

SERIES 1630 VINYL HORIZONTAL SLIDING WINDOW
IMPACT RESISTANT

- 1) THIS PRODUCT HAS BEEN DESIGNED & TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE, INCLUDING THE HIGH VELOCITY HURRICANE ZONE (HVHZ).
- 2) SHUTTERS ARE NOT REQUIRED WHEN USED IN WIND-BORNE DEBRIS REGIONS. FOR INSULATED GLASS INSTALLATIONS ABOVE 30' IN THE HVHZ, THE OUTBOARD LITE (CAP) MUST TEMPERED.
- 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.
- 4) ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO. USE ANCHORS OF SUFFICIENT LENGTH TO ACHIEVE EMBEDMENT. OVERALL SEALING/FLASHING STRATEGY FOR WATER RESISTANCE OF INSTALLATION SHALL BE DONE BY OTHERS AND IS BEYOND THE SCOPE OF THESE INSTRUCTIONS.
- 5) MAX. 1/4" SHIMS ARE REQUIRED AT EACH ANCHOR LOCATION WHERE THE PRODUCT IS NOT FLUSH TO THE SUBSTRATE. USE SHIMS CAPABLE OF TRANSFERRING APPLIED LOADS. FOR INTEGRAL FIN FRAMES INSTALL SHIMS AT MAX. 18" O.C.
- 6) DESIGN PRESSURES:
A. NEGATIVE DESIGN LOADS BASED ON STRUCTURAL/CYCLE TEST PRESSURE, FRAME ANALYSIS AND GLASS PER ASTM E1300.
B. POSITIVE DESIGN LOADS BASED ON WATER TEST PRESSURE, STRUCTURAL/ CYCLE TEST PRESSURE, FRAME ANALYSIS AND GLASS PER ASTM E1300.
C. DESIGN LOADS ARE BASED ON ALLOWABLE STRESS DESIGN, ASD.
- 7) THE ANCHORAGE METHODS SHOWN HAVE BEEN DESIGNED TO RESIST THE WINDLOADS 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.
- 8) REFER TO CURRENT FLORIDA BUILDING CODE FOR EGRESS REQUIREMENTS.
- 9) FRAME FLANGES OR INTEGRAL FINS MAY BE TRIMMED IN-FIELD TO CREATE A FINLESS FRAME.

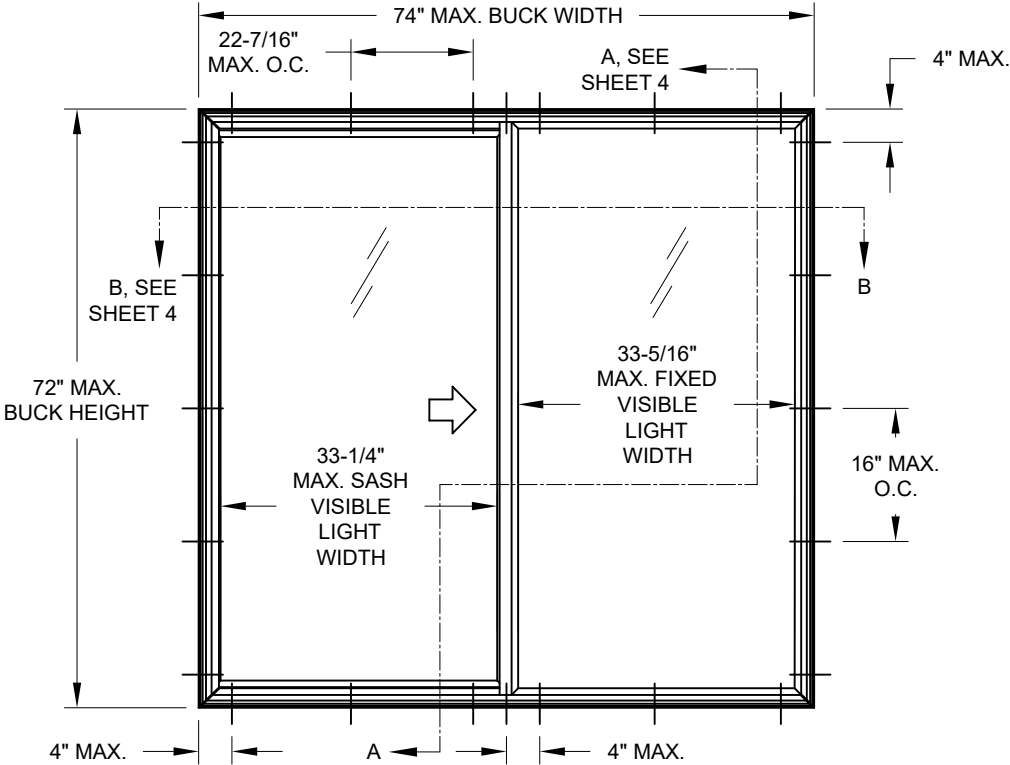
WHERE THE PRODUCT WILL BE INSTALLED WITHIN 3,000 FEET OF A SALTWATER COASTLINE, IT MUST COMPLY WITH SECTION 1711 OF THE FBC, BUILDING OR R332 OF THE FBC, RESIDENTIAL.

TABLE 1:

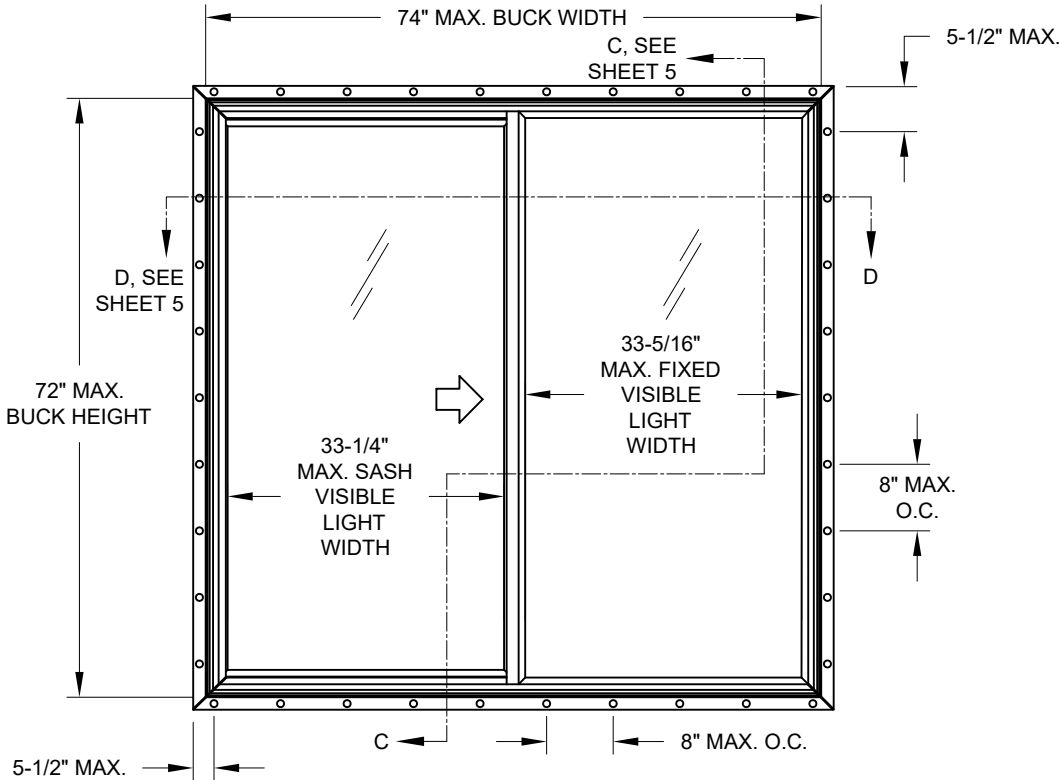
XO/OX, All Frame Types			
Buck Width	Buck Height	Glass Types	Design Pressure
74"	63"	1 & 2	+50/-65
74"	72"	2	+50/-65

FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION.

