



elementSHIELD™

VINYL

HR910V HORIZONTAL ROLLER WINDOW,
LM/SM IMPACT RESISTANT, HVHZ
FLANGE, EQUAL-LEG & FIN FRAMES

- 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.
- 3) 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.
- 4) ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO. USE ANCHORS OF SUFFICIENT LENGTH.
- 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.
- 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) FRAME FLANGES OR INTEGRAL FINNS MAY BE TRIMMED IN-FIELD TO CREATE AN EQUAL-LEG FRAME.

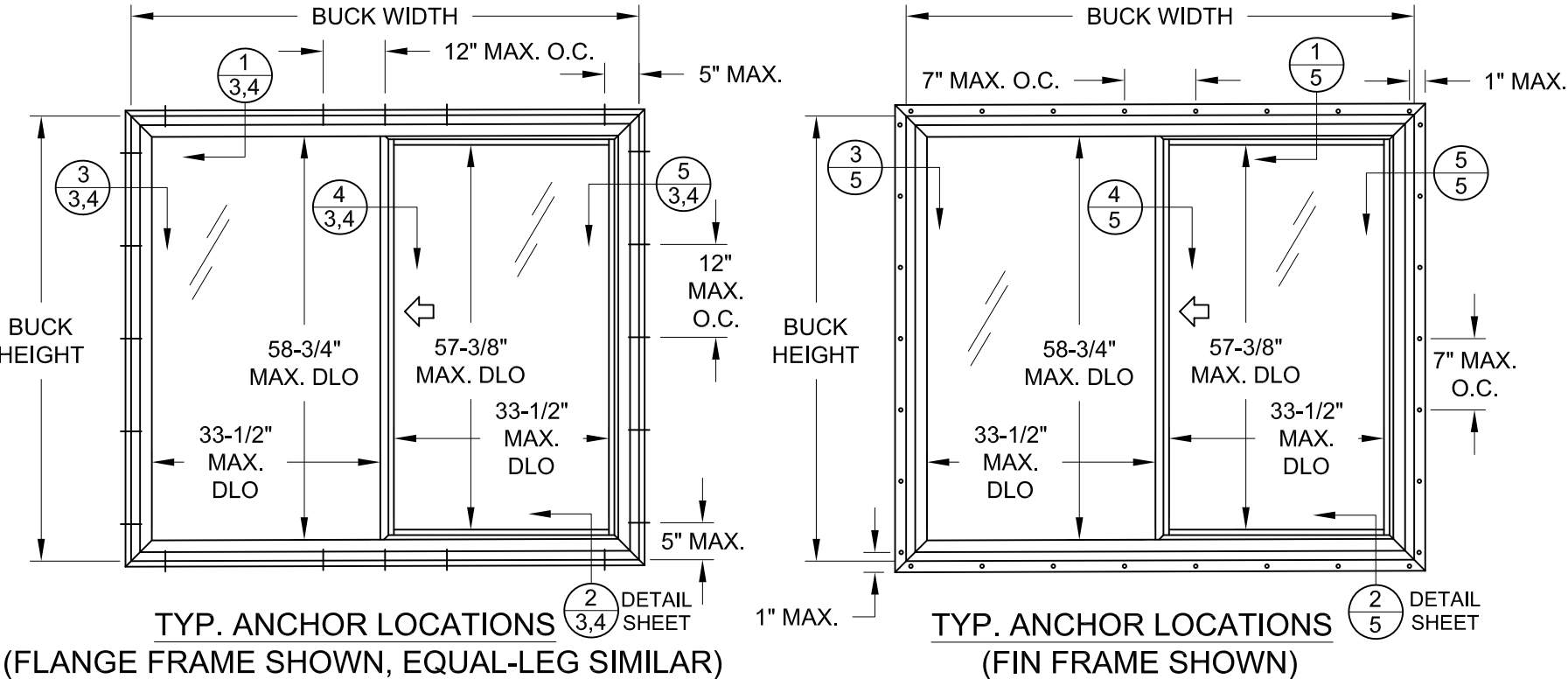


TABLE 1: DESIGN PRESSURES

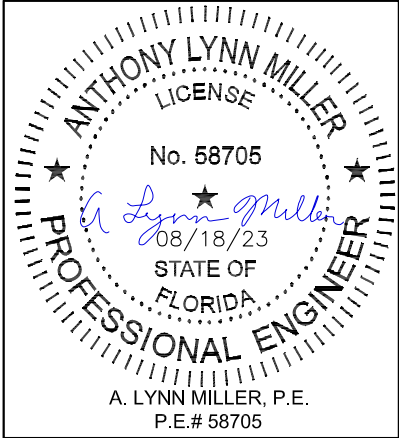
Buck Width	Buck Height	Configuration	Impact Level	Frame Type	Glass Types	Design Pressure	
						(+) psf	(-) psf
74"	63"	XO/OX	LM/SM - HVHZ	Flange, Equal-Leg	1 or 2	55.0	60.0
74"	63"	XO/OX	LM/SM - HVHZ	Integral Fin	1 or 2	50.0	60.0

