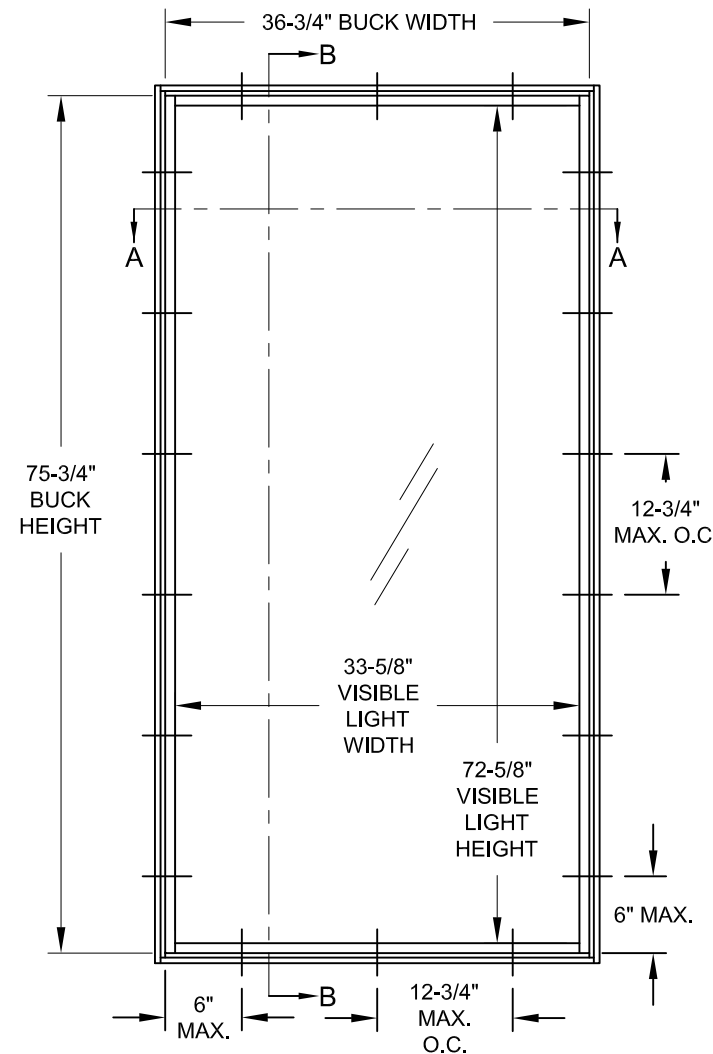


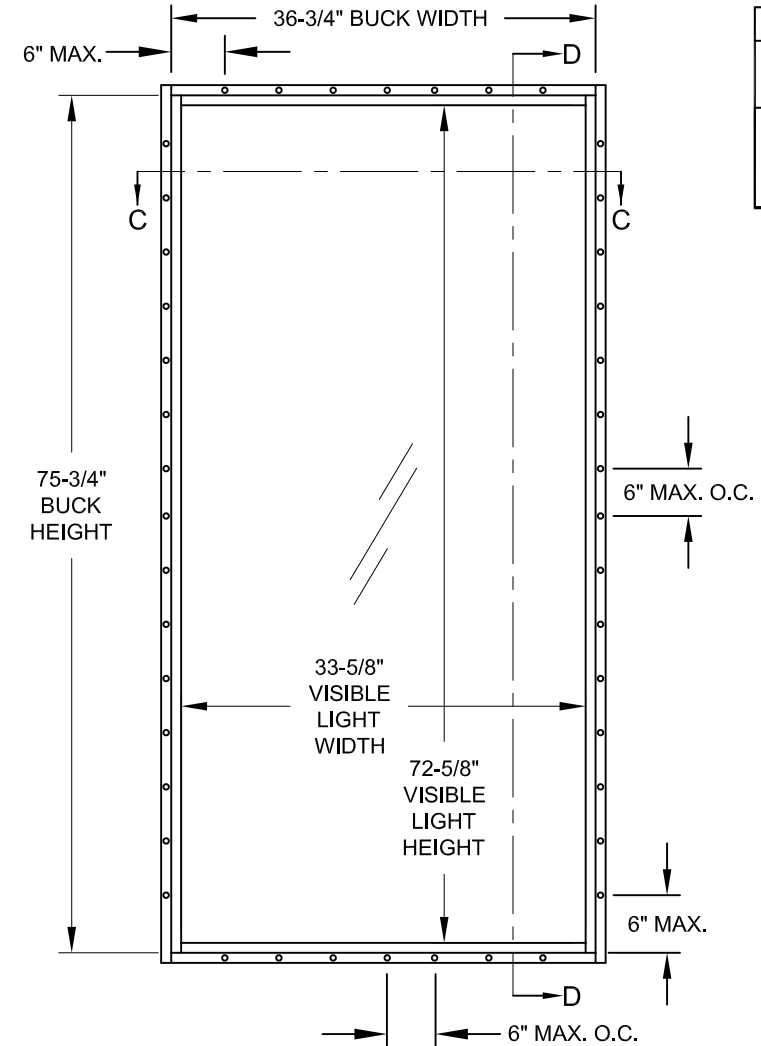
**PW3120V SMALL MISSILE & LARGE MISSILE (LEVEL C)
IMPACT RESISTANT, VINYL PICTURE WINDOW**

- THIS PRODUCT HAS BEEN DESIGNED & TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2018 INTERNATIONAL BUILDING CODE (IBC) AND THE 2018 INTERNATIONAL RESIDENTIAL CODE (IRC) FOR THE DESIGN PRESSURES LISTED.
- SHUTTERS ARE NOT REQUIRED WHEN USED IN WIND-BORNE DEBRIS REGIONS AT THE FOLLOWING LOCATIONS:
 - WITHIN 1 MILE OF THE COASTAL MEAN HIGH WATER LINE WHERE THE ULTIMATE WIND SPEED IS EQUAL TO OR GREATER THAN 130 MPH AND LESS THAN 140 MPH.
 - GREATER THAN 1 MILE FROM THE COASTAL MEAN HIGH WATER LINE WHERE THE ULTIMATE WIND SPEED IS GREATER THAN OR EQUAL TO 140 MPH AND LESS THAN 150 MPH.
- MASONRY ANCHORS MAY BE USED INTO WOOD. 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.
- ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO. USE ANCHORS OF SUFFICIENT LENGTH. INSTALLATION ANCHORS 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.
- SHIMS ARE REQUIRED AT EACH FLANGE/EQUAL LEG 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.
- 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 IBC/IRC FOR CORROSION RESISTANCE.



**TYP. ANCHOR LOCATIONS @ TESTED SIZE
(FLANGE / EQUAL LEG FRAME)**

REFER TO TABLES 2 & 3 FOR APPROVED SIZES.



**TYP. ANCHOR LOCATIONS @ TESTED SIZE
(INTEGRAL FIN / J-CHANNEL FRAME)**

REFER TO TABLES 2 & 3 FOR APPROVED SIZES.

DESIGN PRESSURE RATING
SEE TABLES 2
RATED FOR SMALL MISSILE & LEVEL C LARGE MISSILE IMPACT RESISTANCE

ALL WINDOW SHAPES QUALIFIED, COMMON EXAMPLES SHOWN BELOW.
ALL SHAPES MUST FIT WITHIN THE ENVELOPED SIZES IN TABLES 2 & 3.

