO WOOD. ANCHORS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE FOR CORROSION RESISTANCE.
- 7) FRAMES FLANGES OR INTEGRAL FINs MAY BE TRIMMED IN-FIELD TO CREATE AN EQUAL-LEG FRAME.

TABLE 1:

Window Buck Size		Configuration	Reinf. Level	Design Pressure		Product Rating
Width	Height			(+) psf	(-) psf	
75"	54"	XO/OX	R1	50.0	50.0	R-PG50
75"	54"	XO/OX	R2	65.0	70.0	R-PG65
75"	63"	XO/OX	R3	50.0	50.0	LC-PG50
75"	72"	XO/OX	R4	65.0	70.0	LC-PG65
120"	63"	XOX (1/4-1/2-1/4)	R3	50.0	50.0	LC-PG50
92"	63"	XOX (1/3-1/3-1/3)				
120"	63"	XOX (1/4-1/2-1/4)	R4	65.0	70.0	LC-PG65
92"	63"	XOX (1/3-1/3-1/3)				

SEE SHEET 2 FOR GLASS TYPES

Revision: D) NO CHANGES IN THIS SHEET.

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	Date	06/12/11
		By	A. MORLESIN
<b>PGI</b> Custom Windows and Doors 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	VINYL HORIZONTAL ROLLER WINDOW (NI)	GENERAL NOTES & ELEVATION.	Series Desc. Title
			No.
1 OF 4	DWG	No.	HR5410FPA-NI
HR5410	Sheet	Rev.	D

**ANTHONY LYNN MILLER**  
 LICENSE  
 No. 58705  
*A. Lynn Miller*  
 10/11/23  
 STATE OF FLORIDA  
**PROFESSIONAL ENGINEER**  
 A. LYNN MILLER, P.E.  
 P.E.# 58705

TABLE 2: ANCHORS INSTALLED THROUGH FRAME

Anchor	Substrate	Min. Edge Distance	Min. Embedment
#10 SMS (steel, 18-8 S.S. or 410 S.S.) <b>Max. DP of 50.0 psf</b>	P.T. Southern Pine (SG=0.55)	7/16"	1-3/8"
	Steel, A36	3/8"	0.050"
	Steel Stud, A653 Gr. 33	3/8"	0.0346" (20 Ga.)
	Aluminum, 6063-T5	3/8"	0.0713" (14 Ga.)
#12 SMS (steel, 18-8 S.S. or 410 S.S.)	P.T. Southern Pine (SG=0.55)	9/16"	1-3/8"
	Steel, A36	3/8"	0.050"
	Steel Stud, A653 Gr. 33	3/8"	0.0346" (20 Ga.)
	Aluminum, 6063-T5	3/8"	0.0713" (14 Ga.)
3/16" Ultracon+ <b>Max. DP of 50.0 psf</b>	P.T. Southern Pine (SG=0.55)	7/16"	1-3/8"
	Concrete (min. 3 ksi)	1"	1-3/8"
	UngROUTED CMU, (ASTM C-90)	1"	1-1/4"
1/4" Ultracon+	P.T. Southern Pine (SG=0.55)	1"	1-3/8"
	Concrete (min. 3 ksi)	1-3/16"	1-3/4"
	UngROUTED CMU, (ASTM C-90)	1"	1-1/4"
1/4" Crete-Flex (410 S.S.)	P.T. Southern Pine (SG=0.55)	1"	1-3/8"
	Concrete (min. 3.35 ksi)	1"	1-3/4"
	UngROUTED CMU, (ASTM C-90)	2-1/2"	1-1/4"
1/4" Aggre-Gator (18-8 S.S.)	Concrete (min. 3.275 ksi)	1-1/2"	1-3/8"
	P.T. Southern Pine (SG=0.55)	1"	1-3/8"
	UngROUTED CMU, (ASTM C-90)	2"	1-1/4"

- 1) "UNGROUTED CMU" VALUES MAY BE USED FOR GROUTED CMU APPLICATIONS.
- 2) ALL ANCHOR HEAD TYPES ARE ACCEPTABLE.
- 3) ANCHOR LENGTH TO BE SO THAT A MIN. OF 3 THREADS EXTEND BEYOND THE METAL SUBSTRATE.

