

# Essential Sliding Patio Door

Unit Features .....	1
Standard Sizes .....	5
Sizing Guidelines / Measurement Conversions .....	6
Sizing and Mulling Guidelines .....	7
Section Details: 2 Panel XO Operator 3 3/8" Jamb Detail .....	8
Section Details: 3 Panel OXO/XOO Operator 3 3/8" Jamb Detail .....	9
Section Details: 2 Panel XO Operator 4 9/16" Jamb Detail .....	10
Section Details: 3 Panel OXO/XOO Operator 4 9/16" Jamb Detail .....	11
Section Details: 2 Panel XO Operator 6 9/16" Jamb Detail .....	12
Section Details: 3 Panel OXO/XOO Operator 6 9/16" Jamb Detail .....	13
Section Details: Direct Glaze Transom .....	14
Section Details: Mullions .....	15
Section Details: Divided Lite Options .....	16
Installation Suggestions: Stucco with 2x4 Frame Construction .....	17
Installation Suggestions: Vinyl Siding with 2x6 Frame Construction .....	18
Installation Suggestions: Brick Veneer with Steel Frame Construction .....	19



## Unit Features

Essential Sliding Patio Door: ESSPD

### Frame and Sash:

- The frame and sash exteriors are made of Ultrex®, an advanced fiberglass reinforced pultrusion material that is resistant to thermal conductance.
- Exterior colors: Stone White, Pebble Gray, Bronze, Evergreen, Cashmere, or Ebony.
- Interior colors: Stone White, Bronze or Ebony.
- Split finishes are not available for Dark Interior options. Only Bronze interior/Bronze exterior and Ebony interior/Ebony exterior combinations are available for Dark interior options.

#### Frame:

- Composite frame thickness is 1 3/8", (35). Frame width is 3 3/32", (79). Ultrex is .065" - .070", (2) thick.
- Standard jamb depth is 3 3/8" (86), frame depth 4 15/32" (114). The sill is composed of Ultrex.

#### Panel:

- The panel is 1 1/4" (29) thick with an Ultrex interior and exterior. Both the stile and rail share a common one-piece Ultrex profile that gives structure to the panel, which utilizes injection molded corner keys. Overall stiles and rails are 2 1/8" (54) wide.
- Composite sash thickness is 15/16" (24). Ultrex is .100" (3) thick. Sash can be replaced but cannot be re-glazed.

### Jamb Extension:

- Standard jamb depth is 2" (51). 4 9/16" (116) and 6 9/16" (167) maintenance free jamb extension is available.
- Color options: Stone White, Bronze, Ebony
  - Default color will match unit interior selection. Stone White Jamb Extension is available for all unit interior selections.

### Hardware:

- Handle Sets
  - Single point non-keyed zinc substrate handle lock.
  - Handle Set: Interior and exterior selected separately.
  - Provides an interior thumb lever to engage the locking and unlocking of the operating panel.
  - Keyed and keyed alike options are available.
  - Standard Handle Set
    - Handle is 7 5/8" (194) tall, 2 21/32" (67) wide by 1 13/16" (30) deep.
    - Available in Almond Frost, White, Brass PVD, Satin Nickel PVD, Matte Black or Oil Rubbed Bronze PVD.
  - Optional Slim Handle Set
    - Handle is 7 5/8" (194) tall, 29/32" (23) wide by 1 11/32" (34) deep.
    - Available in White, Almond Frost, Bronze, and Matte Black

### Installation:

- Factory applied folding nailing fin.
- Installation brackets for masonry application are available in lieu of folding nailing fin, if specified on the order.

### Weather Strip:

- Beige rigid and beige pile for Stone White interior, black rigid and gray pile for Bronze and Ebony interiors
- Jambs and head jambs utilize a rigid leaf-type weather strip.
- Bottom rail utilizes a rigid pile assembly against the sill.
- Rigid interlocks use full length individual pile weather strip.

### Glazing:

- Dual-pane units are manufactured with a 3/4" (19) Tempered IG with Low E1, E2, E3, or E3/ERS coating including argon gas or air fill. Clear (uncoated) glass is available with air fill only. Obscure glass is available as an option.
- Obscure glass is available as an option.
- The glazing seal is a silicone bedding on the exterior and vinyl glazing seal on the interior in a one-piece sash.
- Perimeter spacer color default is mill finish (stainless). An optional black perimeter spacer is available for all unit interior color selections.
- STC/OITC values are available for 3.1 mm glass thickness.
  - Optional 3.1/4.7 STC/OITC Upgrade glass is available. See the Product Performance chapter for STC and OITC ratings.
- Decorative glass options include glue chip, frost and tinted (bronze, gray or green).
  - Decorative glass is not available with Low E1, Low E3/ERS or STC/OITC Upgrade options.

**Unit Features Continued****Screen:**

- Top hung extruded aluminum screens to match exterior Ultrex color.
- Single operating panel only
- Includes all mounting and latching hardware

**Interior/Exterior Simulated Divided Lites (SDL):**

- Interior bar: 7/8" (22) wide bars, Pine bare wood or white interior finish.
- Exterior bar: Ultrex, 7/8" (22) wide bars, finish to match exterior.
- Pattern: Standard rectangular pattern, 6 or 9 lite prairie cut per panel, 6 lite prairie cut on transom or Cottage style cut.
- Simulated check rail option: 2 11/32" (60).
- Patterns available: simulated rail in standard center or customer specified location with 7/8" pattern above, below, or both in pattern of rectangular equal lite or Prairie lite cuts.
- Tinted glass available without spacer bar only.

**Grilles-Between-The-Glass (GBG):**

- 23/32" (18) contoured aluminum bar placed between two panes of glass.
- Pattern: Standard rectangular pattern, 6 or 9 lite Prairie cut, or Cottage style cut.
- Exterior color options: Stone White, Pebble Gray, Bronze, Evergreen, Cashmere, or Ebony.
- Interior color options: Stone White, Bronze, Ebony (Matches unit interior color).
- Not available with tinted glass.

**Accessories:**

- Field applied j-channel, a 1" (25) or 3" (76) frame expander.
- Factory-applied sheet rock return for 1/2" (13) or 5/8" (16) drywall, or a 3/4" (19) receiver.
  - Sheet Rock Return and 3/4" Receiver color options: Stone White, Bronze, Ebony. Default color will match unit interior selection. Stone White Sheet Rock Return and 3/4" Receiver are available for all unit interior selections.
- General: mull kits are available for field assembly. Kits include instructions, mull covers, mull plugs and brackets.

**Exterior Casing:**

- Non-integral to the unit.
- Fastened to the exterior wall with barb and 2" (51) brick mould available as a header and jamb surround.
- 3 1/2" (89) flat casing available as a header and jamb surround.
- Also available with 1" (25) ranch style header overhang.

