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2-1/4" DEPTH

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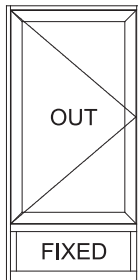
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*The latest installation instructions for this product are available at www.ykkap.com.

YOW 225 TUH STANDARD WINDOW CONFIGURATIONS

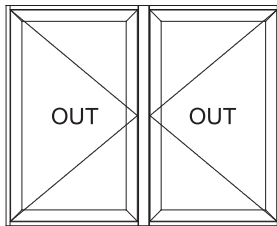
CASEMENT OUTSWING



Note:

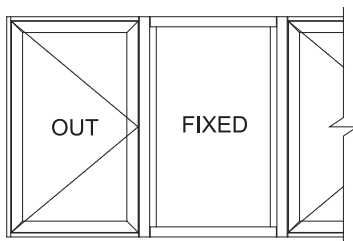
Units may utilize integral mulls for fixed over casement or casement over fixed.

Feature Casement Outswing Configuration



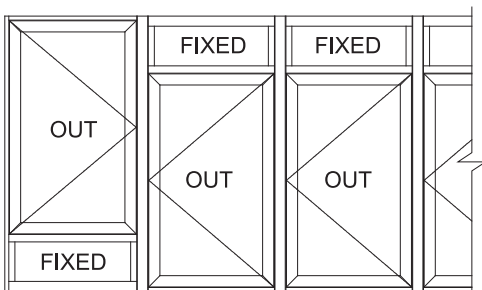
Note:

Left hand and right hand units are interchangeable. Details shall be similar to those shown herein.



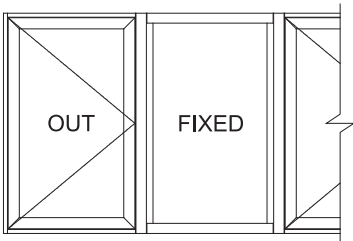
Note:

Units may be mullered side by side in combinations of casement/fixed, casement/casement, casement/project out, and/or other approved products. Mulls shall be shown herein or approved under separate approval. Fixed windows and other alternate window types under separate approval (see approved installation instructions YKK014 & YKK015.)

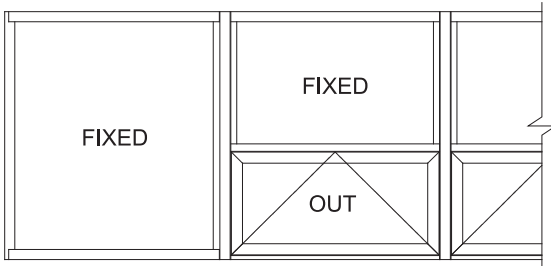
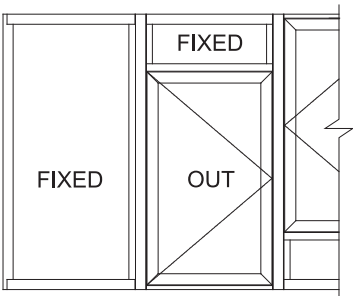


YOW 225 TUH STANDARD WINDOW CONFIGURATIONS

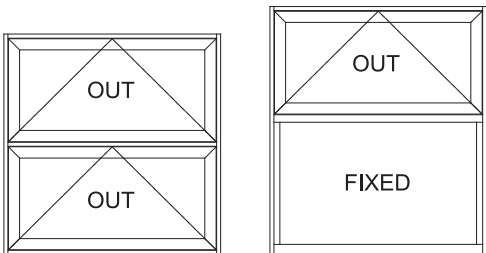
FIXED



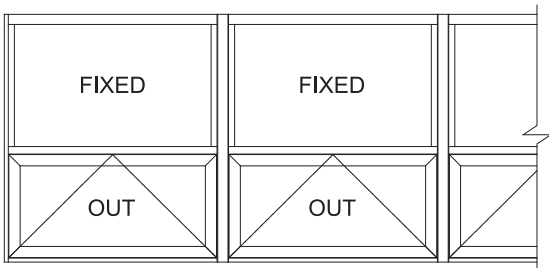
Note:
Units may be mullered side by side in combinations of fixed/ fixed, fixed/project out, fixed/casement, and/or other approved window types (see installation approved instructions YKK013 & YKK014). Mulls shall be shown herein or approved under separate approval.
Fixed windows and other alternate window types under separate approval. The window type with the lowest design pressure shall govern allowable assembly design pressure.



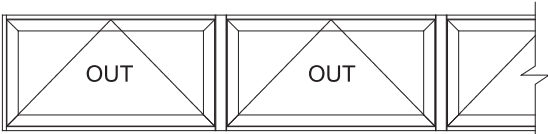
PROJECT OUT



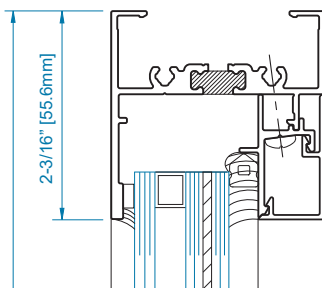
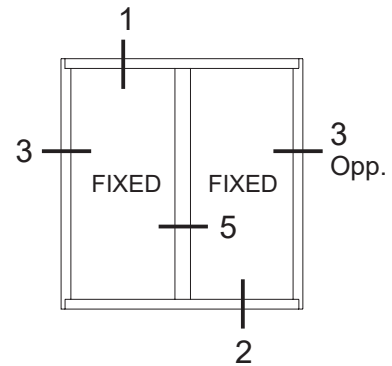
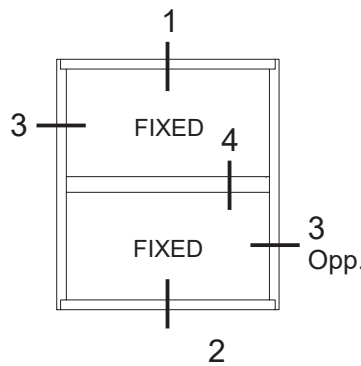
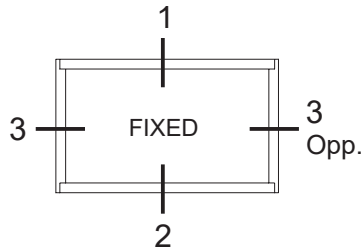
Note:
Units may utilize integral mulls for fixed over project out, project out over fixed, or project out over project out configurations.
Additionally, alternate window types may be mullered with approved windows. Max vent and fixed lite sizes shall not be exceeded as shown herein.



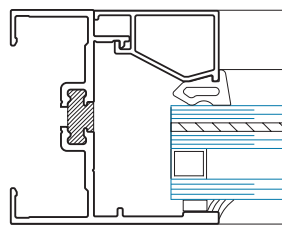
Note:
Units may be mullered sided by side in combinations of project out/fixed, project out/project out, and or other approved window types (see approved installation instructions YKK013 & YKK015). Mulls shall be as shown herein or approved under separate approval. Fixed windows and other alternate types under separate approval.



YOW 225 TUH FIXED Large Missile Impact 1-1/16" Glazing



SECTION 1

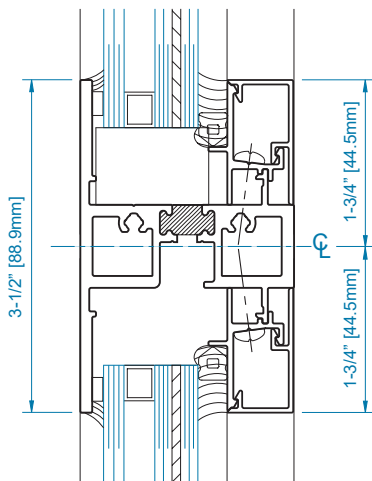


SECTION 3A
Small Missile Impact

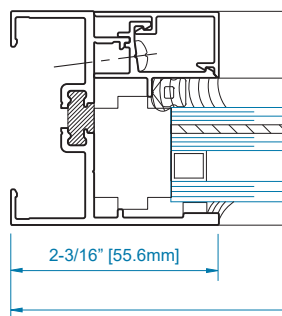
Notes:

For Small Missile Glazing substitute the glazing detail shown in Section 3A for other sections, thus eliminating structural silicone. Use Impact Resistant Glazing approved by YKK AP only.

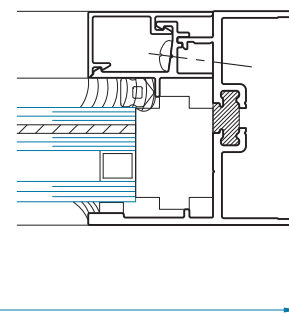
Double fixed configurations approved for Wind Zone 3 only.



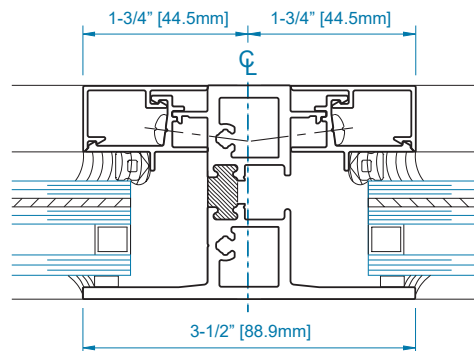
SECTION 4



SECTION 3



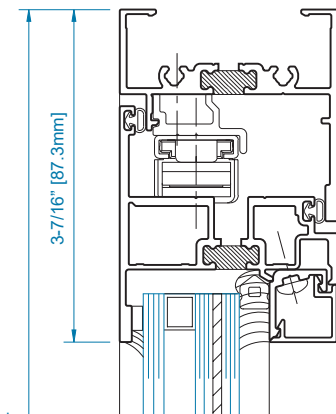
SECTION 3 Opp.



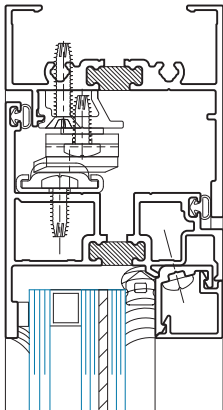
SECTION 5

SCALE: 1/2 SIZE
0 1 2

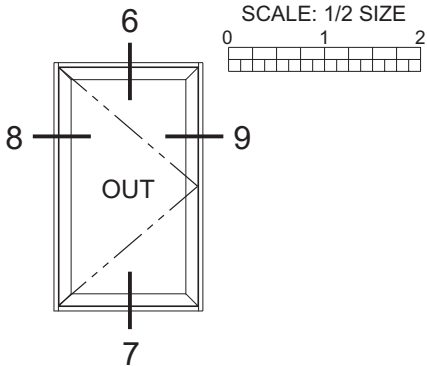
YOW 225 TUH CASEMENT OUTSWING
Large Missile Impact 1-1/16" Glazing



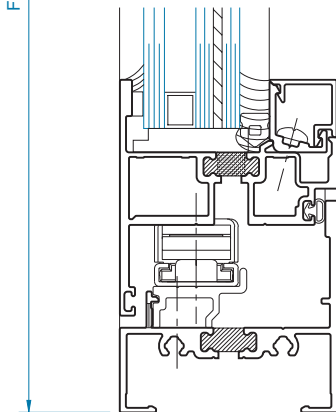
SECTION 6



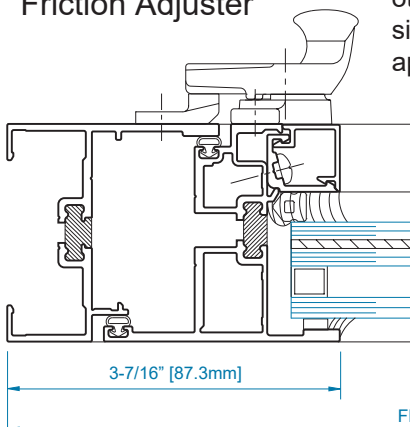
SECTION 6A
With Optional
Friction Adjuster



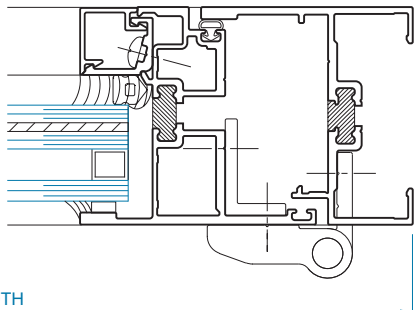
Note:
For Small Missile Glazing substitute the glazing detail shown in Section 8A for other sections, thus eliminating structural silicone. Use Impact Resistant Glazing approved by YKK AP only.



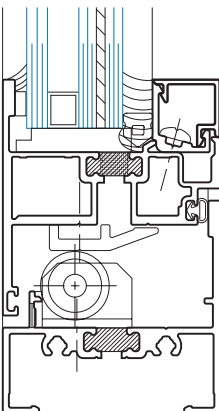
SECTION 7



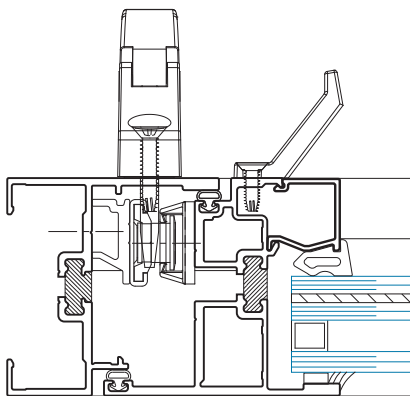
SECTION 8



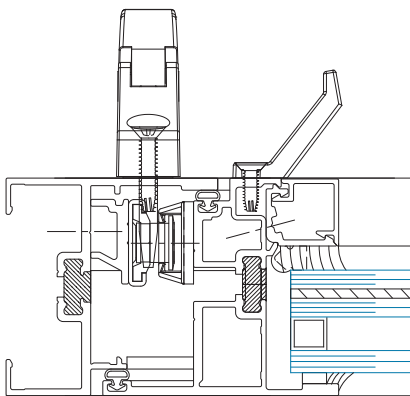
SECTION 9
w/ Optional Butt Hinge



SECTION 7A
With Optional Guide Roller

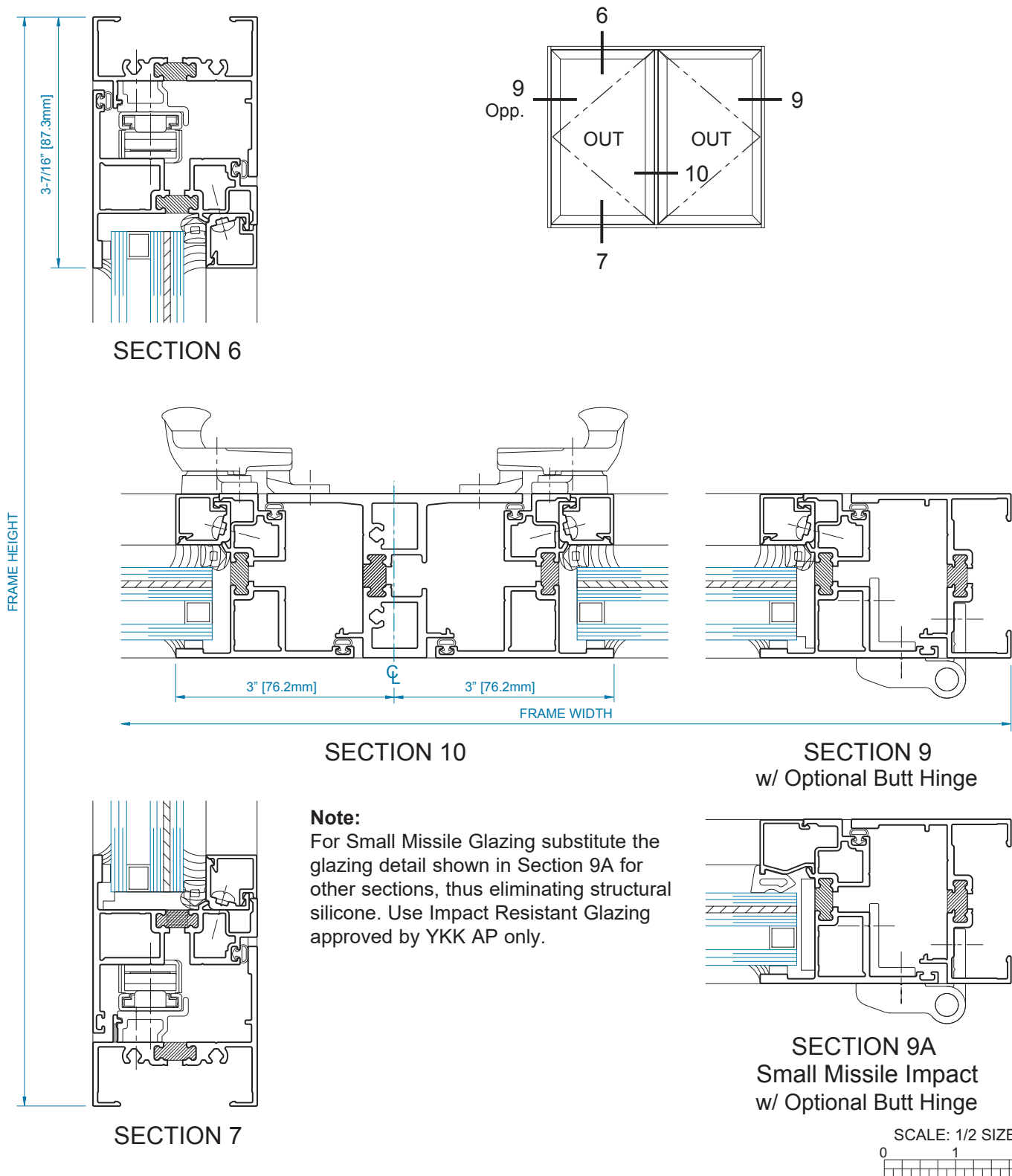


SECTION 8A
With Optional Multi-Lock
Handle & Small Missile
Impact (± 65 psf Max)

