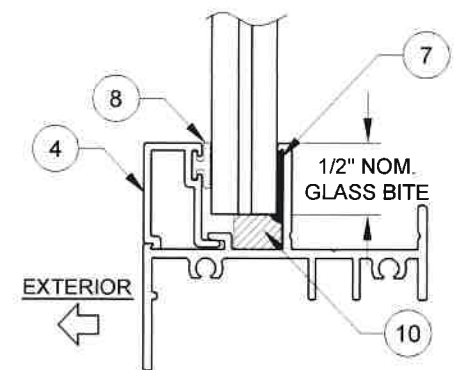
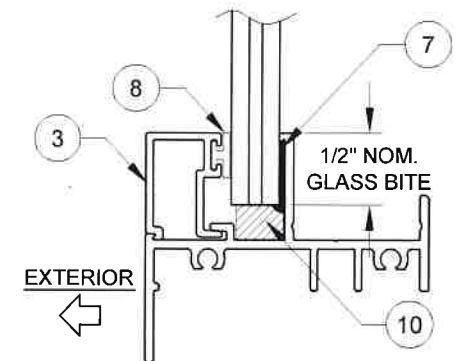
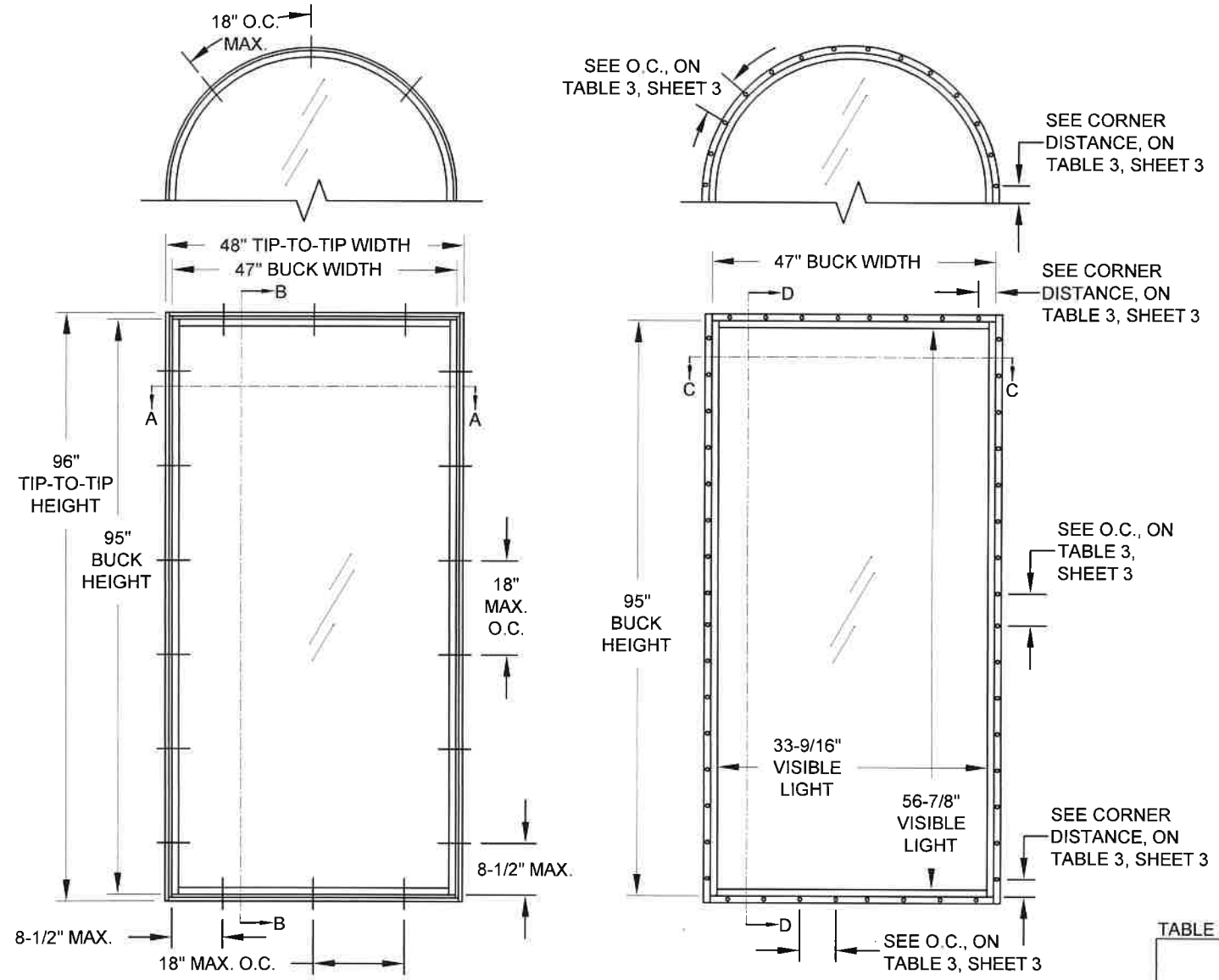


