Modern Inswing Door

Site Preparation Instructions

ABSTRACT: The Modern Inswing Door system requires proper site preparation to ensure optimal performance and operation after installation. This instruction will provide the necessary information to properly prepare the wall opening for ease of installation and operational integrity.

Site preparation begins with preparing the opening for the specified sill system. The selected sill and substrate must offer the door system support, which spans the width and depth of the unit. The exterior of the sill must be completely supported. Several sill options are available for consideration. Regardless of sill type, the foundation must support the sill height variance requirement of 1/16" (2) maximum across the entire sill length.

In conjunction with the sill, the framing of the rough opening must be installed plumb, square, and true within 3/16"(5).

IMPORTANT

Unfactored superimposed load (Live, Wind, or Snow) deflection over the entire length of the unsupported span cannot be greater than 1/8" (3) after natural sag of the beam and permanent loads are in place.

NOTE: Numbers listed in parentheses () are metric equivalents in millimeters rounded to the nearest whole number.

IMPORTANT

The construction details shown within are not typical but are an example of various construction assemblies implementing the Modern Inswing Door and/or screen.

⚠WARNING!

Always practice safety! Wear the appropriate eye, ear, and hand protection, especially when working with power tools.

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Water Management System-Panning

We require a sill pan for all Modern swinging doors in accordance with ASTM E2112. A sill pan is installed across the bottom of the opening and integrated into the weather-resistive barrier (WRB). The illustrations below show the basic requirements. Modification may be needed depending on your Rough Opening and alternative field preparation. The table below is based on ASTM E2112.

Types of Pan Flashing Material		
Rigid Sheet	1 piece or multiple pieces	Type I
Rigid Sheet	Multiple pieces	Type II
Flexible Membrane	1 Piece or multiple pieces	Type III
Combination System	Multiple pieces	Type IV
Liquid Membrane	Continuous coating	Type V