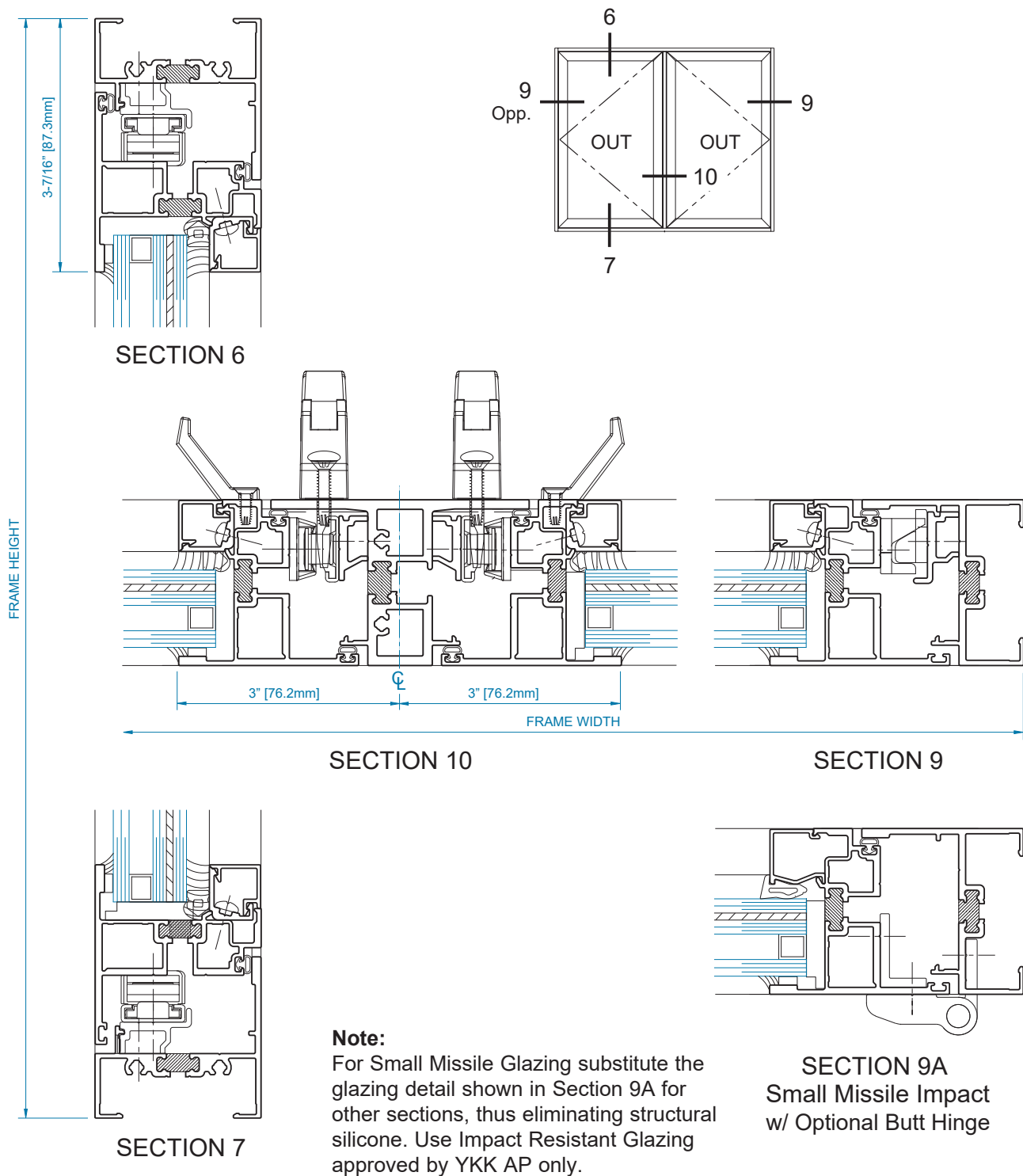


SECTION 8B
Multi-Lock Handle &
Large Missile Impact Using
.090 PVB (± 80 psf Max)

YOW 225 TUH DOUBLE CASEMENT OUTSWING Large Missile Impact 1-1/16" Glazing (± 65 psf Max)



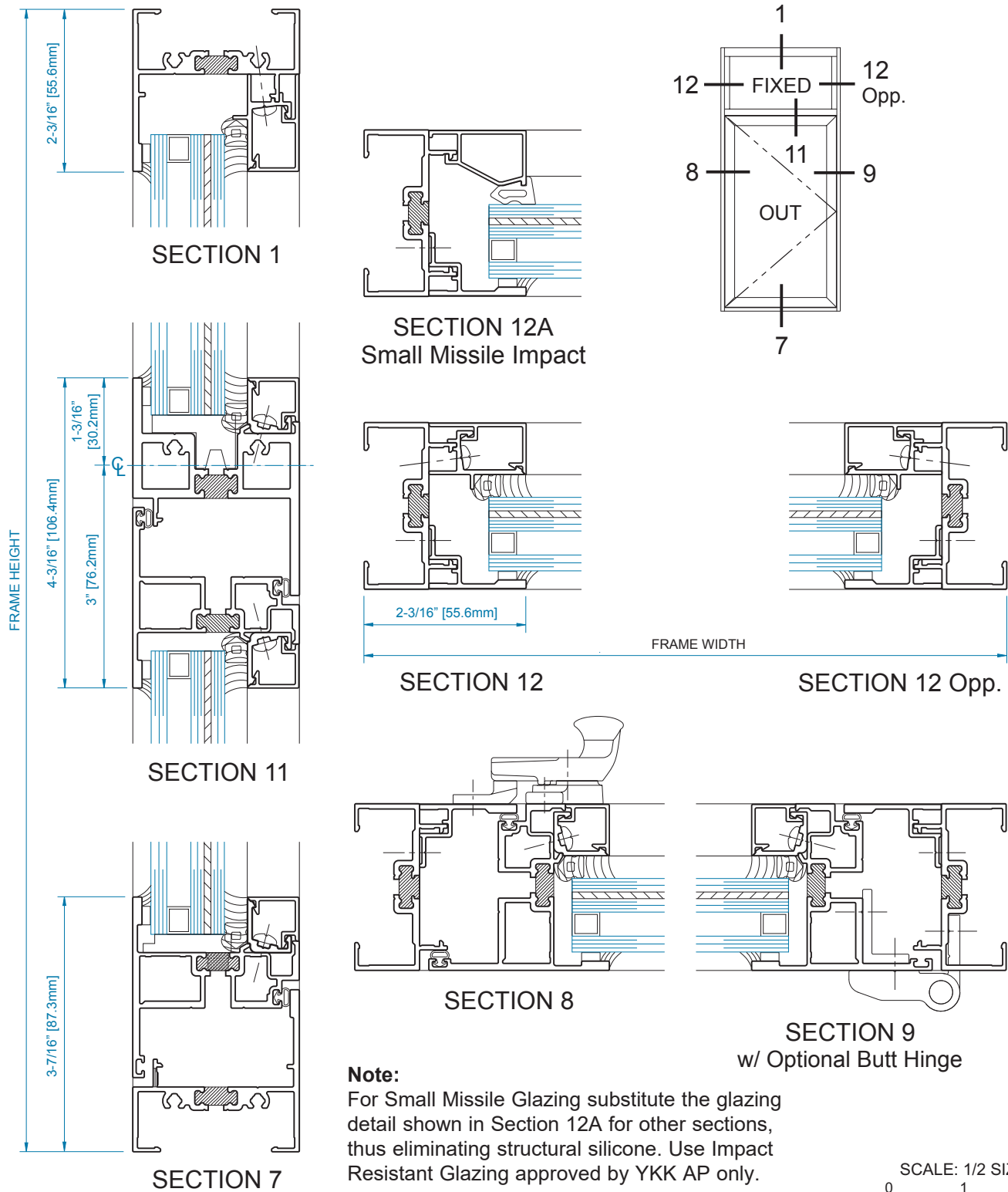
YOW 225 TUH DOUBLE CASEMENT OUTSWING
Large Missile Impact 1-1/16" Glazing Using .090" PVB (±80 psf Max)



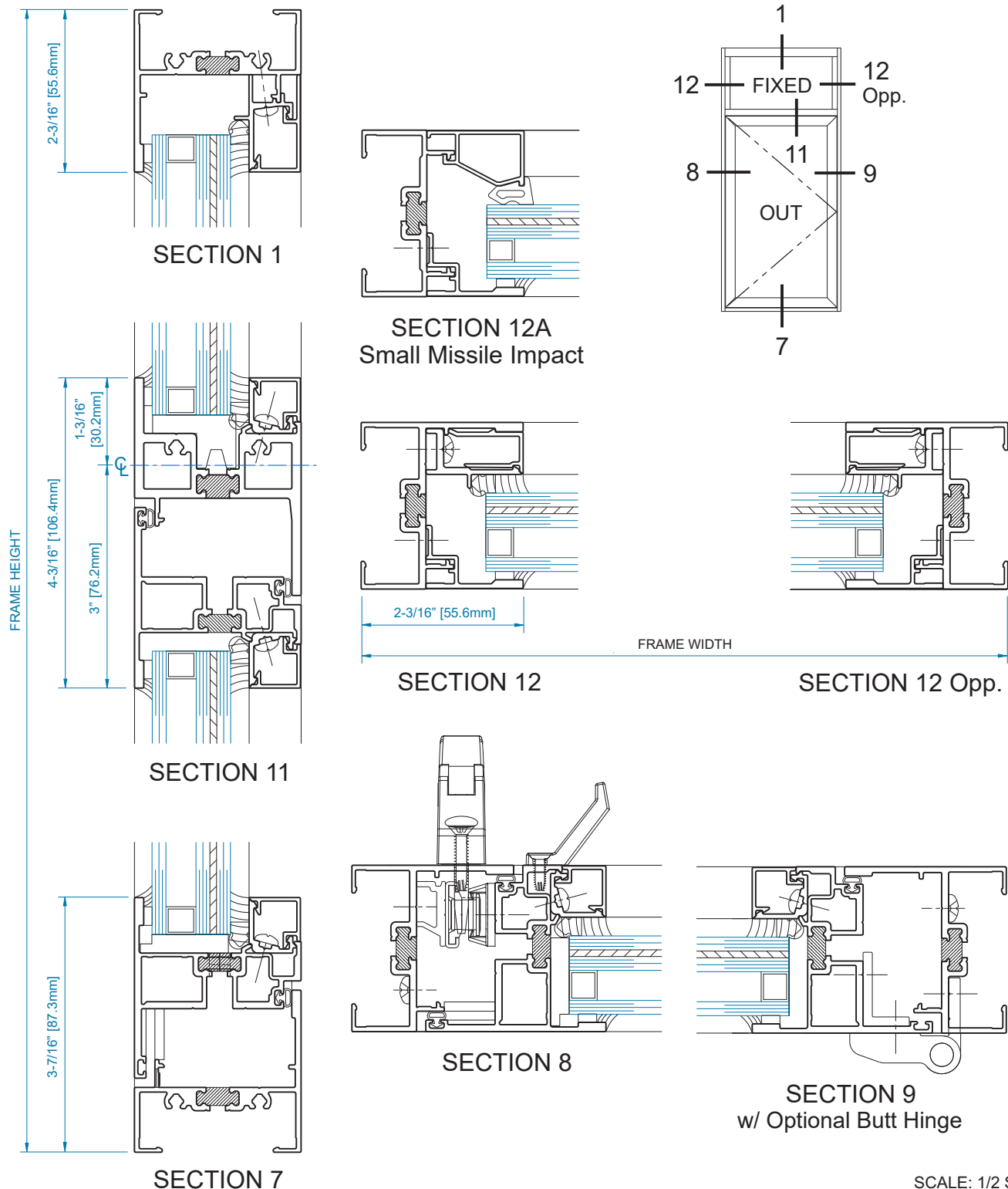
SCALE: 1/2 SIZE

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YOW 225 TUH FIXED/CASEMENT OUTSWING Large Missile Impact 1-1/16" Glazing (±65 psf Max)

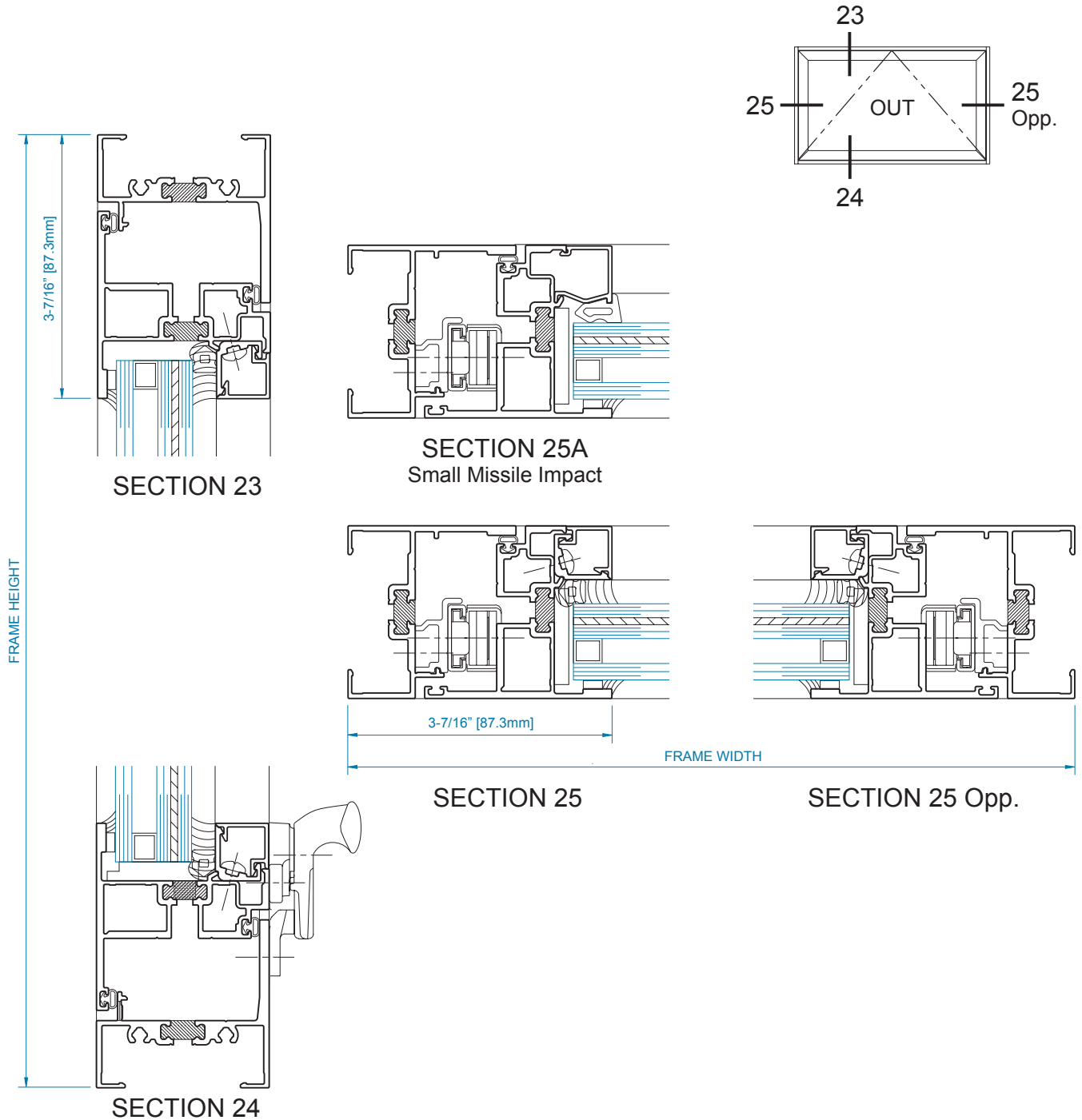


YOW 225 TUH FIXED/CASEMENT OUTSWING
Large Missile Impact 1-1/16" Glazing Using .090" PVB (±80 psf Max)