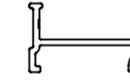
TABLE 3: ANCHORS INSTALLED THROUGH INTEGRAL FIN

Anchor	Substrate	Min. Edge Distance	Min. Embedment	
2-1/2" x .131" Common Nail <b>Max. DP of 50.0</b>	P.T. Southern Pine (SG=.55)	9/16"	2-7/16"	
	2-1/2" x .131" Ring-shank Nail	P.T. Southern Pine (SG=.55)	9/16"	2-7/16"
	2-1/2" x .145" Roofing Nail	P.T. Southern Pine (SG=.55)	9/16"	2-7/16"
#10 SMS (steel, 18-8 S.S. or 410 S.S.)	P.T. Southern Pine (SG=.55)	3/4"	1-3/8"	
	Aluminum, 6063-T5	3/8"	0.0713" (14 Ga.)	
	Steel Stud, Gr. 33	3/8"	0.0346" (20 Ga.)	
	Steel, A36	3/8"	0.050"	

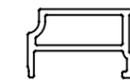
1) PANHEAD, FLATHEAD OR HEXHEAD ARE ACCEPTABLE.

TABLE 4: REINFORCEMENT TYPES

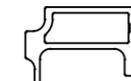
Level	Reinforcement	
	Vent (4 sides)	Meeting Rail
R1	A	D
R2	A	E
R3	B	E
R4	C	F



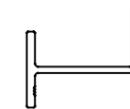
REINFORCEMENT TYPE A



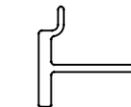
REINFORCEMENT TYPE B



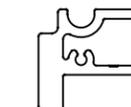
REINFORCEMENT TYPE C



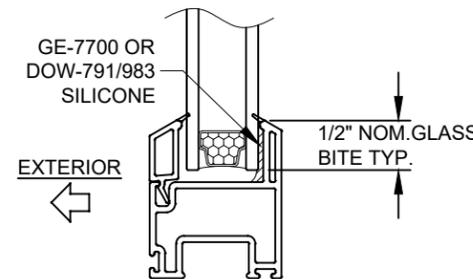
REINFORCEMENT TYPE D



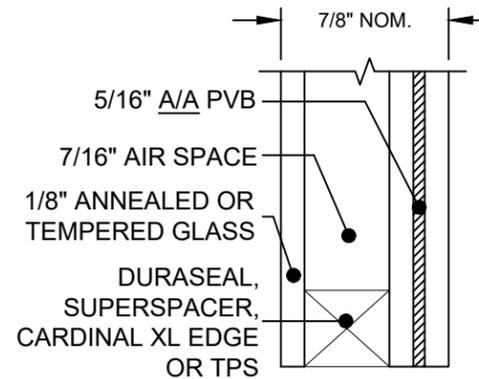
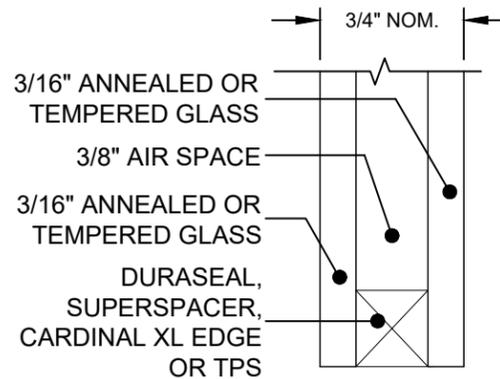
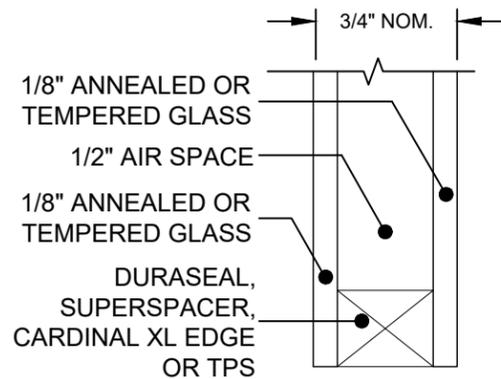
REINFORCEMENT TYPE E