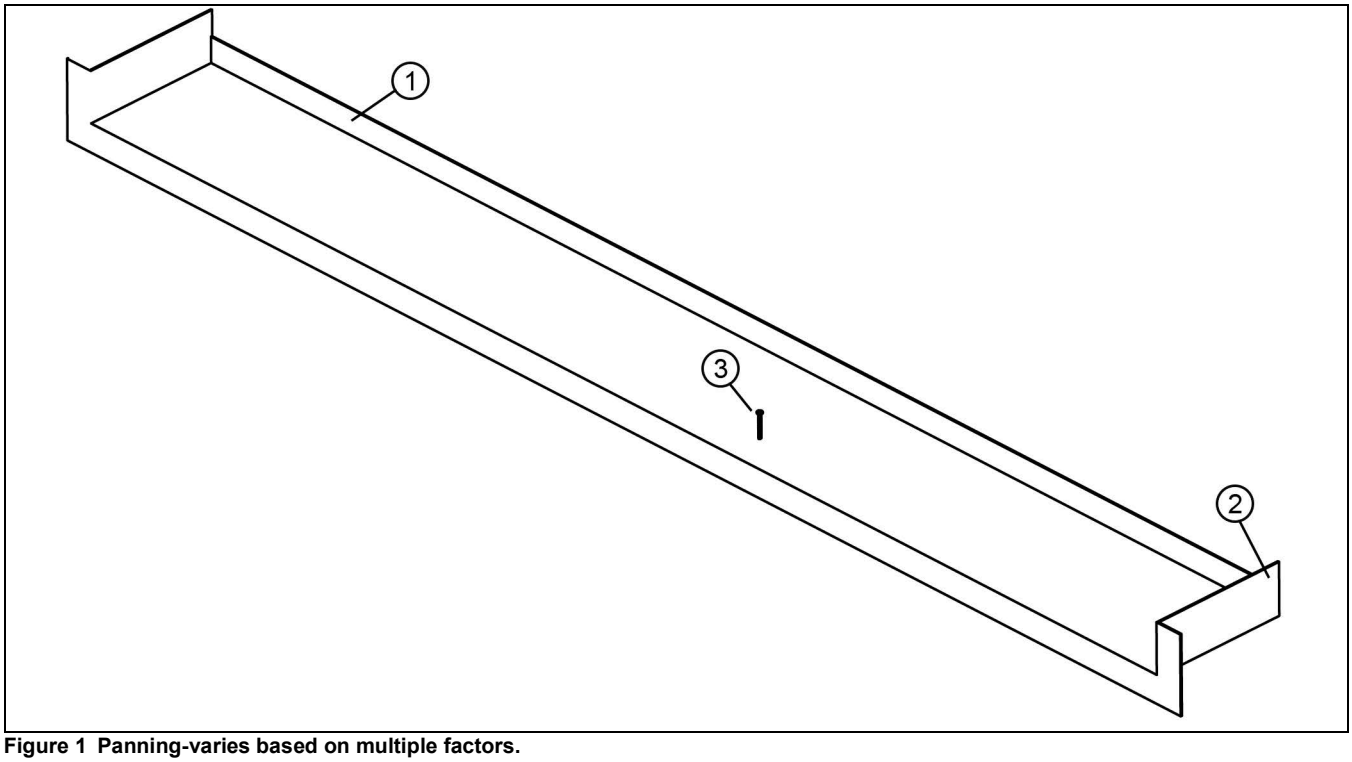

Figure 1 Panning-varies based on multiple factors.

1	Sill interior dam must be at least 1/2" in height
2	Side end dams must be at least 6" in height
3	Seal any fastener holes through panning.

Sill Systems

Sill Support

The performance and low profile sills implement a Sill Support system that is installed prior to the door frame. The location of the sill support varies depending on your construction type.

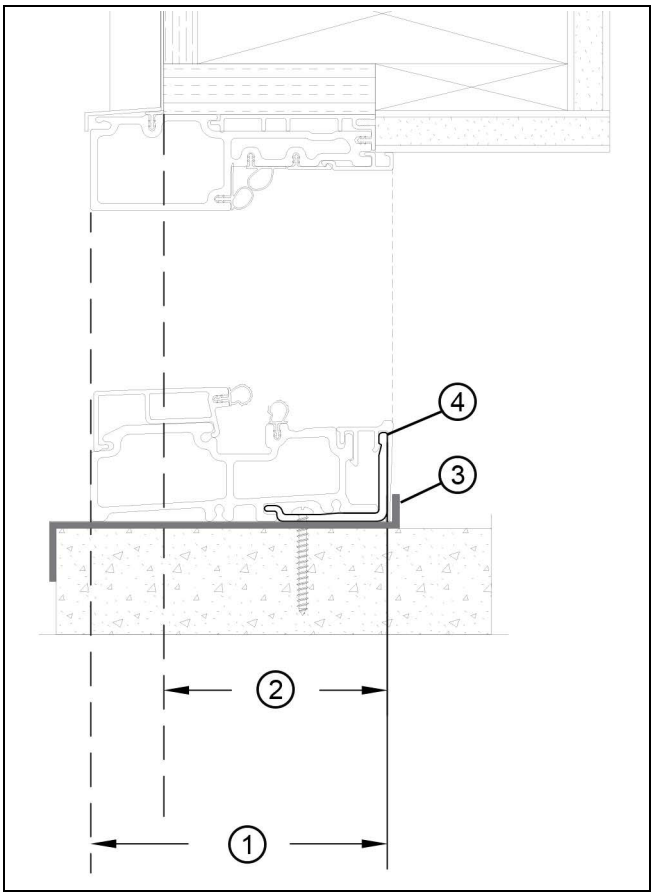

Figure 2

1	Frame exterior plane to sill support interior: 4 13/32" (112)
2	Nailing fin plane to sill support interior: 3 5/16" (84)
3	Panning
4	Sill Support

Performance Sill

This sill system requires a maximum of 1/16" (2) variance in height across the entire length of the sill. A laser level may be helpful in preparing the opening. The Performance sill is designed to meet a minimum of DP40 water testing but does NOT meet ADA height specifications.

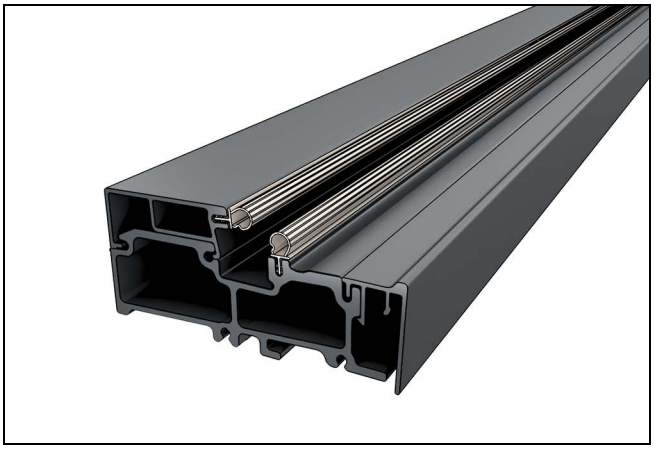

Figure 3 Performance sill

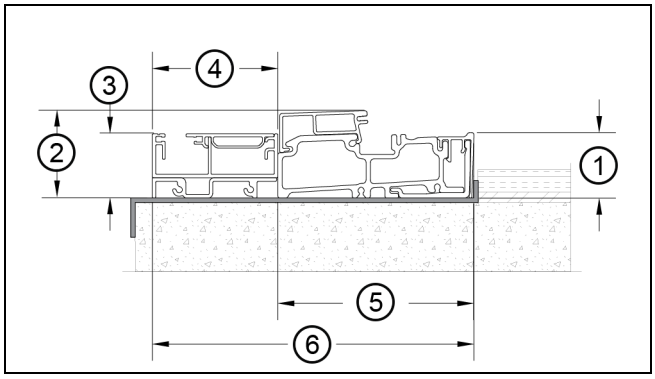

Figure 4 Performance sill with screen

1	Interior sill height: 1 1/2" (38)
2	Exterior sill height: 2" (51)
3	Screen sill height with riser: 1 15/32" (37)
4	Screen depth: 2 7/8 (73)
5	Frame depth: 4 1/2" (114)
6	Frame depth with screen: 7 3/8" (187)

Low Profile Sill

This sill system requires a maximum of 1/16" (2) variance in height across the entire length of the sill. A laser level may be helpful in preparing the opening. The low profile sill is designed to meet a minimum of DP25 water testing and CAN meet ADA height specifications when properly installed.

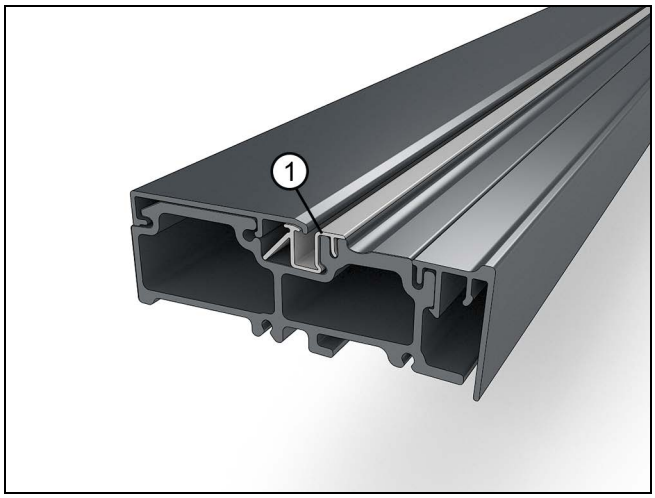

Figure 5

1	Sill cover support

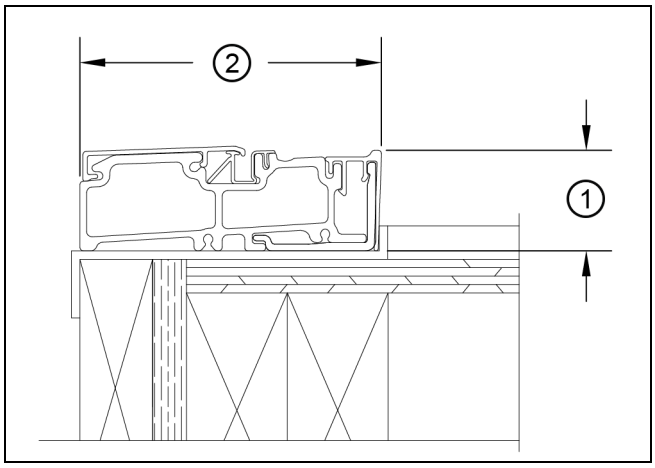

Figure 6 Low profile sill without screen

1	Sill height: 1 1/2" (38)
2	Sill depth: 4 1/2" (114)

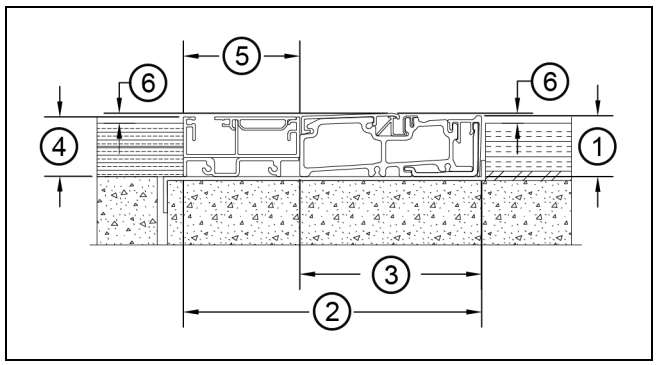

Figure 7 Low profile sill with screen

1	Sill height: 1 1/2" (38)
2	Frame depth with screen: 7 3/8" (187)
3	Frame depth without screen: 4 15/32" (114)
4	Screen sill height with sill riser: 1 15/32" (37)
5	Screen depth: 2 7/8" (73)
6	Finished flooring (must be within 1/4" from top of sill for ADA)

Weep Tube Options

A weep tube adapter is available for the Performance and Low Profile sills. A minimum of 4" drop is required. Without the weep tube, the standard offering is a weep door.

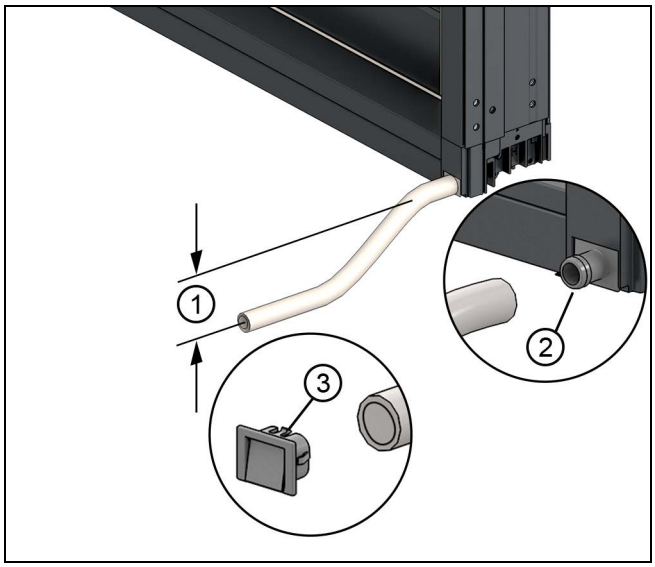

Figure 8 Weep tube must terminate at least 4" below sill.

1	4" (102)
2	Weep tube adapter
3	Weep door (fits on end of weep tube)

Figure 9 Weep tube terminating into drainage pipe

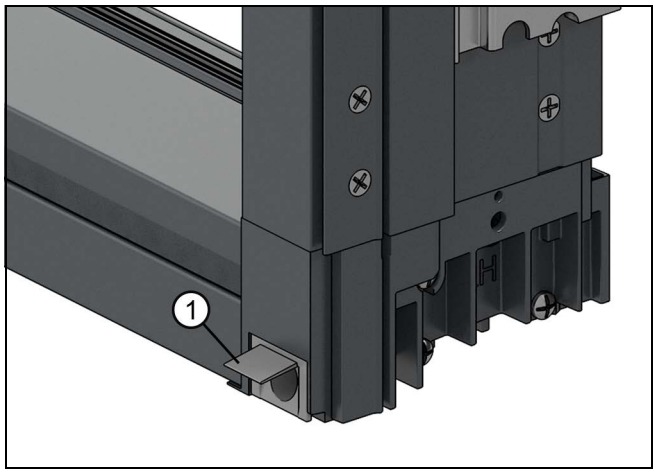

Figure 10 Weep door: do not block or seal to allow drainage.

1	Weep door

Saddle Sill

This sill system requires a maximum of 1/16" (2) variance in height across the entire length of the sill. A laser level may be helpful in preparing the opening. The saddle sill does meets ADA height specifications but is **not** rated.