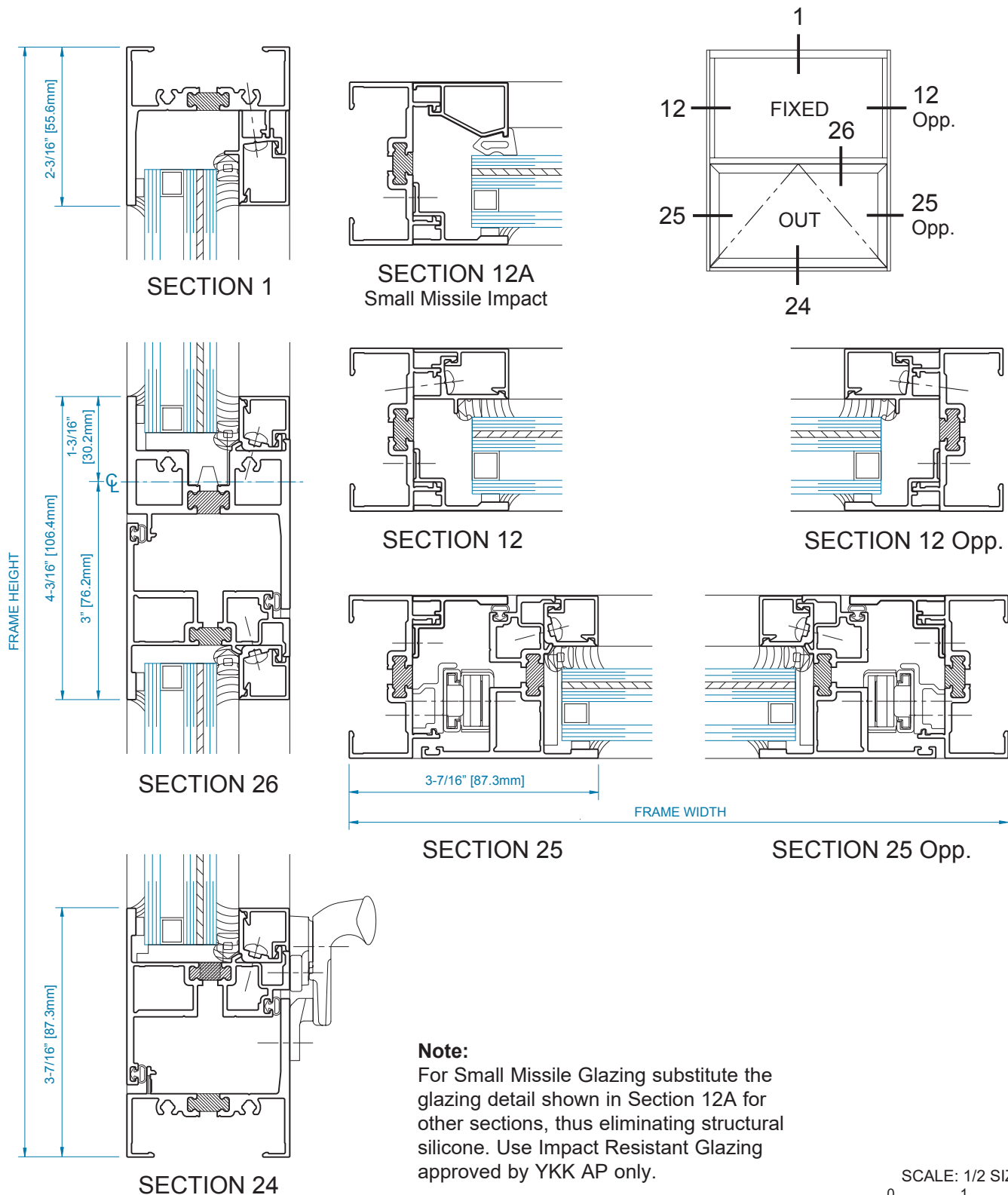
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**YOW 225 TUH PROJECT OUT
Large Missile Impact 1-1/16" Glazing**

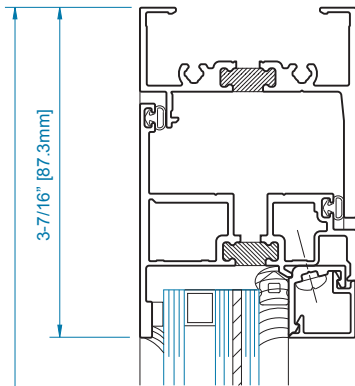


SCALE: 1/2 SIZE
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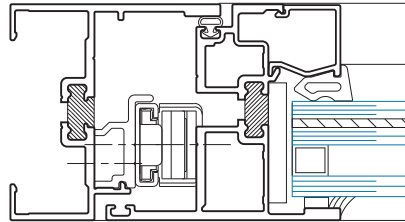
YOW 225 TUH FIXED/PROJECT OUT Large Missile Impact 1-1/16" Glazing



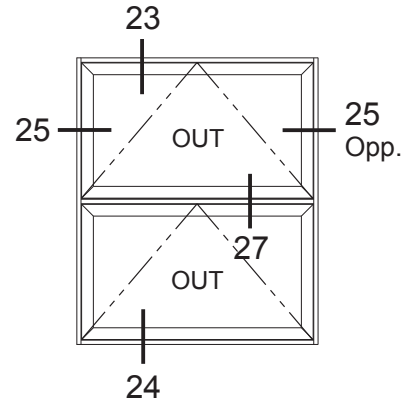
YOW 225 TUH PROJECT OUT/PROJECT OUT Large Missile Impact 1-1/16" Glazing



SECTION 23

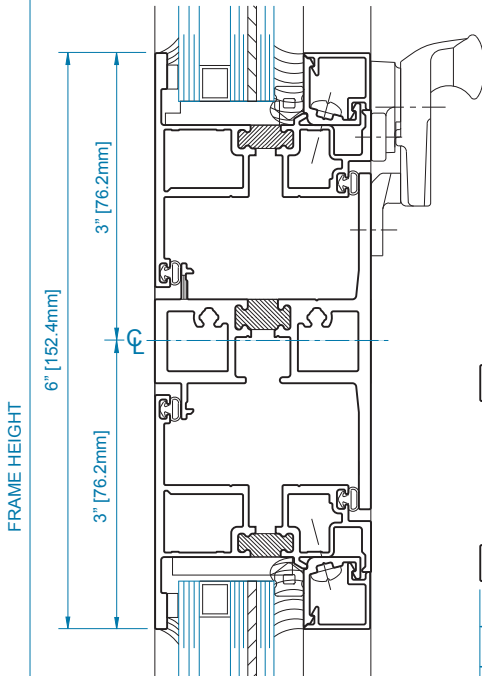


SECTION 25A
Small Missile Impact

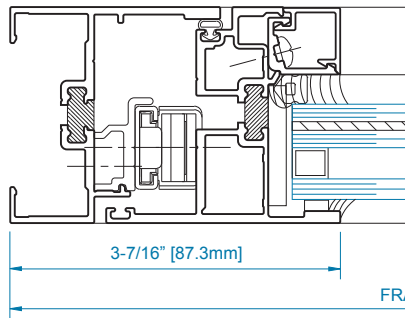


Note:

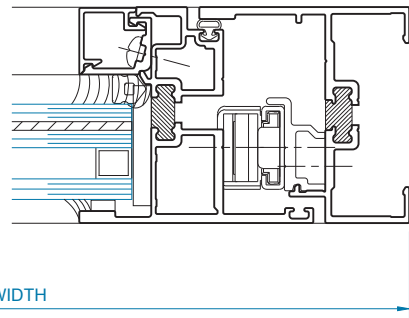
For Small Missile Glazing substitute the glazing detail shown in Section 25A for other sections, thus eliminating structural silicone. Use Impact Resistant Glazing approved by YKK AP only.



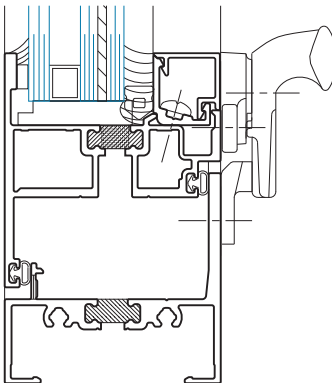
SECTION 27



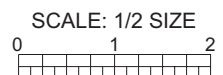
SECTION 25



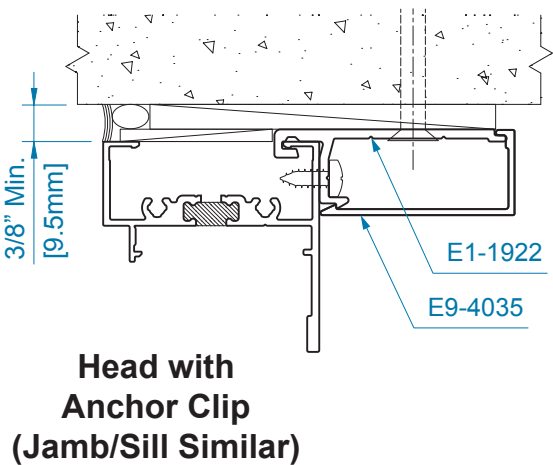
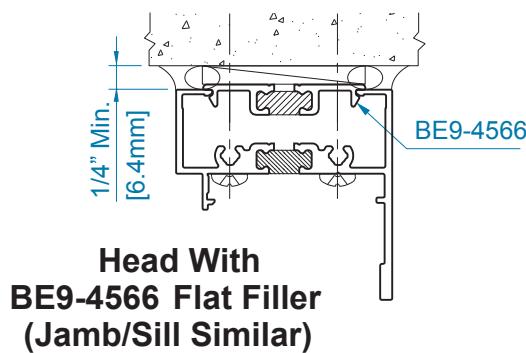
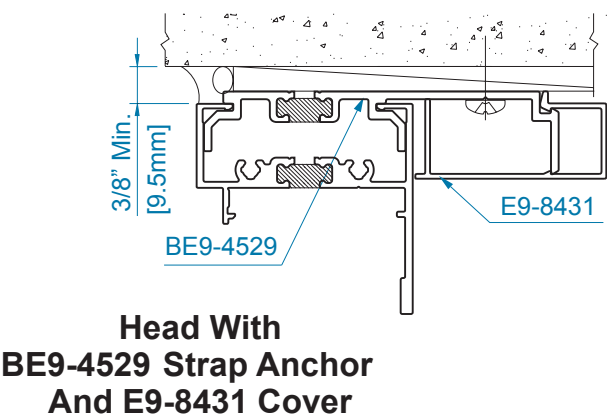
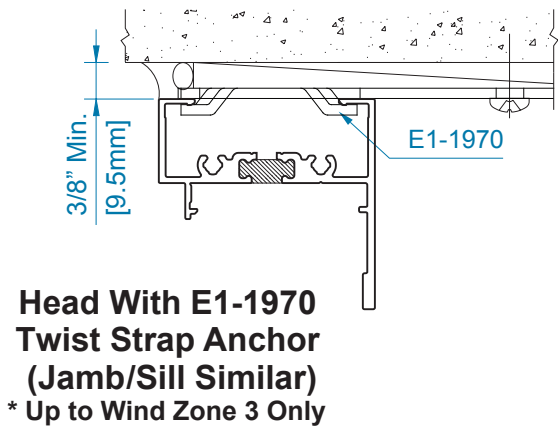
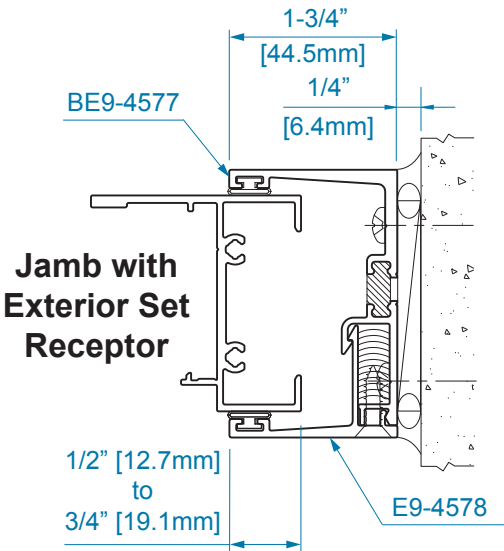
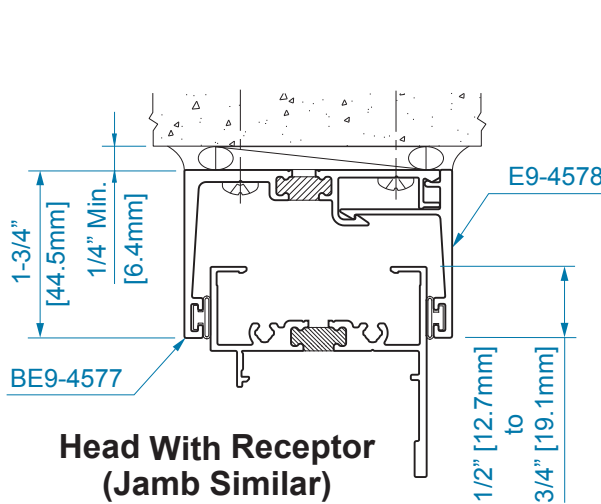
SECTION 25 Opp.



SECTION 24



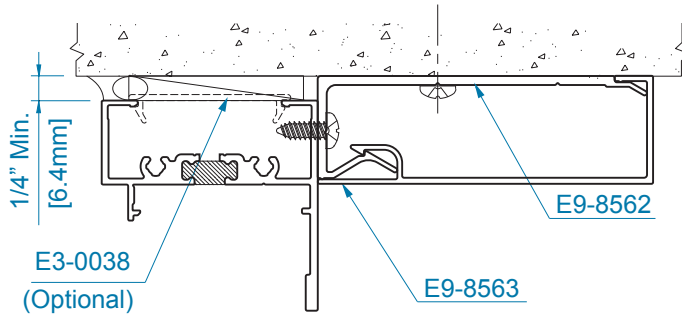
YOW 225 TU / 225 TUH ANCHORING OPTIONS



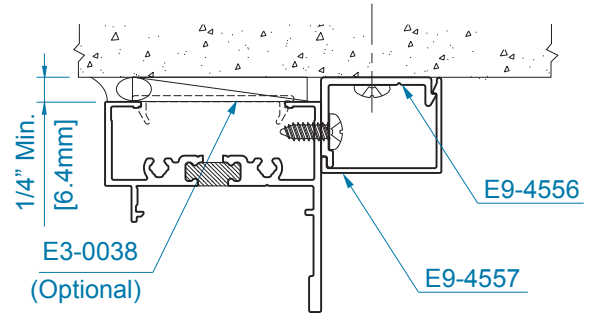
NOTE: Receptors can only be used if end load reaction is less than 450 lbs.
For more information, contact YKK AP.