FLORIDA PRODUCT APPROVAL #47080



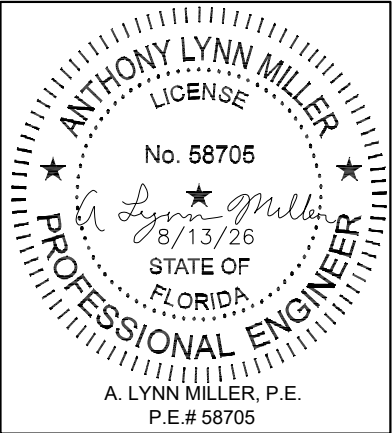
ELEVATION FOR TYP. FINLESS &
FLANGE FRAME, XO

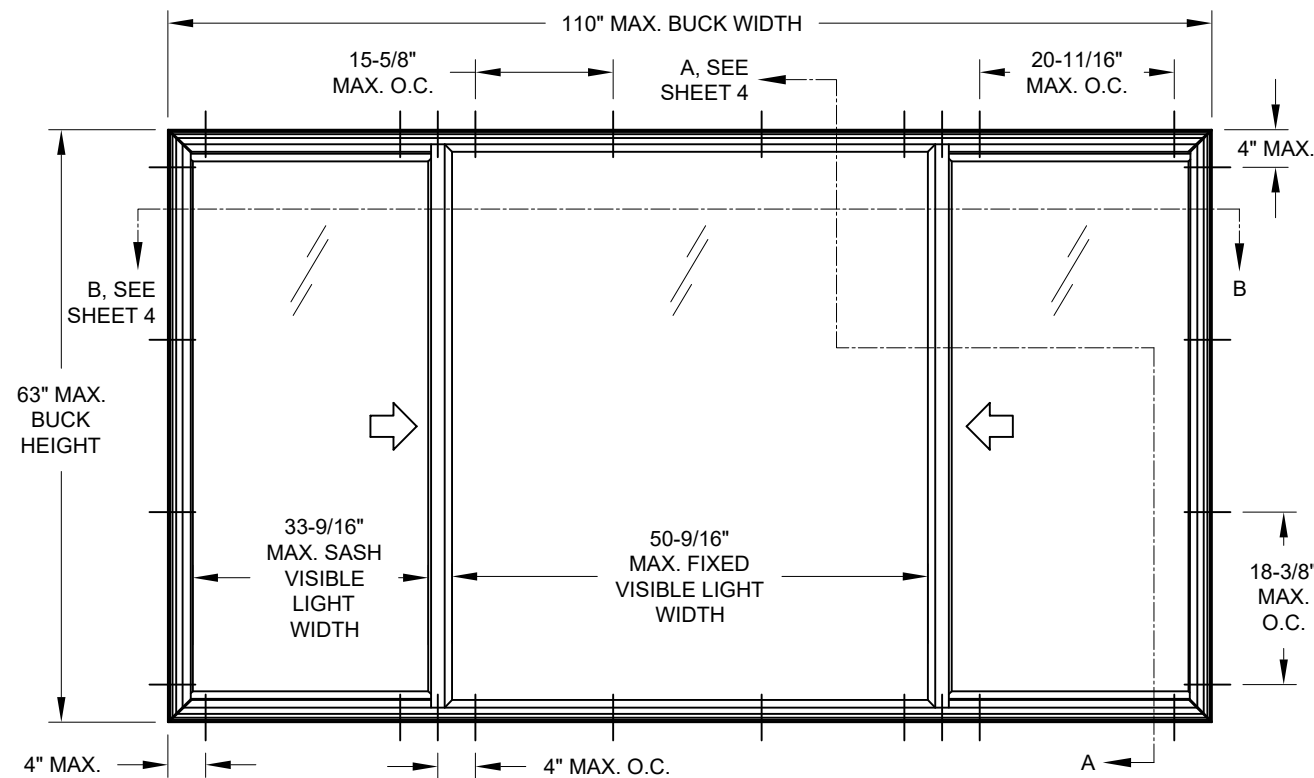


ELEVATION FOR TYP. FIN FRAME, XO

DESIGN PRESSURE RATING VARIES, SEE TABLES 1-4
WATER TEST PRESSURE 15% OF (+) DP
IMPACT RATING LARGE AND SMALL MISSILE IMPACT RESISTANT MISSILE LEVEL D

 MI[®] WINDOWS and DOORS 650 WEST MARKET STREET GRATZ, PA 17030 (717) 365-3300		PREPARED BY A. LYNN MILLER 3400 PRECISION DRIVE N. VENICE, FL 34275 (941) 480-1600		
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		VINYL HORIZONTAL SLIDING WINDOW (LM)		
Title	Date		8/13/26	
XO ELEVATION & GENERAL NOTES			By	COLTON KEMPFF
Series	1630 HS	1 OF 7	DWG No.	1630HS-LM-HVHZ
Desc.	Sheet			





ELEVATION FOR TYP. FINLESS & FLANGE FRAME, XOX

1/4 - 1/2 - 1/4 SHOWN, 1/3 - 1/3 - 1/3 SIMILAR. REFER TO TABLES 2 & 3 FOR APPROVED SIZES AND GLASS TYPES

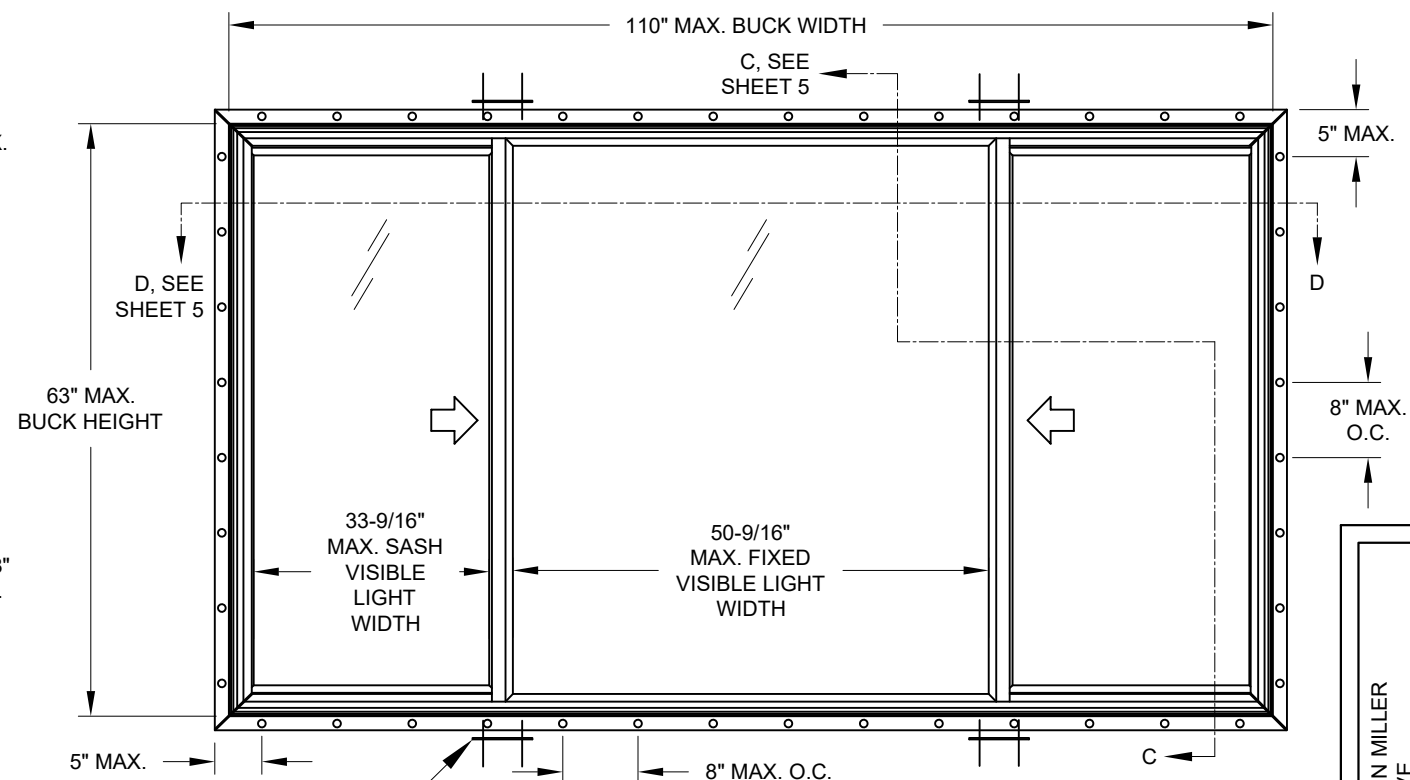
TABLE 2:

Flange & Finless (1/3-1/3-1/3), All Glass Types		
Buck Width	Buck Height	Design Pressure
110"	63"	+50/-65

TABLE 3:

Flange & Finless (1/4-1/2-1/4), All Glass Types					
Buck Height	Buck Width				
	76-11/16"	84"	96"	108"	110"
60"	+50/-65	+50/-65*	+50/-65*	+50/-63.3*	+50/-61.1*
63"	+50/-65	+50/-65*	+50/-64.5*	+50/-60.7*	+50/-60.2*

* GLASS TYPE 2 REQUIRED AT FIXED LITE.
FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION.



ELEVATION FOR TYP. FIN FRAME, XOX

1/4 - 1/2 - 1/4 SHOWN, 1/3 - 1/3 - 1/3 SIMILAR. REFER TO TABLE 4 FOR APPROVED SIZES AND GLASS TYPES

INSTALLATION CLIPS REQUIRED AT MEETING RAILS, HEAD AND SILL FOR ALL XOX NAIL FIN FRAME UNITS. 2 ANCHORS PER CLIP @ 3" O.C.

TABLE 4:

XOX Fin Frames, All Glass Types			
Buck Width	Buck Height	Configuration	Design Pressure
110"	63"	1/3 - 1/3 - 1/3 XOX	+50/-65
76-11/16"	63"	1/4 - 1/2 - 1/4 XOX	+50/-65
110"	63"	1/4 - 1/2 - 1/4 XOX	+50/-65*

* GLASS TYPE 2 REQUIRED AT FIXED LITE.
FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION.

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		VINYL HORIZONTAL SLIDING WINDOW (LM)	8/13/26	
XOX ELEVATIONS		COLTON KEMPFF	1630 HS	
2 OF 7		1630HS-LM-HVHZ	1630 HS	

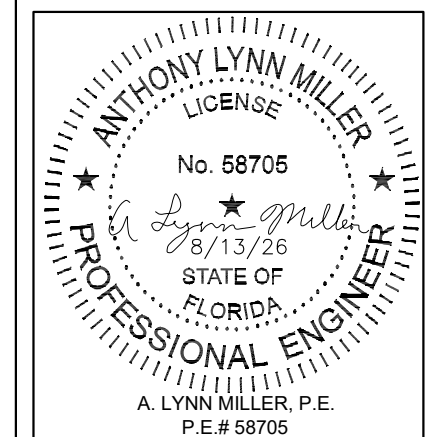


TABLE 5: WINDOW ANCHORS FOR FLANGE OR FINLESS FRAMES

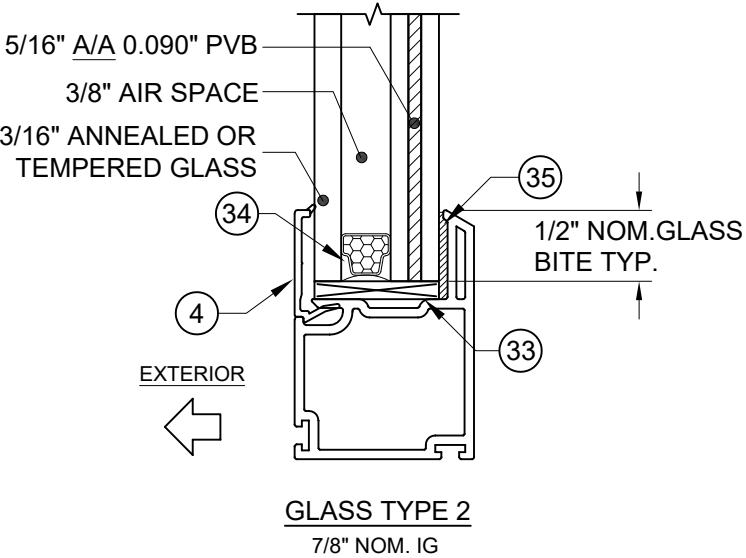
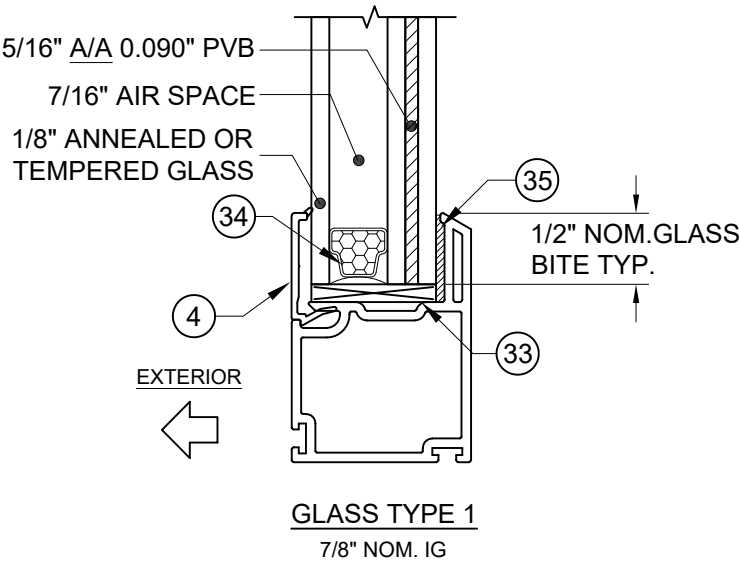
Anchor	Substrate	Min. Edge Distance	Min. Embedment
#8 Carbon Steel SMS	Southern Pine (SG=0.55)	7/16"	1-3/8"
	Southern Pine (SG=0.55)	1/2"	1-3/8"
	Steel, A36	5/16"	0.0346" (20 Ga.)
	Steel Stud, A653 Gr. 33	5/16"	0.0346" (20 Ga.)
#10 SMS Carbon Steel or 410 SS	Aluminum, 6063-T5	5/16"	0.0451" (18 Ga.)
	Southern Pine (SG=0.55)	9/16"	1-3/8"
	Steel, A36	3/8"	0.0346" (20 Ga.)
	Steel Stud, A653 Gr. 33	3/8"	0.0346" (20 Ga.)
#12 SMS Carbon Steel or 18-8, 316, 410 SS	Aluminum, 6063-T5	3/8"	0.0451" (18 Ga.)
	Southern Pine (SG=0.55)	1/2"	1-3/8"
	Concrete (min. 3.00 ksi)	1"	1-3/8"
	Ungrouted CMU, (ASTM C-90)	2-1/2"	1-1/4"
3/16" Ultracon+ (steel)	Southern Pine (SG=0.55)	1"	1-3/8"
	Concrete (min. 2.22 ksi)	1-1/2"	1-3/8"
	Ungrouted CMU, (ASTM C-90)	2"	1-1/4"
	Southern Pine (SG=0.55)	1"	1-3/8"
1/4" 304 SS Aggre-Gator	Concrete (min. 3.35 ksi)	1"	1-3/4"
	Ungrouted CMU, (ASTM C-90)	2-1/2"	1-1/4"
	Southern Pine (SG=0.55)	1"	1-3/8"
	Concrete (min. 3.35 ksi)	1"	1-3/4"
1/4" 410 SS Creteflex	Ungrouted CMU, (ASTM C-90)	2-1/2"	1-1/4"
	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) "UNGROUTED CMU" VALUES MAY BE USED FOR GROUTED CMU APPLICATIONS.
2) MIN. OF 3 THREADS BEYOND METAL SUBSTRATE.
3) 18-8 FASTENERS SHALL BE MANUFACTURED FROM TYPE 304 OR 305 STAINLESS STEEL PER ASTM A240.
4) ALL SCREWHEAD TYPES ARE APPLICABLE.