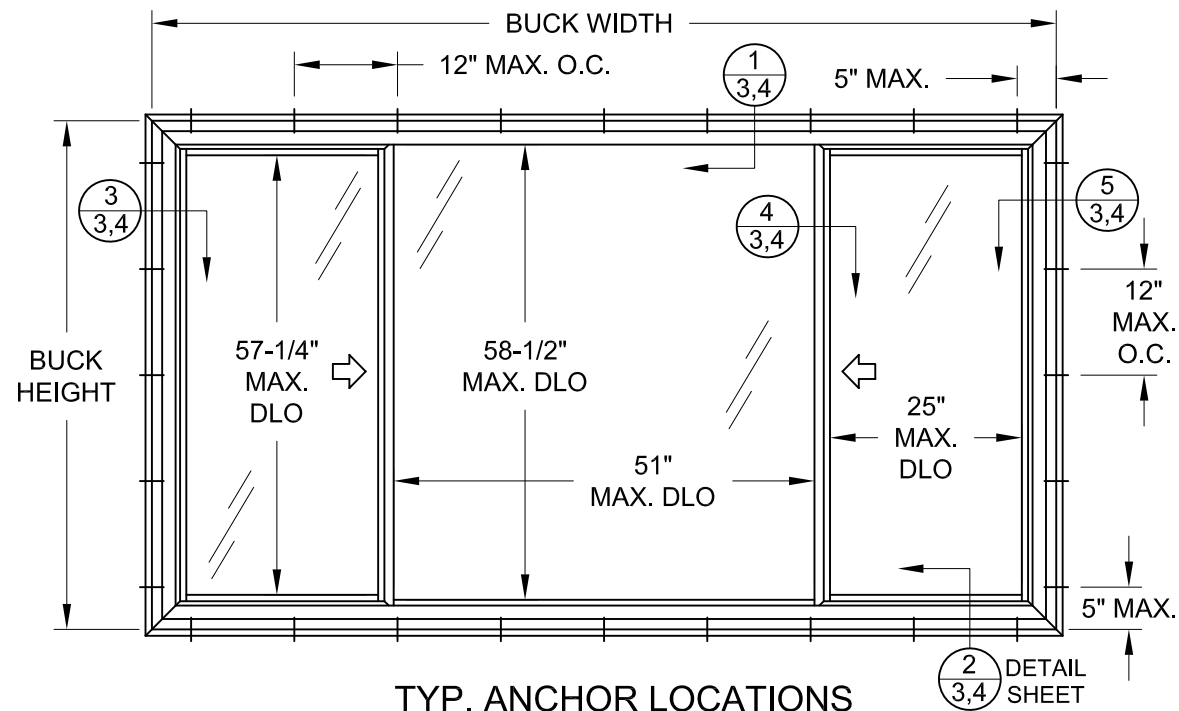
1) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION.
2) GLASS TYPE 2 MUST BE USED ABOVE 30 FT IN THE HVHZ.
3) FOR GLASS TYPES, SEE SHEET 7.

DP RATING	LARGE & SMALL MISSILE IMPACT RESISTANT, HVHZ
SEE TABLES 1 & 2	

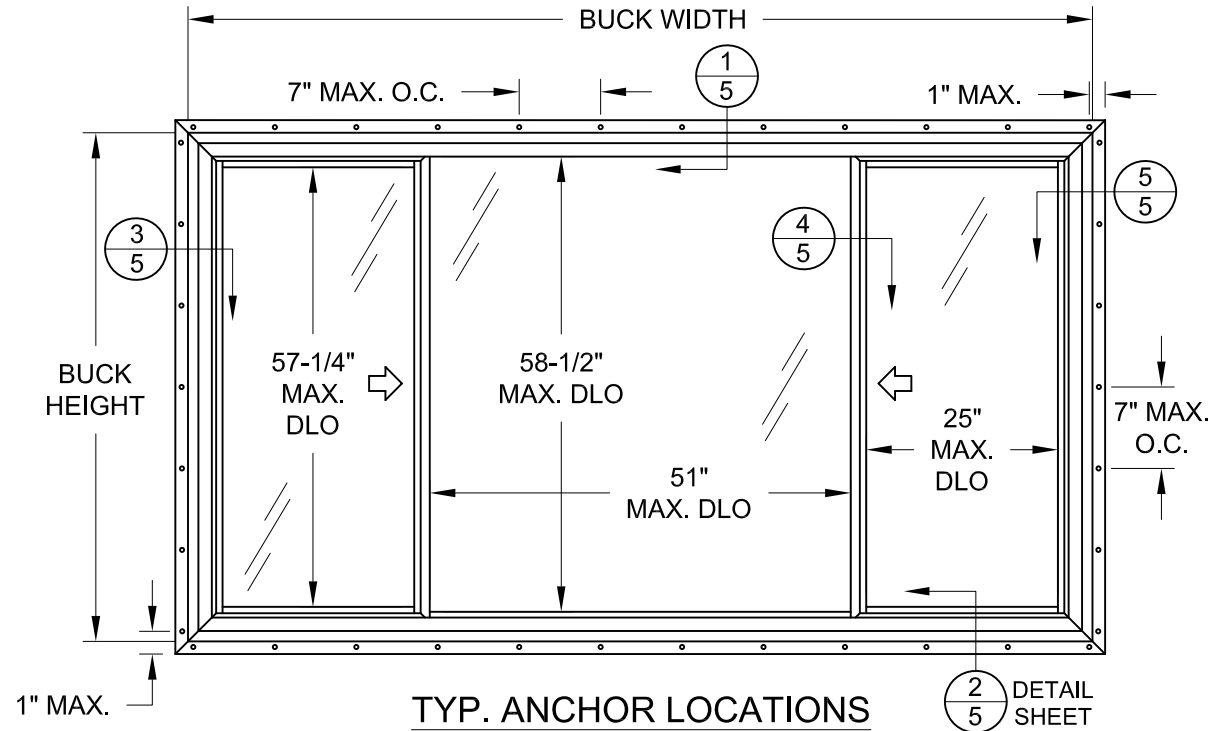
Rev.#	A
Date	08/17/23
MINOR EDITORIAL UPDATES	