SCALE: 1/2 SIZE
0 1 2

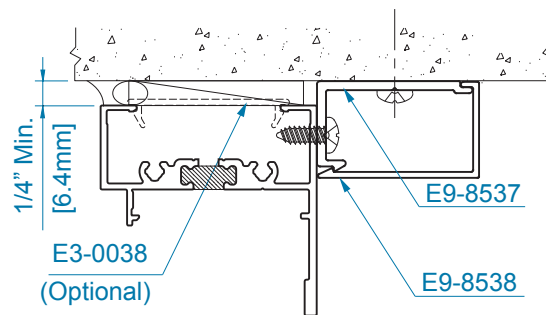
YOW 225 TU / 225 TUH ANCHORING OPTIONS



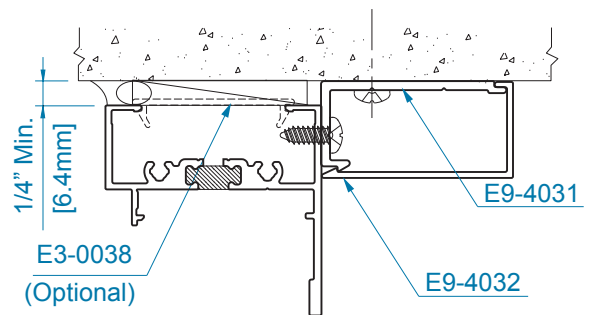
**Head With
1-1/8" x 3-1/2" Trim & Clip
(Jamb/Sill Similar)**



**Head With
1" x 1-1/4" Trim & Clip
(Jamb/Sill Similar)**



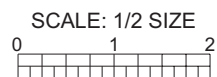
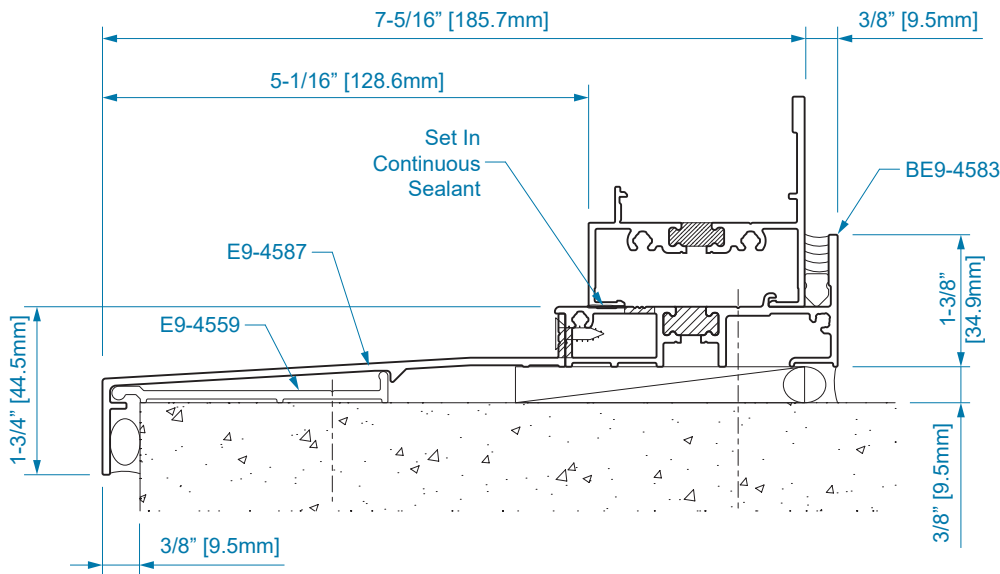
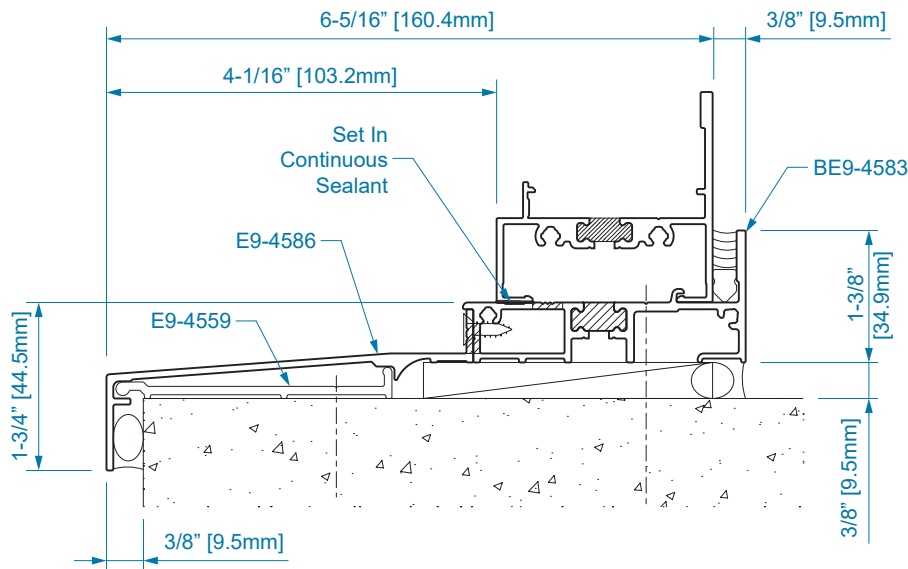
**Head With
1" x 1-11/16" Trim & Clip
(Jamb/Sill Similar)**



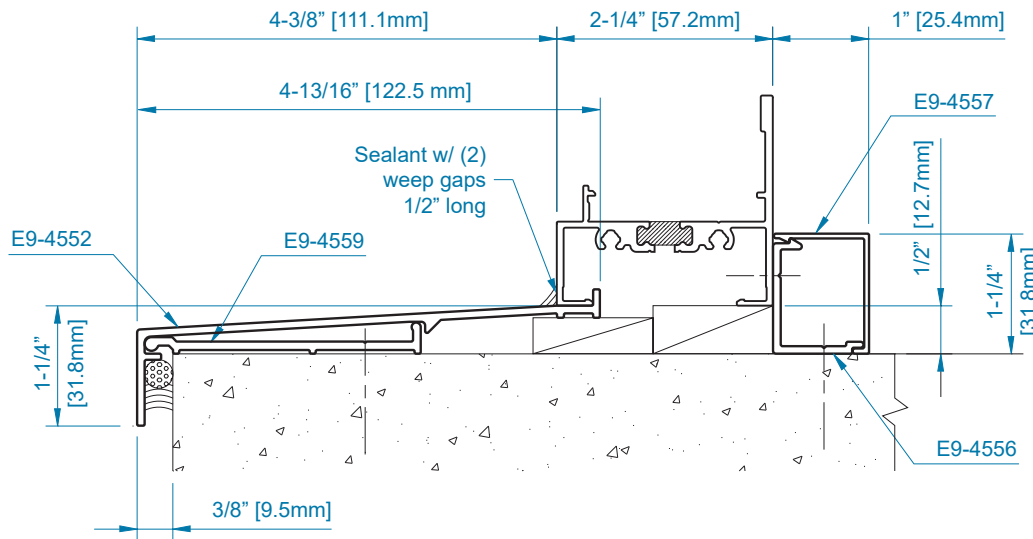
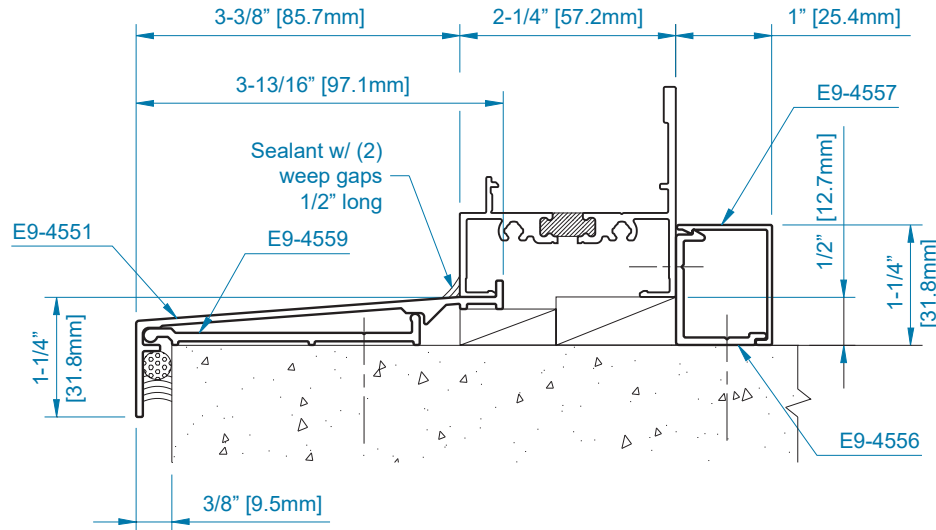
**Head With
1" x 2" Trim & Clip
(Jamb/Sill Similar)**

Refer to installation drawings on Florida Product Approvals.

SILL FLASHING & EXTERIOR SILL TRIM DETAILS

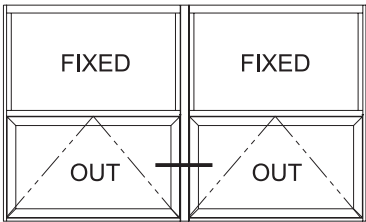
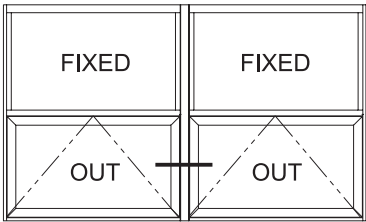
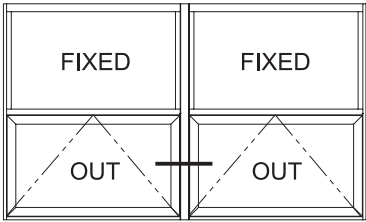
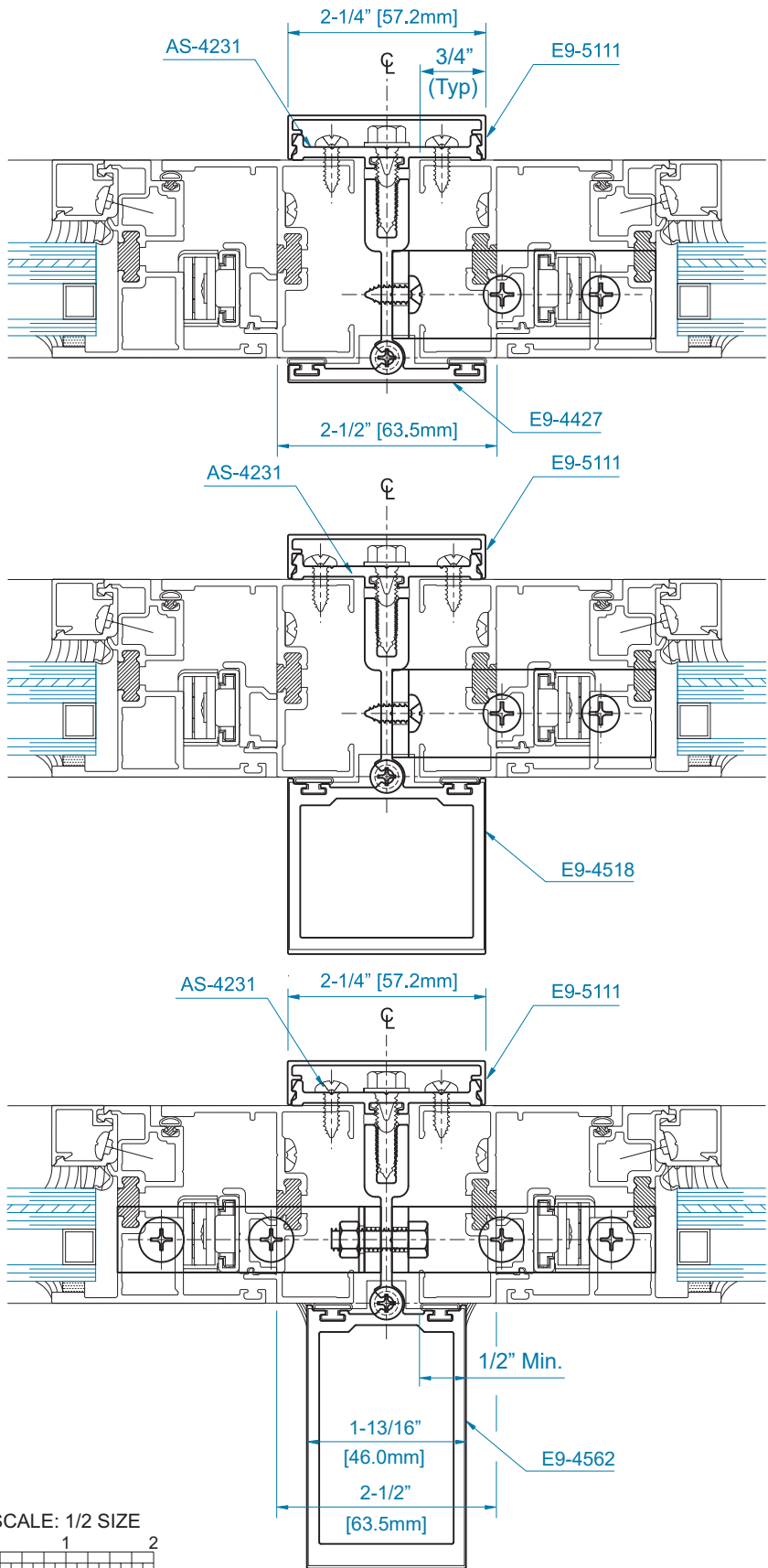


SILL FLASHING & EXTERIOR SILL TRIM DETAILS

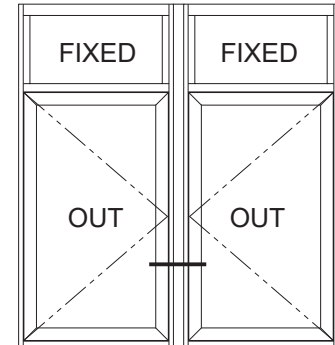
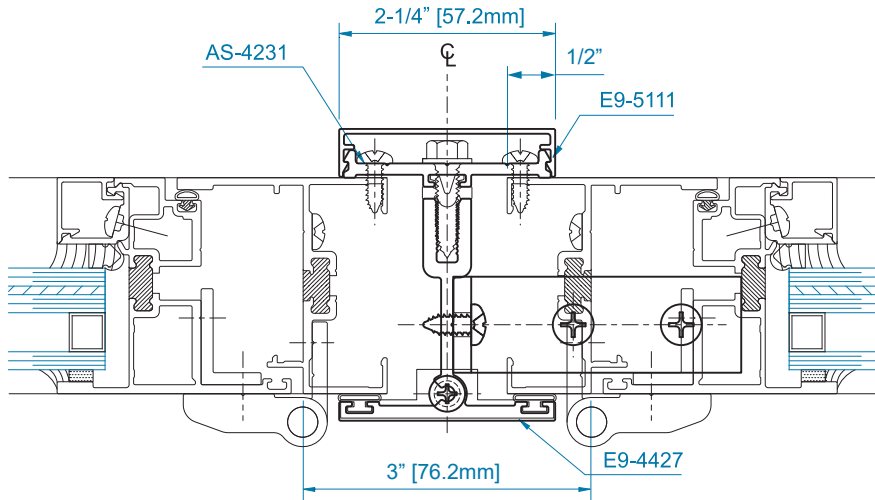


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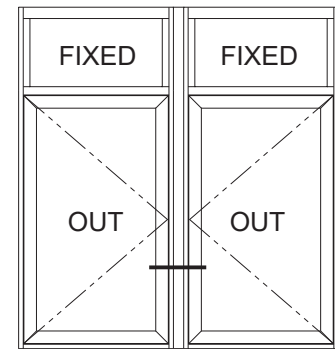
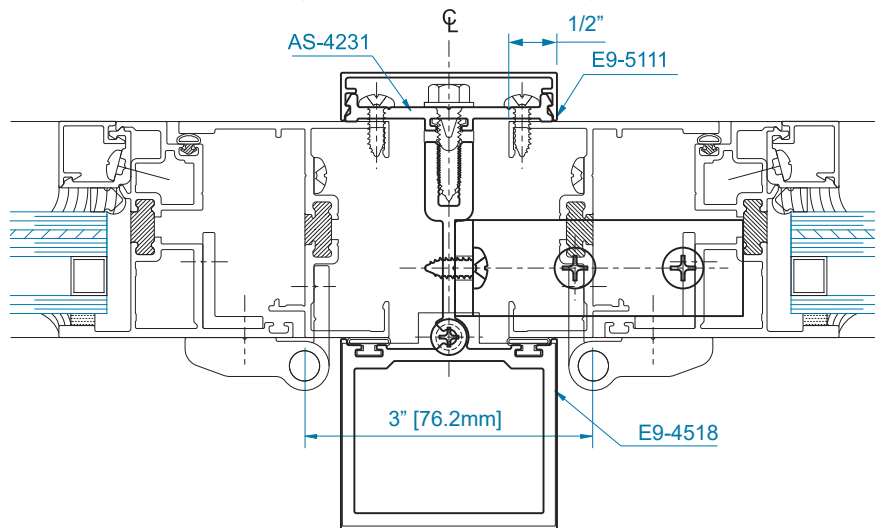
STACKING MULLION OPTIONS (PROJECT OUT, 4-BAR HINGE)