**SERIES 4120A IMPACT RESISTANT
FIXED WINDOW**

- 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 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.
- 4) 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.
- 5) SHIMS ARE REQUIRED AT EACH FLANGE 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.

DESIGN PRESSURE RATING	IMPACT RATING
+55/-65 PSF	RATED FOR LARGE & SMALL MISSILE IMPACT RESISTANCE



**TYP. FLANGE FRAME
ANCHOR LOCATIONS
@ MAX. SIZE**

**TYP. FIN FRAME
ANCHOR LOCATIONS
@ MAX. SIZE**

ALL WINDOW SHAPES QUALIFIED, COMMON EXAMPLES SHOWN BELOW:

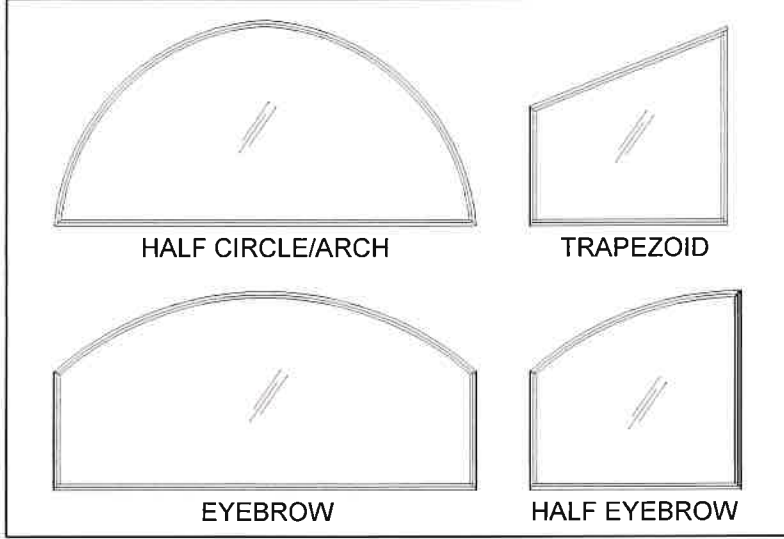


TABLE 1:

Laminated Glass Types	
1	1/8" Annealed, 0.090" PVB, 1/8" Annealed
2	1/8" Heat Strengthened, 0.090" PVB, 1/8" Heat Strengthened
3	3/16" Annealed, 0.090" PVB, 3/16" Annealed
4	3/16" Heat Strengthened, 0.090" PVB, 3/16" Heat Strengthened

INTERLAYER MAY BE SAFLEX PVB OR TROSIFOL PVB
SEE SHEETS 4 & 5 FOR GLASS DETAILS

Title: PW APPROVAL - HVHZ		Drawn By: JENS ROSOWSKI	
Description: GENERAL NOTES & ELEVATION		Date: 01/09/18	
Revision: A) ADDED #12 SMS TO TABLE 3		Rev. By: JR	Rev. Date: 09/21/18
Series/Model: PW-4120A	Scale: NTS	Sheet: 1 OF 5	Drawing No. PW4120FLPA
		Rev.:	A