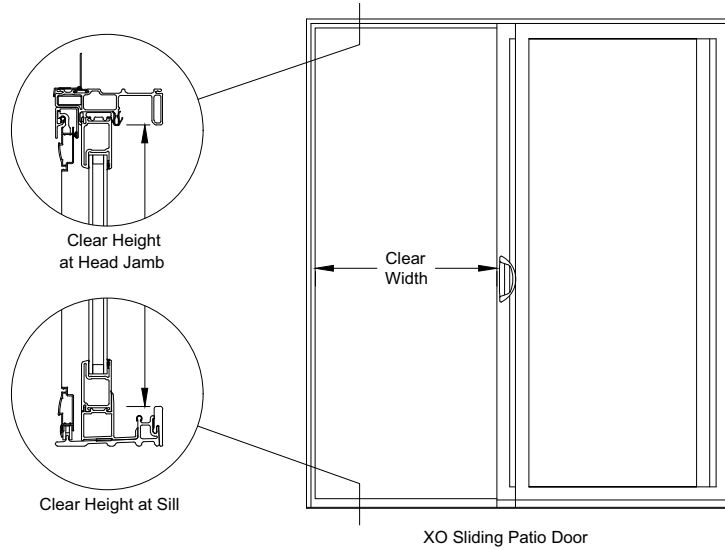
*NOTE: NFRC Values are now located on [www.marvin.com](http://www.marvin.com)*

**Minimum/Maximum Guidelines and Certified Sizes**

Minimum and Maximum Guidelines	Minimum Frame Size				Maximum Frame Size			
	Width		Height		Width		Height	
	in	mm	in	mm	in	mm	in	mm
2-Panel Operator	59 1/2	(1511)	79 1/2	(2019)	71 1/2	(1816)	95 1/2	(2426)
3-Panel Operator	107 1/2	(2731)	79 1/2	(2019)	107 1/2	(2731)	95 1/2	(2426)
2 - Panel Direct Glaze Transom	59 1/2	(1511)	11 1/2	(292)	71 1/2	(1816)	17 1/2	(445)
3 - Panel Direct Glaze Transom	107 1/2	(2731)	11 1/2	(292)	107 1/2	(2731)	17 1/2	(445)

Certified Sizes and Ratings - Essential Sliding Patio Door								
Product	Air Tested to PSF	Water Tested to psf	Design Pressure (DP)	Certification Rating	Max Overall Width		Max Overall Height	
					in	mm	in	mm
Essential Sliding Patio Door (OX)	1.57	4.5	30	R-PG30-SD	71	(1803)	81	(2057)
Essential Sliding Patio Door (OX)	1.57	4.5	30	R-PG30-SD	71	(1803)	95	(2413)
Essential Sliding Patio Door (OOX)	1.57	4.5	30	R-PG30-SD	107	(2718)	81	(2057)
Essential Sliding Patio Door (OXO)	1.57	4.5	30	R-PG30-SD	107	(2718)	81	(2057)
Essential Sliding Patio Door (OOX)	1.57	4.5	30	R-PG30-SD	107	(2718)	95	(2413)
Essential Sliding Patio Door (OXO)	1.57	4.5	30	R-PG30-SD	107	(2718)	95	(2413)

**Egress, Light and Vent Measurements**



Two Panel Egress Calculations Minimum Value for Net Clear Opening		
20 inches	Egress Opening Width (inches)	=(Frame OM Width / 2) - 5.682
24 inches	Egress Opening Height (inches)	=Frame OM Height - 4.227
5.7 square feet	Egress Opening Area (sq. ft.)	=(Egress Width x Egress Height) / 144

Net Clear Opening Essential Sliding Patio Door			
Width			
Unit Type	Call Number	Net Clear Openings	
		ft-in	mm
2 Panel Operator  (with Slim Handle)	5-0	2-0 1/16	(611)
	5-10	2-5 5/16	(745)
	6-0	2-6 1/16	(764)
	6-0	2-8 5/32	(817)
3 Panel Operator	9-0	2-6 1/16	(764)
Height			
Unit Type	Call Number	Net Clear Openings	
		ft - in	mm
All Configurations	6-8	6-3 17/64	(1912)
	6-10	6-5 17/64	(1963)
	8-0	7-7 17/64	(2318)

Standard Sizes

Essential Sliding Patio Door Unit Measurements											
Width											
Unit Type	Call Number	Masonry Opening		Rough Opening		Frame Size		Panel OM		Daylight Opening	
		ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm
XO, OX	5-0	5-0	(1524)	5-0	(1524)	4-11 1/2	(1511)	2-5 13/32	(747)	2-0 63/64	(635)
	5-10	5-10 1/2	(1791)	5-10 1/2	(1791)	5-10	(1778)	2-10 21/32	(880)	2-6 15/64	(768)
	6-0	6-0	(1829)	6-0	(1829)	5-11 1/2	(1816)	2-11 13/32	(899)	2-6 63/64	(787)
OOX, XOO OXO	9-0	9-0	(2743)	9-0	(2743)	8-11 1/2	(2731)	2-11 13/32	(899)	2-6 63/64	(787)
Height											
Unit Type	Call Number	Masonry Opening		Rough Opening		Frame Size		Panel OM		Daylight Opening	
		ft - in	mm	ft - in	mm	ft - in	mm	ft-in	mm	in	mm
All Configurations	6-8	6-7 3/4	(2026)	6-8	(2032)	6-7 1/2	(2019)	6-4 29/32	(1954)	6-0 1/2	(1841)
	6-10	6-9 3/4	(2076)	6-10	(2083)	6-9 1/2	(2070)	6-6 29/32	(2004)	6-6 29/32	(1892)
	8-0	7-11 3/4	(2432)	8-0	(2438)	7-11 1/2	(2426)	7-8 29/32	(2360)	7-8 29/32	(2248)

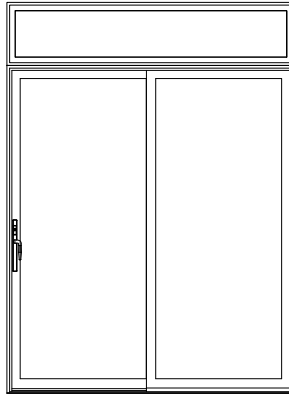
NOTES:

- Special sizes are available in 1/64" (40) increments, not to exceed the maximum or minimum sizes listed on min/max page

**Sizing Guidelines / Measurement Conversions**

- Multiple assemblies can be factory mulled up to 1 unit wide by 2 units high
  - **FACTORY MULLED MAXIMUM ROUGH OPENING:** not to exceed 72" (1298) x 100 1/2" (2553)

**NOTE: FIELD MULLING BEYOND 110" (2794) X 112" (2845) IS NOT RECOMMENDED.**



**Rough Opening Table for Assemblies**

- **WIDTH:** ADD all unit Rough Opening widths = Total Assembly Rough Opening width.
- **HEIGHT:** ADD all unit Rough Opening heights = Total Assembly Rough Opening height.