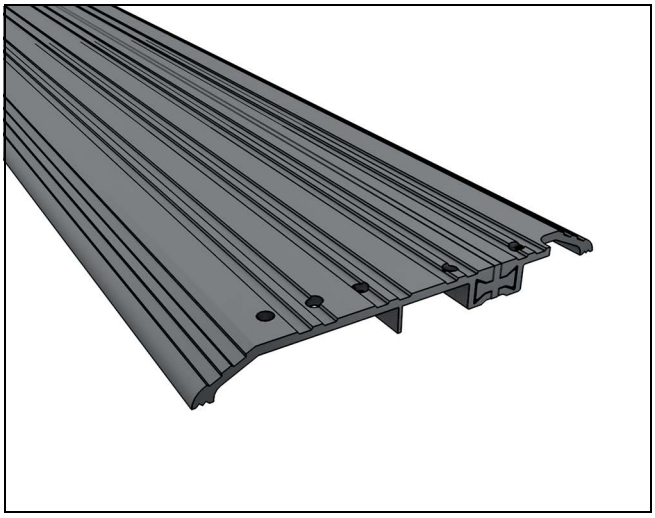

Figure 11

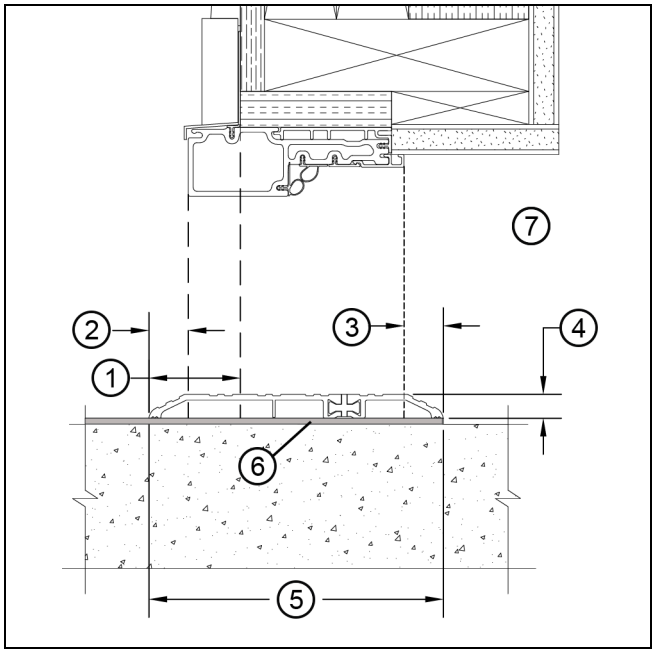

Figure 12

1	Nailing fin plane to exterior edge of sill: 1 29/32" (48)
2	Frame exterior plane to exterior edge of sill: 13/16" (21)
3	Frame interior plane to interior edge of sill: 13/16"(21)
4	Sill height: 1/2" (13)
5	Sill depth: 6 1/8" (156)
6	Panning

Construction Details

Framing the opening at the header and side jambs for a Modern Inswing door will vary based on the type of sill used and when a screen is used on the exterior. The examples shown below are not typical, and wall construction will vary. Use these details as a frame of reference only.

2x6 Framing

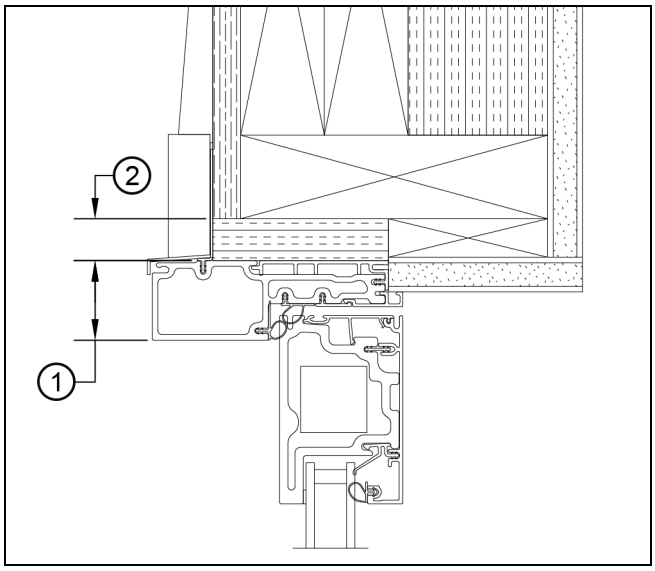

Figure 13 2x6 wood frame head jamb details

1	1 7/16" (35)
2	3/4" (19)