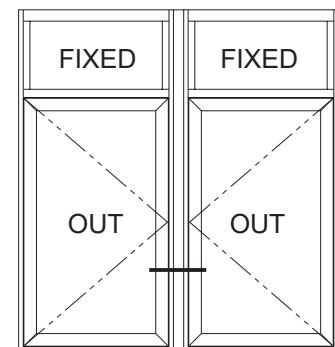
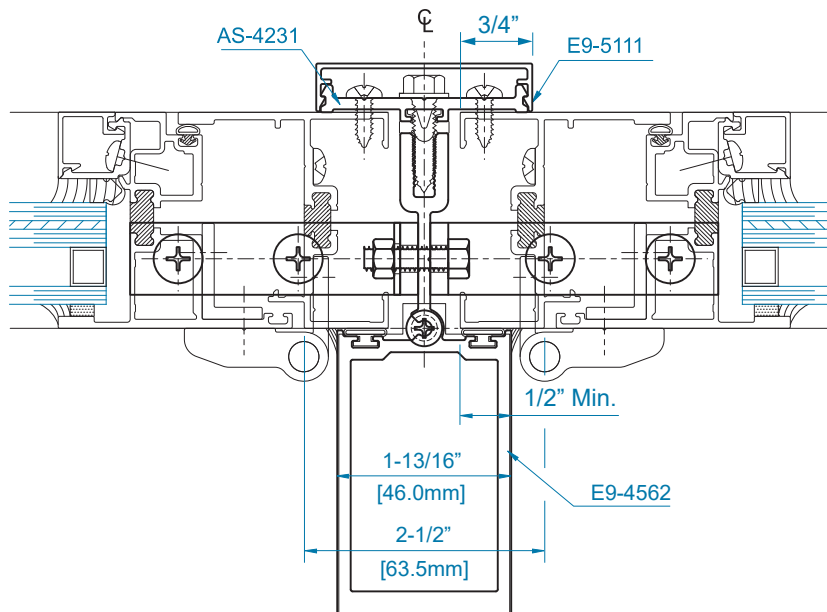
STACKING MULLION OPTIONS (CASEMENT OUTSWING, BUTT HINGE)



Casement Outswing Shown,
Casement Inswing Similar



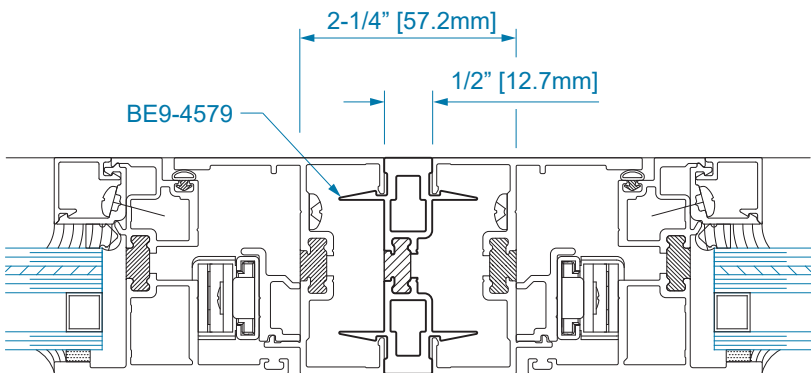
Casement Outswing Shown,
Casement Inswing Similar



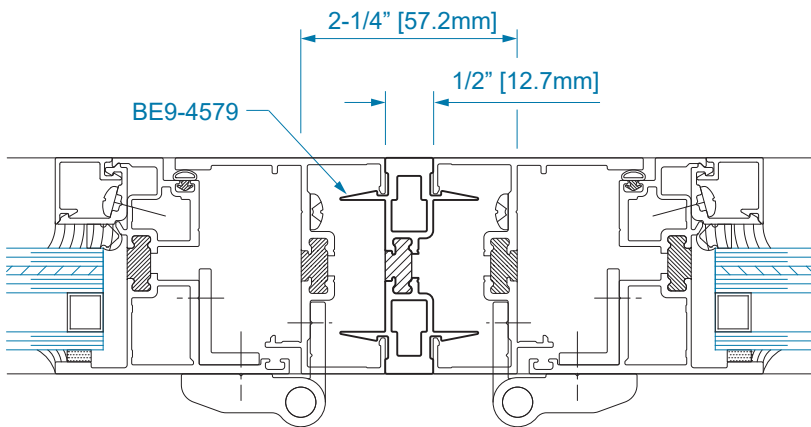
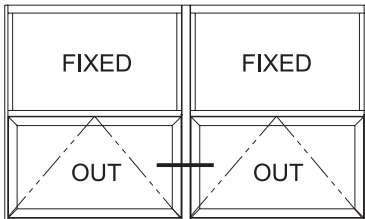
Casement Outswing Only

SCALE: 1/2 SIZE
0 1 2

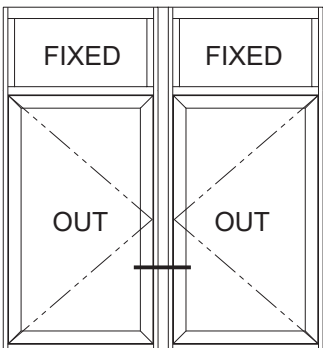
OPTIONAL I-MULLION (WIND ZONE 3 ONLY)



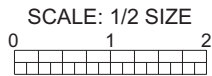
4-BAR HINGES



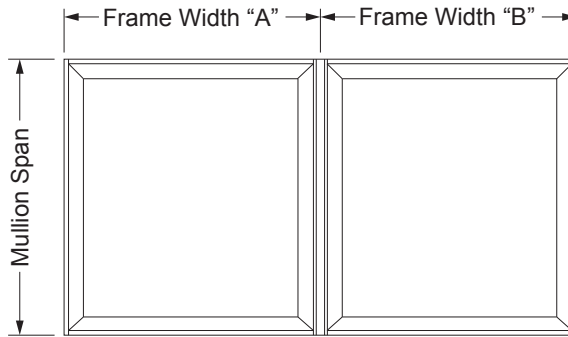
BUTT HINGES



Casement Outswing Shown,
Casement Inswing Similar



MULLION DESIGN PRESSURES



Tributary Width is determined by the following:

$$(\text{Frame Width "A"} + \text{Frame Width "B"}) / 2$$

Refer to Florida Product Approvals for anchoring details and additional information.

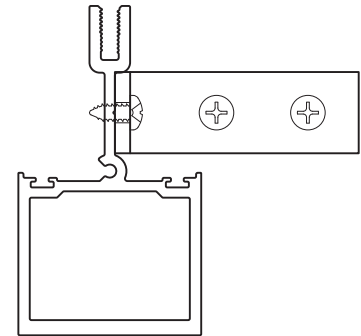
Notes:

- 1.) Design pressures are limited either by mullion or anchor screw capacity.
- 2.) Refer to Florida Product Approvals or Engineer of Record for minimum anchor requirements.
- 3.) Design pressures values apply to mullion where two or more windows are listed in a single opening. Lesser design of individual window or mullion of installation shall govern.

E9-4518 Clipped Stacking Mullion Design Pressure Chart

*1-Maximum Design Pressure Capacity (PSF) +/- (Up to and including Florida's HVHZ - Impact)
Used on YOW 225 TU / YOW 225 TUH

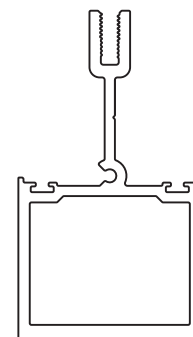
Mull Span [Inches]	Tributary Width [Inches] - Frame								
	12	18	24	36	42	48	56	60	62-3/8
35	150.0	148.9	126.3	113.8	113.8	113.8	113.8	113.8	113.8
48	138.3	99.3	80.7	64.5	61.5	60.5	60.5	60.5	60.5
54	121.0	86.1	69.2	53.8	50.3	48.4	47.8	47.8	47.8
62	103.7	73.1	58.1	44.0	40.5	38.2	36.6	36.3	36.3
66	96.8	67.9	53.8	40.3	36.9	34.6	32.8	32.3	32.1
72	88.0	61.5	48.4	35.9	32.5	30.3	28.3	27.7	27.4
80	78.5	54.5	42.7	31.2	28.1	25.9	23.9	23.2	22.9
84	74.5	51.6	40.3	29.3	26.3	24.2	22.2	21.5	21.2



E9-4518 Unclipped Stacking Mullion Design Pressure Chart

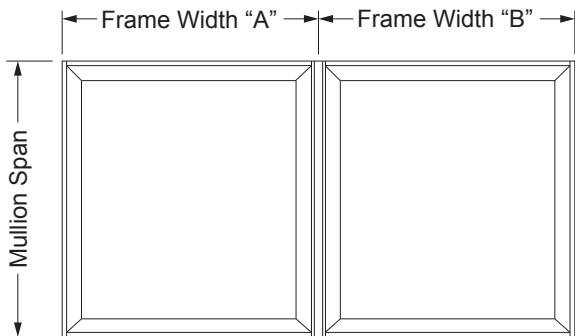
Maximum Design Pressure Capacity (PSF) +/- (Up to and including Florida's HVHZ - Impact)
Used on YOW 225 TU / YOW 225 TUH

Mull Span [Inches]	Tributary Width [Inches] - Frame								
	12	18	24	36	42	48	56	60	62-3/8
35	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
48	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
54	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	123.1
62	150.0	150.0	150.0	150.0	141.7	131.2	123.6	122.2	81.3
66	150.0	150.0	150.0	137.2	122.4	112.5	104.5	102.3	67.7
72	150.0	150.0	150.0	113.3	100.4	91.4	83.6	81.1	53.3
80	150.0	150.0	130.1	90.2	79.4	71.7	64.6	62.1	40.6
84	150.0	150.0	117.6	81.3	71.3	64.2	57.6	55.2	36.0



See notes 1, 2, and 3.

MULLION DESIGN PRESSURES



Tributary Width is determined by the following:

$$(\text{Frame Width "A"} + \text{Frame Width "B"}) / 2$$

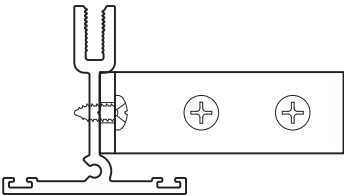
Refer to Florida Product Approvals for anchoring details and additional information.

Notes:

- 1.) Design pressures are limited either by mullion or anchor screw capacity.
- 2.) Refer to Florida Product Approvals or Engineer of Record for minimum anchor requirements.
- 3.) Design pressures values apply to mullion where two or more windows are listed in a single opening. Lesser design of individual window or mullion of installation shall govern.

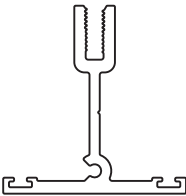
E9-4527 Clipped Stacking Mullion Design Pressure Chart								
Maximum Design Pressure Capacity (PSF) +/- (Up to and including Florida's HVHZ - Impact) Used on YOW 225 TU/ YOW 225 TUH								
Mull Span [Inches]	Tributary Width [Inches] - Frame							
	12	18	24	36	42	48	56	60
35	150.0	148.9	126.3	113.8	113.8	113.8	113.8	113.8
48	138.3	99.3	80.7	64.5	61.5	60.5	60.5	60.5
54	121.0	86.1	69.2	53.8	50.3	48.4	47.8	47.8
62	103.7	73.1	58.1	44.0	40.5	38.2	36.6	36.3

See notes 1, 2, and 3.

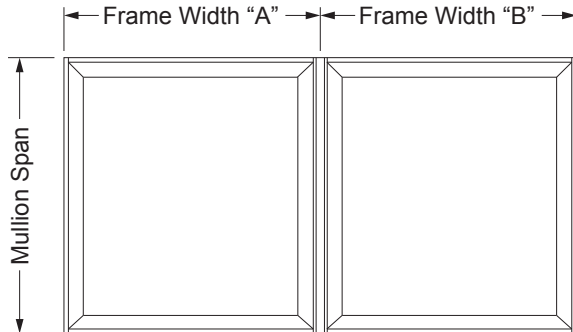


E9-4527 Unclipped Stacking Mullion Design Pressure Chart								
Maximum Design Pressure Capacity (PSF) +/- (Up to and including Florida's HVHZ - Impact) Used on YOW 225 TU / YOW 225 TUH								
Mull Span [Inches]	Tributary Width [Inches] - Frame							
	12	18	24	36	42	48	56	60
35	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
48	150.0	150.0	150.0	133.7	125.1	122.3	122.3	122.3
54	150.0	150.0	137.9	100.8	92.2	87.4	85.9	85.9
62	150.0	134.0	102.8	73.4	65.9	61.0	57.5	56.8

See notes 1, 2, and 3.



MULLION DESIGN PRESSURES



Tributary Width is determined by the following:

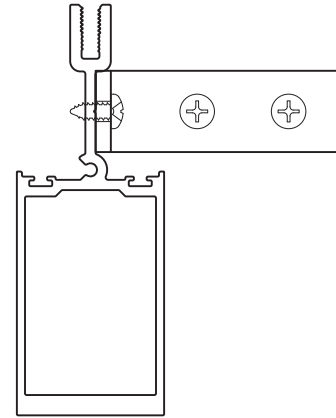
$$(\text{Frame Width "A"} + \text{Frame Width "B"}) / 2$$

Refer to Florida Product Approvals for anchoring details and additional information.

E9-4562 Clipped Stacking Mullion Design Pressure Chart

Maximum Design Pressure Capacity (PSF) +/- (Up to and including Florida's HVHZ - Impact)
Used on YOW 225 TU / YOW 225 TUH

Mull Span [Inches]	Tributary Width [Inches] - Frame							
	12	18	24	36	42	48	56	60
68	150.0	150.0	150.0	150.0	150.0	150.0	150.0	142.3
72	150.0	150.0	150.0	150.0	148.1	143.0	138.5	130.9
76	150.0	150.0	150.0	150.0	137.9	133.0	128.6	121.2
80	150.0	150.0	150.0	140.6	127.4	121.7	116.6	108.1
84	150.0	150.0	143.9	127.4	114.8	109.6	104.9	97.0
88	150.0	150.0	130.6	115.5	104.0	99.2	94.9	87.6
92	150.0	137.9	119.2	105.3	94.7	90.2	86.3	79.6
93-1/8	150.0	134.5	116.2	102.7	92.3	87.9	84.1	77.5

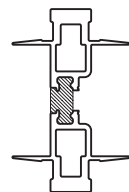


See notes 1, 2, and 3 on previous page.

BE9-4579 Unclipped 'I' Mullion Design Pressure Chart

Maximum Design Pressure Capacity (PSF) +/- (Up to and including Florida's WZ3 - Impact)
Used on YOW 225 TU / YOW 225 TUH

Mull Span [Inches]	Tributary Width [Inches] - Frame										
	30	32	34	36	38	40	42	44	46	48	50
47	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
49	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	-
51	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	-	-
53	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	-	-	-
56	65.0	65.0	65.0	65.0	65.0	65.0	65.0	-	-	-	-
59	65.0	65.0	65.0	65.0	65.0	65.0	-	-	-	-	-
62	65.0	65.0	65.0	65.0	65.0	-	-	-	-	-	-
66	65.0	65.0	65.0	65.0	-	-	-	-	-	-	-
70	65.0	65.0	65.0	-	-	-	-	-	-	-	-
74	65.0	65.0	-	-	-	-	-	-	-	-	-
*80	65.0	-	-	-	-	-	-	-	-	-	-

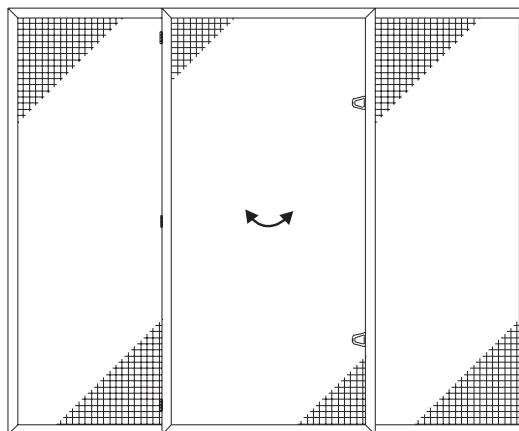
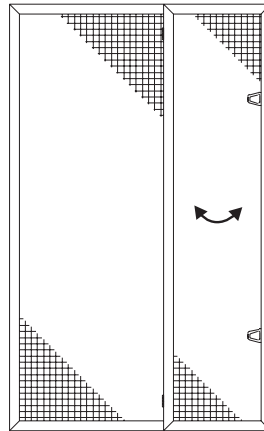


See notes 1, 2, and 3 on previous page.