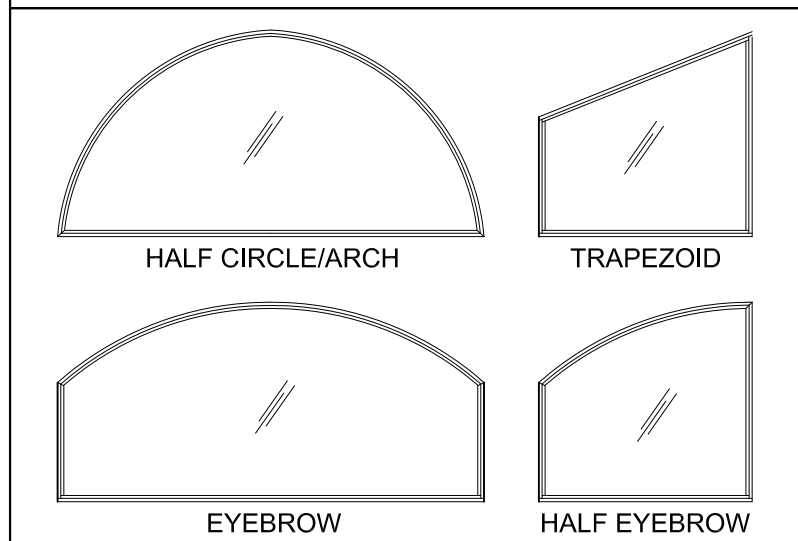


TABLE 1:

Glass Types	
1	1/8" AN Cap, 5/16" Airspace, 1/8" AN, 0.045" Trosifol PVB, 1/8" AN
2	1/8" TP Cap, 5/16" Airspace, 1/8" AN, 0.045" Trosifol PVB, 1/8" AN
3	1/8" AN Cap, 5/16" Airspace, 1/8" HS, 0.060" Trosifol PVB, 1/8" HS
4	1/8" TP Cap, 5/16" Airspace, 1/8" HS, 0.060" Trosifol PVB, 1/8" HS

TROSIFOL PVB INTERLAYER
MANUFACTURED BY KURARAY
AMERICA, INC.

AN = ANNEALED GLASS
HS = HEAT-STRENGTHENED GLASS
TP = TEMPERED GLASS

TABLE 2:

Window Buck Size		Design Pressure		Glazing (see Table 1)	Certification Number
Width	Height	(+) psf	(-) psf		
32-3/4"	71-3/4"	50.0	50.0	Types 1 & 2	NI015336.01
36-3/4"	75-3/4"	50.0	50.0	Types 3 & 4	NI015336

Title: VINYL PICTURE WINDOW (LM)		Drawn By: JENS ROSOWSKI	
Description: GENERAL NOTES & ELEVATION			Date: 08/24/21
Revision:		Rev. By:	Rev. Date:
Series/Model: PW3120V	Scale: NTS	Sheet: 1 OF 6	Drawing No. PW3120TDI-1
		Rev:	

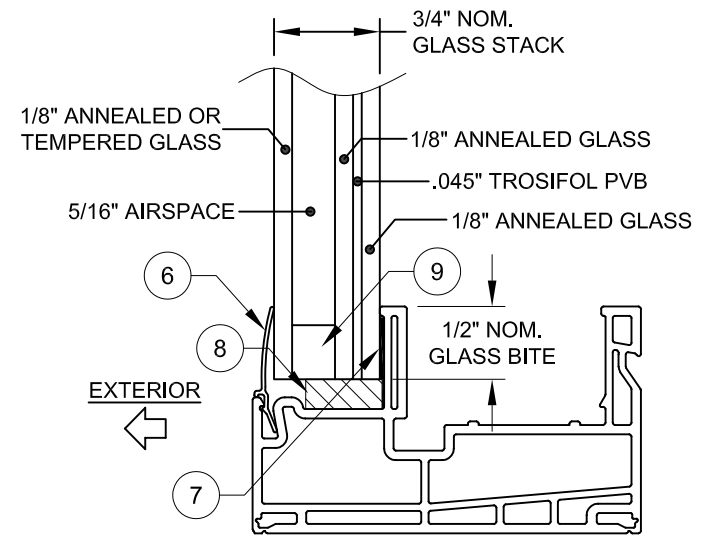
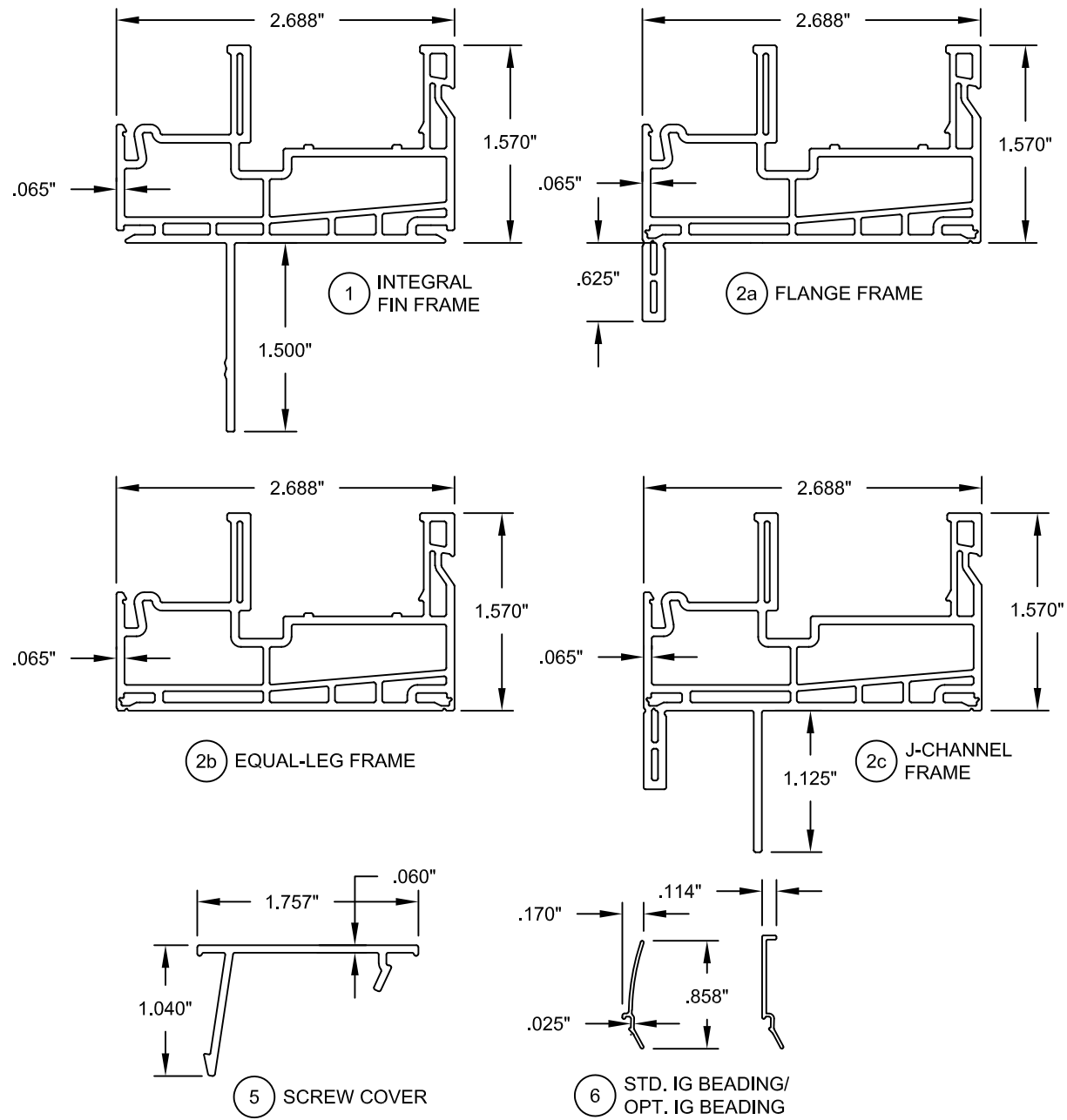