TABLE 6: WINDOW ANCHORS FOR FIN FRAMES

Anchor	Substrate	Min. Edge Distance	Min. Embedment
2-1/2" x .131" Ring-Shank Nail	Southern Pine (SG=0.55)	3/8"	2-7/16"
#10 SMS Carbon Steel or 18-8, 316, 410 SS	Southern Pine (SG=0.55)	1/2"	1-3/8"
	Steel, A36	5/16"	0.0346" (20 Ga.)
	Steel Stud, A653 Gr. 33	5/16"	0.0346" (20 Ga.)
	Aluminum, 6063-T5	7/16"	0.0713" (14 Ga.)

- 1) MIN. OF 3 THREADS BEYOND METAL SUBSTRATE.
2) 18-8 FASTENERS SHALL BE MANUFACTURED FROM TYPE 304 OR 305 STAINLESS STEEL PER ASTM A240.
3) ALL SCREWHEAD TYPES ARE APPLICABLE.



NOTE: FOR INSTALLATIONS ABOVE 30 FEET IN THE HVHZ, THE OUTBOARD LITE (CAP) MUST BE TEMPERED.

PREPARED BY A. LYNN MILLER
3400 PRECISION DRIVE
N. VENICE, FL 34275
(941) 480-1600

REGISTRATION #29296

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650 WEST MARKET STREET
GRATZ, PA 17030
(717) 365-3300

VINYL HORIZONTAL SLIDING WINDOW (LM)

ANCHORS & GLAZING DETAILS

8/13/26

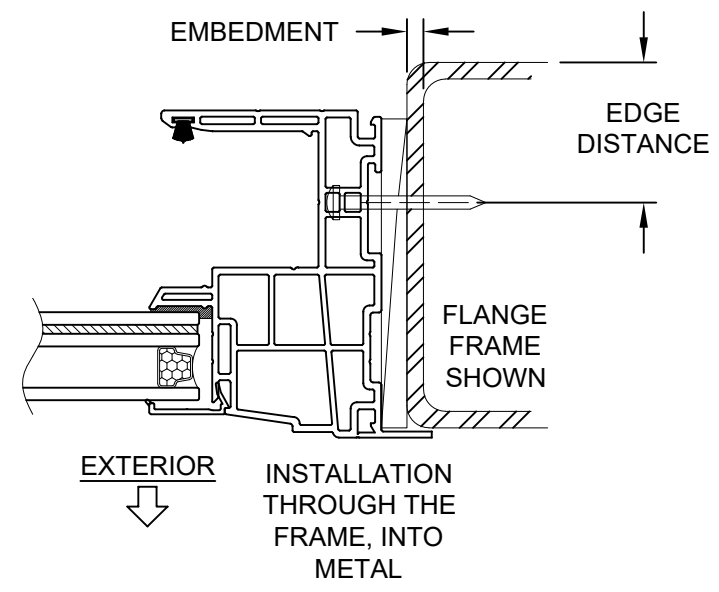
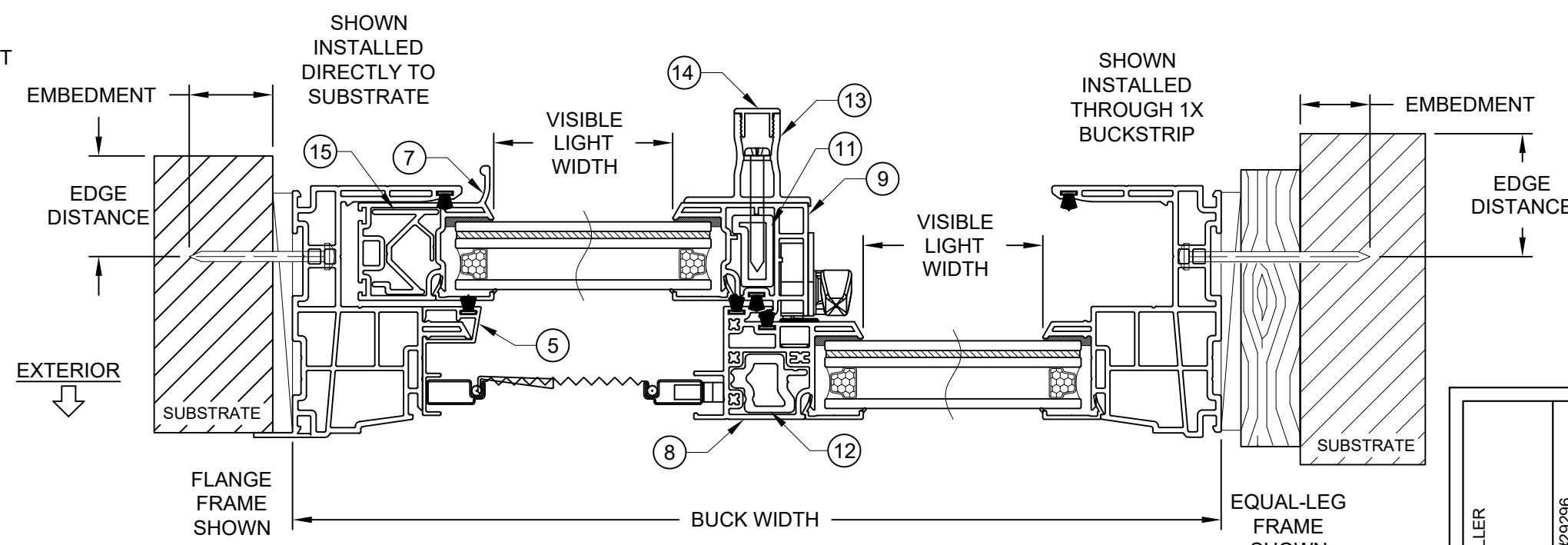
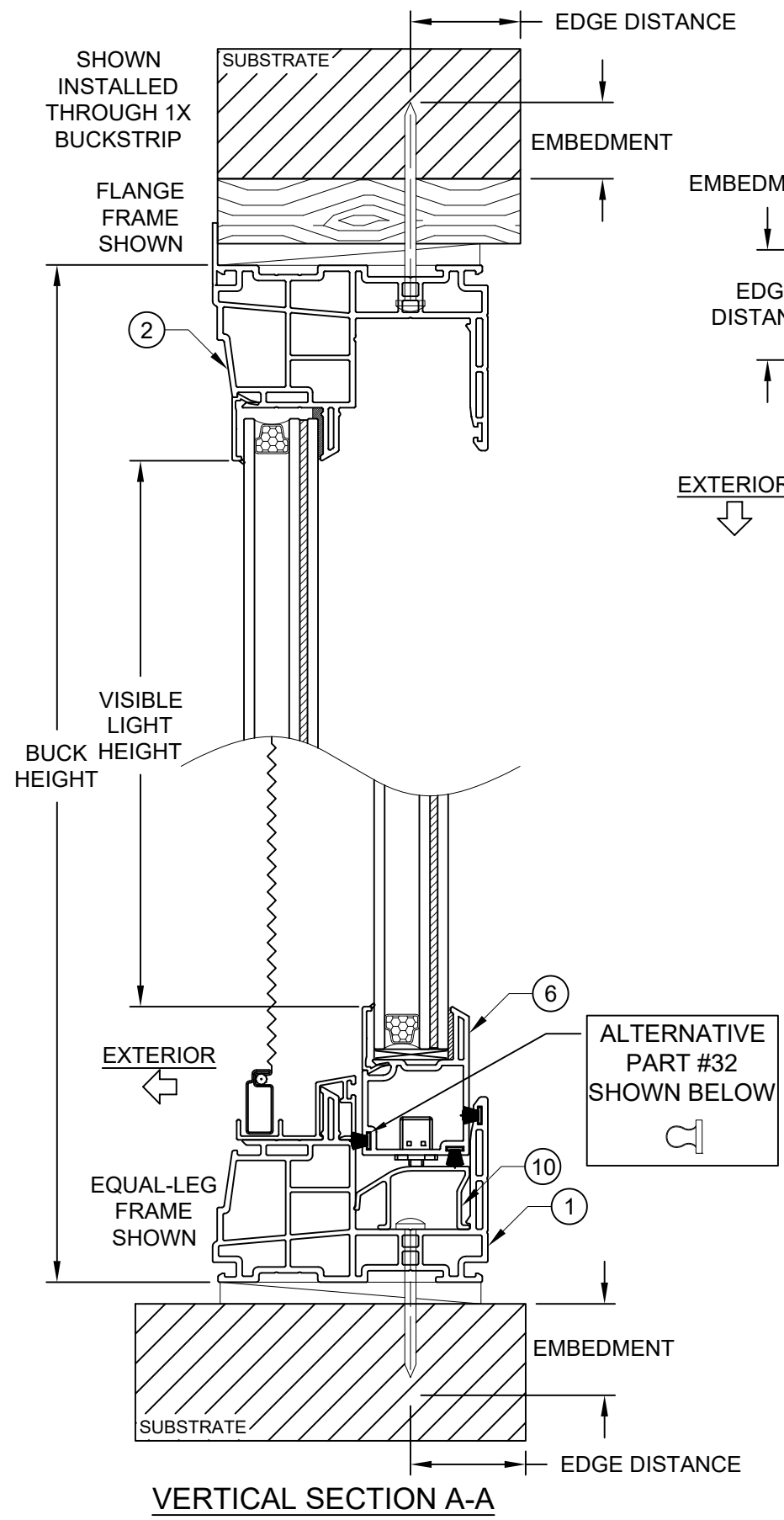
COLTON KEMP