Unit Measurements Conversions Patio Door			Width		Height	
From	To		in	mm	in	mm
<b>Rough Opening</b>						
Rough Opening	OM of J-Channel		+ 3/4	(00)	+ 3/4	(19)
Rough Opening	Masonry Opening		0	(00)	-1/4	(06)
Rough Opening	OM of Frame		-1/2	(13)	-1/2	(13)
<b>Operating Panel - Standard Sill</b>						
OM of Frame	OM of Panel	÷ 2	-11/32	(09)	-2 19/32	(66)
OM of Frame	OM of Panel	÷ 3	-27/64	(11)	-2 19/32	(66)
<b>Daylight Opening</b>						
Daylight Opening	Rough Opening	× 2	+ 10 1/64	(254)	+ 6 1/4	(159)
Daylight Opening	Rough Opening	× 3	+ 15 1/64	(381)	+ 6 1/4	(159)
Daylight Opening	Glass		+ 1 1/4	(32)	+ 1 1/4	(32)
Daylight Opening	OM of Panel		+ 4 27/64	(112)	+ 4 27/64	(112)
<b>Screen</b>						
OM of Frame	OM of Screen	÷ 2	-37/64	(15)	-2 7/32	(56)
OM of Frame	OM of Screen	÷ 3	-21/32	(17)	-2 7/32	(56)
Daylight Opening	OM of Screen		+ 4 3/16	(107)	+ 4 41/64	(118)

Unit Measurement Conversions Transom			Width		Height	
From	To		in	mm	in	mm
<b>Rough Opening</b>						
Rough Opening	OM of J-Channel		+ 3/4	19.05	+ 3/4	19.05
Rough Opening	Masonry Opening		0	(00)	-1/4	(06)
Rough Opening	OM of Frame		-1/2	(13)	-1/2	(13)
<b>Daylight Opening</b>						
Daylight Opening	Glass		+ 1 7/32	(31)	+ 1 7/32	(31)



**Sizing and Mulling Guidelines**

**Factory Mullered Assemblies**

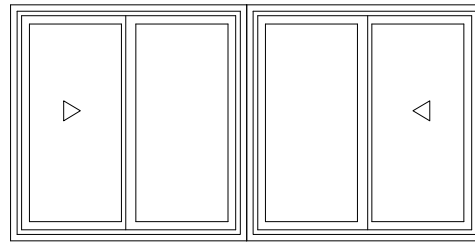
- Multiple assemblies can be factory mulled
  - **MAXIMUM ASSEMBLY UP TO 2W2H:** Rough Opening: 72" (1829) x 78" (1981), Inside Opening: 71 7/8" (1826) x 77 3/4" (1975)
  - **MAXIMUM ASSEMBLY UP TO 3W1H:** Rough Opening: 114" (2896) x 60" (1524), Inside Opening: 113 7/8" (2892) x 59 3/4" (1518)

**Calculating Total Opening for Assemblies**

- **WIDTH:**
  - Rough Opening = Frame Widths + 1/2" (13) per mull + 1/2" (13), Inside Opening = Frame Widths + 1/2" (13) per mull + 3/8" (10)
  - Tolerance = 1/4" (6) from frame to Rough Opening at left and right jamb, 3/16" (5) from frame to Inside Opening at left and right jamb.
- **HEIGHT:**
  - For field mulling requirements
  - Tolerance = 1/4" (6) from frame to Rough Opening at head jamb, 1/4" (6) from frame to Inside Opening at head jamb

*NOTE: For Triple Sash Conversions, R.O. or I.O. to glass, sash, and screens, please contact the Marvin Support Line (1-800-587-2712).*

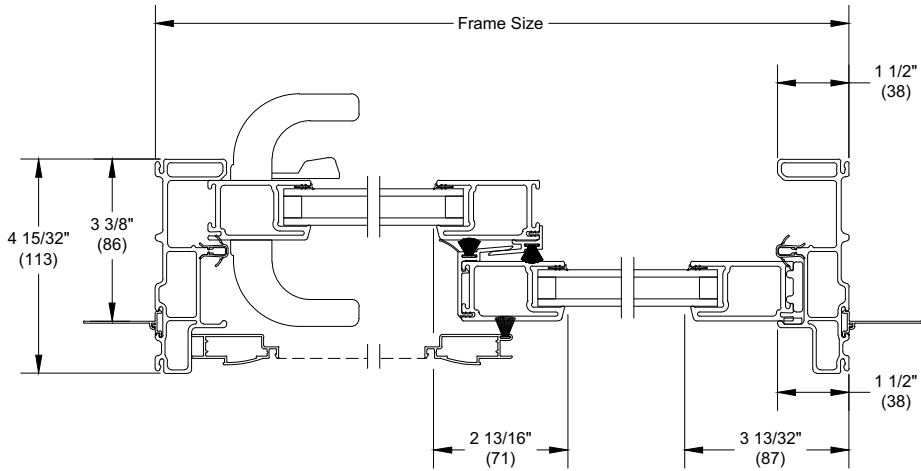
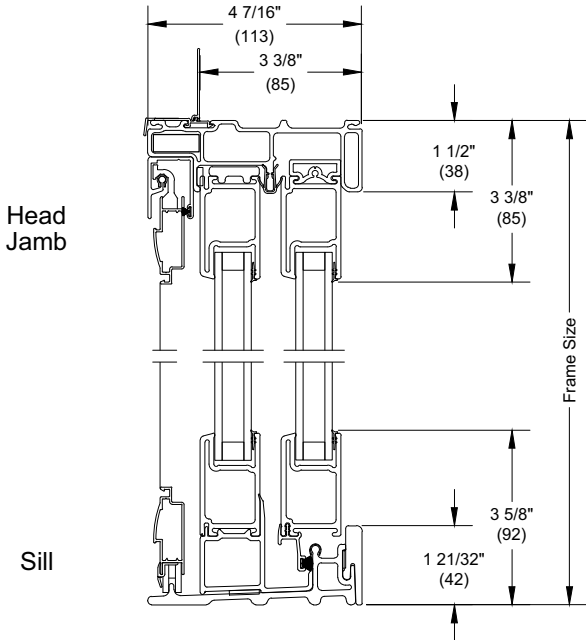
**Field mull kits are available. Mulling beyond limitations is not recommended.**



2 Units Wide 1 Unit High

**Section Details: 2 Panel XO Operator 3 3/8" Jamb Detail**

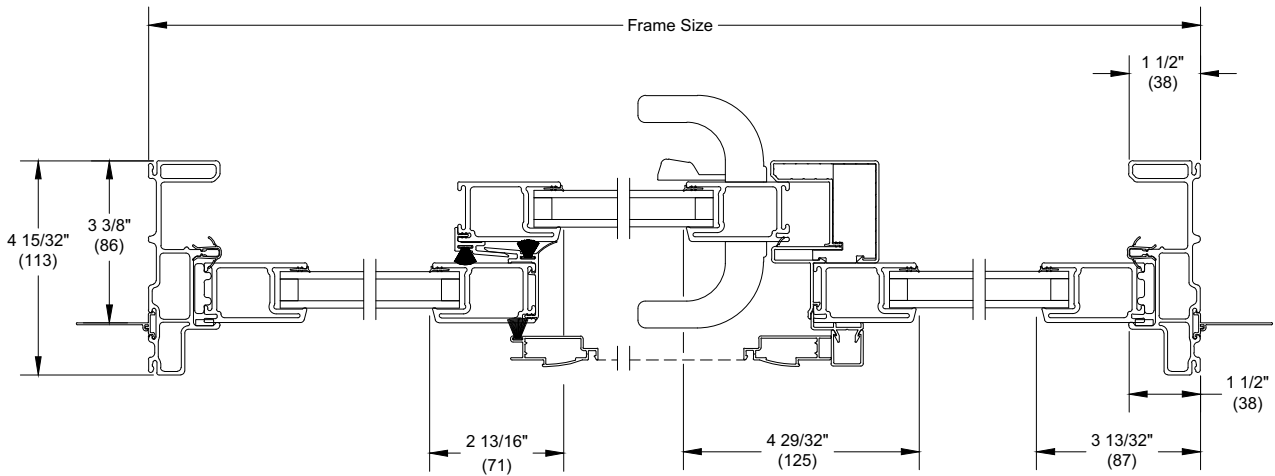
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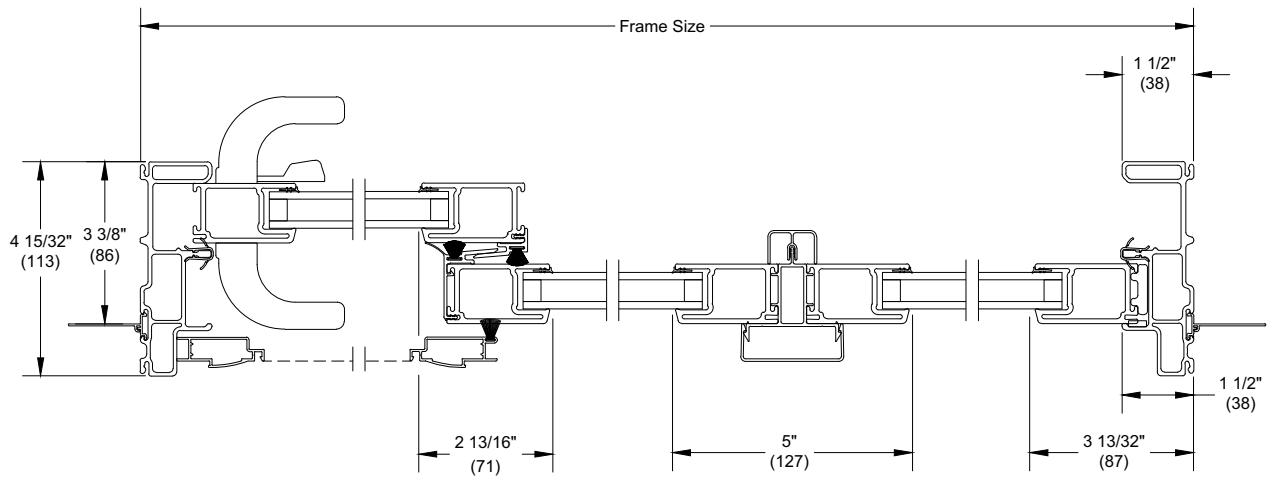
2-Panel XO - Jamb

**Section Details: 3 Panel OXO/XOO Operator 3 3/8" Jamb Detail**

Scale: 3" = 1' 0"



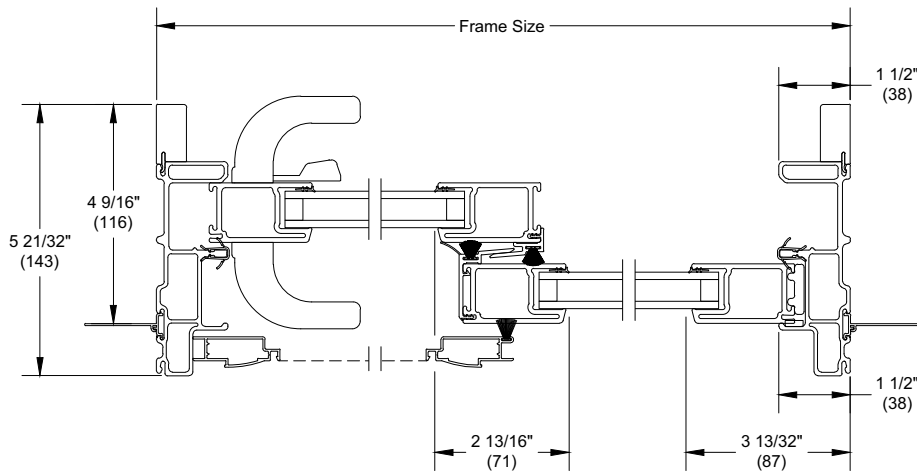
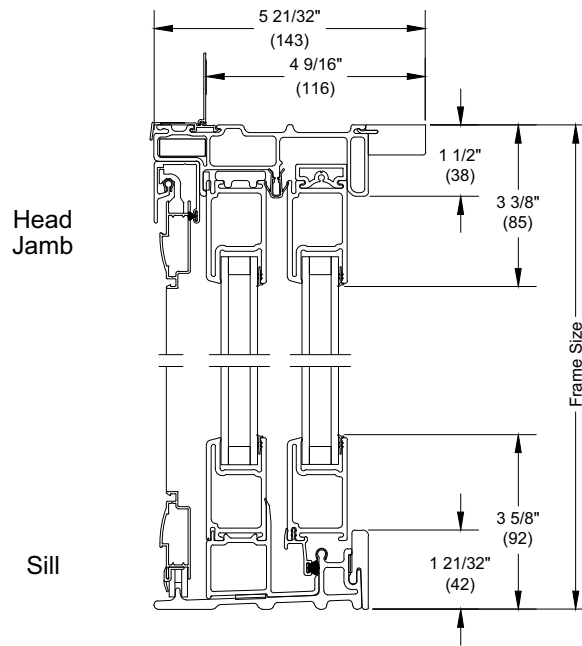
**3-Panel OXO - Jamb**



**3-Panel XOO - Jamb**

**Section Details: 2 Panel XO Operator 4 9/16" Jamb Detail**

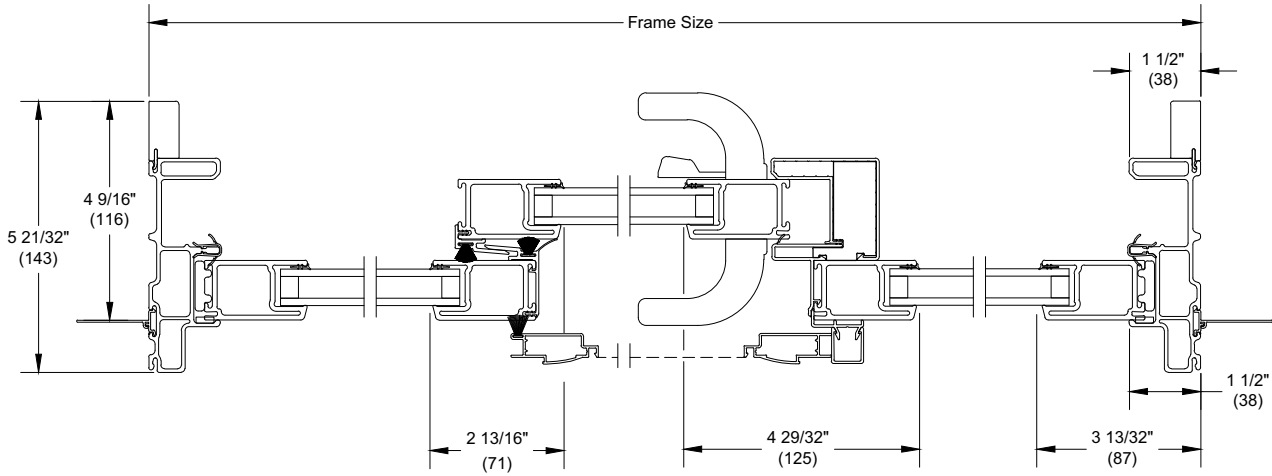
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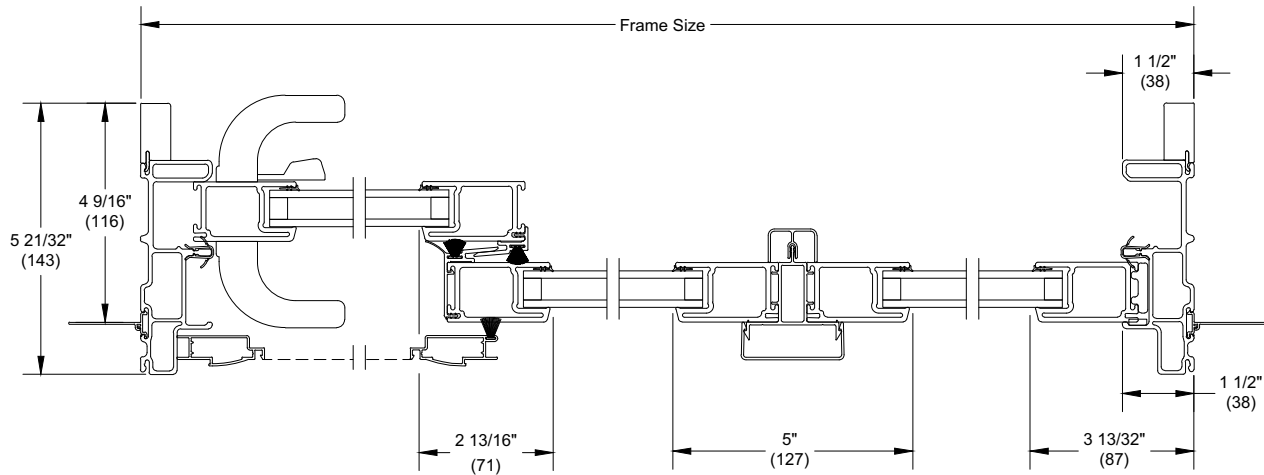
2-Panel XO - Jamb

**Section Details: 3 Panel OXO/XOO Operator 4 9/16" Jamb Detail**

Scale: 3" = 1' 0"



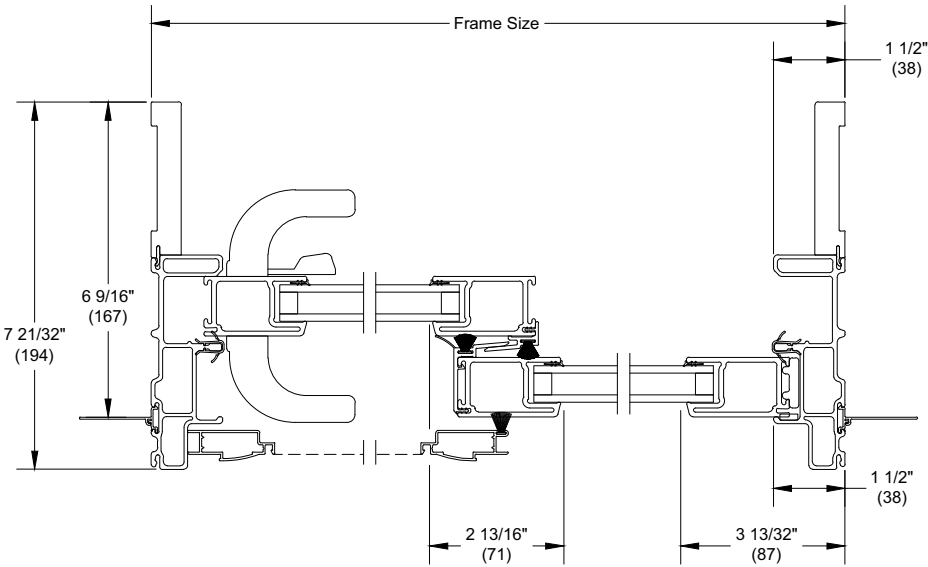
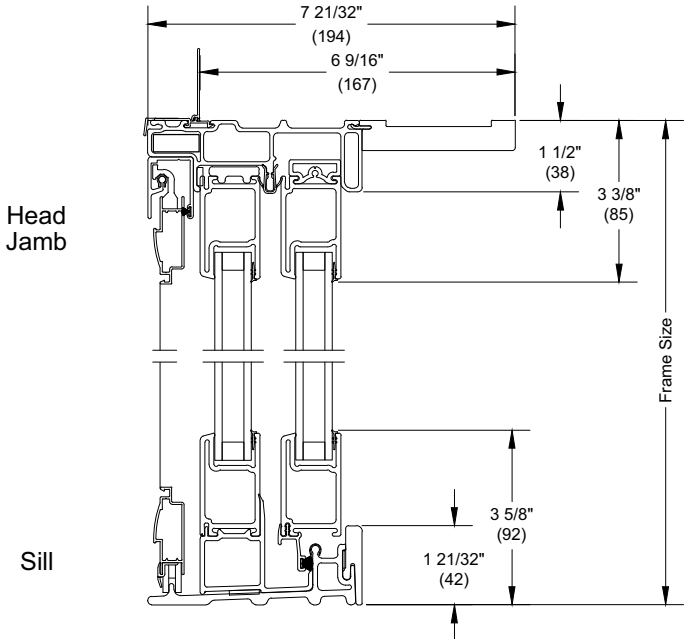
**3-Panel OXO - Jamb**