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HIALEAH, FL 33018
(305) 593-6590
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1070 TECHNOLOGY DRIVE
N. VENICE, FL 34275
(941) 480-1600

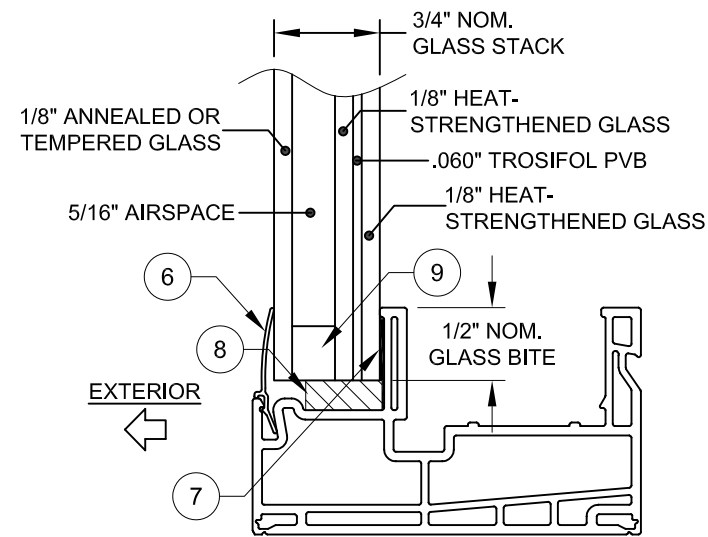
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GLASS TYPE 1 (W/ ANNEALED CAP)
GLASS TYPE 2 (W/ TEMPERED CAP)



GLASS TYPE 3 (W/ ANNEALED CAP)
GLASS TYPE 4 (W/ TEMPERED CAP)

TABLE 3:

Item #	Part #	Description	Material
1	3358	Integral Fin Frame	Rigid PVC
2a	3356	Flange Frame	Rigid PVC
2b	3356	Equal-leg Frame	Rigid PVC
2c	3356	J-Channel Frame	Rigid PVC
5	8395	Screw Cover	Rigid PVC
6	3190	Std./Opt. IG Beading	Rigid PVC
7		Sika 552, Dow 791 or 983 Backbedding	Silicone
8		Setting Block, 1/8" x 3/4" x 2" or 1/8" x 3/4" x 3/4"	
9	varies	Kommerling Kodispace 4SG TPS	varies
		Quanex Super Spacer nXT with Hot Melt Butyl	
		Metal IG Spacer	

Title: VINYL PICTURE WINDOW (LM)		Drawn By: JENS ROSOWSKI	
Description: EXTRUSIONS / BOM / GLASS TYPES		Date: 08/24/21	
Revision:		Rev. By:	Rev. Date:
Series/Model: PW3120V	Scale: NTS	Sheet: 2 OF 6	Drawing No. PW3120TDI-1
		Rev:	

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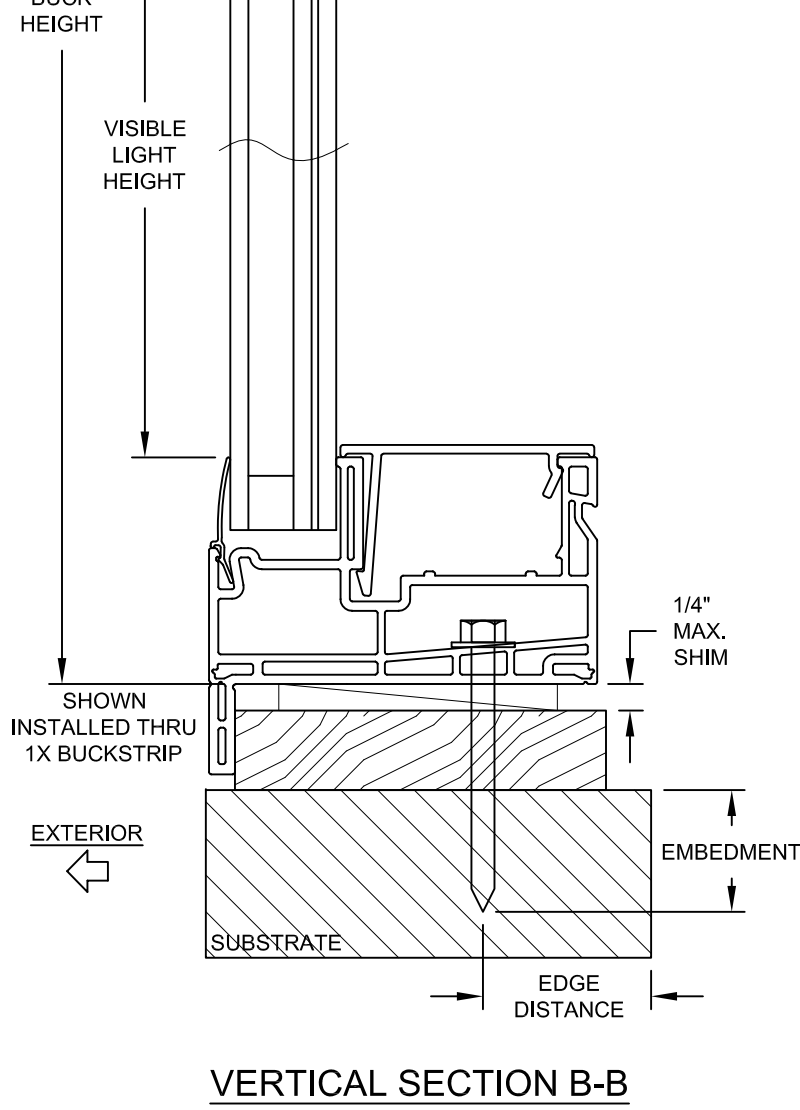
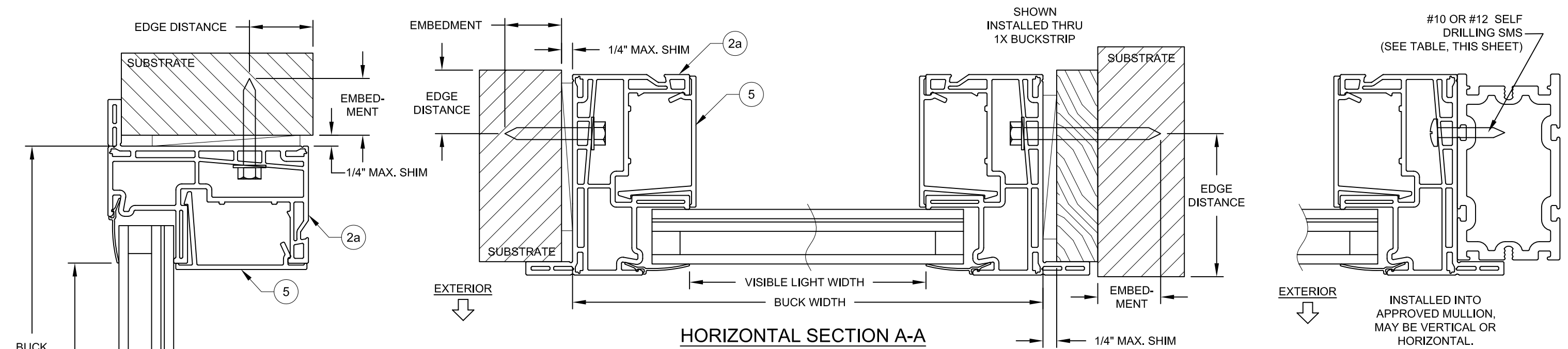
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 HIALEAH, FL 33018
 (305) 593-6590