Prepared by A. LYNN MILLER 1070 TECHNOLOGY DRIVE N. VENICE, FL 34275 (941) 480-1600	REGISTRATION #29296 COPYRIGHT © 2023 PGT, INC., LIMITED LICENSE TO MAKE COPIES FOR PERMITTING.	Date 04/17/23	By LOGAN YODER	Dwg No. 1 OF 6	Sheet HR910V	Title ELEVATION & GENERAL NOTES	Series Desc. HR910V-FPA-LM HVHZ





TYP. ANCHOR LOCATIONS
(FLANGE FRAME SHOWN, EQUAL-LEG SIMILAR)
(1/4 - 1/2 - 1/4 CONFIGURATION SHOWN)



TYP. ANCHOR LOCATIONS
(FIN FRAME SHOWN)
(1/4 - 1/2 - 1/4 CONFIGURATION SHOWN)

TABLE 2: XOX DESIGN PRESSURES

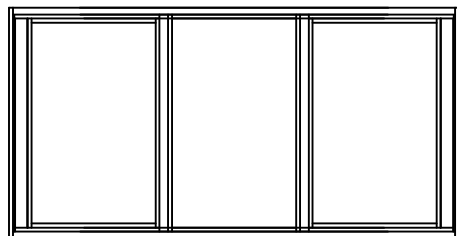
Buck Width	Buck Height	Configuration	Impact Level	Frame Type	Glass Types	Design Pressure	
						(+) psf	(-) psf
82-7/8"	63"	1/3 - 1/3 - 1/3 XOX	LM/SM	All	1, 2, 3 or 4 (operable) 3 or 4 (fixed lite)	50.0	55.0
111"	63"	1/4 - 1/2 - 1/4 XOX	LM/SM	All	1, 2, 3 or 4 (operable) 4 (fixed lite)	50.0	55.0
111"	63"	1/4 - 1/2 - 1/4 XOX	LM/SM	All	1, 2, 3 or 4 (operable) 3 (fixed lite)	See Table 2A	

- 1) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION.
2) FOR GLASS DESCRIPTIONS, SEE SHEET 7.

TABLE 2A:

Design Pressure		XOX 1/4 - 1/2 - 1/4 using Glass Types 3 at Fixed Lite					
		Width					
		60"	72"	84"	96"	108"	111"
Height	36"	+50/-55	+50/-55	+50/-55	+50/-55	+50/-55	+50/-55
	48"	+50/-55	+50/-55	+50/-55	+50/-55	+50/-55	+50/-55
	54"	+50/-55	+50/-55	+50/-55	+50/-55	+50/-55	+50/-55
	60"	+50/-55	+50/-55	+50/-55	+50/-55	+50.0/-52.9	+50.0/-52.2
	63"	+50/-55	+50/-55	+50/-55	+50.0/-54.2	+50.0/-50.4	+/-49.6

- 1) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION.
2) FOR GLASS DESCRIPTIONS, SEE SHEET 7.



WINDOW MAY BE A 1/4 - 1/2 - 1/4 CONFIGURATION (AS SHOWN ABOVE), OR 1/3 - 1/3 - 1/3 CONFIGURATION (AS SHOWN TO THE LEFT) PROVIDED DLO (DAYLITE OPENING) SIZES ARE NOT EXCEEDED.

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3780 W. 104TH STREET
HIALEAH, FL 33018

VINYL HORIZ. ROLLER WINDOW (LM - HVHZ)

GENERAL NOTES, XOX DESIGN PRESSURES & ANCHOR ELEVATION

04/17/23

LOGAN YODER

DWG No.