1630HS-LM-HVHZ

3 OF 7

1630 HS

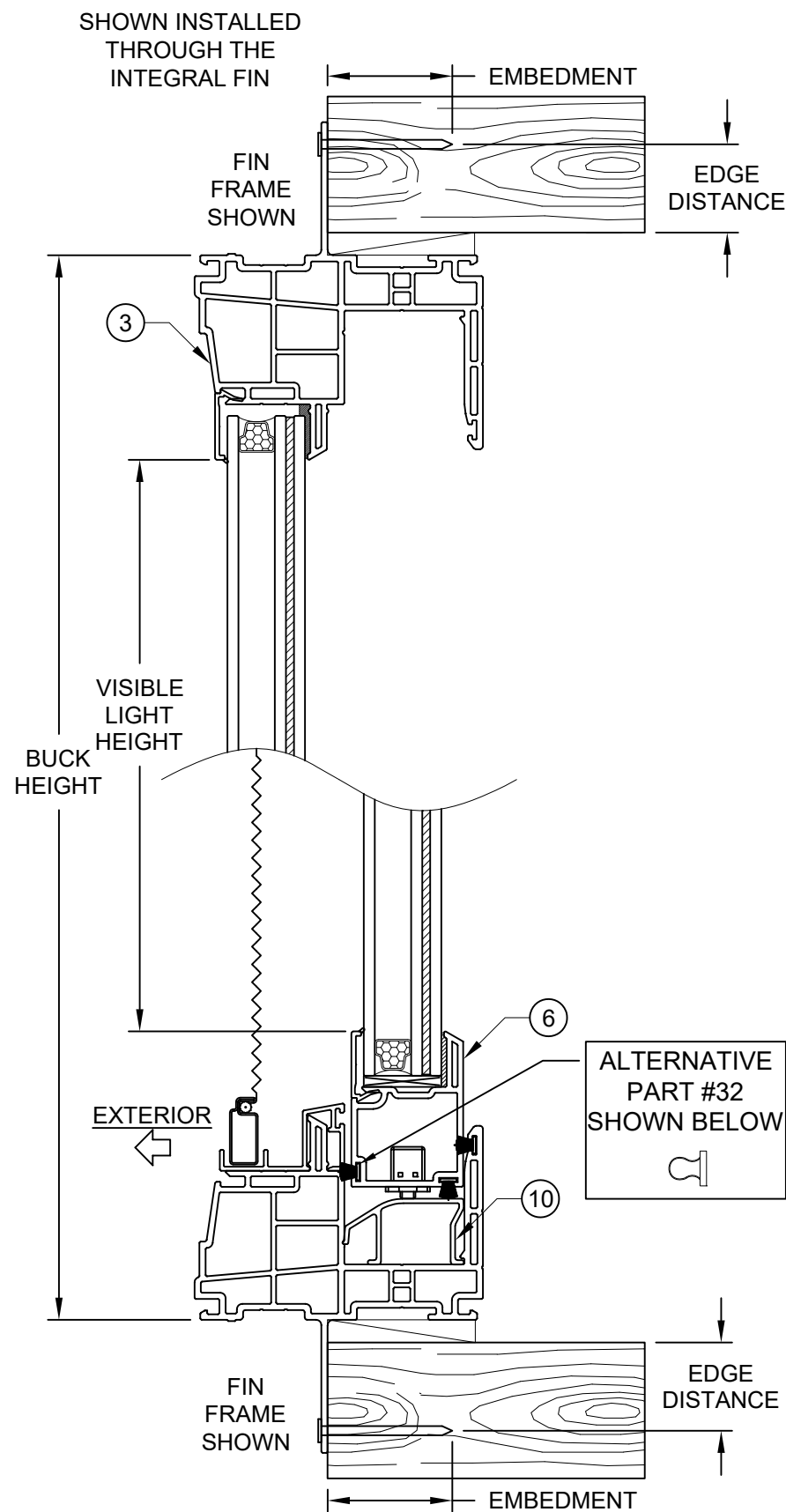
ANTHONY LYNN MILLER
LICENSE
No. 58705
8/13/26
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705