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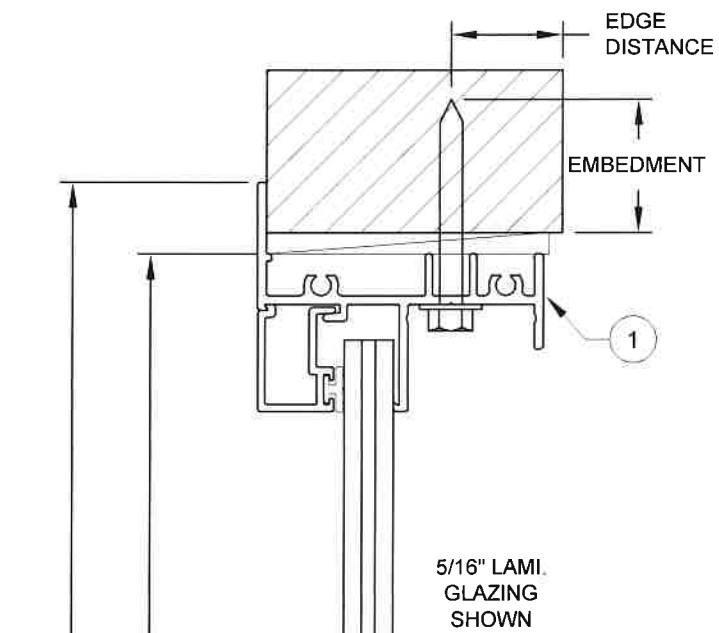
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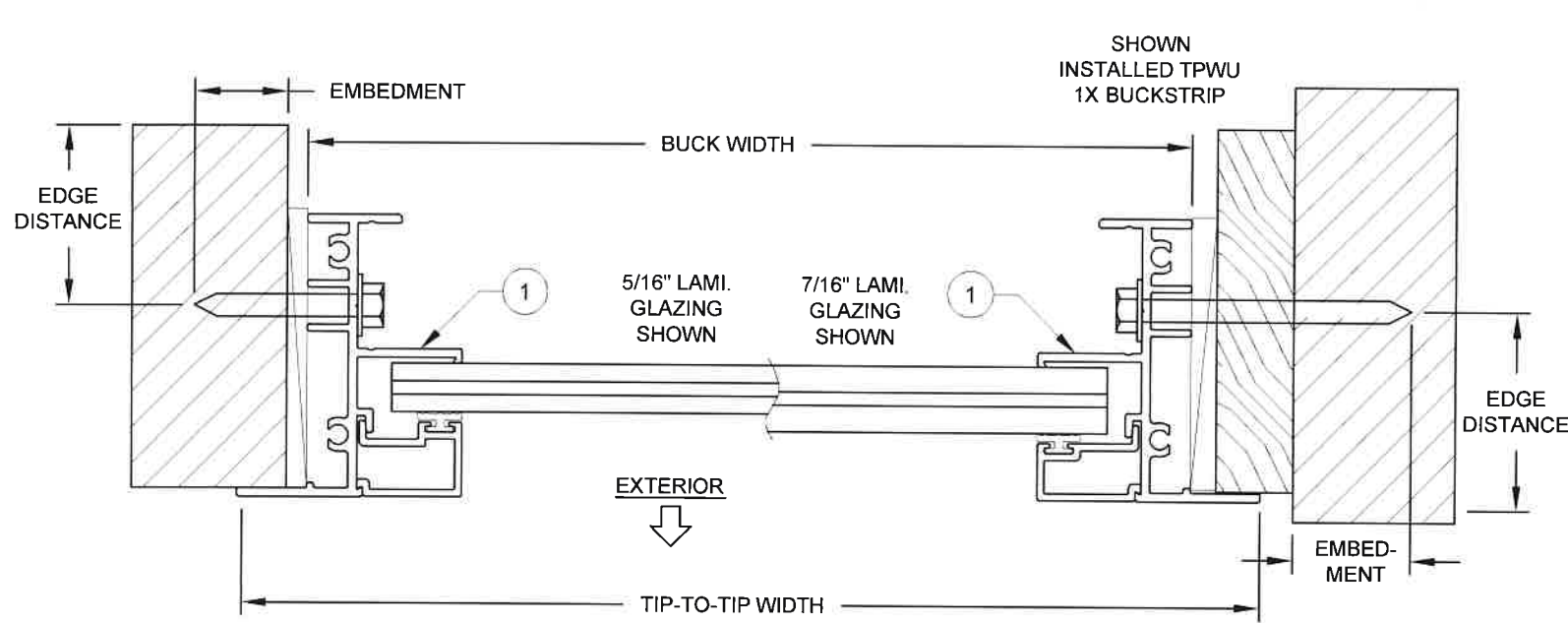
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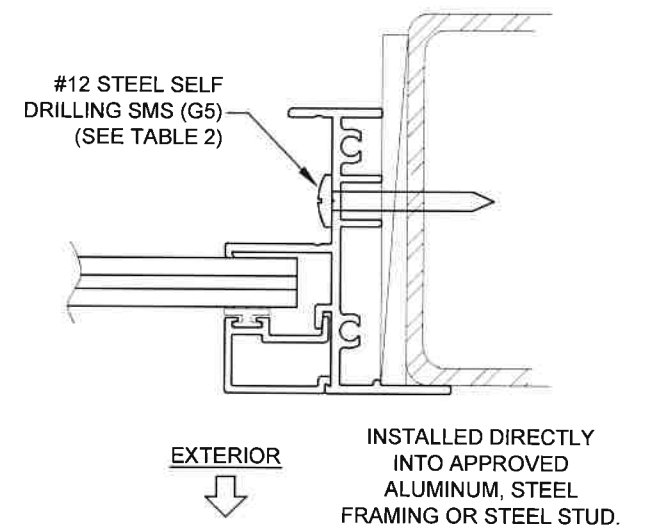
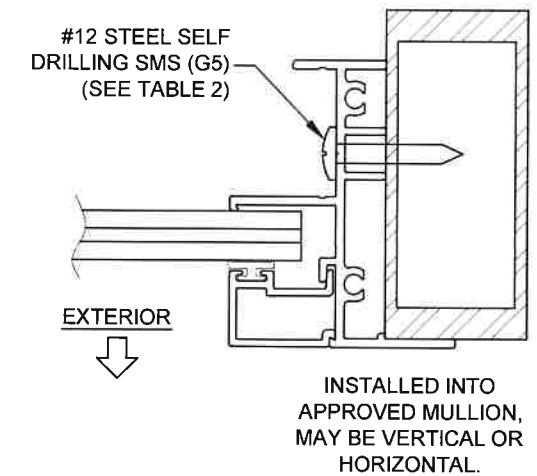
TIP-TO-TIP HEIGHT
BUCK HEIGHT

5/16" LAMI. GLAZING SHOWN

7/16" LAMI. GLAZING SHOWN



HORIZONTAL SECTION A-A



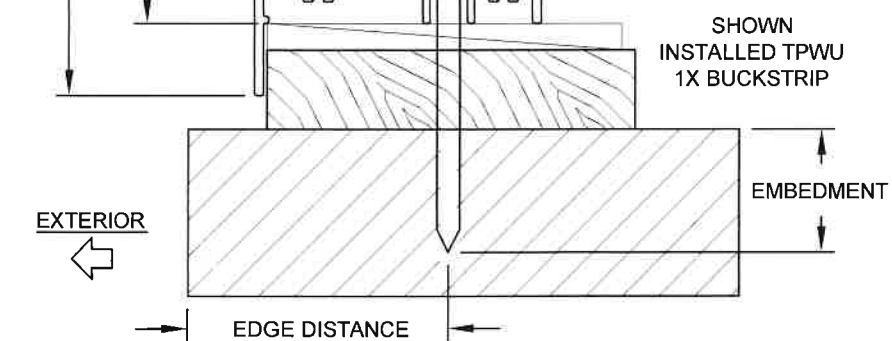
NOTES:

- 1) USE ONLY SUBSTRATE APPROPRIATE ANCHORS LISTED IN TABLE 2. 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 SPACING REQUIREMENTS.
- 4) MAX. SHIM THICKNESS TO BE 1/4".
- 5) GLASS SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY AND MAY DIFFER TO MEET DESIGN REQUIREMENTS.

TABLE 2:

Anchor	Substrate	Minimum Edge Distance	Minimum Embedment
#12 Steel SMS Screw (G5)	P.T. Southern Pine (SG = .55)	9/16"	1-3/8"
	Aluminum, 6063-T5 min.	3/8"	0.078"
	Steel Stud, Gr. 33 min.	3/8"	0.045" (20 Ga)
1/4" Steel Ultracon	A36 Steel	3/8"	0.050"
	P.T. Southern Pine (SG = .55)	1"	1-3/8"
	Concrete (min. 2.9 ksi)	1-1/8"	1-3/8"
1/4" 410 SS CreteFlex	Grouted CMU, (ASTM C-90)	2-1/2"	1-3/4"
	Ungouted CMU, (ASTM C-90)	1-1/8"	1-1/4"
	P.T. Southern Pine (SG = .55)	1"	1-3/8"
1/4" 410 SS CreteFlex	Concrete (min. 3.35 ksi)	1"	1-3/4"
	Concrete (min. 3.35 ksi)	2-1/2"	1"
	Ungouted CMU, (ASTM C-90)	1-3/4"	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.



VERTICAL SECTION B-B

Title: PW APPROVAL - HVHZ		Drawn By: JENS ROSOWSKI	
Description: GENERAL NOTES & ELEVATION		Date: 01/09/18	
Revision: A) NO CHANGES THIS SHEET		Rev. By: JR	Rev. Date: 09/21/18
Series/Model: PW-4120A	Scale: NTS	Sheet: 2 OF 5	Drawing No. Rev: PW4120FLPA A

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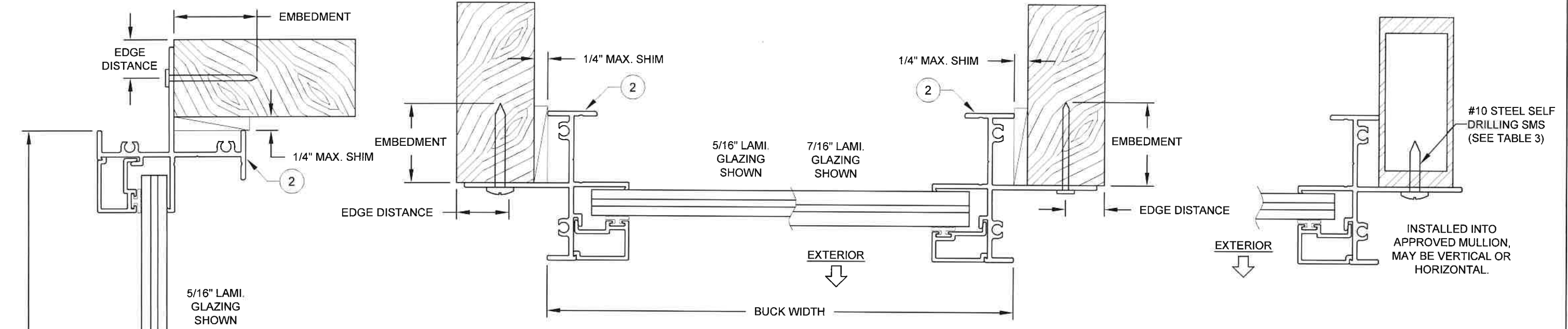
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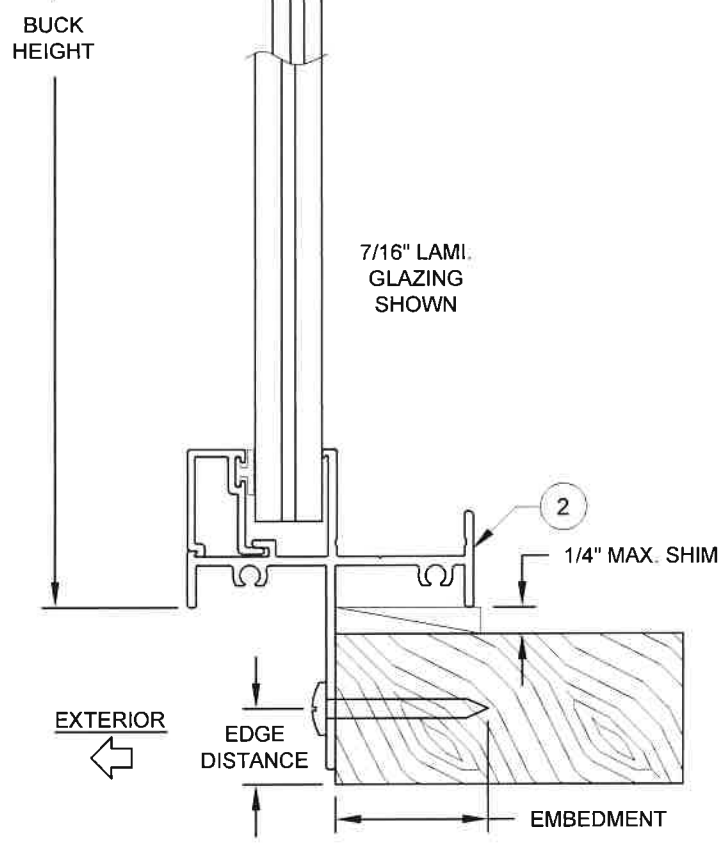
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P.E.# 58705