2 OF 6

HR910V

HR910V-FPA-LM HVHZ

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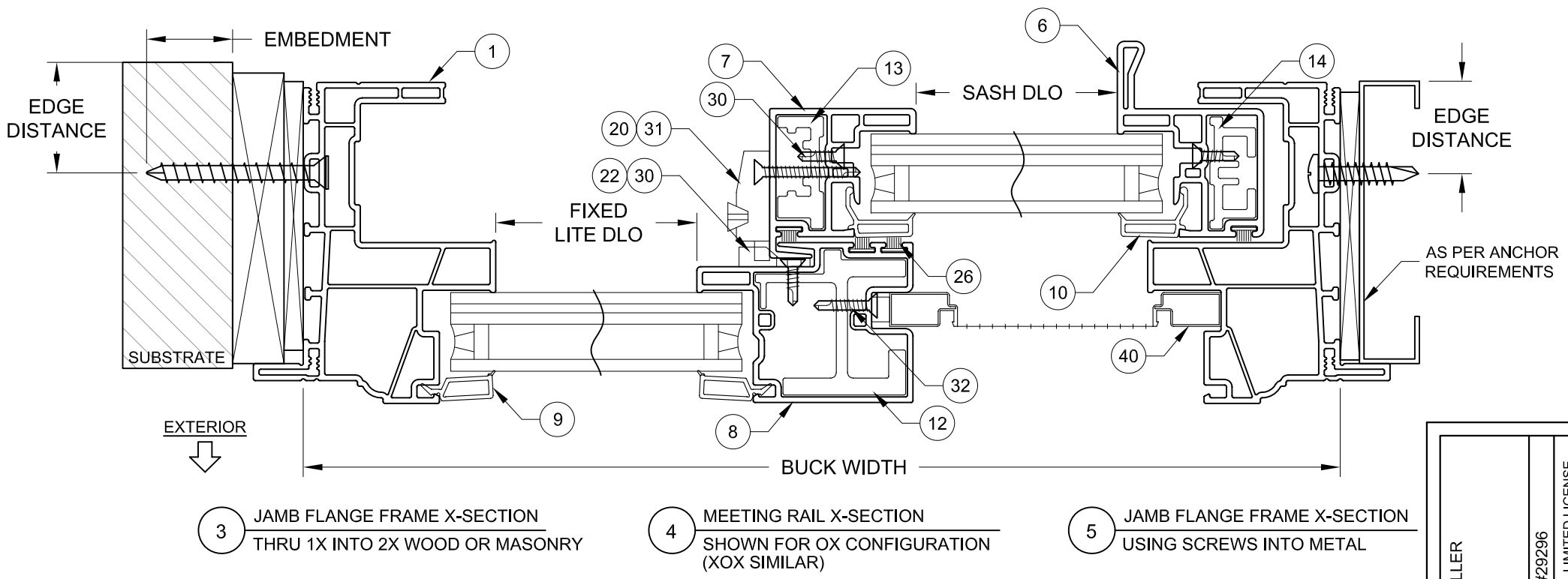
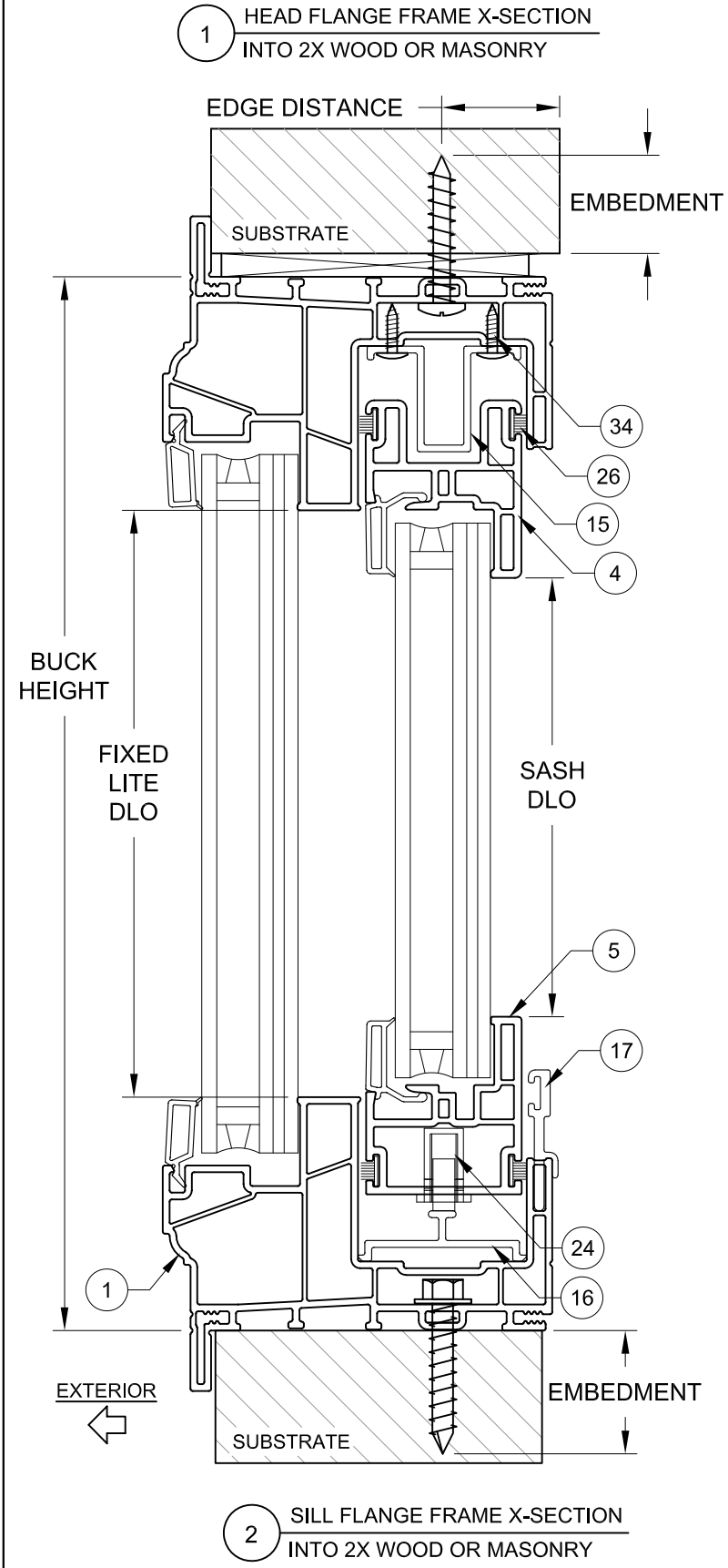


TABLE 3: INSTALLATION ANCHORS

Anchor	Substrate	Minimum Edge Distance	Minimum Embedment
#10 or #12 Steel or 410 SS Screw	Southern Pine (SG = .55)	9/16"	1-3/8"
	Aluminum, 6063-T5 min.	3/8"	0.050"
	Steel Stud, Gr. 33 min.	3/8"	0.045" (20 Ga)
	A36 Steel	3/8"	0.050"
3/16" Steel Ultracon+	Concrete (min. 2.9 ksi)	1"	1-3/4"
	UngROUTED CMU, (ASTM C-90)	1"	1-1/4"
	Southern Pine (SG = .55)	1"	1-3/8"
1/4" Steel Ultracon+	Concrete (min. 3.0 ksi)	1"	1-3/8"
	UngROUTED CMU, (ASTM C-90)	1"	1-1/4"
	Southern Pine (SG = .55)	1"	1-3/8"

- 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.

INSTALLATION NOTES:

- 1) SEE SHEET 1 FOR ANCHOR SPACING REQUIREMENTS.
2) ANY INSTALLATION OPTION SHOWN (2X BUCK OR WOOD FRAMING, 1X BUCK, DIRECT TO MASONRY, STEEL STUD) MAY BE USED ON ANY SIDE OF THE WINDOW.
3) USE ONLY SUBSTRATE APPROPRIATE ANCHORS LISTED IN ANCHOR TABLE 3. FOLLOW EMBEDMENT AND EDGE DISTANCE LIMITS. MAX. SHIM THICKNESS TO BE 1/4".

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VINYL HORIZ. ROLLER WINDOW (LM - HVHZ)

FLANGE INSTALL & ANCHOR TYPES

04/17/23

LOGAN YODER

HR910V

3 OF 6

HR910V-FPA-LM HVHZ

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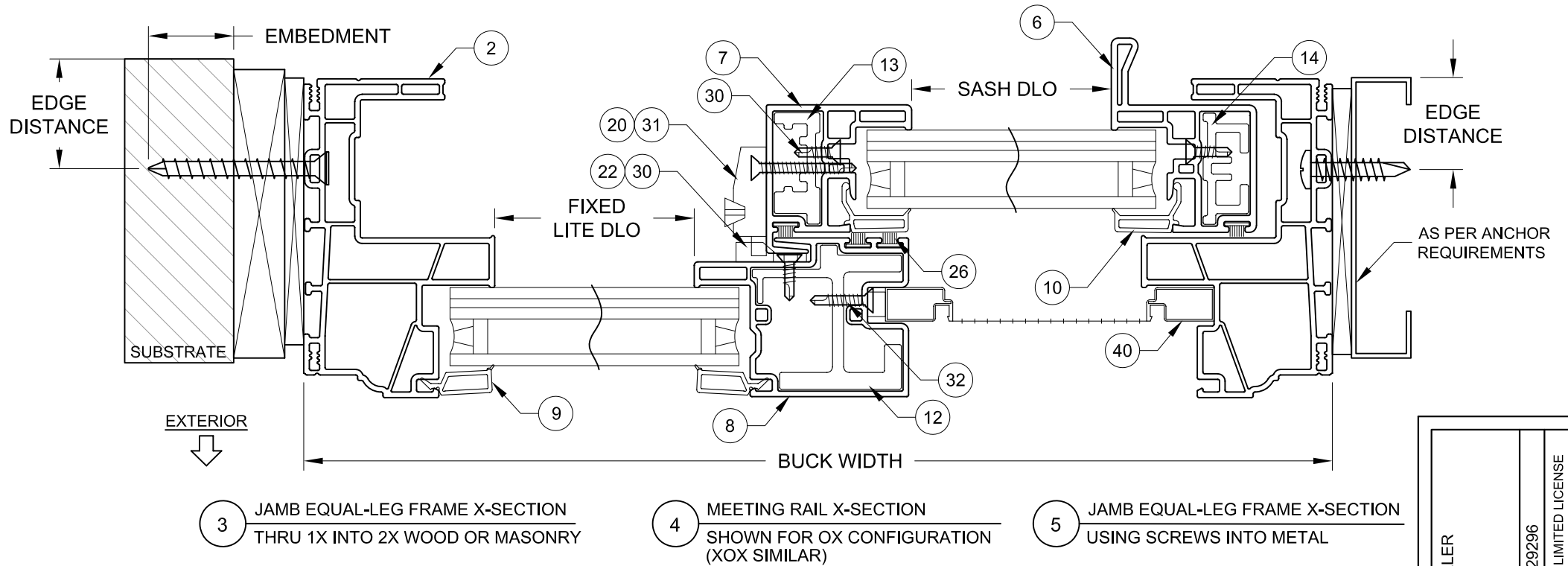
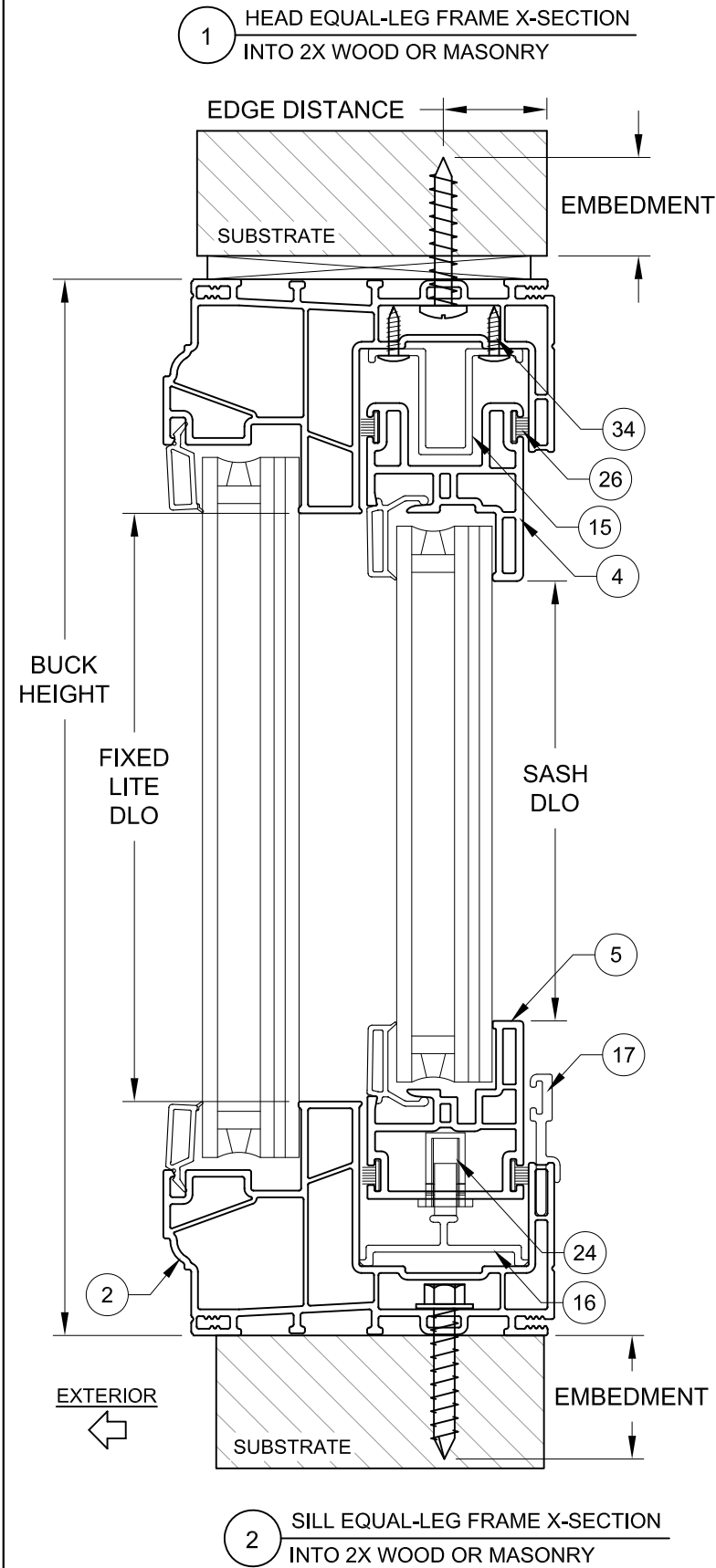


TABLE 4: INSTALLATION ANCHORS

Anchor	Substrate	Minimum Edge Distance	Minimum Embedment
#10 or #12 Steel or 410 SS Screw	Southern Pine (SG = .55)	9/16"	1-3/8"
	Aluminum, 6063-T5 min.	3/8"	0.050"
	Steel Stud, Gr. 33 min.	3/8"	0.045" (20 Ga)
	A36 Steel	3/8"	0.050"
3/16" Steel Ultracon+	Concrete (min. 2.9 ksi)	1"	1-3/4"
	UngROUTED CMU, (ASTM C-90)	1"	1-1/4"
	Southern Pine (SG = .55)	1"	1-3/8"
1/4" Steel Ultracon+	Concrete (min. 3.0 ksi)	1"	1-3/8"
	UngROUTED CMU, (ASTM C-90)	1"	1-1/4"
	Southern Pine (SG = .55)	1"	1-3/8"

- 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.