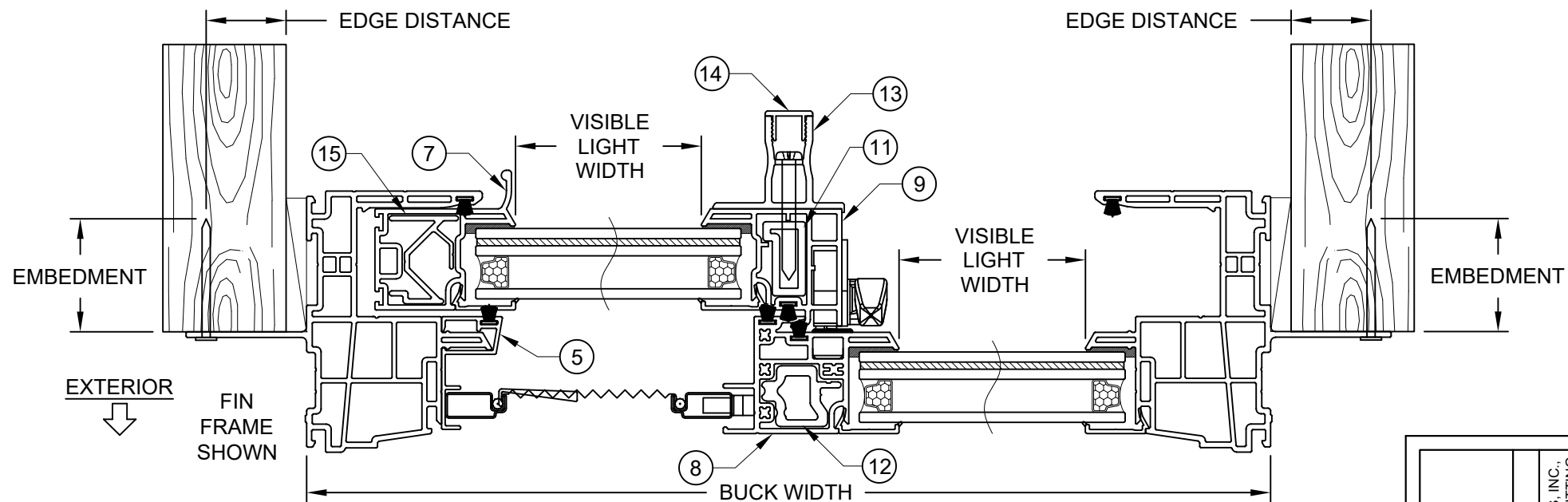
- INSTALLATION NOTES:**
- 1) SEE SHEETS 1 & 2 FOR ANCHOR SPACING REQUIREMENTS
 - 2) SEE TABLE 5 ON SHEET 3 FOR ANCHORAGE AND SUBSTRATE REQUIREMENTS
 - 3) MAXIMUM SHIM THICKNESS TO BE 1/4"

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		650 WEST MARKET STREET GRATZ, PA 17030 (717) 365-3300		VINYL HORIZONTAL SLIDING WINDOW (LM)		EQUAL-LEG/FLANGE INSTALL. DETAILS		1630 HS	

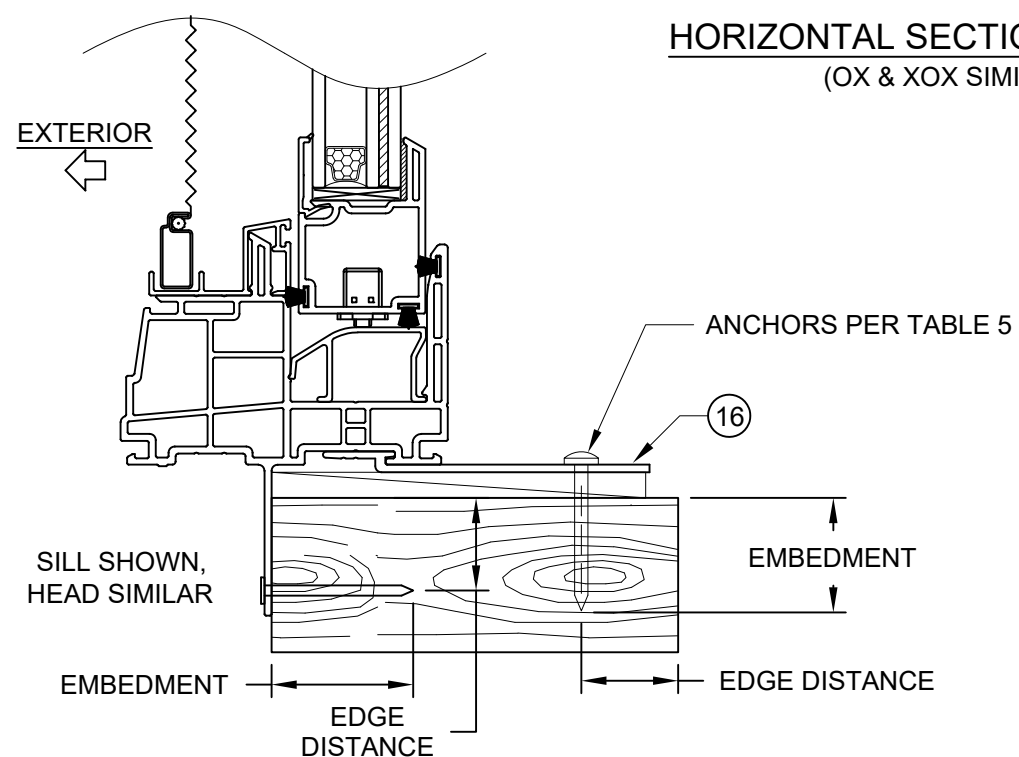
ANTHONY LYNN MILLER
LICENSE
No. 58705
8/13/26
STATE OF FLORIDA
PROFESSIONAL ENGINEER
A. LYNN MILLER, P.E.
P.E.# 58705



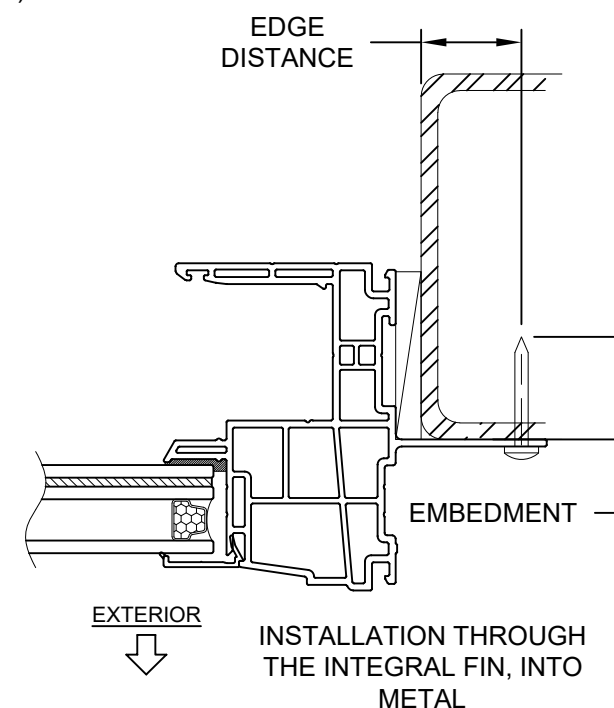
VERTICAL SECTION C-C (1)
(OX & XO ONLY)



HORIZONTAL SECTION D-D (XO)
(OX & XOX SIMILAR)



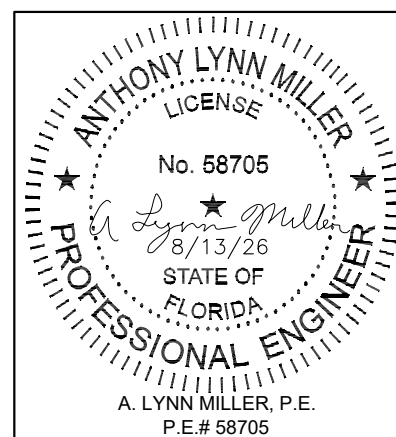
VERTICAL SECTION C-C (2)
(XOX ONLY)