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 (941) 480-1600

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 106954
 LICENSED PROFESSIONAL ENGINEER

A. Lynn Miller 8/27/21
 A. LYNN MILLER, P.E.
 P.E.# 106594

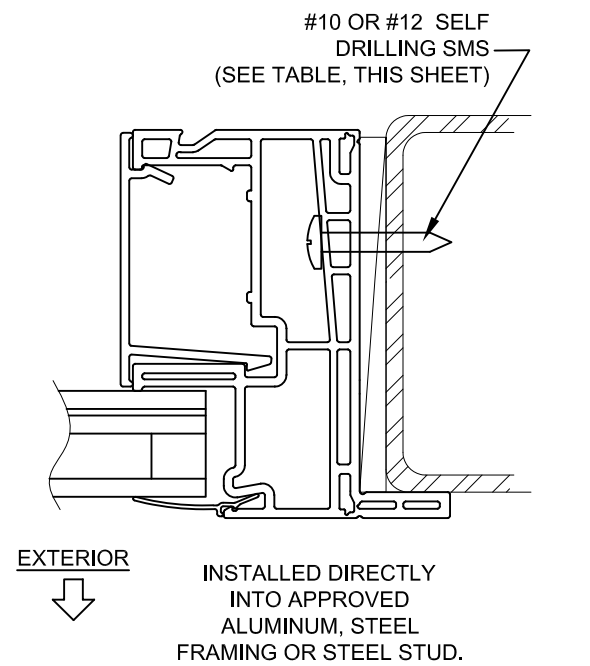
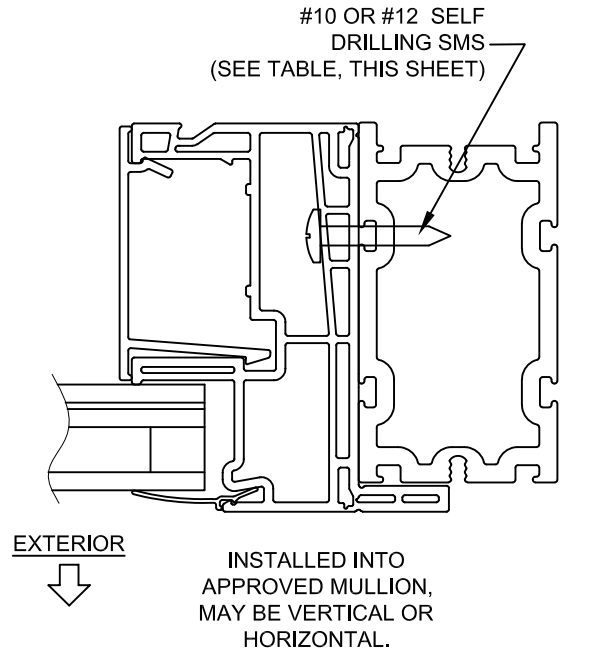


- NOTES:**
- 1) USE ONLY SUBSTRATE APPROPRIATE ANCHORS LISTED IN TABLE 4. FOLLOW EMBEDMENT AND EDGE DISTANCE LIMITS. ANY INSTALLATION OPTION SHOWN MAY BE USED ON ANY SIDE OF THE WINDOW.
 - 2) MASONRY ANCHORS MAY BE USED INTO WOOD AS PER TABLE 4. ALL WOOD BUCKS LESS THAN 1-1/2" THICK ARE TO BE CONSIDERED 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.
 - 3) SEE SHEET 1 FOR ANCHOR SPACING REQUIREMENTS.
 - 4) MAX. SHIM THICKNESS TO BE 1/4".

TABLE 4:

Anchor	Substrate	Minimum Edge Distance	Minimum Embedment
#10 or #12 Steel, 18-8 SS or 410 SS Screw	Southern Pine (SG = .55)	1/2"	1-3/8"
	Aluminum, 6063-T5 min.	3/8"	0.060"
	Steel Stud, Gr. 33 min.	3/8"	0.045" (18 Ga)
3/16" or 1/4" Steel Ultracon or Ultracon+	A36 Steel	3/8"	0.050"
	Southern Pine (SG = .55)	1"	1-3/8"
	Concrete (min. 3.0 ksi)	1"	1-3/8"
	UngROUTED CMU, (ASTM C-90)	1"	1-1/4"

- 1) ANCHOR MUST EXTEND A MINIMUM OF 3 THREADS BEYOND ANY METAL SUBSTRATE.
- 2) "UNGROUTED CMU" VALUES MAY BE USED FOR GROUDED CMU APPLICATIONS.
- 3) ALL ANCHOR HEAD TYPES ARE APPLICABLE.



Title: VINYL PICTURE WINDOW (LM)		Drawn By: JENS ROSOWSKI	
Description: FLANGE INSTALLATION		Date: 08/24/21	
Revision:		Rev. By:	Rev. Date:
Series/Model: PW3120V	Scale: NTS	Sheet: 3 OF 6	Drawing No. PW3120TDI-1