**3-Panel XOO - Jamb**

**Section Details: 2 Panel XO Operator 6 9/16" Jamb Detail**

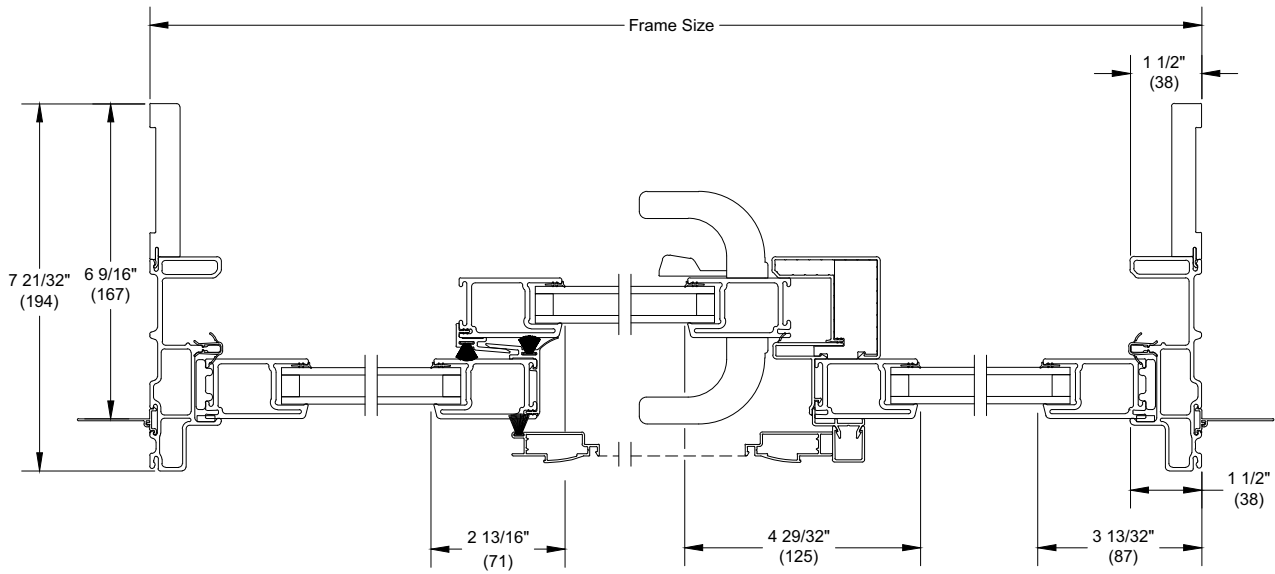
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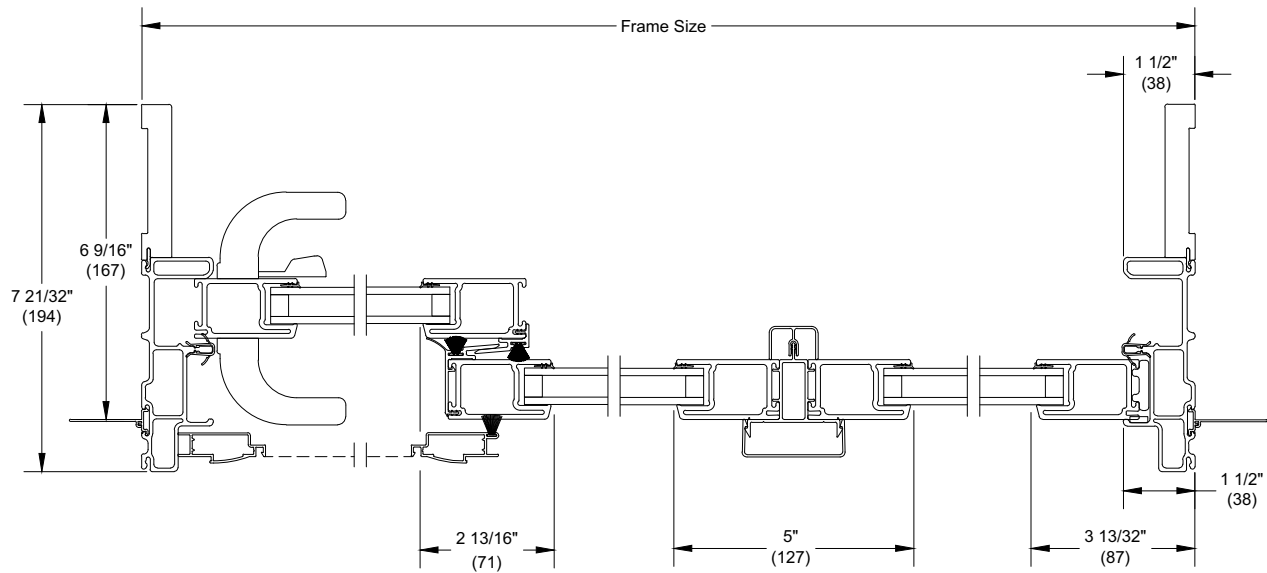
2-Panel XO - Jamb

**Section Details: 3 Panel OXO/XOO Operator 6 9/16" Jamb Detail**

Scale: 3" = 1' 0"



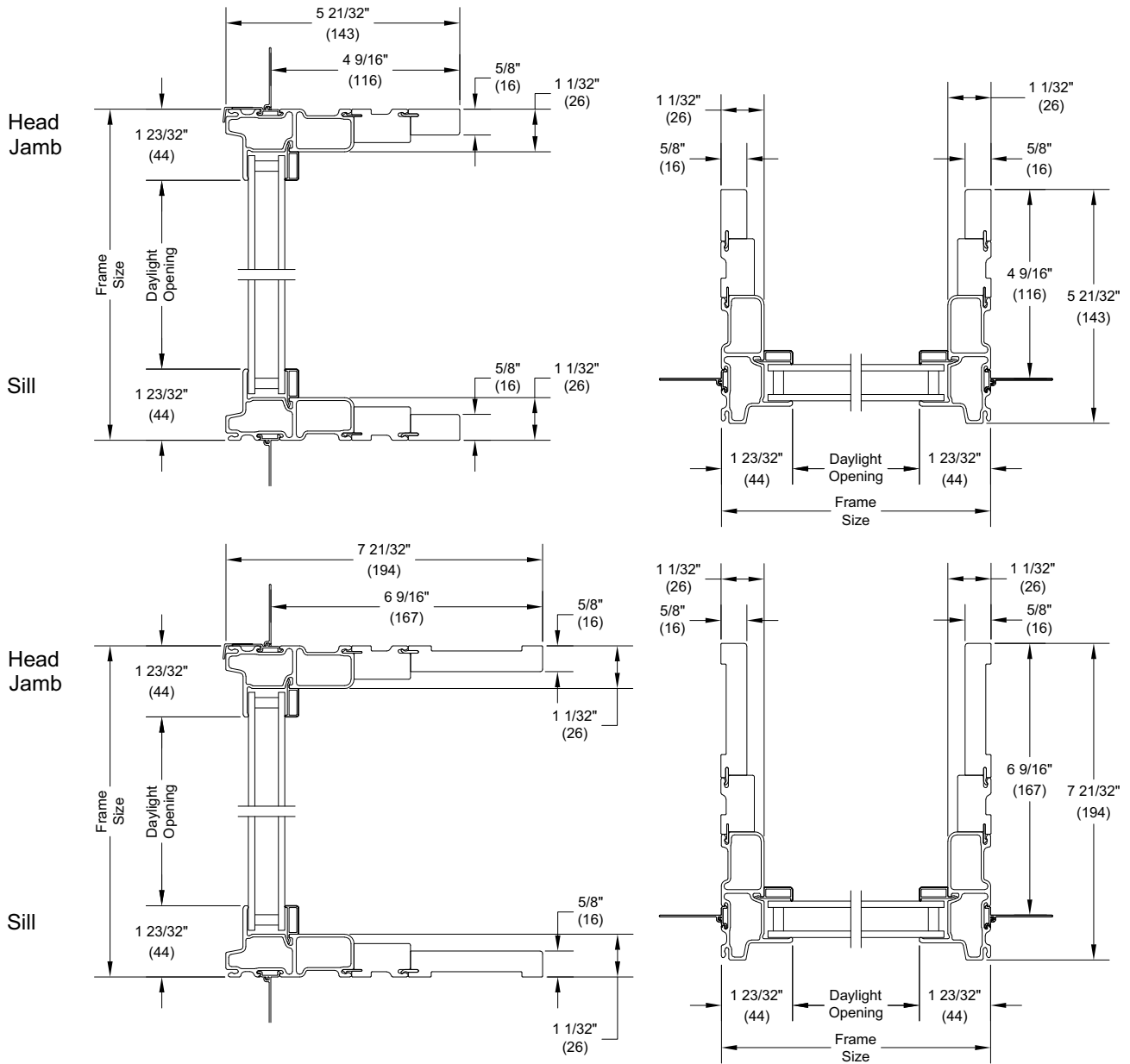
3-Panel OXO - Jamb



3-Panel XOO - Jamb

**Section Details: Direct Glaze Transom**

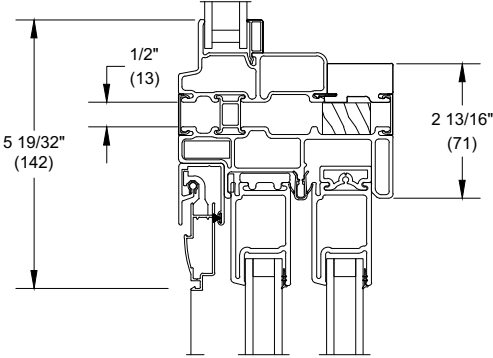
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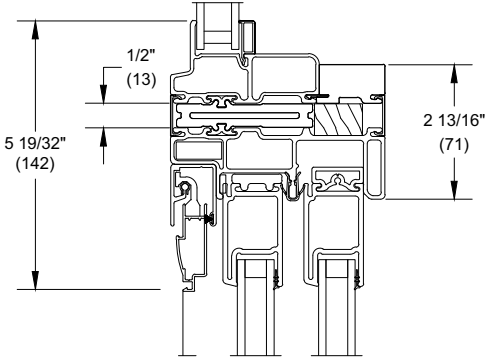


**Section Details: Mullions**

Scale: 3" = 1' 0"



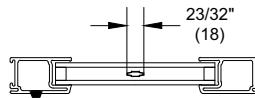
Horizontal Mullion  
Transom/Oper



Horizontal Certified Mullion  
Transom/Oper

**Section Details: Divided Lite Options**

**Divided Lite Options**



ALUMINUM GRILLE  
BETWEEN GLASS

**Default Rectangular Lite Pattern per unit (transom) or panel (sliding patio door) - GBG**

Standard CN Height	Standard CN Width			
	50	510	60	90
10	6W1H	6W1H	6W1H	9W1H
16	6W1H	6W1H	6W1H	9W1H
68	3W5H	3W5H	3W5H	3W5H
610	3W5H	3W5H	3W5H	3W5H
80	3W6H	3W6H	3W6H	3W6H

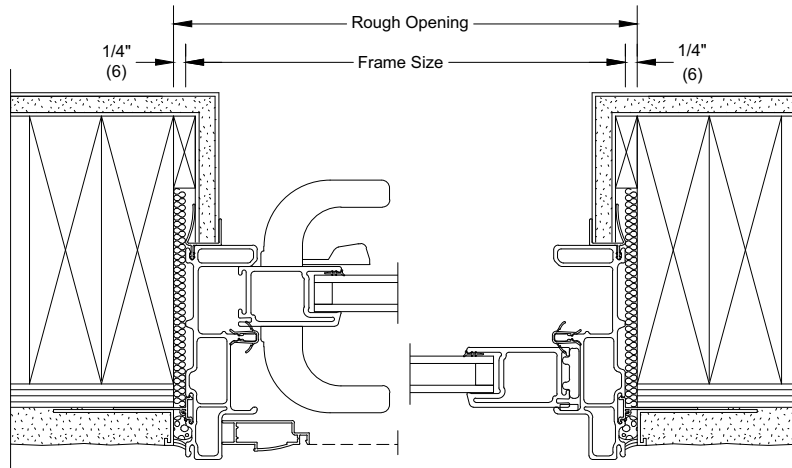
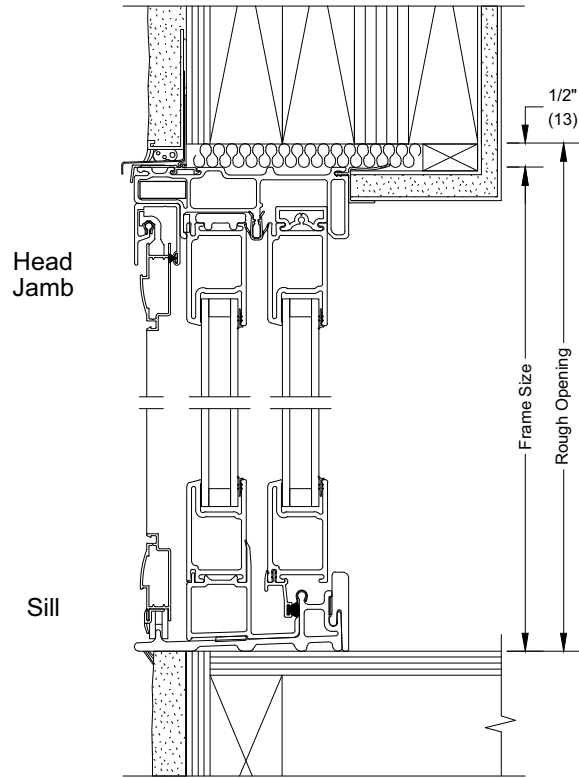
**Optional Standard Cottage Pattern per panel - GBG**

Standard CN Height	Standard CN Width			
	50	510	60	90
Door Heights	4-Lite	4-Lite	4-Lite	4-Lite

**NOTES:**

- Rectangle GBGs for special size units will default to the next smaller standard size lite pattern. Also available will be Prairie patterns, Cottage patterns, and customer specified equal rectangular lite patterns.
- Prairie available in 9 lite and 6 lite top, bottom, left, and right patterns.
- Cottage GBGs for special sizes units will default to the next smaller standard size lite pattern. Cottage GBGs are also available in customer selected lite patterns.
- Minimum DLO measurement for equal lite GBG option is 3" (76) and will be validated by OMS.
- Standard DLO measurement for Prairie GBG options is 4" (102). Special DLO corners are n/a.
- Standard DLO height measurement for Cottage GBG option is 10" (254). Minimum DLO height is 3" (76) for both one and two high patterns.
- GBGs are not available with an unsupported bar length > 72"