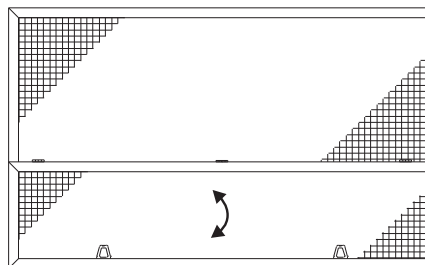
* 80" Maximum Casement Frame Height 80-3/8" Maximum Fixed Frame Height or Combination Window Height

OPTIONAL SCREEN CONFIGURATIONS

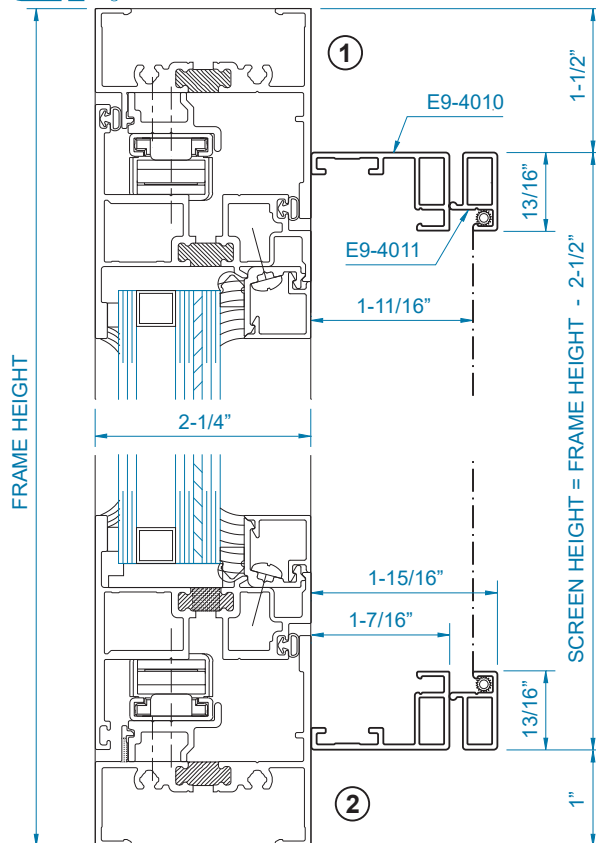
HINGED WICKET CASEMENT OUTSWING (INSTALLED ON INTERIOR)



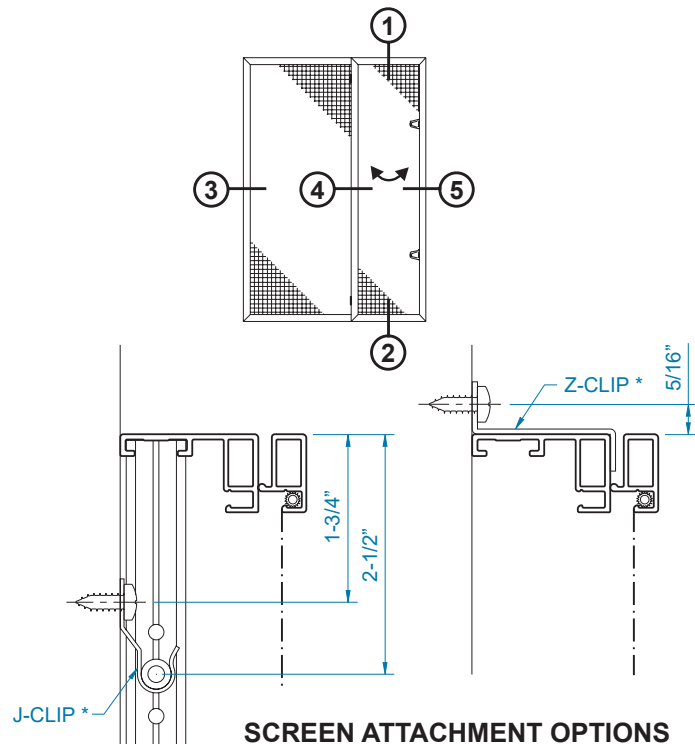
HINGED WICKET PROJECT OUT (INSTALLED ON INTERIOR)



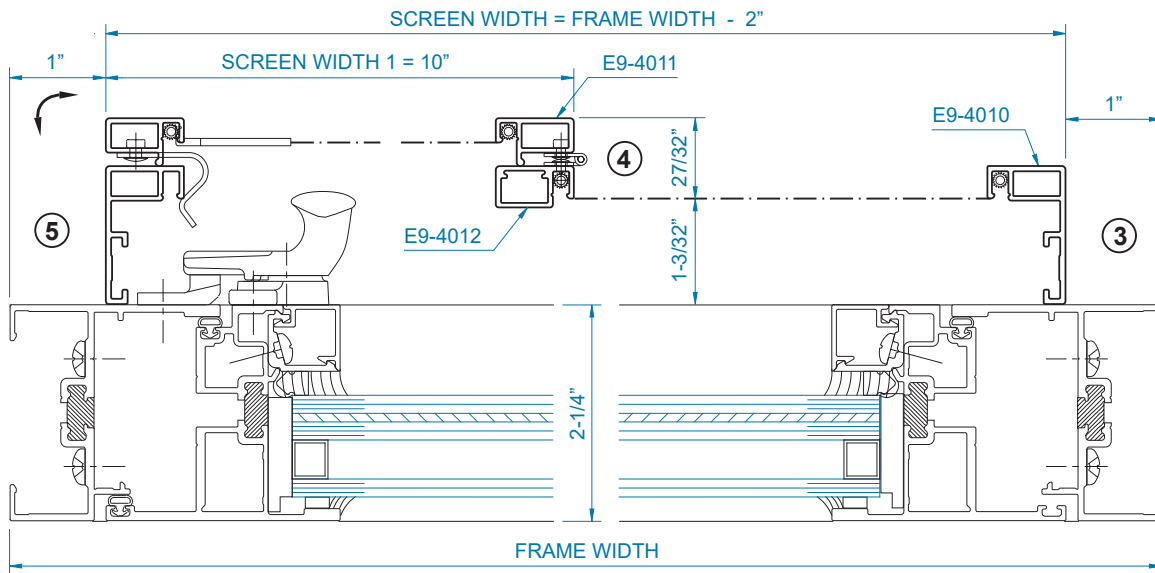
For additional information, contact YKK AP.



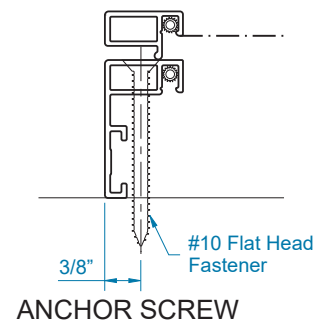
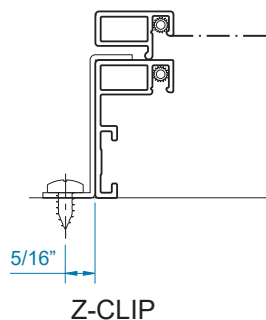
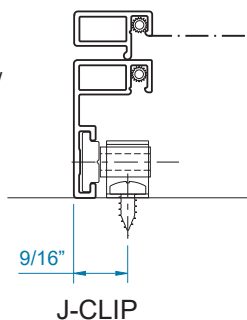
**SCREEN FOR CASEMENT OUTSWING
(INSTALLED ON INTERIOR)**



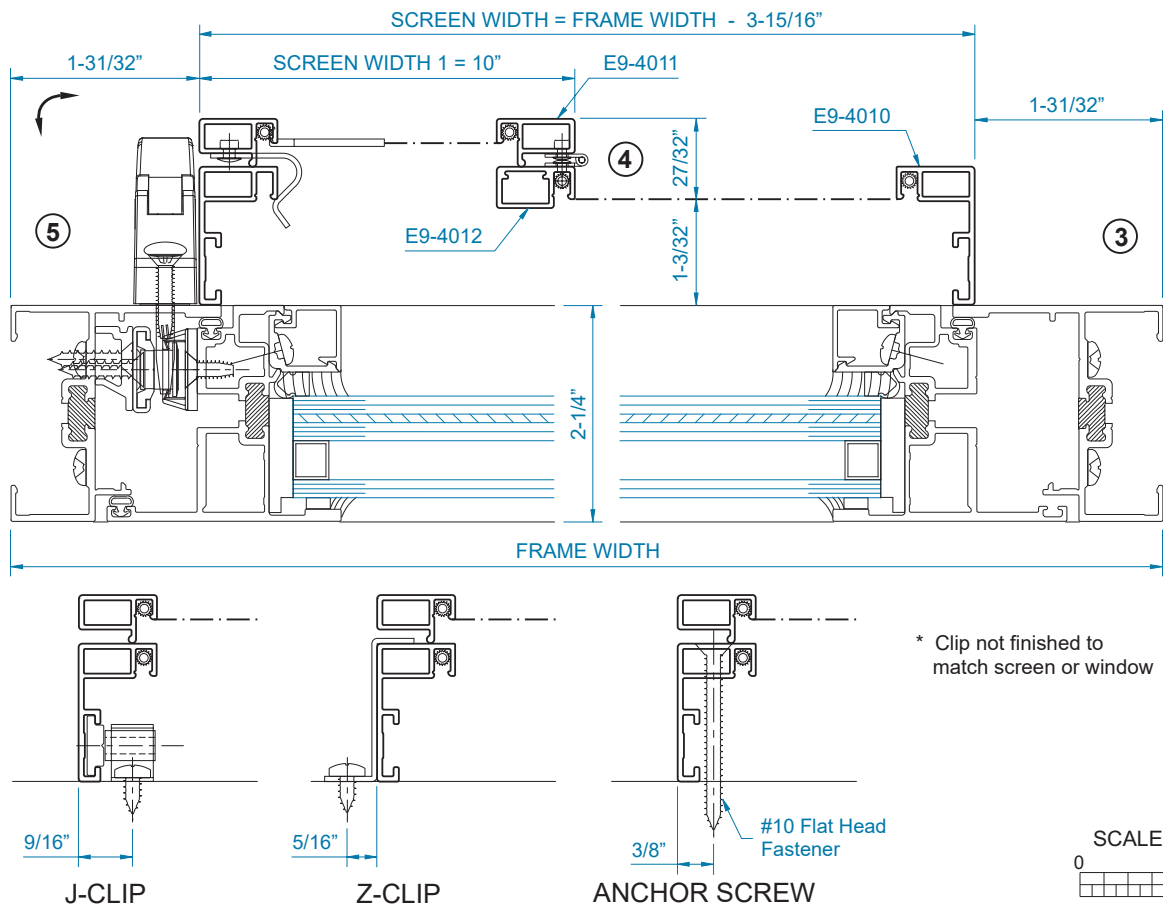
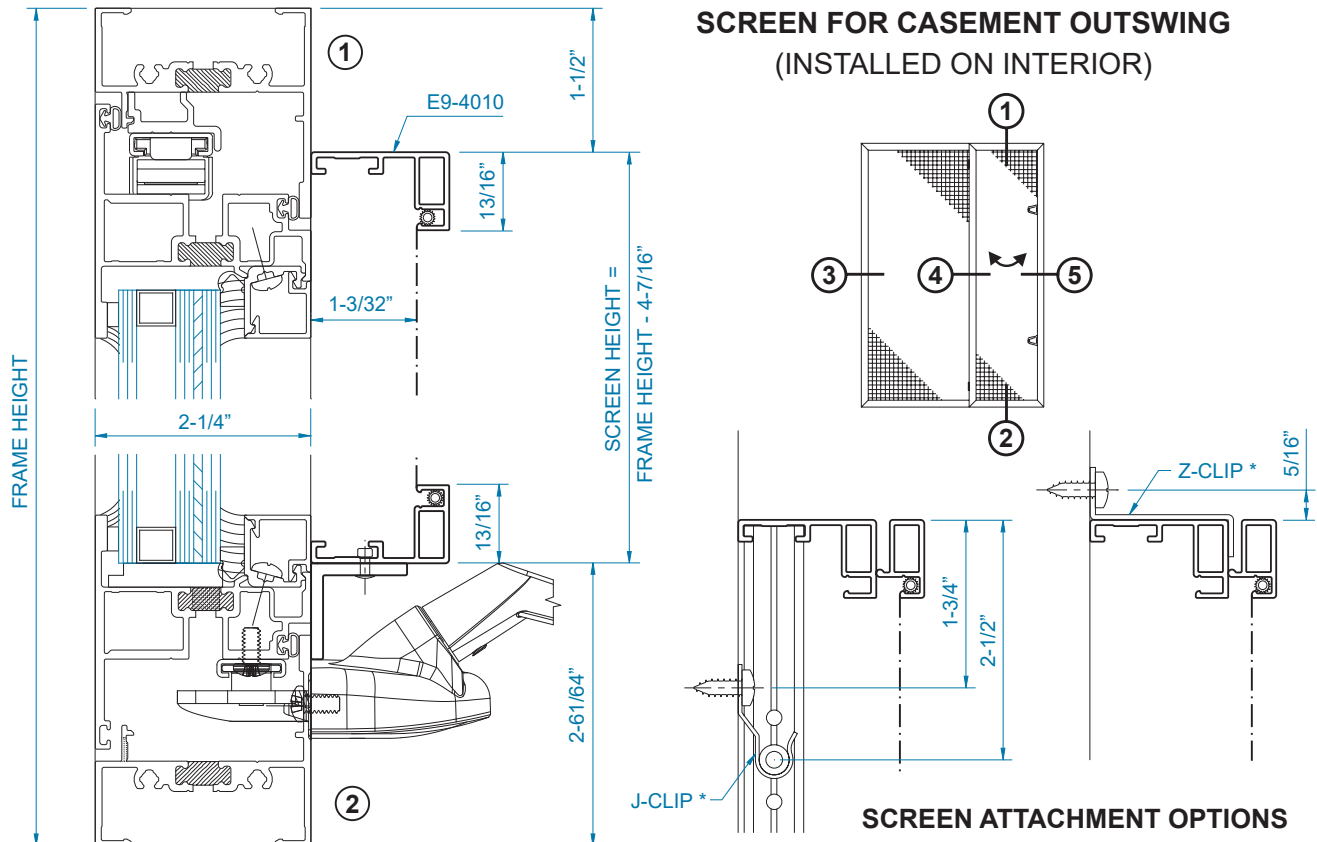
SCREEN ATTACHMENT OPTIONS