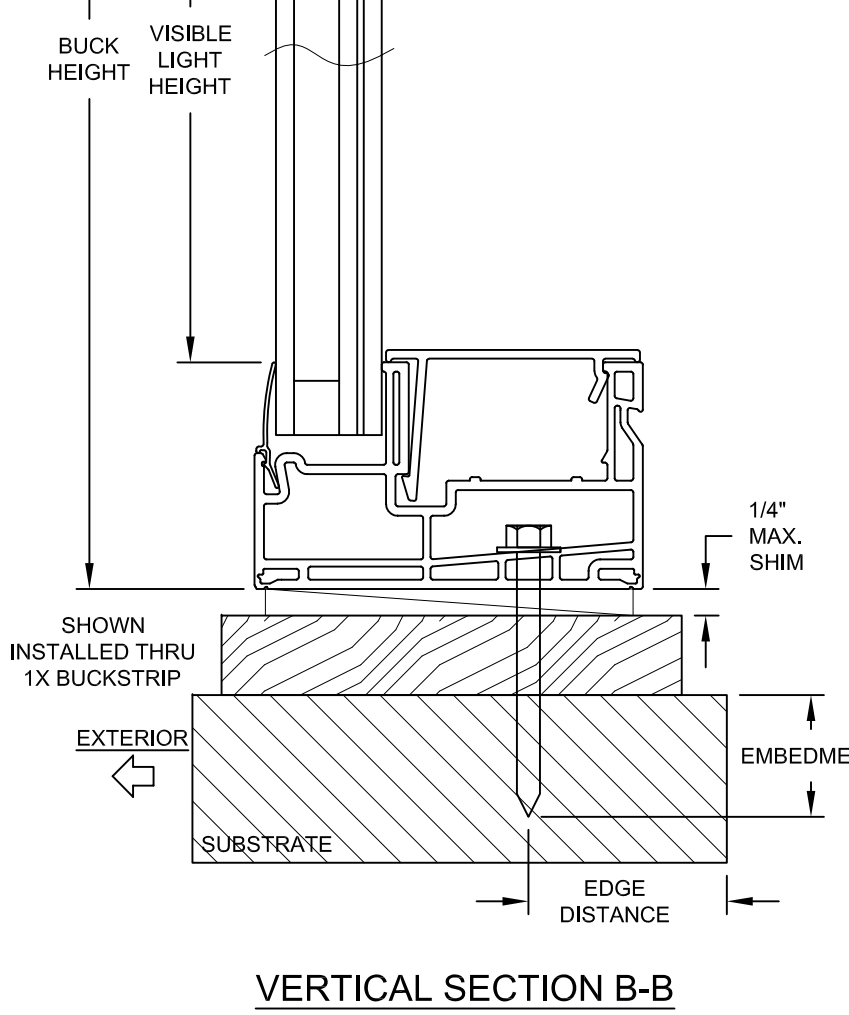
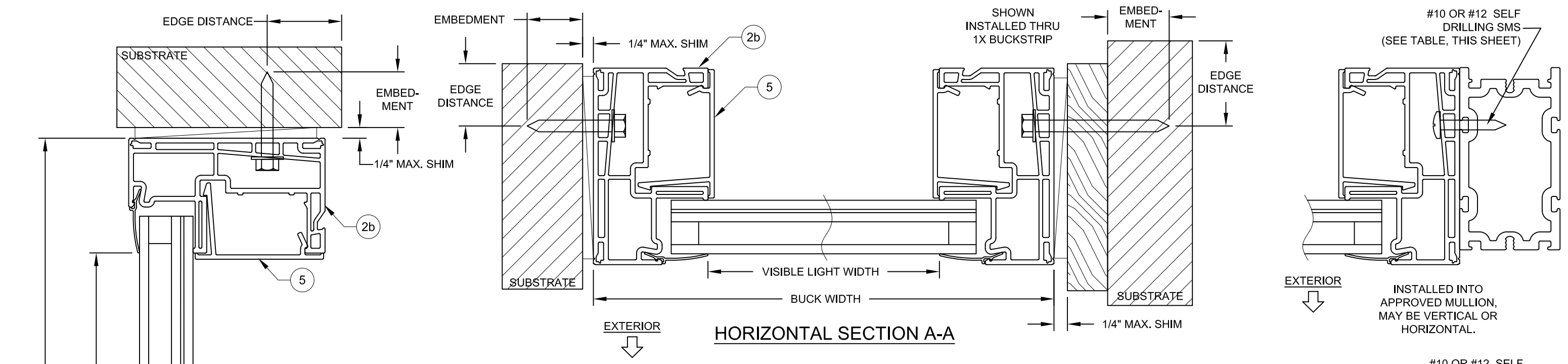
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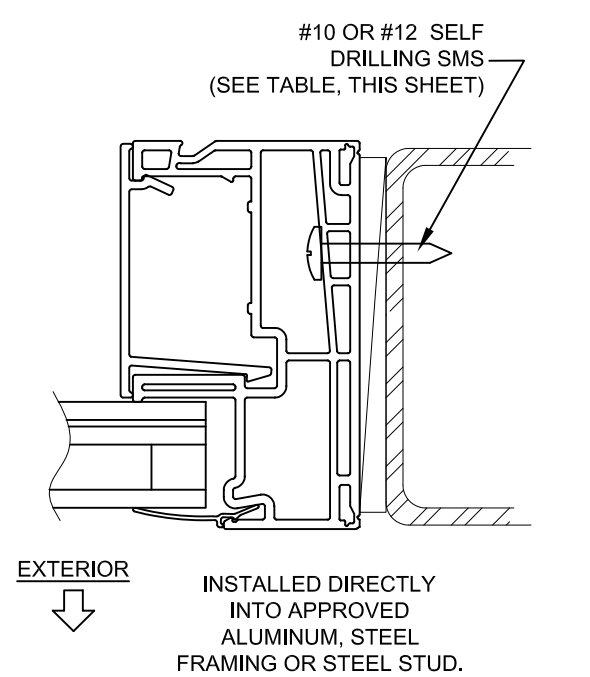
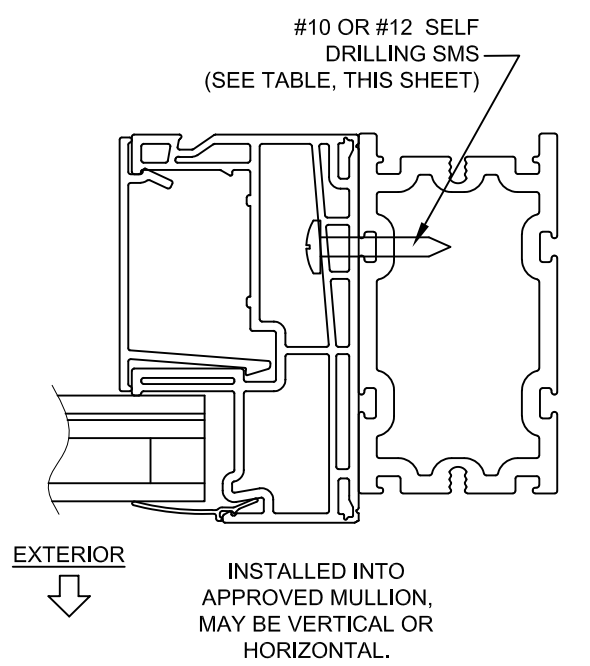


- NOTES:**
- 1) USE ONLY SUBSTRATE APPROPRIATE ANCHORS LISTED IN TABLE 5. FOLLOW EMBEDMENT AND EDGE DISTANCE LIMITS. ANY INSTALLATION OPTION SHOWN MAY BE USED ON ANY SIDE OF THE WINDOW.
 - 2) MASONRY ANCHORS MAY BE USED INTO WOOD AS PER TABLE 2. ALL WOOD BUCKS LESS THAN 1-1/2" THICK ARE TO BE CONSIDERED 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.
 - 3) SEE SHEET 1 FOR ANCHOR SPACING REQUIREMENTS.
 - 4) MAX. SHIM THICKNESS TO BE 1/4".

TABLE 5:

Anchor	Substrate	Minimum Edge Distance	Minimum Embedment
#10 or #12 Steel, 18-8 SS or 410 SS Screw	Southern Pine (SG = .55)	1/2"	1-3/8"
	Aluminum, 6063-T5 min.	3/8"	0.060"
	Steel Stud, Gr. 33 min.	3/8"	0.045" (18 Ga)
3/16" or 1/4" Steel Ultracon or Ultracon+	A36 Steel	3/8"	0.050"
	Southern Pine (SG = .55)	1"	1-3/8"
	Concrete (min. 3.0 ksi)	1"	1-3/8"
	Ungrouted CMU, (ASTM C-90)	1"	1-1/4"

- 1) ANCHOR MUST EXTEND A MINIMUM OF 3 THREADS BEYOND ANY METAL SUBSTRATE.
- 2) "UNGROUTED CMU" VALUES MAY BE USED FOR GROUTED CMU APPLICATIONS.
- 3) ALL ANCHOR HEAD TYPES ARE APPLICABLE.