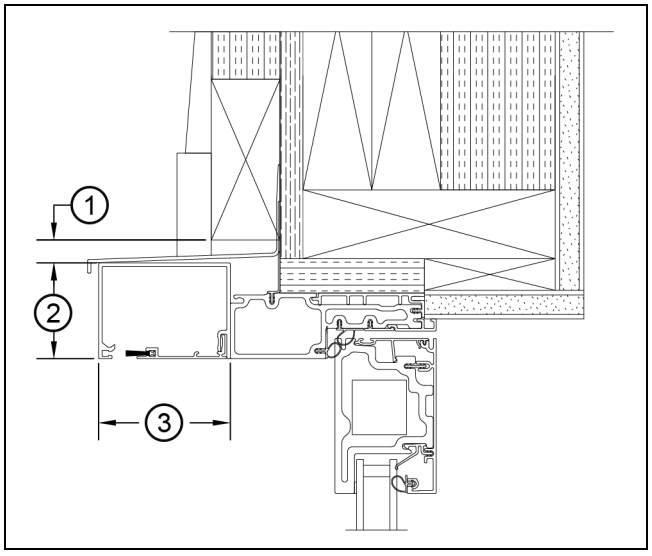

Figure 14 2x6 wood frame head jamb details with exterior screen

1	1/2" (13)
2	2 3/32" (53)
3	2 7/8" (73)

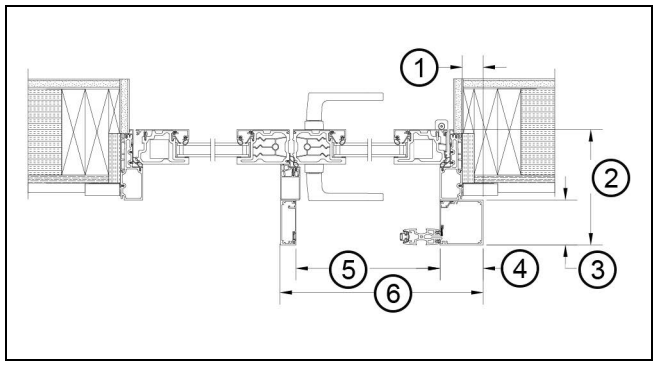

Figure 15 2x6 wood frame jamb details with OX RH configuration screen

1	1 15/16" (34)
2	7 3/8" (187)
3	2 7/8" (73)
4	2 3/4" (70)
5	Screen Inside Measurement
6	Screen Outside Measurement

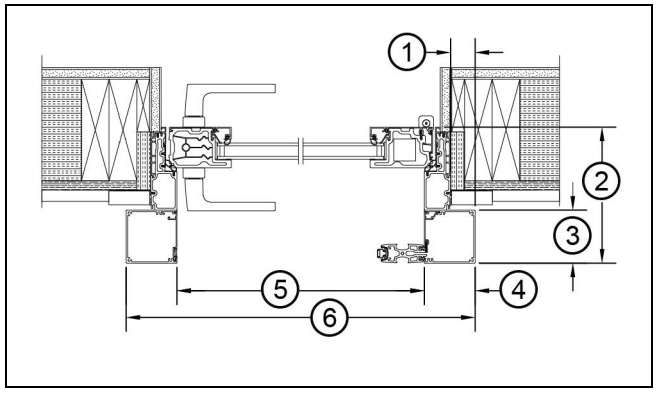

Figure 16 2x6 wood frame jamb details with X RH configuration screen

1	1 15/16" (34)
2	7 3/8" (187)
3	2 7/8" (73)
4	2 3/4" (70)
5	Screen Inside Measurement
6	Screen Outside Measurement

Recessed Framing Details

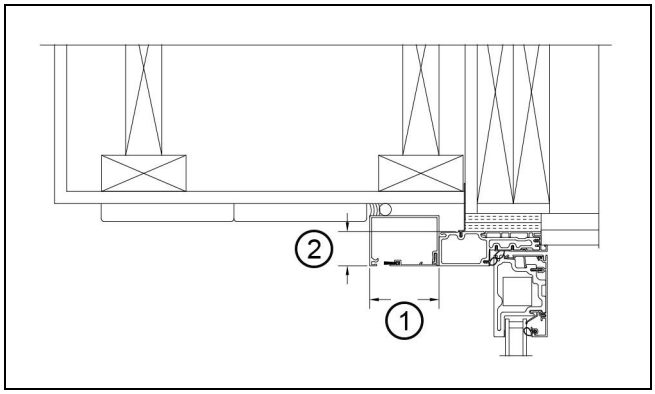

Figure 17 Recessed head jamb detail with screen

1	2 7/8" (73)
2	1 7/16" (36)