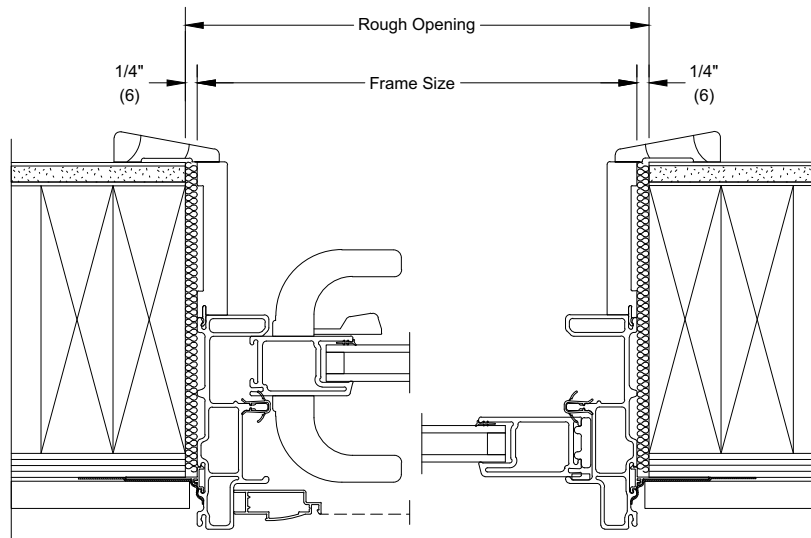
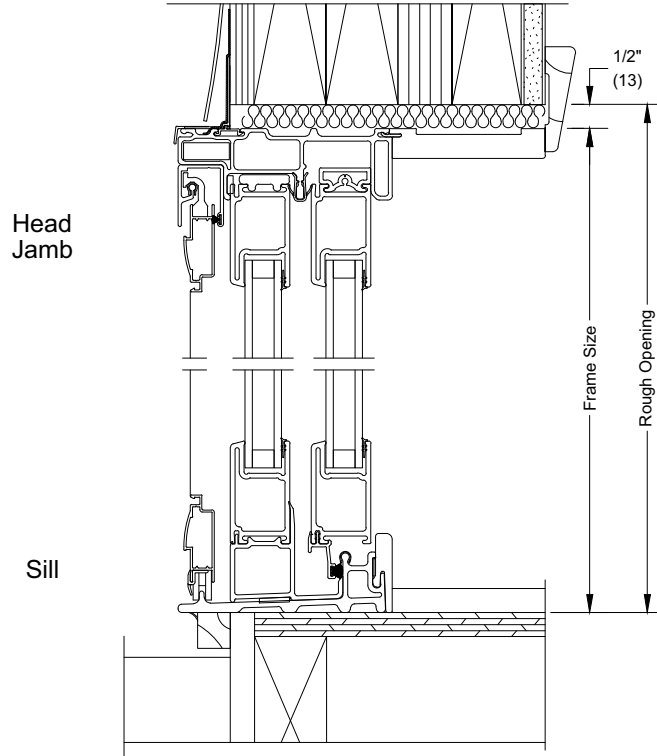
**Installation Suggestions: Stucco with 2x4 Frame Construction**



2-Panel XO - Jamb

*NOTE: The above wall sections represent typical wall conditions, these detail are not intended as installation instructions. Please refer to the installation instructions provided with the purchased units.*

**Installation Suggestions: Vinyl Siding with 2x6 Frame Construction**

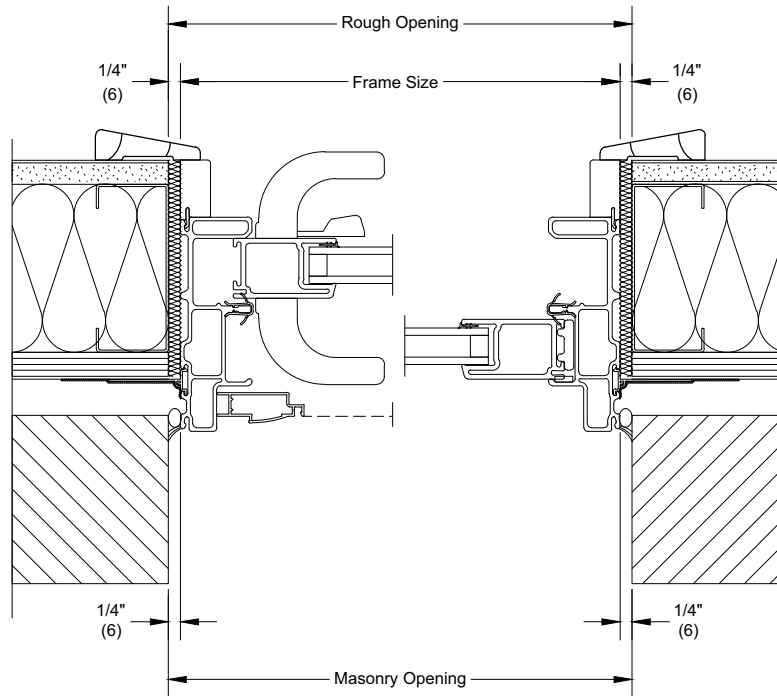
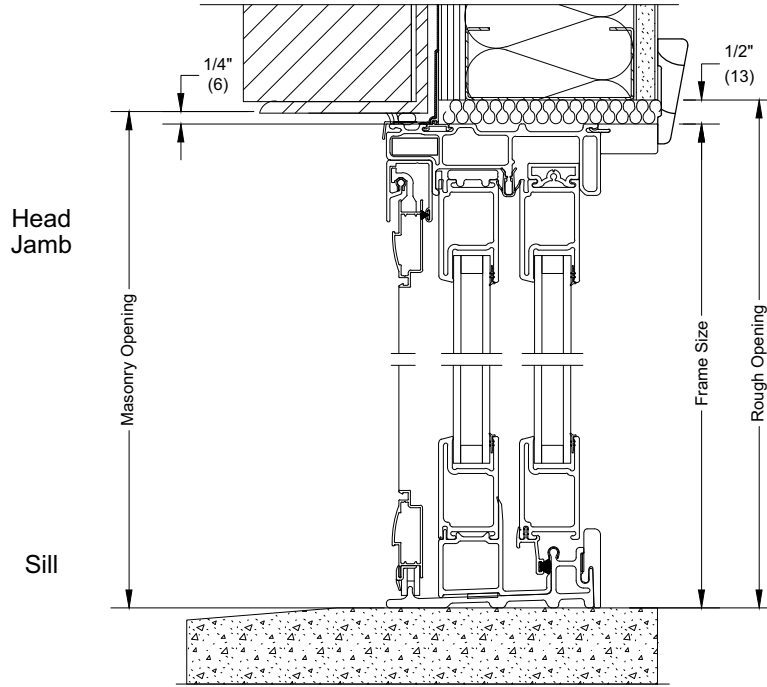


2-Panel XO - Jamb

*The above wall sections represent typical wall conditions, these detail are not intended as installation instructions. Please refer to the installation instructions provided with the purchased units.*

**Installation Suggestions: Brick Veneer with Steel Frame Construction**

Scale: 3" = 1' 0"



2-Panel XO - Jamb

*NOTE: The above wall sections represent typical wall conditions, these detail are not intended as installation instructions. Please refer to the installation instructions provided with the purchased units.*