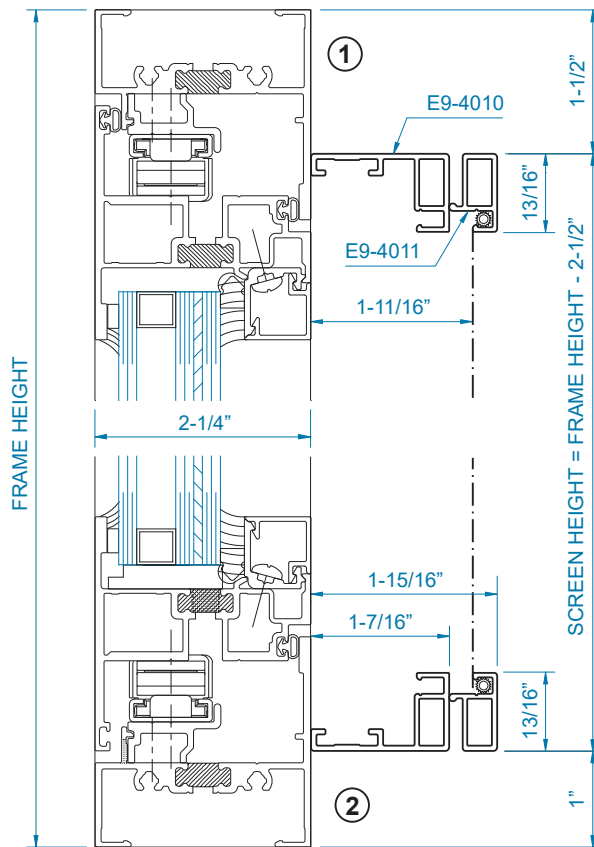


* Clip not finished to match screen or window

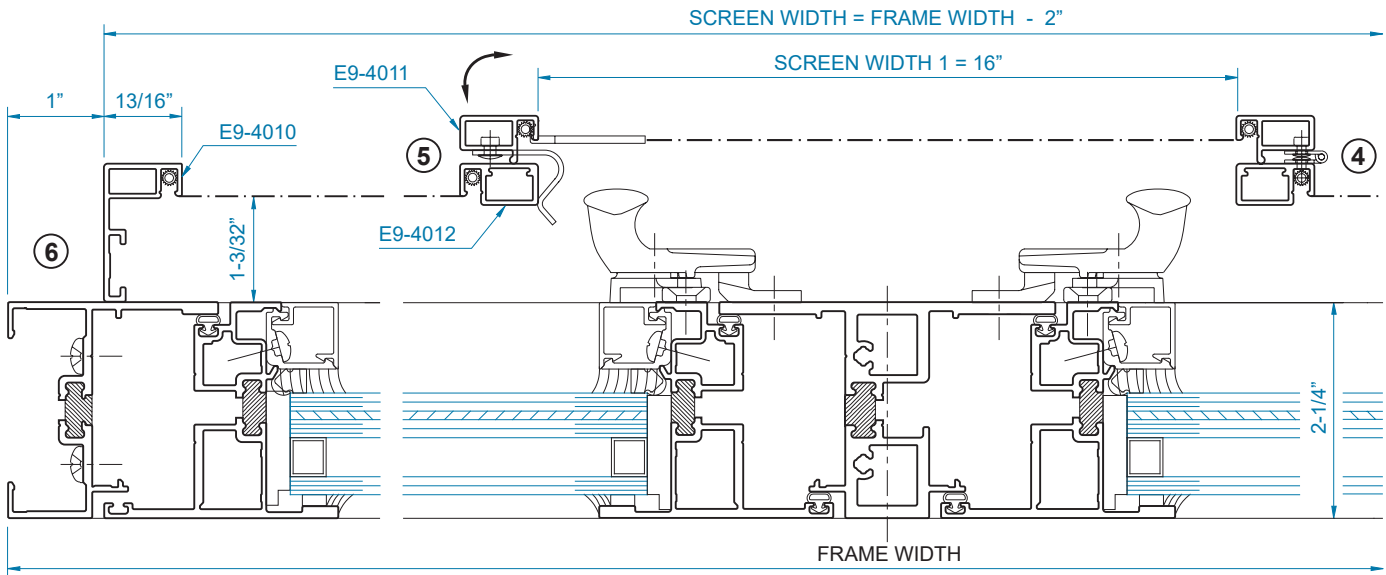
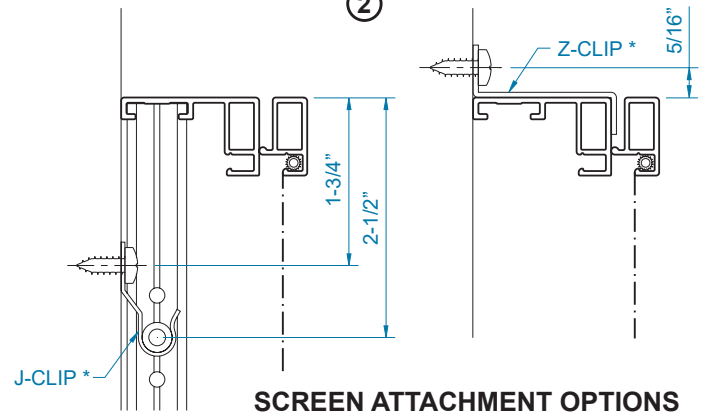
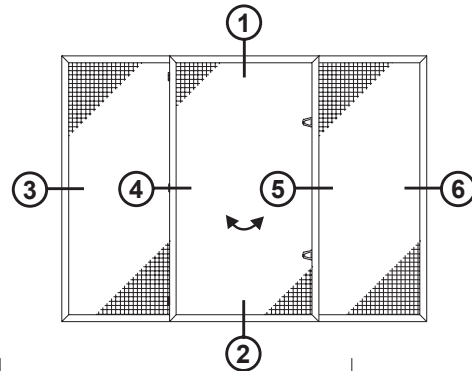


SCALE: 1/2 SIZE
0 1 2

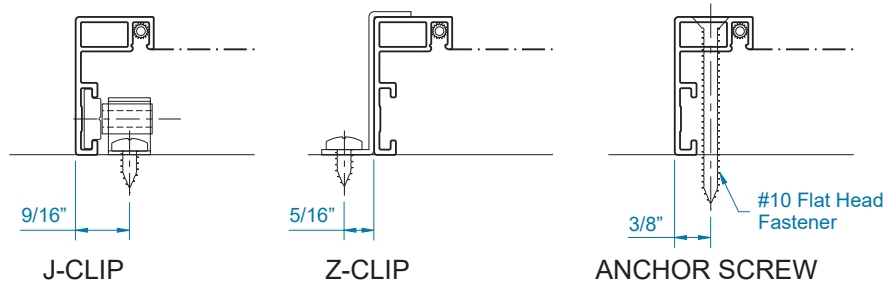
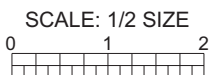


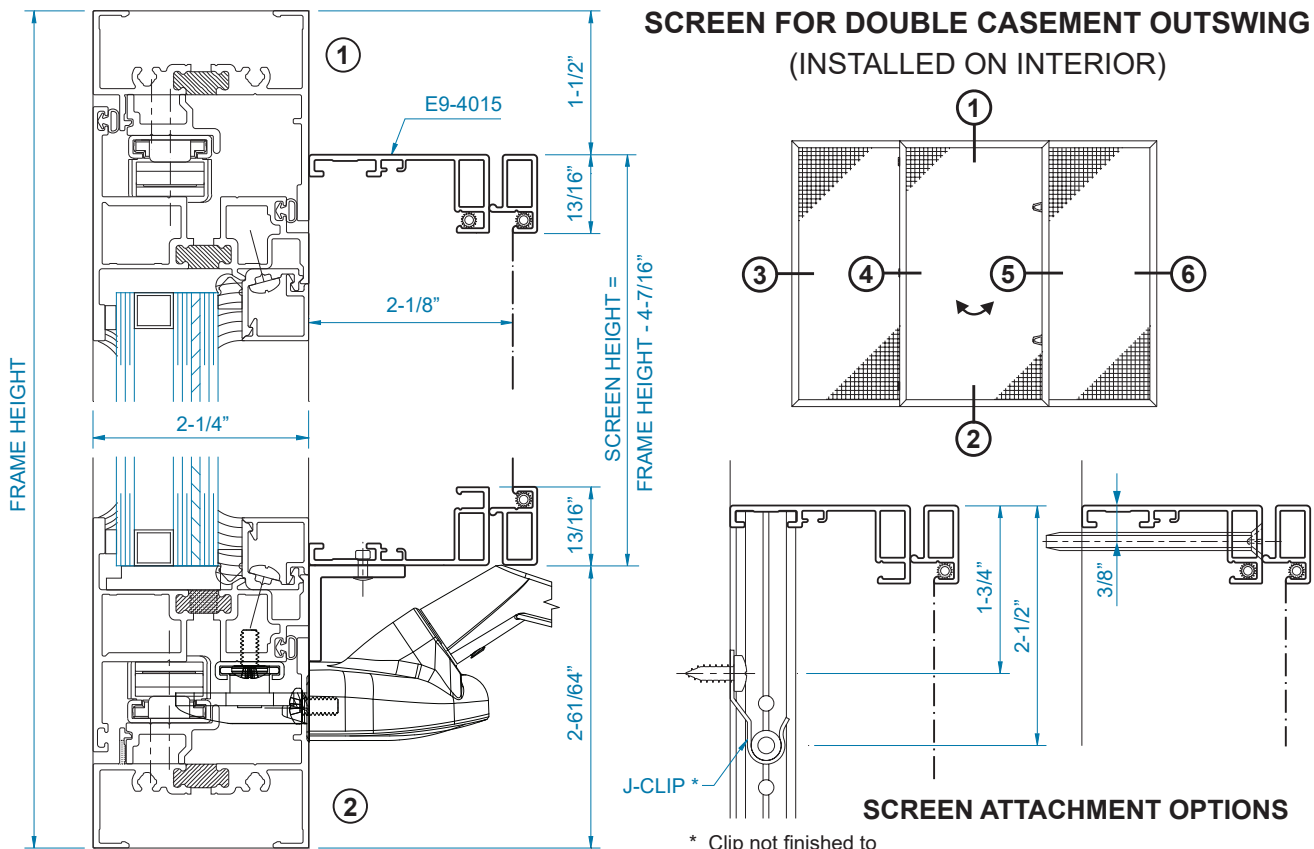


**SCREEN FOR DOUBLE CASEMENT OUTSWING
(INSTALLED ON INTERIOR)**

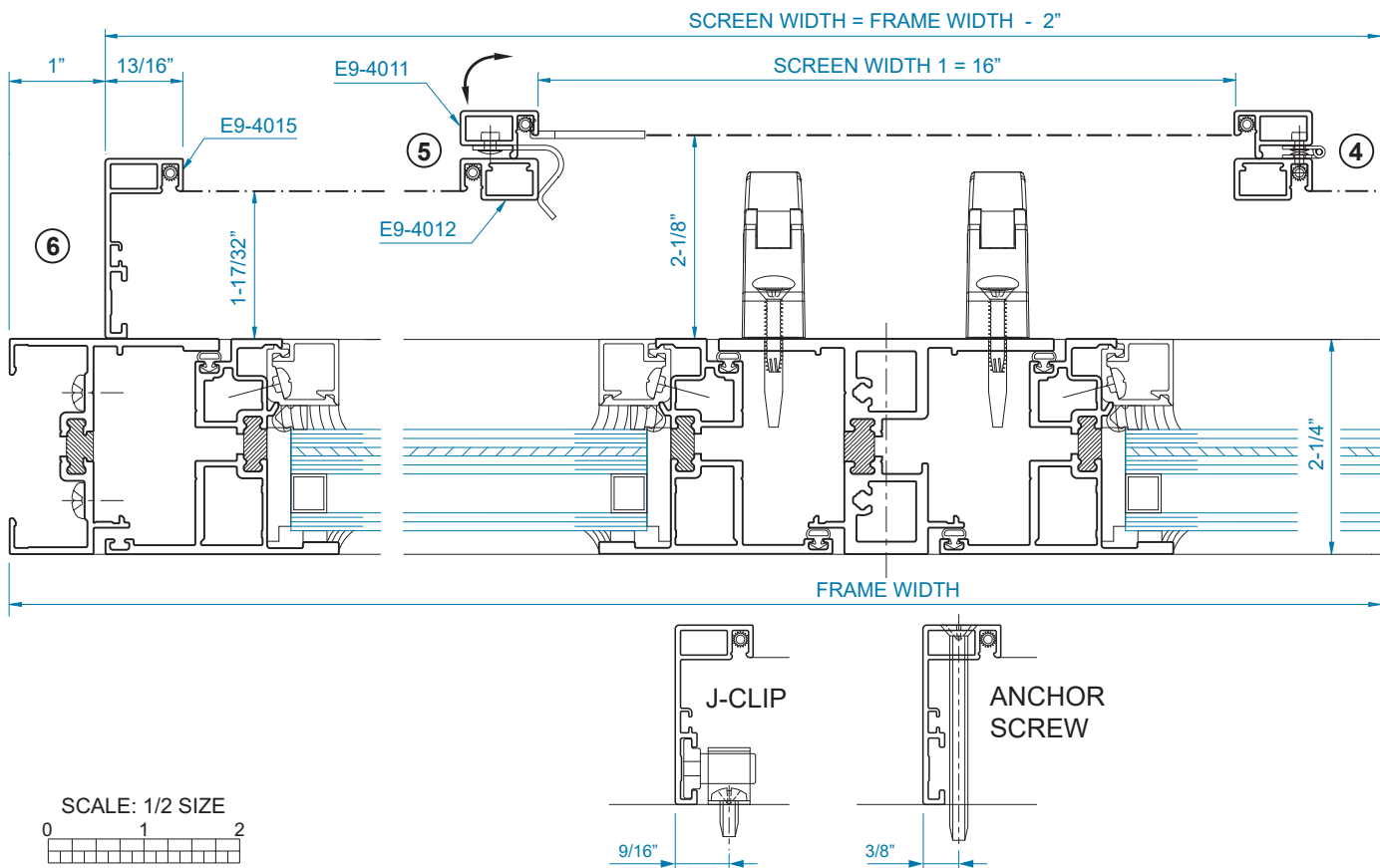


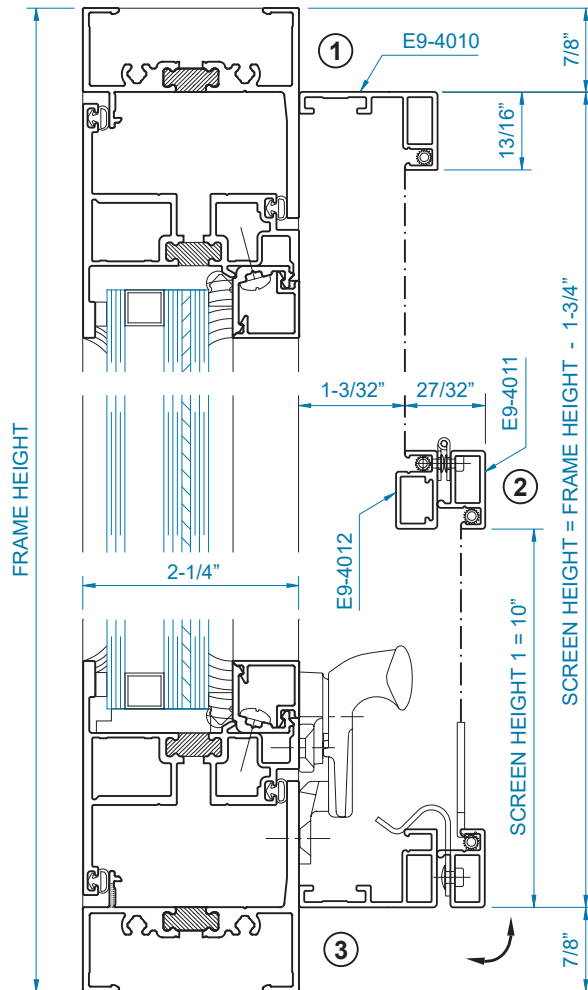
* Clip not finished to match screen or window



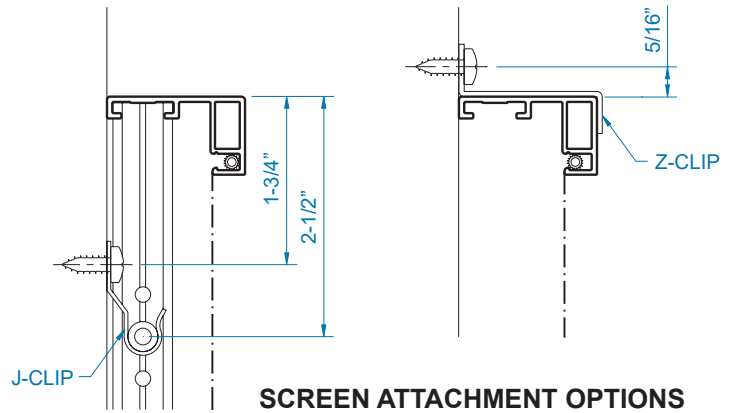
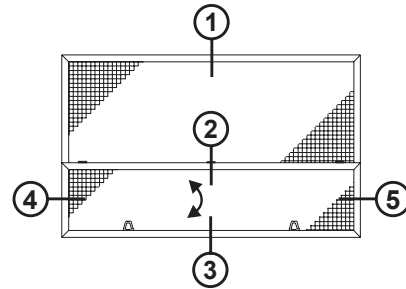


* Clip not finished to match screen or window

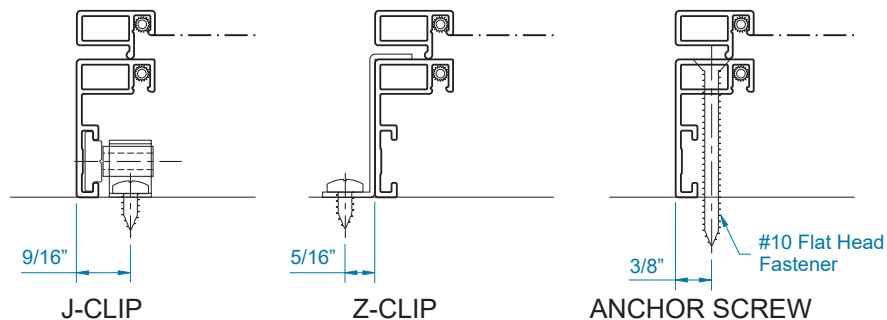
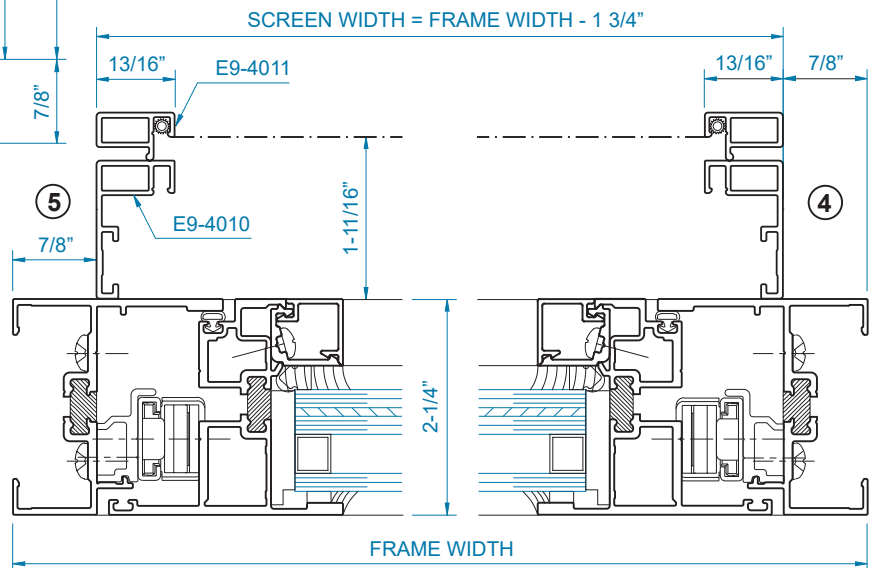