INSTALLATION NOTES:

- 1) SEE SHEET 1 FOR ANCHOR SPACING REQUIREMENTS.
- 2) ANY INSTALLATION OPTION SHOWN (2X BUCK OR WOOD FRAMING, 1X BUCK, DIRECT TO MASONRY, STEEL STUD) MAY BE USED ON ANY SIDE OF THE WINDOW.
- 3) USE ONLY SUBSTRATE APPROPRIATE ANCHORS LISTED IN ANCHOR TABLE 4. FOLLOW EMBEDMENT AND EDGE DISTANCE LIMITS. MAX. SHIM THICKNESS TO BE 1/4".

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EQUAL-LEG INSTALLATION & ANCHOR TYPES		LOGAN YODER		HR910V	
4 OF 6		HR910V-FPA-LM HVHZ		A	

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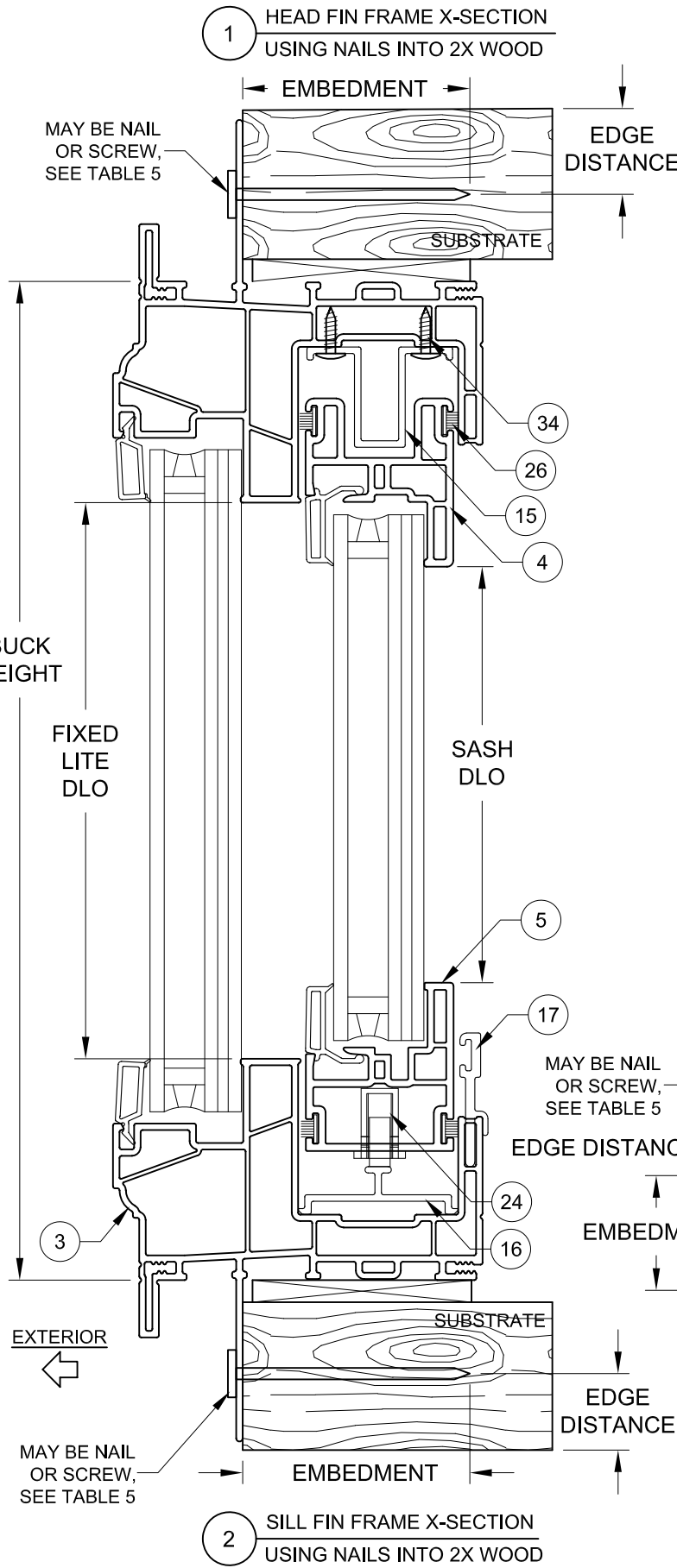