REINFORCEMENT TYPE F



TYP. GLAZING DETAIL

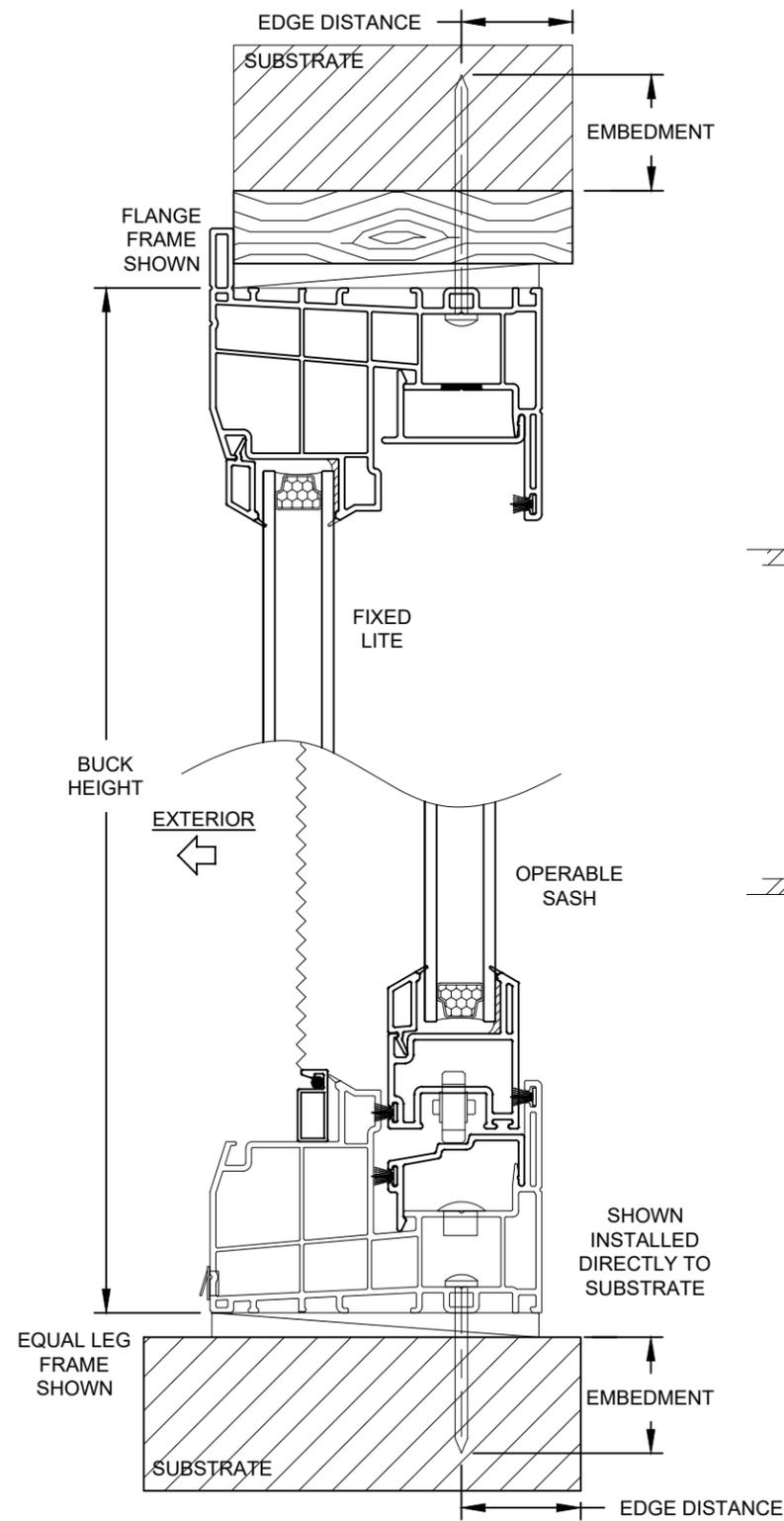


GLASS TYPES

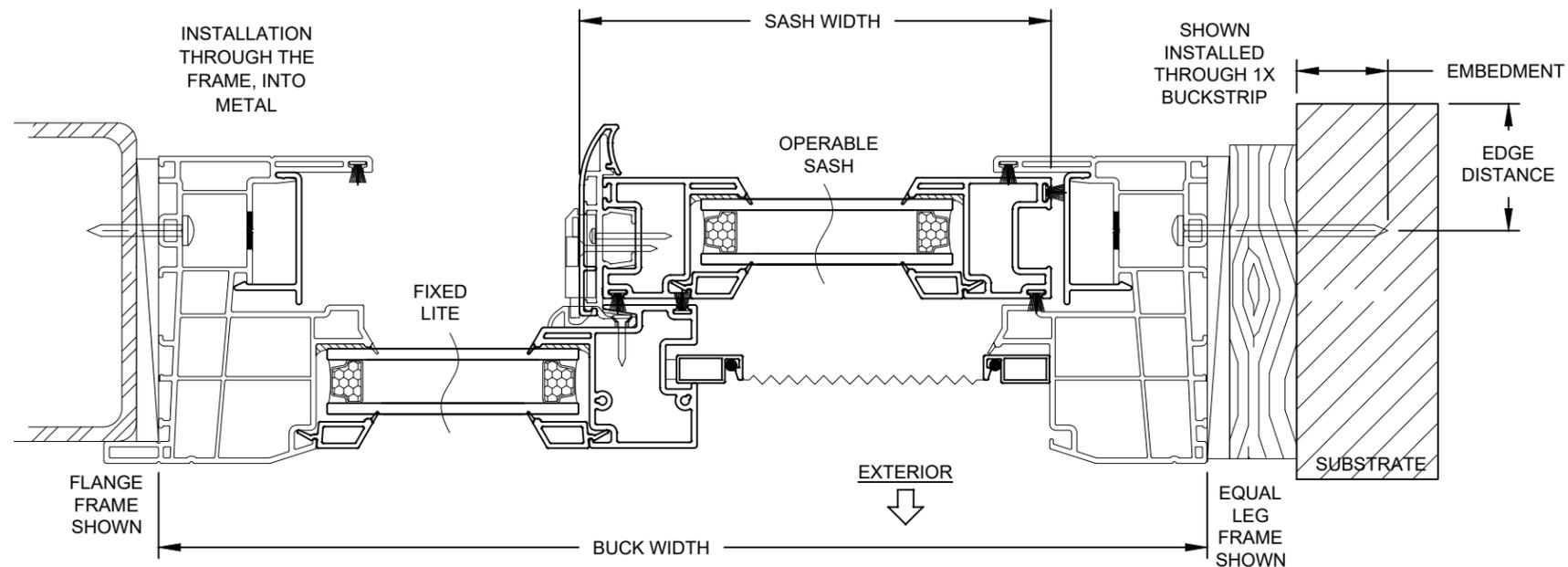
PVB = KURARAY TROSIFOL PVB  
INTERLAYER BY KURARAY AMERICA, INC.  
A = ANNEALED

Revision:  
D) REMOVED 1/4" & 3/16" ULTRACON FROM ANCHOR TABLES.

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	Date	06/12/11
		By	A. MORLESIN
<b>PGI</b> Custom Windows and Doors 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	VINYL HORIZONTAL ROLLER WINDOW (NI) ANCHOR & GLAZING DETAILS.	DWG No.	HR5410FPA-NI
		Sheet	2 OF 4
Series	HR5410	Rev.	D



**VERTICAL SECTION B-B**



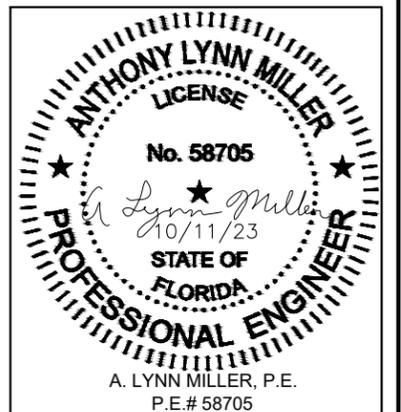
**HORIZONTAL SECTION A-A (XO)**  
(OX & XOX SIMILAR)