HORIZONTAL SECTION C-C



VERTICAL SECTION D-D

TABLE 3: THOUGH-FIN ANCHORS

Anchor	Substrate	Min. Embedment or Metal Thickness	Min. Edge Distance	Max. On-center, Distance, OC	Max. Corner Distance
2-1/2" x .113" Box Nail	P.T. Southern Pine (SG = .55)	-	3/8"	6"	2-7/8"
2-1/2" x .131" Common Nail	P.T. Southern Pine (SG = .55)	-	3/8"		
2-1/2" x .145" Roofing Nail	P.T. Southern Pine (SG = .55)	-	3/8"		
#10 Steel SMS Screw (G5)	P.T. Southern Pine (SG = .55)	1-3/8"	1/2"	16-9/16"	8-1/2"
	Aluminum, 6063-T5 min.	0.125"	3/8"		
	Steel Stud, Gr. 33 min.	0.057"	3/8"		
#12 Steel SMS Screw (G5)	A36 Steel	0.050"	3/8"	26"	8-1/2"
	P.T. Southern Pine (SG = .55)	1-3/8"	9/16"		
	Aluminum, 6063-T5 min.	0.125"	7/16"		
	Steel Stud, Gr. 33 min.	0.071"	7/16"		
	A36 Steel	0.050"	7/16"		

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

NOTES:

- 1) USE ONLY SUBSTRATE APPROPRIATE ANCHORS LISTED IN TABLE 3. 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 SPACING REQUIREMENTS.
- 4) MAX. SHIM THICKNESS TO BE 1/4".
- 5) GLASS SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY AND MAY DIFFER TO MEET DESIGN REQUIREMENTS.

Title: PW APPROVAL - HVHZ		Drawn By: JENS ROSOWSKI	
Description: GENERAL NOTES & ELEVATION		Date: 01/09/18	
Revision: A) ADDED #12 SMS TO TABLE 3		Rev. By: JR Rev. Date: 09/21/18	
Series/Model: PW-4120A	Scale: NTS	Sheet: 3 OF 5	Drawing No. PW4120FLPA
			Rev: A

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 No. 58705

A. Lynn Miller

PROFESSIONAL ENGINEER
 STATE OF FLORIDA

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

TABLE 4:

For Glass Type 1		Window Design Pressure (+/-, psf)													
		Short Side (in)													
		22"	24"	26"	28"	30"	32"	34"	36"	38"	40"	42"	44"	46"	47"
Long Side (in)	56"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-63.1	+55/-61.5	+55/-60.2	+55/-59.5
	60"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-64.7	+55/-62.2	+55/-60.8	+55/-59.3	+54/-57.8	
	64"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-62.4	+55/-60.6	+55/-58.9	+54.7/-57.3	+53.3/-56		
	68"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-62.2	+55/-60.5	+55/-59	+55/-57.4	+55/-55.6					
	72"	+55/-65	+55/-65	+55/-65	+55/-62.2	+55/-58.6	+55/-56.8	+55/-55.2	+/-53.9						
	75"	+55/-65	+55/-65	+55/-65	+55/-60.5	+55/-56.7	+/-53.9	+/-52.3	+/-51.3						
	80"	+55/-65	+55/-65	+55/-62.9	+55/-57.8	+/-53.8	+/-50.7								
	84"	+55/-65	+55/-65	+55/-61.3	+55/-56	+/-51.8	+/-48.8								
	88"	+55/-65	+55/-63.7	+55/-59.3	+/-54.1	+/-50									
	92"	+55/-65	+55/-62.2	+55/-57.6	+/-52.2										
95"	+55/-65	+55/-62.1	+55/-56.6	+/-51.4											

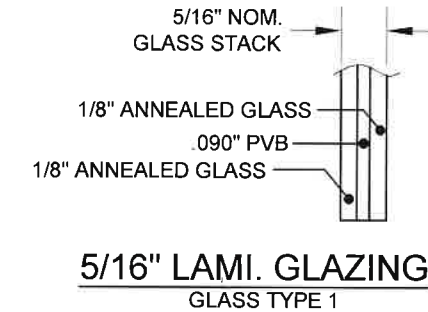
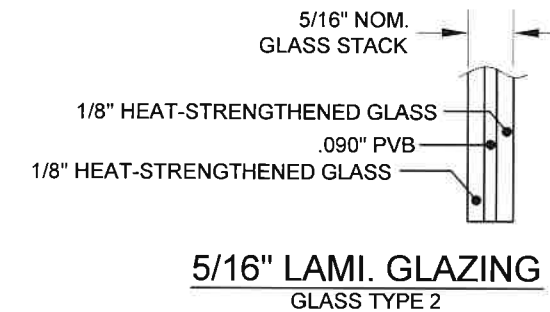


TABLE 5:

For Glass Type 2		Window Design Pressure (+/-, psf)													
		Short Side (in)													
		22"	24"	26"	28"	30"	32"	34"	36"	38"	40"	42"	44"	46"	47"
Long Side (in)	56"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65
	60"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	
	64"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65		
	68"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65				
	72"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65					
	75"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65						
	80"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65								
	84"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65								
	88"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65									
	92"	+55/-65	+55/-65	+55/-65	+55/-65										
95"	+55/-65	+55/-65	+55/-65	+55/-65											



NOTES:
1) BUCK DIMENSIONS SHOWN.
2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION.

Title: PW APPROVAL - HVHZ		Drawn By: JENS ROSOWSKI	
Description: DESIGN PRESSURE TABLES		Date: 01/09/18	
Revision: A) NO CHANGES THIS SHEET		Rev. By: JR	Rev. Date: 09/21/18
Series/Model: PW-4120A	Scale: NTS	Sheet: 4 OF 5	Drawing No. PW4120FLPA
		Rev: A	

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P.E.# 58705

TABLE 6:

For Glass Type 3		Window Design Pressure (+/-, psf)						
		Short Side (in)						
		36"	38"	40"	42"	44"	46"	47"
Long Side (in)	72"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65
	75"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65
	80"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65
	84"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65
	88"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65
	92"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-64.4	+55/-63.4
	95"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-64	+55/-61.9	+55/-60.9

TABLE 7:

For Glass Type 4		Window Design Pressure (+/-, psf)						
		Short Side (in)						
		36"	38"	40"	42"	44"	46"	47"
Long Side (in)	72"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65
	75"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65
	80"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65
	84"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65
	88"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65
	95"	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65	+55/-65