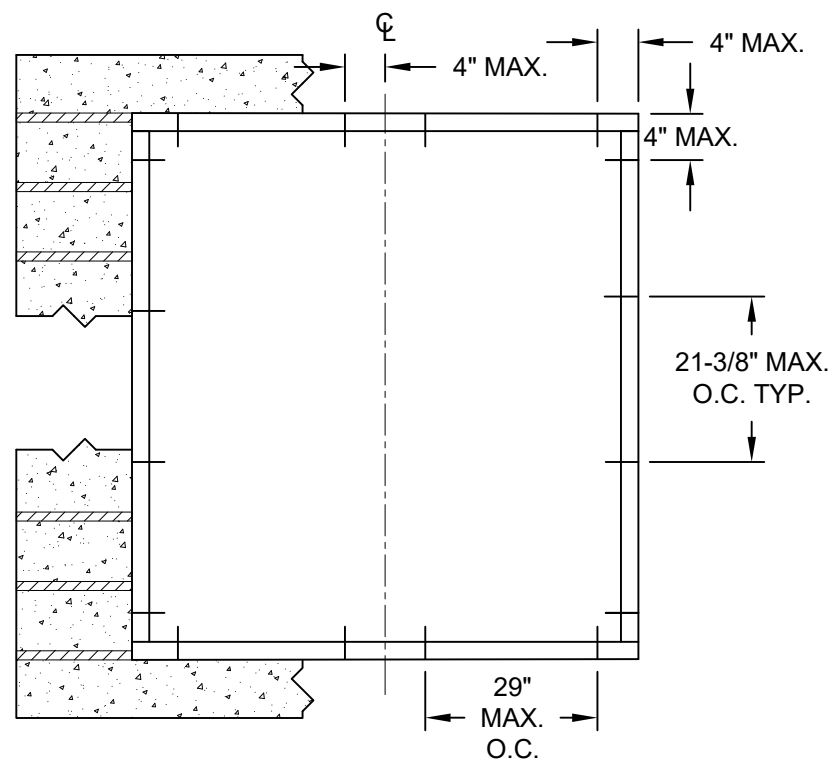


INSTALLATION NOTES:

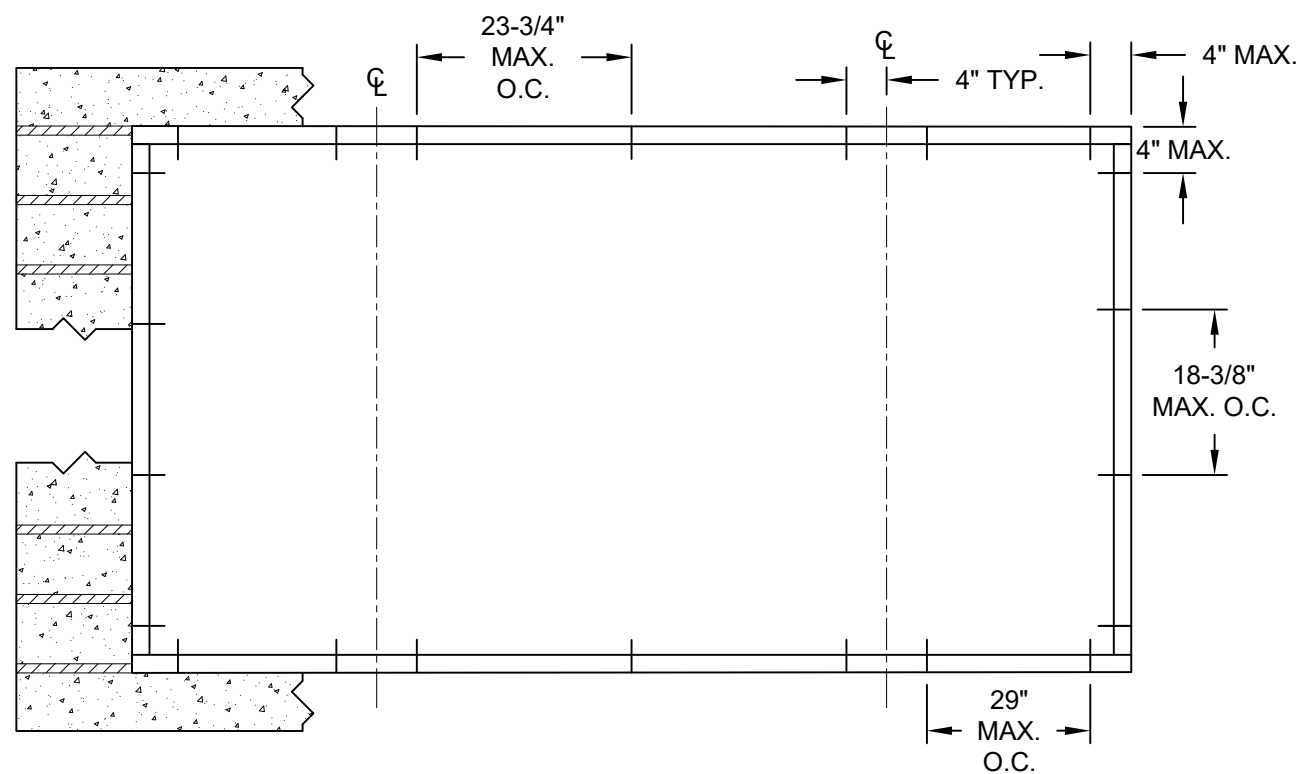
- 1) SEE SHEETS 1 & 2 FOR ANCHOR SPACING REQUIREMENTS
- 2) SEE TABLE 6 ON SHEET 3 FOR ANCHORAGE AND SUBSTRATE REQUIREMENTS. SEE TABLE 5 FOR CLIP ANCHORS.
- 3) MAXIMUM SHIM THICKNESS TO BE 1/4"

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	650 WEST MARKET STREET GRATZ, PA 17030 (717) 365-3300	VINYL HORIZONTAL SLIDING WINDOW (LM)	1630 HS Sheet	NAIL FIN INSTALL. DETAILS Desc. Title	5 OF 7 DWG





XO/OX BUCK ANCHORAGE DETAIL



XOX BUCK ANCHORAGE DETAIL

TABLE 7: BUCK ANCHORS

Anchor	Substrate	Minimum Edge Distance	Minimum Embedment
3/16" Steel Ultracon+	UngROUTED CMU, (ASTM C-90)	2-1/2"	1-1/4"
	Concrete (min. 3.0 ksi)	2-1/2"	1-3/8"
1/4" Steel Ultracon+	UngROUTED CMU, (ASTM C-90)	1"	1-1/4"
	Concrete (min. 3.0 ksi)	1"	1-3/8"
1/4" 410 SS Crete-Flex	UngROUTED CMU, (ASTM C-90)	1-3/4"	1-1/4"
	Concrete (min. 3.35 ksi)	1-3/4"	1-3/8"
1/4" 304 SS Aggre-Gator	UngROUTED CMU, (ASTM C-90)	2"	1-1/4"
	Concrete (min. 2.22 ksi)	1-1/2"	1-3/8"

- 1) "UNGROUTED CMU" VALUES MAY BE USED FOR GROUTED CMU APPLICATIONS.
2) ALL SCREWHEAD TYPES ARE APPLICABLE.