**INSTALLATION NOTES:**

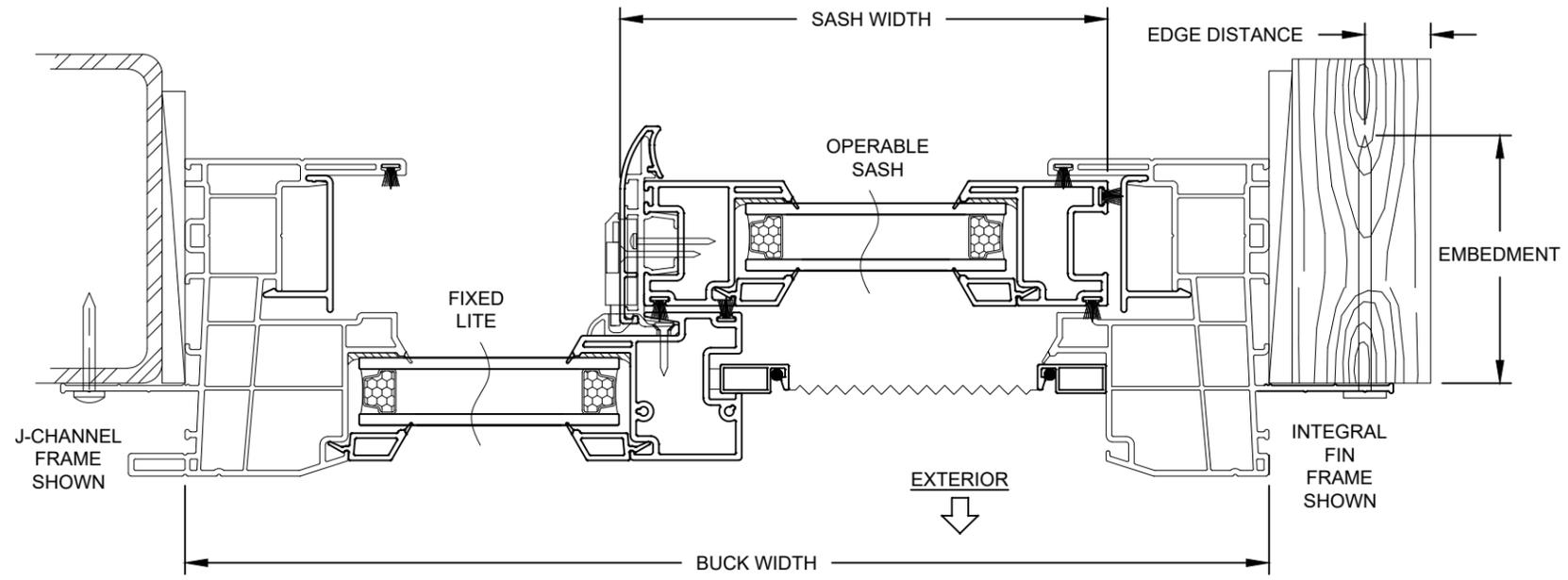
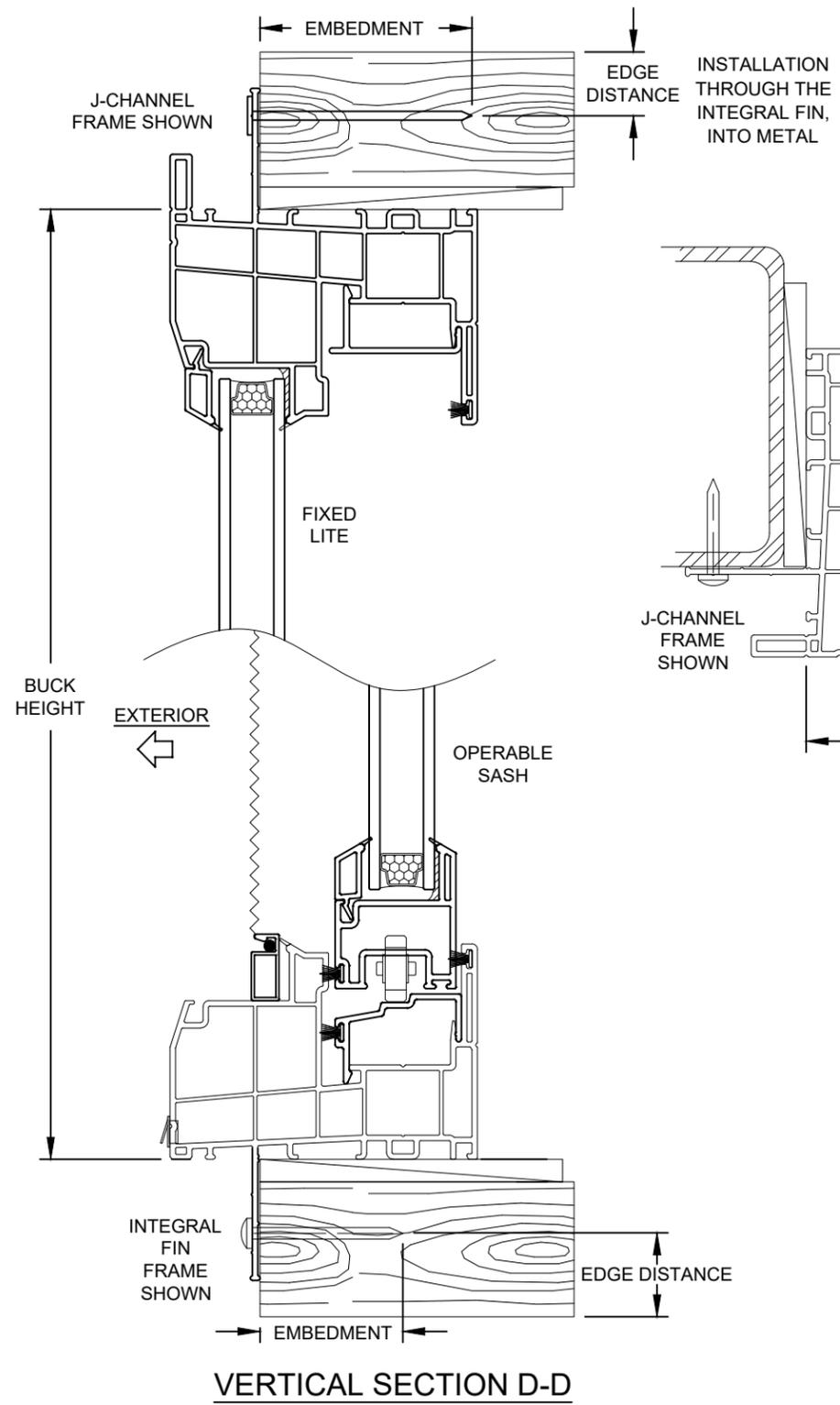
- 1) SEE SHEET 1 FOR SPACING REQUIREMENTS.
- 2) SEE TABLE(S) ON SHEET 2 FOR ANCHORAGE AND SUBSTRATE REQUIREMENTS.
- 3) MAX. SHIM THICKNESS TO BE 1/4".
- 4) GLASS SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY AND MAY DIFFER TO MEET DESIGN REQUIREMENTS.
- 5) FIN AND/OR FLANGE MAY BE REMOVED TO CREATE OTHER FRAME TYPES.