Title: VINYL PICTURE WINDOW (LM)		Drawn By: JENS ROSOWSKI	
Description: EQUAL-LEG INSTALLATION		Date: 08/24/21	
Revision:		Rev. By:	Rev. Date:
Series/Model: PW3120V	Scale: NTS	Sheet: 4 OF 6	Drawing No. PW3120TDI-1

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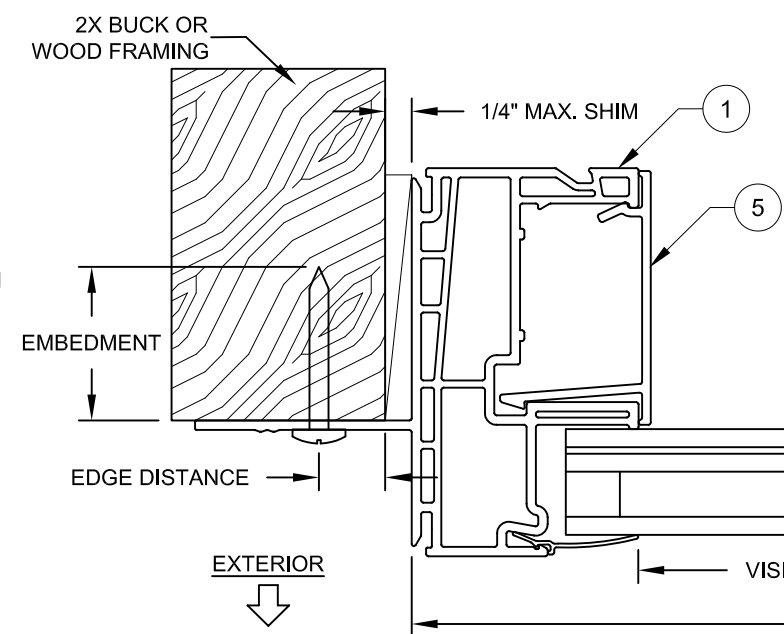
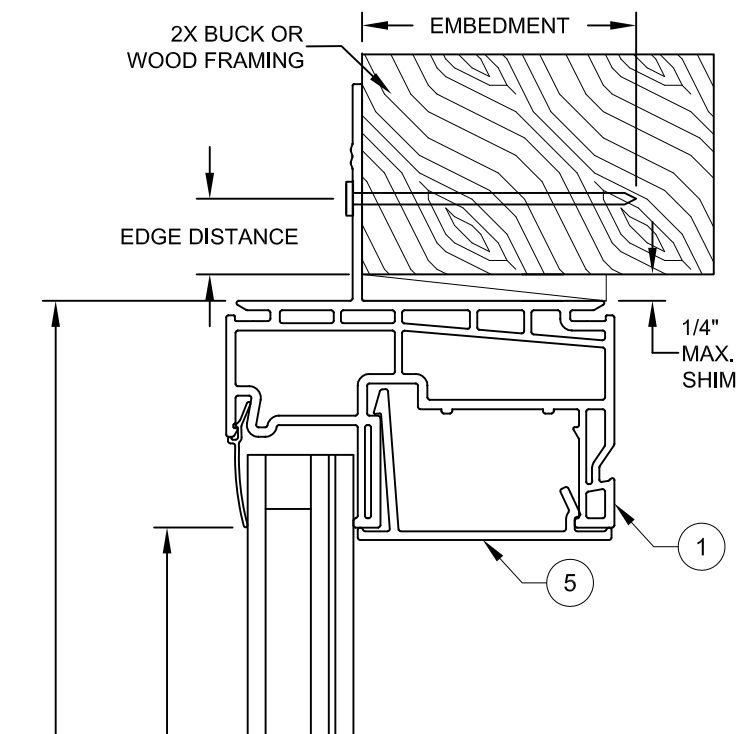
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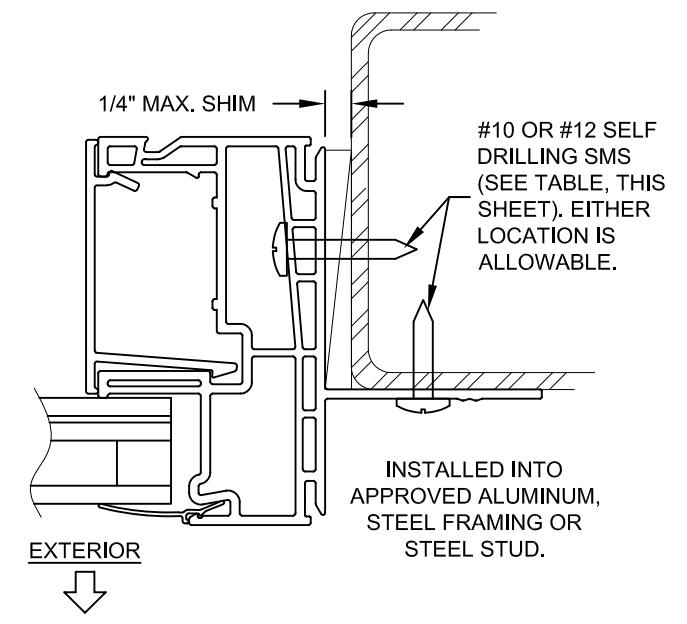
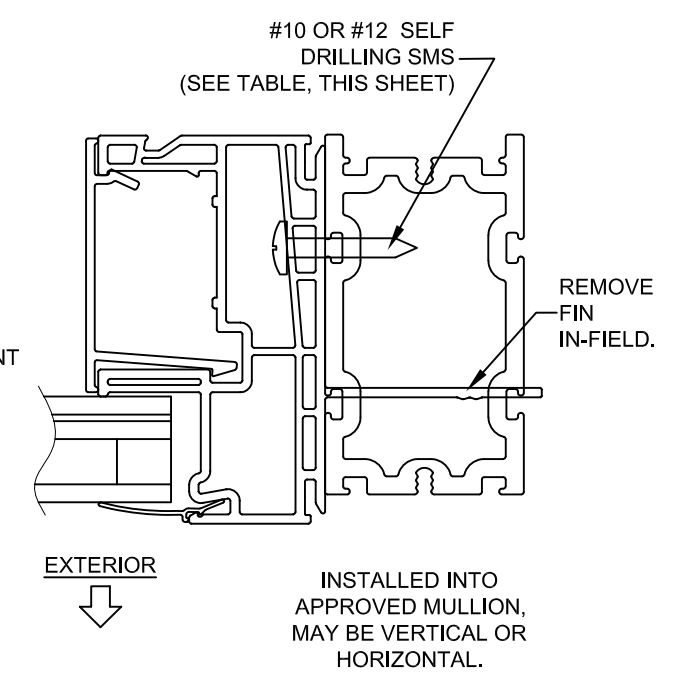
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106954
LICENSED PROFESSIONAL ENGINEER

A Lynn Miller 8/27/21
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HORIZONTAL SECTION C-C