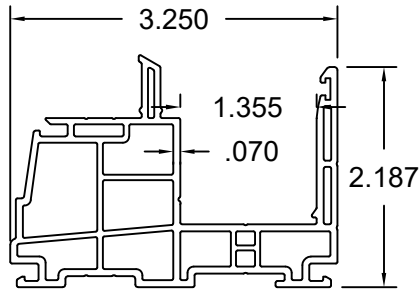
MI[®] WINDOWS and DOORS 650 WEST MARKET STREET GRATZ, PA 17030 (717) 365-3300		PREPARED BY A. LYNN MILLER 3400 PRECISION DRIVE N. VENICE, FL 34275 (941) 480-1600		REGISTRATION #29296 COPYRIGHT © 2026 MI WINDOWS AND DOORS, INC., LIMITED LICENSE TO MAKE COPIES FOR PERMITTING.	
		VINYL HORIZONTAL SLIDING WINDOW (LM)		8/13/26	
BUCK INSTALL. DETAILS		COLTON KEMPf		1630 HS-LM-HVHZ	
1630 HS		6 OF 7		DWG No.	

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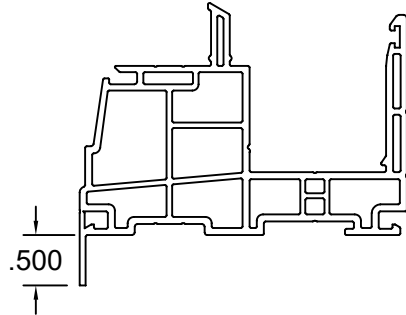
Rev. #	
Date	
Rev.	

TABLE 8:

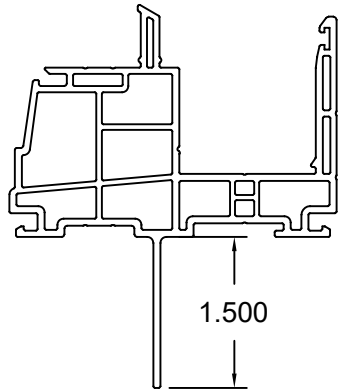
Bill of Materials			
#	Part #	Description	Material
1	V102000C	Equal-leg Frame	PVC
2	V102100C	Flange Frame	PVC
3	V101900C	Nail Fin Frame	PVC
4	V108300C	7/8" IG Glazing Bead	PVC
5	M234000C	Operating Screen Track	6063-T5
6	V067000C	Sash Top/Bottom Rail	PVC
7	V067200C	Sash Pull Rail	PVC
8	V101600C	Fixed Meeting Rail	PVC
9	V067501C	Sash Lock Rail	PVC
10	M254100C	Roller Track	6063-T5
11	M2115000	Sash Lock Rail Reinforcement	6063-T5
12	M2343000	Meeting Rail Reinforcement	6063-T5
13	M235100C	Pull Rail	6063-T5
14	M235200C	Pull Rail Cover	6063-T5
15	M2540000	Sash Pull Rail Reinforcement	6063-T5
16	M2336000	Installation Clip	6063-T5
17		.187"x.210" Operating Screen Track Weatherstrip	
18		.187"x.210" Fixed Meeting Rail Weatherstrip	
19		#8 x 2 1/2" Phillips Truss HD - Fixed Meeting Rail Screws (x2 Top and Bottom)	410 SS
20	K000200C	Adjustable Keeper	
21	FS00360C	#6,8-18 x 3/4" PFH - Keeper Screws (x2 per Keeper)	Zinc
22	MS00000C	Weep Cover (x2 per Unit - 3 3/4" from each end)	PVC
23	FS000470	Sash Pull Rail Reinforcement Screw (x1 per Pull Rail)	SS
24		.187"x.240" Lock Rail Weatherstrip	
25		.187"x.240" Sash Top/Bottom Rail Weatherstrip	
26		#8 x 1 1/2" PPH SDS - Pull Rail Screw (x1/foot)	
27	HD300002	Tandem Brass Roller Housing	
28	LL00074C	Recessed Cam Lock - Left	Cast Zinc
29	LR00074C	Recessed Cam Lock - Right	Cast Zinc
30	FS00350C	#6,8-18 x 7/8" PFH - Lock Screws (x2 per Lock)	Zinc
31	FS001360	#8 x 1/2" PPH SMS Installation Clip Screws (x2 per Clip)	
32	6Q300	0.190" x 0.300" Sash Top & Bot. Rail Ext. Weatherstrip	Foam Bulb (PVC)
33		Setting Block	EPDM
34		TPS, Metal or Composite Spacer System	varies
35		Pecora 896 or RGS 7700 Backbedding	Silicone



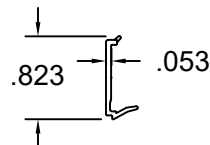
① EQUAL-LEG FRAME



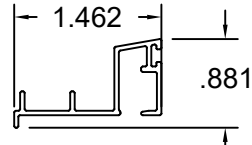
② FLANGE FRAME



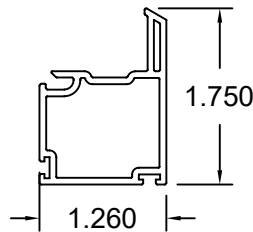
③ NAIL FIN FRAME



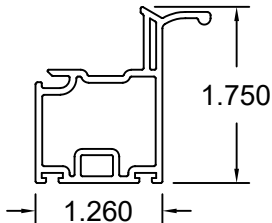
④ GLASS BEAD



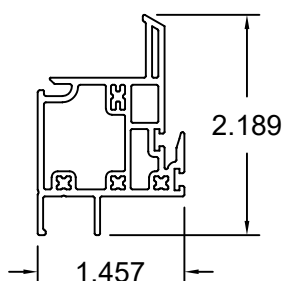
⑤ OPERATING SCREEN TRACK



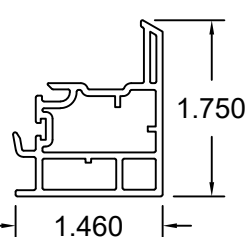
⑥ SASH TOP/BOTTOM RAIL



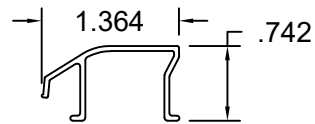
⑦ SASH PULL RAIL



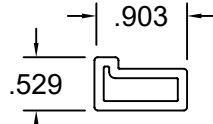
⑧ FIXED MEETING RAIL



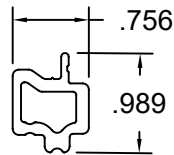
⑨ SASH LOCK RAIL



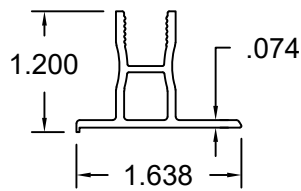
⑩ ROLLER TRACK



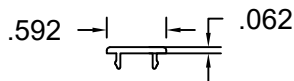
⑪ SASH LOCK RAIL REINFORCEMENT



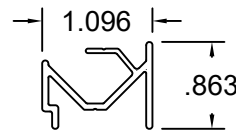
⑫ MEETING RAIL REINFORCEMENT



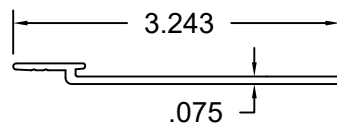
⑬ PULL RAIL



⑭ PULL RAIL COVER



⑮ SASH PULL RAIL REINFORCEMENT



⑯ INSTALLATION CLIP

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Title		VINYL HORIZONTAL SLIDING WINDOW (LM)				Date	8/13/26
Series		BOM AND EXTRUSIONS				Drawn By	COLTON KEMPFF
Sheet		1630 HS		7 OF 7		DWG No.	
						1630HS-LM-HVHZ	