Revision: D) NO CHANGES IN THIS SHEET.

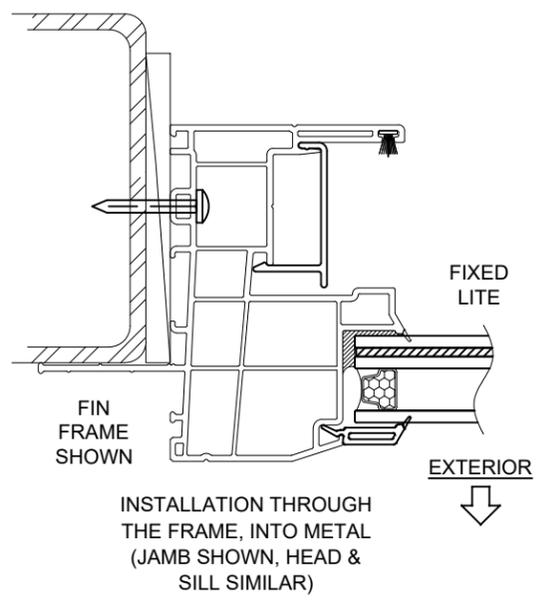
PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	Date	06/12/11	Rev.	D
	VINYL HORIZONTAL ROLLER WINDOW (NI) FLANGE INSTALLATIONS.	Drawn By	A. MORLESIN	DWG No.	HR5410FPA-NI
PGI Custom Windows and Doors 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	Series	HR5410	Sheet	3 OF 4	



A. LYNN MILLER, P.E.  
P.E.# 58705



**HORIZONTAL SECTION C-C (XO)**  
(OX & XOX SIMILAR)



**INSTALLATION NOTES:**

- 1) SEE SHEET 1 FOR SPACING REQUIREMENTS.
- 2) SEE TABLE(S) ON SHEET 2 FOR ANCHORAGE AND SUBSTRATE REQUIREMENTS.
- 3) MAX. SHIM THICKNESS TO BE 1/4".
- 4) GLASS SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY AND MAY DIFFER TO MEET DESIGN REQUIREMENTS.
- 5) FIN AND/OR FLANGE MAY BE REMOVED TO CREATE OTHER FRAME TYPES.

Revision: D) NO CHANGES IN THIS SHEET.

PREPARED BY A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296	Date	06/12/11	Rev.	D
	VINYL HORIZONTAL ROLLER WINDOW (NI)	By	A. MORLESIN	HR5410FPA-NI	
<b>PGI</b> Custom Windows and Doors 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	FIN INSTALLATIONS.	4 OF 4	Sheet	DWG No.	4 OF 4
				Series Desc. Title	HR5410