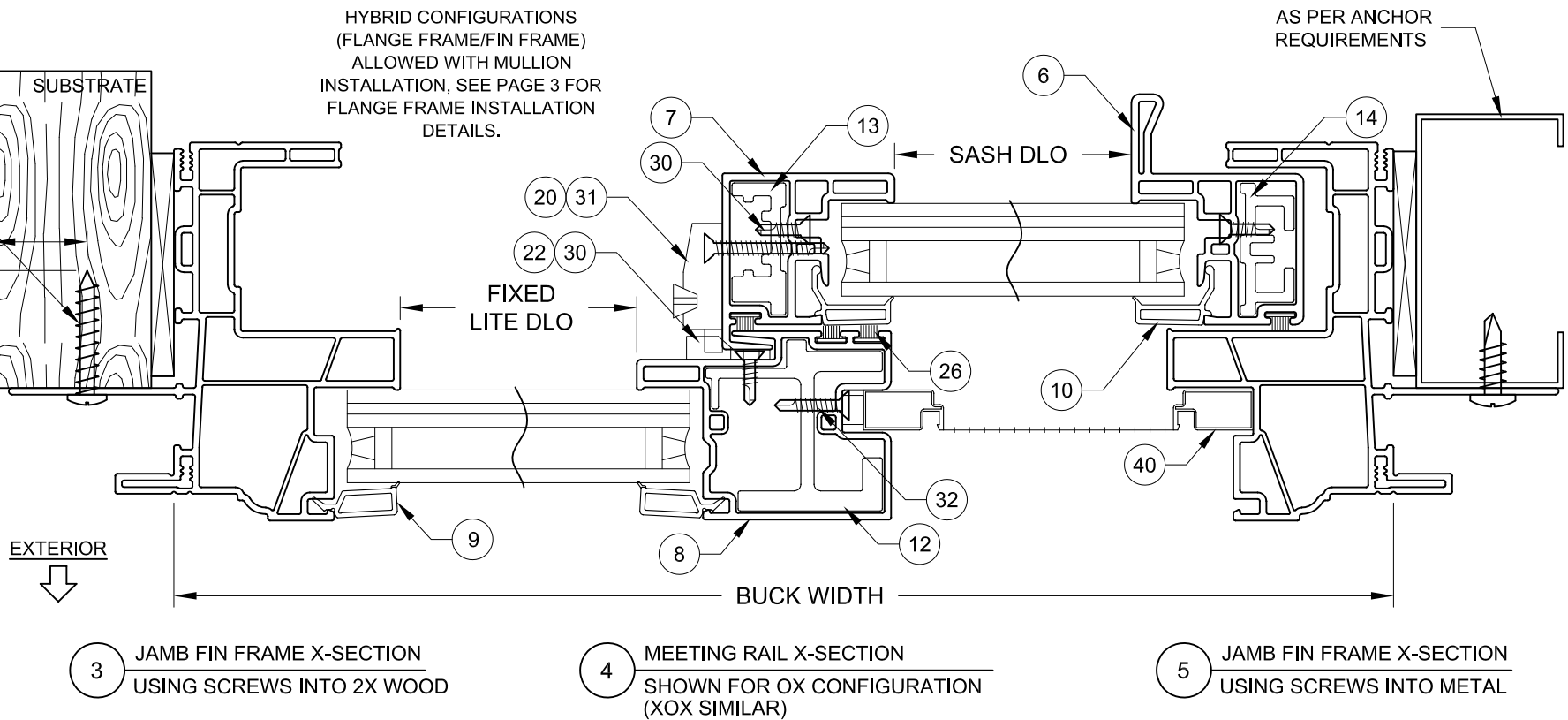
TABLE 5: INSTALLATION ANCHORS

Anchor	Substrate	Min. Edge Distance	Min. Embedment
2-1/2" x .113" Box Nail	P.T. Southern Pine (SG = .55)	5/16"	2-7/16"
2-1/2" x .131" Common Nail	P.T. Southern Pine (SG = .55)	3/8"	2-7/16"
2-1/2" x .145" Roofing Nail	P.T. Southern Pine (SG = .55)	3/8"	2-7/16"
#10 Steel SMS	P.T. Southern Pine (SG = .55)	1/2"	1-3/8"
	Aluminum, 6063-T5 min.	3/8"	1/8"
	Steel Stud, Gr. 33 min.	3/8"	0.036
	A36 Steel	3/8"	1/8"

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

INSTALLATION NOTES:

- 1) SEE SHEET 1 FOR SPACING REQUIREMENTS.
2) FLANGE AND/OR FIN MAY BE REMOVED TO CREATE OTHER FRAME TYPES.
3) USE ONLY SUBSTRATE APPROPRIATE ANCHORS LISTED IN ANCHOR TABLE 5. FOLLOW EMBEDMENT AND EDGE DISTANCE LIMITS. ANY INSTALLATION OPTION SHOWN MAY BE USED ON ANY OR ALL SIDES OF THE WINDOW.
4) MAX. SHIM THICKNESS TO BE 1/4". MAX. SHIM SPACING TO BE 18".



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FIN INSTALL & ANCHOR TYPES

LOGAN YODER

HR910V

5 OF 6

HR910V-FPA-LM HVHZ

Rev. # 08/17/23

Date

By

DWG

Sheet

Series

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