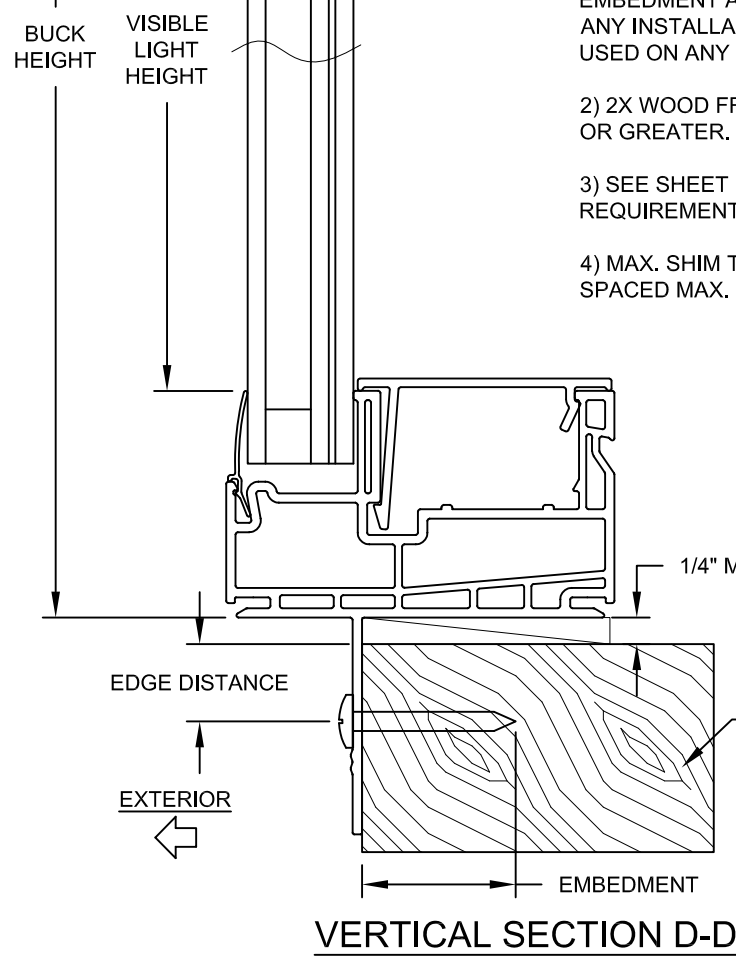


- NOTES:**
- 1) USE ONLY SUBSTRATE APPROPRIATE ANCHORS LISTED IN TABLE 6. FOLLOW EMBEDMENT AND EDGE DISTANCE LIMITS. ANY INSTALLATION OPTION SHOWN MAY BE USED ON ANY SIDE OF THE WINDOW.
 - 2) 2X WOOD FRAMING OR BUCK, 1-1/2" THICK OR GREATER.
 - 3) SEE SHEET 1 FOR ANCHOR SPACING REQUIREMENTS.
 - 4) MAX. SHIM THICKNESS TO BE 1/4" AND SPACED MAX. 18" O.C.

TABLE 6: THROUGH-FIN ANCHORS

Anchor	Substrate	Min. Embedment or Metal Thickness	Min. Edge Distance
2-1/2" x .131" Common Nail	Southern Pine (SG = .55)	2-1/2"	3/8"
2-1/2" x .145" Roofing Nail	Southern Pine (SG = .55)	2-1/2"	3/8"
#10 or #12 Steel, 18-8 SS or 410 SS Screw (G5)	Southern Pine (SG = .55)	1-3/8"	1/2"
	Aluminum, 6063-T5 min	0.125"	3/8"
	Steel Stud, Gr. 33 min.	0.045"	3/8"
	A36 Steel	0.050"	3/8"

- 1) ANCHOR MUST EXTEND A MINIMUM OF 3 THREADS BEYOND ANY METAL SUBSTRATE.
- 2) ALL SCREW HEAD TYPES ARE APPLICABLE.



VERTICAL SECTION D-D

Title: VINYL PICTURE WINDOW (LM)		Drawn By: JENS ROSOWSKI	
Description: FIN INSTALLATION		Date: 08/24/21	
Revision:		Rev. By:	Rev. Date:
Series/Model: PW3120V	Scale: NTS	Sheet: 5 OF 6	Drawing No. PW3120TDI-1
		Rev:	

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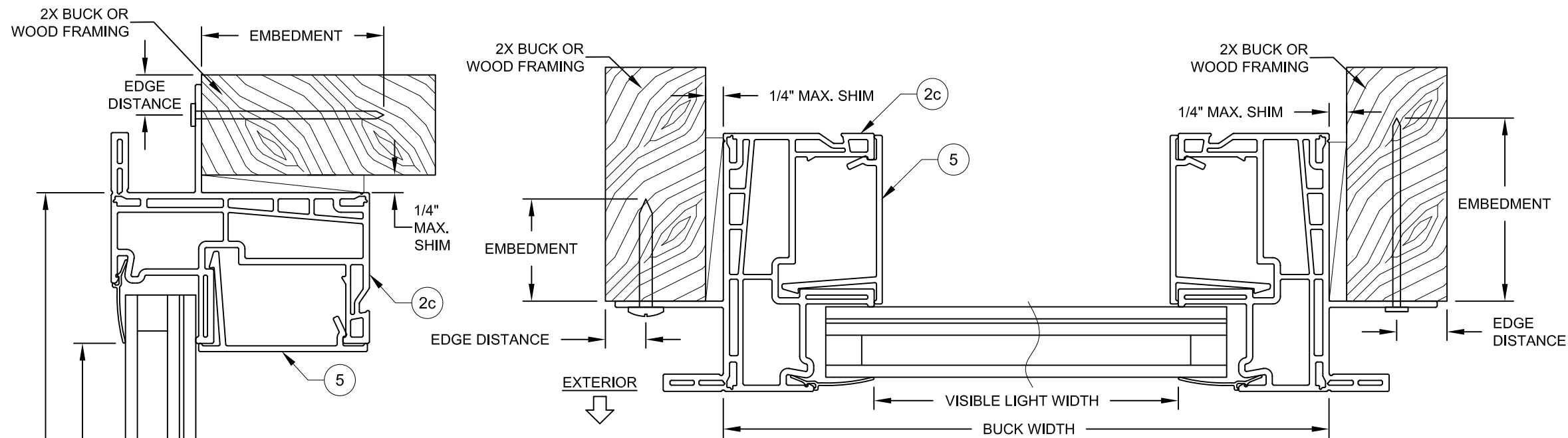
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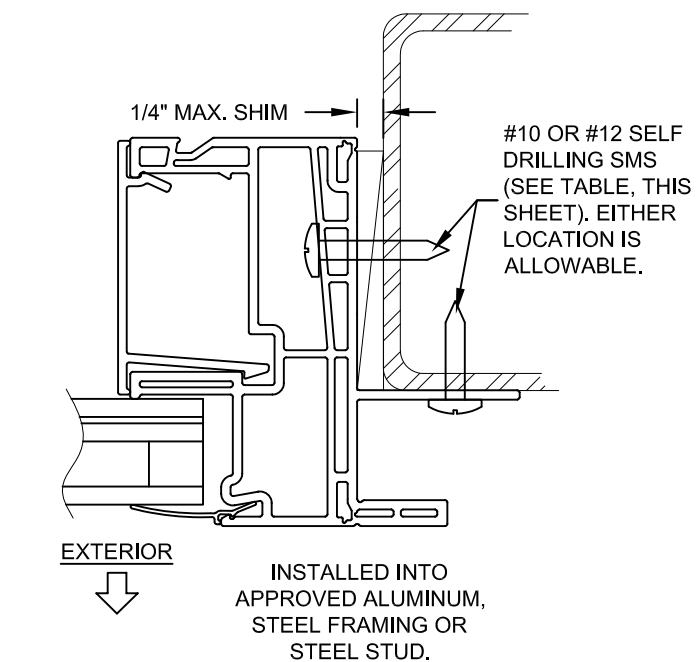
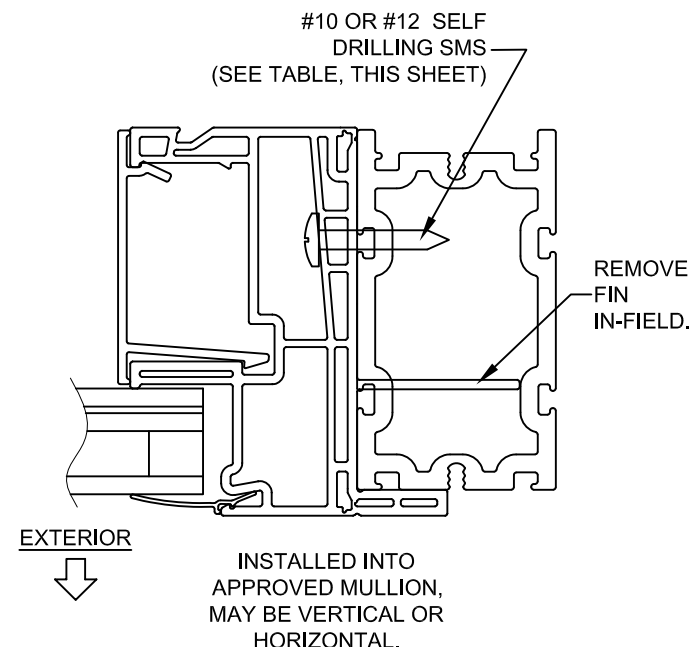
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P.E.# 106594