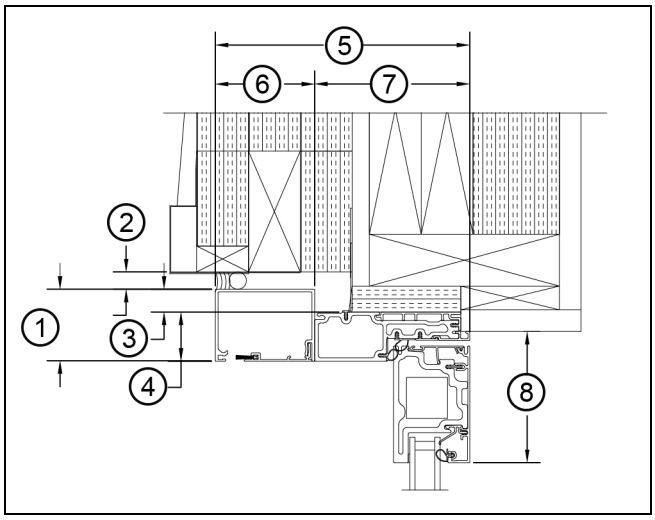

Figure 18 Recessed head jamb details: Exterior 4" rigid foam with screen

1	2 1/16" (53)
2	1/2" (13)
3	21/32" (17)
4	1 7/16" (36)
5	7 3/8" (187)
6	2 7/8" (73)
7	4 1/2" (114)
8	3 13/16" (97)

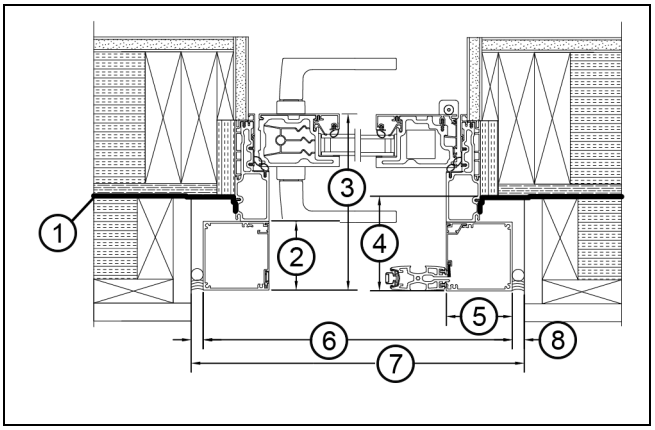

Figure 19 Recessed jamb details: Exterior 4" rigid foam with X configuration screen

1	Weather Resistive Barrier (WRB) and Flashing
2	2 7/8" (73)
3	7 3/8" (187)
4	3 31/32" (101)
5	2 3/4" (70)
6	Screen Frame Width
7	Screen Opening Width
8	1/2" (13)

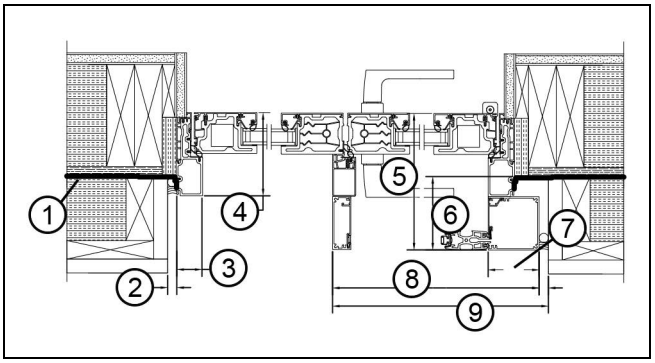

Figure 20 Recessed jamb details: Exterior 4" rigid foam with OX configuration screen

1	Weather Resistive Barrier (WRB) and Flashing
2	1/2" (13)
3	1 11/32" (34)
4	4 1/2" (114)
5	7 3/8" (187)
6	3 31/32" (101)
7	2 3/4" (70)
8	Screen Frame Width
9	Screen Rough Opening Width