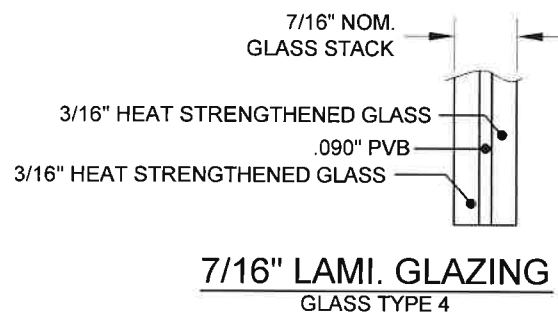
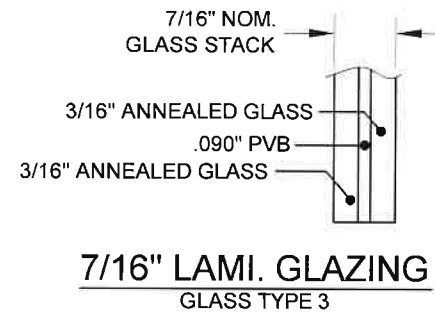
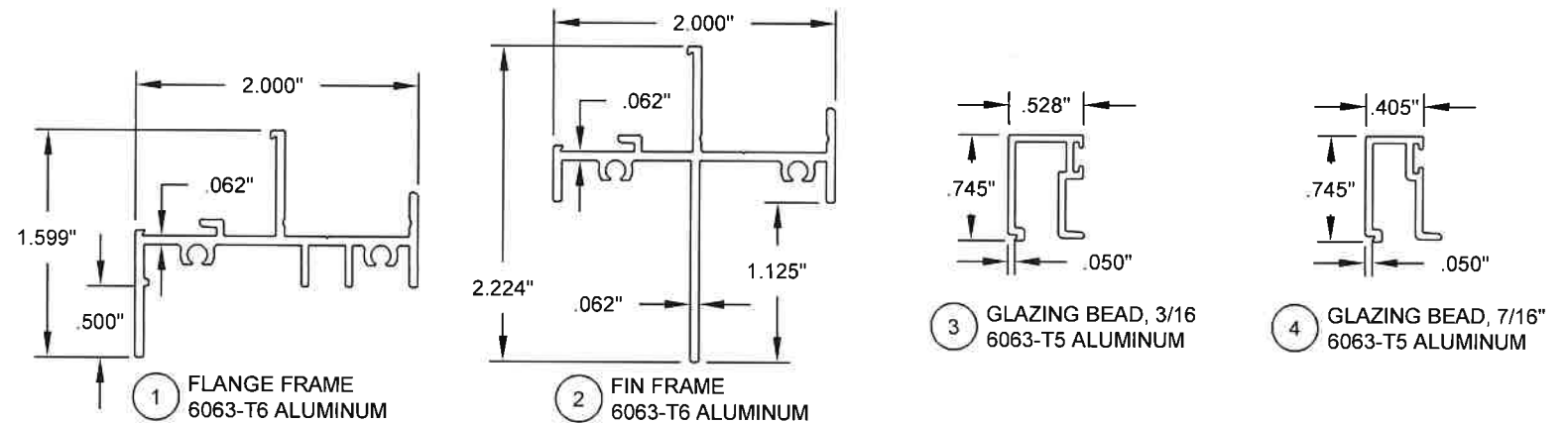


TABLE 8:

Item #	Description
1	Flange Frame
2	Integral Fin Frame
3	Glazing Bead, 5/16" Lami & 3/16" Mono
4	Glazing Bead, 7/16" Lami
7	Dow 899 Silicone or GE7700 Silicone
8	Vinyl Bulb Glazing Gasket
10	Setting Block 3/16" x 5/16" x 1-1/2"
12	#8 X 1" Panhead SMS (Assembly Screw)



NOTES:
 1) BUCK DIMENSIONS SHOWN.
 2) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE WIDTH OR HEIGHT DIMENSION.

Title: PW APPROVAL - HVHZ		Drawn By: JENS ROSOWSKI	
Description: DESIGN PRESSURE TABLES & MATERIALS		Date: 01/09/18	
Revision: A) NO CHANGES THIS SHEET		Rev. By: JR	Rev. Date: 09/21/18
Series/Model: PW-4120A	Scale: NTS	Sheet: 5 OF 5	Drawing No.: PW4120FLPA
		Rev.:	A

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