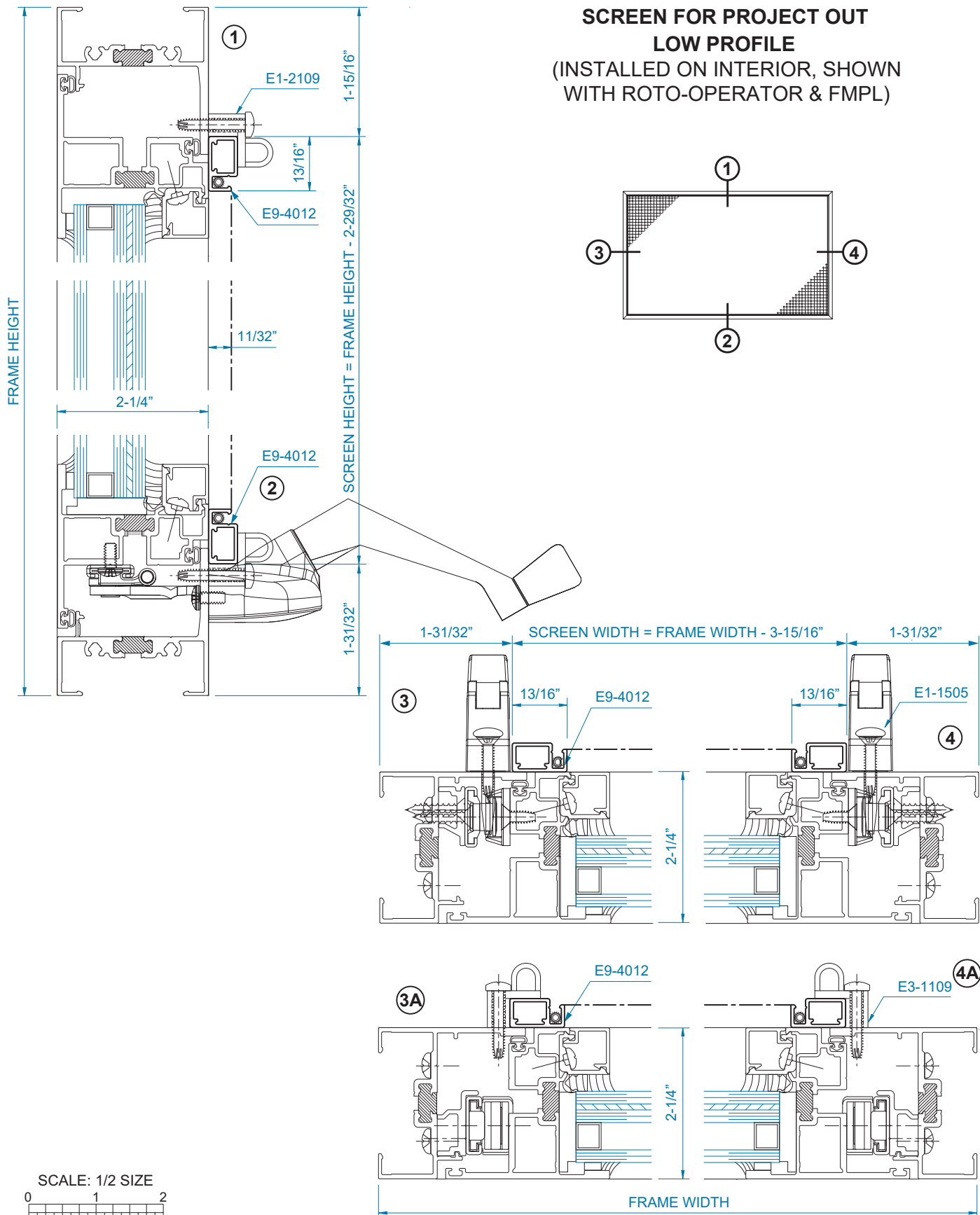
**SCREEN FOR PROJECT OUT
(INSTALLED ON INTERIOR)**



SCREEN ATTACHMENT OPTIONS

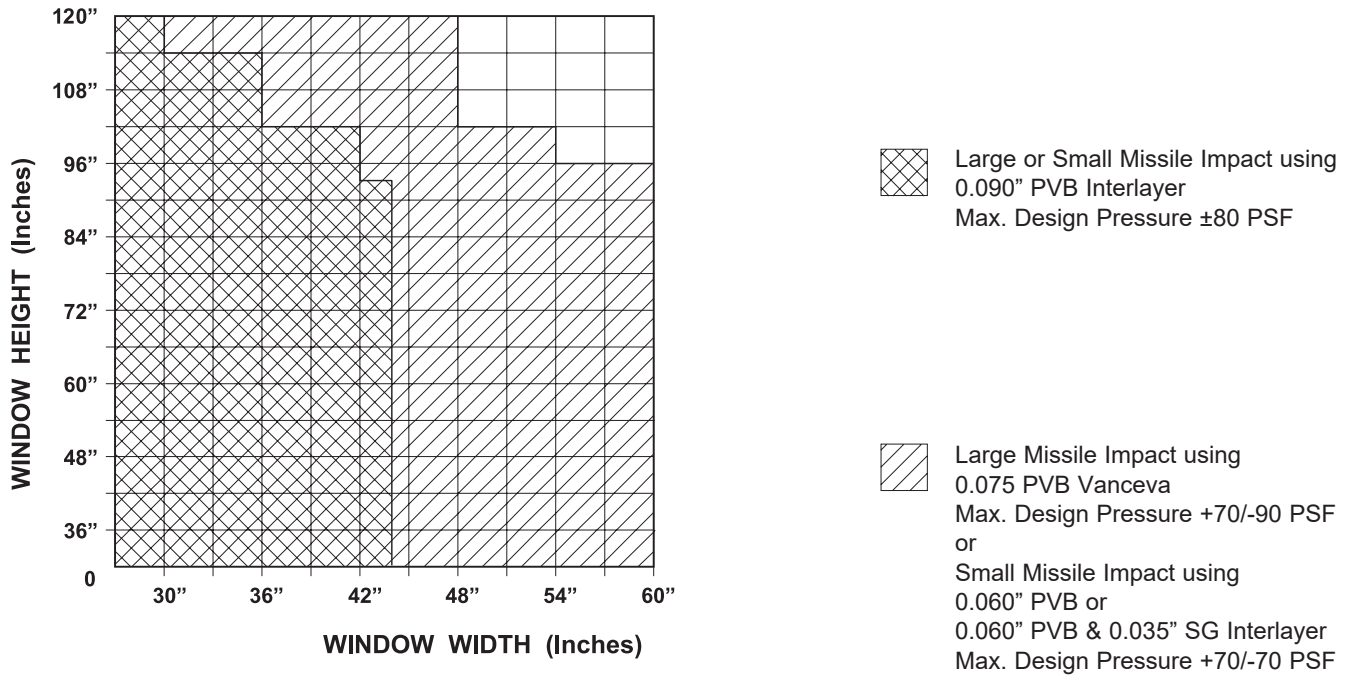


SCALE: 1/2 SIZE
0 1 2



FIXED WINDOW

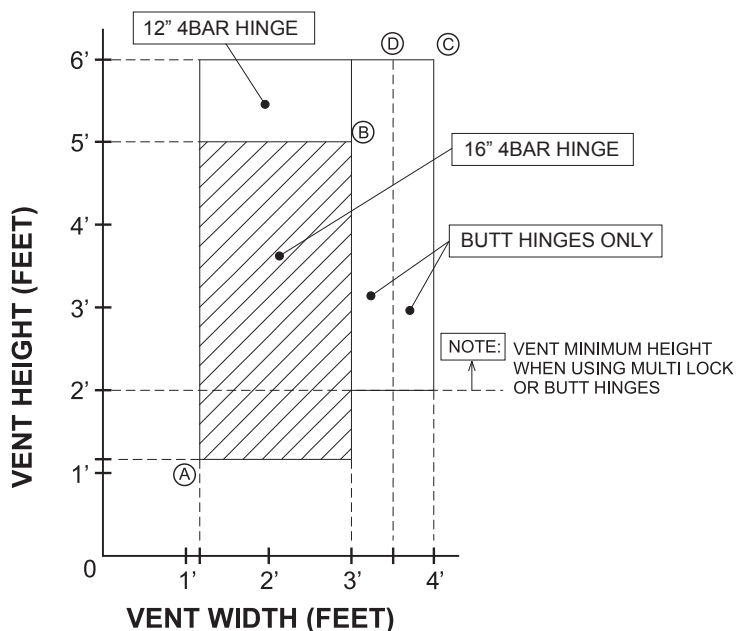
1. YOW 225 TUH SIZE LIMITATIONS: (Based on Florida Product Approvals)



*For other glazing interlayer types, see Florida Product Approvals for performance specifications and size limits.

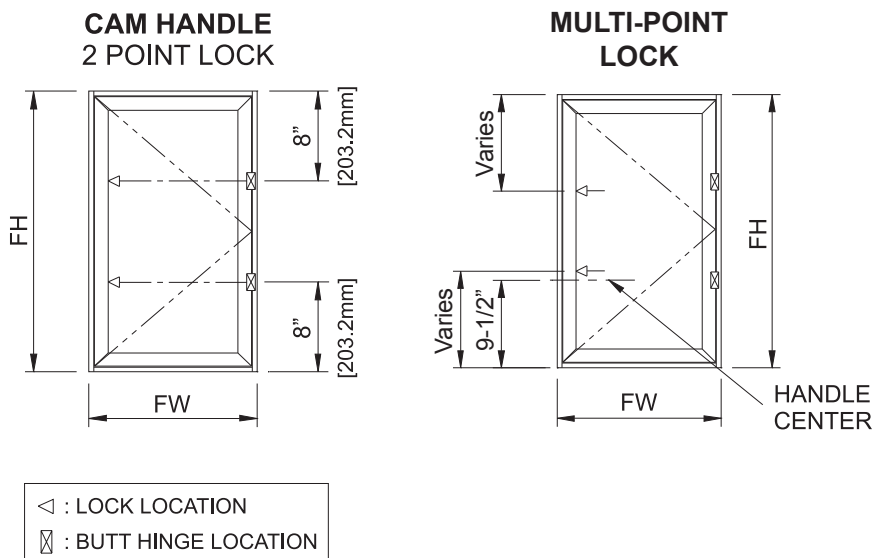
CASEMENT OUTSWING

1. SIZE LIMITATIONS: (Based on Florida Product Approvals)



	VENT WIDTH	VENT HEIGHT
Ⓐ	MINIMUM SIZE	
	14" [355.6mm]	14" [355.6mm]
	When using Multi Lock or Butt Hinges	
	14" [355.6mm]	24" [355.6mm]
Ⓑ	MAXIMUM SIZE (±65 PSF)	
	36-1/8" [917.6mm]	72" [1828.8mm]
Ⓒ	When using Multi Lock and Butt Hinges	
	48" [917.6mm]	72" [1828.8mm]
Ⓓ	MAXIMUM SIZE (±80 PSF) (requires Multi Lock)	
	42" [1066.8mm]	72" [1828.8mm]

2. HARDWARE LOCATIONS



SNUBBER SCHEDULE	
Number of Required Snubbers At Hinge Jamb	Vent Height
4	$72" \geq H > 54"$
3	$54" \geq H > 30"$
2	$30" \geq H > 18"$
1	$18" \geq H$

BUTT HINGE SCHEDULE	
Number of Required Butt Hinges	Vent Height
3	$72" \geq H > 44"$
2	$44" \geq H$

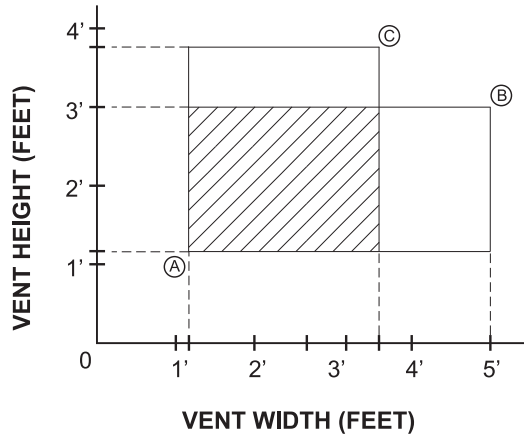
MULTI-POINT SCHEDULE	
Number of Required Lock Engagements	Vent Height
4	$72" \geq H > 58\text{-}1/2"$
3	$58\text{-}1/2" \geq H > 30"$
2	$30" \geq H$

3. FOUR BAR HINGE USAGE

PART NO.	LENGTH	VENT WIDTH	MAX. WEIGHT	MAX. OPENING ANGLE
E1-1957	12" Egress	$\leq 36"$ [914.4mm]	165lbs [74.8kg]	90°
4K-14208	16"	$> 24"$ [609.6mm]	117lbs [53.0kg]	90°

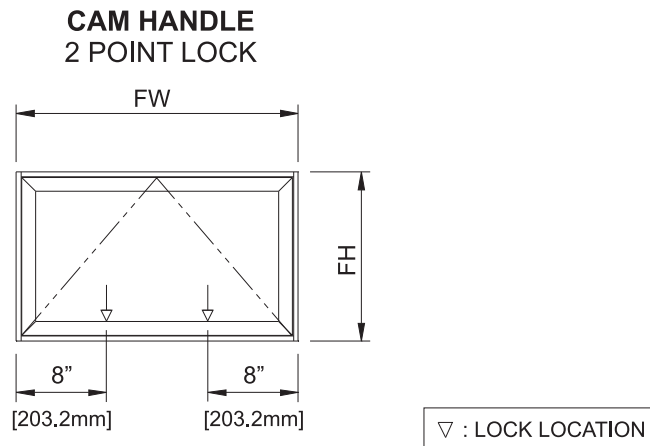
PROJECT OUT

1. SIZE LIMITATIONS: (Based on Florida Product Approvals)



	VENT WIDTH	VENT HEIGHT
Ⓐ	MINIMUM SIZE 14" [355.6mm]	14" [355.6mm]
Ⓑ	MAXIMUM SIZE (±65 PSF) 60" [1524.0mm]	36" [914.4mm]
Ⓒ	MAXIMUM SIZE (±80 PSF) 42" [1066.8mm]	45" [1143.0mm]

2. HARDWARE LOCATIONS



3. FOUR BAR HINGE USAGE

PART NO.	LENGTH	VENT HEIGHT	MAX. WEIGHT	MAX. OPENING ANGLE
4K-14207	12"	≤ 18" [457.2mm]	70lbs [31.7kg]	20°
5K-15284	16"	≤ 38" [965.2mm]	125lbs [56.7kg]	30°
4K-14209	22"	≤ 45" [1143.0mm]	140lbs [63.5kg]	20°

YOW 225 TUH HARDWARE GUIDE

	DESCRIPTION	CASEMENT OUT	CASEMENT IN	PROJECT OUT	PROJECT IN
LOCKING HARDWARE	CAM HANDLES	STANDARD	STANDARD	STANDARD	STANDARD
	CUSTODIAL CAM LOCK (HEX KEY)	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL
	MULTI-LOCK HANDLE	OPTIONAL	OPTIONAL	OPTIONAL	
	CUSTODIAL MULTI-LOCK (HEX KEY)	OPTIONAL	OPTIONAL	OPTIONAL	
	POLE RING LOCKS	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL
HINGE & LIMIT STOP HARDWARE	4 BAR HINGES	STANDARD	STANDARD	STANDARD	STANDARD
	BUTT HINGES	OPTIONAL	OPTIONAL		
	FRICTION ADJUSTERS	STANDARD W/ BUTT HINGES	STANDARD W/ BUTT HINGES		
	4-BAR EGRESS HINGES	OPTIONAL			
	LIMIT STOP IN 4-BAR HINGE ONLY	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL
	KEYED LIMIT DEVICE	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL
	4" LIMIT DEVICE (APPROVED FOR NEW YORK CITY)	OPTIONAL		OPTIONAL	
	SCREENS	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL