

# Essential Single Hung

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## Unit Features

Essential Single Hung: ESSH

For applicable certification and code information, refer to the Introduction and Product Performance chapter.

### Frame and Sash:

- The frame and sash exteriors are made of Ultrex®, an advanced fiber reinforced material that is resistant to thermal conductance.
- Exterior colors: Stone White, Pebble Gray, Bronze, Cashmere, Gunmetal, or Ebony.
- Interior colors: Stone White, Bronze, Gunmetal, and Ebony.
- Split finishes are not available for dark interior options. Only Bronze interior/Bronze exterior, Gunmetal interior/Gunmetal 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). Flat bottom sill with 11 degree bevel. Ultrex is .065"-.070", (2) thick.

#### Sash:

- Composite sash thickness is 15/16" (24). Ultrex is .065"-.070" (2) thick. Sash can be replaced but cannot be re-glazed.
- Cottage style unit: Sash divided 2/5 over 3/5.
- Oriel style unit: sash divided 3/5 over 2/5.

### Jamb Extension:

- 2" (51) is standard
- 4 9/16" (116) and 6 9/16" (167) maintenance free jamb extension available
- Available in Stone White, Bronze, Gunmetal, or Ebony. Default color will match the unit interior selection. Stone White jamb extension is available for all unit interior color selections.

### Hardware:

- Balance system is a coil spring block and tackle system
  - Nylon cord and steel locking shoe
- High pressure zinc die cast check rail lock and keeper.
  - Lock employs a cam-lock mechanism
  - Two locks on rough openings over 30" (762) wide
- Cam Lock, Keeper and Fastener Default Color: Stone White for Stone White interior, Oil Rubbed Bronze for Bronze interior, Matte Black for Ebony interior.
  - Optional Stone White, Almond Frost, Brass, Satin Nickel, Matte Black, and Oil Rubbed Bronze hardware finishes available
- Tilt Latches and Sash Lift will match the unit interior color (Stone White, Bronze, Gunmetal, or Ebony).
- Bottom Sash employs tilt latches to allow for easy tilting of sash
- Optional factory applied Window Opening Control Device is available in black or white color finish. (min size: 17 27/32" (453) x 24" (610) - max size: 36" (914) x 71 1/8" (1807))
- ABS sash travel limiter is available for field application in Beige with Stone White or matte black screws.
- Non-operable lock is available for field application. Available colors: Stone White, Almond Frost, Brass, Oil Rubbed Bronze, Satin Nickel, Matte Black.

### Installation:

- Factory applied folding nailing fin
- Optional through jamb installation method with brackets

### Mulling:

- For mull performance, refer to the Essential Mulling Chapter of the ADM.
- Mull kits are available for field assembly. Kits include instructions, mull covers, mull plugs and brackets

## Unit Features

### Glazing:

- Dual-pane units are manufactured with an 11/16" (17) IG with Low E2, E1, E3, or E3/ERS coatings including argon gas or air fill. Clear (uncoated) glass is available with air fill only.
- Tempered glass and/or obscure glass, and California Fire glass (annealed exterior and tempered interior glazing configuration) are available as an option.
- The glazing seal is a silicone bedding the exterior and vinyl glazing seal on the interior in a one-piece sash.
- The perimeter spacer default color is mill finish (stainless). An optional black perimeter spacer color is available for all unit interior color selections.
- STC/OITC values are available for 3.1 mm thickness glass.
  - 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 frost, glue chip, rain, reed, narrow reed and tinted (bronze, gray or green).
- Not available with Low E1, Low E3/ERS or STC/OITC Upgrade.

### Weather Strip:

- Sill is foam filled vinyl bulb. Color: Black.
- Bottom sash is sealed to the jambs using foam filled vinyl bulb. Colors: Black.
- Top stationary sash seal is foam tape
- Check rails are sealed using rigid vinyl with flexible seals. Top sash check rail cover is black. Bottom sash check rail cover will match the unit interior color (Stone White, Bronze, Gunmetal, or Ebony).

### Screen:

- Roll formed aluminum frame with corner key construction
- Available in finish to match the exterior Ultrex frame color
- Charcoal color fiberglass (non-corrosive) screen cloth.
- Spring loaded pins for installation.
- Available in standard half screen or optional full screen

*NOTE: screen bar added when frame OM (height) is equal to or greater than 47 1/2" (1207)*

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

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

### Accessories:

- Field Applied: J-Channel, a 1" (25) or 3" (76) frame expander, Flush Fin installation kit
- Factory Applied: Sheet rock return for 1/2" (13) or 5/8" (16) drywall, a 3/4" (19) receiver, a frame filler or a flush fin.
  - Sheet rock return and 3/4" receiver color options: Stone White, Bronze, Gunmetal, or Ebony. Default color will match unit interior selection. Stone White sheet rock return and 3/4" receiver are available for all unit interior color selections.
- General Mull kits are available for field assembly

### Exterior Casing:

- Non-integral to the unit
- Fastened to the exterior wall with barb and kerf: 2" brick mould as a full surround or with sill nosing
- 3 1/2" flat casing available as full surround or with sill nosing
- Available with 1" ranch style and header overhang

Egress and Vent Measurements: Equal Sash

CN	Clear Opening Width		Clear Opening Height		Egress Opening		Floor to Sill Height		Vent Opening	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>	ft-in	mm	ft <sup>2</sup>	m <sup>2</sup>
1620	1-2 9/16	(370)	0-7 7/32	(183)	0.73	(0.07)	5-0 5/8	(1540)	0.73	(678)
1626	1-2 9/16	(370)	0-10 7/32	(259)	1.03	(0.10)	4-6 5/8	(1388)	1.03	(960)
1630	1-2 9/16	(370)	1-1 7/32	(336)	1.34	(0.12)	4-0 5/8	(1236)	1.34	(1242)
1636	1-2 9/16	(370)	1-4 7/32	(412)	1.64	(0.15)	3-6 5/8	(1083)	1.64	(1524)
1640	1-2 9/16	(370)	1-7 7/32	(488)	1.94	(0.18)	3-0 5/8	(931)	1.94	(1806)
1646	1-2 9/16	(370)	1-10 7/32	(564)	2.25	(0.21)	2-6 5/8	(778)	2.25	(2087)
1650	1-2 9/16	(370)	2-1 7/32	(640)	2.55	(0.24)	2-0 5/8	(626)	2.55	(2369)
1656	1-2 9/16	(370)	2-4 7/32	(717)	2.85	(0.26)	1-6 5/8	(474)	2.85	(2651)
1660	1-2 9/16	(370)	2-7 7/32	(793)	3.16	(0.29)	1-0 5/8	(321)	3.16	(2933)
1666	1-2 9/16	(370)	2-10 7/32	(869)	3.46	(0.32)	0-6 5/8	(169)	3.46	(3215)
2020	1-8 9/16	(522)	0-7 7/32	(183)	1.03	(0.10)	5-0 5/8	(1540)	1.03	(958)
2026	1-8 9/16	(522)	0-10 7/32	(259)	1.46	(0.14)	4-6 5/8	(1388)	1.46	(1356)
2030	1-8 9/16	(522)	1-1 7/32	(336)	1.89	(0.18)	4-0 5/8	(1236)	1.89	(1754)
2036	1-8 9/16	(522)	1-4 7/32	(412)	2.31	(0.22)	3-6 5/8	(1083)	2.32	(2152)
2040	1-8 9/16	(522)	1-7 7/32	(488)	2.74	(0.25)	3-0 5/8	(931)	2.74	(2550)
2046	1-8 9/16	(522)	1-10 7/32	(564)	3.17	(0.29)	2-6 5/8	(778)	3.17	(2948)
2050	1-8 9/16	(522)	2-1 7/32	(640)	3.60	(0.33)	2-0 5/8	(626)	3.60	(3346)
2056	1-8 9/16	(522)	2-4 7/32	(717)	4.03	(0.37)	1-6 5/8	(474)	4.03	(3744)
2060	1-8 9/16	(522)	2-7 7/32	(793)	4.46	(0.41)	1-0 5/8	(321)	4.46	(4142)
2066	1-8 9/16	(522)	2-10 7/32	(869)	4.88	(0.45)	0-6 5/8	(169)	4.89	(4539)
2620	2-2 9/16	(675)	0-7 7/32	(183)	1.33	(0.12)	5-0 5/8	(1540)	1.33	(1237)
2626	2-2 9/16	(675)	0-10 7/32	(259)	1.88	(0.17)	4-6 5/8	(1388)	1.88	(1751)
2630	2-2 9/16	(675)	1-1 7/32	(336)	2.44	(0.23)	4-0 5/8	(1236)	2.44	(2265)
2636	2-2 9/16	(675)	1-4 7/32	(412)	2.99	(0.28)	3-6 5/8	(1083)	2.99	(2779)
2640	2-2 9/16	(675)	1-7 7/32	(488)	3.54	(0.33)	3-0 5/8	(931)	3.55	(3294)
2646	2-2 9/16	(675)	1-10 7/32	(564)	4.10	(0.38)	2-6 5/8	(778)	4.10	(3808)
2650	2-2 9/16	(675)	2-1 7/32	(640)	4.65	(0.43)	2-0 5/8	(626)	4.65	(4322)
2656	2-2 9/16	(675)	2-4 7/32	(717)	5.20	(0.48)	1-6 5/8	(474)	5.21	(4836)
2660 E	2-2 9/16	(675)	2-7 7/32	(793)	5.76	(0.53)	1-0 5/8	(321)	5.76	(5350)
2666 E	2-2 9/16	(675)	2-10 7/32	(869)	6.31	(0.59)	0-6 5/8	(169)	6.31	(5864)
2820	2-4 9/16	(725)	0-7 7/32	(183)	1.43	(0.13)	5-0 5/8	(1540)	1.43	(1330)
2826	2-4 9/16	(725)	0-10 7/32	(259)	2.02	(0.19)	4-6 5/8	(1388)	2.03	(1883)
2830	2-4 9/16	(725)	1-1 7/32	(336)	2.62	(0.24)	4-0 5/8	(1236)	2.62	(2436)
2836	2-4 9/16	(725)	1-4 7/32	(412)	3.21	(0.30)	3-6 5/8	(1083)	3.22	(2989)
2840	2-4 9/16	(725)	1-7 7/32	(488)	3.81	(0.35)	3-0 5/8	(931)	3.81	(3542)
2846	2-4 9/16	(725)	1-10 7/32	(564)	4.40	(0.41)	2-6 5/8	(778)	4.41	(4094)
2850	2-4 9/16	(725)	2-1 7/32	(640)	5.00	(0.46)	2-0 5/8	(626)	5.00	(4647)
2856	2-4 9/16	(725)	2-4 7/32	(717)	5.59	(0.52)	1-6 5/8	(474)	5.60	(5200)
2860 E	2-4 9/16	(725)	2-7 7/32	(793)	6.19	(0.58)	1-0 5/8	(321)	6.19	(5753)
2866 E	2-4 9/16	(725)	2-10 7/32	(869)	6.78	(0.63)	0-6 5/8	(169)	6.79	(6306)

Egress and Vent Measurements: Equal Sash

CN	Clear Opening Width		Clear Opening Height		Egress Opening		Floor to Sill Height		Vent Opening	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>	ft-in	mm	ft <sup>2</sup>	m <sup>2</sup>
3020	2-8 9/16	(827)	0-7 7/32	(183)	1.63	(0.15)	5-0 5/8	(1540)	1.63	(1517)
3026	2-8 9/16	(827)	0-10 7/32	(259)	2.31	(0.21)	4-6 5/8	(1388)	2.31	(2147)
3030	2-8 9/16	(827)	1-1 7/32	(336)	2.99	(0.28)	4-0 5/8	(1236)	2.99	(2777)
3036	2-8 9/16	(827)	1-4 7/32	(412)	3.67	(0.34)	3-6 5/8	(1083)	3.67	(3407)
3040	2-8 9/16	(827)	1-7 7/32	(488)	4.34	(0.40)	3-0 5/8	(931)	4.35	(4037)
3046	2-8 9/16	(827)	1-10 7/32	(564)	5.02	(0.47)	2-6 5/8	(778)	5.02	(4668)
3050 E	2-8 9/16	(827)	2-1 7/32	(640)	5.70	(0.53)	2-0 5/8	(626)	5.70	(5298)
3056 E	2-8 9/16	(827)	2-4 7/32	(717)	6.38	(0.59)	1-6 5/8	(474)	6.38	(5928)
3060 E	2-8 9/16	(827)	2-7 7/32	(793)	7.06	(0.66)	1-0 5/8	(321)	7.06	(6558)
3066 E	2-8 9/16	(827)	2-10 7/32	(869)	7.74	(0.72)	0-6 5/8	(169)	7.74	(7189)
3620	3-2 9/16	(979)	0-7 7/32	(183)	1.93	(0.18)	5-0 5/8	(1540)	1.93	(1796)
3626	3-2 9/16	(979)	0-10 7/32	(259)	2.73	(0.25)	4-6 5/8	(1388)	2.74	(2542)
3630	3-2 9/16	(979)	1-1 7/32	(336)	3.54	(0.33)	4-0 5/8	(1236)	3.54	(3289)
3636	3-2 9/16	(979)	1-4 7/32	(412)	4.34	(0.40)	3-6 5/8	(1083)	4.34	(4035)
3640	3-2 9/16	(979)	1-7 7/32	(488)	5.14	(0.48)	3-0 5/8	(931)	5.15	(4781)
3646	3-2 9/16	(979)	1-10 7/32	(564)	5.95	(0.55)	2-6 5/8	(778)	5.95	(5528)
3650 E	3-2 9/16	(979)	2-1 7/32	(640)	6.75	(0.63)	2-0 5/8	(626)	6.75	(6274)
3656 E	3-2 9/16	(979)	2-4 7/32	(717)	7.55	(0.70)	1-6 5/8	(474)	7.56	(7021)
3660 E	3-2 9/16	(979)	2-7 7/32	(793)	8.36	(0.78)	1-0 5/8	(321)	8.36	(7767)
3666 E	3-2 9/16	(979)	2-10 7/32	(869)	9.16	(0.85)	0-6 5/8	(169)	9.16	(8513)
4020	3-8 9/16	(1132)	0-7 7/32	(183)	2.23	(0.21)	5-0 5/8	(1540)	2.23	(2075)
4026	3-8 9/16	(1132)	0-10 7/32	(259)	3.16	(0.29)	4-6 5/8	(1388)	3.16	(2938)
4030	3-8 9/16	(1132)	1-1 7/32	(336)	4.09	(0.38)	4-0 5/8	(1236)	4.09	(3800)
4036	3-8 9/16	(1132)	1-4 7/32	(412)	5.02	(0.47)	3-6 5/8	(1083)	5.02	(4663)
4040 E	3-8 9/16	(1132)	1-7 7/32	(488)	5.94	(0.55)	3-0 5/8	(931)	5.95	(5525)
4046 E	3-8 9/16	(1132)	1-10 7/32	(564)	6.87	(0.64)	2-6 5/8	(778)	6.88	(6388)
4050 E	3-8 9/16	(1132)	2-1 7/32	(640)	7.80	(0.72)	2-0 5/8	(626)	7.80	(7250)
4056 E	3-8 9/16	(1132)	2-4 7/32	(717)	8.73	(0.81)	1-6 5/8	(474)	8.73	(8113)
4060 E	3-8 9/16	(1132)	2-7 7/32	(793)	9.66	(0.90)	1-0 5/8	(321)	9.66	(8975)
4066 E	3-8 9/16	(1132)	2-10 7/32	(869)	10.59	(0.98)	0-6 5/8	(169)	10.59	(9838)

Egress and Vent Measurements - Cottage Sash

Essential Single Hung - Cottage												
CN	Clear Opening Width		Clear Opening Height		Egress Opening		Floor to Sill Height		Vent Opening		Check Rail Height	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>	ft-in	mm	ft <sup>2</sup>	cm <sup>2</sup>	ft - in	mm
1626	1-2 9/16	(370)	0-7 23/32	(196)	0.78	(0.07)	4-6 5/8	(1388)	0.78	(725)	1-5 11/16	(449)
1630	1-2 9/16	(370)	0-10 1/8	(257)	1.02	(0.10)	4-0 5/8	(1236)	1.02	(951)	1-9 5/16	(541)
1636	1-2 9/16	(370)	1-0 17/32	(318)	1.27	(0.12)	3-6 5/8	(1083)	1.27	(1177)	2-0 7/8	(632)
1640	1-2 9/16	(370)	1-2 29/32	(379)	1.51	(0.14)	3-0 5/8	(931)	1.51	(1400)	2-4 1/2	(723)
1646	1-2 9/16	(370)	1-5 5/16	(440)	1.75	(0.16)	2-6 5/8	(778)	1.75	(1627)	2-8 1/8	(815)
1650	1-2 9/16	(370)	1-7 23/32	(501)	1.99	(0.19)	2-0 5/8	(626)	1.99	(1853)	2-11 11/16	(906)
1656	1-2 9/16	(370)	1-10 7/32	(564)	2.25	(0.21)	1-6 5/8	(474)	2.25	(2087)	3-3 3/16	(995)
1660	1-2 9/16	(370)	2-0 17/32	(623)	2.48	(0.23)	1-0 5/8	(321)	2.48	(2305)	3-6 7/8	(1089)
1666	1-2 9/16	(370)	2-2 15/16	(684)	2.72	(0.25)	0-6 5/8	(169)	2.72	(2531)	3-10 1/2	(1181)
2026	1-8 9/16	(522)	0-7 23/32	(196)	1.10	(0.10)	4-6 5/8	(1388)	1.10	(1024)	1-5 11/16	(449)
2030	1-8 9/16	(522)	0-10 1/8	(257)	1.44	(0.13)	4-0 5/8	(1236)	1.45	(1343)	1-9 5/16	(541)
2036	1-8 9/16	(522)	1-0 17/32	(318)	1.79	(0.17)	3-6 5/8	(1083)	1.79	(1662)	2-0 7/8	(632)
2040	1-8 9/16	(522)	1-2 29/32	(379)	2.13	(0.20)	3-0 5/8	(931)	2.13	(1977)	2-4 1/2	(723)
2046	1-8 9/16	(522)	1-5 5/16	(440)	2.47	(0.23)	2-6 5/8	(778)	2.47	(2297)	2-8 1/8	(815)
2050	1-8 9/16	(522)	1-7 23/32	(501)	2.82	(0.26)	2-0 5/8	(626)	2.82	(2616)	2-11 11/16	(906)
2056	1-8 9/16	(522)	1-10 7/32	(564)	3.17	(0.29)	1-6 5/8	(474)	3.17	(2948)	3-3 3/16	(995)
2060	1-8 9/16	(522)	2-0 17/32	(623)	3.50	(0.33)	1-0 5/8	(321)	3.50	(3254)	3-6 7/8	(1089)
2066	1-8 9/16	(522)	2-2 15/16	(684)	3.84	(0.36)	0-6 5/8	(169)	3.85	(3574)	3-10 1/2	(1181)
2626	2-2 9/16	(675)	0-7 23/32	(196)	1.42	(0.13)	4-6 5/8	(1388)	1.42	(1323)	1-5 11/16	(449)
2630	2-2 9/16	(675)	0-10 1/8	(257)	1.87	(0.17)	4-0 5/8	(1236)	1.87	(1735)	1-9 5/16	(541)
2636	2-2 9/16	(675)	1-0 17/32	(318)	2.31	(0.21)	3-6 5/8	(1083)	2.31	(2147)	2-0 7/8	(632)
2640	2-2 9/16	(675)	1-2 29/32	(379)	2.75	(0.26)	3-0 5/8	(931)	2.75	(2554)	2-4 1/2	(723)
2646	2-2 9/16	(675)	1-5 5/16	(440)	3.19	(0.30)	2-6 5/8	(778)	3.19	(2967)	2-8 1/8	(815)
2650	2-2 9/16	(675)	1-7 23/32	(501)	3.64	(0.34)	2-0 5/8	(626)	3.64	(3379)	2-11 11/16	(906)
2656	2-2 9/16	(675)	1-10 7/32	(564)	4.10	(0.38)	1-6 5/8	(474)	4.10	(3808)	3-3 3/16	(995)
2660	2-2 9/16	(675)	2-0 17/32	(623)	4.52	(0.42)	1-0 5/8	(321)	4.53	(4204)	3-6 7/8	(1089)
2666	2-2 9/16	(675)	2-2 15/16	(684)	4.97	(0.46)	0-6 5/8	(169)	4.97	(4616)	3-10 1/2	(1181)
2826	2-4 9/16	(725)	0-7 23/32	(196)	1.53	(0.14)	4-6 5/8	(1388)	1.53	(1422)	1-5 11/16	(449)
2830	2-4 9/16	(725)	0-10 1/8	(257)	2.01	(0.19)	4-0 5/8	(1236)	2.01	(1866)	1-9 5/16	(541)
2836	2-4 9/16	(725)	1-0 17/32	(318)	2.48	(0.23)	3-6 5/8	(1083)	2.49	(2309)	2-0 7/8	(632)
2840	2-4 9/16	(725)	1-2 29/32	(379)	2.96	(0.27)	3-0 5/8	(931)	2.96	(2747)	2-4 1/2	(723)
2846	2-4 9/16	(725)	1-5 5/16	(440)	3.44	(0.32)	2-6 5/8	(778)	3.43	(3190)	2-8 1/8	(815)
2850	2-4 9/16	(725)	1-7 23/32	(501)	3.91	(0.36)	2-0 5/8	(626)	3.91	(3634)	2-11 11/16	(906)
2856	2-4 9/16	(725)	1-10 7/32	(564)	4.40	(0.41)	1-6 5/8	(474)	4.41	(4094)	3-3 3/16	(995)
2860	2-4 9/16	(725)	2-0 17/32	(623)	4.86	(0.45)	1-0 5/8	(321)	4.87	(4520)	3-6 7/8	(1089)
2866	2-4 9/16	(725)	2-2 15/16	(684)	5.34	(0.50)	0-6 5/8	(169)	5.34	(4964)	3-10 1/2	(1181)
3026	2-8 9/16	(827)	0-7 23/32	(196)	1.75	(0.16)	4-6 5/8	(1388)	1.75	(1622)	1-5 11/16	(449)
3030	2-8 9/16	(827)	0-10 1/8	(257)	2.29	(0.21)	4-0 5/8	(1236)	2.29	(2127)	1-9 5/16	(541)
3036	2-8 9/16	(827)	1-0 17/32	(318)	2.83	(0.26)	3-6 5/8	(1083)	2.83	(2633)	2-0 7/8	(632)
3040	2-8 9/16	(827)	1-2 29/32	(379)	3.37	(0.31)	3-0 5/8	(931)	3.37	(3132)	2-4 1/2	(723)
3046	2-8 9/16	(827)	1-5 5/16	(440)	3.92	(0.36)	2-6 5/8	(778)	3.91	(3637)	2-8 1/8	(815)
3050	2-8 9/16	(827)	1-7 23/32	(501)	4.46	(0.41)	2-0 5/8	(626)	4.46	(4143)	2-11 11/16	(906)
3056	2-8 9/16	(827)	1-10 7/32	(564)	5.02	(0.47)	1-6 5/8	(474)	5.02	(4668)	3-3 3/16	(995)
3060	2-8 9/16	(827)	2-0 17/32	(623)	5.54	(0.52)	1-0 5/8	(321)	5.55	(5154)	3-6 7/8	(1089)
3066 E	2-8 9/16	(827)	2-2 15/16	(684)	6.09	(0.57)	0-6 5/8	(169)	6.09	(5659)	3-10 1/2	(1181)

Egress and Vent Measurements - Cottage Sash

Essential Single Hung - Cottage												
CN	Clear Opening Width		Clear Opening Height		Egress Opening		Floor to Sill Height		Vent Opening		Check Rail Height	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>	ft-in	mm	ft <sup>2</sup>	cm <sup>2</sup>	ft - in	mm
3626	3-2 9/16	(979)	0-7 23/32	(196)	2.07	(0.19)	4-6 5/8	(1388)	2.07	(1920)	1-5 11/16	(449)
3630	3-2 9/16	(979)	0-10 1/8	(257)	2.71	(0.25)	4-0 5/8	(1236)	2.71	(2519)	1-9 5/16	(541)
3636	3-2 9/16	(979)	1-0 17/32	(318)	3.35	(0.31)	3-6 5/8	(1083)	3.36	(3118)	2-0 7/8	(632)
3640	3-2 9/16	(979)	1-2 29/32	(379)	4.00	(0.37)	3-0 5/8	(931)	3.99	(3709)	2-4 1/2	(723)
3646	3-2 9/16	(979)	1-5 5/16	(440)	4.64	(0.43)	2-6 5/8	(778)	4.64	(4307)	2-8 1/8	(815)
3650	3-2 9/16	(979)	1-7 23/32	(501)	5.28	(0.49)	2-0 5/8	(626)	5.28	(4906)	2-11 11/16	(906)
3656	3-2 9/16	(979)	1-10 7/32	(564)	5.95	(0.55)	1-6 5/8	(474)	5.95	(5528)	3-3 3/16	(995)
3660	E 3-2 9/16	(979)	2-0 17/32	(623)	6.57	(0.61)	1-0 5/8	(321)	6.57	(6103)	3-6 7/8	(1089)
3666	E 3-2 9/16	(979)	2-2 15/16	(684)	7.21	(0.67)	0-6 5/8	(169)	7.21	(6702)	3-10 1/2	(1181)
4026	3-8 9/16	(1132)	0-7 23/32	(196)	2.39	(0.22)	4-6 5/8	(1388)	2.39	(2219)	1-5 11/16	(449)
4030	3-8 9/16	(1132)	0-10 1/8	(257)	3.13	(0.29)	4-0 5/8	(1236)	3.13	(2911)	1-9 5/16	(541)
4036	3-8 9/16	(1132)	1-0 17/32	(318)	3.87	(0.36)	3-6 5/8	(1083)	3.88	(3603)	2-0 7/8	(632)
4040	3-8 9/16	(1132)	1-2 29/32	(379)	4.62	(0.43)	3-0 5/8	(931)	4.61	(4286)	2-4 1/2	(723)
4046	3-8 9/16	(1132)	1-5 5/16	(440)	5.36	(0.50)	2-6 5/8	(778)	5.36	(4977)	2-8 1/8	(815)
4050	3-8 9/16	(1132)	1-7 23/32	(501)	6.10	(0.57)	2-0 5/8	(626)	6.10	(5669)	2-11 11/16	(906)
4056	3-8 9/16	(1132)	1-10 7/32	(564)	6.87	(0.64)	1-6 5/8	(474)	6.88	(6388)	3-3 3/16	(995)
4060	E 3-8 9/16	(1132)	2-0 17/32	(623)	7.59	(0.70)	1-0 5/8	(321)	7.59	(7053)	3-6 7/8	(1089)
4066	E 3-8 9/16	(1132)	2-2 15/16	(684)	8.33	(0.77)	0-6 5/8	(169)	8.34	(7745)	3-10 1/2	(1181)



Egress and Vent Measurements - Reverse Cottage Sash

Essential Single Hung - Reverse Cottage												
CN	Clear Opening Width		Clear Opening Height		Egress Opening		Floor to Sill Height		Vent Opening		Check Rail Height	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>	ft-in	mm	ft <sup>2</sup>	cm <sup>2</sup>	ft - in	mm
1626	1-2 9/16	(370)	0-7 23/32	(196)	0.78	(0.07)	4-6 5/8	(1388)	0.78	(725)	1-0 23/32	(323)
1630	1-2 9/16	(370)	0-10 1/8	(257)	1.02	(0.10)	4-0 5/8	(1236)	1.02	(951)	1-3 1/8	(384)
1636	1-2 9/16	(370)	1-0 17/32	(318)	1.27	(0.12)	3-6 5/8	(1083)	1.27	(1177)	1-5 1/2	(445)
1640	1-2 9/16	(370)	1-2 29/32	(379)	1.51	(0.14)	3-0 5/8	(931)	1.51	(1400)	1-7 29/32	(506)
1646	1-2 9/16	(370)	1-5 5/16	(440)	1.75	(0.16)	2-6 5/8	(778)	1.75	(1627)	1-10 5/16	(567)
1650	1-2 9/16	(370)	1-7 23/32	(501)	1.99	(0.19)	2-0 5/8	(626)	1.99	(1853)	2-0 23/32	(628)
1656	1-2 9/16	(370)	1-10 7/32	(564)	2.25	(0.21)	1-6 5/8	(474)	2.25	(2087)	2-3 3/16	(691)
1660	1-2 9/16	(370)	2-0 17/32	(623)	2.48	(0.23)	1-0 5/8	(321)	2.48	(2305)	2-5 1/2	(750)
1666	1-2 9/16	(370)	2-2 15/16	(684)	2.72	(0.25)	0-6 5/8	(169)	2.72	(2531)	2-7 29/32	(810)
2026	1-8 9/16	(522)	0-7 23/32	(196)	1.10	(0.10)	4-6 5/8	(1388)	1.10	(1024)	1-0 23/32	(323)
2030	1-8 9/16	(522)	0-10 1/8	(257)	1.44	(0.13)	4-0 5/8	(1236)	1.45	(1343)	1-3 1/8	(384)
2036	1-8 9/16	(522)	1-0 17/32	(318)	1.79	(0.17)	3-6 5/8	(1083)	1.79	(1662)	1-5 1/2	(445)
2040	1-8 9/16	(522)	1-2 29/32	(379)	2.13	(0.20)	3-0 5/8	(931)	2.13	(1977)	1-7 29/32	(506)
2046	1-8 9/16	(522)	1-5 5/16	(440)	2.47	(0.23)	2-6 5/8	(778)	2.47	(2297)	1-10 5/16	(567)
2050	1-8 9/16	(522)	1-7 23/32	(501)	2.82	(0.26)	2-0 5/8	(626)	2.82	(2616)	2-0 23/32	(628)
2056	1-8 9/16	(522)	1-10 7/32	(564)	3.17	(0.29)	1-6 5/8	(474)	3.17	(2948)	2-3 3/16	(691)
2060	1-8 9/16	(522)	2-0 17/32	(623)	3.50	(0.33)	1-0 5/8	(321)	3.50	(3254)	2-5 1/2	(750)
2066	1-8 9/16	(522)	2-2 15/16	(684)	3.84	(0.36)	0-6 5/8	(169)	3.85	(3574)	2-7 29/32	(810)
2626	2-2 9/16	(675)	0-7 23/32	(196)	1.42	(0.13)	4-6 5/8	(1388)	1.42	(1323)	1-0 23/32	(323)
2630	2-2 9/16	(675)	0-10 1/8	(257)	1.87	(0.17)	4-0 5/8	(1236)	1.87	(1735)	1-3 1/8	(384)
2636	2-2 9/16	(675)	1-0 17/32	(318)	2.31	(0.21)	3-6 5/8	(1083)	2.31	(2147)	1-5 1/2	(445)
2640	2-2 9/16	(675)	1-2 29/32	(379)	2.75	(0.26)	3-0 5/8	(931)	2.75	(2554)	1-7 29/32	(506)
2646	2-2 9/16	(675)	1-5 5/16	(440)	3.19	(0.30)	2-6 5/8	(778)	3.19	(2967)	1-10 5/16	(567)
2650	2-2 9/16	(675)	1-7 23/32	(501)	3.64	(0.34)	2-0 5/8	(626)	3.64	(3379)	2-0 23/32	(628)
2656	2-2 9/16	(675)	1-10 7/32	(564)	4.10	(0.38)	1-6 5/8	(474)	4.10	(3808)	2-3 3/16	(691)
2660	2-2 9/16	(675)	2-0 17/32	(623)	4.52	(0.42)	1-0 5/8	(321)	4.53	(4204)	2-5 1/2	(750)
2666	2-2 9/16	(675)	2-2 15/16	(684)	4.97	(0.46)	0-6 5/8	(169)	4.97	(4616)	2-7 29/32	(810)
2826	2-4 9/16	(725)	0-7 23/32	(196)	1.53	(0.14)	4-6 5/8	(1388)	1.53	(1422)	1-0 23/32	(323)
2830	2-4 9/16	(725)	0-10 1/8	(257)	2.01	(0.19)	4-0 5/8	(1236)	2.01	(1866)	1-3 1/8	(384)
2836	2-4 9/16	(725)	1-0 17/32	(318)	2.48	(0.23)	3-6 5/8	(1083)	2.49	(2309)	1-5 1/2	(445)
2840	2-4 9/16	(725)	1-2 29/32	(379)	2.96	(0.27)	3-0 5/8	(931)	2.96	(2747)	1-7 29/32	(506)
2846	2-4 9/16	(725)	1-5 5/16	(440)	3.44	(0.32)	2-6 5/8	(778)	3.43	(3190)	1-10 5/16	(567)
2850	2-4 9/16	(725)	1-7 23/32	(501)	3.91	(0.36)	2-0 5/8	(626)	3.91	(3634)	2-0 23/32	(628)
2856	2-4 9/16	(725)	1-10 7/32	(564)	4.40	(0.41)	1-6 5/8	(474)	4.41	(4094)	2-3 3/16	(691)
2860	2-4 9/16	(725)	2-0 17/32	(623)	4.86	(0.45)	1-0 5/8	(321)	4.87	(4520)	2-5 1/2	(750)
2866	2-4 9/16	(725)	2-2 15/16	(684)	5.34	(0.50)	0-6 5/8	(169)	5.34	(4964)	2-7 29/32	(810)

Egress and Vent Measurements - Reverse Cottage Sash

Essential Single Hung - Reverse Cottage												
CN	Clear Opening Width		Clear Opening Height		Egress Opening		Floor to Sill Height		Vent Opening		Check Rail Height	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>	ft-in	mm	ft <sup>2</sup>	cm <sup>2</sup>	ft - in	mm
3026	2-8 9/16	(827)	0-7 23/32	(196)	1.75	(0.16)	4-6 5/8	(1388)	1.75	(1622)	1-0 23/32	(323)
3030	2-8 9/16	(827)	0-10 1/8	(257)	2.29	(0.21)	4-0 5/8	(1236)	2.29	(2127)	1-3 1/8	(384)
3036	2-8 9/16	(827)	1-0 17/32	(318)	2.83	(0.26)	3-6 5/8	(1083)	2.83	(2633)	1-5 1/2	(445)
3040	2-8 9/16	(827)	1-2 29/32	(379)	3.37	(0.31)	3-0 5/8	(931)	3.37	(3132)	1-7 29/32	(506)
3046	2-8 9/16	(827)	1-5 5/16	(440)	3.92	(0.36)	2-6 5/8	(778)	3.91	(3637)	1-10 5/16	(567)
3050	2-8 9/16	(827)	1-7 23/32	(501)	4.46	(0.41)	2-0 5/8	(626)	4.46	(4143)	2-0 23/32	(628)
3056	2-8 9/16	(827)	1-10 7/32	(564)	5.02	(0.47)	1-6 5/8	(474)	5.02	(4668)	2-3 3/16	(691)
3060	2-8 9/16	(827)	2-0 17/32	(623)	5.54	(0.52)	1-0 5/8	(321)	5.55	(5154)	2-5 1/2	(750)
3066 E	2-8 9/16	(827)	2-2 15/16	(684)	6.09	(0.57)	0-6 5/8	(169)	6.09	(5659)	2-7 29/32	(810)
3626	3-2 9/16	(979)	0-7 23/32	(196)	2.07	(0.19)	4-6 5/8	(1388)	2.07	(1920)	1-0 23/32	(323)
3630	3-2 9/16	(979)	0-10 1/8	(257)	2.71	(0.25)	4-0 5/8	(1236)	2.71	(2519)	1-3 1/8	(384)
3636	3-2 9/16	(979)	1-0 17/32	(318)	3.35	(0.31)	3-6 5/8	(1083)	3.36	(3118)	1-5 1/2	(445)
3640	3-2 9/16	(979)	1-2 29/32	(379)	4.00	(0.37)	3-0 5/8	(931)	3.99	(3709)	1-7 29/32	(506)
3646	3-2 9/16	(979)	1-5 5/16	(440)	4.64	(0.43)	2-6 5/8	(778)	4.64	(4307)	1-10 5/16	(567)
3650	3-2 9/16	(979)	1-7 23/32	(501)	5.28	(0.49)	2-0 5/8	(626)	5.28	(4906)	2-0 23/32	(628)
3656	3-2 9/16	(979)	1-10 7/32	(564)	5.95	(0.55)	1-6 5/8	(474)	5.95	(5528)	2-3 3/16	(691)
3660 E	3-2 9/16	(979)	2-0 17/32	(623)	6.57	(0.61)	1-0 5/8	(321)	6.57	(6103)	2-5 1/2	(750)
3666 E	3-2 9/16	(979)	2-2 15/16	(684)	7.21	(0.67)	0-6 5/8	(169)	7.21	(6702)	2-7 29/32	(810)
4026	3-8 9/16	(1132)	0-7 23/32	(196)	2.39	(0.22)	4-6 5/8	(1388)	2.39	(2219)	1-0 23/32	(323)
4030	3-8 9/16	(1132)	0-10 1/8	(257)	3.13	(0.29)	4-0 5/8	(1236)	3.13	(2911)	1-3 1/8	(384)
4036	3-8 9/16	(1132)	1-0 17/32	(318)	3.87	(0.36)	3-6 5/8	(1083)	3.88	(3603)	1-5 1/2	(445)
4040	3-8 9/16	(1132)	1-2 29/32	(379)	4.62	(0.43)	3-0 5/8	(931)	4.61	(4286)	1-7 29/32	(506)
4046	3-8 9/16	(1132)	1-5 5/16	(440)	5.36	(0.50)	2-6 5/8	(778)	5.36	(4977)	1-10 5/16	(567)
4050	3-8 9/16	(1132)	1-7 23/32	(501)	6.10	(0.57)	2-0 5/8	(626)	6.10	(5669)	2-0 23/32	(628)
4056	3-8 9/16	(1132)	1-10 7/32	(564)	6.87	(0.64)	1-6 5/8	(474)	6.88	(6388)	2-3 3/16	(691)
4060 E	3-8 9/16	(1132)	2-0 17/32	(623)	7.59	(0.70)	1-0 5/8	(321)	7.59	(7053)	2-5 1/2	(750)
4066 E	3-8 9/16	(1132)	2-2 15/16	(684)	8.33	(0.77)	0-6 5/8	(169)	8.34	(7745)	2-7 29/32	(810)

**Daylight Measurements: Equal Sash**

Essential Single / Double Hung Daylight Measurements			Width								
			CN	16		20		26		28	
			DLO	12 9/16	(319)	18 9/16	(471)	24 9/16	(624)	26 9/16	(675)
CN	DLO Height		Square Feet (Square Meters)								
20	8 5/16	(211)	1.45	(0.13)	2.14	(0.20)	2.83	(0.26)	3.07	(0.28)	
26	11 5/16	(287)	1.97	(0.18)	2.92	(0.27)	3.86	(0.36)	4.17	(0.39)	
30	14 5/16	(363)	2.50	(0.23)	3.69	(0.34)	4.88	(0.45)	5.28	(0.49)	
36	17 5/16	(440)	3.02	(0.28)	4.46	(0.41)	5.90	(0.55)	6.39	(0.59)	
40	20 5/16	(516)	3.54	(0.33)	5.24	(0.49)	6.93	(0.64)	7.49	(0.70)	
46	23 5/16	(592)	4.07	(0.38)	6.01	(0.56)	7.95	(0.74)	8.60	(0.80)	
50	26 5/16	(668)	4.59	(0.43)	6.78	(0.63)	8.97	(0.83)	9.71	(0.90)	
56	29 5/16	(744)	5.11	(0.48)	7.56	(0.70)	10. 0	(0.93)	10.81	(1.00)	
60	32 5/16	(821)	5.64	(0.52)	8.33	(0.77)	11.02	(1.02)	11.92	(1.11)	
66	35 5/16	(897)	6.16	(0.57)	9.10	(0.85)	12.04	(1.12)	13.03	(1.21)	

Essential Single / Double Hung Daylight Measurements			Width						
			CN	30		36		40	
			DLO	30 9/16	(776)	36 9/16	(929)	42 9/16	(1081)
CN	DLO Height		Square Feet (Square Meters)						
20	8 5/16	(211)	3.53	(0.33)	4.22	(0.39)	4.91	(0.46)	
26	11 5/16	(287)	4.80	(0.45)	5.74	(0.53)	6.69	(0.62)	
30	14 5/16	(363)	6.07	(0.56)	7.27	(0.68)	8.46	(0.79)	
36	17 5/16	(440)	7.35	(0.68)	8.79	(0.82)	10.23	(0.95)	
40	20 5/16	(516)	8.62	(0.80)	10.31	(0.96)	12.01	(1.12)	
46	23 5/16	(592)	9.89	(0.92)	11.84	(1.10)	13.78	(1.28)	
50	26 5/16	(668)	11.17	(1.04)	13.36	(1.24)	15.55	(1.44)	
56	29 5/16	(744)	12.44	(1.16)	14.88	(1.38)	17.33	(1.61)	
60	32 5/16	(821)	13.71	(1.27)	16.41	(1.52)	19.10	(1.77)	
66	35 5/16	(897)	14.99	(1.39)	17.93	(1.67)	20.87	(1.94)	

**Daylight Measurements: Cottage Sash**

Essential Single Hung Cottage Daylight Measurements			Width									
			CN	16		20.		26		28		
			DLO	12 9/16	(319)	18 9/16	(471)	24 9/16	(624)	26 9/16	(675)	
CN	DLO Height Top Sash		DLO Height Bottom Sash		Square Feet (Square Meters)							
26	8 27/32	(224)	13 25/32	(350)	2.41	(0.22)	3.55	(0.33)	4.70	(0.44)	5.09	(0.47)
30	11 7/32	(285)	17 3/8	(442)	3.03	(0.28)	4.48	(0.42)	5.93	(0.55)	6.41	(0.60)
36	13 5/8	(346)	21	(533)	3.66	(0.34)	5.41	(0.50)	7.16	(0.67)	7.74	(0.72)
40	16 1/32	(407)	24 19/32	(625)	4.29	(0.40)	6.34	(0.59)	8.39	(0.78)	9.07	(0.84)
46	18 7/16	(468)	28 3/16	(716)	4.92	(0.46)	7.27	(0.68)	9.62	(0.89)	10.40	(0.97)
50	20 27/32	(529)	31 25/32	(807)	5.55	(0.52)	8.19	(0.76)	10.84	(1.01)	11.73	(1.09)
56	23 5/16	(592)	35 5/16	(897)	6.16	(0.57)	9.10	(0.85)	12.04	(1.12)	13.03	(1.21)
60	25 5/8	(651)	39	(990)	6.80	(0.63)	10.05	(0.93)	13.30	(1.24)	14.38	(1.34)
66	28 1/32	(712)	42 19/32	(1082)	7.43	(0.69)	10.98	(1.02)	14.53	(1.35)	15.71	(1.46)

Essential Single Hung Cottage Daylight Measurements			Width							
			CN	30		36		40		
			DLO	30 9/16	(776)	36 9/16	(929)	42 9/16	(1081)	
CN	DLO Height Top Sash		DLO Height Bottom Sash		Square Feet (Square Meters)					
26	8 27/32	(224)	13 25/32	(350)	5.85	(0.54)	7.00	(0.65)	8.15	(0.76)
30	11 7/32	(285)	17 3/8	(442)	7.38	(0.69)	8.83	(0.82)	10.28	(0.95)
36	13 5/8	(346)	21	(533)	8.91	(0.83)	10.66	(0.99)	12.41	(1.15)
40	16 1/32	(407)	24 19/32	(625)	10.44	(0.97)	12.49	(1.16)	14.54	(1.35)
46	18 7/16	(468)	28 3/16	(716)	11.97	(1.11)	14.31	(1.33)	16.66	(1.55)
50	20 27/32	(529)	31 25/32	(807)	13.49	(1.25)	16.14	(1.50)	18.79	(1.75)
56	23 5/16	(592)	35 5/16	(897)	14.99	(1.39)	17.93	(1.67)	20.87	(1.94)
60	25 5/8	(651)	39	(990)	16.55	(1.54)	19.80	(1.84)	23.05	(2.14)
66	28 1/32	(712)	42 19/32	(1082)	18.08	(1.68)	21.63	(2.01)	25.18	(2.34)

**Daylight Measurements: Reverse Cottage Sash**

Essential Single Hung Reverse Cottage Daylight Measurements			Width								
			CN	16		20.		26		28	
			DLO	12 9/16	(319)	18 9/16	(471)	24 9/16	(624)	26 9/16	(675)
CN	DLO Height Top Sash	DLO Height Bottom Sash	Square Feet (Square Meters)								
26	13 25/32 (350)	8 27/32 (224)	1.54	0.14	2.28	0.21	3.01	0.28	3.26	(0.30)	
30	17 3/8 (442)	11 7/32 (285)	1.96	0.18	2.89	0.27	3.83	0.36	4.14	(0.38)	
36	21 (533)	13 5/8 (346)	2.38	0.22	3.51	0.33	4.65	0.43	5.03	(0.47)	
40	24 19/32 (625)	16 1/32 (407)	2.80	0.26	4.13	0.38	5.47	0.51	5.91	(0.55)	
46	28 3/16 (716)	18 7/16 (468)	3.22	0.30	4.75	0.44	6.29	0.58	6.80	(0.63)	
50	31 25/32 (807)	20 27/32 (529)	3.63	0.34	5.37	0.50	7.11	0.66	7.68	(0.71)	
56	35 5/16 (897)	23 5/16 (592)	4.07	0.38	6.01	0.56	7.95	0.74	8.60	(0.80)	
60	39 (990)	25 5/8 (651)	4.47	0.42	6.61	0.61	8.74	0.81	9.45	(0.88)	
66	42 19/32 (1082)	28 1/32 (712)	4.89	0.45	7.22	0.67	9.56	0.89	10.34	(0.96)	

Essential Single Hung Reverse Cottage Daylight Measurements			Width						
			CN	30		36		40	
			DLO	30 9/16	(776)	36 9/16	(929)	42 9/16	(1081)
CN	DLO Height Top Sash	DLO Height Bottom Sash	Square Feet (Square Meters)						
26	13 25/32 (350)	8 27/32 (224)	3.75	(0.35)	4.48	0.42	5.22	(0.48)	
30	17 3/8 (442)	11 7/32 (285)	4.77	(0.44)	5.70	0.53	6.64	(0.62)	
36	21 (533)	13 5/8 (346)	5.79	(0.54)	6.92	0.64	8.06	(0.75)	
40	24 19/32 (625)	16 1/32 (407)	6.80	(0.63)	8.14	0.76	9.48	(0.88)	
46	28 3/16 (716)	18 7/16 (468)	7.82	(0.73)	9.36	0.87	10.89	(1.01)	
50	31 25/32 (807)	20 27/32 (529)	8.84	(0.82)	10.58	0.98	12.31	(1.14)	
56	35 5/16 (897)	23 5/16 (592)	9.89	(0.92)	11.84	1.10	13.78	(1.28)	
60	39 (990)	25 5/8 (651)	10.88	(1.01)	13.01	1.21	15.15	(1.41)	
66	42 19/32 (1082)	28 1/32 (712)	11.90	(1.11)	14.23	1.32	16.57	(1.54)	

**Daylight Measurements: Picture and Transom**

Essential Sliding Window Transom Daylight Measurements			Width								
			CN	16		20		26		28	
			DLO	12 9/16	(319)	18 9/16	(471)	24 9/16	(624)	26 9/16	(675)
CN	DLO Height	Square Feet (Square Meters)									
20	8 5/16 (211)	0.72	(0.07)	1.07	(0.10)	1.42	(0.13)	1.53	(0.14)		
26	11 5/16 (287)	0.99	(0.09)	1.46	(0.14)	1.93	(0.18)	2.09	(0.19)		
30	14 5/16 (363)	1.25	(0.12)	1.84	(0.17)	2.44	(0.23)	2.64	(0.25)		
36	17 5/16 (440)	1.51	(0.14)	2.23	(0.21)	2.95	(0.27)	3.19	(0.30)		
40	20 5/16 (516)	1.77	(0.16)	2.62	(0.24)	3.46	(0.32)	3.75	(0.35)		
46	23 5/16 (592)	2.03	(0.19)	3.00	(0.28)	3.98	(0.37)	4.30	(0.40)		
50	26 5/16 (668)	2.29	(0.21)	3.39	(0.32)	4.49	(0.42)	4.85	(0.45)		
56	29 5/16 (744)	2.56	(0.24)	3.78	(0.35)	5.00	(0.46)	5.41	(0.50)		
60	32 5/16 (821)	2.82	(0.26)	4.16	(0.39)	5.51	(0.51)	5.96	(0.55)		

Essential Sliding Window Transom Daylight Measurements			Width								
			CN	30		36		40		50	
			DLO	30 9/16	(776)	36 9/16	(929)	42 9/16	(1081)	56 9/16	(1437)
CN	DLO Height	Square Feet (Square Meters)									
20	8 5/16 (211)	1.76	(0.16)	2.11	(0.20)	2.46	(0.23)	3.26	(0.30)		
26	11 5/16 (287)	2.87	(0.27)	2.87	(0.27)	3.34	(0.31)	4.44	(0.41)		
30	14 5/16 (363)	3.63	(0.34)	3.63	(0.34)	4.23	(0.39)	5.62	(0.52)		
36	17 5/16 (440)	4.39	(0.41)	4.39	(0.41)	5.12	(0.48)	6.80	(0.63)		
40	20 5/16 (516)	5.16	(0.48)	5.16	(0.48)	6.00	(0.56)	7.98	(0.74)		
46	23 5/16 (592)	5.92	(0.55)	5.92	(0.55)	6.89	(0.64)	9.16	(0.85)		
50	26 5/16 (668)	6.68	(0.62)	6.68	(0.62)	7.78	(0.72)	10.33	(0.96)		
56	29 5/16 (744)	7.44	(0.69)	7.44	(0.69)	8.66	(0.80)	11.51	(1.07)		
60	32 5/16 (821)	8.20	(0.76)	8.20	(0.76)	9.55	(0.89)	12.69	(1.18)		

Essential Sliding Window Transom Daylight Measurements			Width								
			CN	16		20		26		28	
			DLO	12 9/16	(07)	18 9/16	(471)	24 9/16	(624)	26 9/16	(675)
CN	DLO Height	Square Feet (Square Meters)									
10	6 9/16 (167)	0.57	(0.05)	0.85	(0.08)	1.12	(0.10)	1.21	(0.11)		
16	12 9/16 (319)	1.10	(0.10)	1.62	(0.15)	2.14	(0.20)	2.32	(0.22)		

Essential Sliding Window Transom Daylight Measurements			Width								
			CN	30		36		40		50	
			DLO	30 9/16	(776)	36 9/16	(929)	42 9/16	(1081)	54 9/16	(1386)
CN	DLO Height	Square Feet (Square Meters)									
10	6 9/16 (167)	1.39	(0.13)	1.67	(0.15)	1.94	(0.18)	2.49	(0.23)		
16	12 9/16 (319)	2.67	(0.25)	3.19	(0.30)	3.71	(0.34)	4.76	(0.44)		

**Minimum and Maximum Guidelines**

Minimum and Maximum Inputs												
Unit Type	Sash Configuration/ Call Number	Min Width		Min Height		Max Width		Max Height		Glass Size		
		in	mm	in	mm	in	mm	in	mm	Sash Size	Sq. Ft.	Sq. Meters
ESSH	Equal	17 1/2	(445)	23 1/2	(597)	47 1/2	(1207)	77 1/2	(1969)	regular	11.0	1.0
	Call Number	1620				4066						
	Un-Equal	17 1/2	(445)	29 1/2	(749)	47 1/2	(1207)	77 1/2	(1969)	Small	4.4	0.4
	Call Number	1626				4066				Large		
ESDHP	-	17 1/2	(445)	23 1/2	(597)	59 1/2	(1511)	71 1/2	(1816)	regular	26.2	2.4
	Call Number	1620				5060						
ESDHTR	-	17 1/2	(445)	11 1/2	(292)	59 1/2	(1511)	23 1/2	(597)	regular	7.6	0.7
	Call Number	1610				5020						

**Certified Sizes and Rating**

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 Single Hung	1.57	7.5	50	LC-PG50-H	29 1/2	(749)	59 1/2	(1511)
Essential Single Hung	1.57	6.0	40	LC-PG40-H	29 1/2	(749)	77 11/16	(1973)
Essential Single Hung	1.57	7.5	50	LC-PG50-H	35 1/2	(902)	59 1/2	(1511)
Essential Single Hung	1.57	6.0	40	LC-PG40-H	35 1/2	(902)	77 11/16	(1973)
Essential Single Hung	1.57	6.0	40	LC-PG40-H	41 1/2	(1054)	65 1/2	(1664)
Essential Single Hung	1.57	7.5	50	LC-PG50-H	47 1/2	(1207)	47 1/2	(1207)
Essential Single Hung	1.57	6.0	40	LC-PG40-H	47 1/2	(1207)	59 1/2	(1511)
Essential Single Hung	1.57	4.6	30	LC-PG30-H	47 1/2	(1207)	77 11/16	(1973)
Essential Single Hung - Cottage	1.57	4.6	30	LC-PG30-H	29 1/2	(749)	71 1/2	(1816)
Essential Single Hung - Cottage	1.57	4.6	25	LC-PG25-H	29 1/2	(749)	77 1/2	(1969)
Essential Single Hung - Cottage	1.57	4.6	30	LC-PG30-H	35 1/2	(902)	71 1/2	(1816)
Essential Single Hung - Cottage	1.57	3.8	25	LC-PG25-H	47 1/2	(1207)	77 1/2	(1969)
Essential Single Hung - Reverse Cottage	1.57	4.6	30	LC-PG30-H	29 1/2	(749)	71 1/2	(1816)
Essential Single Hung - Reverse Cottage	1.57	4.6	25	LC-PG25-H	29 1/2	(749)	77 1/2	(1969)
Essential Single Hung - Reverse Cottage	1.57	4.6	30	LC-PG30-H	35 1/2	(902)	71 1/2	(1816)
Essential Single Hung - Reverse Cottage	1.57	3.8	25	LC-PG25-H	47 1/2	(1207)	77 1/2	(1969)
Essential Double Hung Picture/Transom	1.57	7.5	50	LC-PG50-FW	59 1/2	(1511)	71 1/2	(1816)



### Measurement Conversions - Operator

Essential Single/Double Hung Inputs					
Unit Measurements		Width		Height	
From	To				
<b>Rough Opening</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
Masonry Opening	Rough Opening	0	(0)	+1/4	(6)
OM of Frame	Rough Opening	+1/2	(13)	+1/2	(13)
J-Channel OM	Rough Opening	-3/4	(19)	-3/4	(19)
Daylight Opening	Rough Opening	+5 7/16	(138)	+7 3/8	(187)
Masonry Opening	Inside Opening	-1/8	(3)	0	(0)
OM of Frame	Inside Opening	+3/8	(10)	+1/4	(6)
J-Channel OM	Inside Opening	-7/8	(22)	-1	(25)
Daylight Opening	Inside Opening	+5 5/16	(135)	+7 1/8	(181)
<b>Frame</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
Daylight Opening	OM of Frame	+4 15/16	(125)	+6 7/8	(175)
<b>Top Sash (equal sash)</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
OM of Frame	OM of Top Sash	-2 1/4	(57)	-3/4	(19)
Daylight Opening	OM of Top Sash	+2 11/16	(68)	+2 11/16	(68)
<b>Bottom Sash (equal sash)</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
OM of Frame	OM of Bottom Sash	-2 1/4	(57)	-3/4	(19)
Daylight Opening	OM of Bottom Sash	+2 11/16	(68)	+2 11/16	(68)
<b>Top Sash (Cottage Height)</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
OM of Frame	OM of Top Sash	-2 1/4	(57)	-9/32	(7)
Daylight Opening	OM of Top Sash	+2 11/16	(68)	+2 11/16	(68)
<b>Bottom Sash (Cottage Height)</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
OM of Frame	OM of Bottom Sash	-2 1/4	(57)	-1 7/32	(31)
Daylight Opening	OM of Bottom Sash	+2 11/16	(68)	+2 11/16	(68)
<b>Top Sash (Oriel Height)</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
OM of Frame	OM of Top Sash	-2 1/4	(57)	-1 7/32	(31)
Daylight Opening	OM of Top Sash	+2 11/16	(68)	+2 11/16	(68)
<b>Bottom Sash (Oriel Height)</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
OM of Frame	OM of Bottom Sash	-2 1/4	(57)	-9/32	(7)
Daylight Opening	OM of Bottom Sash	+2 11/16	(68)	+2 11/16	(68)
<b>Glass</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
Daylight Opening	Glass	+1 7/64	(28)	+1 7/64	(28)
<b>Screen</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
OM of Frame	OM of Screen	-1 23/32	(44)	-1 9/16	(40)
Daylight Opening	OM of Screen	+3 7/32	(82)	+5 5/16	(135)
<b>Half Screen</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
OM of Frame	OM of Screen	-1 23/32	(44)	-5/8	(16)
Daylight Opening	OM of Screen	+3 7/32	(82)	+2 13/16	(72)
<b>Oriel Screen</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
OM of Frame	OM of Screen	-1 23/32	(44)	-5/32	(4)
Daylight Opening	OM of Screen	+3 7/32	(82)	+2 13/16	(72)
<b>Cottage Screen</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
OM of Frame	OM of Screen	-1 23/32	(44)	-1 3/32	(28)
Daylight Opening	OM of Screen	+3 7/32	(82)	+2 13/16	(72)

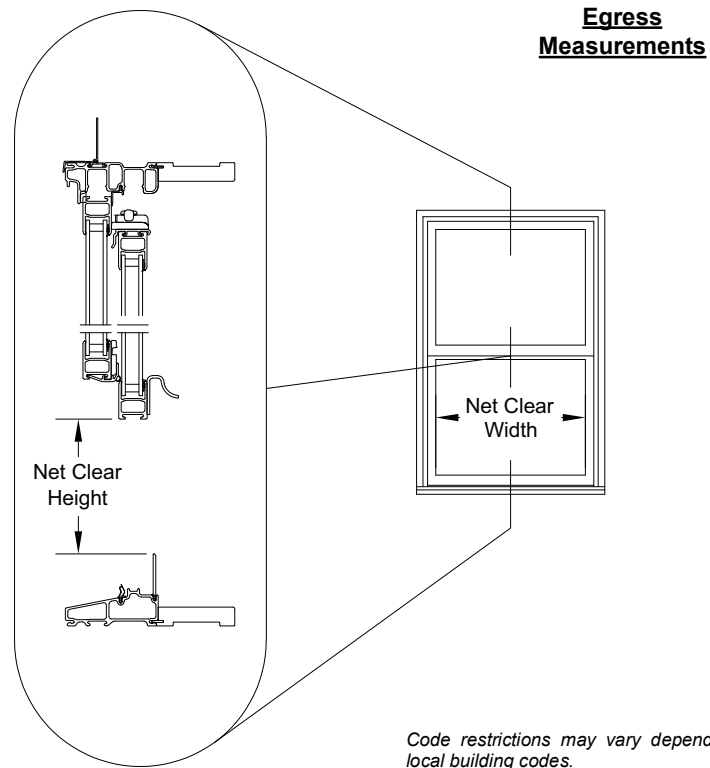
### Measurement Conversions - Transom and Picture

Essential Sliding Window Transom					
Unit Measurements		Width		Height	
From	To				
<b>Rough Opening</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
Masonry Opening	Rough Opening	0	(00)	+1/4	(6)
OM of Frame	Rough Opening	+1/2	(13)	+1/2	(13)
J-Channel OM	Rough Opening	-3/4	19	-3/4	(19)
Daylight Opening	Rough Opening	+5 7/16	(138)	+5 7/16	(138)
Masonry Opening	Inside Opening	-1/8	(3)	0	(0)
OM of Frame	Inside Opening	+3/8	(10)	+1/4	(6)
J-Channel OM	Inside Opening	-7/8	(22)	-1	(25)
Daylight Opening	Inside Opening	+5 5/16	(135)	+5 3/16	(132)
<b>Frame</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
Daylight Opening	OM of Frame	+4 15/16	(125)	+4 15/16	(125)
<b>Sash</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
OM of Frame	OM of Sash	-2 1/4	(57)	-2 1/4	(57)
Daylight Opening	OM of Sash	+2 11/16	(68)	+2 11/16	(68)
<b>Glass</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
Daylight Opening	Glass	+1 7/64	(28)	+1 7/64	(28)

Essential Sliding Window Picture					
Unit Measurements		Width		Height	
From	To				
<b>Rough Opening</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
Masonry Opening	Rough Opening	0	(0)	+1/4	(6)
OM of Frame	Rough Opening	+1/2	(13)	+1/2	(13)
J-Channel OM	Rough Opening	-3/4	(19)	-3/4	(19)
Daylight Opening	Rough Opening	+5 7/16	(138)	+5 7/16	(138)
Masonry Opening	Inside Opening	-1/8	(3)	0	(0)
OM of Frame	Inside Opening	+3/8	(10)	+1/4	(6)
J-Channel OM	Inside Opening	-7/8	(22)	-1	(25)
Daylight Opening	Inside Opening	+5 5/16	(135)	+5 3/16	(132)
<b>Frame</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
Daylight Opening	OM of Frame	+4 15/16	(125)	+4 15/16	(125)
<b>Sash</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
OM of Frame	OM of Sash	-2 1/4	(57)	-2 1/4	(57)
Daylight Opening	OM of Sash	+2 11/16	(68)	+2 11/16	(68)
<b>Glass</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
Daylight Opening	Glass	+1 7/64	(28)	+1 7/64	(28)

**Egress Measurements**

Scale: NOT TO SCALE



*Code restrictions may vary depending on your local building codes.*

*For additional information contact your local code department for IBC and IRC requirements.*

Single/Double Hung Egress Calculations for Custom Size Units		
Minimum Value for Net Clear Opening	Desired Dimension	Formula
20 Inch Width	Egress Opening Width (inches)	= Frame OM Width - 2.936
24 Inch Height	Egress Opening Height (inches)	= (Frame OM Height - 4.656) x SR)-2.215
5.7 Square Feet	Egress Opening Area (Sq Ft)	= (Egress Width x Egress Height) / 144
SR = the sash ratio of the smallest sash to overall glass height		

Standard Unit Measurement: Equal Sash

Single Hung Unit Measurements														
Width														
CN	Masonry Opening		Rough Opening		Inside Opening		Frame Size		Sash Size		Screen OM		Daylight Opening	
	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	in	mm
16	1-6	(457)	1-6	(457)	1-5 7/8	(454)	1-5 1/2	(445)	1-3 1/4	(387)	1-3 25/32	(401)	12 9/16	(319)
20	2-0	(610)	2-0	(610)	1-11 7/8	(606)	1-11 1/2	(597)	1-9 1/4	(540)	1-9 25/32	(553)	18 9/16	(471)
26	2-6	(762)	2-6	(762)	2-5 7/8	(759)	2-5 1/2	(749)	2-3 1/4	(692)	2-3 25/32	(706)	24 9/16	(624)
28	2-8	(813)	2-8	(813)	2-7 7/8	(810)	2-7 1/2	(800)	2-5 1/4	(743)	2-5 25/32	(756)	26 9/16	(675)
30	3-0	(914)	3-0	(914)	2-11 7/8	(911)	2-11 1/2	(902)	2-9 1/4	(845)	2-9 25/32	(858)	30 9/16	(776)
36	3-6	(1067)	3-6	(1067)	3-5 7/8	(1064)	3-5 1/2	(1054)	3-3 1/4	(997)	3-3 25/32	(1010)	36 9/16	(929)
40	4-0	(1219)	4-0	(1219)	3-11 7/8	(1216)	3-11 1/2	(1207)	3-9 1/4	(1149)	3-9 25/32	(1163)	42 9/16	(1081)

Single Hung Unit Measurements														
Height														
CN	Masonry Opening		Rough Opening		Inside Opening		Frame Size		Sash Size		Screen OM		Daylight Opening	
	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	in	mm
20	1-11 3/4	(603)	2-0	(610)	1-11 3/4	(603)	1-11 1/2	(597)	0-11	(279)	1-9 15/16	(557)	8 5/16	(211)
26	2-5 3/4	(756)	2-6	(762)	2-5 3/4	(756)	2-5 1/2	(749)	1-2	(356)	2-3 15/16	(710)	11 5/16	(287)
30	2-11 3/4	(908)	3-0	(914)	2-11 3/4	(908)	2-11 1/2	(902)	1-5	(432)	2-9 15/16	(862)	14 5/16	(363)
36	3-5 3/4	(1060)	3-6	(1067)	3-5 3/4	(1060)	3-5 1/2	(1054)	1-8	(508)	3-3 15/16	(1014)	17 5/16	(440)
40	3-11 3/4	(1213)	4-0	(1219)	3-11 3/4	(1213)	3-11 1/2	(1207)	1-11	(584)	3-9 15/16	(1167)	20 5/16	(516)
46	4-5 3/4	(1365)	4-6	(1372)	4-5 3/4	(1365)	4-5 1/2	(1359)	2-2	(660)	4-3 15/16	(1319)	23 5/16	(592)
50	4-11 3/4	(1518)	5-0	(1524)	4-11 3/4	(1518)	4-11 1/2	(1511)	2-5	(737)	4-9 15/16	(1472)	26 5/16	(668)
56	5-5 3/4	(1670)	5-6	(1676)	5-5 3/4	(1670)	5-5 1/2	(1664)	2-8	(813)	5-3 15/16	(1624)	29 5/16	(744)
60	5-11 3/4	(1822)	6-0	(1829)	5-11 3/4	(1822)	5-11 1/2	(1816)	2-11	(889)	5-9 15/16	(1776)	32 5/16	(821)

NOTE: [Essential Single Hung Elevations](#) can be found on [marvin.com](http://marvin.com), single hung, sizes and specs.

Standard Unit Measurement: Cottage Sash

Single Hung with Cottage Sash Style Unit Measurements														
Width														
CN	Masonry Opening		Rough Opening		Inside Opening		Frame Size		Sash Size		Screen OM		Daylight Opening	
	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	in	mm
16	1-6	(457)	1-6	(457)	1-5 7/8	(454)	1-5 1/2	(445)	1-3 1/4	(387)	1-3 25/32	(401)	12 9/16	(319)
20	2-0	(610)	2-0	(610)	1-11 7/8	(606)	1-11 1/2	(597)	1-9 1/4	(540)	1-9 25/32	(553)	18 9/16	(471)
26	2-6	(762)	2-6	(762)	2-5 7/8	(759)	2-5 1/2	(749)	2-3 1/4	(692)	2-3 25/32	(706)	24 9/16	(624)
28	2-8	(813)	2-8	(813)	2-7 7/8	(810)	2-7 1/2	(800)	2-5 1/4	(743)	2-5 25/32	(756)	26 9/16	(675)
30	3-0	(914)	3-0	(914)	2-11 7/8	(911)	2-11 1/2	(902)	2-9 1/4	(845)	2-9 25/32	(858)	30 9/16	(776)
36	3-6	(1067)	3-6	(1067)	3-5 7/8	(1064)	3-5 1/2	(1054)	3-3 1/4	(997)	3-3 25/32	(1010)	36 9/16	(929)
40	4-0	(1219)	4-0	(1219)	3-11 7/8	(1216)	3-11 1/2	(1207)	3-9 1/4	(1149)	3-9 25/32	(1163)	42 9/16	(1081)

Single Hung with Cottage Sash Style Unit Measurements																		
Height																		
CN	Masonry Opening		Rough Opening		Inside Opening		Frame Size		Top Sash Size		Bottom Sash Size		Screen OM		Daylight Opening Top Sash		Daylight Opening Bottom Sash	
	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	in	mm	in	mm
26	2-5 3/4	(756)	2-6	(762)	2-5 3/4	(756)	2-5 1/2	(749)	0-11 33/64	(292)	1-4 31/64	(419)	1-4 39/64	(422)	8 53/64	(224)	13 51/64	(350)
30	2-11 3/4	(908)	3-0	(914)	2-11 3/4	(908)	2-11 1/2	(902)	1-1 59/64	(353)	1-8 5/64	(510)	1-8 13/64	(513)	11 15/64	(285)	17 25/64	(442)
36	3-5 3/4	(1060)	3-6	(1067)	3-5 3/4	(1060)	3-5 1/2	(1054)	1-4 5/16	(414)	1-11 11/16	(602)	1-11 13/16	(605)	13 5/8	(346)	20 63/64	(533)
40	3-11 3/4	(1213)	4-0	(1219)	3-11 3/4	(1213)	3-11 1/2	(1207)	1-6 23/32	(475)	2-3 9/32	(693)	2-3 13/32	(696)	16 1/32	(407)	24 19/32	(625)
46	4-5 3/4	(1365)	4-6	(1372)	4-5 3/4	(1365)	4-5 1/2	(1359)	1-9 7/64	(536)	2-6 57/64	(784)	2-7 1/64	(788)	18 7/16	(468)	28 3/16	(716)
50	4-11 3/4	(1518)	5-0	(1524)	4-11 3/4	(1518)	4-11 1/2	(1511)	1-11 33/64	(597)	2-10 31/64	(876)	2-10 39/64	(879)	20 53/64	(529)	31 51/64	(807)
56	5-5 3/4	(1670)	5-6	(1676)	5-5 3/4	(1670)	5-5 1/2	(1664)	2-1 59/64	(658)	3-2 5/64	(967)	3-2 13/64	(971)	23 5/16	(592)	35 5/16	(897)
60	5-11 3/4	(1822)	6-0	(1829)	5-11 3/4	(1822)	5-11 1/2	(1816)	2-4 5/16	(719)	3-5 11/16	(1059)	3-5 13/16	(1062)	25 5/8	(651)	39	(990)
66	6-5 3/4	(1975)	6-6	(1981)	6-5 3/4	(1975)	6-5 1/2	(1969)	2-6 23/32	(780)	3-9 9/32	(1150)	3-9 13/32	(1153)	28 1/32	(712)	42 19/32	(1082)

NOTE: [Essential Single Hung Elevations](#) can be found on [marvin.com](http://marvin.com), single hung, sizes and specs.

**Standard Unit Measurement: Reverse Cottage Sash**

Single Hung with Reverse Cottage Sash Style Unit Measurements														
Width														
CN	Masonry Opening		Rough Opening		Inside Opening		Frame Size		Sash Size		Screen OM		Daylight Opening	
	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	in	mm
16	1-6	(457)	1-6	(457)	1-5 7/8	(454)	1-5 1/2	(445)	1-3 1/4	(387)	1-3 25/32	(401)	12 9/16	(319)
20	2-0	(610)	2-0	(610)	1-11 7/8	(606)	1-11 1/2	(597)	1-9 1/4	(540)	1-9 25/32	(553)	18 9/16	(471)
26	2-6	(762)	2-6	(762)	2-5 7/8	(759)	2-5 1/2	(749)	2-3 1/4	(692)	2-3 25/32	(706)	24 9/16	(624)
28	2-8	(813)	2-8	(813)	2-7 7/8	(810)	2-7 1/2	(800)	2-5 1/4	(743)	2-5 25/32	(756)	26 9/16	(675)
30	3-0	(914)	3-0	(914)	2-11 7/8	(911)	2-11 1/2	(902)	2-9 1/4	(845)	2-9 25/32	(858)	30 9/16	(776)
36	3-6	(1067)	3-6	(1067)	3-5 7/8	(1064)	3-5 1/2	(1054)	3-3 1/4	(997)	3-3 25/32	(1010)	36 9/16	(929)
40	4-0	(1219)	4-0	(1219)	3-11 7/8	(1216)	3-11 1/2	(1207)	3-9 1/4	(1149)	3-9 25/32	(1163)	42 9/16	(1081)

Single Hung with Reverse Cottage Sash Style Unit Measurements																		
Height																		
CN	Masonry Opening		Rough Opening		Inside Opening		Frame Size		Top Sash Size		Bottom Sash Size		Screen OM		Daylight Opening Top Sash		Daylight Opening Bottom Sash	
	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	in	mm	in	mm
26	2-5 3/4	(756)	2-6	(762)	2-5 3/4	(756)	2-5 1/2	(749)	1-4 31/64	(419)	0-11 33/64	(292)	0-11 41/64	(296)	13 51/64	(350)	8 53/64	(224)
30	2-11 3/4	(908)	3-0	(914)	2-11 3/4	(908)	2-11 1/2	(902)	1-8 5/64	(510)	1-1 59/64	(353)	1-2 3/64	(357)	17 25/64	(442)	11 15/64	(285)
36	3-5 3/4	(1060)	3-6	(1067)	3-5 3/4	(1060)	3-5 1/2	(1054)	1-11 11/16	(602)	1-4 5/16	(414)	1-4 7/16	(418)	20 63/64	(533)	13 5/8	(346)
40	3-11 3/4	(1213)	4-0	(1219)	3-11 3/4	(1213)	3-11 1/2	(1207)	2-3 9/32	(693)	1-6 23/32	(475)	1-6 27/32	(479)	24 19/32	(625)	16 1/32	(407)
46	4-5 3/4	(1365)	4-6	(1372)	4-5 3/4	(1365)	4-5 1/2	(1359)	2-6 57/64	(784)	1-9 7/64	(536)	1-9 15/64	(540)	28 3/16	(716)	18 7/16	(468)
50	4-11 3/4	(1518)	5-0	(1524)	4-11 3/4	(1518)	4-11 1/2	(1511)	2-10 31/64	(876)	1-11 33/64	(597)	1-11 41/64	(600)	31 51/64	(807)	20 53/64	(529)
56	5-5 3/4	(1670)	5-6	(1676)	5-5 3/4	(1670)	5-5 1/2	(1664)	3-2 5/64	(967)	2-1 59/64	(658)	2-2 3/64	(661)	35 5/16	(897)	23 5/16	(592)
60	5-11 3/4	(1822)	6-0	(1829)	5-11 3/4	(1822)	5-11 1/2	(1816)	3-5 11/16	(1059)	2-4 5/16	(719)	2-4 7/16	(722)	39	(990)	25 5/8	(651)
66	6-5 3/4	(1975)	6-6	(1981)	6-5 3/4	(1975)	6-5 1/2	(1969)	3-9 9/32	(1150)	2-6 23/32	(780)	2-6 27/32	(783)	42 19/32	(1082)	28 1/32	(712)

NOTE: [Essential Single Hung Elevations](#) can be found on [marvin.com](http://marvin.com), single hung, sizes and specs.

Standard Unit Measurement: Picture

Picture Unit Measurements Width												
CN	Masonry Opening		Rough Opening		Inside Opening		Frame Size		Sash Size		Daylight Opening	
	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	in	mm
16	1-6	(457)	1-6	(457)	1-5 7/8	(454)	1-5 1/2	(445)	1-3 1/4	(387)	12 9/16	(319)
20	2-0	(610)	2-0	(610)	1-11 7/8	(606)	1-11 1/2	(597)	1-9 1/4	(540)	18 9/16	(471)
26	2-6	(762)	2-6	(762)	2-5 7/8	(759)	2-5 1/2	(749)	2-3 1/4	(692)	24 9/16	(624)
28	2-8	(813)	2-8	(813)	2-7 7/8	(810)	2-7 1/2	(800)	2-5 1/4	(743)	26 9/16	(675)
30	3-0	(914)	3-0	(914)	2-11 7/8	(911)	2-11 1/2	(902)	2-9 1/4	(845)	30 9/16	(776)
36	3-6	(1067)	3-6	(1067)	3-5 7/8	(1064)	3-5 1/2	(1054)	3-3 1/4	(997)	36 9/16	(929)
40	4-0	(1219)	4-0	(1219)	3-11 7/8	(1216)	3-11 1/2	(1207)	3-9 1/4	(1149)	42 9/16	(1081)
50	5-0	(1524)	5-0	(1524)	4-11 7/8	(1521)	4-11 1/2	(1511)	4-9 1/4	(1454)	54 9/16	(1386)

Picture Unit Measurements Height												
CN	Masonry Opening		Rough Opening		Inside Opening		Frame Size		Sash Size		Daylight Opening	
	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	in	mm
20	1-11 3/4	(603)	2-0	(610)	1-11 3/4	(610)	1-11 1/2	(597)	1-9 1/4	(540)	18 9/16	(471)
26	2-5 3/4	(756)	2-6	(762)	2-5 3/4	(762)	2-5 1/2	(749)	2-3 1/4	(692)	24 9/16	(624)
30	2-11 3/4	(908)	3-0	(914)	2-11 3/4	(914)	2-11 1/2	(902)	2-9 1/4	(845)	30 9/16	(776)
36	3-5 3/4	(1060)	3-6	(1067)	3-5 3/4	(1067)	3-5 1/2	(1054)	3-3 1/4	(997)	36 9/16	(929)
40	3-11 3/4	(1213)	4-0	(1219)	3-11 3/4	(1219)	3-11 1/2	(1207)	3-9 1/4	(1149)	42 9/16	(1081)
46	4-5 3/4	(1365)	4-6	(1372)	4-5 3/4	(1372)	4-5 1/2	(1359)	4-3 1/4	(1302)	48 9/16	(1233)
50	4-11 3/4	(1518)	5-0	(1524)	4-11 3/4	(1524)	4-11 1/2	(1511)	4-9 1/4	(1454)	54 9/16	(1386)
56	5-5 3/4	(1670)	5-6	(1676)	5-5 3/4	(1676)	5-5 1/2	(1664)	5-3 1/4	(1607)	60 9/16	(1538)
60	5-11 3/4	(1822)	6-0	(1829)	5-11 3/4	(1829)	5-11 1/2	(1816)	5-9 1/4	(1759)	66 9/16	(1691)

NOTE: [Essential Single Hung Elevations](https://www.marvin.com) can be found on [marvin.com](https://www.marvin.com), single hung, sizes and specs.

**Standard Unit Measurement: Transom**

Transom Unit Measurements Width												
CN	Masonry Opening		Rough Opening		Inside Opening		Frame Size		Sash Size		Daylight Opening	
	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	in	mm
16	1-6	(457)	1-6	(457)	1-5 7/8	(454)	1-5 1/2	(445)	1-3 1/4	(387)	12 9/16	(319)
20	2-0	(610)	2-0	(610)	1-11 7/8	(606)	1-11 1/2	(597)	1-9 1/4	(540)	18 9/16	(471)
26	2-6	(762)	2-6	(762)	2-5 7/8	(759)	2-5 1/2	(749)	2-3 1/4	(692)	24 9/16	(624)
28	2-8	(813)	2-8	(813)	2-7 7/8	(810)	2-7 1/2	(800)	2-5 1/4	(743)	26 9/16	(675)
30	3-0	(914)	3-0	(914)	2-11 7/8	(911)	2-11 1/2	(902)	2-9 1/4	(845)	30 9/16	(776)
36	3-6	(1067)	3-6	(1067)	3-5 7/8	(1064)	3-5 1/2	(1054)	3-3 1/4	(997)	36 9/16	(929)
40	4-0	(1219)	4-0	(1219)	3-11 7/8	(1216)	3-11 1/2	(1207)	3-9 1/4	(1149)	42 9/16	(1081)
50	5-0	(1524)	5-0	(1524)	4-11 7/8	(1521)	4-11 1/2	(1511)	4-9 1/4	(1454)	54 9/16	(1386)

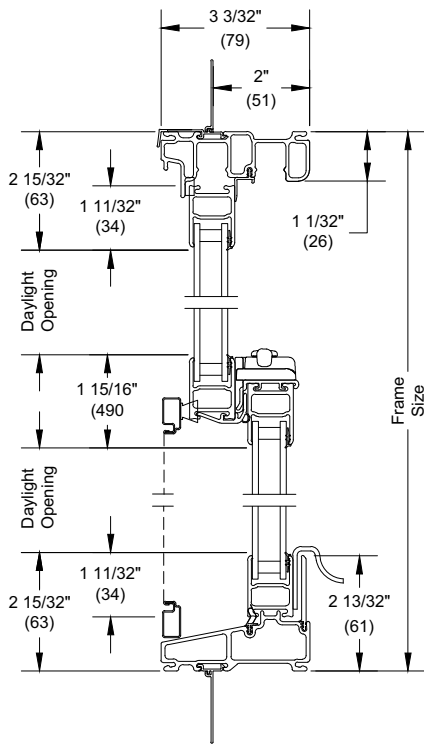
Transom Unit Measurements Height												
CN	Masonry Opening		Rough Opening		Inside Opening		Frame Size		Sash Size		Daylight Opening	
	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	in	mm
10	1-0 1/4	(311)	1-0	(305)	0-11 3/4	(298)	0-11 1/2	(292)	0-9 1/4	(235)	6 9/16	(167)
16	1-6 1/4	(464)	1-6	(457)	1-5 3/4	(451)	1-5 1/2	(445)	1-3 1/4	(387)	12 9/16	(319)
20	2-0 1/4	(616)	2-0	(610)	1-11 3/4	(603)	1-11 1/2	(597)	1-9 1/4	(540)	18 9/16	(471)

NOTE: [Essential Single Hung Elevations](#) can be found on [marvin.com](http://marvin.com), single hung, sizes and specs.

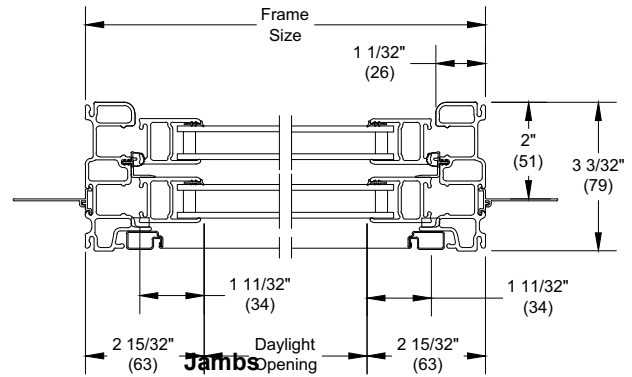


**Section Details: Operator**

Scale: 3" = 1' 0"

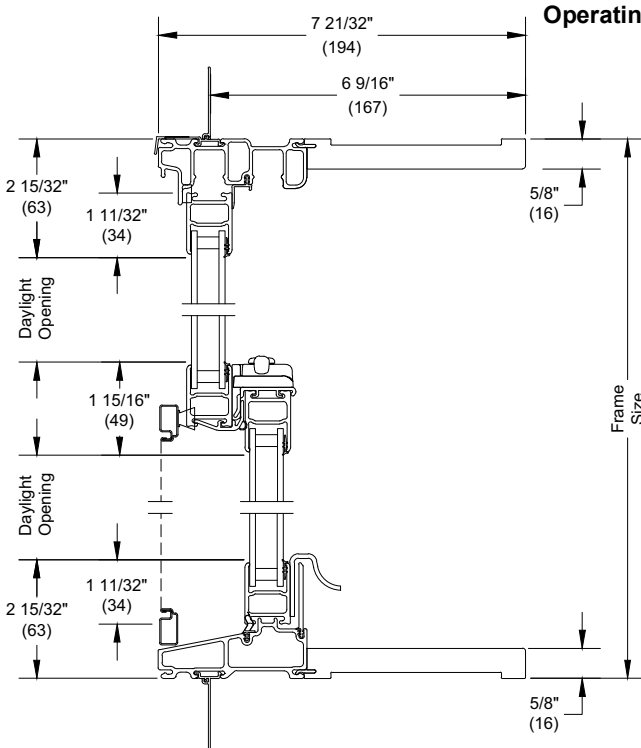


**Operating - 2" (51)**

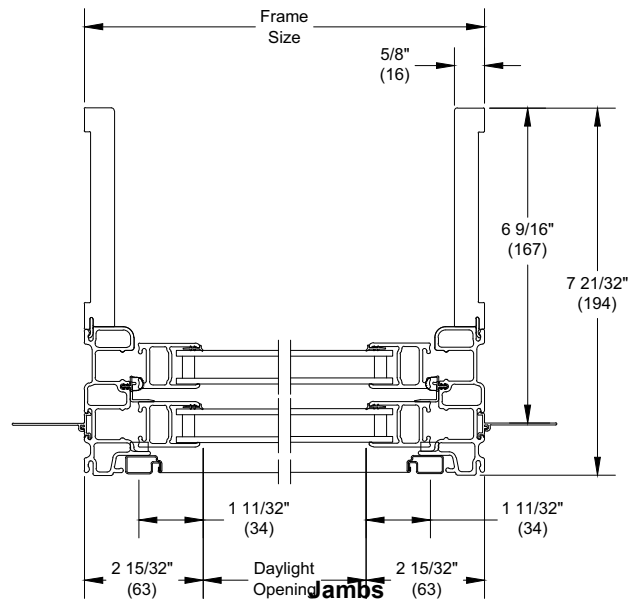


**Jambs**

**Head Jamb and Sill**



**Operating - 6 9/16" (167)**



**Jambs**

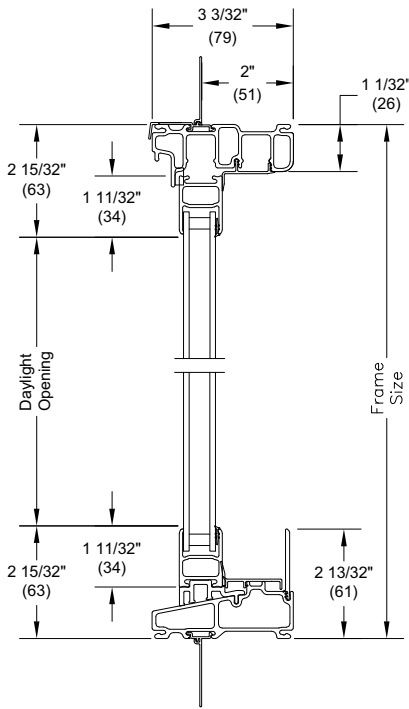
**Head Jamb and Sill**

*NOTE: Units also available with 4 9/16" jamb. Same jamb extension profile a 6 9/16" extension shown.*

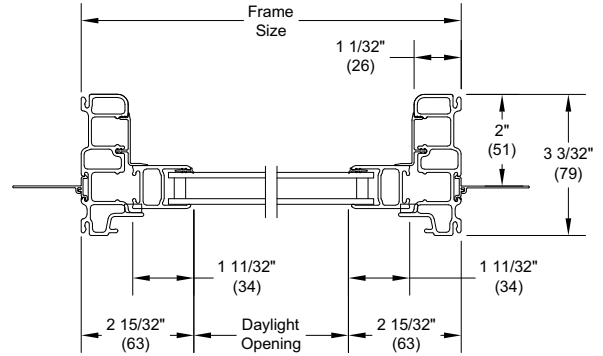
**Section Details: Transom/Picture**

Scale: 3" = 1' 0"

**Stationary/Picture - 2" (51)**

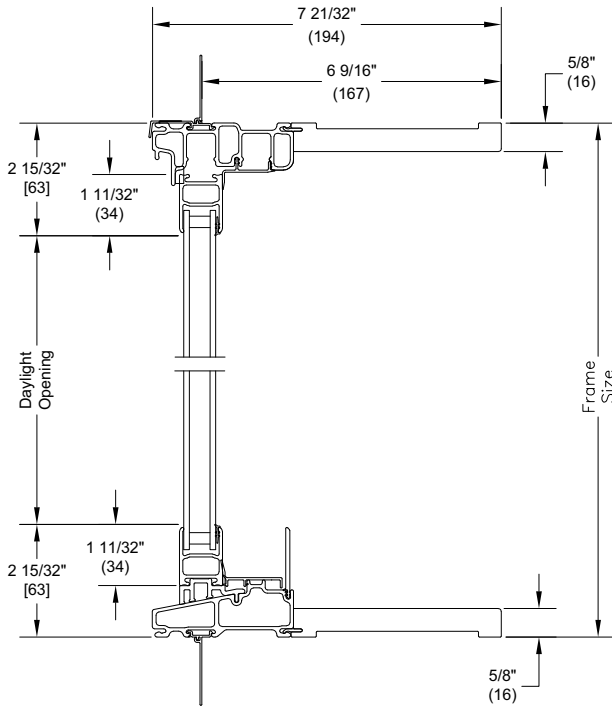


**Head Jamb and Sill**

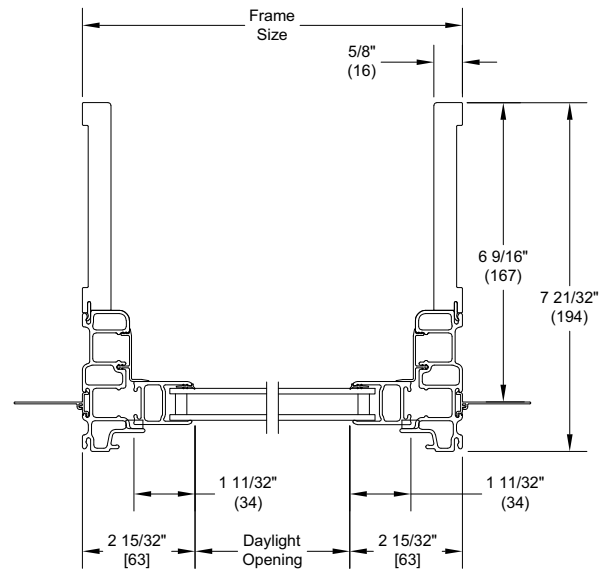


**Jambs**

**Stationary/Picture - 6 9/16" (167)**



**Head Jamb and Sill**

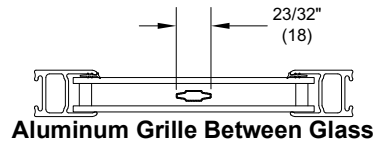


**Jambs**

*NOTE: Units also available with 4 9/16" jamb. Same jamb extension profile a 6 9/16" extension shown.*

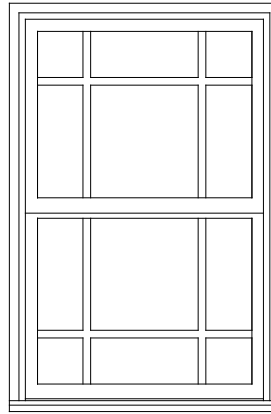
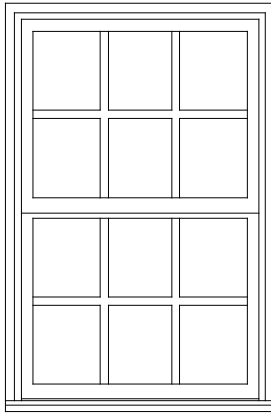
**Section Details: Divided Lite Options**

**Divided Lite Options**



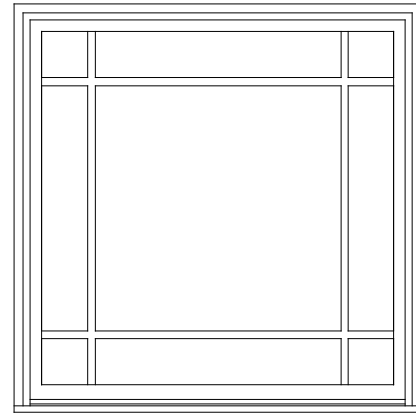
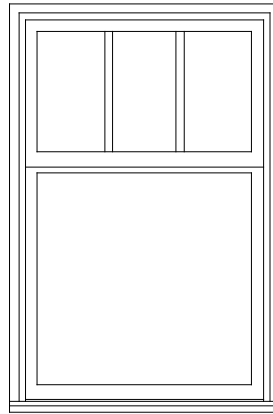
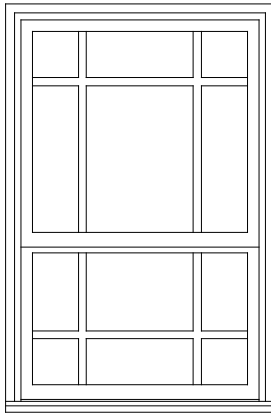
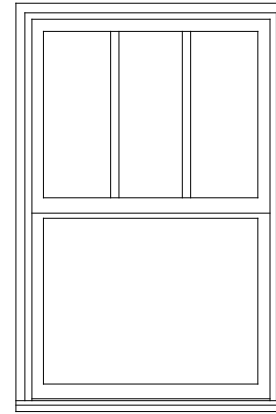
**Essential Single Hung Operators**

GBGs are available in standard rectangular lite cuts, optional 2W2H lite pattern, or 6-lite Prairie cuts



**GBG**

*NOTE: Prairie cut 6-lite per sash on Single Hung or 9-lite on picture unit.*



**Conversions Formula:**

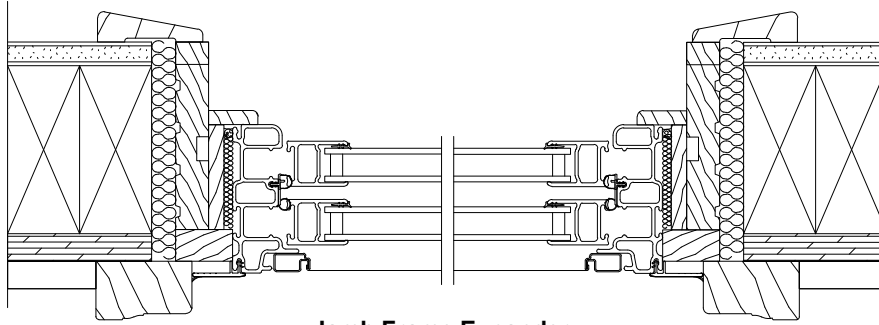
$$\frac{\text{Total DLO- Total Bar Width}}{\text{Number of lites}} = \text{Individual DLO}$$

\*Prairie lite cuts are not available in the following sizes due to size limitations:  
 -ESSH call number 16 width  
 -ESSH call number 20 or 26 height

**Notes:**

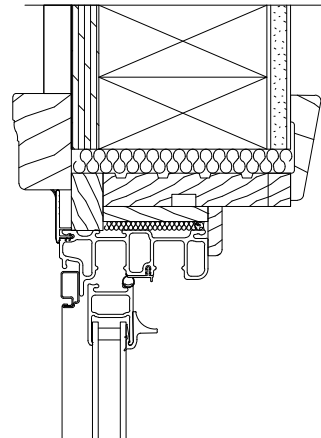
- Rectangle GBGs for special size units will default to the next smaller standard size lite pattern. Also available will be Prairie patterns, Cottage patterns, and customer specified equal rectangular lite patterns.
- Prairie available in 9 lite and 6 lite top, bottom, left, and right patterns.
- Cottage 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.

**Installation Suggestions - Frame Expander**

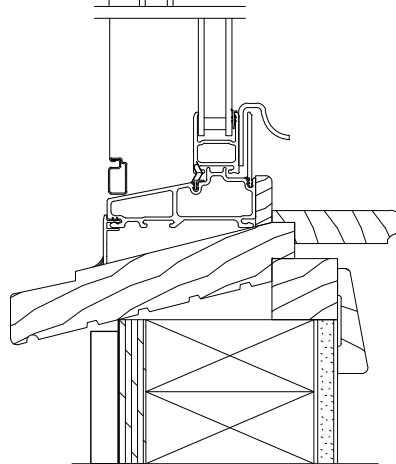


**Jamb Frame Expander**

**Head Jamb Frame Expander**

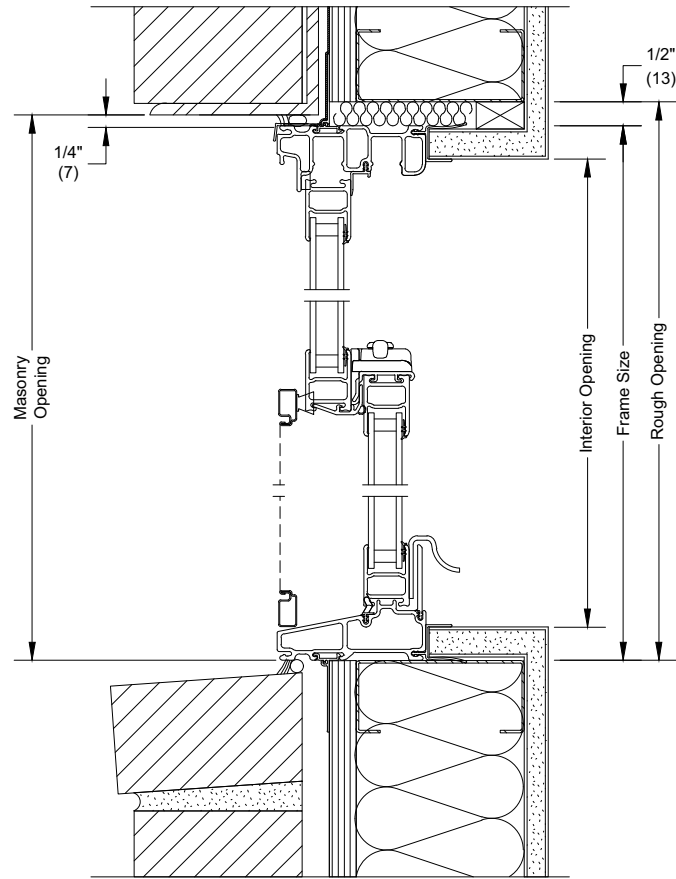


**Sill Frame Expander**

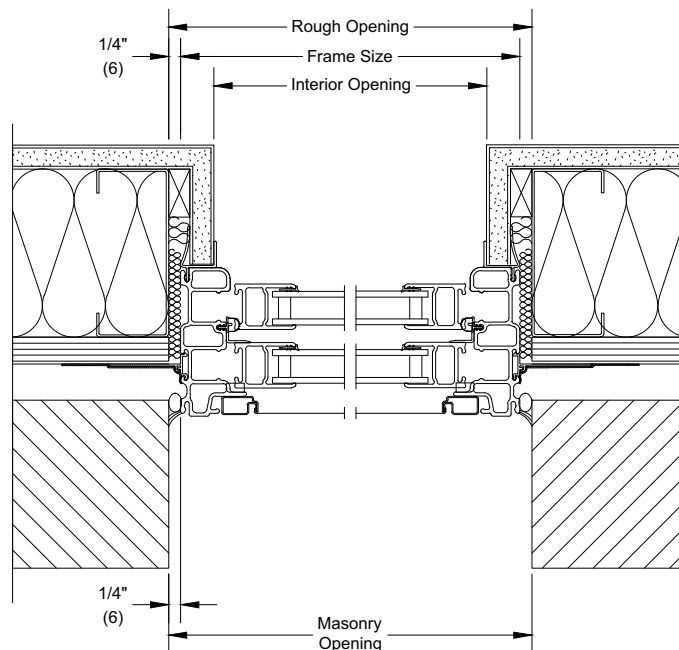


**Installation Suggestions: Brick Veneer with Steel Frame Construction**

Scale: 3" = 1' 0"



**Head Jamb and Sill**



**Jambs**

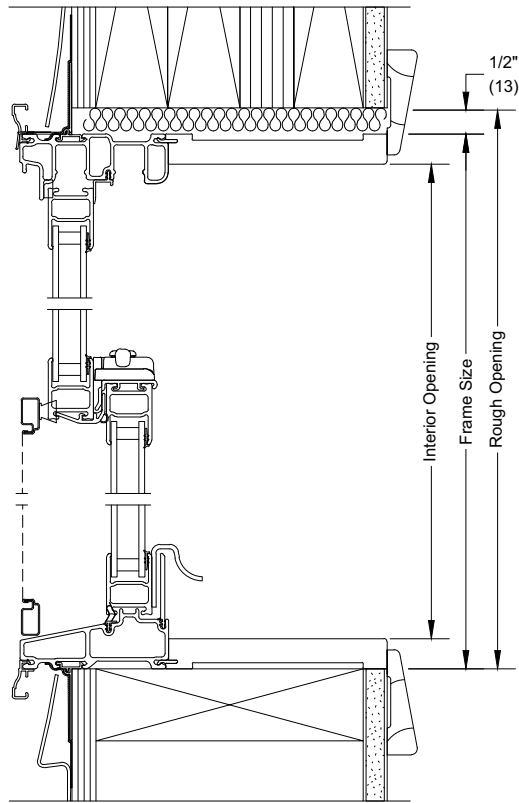
NOTE: Shown with optional sheet rock return. Picture unit installation similar.

The above wall sections represent typical wall conditions, these detail are not intended as installation instructions.

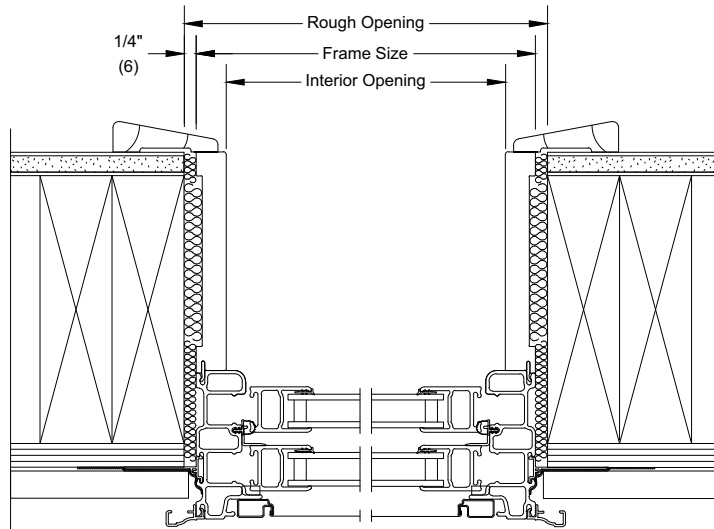
Please refer to the installation instructions provided with the purchased units.

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

Scale: 3" = 1' 0"



**Head Jamb and Sill**

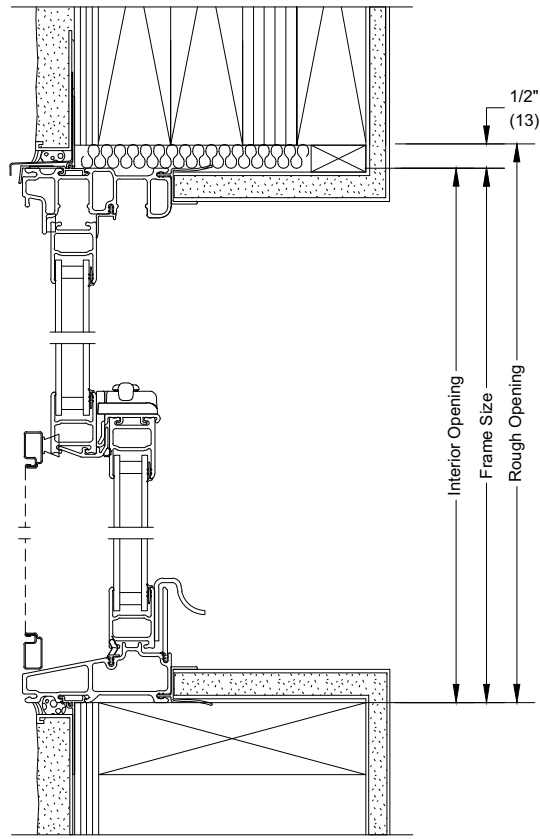


**Jambs**

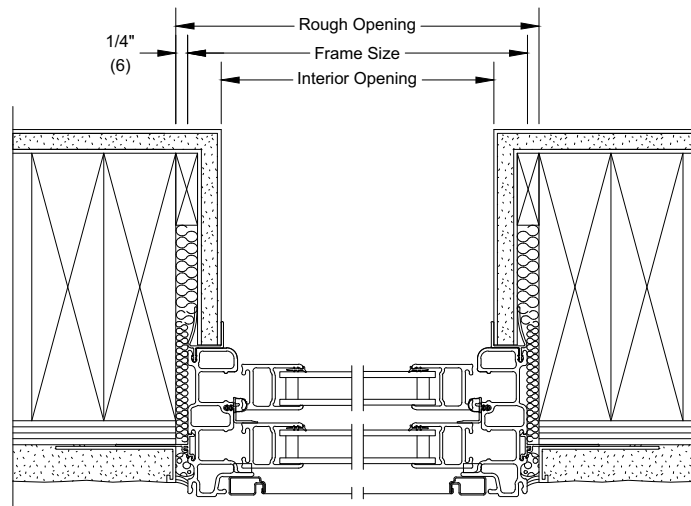
**NOTE:** Shown with optional jamb extension and J-channels. Picture unit installation similar.  
 The above wall sections represent typical wall conditions, these detail are not intended as installation instructions.  
 Please refer to the installation instructions provided with the purchased units.

**Installation Suggestions: Stucco with 2X6 Frame Construction**

Scale: 3" = 1' 0"



**Head Jamb and Sill**



**Jambs**

**NOTE:** Shown with optional sheet rock return. Picture unit installation similar.

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.