HORIZONTAL SECTION C-C

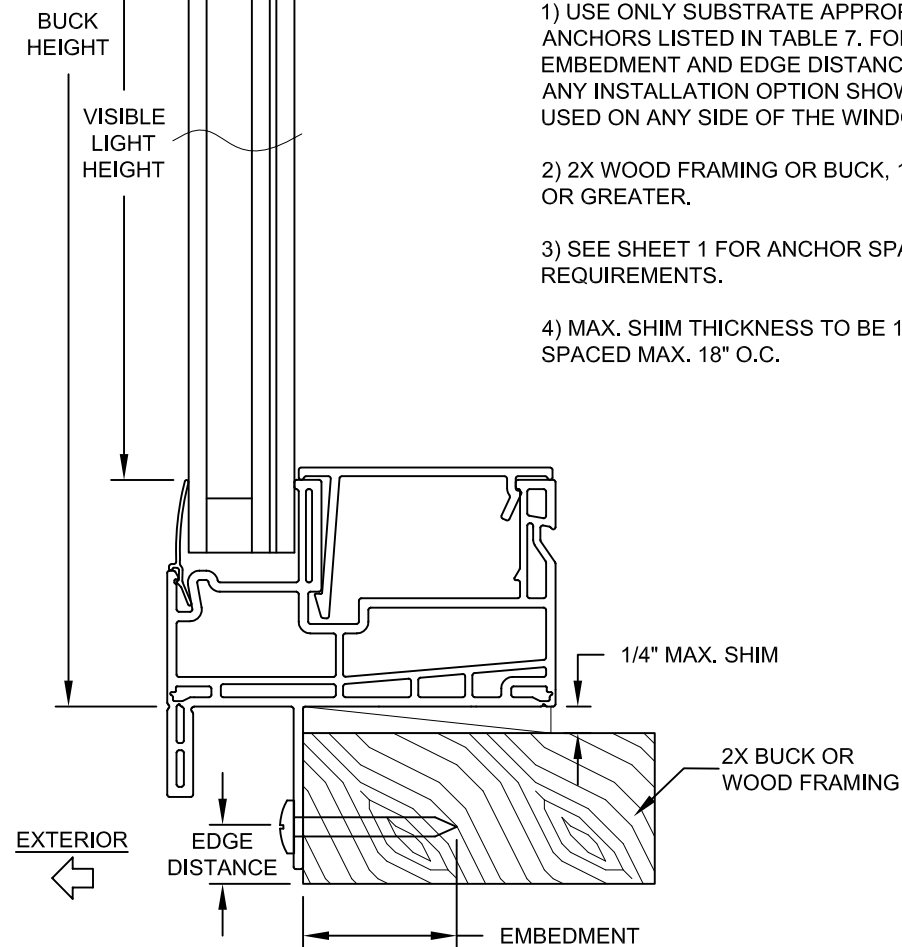


- NOTES:**
- 1) USE ONLY SUBSTRATE APPROPRIATE ANCHORS LISTED IN TABLE 7. FOLLOW EMBEDMENT AND EDGE DISTANCE LIMITS. ANY INSTALLATION OPTION SHOWN MAY BE USED ON ANY SIDE OF THE WINDOW.
 - 2) 2X WOOD FRAMING OR BUCK, 1-1/2" THICK OR GREATER.
 - 3) SEE SHEET 1 FOR ANCHOR SPACING REQUIREMENTS.
 - 4) MAX. SHIM THICKNESS TO BE 1/4" AND SPACED MAX. 18" O.C.

TABLE 7: THROUGH-FIN ANCHORS

Anchor	Substrate	Min. Embedment or Metal Thickness	Min. Edge Distance
2-1/2" x .131" Common Nail	Southern Pine (SG = .55)	2-1/2"	3/8"
2-1/2" x .145" Roofing Nail	Southern Pine (SG = .55)	2-1/2"	3/8"
#10 or #12 Steel, 18-8 SS or 410 SS Screw (G5)	Southern Pine (SG = .55)	1-3/8"	1/2"
	Aluminum, 6063-T5 min	0.125"	3/8"
	Steel Stud, Gr. 33 min.	0.045"	3/8"
	A36 Steel	0.050"	3/8"

- 1) ANCHOR MUST EXTEND A MINIMUM OF 3 THREADS BEYOND ANY METAL SUBSTRATE.
- 2) ALL SCREW HEAD TYPES ARE APPLICABLE.



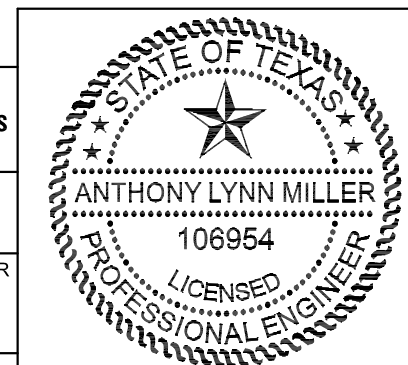
VERTICAL SECTION D-D

Title: VINYL PICTURE WINDOW (LM)		Drawn By: JENS ROSOWSKI	
Description: J-CHANNEL INSTALLATION		Date: 08/24/21	
Revision:		Rev. By:	Rev. Date:
Series/Model: PW3120V	Scale: NTS	Sheet: 6 OF 6	Drawing No. PW3120TDI-1
		Rev:	



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PREPARED BY A. LYNN MILLER
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