

# Ultimate Double Hung G2

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**Unit Features****Ultimate Double Hung G2 Collection:**

Ultimate Single Hung G2: USHG2

Ultimate Double Hung G2: UDHG2

Ultimate Double Hung Picture G2: UDHP G2

Ultimate Double Hung Transom G2: UDHTR G2

Ultimate Double Hung Bows and Bays G2: UDHBB G2

Ultimate Double Hung -G2 IZ3: UDH G2 IZ3

Ultimate Double Hung Picture G2 IZ3: UDHP G2 IZ3

Ultimate Double Hung Transom G2 IZ3: UDHTR G2 IZ3

*NOTE: Ultimate Double Hung Bows and Bays G2, Ultimate Double Hung G2 IZ3, Ultimate Double Hung Picture G2 IZ3, and Ultimate Double Hung Transom G2 IZ3 are not available with CE mark.*

**Frame:**

- Frame thickness:
  - 11/16" (17) thick at head and jambs
  - 1 13/32" (36) thick at sill
- Frame Width: 4 9/16" (116)

**Sash:**

- Operating / Stationary Sash (Single Hung, Double Hung, Transom):
  - Sash thickness: 1 3/4" (44), corner slot and tenoned
  - Top rail height: 2 13/32" (61)
  - Stiles width: 1 21/32" (42)
  - Bottom rail height (operating): 3 1/4" (83)
  - Bottom rail height (transom): 2 3/4" (70)
- Stationary Picture Sash:
  - Sash thickness: 1 3/4" (44), corner slot and tenoned
  - Top rail height: 2 13/32" (61)
  - Stile width: 2 13/32" (61)
  - Bottom rail height: 3 1/4" (83)
- Optional CW (Commercial Window) certified product
- Sash Options
  - Standard: Equal
  - Optional: Unequal, Both Sash Stationary
- Standard exterior cope profile: Putty
- Standard interior wood cope sticking: Ogee
- Optional interior wood cope sticking: Square

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**Unit Features****Glass and Glazing:**

- Glazing method: Insulating - Dual Pane or Tri Pane
- Glazing seal: Silicone glazed
- Standard glass is Insulating Low E2 Argon or air
- Optional dual-pane glass make-ups:
  - Low E1 Argon or Air,
  - Low E3 Argon or Air,
  - Low E2/ERS Argon or Air,
  - Low E3/ERS Argon or air, Laminated, Tempered, Obscure, Bronze tint, Gray tint, Green tint, Reflective Bronze and decorative glass options
- Optional Tri Pane glass make-ups:
  - Low E2/E1 Argon or Krypton-Argon, or Air
  - Low E3/E1 Argon or Krypton-Argon, or Air
  - Low E1 Argon, Krypton-Argon, or Air
- Available glass types:
  - Laminated
  - Tempered
  - Obscure
  - Clear
- Tints
  - Bronze
  - Gray
  - Green
  - Reflective Bronze
- Decorative glass options:
  - Frost
  - 1/2 English Reed
  - Rain
  - Sandblasted
  - Glue Chip
- Glazing will be altitude adjusted for higher elevations with capillary tubes. Argon, Argon-Krypton, and Krypton gas not included
- IZ3 has annealed exterior pane is default with the option to temper
- CUDHP-NG 2.0 IZ3 product requires tempered glass on units above a glass square footage of 33.1.
- Egress may be affected when selecting specialty glass, please contact your Marvin representative
- For additional specialty glazing options, please contact your Marvin representatives.

**CE Optional Glazing:**

- Glazing method: Insulating
- Glazing seal: Silicone glazed
- Standard glass is 7/8" (22) insulating Low E2 Argon or air
- Optional dual glazing available: Low E1 Argon or air, Low E3 Argon or air, Low E2/ERS argon or air, Low E3/ERS Argon or air, clear, laminated clear and tints, tempered, sandblasted
- Optional Tripane glass types: Low E1/E1 Argon or Krypton-Argon, Low E2/E2 Argon or Krypton-Argon, Low E3/E1 Argon or Krypton-Argon
- Glass panes available in 3, 4, and 6 mm thicknesses
- Laminated panes available in 7.0 and 7.8 mm thicknesses
- Glazing will be altitude adjusted for higher elevations, Argon, Argon-Krypton, and Krypton gas not included

## Unit Features

### Weather Strip:

- Operating units:
  - Jambs: Foam-filled bulb
    - Color: beige, black, and white
  - Head Jamb: Continuous dual leaf
    - Color: beige, black, and white
  - Check rail: Hollow bulb
    - Color: beige, black, and white
  - Bottom rail: Hollow bulb
    - Color: black
- Picture units:
  - Jambs: Foam
  - Header and bottom rail: Hollow bulb

### Hardware:

- Locking system that provides locking, unlocking, balancing, and tilting of the sash members. Lock automatically locks when both sash are closed.
- Lock Actuator Assembly:
  - Material
    - Zinc die cast
    - Standard finish: Satin Taupe
    - Optional finish: White, Bronze, Matte Black, Brass, Antique Brass, Polished Chrome, Satin Chrome, Oil Rubbed Bronze, or Satin Nickel
  - Design features or components
    - To unlock the unit, turn the handle 135°
    - To lock the unit, both sash must be moved to the closed position
    - To tilt the bottom sash for wash-mode, the bottom sash must be open; push the button on top of lock handle and rotate the handle 180°
    - To tilt the top sash for wash-mode, the bottom sash must be tilted and/or removed from frame; lower the top sash to a good working height, retract the tilt latches on the top rail and tilt sash out of the frame
  - Options
    - Non-tilt hardware is standard on units with performance brackets
    - Custodial hardware colors: satin taupe, white, bronze, matte black
- Lift Lock (Option for Single Hung Only)
  - Available with one or two locks
  - Lift lock handle assembly is integrated into the bottom rail of the sash and controls locking, unlocking and facilitates operation of the bottom sash.
  - Two locks are not available on sash less than CN26 width
  - Material
    - Zinc die-cast
  - Finishes
    - Lift and Escutcheon components - Bronze, Satin Taupe, White, Matte Black, Oil Rubbed Bronze, Antique Brass, Brass, Polished Chrome, Satin Chrome, Satin Nickel
    - Sill Strike: White, Black, Beige
- Latches
  - Bottom sash latch, top sash tilt latch
  - Latches accommodate locking/un-locking, travel of sash in frame, and tilting into wash-mode
  - Injection-molded plastic
  - Color: beige
- Cord guide assembly
  - Injection-molded plastic and die-cast zinc
  - One cord guide inserted into bottom check rail
  - Cord guide is driven by lock handle, accounts for cord travel to retract latches
  - Plunger drives auto-lock feature to lock position when both sash are closed
- Strike Assembly
  - Zinc die-cast strike plate and injection-molded Acetal housing and button
  - Strike assembly accommodates locking/unlocking

**Unit Features**

- Balance system
  - Block & tackle balance
  - Hybrid spiral balance

*Balance type is dependent on sash weight. Unit size, glass type, and options can all impact sash weight. General balance selection is as follows (some exceptions exist based on unit size):*

Sash	Sash Weight	Balance Tube Type
Top	up to 35 lbs	Block and Tackle
	>35 lbs	Hybrid Spiral
Bottom	up to 30.6 lbs	Block and Tackle
	>30.6 lbs	Hybrid Spiral

- Sash Limiter
  - Bottom sash limiter:
    - Available on all operator configurations, and IZ3
    - Selectable bottom sash locations, 4", 6" or 8" Net Clear Opening (NCO)
    - Non-tilt hardware is default, and a sash removal tool is required in order to by-pass the Sash limiter for sash removal (tilt wash mode)
    - Standard application is factory applied. Available for retrofit applications.
    - Color: Will align with the Interior Weather Strip Package selection
  - Top Sash Limiter
    - Available on all operator configurations, with the exception Single Hung configurations. This includes IZ3
    - Selectable bottom sash locations, 4", 6" or 8" Net Clear Opening (NCO)
    - Standard application is factory applied. Available for field applications
    - Color: Will align with the Exterior Weather Strip Package selection
- Optional factory applied Window Opening Control Device is available on operating units.
  - Two devices will be applied to each window and will default color match the lock handle color.
  - WOCD is a device consisting of a zinc lever housed in a zinc shell on the top sash stile of the secondary sash and an acetal stop on the bottom check rail of the primary sash.
  - Color: Satin Taupe, White, Bronze, Matte Black, Brass, Antique Brass, Polished Chrome, Satin Chrome, Oil Rubbed Bronze, and Satin Nickel.
  - This device works in accordance to ASTM F2090-17 Standard Specification for Window Fall Prevention Devices with Emergency Escape (Egress) Release Mechanisms.
- Exterior Sash Lugs - Standard Option
  - Standard Profile: Ogee
  - Available on Top Sash
  - Color: Available in all exterior clad color options
    - Color shall be the same as top sash clad color
  - Standard application is factory applied. Available for field applications
- Optional Finger Pull
  - Single or double (not available on units less than CN26: Frame OM 31 1/4" (794))
  - Not available with Lift Lock
- Performance Rating Option
  - Option to eliminate performance brackets on specific size units to allow for standard tilt hardware. Reduces performance from an LC-PG50 to LC-PG35.
  - Option for a CW (Commercial Window) performance rating.

**Mulling:**

- For mull performance, refer to the General Mulling chapter of the ADM.

## Unit Features

### Insect Screens:

- Standard screen frame is roll formed aluminum
- Aluminum screen: Full screen standard, half screen optional
- Aluminum surround to match exterior frame clad color
- Units with a glass height of 20" (508) or greater will have a center cross bar
- Screen mesh:
  - Standard: Charcoal Fiberglass
  - Optional: Charcoal High Transparency Fiberglass Mesh, Charcoal Aluminum Wire, Black Aluminum Wire, Bright Aluminum Wire, or Bright Bronze Aluminum Wire
  - Optional Double Hung Magnum screen, extruded aluminum

### Combination Storm Sash and Screen:

- Frame: Extruded aluminum frame .045"(1.1) thick. Color: Stone White, Bahama Brown, Pebble Gray and Evergreen
- Insect screen:
  - Standard Screen mesh: Charcoal Aluminum Wire
  - Optional screen material: Charcoal Fiberglass Mesh, Black Aluminum Wire, Bright Aluminum Wire, Bright Bronze Wire, Optional Charcoal High Transparency Fiberglass Mesh (CH Hi-Tran)
- Weather strip: Pile weather strip between operating panels and at stiles of main frame
- Hardware: Spring-loaded latches to secure storm panel
- Max size: 45 1/4" x 79 1/2" frame size

### Lock Status Sensor (Optional):

- Refer to **Lock Status Sensor Installation Instructions** for requirements.
- The Lock Status Sensor detects an open or closed status on Clad Ultimate Double Hung - Next Generation 2.0 units and Ultimate Single Hung units. A "locked" status is inferred from the presence of the Auto-Lock feature which activates the locking mechanism when the operating panels are closed. It allows easy integration with home automation systems through a wired or wireless connection.
  - For wired option, check with local codes on potential contractor requirements for low voltage networking connections.
  - Wireless option available. Requires purchase of secondary transmitter for operation. Marvin will prep for this option.
- Wireless Lock Status Sensor is located within the width and height of the frame.
- Sensor Location
  - Will always be located on the right-hand side of the check rail (from the exterior) for the bottom sash. For the top sash, the sensor will be located in the header parting stop of the frame on the right side (from the exterior).
- For Wired or Wireless, Black or White Magnet Covers only visible on secondary surface. Cover color dependent upon interior finish.
  - White: Prime and White Painted Interior Finish
  - Black: Bare and all other finish options

## Unit Features

### Cottage Unit:

The following formula will properly size a standard cottage style double hung:

#### Formula

1. Select the standard size double hung that will fit the rough opening
2. Subtract 7 1/2" (191) from the frame size height to get total glass height
3. Multiply the total glass height by the desired top sash ratio, this is the top sash glass height
4. Subtract the top sash height from the total glass height, this is the bottom sash glass height

#### Example

1. CUDH-NG 2.0 with a 0.400 top sash ratio (2/5 - 3/5) cottage style. If the rough opening is 2'-4 1/4" x 4' (RO for a CUDH-NG 2.0 2020) the frame size will be 25 1/4" x 47 1/2"
2.  $47\ 1/2" - 7\ 1/2" = 40"$
3.  $40"$  multiplied by 0.400 (2/5) = 16"
4.  $40" - 16" = 24"$
5. The top sash will be a 2016 and the bottom sash will be a 2024. The call number for the example is: CUDH-NG 2.0 2016/24.

### CE Mulling Options

- Muller assemblies up to 120" (3048) x 79 1/2" (2019) as a 1H x multi-width assembly
- Muller assemblies up to 59 1/4" (1505) x 119 1/2" (3035) as a multi-high x 1W assembly
- Muller assemblies with 1" (25) LVL or 3/8" (10) aluminum mull reinforcement up to 120" (3048) x 100 3/8" (2550) as a multi-wide or multi-high assembly



**Egress/Vent and Daylight Openings: Operable**

CN	Opening Width		Opening Height		Egress Opening		Daylight Opening Width		Daylight Opening Height		Daylight Opening	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>	ft-in	mm	ft-in	mm	sq. ft.	m <sup>2</sup>
1612	1-5 21/32	(449)	0-10 11/16	(271)	1.31	(0.12)	1-2 47/64	(374)	0-10 3/4	(273)	1.10	(0.10)
1614	1-5 21/32	(449)	1-0 11/16	(322)	1.56	(0.14)	1-2 47/64	(374)	1-0 3/4	(324)	1.30	(0.12)
1616	1-5 21/32	(449)	1-2 11/16	(373)	1.80	(0.17)	1-2 47/64	(374)	1-2 3/4	(375)	1.51	(0.14)
1618	1-5 21/32	(449)	1-4 11/16	(424)	2.05	(0.19)	1-2 47/64	(374)	1-4 3/4	(425)	1.71	(0.16)
1620	1-5 21/32	(449)	1-6 11/16	(475)	2.29	(0.21)	1-2 47/64	(374)	1-6 3/4	(476)	1.92	(0.18)
1622	1-5 21/32	(449)	1-8 11/16	(525)	2.54	(0.24)	1-2 47/64	(374)	1-8 3/4	(527)	2.12	(0.20)
1624	1-5 21/32	(449)	1-10 11/16	(576)	2.78	(0.26)	1-2 47/64	(374)	1-10 3/4	(578)	2.33	(0.22)
1626	1-5 21/32	(449)	2-0 11/16	(627)	3.03	(0.28)	1-2 47/64	(374)	2-0 3/4	(629)	2.53	(0.24)
1628	1-5 21/32	(449)	2-2 11/16	(678)	3.27	(0.30)	1-2 47/64	(374)	2-2 3/4	(679)	2.74	(0.25)
1630	1-5 21/32	(449)	2-4 11/16	(729)	3.52	(0.33)	1-2 47/64	(374)	2-4 3/4	(730)	2.94	(0.27)
1632	1-5 21/32	(449)	2-6 11/16	(779)	3.76	(0.35)	1-2 47/64	(374)	2-6 3/4	(781)	3.15	(0.29)
1634	1-5 21/32	(449)	2-8 11/16	(830)	4.01	(0.37)	1-2 47/64	(374)	2-8 3/4	(832)	3.35	(0.31)
1636	1-5 21/32	(449)	2-10 11/16	(881)	4.25	(0.40)	1-2 47/64	(374)	2-10 3/4	(883)	3.56	(0.33)
1640	1-5 21/32	(449)	3-2 11/16	(983)	4.74	(0.44)	1-2 47/64	(374)	3-2 3/4	(984)	3.97	(0.37)
1642	1-5 21/32	(449)	3-4 11/16	(1033)	4.99	(0.46)	1-2 47/64	(374)	3-4 3/4	(1035)	4.17	(0.39)
1650	1-5 21/32	(449)	4-0 25/64	(1229)	5.93	(0.55)	1-2 47/64	(374)	4-0 3/4	(1238)	4.99	(0.46)
1656	1-5 21/32	(449)	4-6 25/64	(1381)	6.67	(0.62)	1-2 47/64	(374)	4-6 3/4	(1391)	5.60	(0.52)
1660	1-5 21/32	(449)	4-10 25/64	(1483)	7.16	(0.67)	1-2 47/64	(374)	4-10 3/4	(1492)	6.01	(0.56)
2012	1-9 21/32	(550)	0-10 11/16	(271)	1.61	(0.15)	1-6 47/64	(476)	0-10 3/4	(273)	1.40	(0.13)
2014	1-9 21/32	(550)	1-0 11/16	(322)	1.91	(0.18)	1-6 47/64	(476)	1-0 3/4	(324)	1.66	(0.15)
2016	1-9 21/32	(550)	1-2 11/16	(373)	2.21	(0.21)	1-6 47/64	(476)	1-2 3/4	(375)	1.92	(0.18)
2018	1-9 21/32	(550)	1-4 11/16	(424)	2.51	(0.23)	1-6 47/64	(476)	1-4 3/4	(425)	2.18	(0.20)
2020	1-9 21/32	(550)	1-6 11/16	(475)	2.81	(0.26)	1-6 47/64	(476)	1-6 3/4	(476)	2.44	(0.23)
2022	1-9 21/32	(550)	1-8 11/16	(525)	3.11	(0.29)	1-6 47/64	(476)	1-8 3/4	(527)	2.70	(0.25)
2024	1-9 21/32	(550)	1-10 11/16	(576)	3.41	(0.32)	1-6 47/64	(476)	1-10 3/4	(578)	2.96	(0.27)
2026	1-9 21/32	(550)	2-0 11/16	(627)	3.71	(0.34)	1-6 47/64	(476)	2-0 3/4	(629)	3.22	(0.30)
2028	1-9 21/32	(550)	2-2 11/16	(678)	4.01	(0.37)	1-6 47/64	(476)	2-2 3/4	(679)	3.48	(0.32)
2030	1-9 21/32	(550)	2-4 11/16	(729)	4.32	(0.40)	1-6 47/64	(476)	2-4 3/4	(730)	3.74	(0.35)
2032	1-9 21/32	(550)	2-6 11/16	(779)	4.62	(0.43)	1-6 47/64	(476)	2-6 3/4	(781)	4.00	(0.37)
2034	1-9 21/32	(550)	2-8 11/16	(830)	4.92	(0.46)	1-6 47/64	(476)	2-8 3/4	(832)	4.26	(0.40)
2036	1-9 21/32	(550)	2-10 11/16	(881)	5.22	(0.48)	1-6 47/64	(476)	2-10 3/4	(883)	4.52	(0.42)
2040 E	1-9 21/32	(550)	3-2 11/16	(983)	5.82	(0.54)	1-6 47/64	(476)	3-2 3/4	(984)	5.04	(0.47)
2042 E	1-9 21/32	(550)	3-4 11/16	(1033)	6.12	(0.57)	1-6 47/64	(476)	3-4 3/4	(1035)	5.30	(0.49)
2050 E	1-9 21/32	(550)	4-0 25/64	(1229)	7.28	(0.68)	1-6 47/64	(476)	4-0 3/4	(1238)	6.34	(0.59)
2056 E	1-9 21/32	(550)	4-6 25/64	(1381)	8.18	(0.76)	1-6 47/64	(476)	4-6 3/4	(1391)	7.12	(0.66)
2060 E	1-9 21/32	(550)	4-10 25/64	(1483)	8.78	(0.82)	1-6 47/64	(476)	4-10 3/4	(1492)	7.64	(0.71)

**NOTE:** Refer to Product Performance Chapter for International Building Code. Net Clear Opening drawings are pictured with the conversion tables.

Sizes designated with "E" meet egress requirements based on standard and optional [Glass and Glazing](#). All other glass options, please contact a Marvin representative.

Egress/Vent and Daylight Opening: Operable

CN	Opening Width		Opening Height		Egress Opening		Daylight Openng Width		Daylight Opening Height		Daylight Opening	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>	ft-in	mm	ft-in	mm	sq. ft.	m <sup>2</sup>
2412	2-1 21/32	(652)	0-10 11/16	(271)	1.90	(0.18)	1-10 47/64	(577)	0-10 3/4	(273)	1.70	(0.16)
2414	2-1 21/32	(652)	1-0 11/16	(322)	2.26	(0.21)	1-10 47/64	(577)	1-0 3/4	(324)	2.01	(0.19)
2416	2-1 21/32	(652)	1-2 11/16	(373)	2.62	(0.24)	1-10 47/64	(577)	1-2 3/4	(375)	2.33	(0.22)
2418	2-1 21/32	(652)	1-4 11/16	(424)	2.97	(0.28)	1-10 47/64	(577)	1-4 3/4	(425)	2.64	(0.25)
2420	2-1 21/32	(652)	1-6 11/16	(475)	3.33	(0.31)	1-10 47/64	(577)	1-6 3/4	(476)	2.96	(0.28)
2422	2-1 21/32	(652)	1-8 11/16	(525)	3.69	(0.34)	1-10 47/64	(577)	1-8 3/4	(527)	3.28	(0.30)
2424	2-1 21/32	(652)	1-10 11/16	(576)	4.04	(0.38)	1-10 47/64	(577)	1-10 3/4	(578)	3.59	(0.33)
2426	2-1 21/32	(652)	2-0 11/16	(627)	4.40	(0.41)	1-10 47/64	(577)	2-0 3/4	(629)	3.91	(0.36)
2428	2-1 21/32	(652)	2-2 11/16	(678)	4.76	(0.44)	1-10 47/64	(577)	2-2 3/4	(679)	4.22	(0.39)
2430	2-1 21/32	(652)	2-4 11/16	(729)	5.11	(0.47)	1-10 47/64	(577)	2-4 3/4	(730)	4.54	(0.42)
2432	2-1 21/32	(652)	2-6 11/16	(779)	5.47	(0.51)	1-10 47/64	(577)	2-6 3/4	(781)	4.86	(0.45)
2434 E	2-1 21/32	(652)	2-8 11/16	(830)	5.82	(0.54)	1-10 47/64	(577)	2-8 3/4	(832)	5.17	(0.48)
2436 E	2-1 21/32	(652)	2-10 11/16	(881)	6.18	(0.57)	1-10 47/64	(577)	2-10 3/4	(883)	5.49	(0.51)
2440 E	2-1 21/32	(652)	3-2 11/16	(983)	6.89	(0.64)	1-10 47/64	(577)	3-2 3/4	(984)	6.12	(0.57)
2442 E	2-1 21/32	(652)	3-4 25/64	(1026)	7.20	(0.67)	1-10 47/64	(577)	3-4 3/4	(1035)	6.43	(0.60)
2450 E	2-1 21/32	(652)	4-0 25/64	(1229)	8.62	(0.80)	1-10 47/64	(577)	4-0 3/4	(1238)	7.70	(0.72)
2456 E	2-1 21/32	(652)	4-6 25/64	(1381)	9.69	(0.90)	1-10 47/64	(577)	4-6 3/4	(1391)	8.64	(0.80)
2460 E	2-1 21/32	(652)	4-10 25/64	(1483)	10.40	(0.97)	1-10 47/64	(577)	4-10 3/4	(1492)	9.28	(0.86)
2612	2-3 21/32	(703)	0-10 11/16	(271)	2.05	(0.19)	2-0 47/64	(628)	0-10 3/4	(273)	1.85	(0.17)
2614	2-3 21/32	(703)	1-0 11/16	(322)	2.44	(0.23)	2-0 47/64	(628)	1-0 3/4	(324)	2.19	(0.20)
2616	2-3 21/32	(703)	1-2 11/16	(373)	2.82	(0.26)	2-0 47/64	(628)	1-2 3/4	(375)	2.53	(0.24)
2618	2-3 21/32	(703)	1-4 11/16	(424)	3.21	(0.30)	2-0 47/64	(628)	1-4 3/4	(425)	2.88	(0.27)
2620	2-3 21/32	(703)	1-6 11/16	(475)	3.59	(0.33)	2-0 47/64	(628)	1-6 3/4	(476)	3.22	(0.30)
2622	2-3 21/32	(703)	1-8 11/16	(525)	3.97	(0.37)	2-0 47/64	(628)	1-8 3/4	(527)	3.56	(0.33)
2624	2-3 21/32	(703)	1-10 11/16	(576)	4.36	(0.40)	2-0 47/64	(628)	1-10 3/4	(578)	3.91	(0.36)
2626	2-3 21/32	(703)	2-0 11/16	(627)	4.74	(0.44)	2-0 47/64	(628)	2-0 3/4	(629)	4.25	(0.39)
2628	2-3 21/32	(703)	2-2 11/16	(678)	5.13	(0.48)	2-0 47/64	(628)	2-2 3/4	(679)	4.60	(0.43)
2630	2-3 21/32	(703)	2-4 11/16	(729)	5.51	(0.51)	2-0 47/64	(628)	2-4 3/4	(730)	4.94	(0.46)
2632 E	2-3 21/32	(703)	2-6 11/16	(779)	5.89	(0.55)	2-0 47/64	(628)	2-6 3/4	(781)	5.28	(0.49)
2634 E	2-3 21/32	(703)	2-8 11/16	(830)	6.28	(0.58)	2-0 47/64	(628)	2-8 3/4	(832)	5.63	(0.52)
2636 E	2-3 21/32	(703)	2-10 11/16	(881)	6.66	(0.62)	2-0 47/64	(628)	2-10 3/4	(883)	5.97	(0.55)
2640 E	2-3 21/32	(703)	3-2 25/64	(975)	7.37	(0.69)	2-0 47/64	(628)	3-2 3/4	(984)	6.66	(0.62)
2642 E	2-3 21/32	(703)	3-4 25/64	(1026)	7.76	(0.72)	2-0 47/64	(628)	3-4 3/4	(1035)	7.00	(0.65)
2650 E	2-3 21/32	(703)	4-0 25/64	(1229)	9.29	(0.86)	2-0 47/64	(628)	4-0 3/4	(1238)	8.37	(0.78)
2656 E	2-3 21/32	(703)	4-6 25/64	(1381)	10.45	(0.97)	2-0 47/64	(628)	4-6 3/4	(1391)	9.40	(0.87)
2660 E	2-3 21/32	(703)	4-10 25/64	(1483)	11.21	(1.04)	2-0 47/64	(628)	4-10 3/4	(1492)	10.09	(0.94)

NOTE: Refer to Product Performance Chapter for International Building Code. Net Clear Opening drawings are pictured with the conversion tables.

Sizes designated with "E" meet egress requirements based on standard and optional [Glass and Glazing](#). All other glass options, please contact a Marvin representative.

**Egress/Vent and Daylight Opening: Operable**

CN	Opening Width		Opening Height		Egress Opening		Daylight Openng Width		Daylight Opening Height		Daylight Opening	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>	ft-in	mm	ft-in	mm	sq. ft.	m <sup>2</sup>
2812	2-5 21/32	(753)	0-10 11/16	(271)	2.20	(0.20)	2-2 47/64	(679)	0-10 3/4	(273)	2.00	(0.19)
2814	2-5 21/32	(753)	1-0 11/16	(322)	2.61	(0.24)	2-2 47/64	(679)	1-0 3/4	(324)	2.37	(0.22)
2816	2-5 21/32	(753)	1-2 11/16	(373)	3.03	(0.28)	2-2 47/64	(679)	1-2 3/4	(375)	2.74	(0.25)
2818	2-5 21/32	(753)	1-4 11/16	(424)	3.44	(0.32)	2-2 47/64	(679)	1-4 3/4	(425)	3.11	(0.29)
2820	2-5 21/32	(753)	1-6 11/16	(475)	3.85	(0.36)	2-2 47/64	(679)	1-6 3/4	(476)	3.48	(0.32)
2822	2-5 21/32	(753)	1-8 11/16	(525)	4.26	(0.40)	2-2 47/64	(679)	1-8 3/4	(527)	3.85	(0.36)
2824	2-5 21/32	(753)	1-10 11/16	(576)	4.67	(0.43)	2-2 47/64	(679)	1-10 3/4	(578)	4.22	(0.39)
2826	2-5 21/32	(753)	2-0 11/16	(627)	5.08	(0.47)	2-2 47/64	(679)	2-0 3/4	(629)	4.60	(0.43)
2828	2-5 21/32	(753)	2-2 11/16	(678)	5.50	(0.51)	2-2 47/64	(679)	2-2 3/4	(679)	4.97	(0.46)
2830 E	2-5 21/32	(753)	2-4 11/16	(729)	5.91	(0.55)	2-2 47/64	(679)	2-4 3/4	(730)	5.34	(0.50)
2832 E	2-5 21/32	(753)	2-6 11/16	(779)	6.32	(0.59)	2-2 47/64	(679)	2-6 3/4	(781)	5.71	(0.53)
2834 E	2-5 21/32	(753)	2-8 11/16	(830)	6.73	(0.63)	2-2 47/64	(679)	2-8 3/4	(832)	6.08	(0.56)
2836 E	2-5 21/32	(753)	2-10 25/64	(873)	7.08	(0.66)	2-2 47/64	(679)	2-10 3/4	(883)	6.45	(0.60)
2840 E	2-5 21/32	(753)	3-2 25/64	(975)	7.91	(0.73)	2-2 47/64	(679)	3-2 3/4	(984)	7.19	(0.67)
2842 E	2-5 21/32	(753)	3-4 25/64	(1026)	8.32	(0.77)	2-2 47/64	(679)	3-4 3/4	(1035)	7.57	(0.70)
2850 E	2-5 21/32	(753)	4-0 25/64	(1229)	9.97	(0.93)	2-2 47/64	(679)	4-0 3/4	(1238)	9.05	(0.84)
2856 E	2-5 21/32	(753)	4-6 25/64	(1381)	11.20	(1.04)	2-2 47/64	(679)	4-6 3/4	(1391)	10.17	(0.94)
2860 E	2-5 21/32	(753)	4-10 25/64	(1483)	12.03	(1.12)	2-2 47/64	(679)	4-10 3/4	(1492)	10.91	(1.01)
3012	2-7 21/32	(804)	0-10 11/16	(271)	2.35	(0.22)	2-4 47/64	(730)	0-10 3/4	(273)	2.15	(0.20)
3014	2-7 21/32	(804)	1-0 11/16	(322)	2.79	(0.26)	2-4 47/64	(730)	1-0 3/4	(324)	2.54	(0.24)
3016	2-7 21/32	(804)	1-2 11/16	(373)	3.23	(0.30)	2-4 47/64	(730)	1-2 3/4	(375)	2.94	(0.27)
3018	2-7 21/32	(804)	1-4 11/16	(424)	3.67	(0.34)	2-4 47/64	(730)	1-4 3/4	(425)	3.34	(0.31)
3020	2-7 21/32	(804)	1-6 11/16	(475)	4.11	(0.38)	2-4 47/64	(730)	1-6 3/4	(476)	3.74	(0.35)
3022	2-7 21/32	(804)	1-8 11/16	(525)	4.55	(0.42)	2-4 47/64	(730)	1-8 3/4	(527)	4.14	(0.38)
3024	2-7 21/32	(804)	1-10 11/16	(576)	4.99	(0.46)	2-4 47/64	(730)	1-10 3/4	(578)	4.54	(0.42)
3026	2-7 21/32	(804)	2-0 11/16	(627)	5.43	(0.50)	2-4 47/64	(730)	2-0 3/4	(629)	4.94	(0.46)
3028 E	2-7 21/32	(804)	2-2 11/16	(678)	5.87	(0.55)	2-4 47/64	(730)	2-2 3/4	(679)	5.34	(0.50)
3030 E	2-7 21/32	(804)	2-4 11/16	(729)	6.31	(0.59)	2-4 47/64	(730)	2-4 3/4	(730)	5.74	(0.53)
3032 E	2-7 21/32	(804)	2-6 11/16	(779)	6.75	(0.63)	2-4 47/64	(730)	2-6 3/4	(781)	6.14	(0.57)
3034 E	2-7 21/32	(804)	2-8 25/64	(823)	7.12	(0.66)	2-4 47/64	(730)	2-8 3/4	(832)	6.54	(0.61)
3036 E	2-7 21/32	(804)	2-10 25/64	(873)	7.56	(0.70)	2-4 47/64	(730)	2-10 3/4	(883)	6.93	(0.64)
3040 E	2-7 21/32	(804)	3-2 25/64	(975)	8.44	(0.78)	2-4 47/64	(730)	3-2 3/4	(984)	7.73	(0.72)
3042 E	2-7 21/32	(804)	3-4 25/64	(1026)	8.88	(0.82)	2-4 47/64	(730)	3-4 3/4	(1035)	8.13	(0.76)
3050 E	2-7 21/32	(804)	4-0 25/64	(1229)	10.64	(0.99)	2-4 47/64	(730)	4-0 3/4	(1238)	9.73	(0.90)
3056 E	2-7 21/32	(804)	4-6 25/64	(1381)	11.96	(1.11)	2-4 47/64	(730)	4-6 3/4	(1391)	10.93	(1.02)
3060 E	2-7 21/32	(804)	4-10 25/64	(1483)	12.84	(1.19)	2-4 47/64	(730)	4-10 3/4	(1492)	11.72	(1.09)

NOTE: Refer to Product Performance Chapter for International Building Code. Net Clear Opening drawings are pictured with the conversion tables.

Sizes designated with "E" meet egress requirements based on standard and optional [Glass and Glazing](#). All other glass options, please contact a Marvin representative.

**Egress/Vent and Daylight Opening: Operable**

CN	Opening Width		Opening Height		Egress Opening		Daylight Opening Width		Daylight Opening Height		Daylight Opening	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>	ft-in	mm	ft-in	mm	sq. ft.	m <sup>2</sup>
3212	2-9 21/32	(855)	0-10 11/16	(271)	2.50	(0.23)	2-6 47/64	(781)	0-10 3/4	(273)	2.29	(0.21)
3214	2-9 21/32	(855)	1-0 11/16	(322)	2.97	(0.28)	2-6 47/64	(781)	1-0 3/4	(324)	2.72	(0.25)
3216	2-9 21/32	(855)	1-2 11/16	(373)	3.43	(0.32)	2-6 47/64	(781)	1-2 3/4	(375)	3.15	(0.29)
3218	2-9 21/32	(855)	1-4 11/16	(424)	3.90	(0.36)	2-6 47/64	(781)	1-4 3/4	(425)	3.58	(0.33)
3220	2-9 21/32	(855)	1-6 11/16	(475)	4.37	(0.41)	2-6 47/64	(781)	1-6 3/4	(476)	4.00	(0.37)
3222	2-9 21/32	(855)	1-8 11/16	(525)	4.84	(0.45)	2-6 47/64	(781)	1-8 3/4	(527)	4.43	(0.41)
3224	2-9 21/32	(855)	1-10 11/16	(576)	5.30	(0.49)	2-6 47/64	(781)	1-10 3/4	(578)	4.86	(0.45)
3226 E	2-9 21/32	(855)	2-0 11/16	(627)	5.77	(0.54)	2-6 47/64	(781)	2-0 3/4	(629)	5.28	(0.49)
3228 E	2-9 21/32	(855)	2-2 11/16	(678)	6.24	(0.58)	2-6 47/64	(781)	2-2 3/4	(679)	5.71	(0.53)
3230 E	2-9 21/32	(855)	2-4 11/16	(729)	6.71	(0.62)	2-6 47/64	(781)	2-4 3/4	(730)	6.14	(0.57)
3231 E	2-9 21/32	(855)	2-5 25/64	(746)	6.87	(0.64)	2-6 47/64	(781)	2-5 3/4	(756)	6.35	(0.59)
3234 E	2-9 21/32	(855)	2-8 25/64	(823)	7.57	(0.70)	2-6 47/64	(781)	2-8 3/4	(832)	6.99	(0.65)
3236 E	2-9 21/32	(855)	2-10 25/64	(873)	8.04	(0.75)	2-6 47/64	(781)	2-10 3/4	(883)	7.42	(0.69)
3240 E	2-9 21/32	(855)	3-2 25/64	(975)	8.97	(0.83)	2-6 47/64	(781)	3-2 3/4	(984)	8.27	(0.77)
3242 E	2-9 21/32	(855)	3-4 25/64	(1026)	9.44	(0.88)	2-6 47/64	(781)	3-4 3/4	(1035)	8.70	(0.81)
3250 E	2-9 21/32	(855)	4-0 25/64	(1229)	11.31	(1.05)	2-6 47/64	(781)	4-0 3/4	(1238)	10.41	(0.97)
3256 E	2-9 21/32	(855)	4-6 25/64	(1381)	12.71	(1.18)	2-6 47/64	(781)	4-6 3/4	(1391)	11.69	(1.09)
3260 E	2-9 21/32	(855)	4-10 25/64	(1483)	13.65	(1.27)	2-6 47/64	(781)	4-10 3/4	(1492)	12.54	(1.16)
3612	3-1 21/32	(957)	0-10 11/16	(271)	2.79	(0.26)	2-10 47/64	(882)	0-10 3/4	(273)	2.59	(0.24)
3614	3-1 21/32	(957)	1-0 11/16	(322)	3.32	(0.31)	2-10 47/64	(882)	1-0 3/4	(324)	3.08	(0.29)
3616	3-1 21/32	(957)	1-2 11/16	(373)	3.84	(0.36)	2-10 47/64	(882)	1-2 3/4	(375)	3.56	(0.33)
3618	3-1 21/32	(957)	1-4 11/16	(424)	4.36	(0.41)	2-10 47/64	(882)	1-4 3/4	(425)	4.04	(0.38)
3620	3-1 21/32	(957)	1-6 11/16	(475)	4.89	(0.45)	2-10 47/64	(882)	1-6 3/4	(476)	4.52	(0.42)
3622	3-1 21/32	(957)	1-8 11/16	(525)	5.41	(0.50)	2-10 47/64	(882)	1-8 3/4	(527)	5.01	(0.47)
3624	3-1 21/32	(957)	1-10 11/16	(576)	5.93	(0.55)	2-10 47/64	(882)	1-10 3/4	(578)	5.49	(0.51)
3626 E	3-1 21/32	(957)	2-0 11/16	(627)	6.46	(0.60)	2-10 47/64	(882)	2-0 3/4	(629)	5.97	(0.55)
3628 E	3-1 21/32	(957)	2-2 25/64	(670)	6.90	(0.64)	2-10 47/64	(882)	2-2 3/4	(679)	6.45	(0.60)
3630 E	3-1 21/32	(957)	2-4 25/64	(721)	7.42	(0.69)	2-10 47/64	(882)	2-4 3/4	(730)	6.94	(0.64)
3632 E	3-1 21/32	(957)	2-6 25/64	(772)	7.95	(0.74)	2-10 47/64	(882)	2-6 3/4	(781)	7.42	(0.69)
3634 E	3-1 21/32	(957)	2-8 25/64	(823)	8.47	(0.79)	2-10 47/64	(882)	2-8 3/4	(832)	7.90	(0.73)
3636 E	3-1 21/32	(957)	2-10 25/64	(873)	8.99	(0.84)	2-10 47/64	(882)	2-10 3/4	(883)	8.38	(0.78)
3640 E	3-1 21/32	(957)	3-2 25/64	(975)	10.04	(0.93)	2-10 47/64	(882)	3-2 3/4	(984)	9.35	(0.87)
3642 E	3-1 21/32	(957)	3-4 25/64	(1026)	10.56	(0.98)	2-10 47/64	(882)	3-4 3/4	(1035)	9.83	(0.91)
3650 E	3-1 21/32	(957)	4-0 25/64	(1229)	12.65	(1.18)	2-10 47/64	(882)	4-0 3/4	(1238)	11.76	(1.09)
3656 E	3-1 21/32	(957)	4-6 25/64	(1381)	14.22	(1.32)	2-10 47/64	(882)	4-6 3/4	(1391)	13.21	(1.23)
3660 E	3-1 21/32	(957)	4-10 25/64	(1483)	15.27	(1.42)	2-10 47/64	(882)	4-10 3/4	(1492)	14.17	(1.32)

**NOTE:** Refer to Product Performance Chapter for International Building Code. Net Clear Opening drawings are pictured with the conversion tables.

Sizes designated with "E" meet egress requirements based on standard and optional [Glass and Glazing](#). All other glass options, please contact a Marvin representative.

**Egress/Vent and Daylight Openings: Operable**

CN	Opening Width		Opening Height		Egress Opening		Daylight Openng Width		Daylight Opening Height		Daylight Opening	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>	ft-in	mm	ft-in	mm	sq. ft.	m <sup>2</sup>
4012	3-5 21/32	(1058)	0-10 11/16	(271)	3.09	(0.29)	3-2 47/64	(984)	0-10 3/4	(273)	2.89	(0.27)
4014	3-5 21/32	(1058)	1-0 11/16	(322)	3.67	(0.34)	3-2 47/64	(984)	1-0 3/4	(324)	3.43	(0.32)
4016	3-5 21/32	(1058)	1-2 11/16	(373)	4.25	(0.39)	3-2 47/64	(984)	1-2 3/4	(375)	3.97	(0.37)
4018	3-5 21/32	(1058)	1-4 11/16	(424)	4.83	(0.45)	3-2 47/64	(984)	1-4 3/4	(425)	4.51	(0.42)
4020	3-5 21/32	(1058)	1-6 11/16	(475)	5.41	(0.50)	3-2 47/64	(984)	1-6 3/4	(476)	5.04	(0.47)
4022	3-5 21/32	(1058)	1-8 11/16	(525)	5.98	(0.56)	3-2 47/64	(984)	1-8 3/4	(527)	5.58	(0.52)
4024	3-5 21/32	(1058)	1-10 11/16	(576)	6.56	(0.61)	3-2 47/64	(984)	1-10 3/4	(578)	6.12	(0.57)
4026 E	3-5 21/32	(1058)	2-0 25/64	(619)	7.06	(0.66)	3-2 47/64	(984)	2-0 3/4	(629)	6.66	(0.62)
4028 E	3-5 21/32	(1058)	2-2 25/64	(670)	7.63	(0.71)	3-2 47/64	(984)	2-2 3/4	(679)	7.20	(0.67)
4030 E	3-5 21/32	(1058)	2-4 25/64	(721)	8.21	(0.76)	3-2 47/64	(984)	2-4 3/4	(730)	7.73	(0.72)
4032 E	3-5 21/32	(1058)	2-6 25/64	(772)	8.79	(0.82)	3-2 47/64	(984)	2-6 3/4	(781)	8.27	(0.77)
4034 E	3-5 21/32	(1058)	2-8 25/64	(823)	9.37	(0.87)	3-2 47/64	(984)	2-8 3/4	(832)	8.81	(0.82)
4036 E	3-5 21/32	(1058)	2-10 25/64	(873)	9.95	(0.92)	3-2 47/64	(984)	2-10 3/4	(883)	9.35	(0.87)
4040 E	3-5 21/32	(1058)	3-2 25/64	(975)	11.11	(1.03)	3-2 47/64	(984)	3-2 3/4	(984)	10.42	(0.97)
4042 E	3-5 21/32	(1058)	3-4 25/64	(1026)	11.68	(1.09)	3-2 47/64	(984)	3-4 3/4	(1035)	10.96	(1.02)
4050 E	3-5 21/32	(1058)	4-0 25/64	(1229)	14.0	(1.30)	3-2 47/64	(984)	4-0 3/4	(1238)	13.11	(1.22)
4056 E	3-5 21/32	(1058)	4-6 25/64	(1381)	15.73	(1.46)	3-2 47/64	(984)	4-6 3/4	(1391)	14.73	(1.37)
4060 E	3-5 21/32	(1058)	4-10 25/64	(1483)	16.89	(1.57)	3-2 47/64	(984)	4-10 3/4	(1492)	15.80	(1.47)
4412	3-9 21/32	(1160)	0-10 11/16	(271)	3.39	(0.31)	3-6 47/64	(1085)	0-10 3/4	(273)	3.19	(0.30)
4414	3-9 21/32	(1160)	1-0 11/16	(322)	4.02	(0.37)	3-6 47/64	(1085)	1-0 3/4	(324)	3.78	(0.35)
4416	3-9 21/32	(1160)	1-2 25/64	(365)	4.56	(0.42)	3-6 47/64	(1085)	1-2 3/4	(375)	4.38	(0.41)
4418	3-9 21/32	(1160)	1-4 11/16	(424)	5.29	(0.49)	3-6 47/64	(1085)	1-4 3/4	(425)	4.97	(0.46)
4420	3-9 21/32	(1160)	1-6 11/16	(475)	5.93	(0.55)	3-6 47/64	(1085)	1-6 3/4	(476)	5.56	(0.52)
4422	3-9 21/32	(1160)	1-8 11/16	(525)	6.56	(0.61)	3-6 47/64	(1085)	1-8 3/4	(527)	6.16	(0.57)
4424	3-9 21/32	(1160)	1-10 25/64	(569)	7.10	(0.66)	3-6 47/64	(1085)	1-10 3/4	(578)	6.75	(0.63)
4426 E	3-9 21/32	(1160)	2-0 25/64	(619)	7.73	(0.72)	3-6 47/64	(1085)	2-0 3/4	(629)	7.35	(0.68)
4428 E	3-9 21/32	(1160)	2-2 25/64	(670)	8.37	(0.78)	3-6 47/64	(1085)	2-2 3/4	(679)	7.94	(0.74)
4430 E	3-9 21/32	(1160)	2-4 25/64	(721)	9.0	(0.84)	3-6 47/64	(1085)	2-4 3/4	(730)	8.53	(0.79)
4432 E	3-9 21/32	(1160)	2-6 25/64	(772)	9.63	(0.90)	3-6 47/64	(1085)	2-6 3/4	(781)	9.13	(0.85)
4434 E	3-9 21/32	(1160)	2-8 25/64	(823)	10.27	(0.95)	3-6 47/64	(1085)	2-8 3/4	(832)	9.72	(0.90)
4436 E	3-9 21/32	(1160)	2-10 25/64	(873)	10.90	(1.01)	3-6 47/64	(1085)	2-10 3/4	(883)	10.31	(0.96)
4440 E	3-9 21/32	(1160)	3-2 25/64	(975)	12.17	(1.13)	3-6 47/64	(1085)	3-2 3/4	(984)	11.50	(1.07)
4442 E	3-9 21/32	(1160)	3-4 25/64	(1026)	12.81	(1.19)	3-6 47/64	(1085)	3-4 3/4	(1035)	12.09	(1.12)
4450 E	3-9 21/32	(1160)	4-0 25/64	(1229)	15.34	(1.43)	3-6 47/64	(1085)	4-0 3/4	(1238)	14.47	(1.34)
4456 E	3-9 21/32	(1160)	4-6 25/64	(1381)	17.24	(1.60)	3-6 47/64	(1085)	4-6 3/4	(1391)	16.25	(1.51)
4460 E	3-9 21/32	(1160)	4-10 25/64	(1483)	18.51	(1.72)	3-6 47/64	(1085)	4-10 3/4	(1492)	17.44	(1.62)

*NOTE: Refer to Product Performance Chapter for International Building Code. Net Clear Opening drawings are pictured with the conversion tables.*

*Sizes designated with "E" meet egress requirements based on standard and optional [Glass and Glazing](#). All other glass options, please contact a Marvin representative.*

Egress/Vent and Daylight Openings: Operable

CN	Opening Width		Opening Height		Egress Opening		Daylight Opening Width		Daylight Opening Height		Daylight Opening	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>	ft-in	mm	ft-in	mm	sq. ft.	m <sup>2</sup>
4812	4-1 21/32	(1261)	0-10 11/16	(271)	3.69	(0.34)	3-10 47/64	(1187)	0-10 3/4	(273)	3.49	(0.32)
4814	4-1 21/32	(1261)	1-0 25/64	(315)	4.27	(0.40)	3-10 47/64	(1187)	1-0 3/4	(324)	4.14	(0.38)
4816	4-1 21/32	(1261)	1-2 25/64	(365)	4.96	(0.46)	3-10 47/64	(1187)	1-2 3/4	(375)	4.79	(0.44)
4818	4-1 21/32	(1261)	1-4 11/16	(424)	5.75	(0.53)	3-10 47/64	(1187)	1-4 3/4	(425)	5.44	(0.51)
4820	4-1 21/32	(1261)	1-6 11/16	(475)	6.44	(0.60)	3-10 47/64	(1187)	1-6 3/4	(476)	6.09	(0.57)
4822	4-1 21/32	(1261)	1-8 25/64	(518)	7.03	(0.65)	3-10 47/64	(1187)	1-8 3/4	(527)	6.73	(0.63)
4824	4-1 21/32	(1261)	1-10 25/64	(569)	7.72	(0.72)	3-10 47/64	(1187)	1-10 3/4	(578)	7.38	(0.69)
4826 E	4-1 21/32	(1261)	2-0 25/64	(619)	8.41	(0.78)	3-10 47/64	(1187)	2-0 3/4	(629)	8.03	(0.75)
4828 E	4-1 21/32	(1261)	2-2 25/64	(670)	9.10	(0.85)	3-10 47/64	(1187)	2-2 3/4	(679)	8.68	(0.81)
4830 E	4-1 21/32	(1261)	2-4 25/64	(721)	9.79	(0.91)	3-10 47/64	(1187)	2-4 3/4	(730)	9.33	(0.87)
4832 E	4-1 21/32	(1261)	2-6 25/64	(772)	10.48	(0.97)	3-10 47/64	(1187)	2-6 3/4	(781)	9.98	(0.93)
4834 E	4-1 21/32	(1261)	2-8 25/64	(823)	11.17	(1.04)	3-10 47/64	(1187)	2-8 3/4	(832)	10.63	(0.99)
4836 E	4-1 21/32	(1261)	2-10 25/64	(873)	11.86	(1.10)	3-10 47/64	(1187)	2-10 3/4	(883)	11.28	(1.05)
4840 E	4-1 21/32	(1261)	3-2 25/64	(975)	13.24	(1.23)	3-10 47/64	(1187)	3-2 3/4	(984)	12.58	(1.17)
4842 E	4-1 21/32	(1261)	3-4 25/64	(1026)	13.93	(1.29)	3-10 47/64	(1187)	3-4 3/4	(1035)	13.23	(1.23)
4850 E	4-1 21/32	(1261)	4-0 25/64	(1229)	16.69	(1.55)	3-10 47/64	(1187)	4-0 3/4	(1238)	15.82	(1.47)
4856 E	4-1 21/32	(1261)	4-6 25/64	(1381)	18.76	(1.74)	3-10 47/64	(1187)	4-6 3/4	(1391)	17.77	(1.65)
4860 E	4-1 21/32	(1261)	4-10 25/64	(1483)	20.14	(1.87)	3-10 47/64	(1187)	4-10 3/4	(1492)	19.07	(1.77)
5412	4-7 21/32	(1414)	0-10 25/64	(264)	4.01	(0.37)	4-4 47/64	(1339)	0-10 3/4	(273)	3.94	(0.37)
5414	4-7 21/32	(1414)	1-0 25/64	(315)	4.79	(0.44)	4-4 47/64	(1339)	1-0 3/4	(324)	4.67	(0.43)
5416	4-7 21/32	(1414)	1-2 25/64	(365)	5.56	(0.52)	4-4 47/64	(1339)	1-2 3/4	(375)	5.40	(0.50)
5418	4-7 21/32	(1414)	1-4 25/64	(416)	6.33	(0.59)	4-4 47/64	(1339)	1-4 3/4	(425)	6.13	(0.57)
5420	4-7 21/32	(1414)	1-6 25/64	(467)	7.11	(0.66)	4-4 47/64	(1339)	1-6 3/4	(476)	6.87	(0.64)
5422	4-7 21/32	(1414)	1-8 25/64	(518)	7.88	(0.73)	4-4 47/64	(1339)	1-8 3/4	(527)	7.60	(0.71)
5424	4-7 21/32	(1414)	1-10 25/64	(569)	8.65	(0.80)	4-4 47/64	(1339)	1-10 3/4	(578)	8.33	(0.77)
5426 E	4-7 21/32	(1414)	2-0 25/64	(619)	9.43	(0.88)	4-4 47/64	(1339)	2-0 3/4	(629)	9.06	(0.84)
5428 E	4-7 21/32	(1414)	2-2 25/64	(670)	10.20	(0.95)	4-4 47/64	(1339)	2-2 3/4	(679)	9.80	(0.91)
5430 E	4-7 21/32	(1414)	2-4 25/64	(721)	10.97	(1.02)	4-4 47/64	(1339)	2-4 3/4	(730)	10.53	(0.98)
5432 E	4-7 21/32	(1414)	2-6 25/64	(772)	11.75	(1.09)	4-4 47/64	(1339)	2-6 3/4	(781)	11.26	(1.05)
5434 E	4-7 21/32	(1414)	2-8 25/64	(823)	12.52	(1.16)	4-4 47/64	(1339)	2-8 3/4	(832)	11.99	(1.11)
5436 E	4-7 21/32	(1414)	2-10 25/64	(873)	13.29	(1.23)	4-4 47/64	(1339)	2-10 3/4	(883)	12.73	(1.18)
5440 E	4-7 21/32	(1414)	3-2 25/64	(975)	14.84	(1.38)	4-4 47/64	(1339)	3-2 3/4	(984)	14.19	(1.32)
5442 E	4-7 21/32	(1414)	3-4 25/64	(1026)	15.61	(1.45)	4-4 47/64	(1339)	3-4 3/4	(1035)	14.92	(1.39)
5450 E	4-7 21/32	(1414)	4-0 25/64	(1229)	18.70	(1.74)	4-4 47/64	(1339)	4-0 3/4	(1238)	17.85	(1.66)
5456 E	4-7 21/32	(1414)	4-6 25/64	(1381)	21.02	(1.95)	4-4 47/64	(1339)	4-6 3/4	(1391)	20.05	(1.86)
5460 E	4-7 21/32	(1414)	4-10 25/64	(1483)	22.57	(2.10)	4-4 47/64	(1339)	4-10 3/4	(1492)	21.52	(2.00)

NOTE: Refer to Product Performance Chapter for International Building Code. Net Clear Opening drawings are pictured with the conversion tables.

Sizes designated with "E" meet egress requirements based on standard and optional [Glass and Glazing](#). All other glass options, please contact a Marvin representative.

**Egress/Vent and Daylight Openings: Operable**

CN	Opening Width		Opening Height		Egress Opening		Daylight Openng Width		Daylight Opening Height		Daylight Opening	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>	ft-in	mm	ft-in	mm	sq. ft.	m <sup>2</sup>
6012	5-1 21/32	(1566)	0-10 25/64	(264)	4.45	(0.41)	4-10 47/64	(1492)	0-10 3/4	(273)	4.38	(0.41)
6014	5-1 21/32	(1566)	1-0 25/64	(315)	5.30	(0.49)	4-10 47/64	(1492)	1-0 3/4	(324)	5.20	(0.48)
6016	5-1 21/32	(1566)	1-2 25/64	(365)	6.16	(0.57)	4-10 47/64	(1492)	1-2 3/4	(375)	6.02	(0.56)
6018	5-1 21/32	(1566)	1-4 25/64	(416)	7.02	(0.65)	4-10 47/64	(1492)	1-4 3/4	(425)	6.83	(0.63)
6020	5-1 21/32	(1566)	1-6 25/64	(467)	7.87	(0.73)	4-10 47/64	(1492)	1-6 3/4	(476)	7.65	(0.71)
6022	5-1 21/32	(1566)	1-8 25/64	(518)	8.73	(0.81)	4-10 47/64	(1492)	1-8 3/4	(527)	8.46	(0.79)
6024	5-1 21/32	(1566)	1-10 25/64	(569)	9.59	(0.89)	4-10 47/64	(1492)	1-10 3/4	(578)	9.28	(0.86)
6026 E	5-1 21/32	(1566)	2-0 25/64	(619)	10.44	(0.97)	4-10 47/64	(1492)	2-0 3/4	(629)	10.10	(0.94)
6028 E	5-1 21/32	(1566)	2-2 25/64	(670)	11.30	(1.05)	4-10 47/64	(1492)	2-2 3/4	(679)	10.91	(1.01)
6030 E	5-1 21/32	(1566)	2-4 25/64	(721)	12.15	(1.13)	4-10 47/64	(1492)	2-4 3/4	(730)	11.73	(1.09)
6032 E	5-1 21/32	(1566)	2-6 25/64	(772)	13.01	(1.21)	4-10 47/64	(1492)	2-6 3/4	(781)	12.54	(1.17)
6034 E	5-1 21/32	(1566)	2-8 25/64	(823)	13.87	(1.29)	4-10 47/64	(1492)	2-8 3/4	(832)	13.36	(1.24)
6036 E	5-1 21/32	(1566)	2-10 25/64	(873)	14.72	(1.37)	4-10 47/64	(1492)	2-10 3/4	(883)	14.17	(1.32)
6040 E	5-1 21/32	(1566)	3-2 25/64	(975)	16.44	(1.53)	4-10 47/64	(1492)	3-2 3/4	(984)	15.81	(1.47)
6042 E	5-1 21/32	(1566)	3-4 25/64	(1026)	17.29	(1.61)	4-10 47/64	(1492)	3-4 3/4	(1035)	16.62	(1.54)
6050 E	5-1 21/32	(1566)	4-0 25/64	(1229)	20.72	(1.92)	4-10 47/64	(1492)	4-0 3/4	(1238)	19.88	(1.85)
6056 E	5-1 21/32	(1566)	4-6 25/64	(1381)	23.29	(2.16)	4-10 47/64	(1492)	4-6 3/4	(1391)	22.33	(2.07)
6060 E	5-1 21/32	(1566)	4-10 25/64	(1483)	25. 0	(2.32)	4-10 47/64	(1492)	4-10 3/4	(1492)	23.96	(2.23)

NOTE: Refer to Product Performance Chapter for International Building Code. Net Clear Opening drawings are pictured with the conversion tables.

Sizes designated with "E" meet egress requirements based on standard and optional [Glass and Glazing](#). All other glass options, please contact a Marvin representative.

NOTE: Clear Opening Height conversions are for units using block and tackle balances. Hybrid Spiral balanced units will exhibit reduced sash travel. Contact a Marvin representative for additional information.

**Daylight Measurements: Transom**

CN	Daylight Openng Width		Daylight Opening Height		Daylight Opening	
	ft-in	mm	ft-in	mm	sq. ft.	m <sup>2</sup>
1612	1-2 47/64	(374)	1-0 3/4	(324)	1.30	(0.12)
1620	1-2 47/64	(374)	1-8 3/4	(527)	2.12	(0.20)
2012	1-6 47/64	(476)	1-0 3/4	(324)	1.66	(0.15)
2020	1-6 47/64	(476)	1-8 3/4	(527)	2.70	(0.25)
2412	1-10 47/64	(577)	1-0 3/4	(324)	2.01	(0.19)
2420	1-10 47/64	(577)	1-8 3/4	(527)	3.28	(0.30)
2612	2-0 47/64	(628)	1-0 3/4	(324)	2.19	(0.20)
2620	2-0 47/64	(628)	1-8 3/4	(527)	3.56	(0.33)
2812	2-2 47/64	(679)	1-0 3/4	(324)	2.37	(0.22)
2820	2-2 47/64	(679)	1-8 3/4	(527)	3.85	(0.36)
3012	2-4 47/64	(730)	1-0 3/4	(324)	2.54	(0.24)
3020	2-4 47/64	(730)	1-8 3/4	(527)	4.14	(0.38)
3212	2-6 47/64	(781)	1-0 3/4	(324)	2.72	(0.25)
3220	2-6 47/64	(781)	1-8 3/4	(527)	4.43	(0.41)
3612	2-10 47/64	(882)	1-0 3/4	(324)	3.08	(0.29)
3620	2-10 47/64	(882)	1-8 3/4	(527)	5.01	(0.47)
4012	3-2 47/64	(984)	1-0 3/4	(324)	3.43	(0.32)
4020	3-2 47/64	(984)	1-8 3/4	(527)	5.58	(0.52)
5412	4-4 47/64	(1339)	1-0 3/4	(324)	4.67	(0.43)
5420	4-4 47/64	(1339)	1-8 3/4	(527)	7.60	(0.71)



Daylight Measurements: Picture

CN	Daylight Opening Width		Daylight Opening Height		Daylight Opening	
	ft-in	mm	ft-in	mm	sq. ft.	m <sup>2</sup>
4038	2-10 47/64	(882)	2-7 27/64	(798)	7.58	(0.70)
4042	2-10 47/64	(882)	2-11 27/64	(900)	8.54	(0.79)
4046	2-10 47/64	(882)	3-3 27/64	(1001)	9.51	(0.88)
4050	2-10 47/64	(882)	3-7 27/64	(1103)	10.47	(0.97)
4054	2-10 47/64	(882)	3-11 27/64	(1204)	11.44	(1.06)
4058	2-10 47/64	(882)	4-3 27/64	(1306)	12.40	(1.15)
4062	2-10 47/64	(882)	4-7 27/64	(1408)	13.37	(1.24)
4066	2-10 47/64	(882)	4-11 27/64	(1509)	14.33	(1.33)
4070	2-10 47/64	(882)	5-3 27/64	(1611)	15.30	(1.42)
4074	2-10 47/64	(882)	5-7 27/64	(1712)	16.26	(1.51)
4078	2-10 47/64	(882)	5-11 27/64	(1814)	17.23	(1.60)
4086	2-10 47/64	(882)	6-7 27/64	(2017)	19.16	(1.78)
4090	2-10 47/64	(882)	6-11 27/64	(2119)	20.12	(1.87)

CN	Daylight Opening Width		Daylight Opening Height		Daylight Opening	
	ft-in	mm	ft-in	mm	sq. ft.	m <sup>2</sup>
6038	4-6 47/64	(1390)	2-7 27/64	(798)	11.94	(1.11)
6042	4-6 47/64	(1390)	2-11 27/64	(900)	13.46	(1.25)
6046	4-6 47/64	(1390)	3-3 27/64	(1001)	14.98	(1.39)
6050	4-6 47/64	(1390)	3-7 27/64	(1103)	16.50	(1.53)
6054	4-6 47/64	(1390)	3-11 27/64	(1204)	18.02	(1.67)
6058	4-6 47/64	(1390)	4-3 27/64	(1306)	19.54	(1.82)
6062	4-6 47/64	(1390)	4-7 27/64	(1408)	21.06	(1.96)
6066	4-6 47/64	(1390)	4-11 27/64	(1509)	22.58	(2.10)
6070	4-6 47/64	(1390)	5-3 27/64	(1611)	24.11	(2.24)
6074	4-6 47/64	(1390)	5-7 27/64	(1712)	25.63	(2.38)
6078	4-6 47/64	(1390)	5-11 27/64	(1814)	27.15	(2.52)
6086	4-6 47/64	(1390)	6-7 27/64	(2017)	30.19	(2.80)
6090	4-6 47/64	(1390)	6-11 27/64	(2119)	31.71	(2.95)

4838	3-6 47/64	(1085)	2-7 27/64	(798)	9.32	(0.87)
4842	3-6 47/64	(1085)	2-11 27/64	(900)	10.51	(0.98)
4846	3-6 47/64	(1085)	3-3 27/64	(1001)	11.70	(1.09)
4850	3-6 47/64	(1085)	3-7 27/64	(1103)	12.89	(1.20)
4854	3-6 47/64	(1085)	3-11 27/64	(1204)	14.07	(1.31)
4858	3-6 47/64	(1085)	4-3 27/64	(1306)	15.26	(1.42)
4862	3-6 47/64	(1085)	4-7 27/64	(1408)	16.45	(1.53)
4866	3-6 47/64	(1085)	4-11 27/64	(1509)	17.63	(1.64)
4870	3-6 47/64	(1085)	5-3 27/64	(1611)	18.82	(1.75)
4878	3-6 47/64	(1085)	5-11 27/64	(1814)	21.19	(1.97)
4878	3-6 47/64	(1085)	5-11 27/64	(1814)	21.19	(1.97)
4886	3-6 47/64	(1085)	6-7 27/64	(2017)	23.57	(2.19)
4890	3-6 47/64	(1085)	6-11 27/64	(2119)	24.76	(2.30)

6838	5-2 47/64	(1593)	2-7 27/64	(798)	13.69	(1.27)
6842	5-2 47/64	(1593)	2-11 27/64	(900)	15.43	(1.43)
6846	5-2 47/64	(1593)	3-3 27/64	(1001)	17.17	(1.60)
6850	5-2 47/64	(1593)	3-7 27/64	(1103)	18.92	(1.76)
6854	5-2 47/64	(1593)	3-11 27/64	(1204)	20.66	(1.92)
6858	5-2 47/64	(1593)	4-3 27/64	(1306)	22.40	(2.08)
6862	5-2 47/64	(1593)	4-7 27/64	(1408)	24.14	(2.24)
6866	5-2 47/64	(1593)	4-11 27/64	(1509)	25.89	(2.40)
6870	5-2 47/64	(1593)	5-3 27/64	(1611)	27.63	(2.57)
6874	5-2 47/64	(1593)	5-7 27/64	(1712)	29.37	(2.73)
6878	5-2 47/64	(1593)	5-11 27/64	(1814)	31.11	(2.89)
6886	5-2 47/64	(1593)	6-7 27/64	(2017)	34.60	(3.21)
6890	5-2 47/64	(1593)	6-11 27/64	(2119)	36.34	(3.38)

5238	3-10 47/64	(1187)	2-7 27/64	(798)	10.20	(0.95)
5242	3-10 47/64	(1187)	2-11 27/64	(900)	11.49	(1.07)
5246	3-10 47/64	(1187)	3-3 27/64	(1001)	12.79	(1.19)
5250	3-10 47/64	(1187)	3-7 27/64	(1103)	14.09	(1.31)
5254	3-10 47/64	(1187)	3-11 27/64	(1204)	15.39	(1.43)
5258	3-10 47/64	(1187)	4-3 27/64	(1306)	16.69	(1.55)
5262	3-10 47/64	(1187)	4-7 27/64	(1408)	17.99	(1.67)
5266	3-10 47/64	(1187)	4-11 27/64	(1509)	19.28	(1.79)
5270	3-10 47/64	(1187)	5-3 27/64	(1611)	20.58	(1.91)
5274	3-10 47/64	(1187)	5-7 27/64	(1712)	21.88	(2.03)
5278	3-10 47/64	(1187)	5-11 27/64	(1814)	23.18	(2.15)
5286	3-10 47/64	(1187)	6-7 27/64	(2017)	25.78	(2.39)
5290	3-10 47/64	(1187)	6-11 27/64	(2119)	27.07	(2.52)

**Minimum and Maximum Guidelines**

Minimum and Maximum Certified Frame Size												
Unit Type		Minimum				Maximum				Max Glass		
		Width		Height		Width		Height				
		in	mm	in	mm	in	mm	in	mm	Sash Size Glass Type	Sq. Feet	Sq. Meters
USH G2	Equal Sash	14 1/4	(362)	23 1/2	(597)	65 1/4	(1657)	127 1/2	(3239)	Equal	25	2.323
UDHG2	Equal Sash	14 1/4	(362)	23 1/2	(597)	65 1/4	(1657)	127 1/2	(3239)	Equal	25	2.323
UDHG2	Cottage	14 1/4	(362)	23 1/2	(597)	65 1/4	(1657)	127 1/2	(3239)	Small	7/16	0.041
										Large	25	2.323
UDHG2	Reverse Cottage	14 1/4	(362)	23 1/2	(597)	65 1/4	(1657)	127 1/2	(3238)	Small	7/16	0.041
										Large	25	2.323
UDHG2 / USH G2	w/ Combination	21 1/4	(540)	31 1/2	(800)	45 1/4	(1149)	79 1/2	(2019)			
UDHTRG2	One Sash	14 1/4	(362)	14 1/2	(368)	73 1/4	(1861)	27 11/16	(703)	Standard	10 25/64	0.965
UDHPG2	One Sash	14 1/4	(362)	14 27/32	(377)	61 1/4	(1556)	103 1/2	(2629)	Standard	37 19/32	3.492
						67 1/4	(1708)	69 1/2	(1765)	Standard	26 63/64	2.507

Minimum and Maximum Extended Frame Size								
Unit Type		Maximum				Max Glass		
		Width		Height				
		in	mm	in	mm	Sash Size Glass Type	Sq. Feet	Sq. Meters
UDHTRG2	One Sash	120	(3048)	127 1/2	(3239)	Standard Tempered	61	5.667
UDHPG2	One Sash	120	(3048)	127 1/2	(3239)	Standard Tempered	61	5.667

IZ3 Minimum and Maximum Frame Size										
Unit Type		Minimum				Maximum				
		Width		Height		Width		Height		
		in	mm	in	mm	in	mm	in	mm	
USH G2	Equal Sash	14 1/4	(362)	23 1/2	(597)	53 1/4	(1353)	119 1/2	(3035)	
UDHG2	Equal Sash	14 1/4	(362)	23 1/2	(597)	53 1/4	(1353)	119 1/2	(3035)	
UDHTRG2	One Sash	14 1/4	(362)	14 1/2	(368)	73 1/4	(1861)	27 11/16	(703)	
UDHPG2	One Sash	14 1/4	(362)	14 27/32	(377)	61 1/4	(1556)	103 1/2	(2629)	

NOTE: CE mark not available on IZ3 units.

**Certified Sizes and Ratings**

Product	Air Test to PSF	Water Tested to psf	Structural Tested to psf	Certification Rating	Design Pressure	Overall Width		Overall Height	
						in	mm	in	mm
UDHG2 (4040)	1.57	7.5	75	LC-PG50	DP50	45 1/4	(1149)	87 1/2	(2223)
UDHG2 (4044)	1.57	7.5	75	LC-PG50	DP50	45 1/4	(1149)	95 1/2	(2426)
UDHG2 (4450)	1.57	7.5	75	LC-PG50	DP50	49 1/4	(1251)	107 1/2	(2731)
UDHG2 (5044) *	1.57	6	60	LC-PG35	DP35	55 1/4	(1403)	95 1/2	(2426)
UDHG2 (5456)	1.57	6	60	LC-PG35	DP35	59 1/4	(1505)	119 1/2	(3035)
UDHG2 (6060)	1.57	7.5	45	LC-PG30	DP30	65 1/4	(1657)	127 1/2	(3239)
UDHPG2 (6668)	1.57	7.5	75	CW-PG50	DP50	67 1/4	(1708)	69 1/2	(1765)
UDHPG2 (60102)	1.57	7.5	75	CW-PG50	DP50	61 1/4	(1556)	103 1/2	(2629)
UDHINRG2 (4020)	1.57	7.5	75	LC-PG50	DP50	45 1/4	(1149)	27 11/16	(703)
UDHINRG2 (6820)	1.57	7.5	75	LC-PG50	DP50	73 1/4	(1861)	27 11/16	(703)
UDHINRG2 (6820)	1.57	7.5	75	LC-PG50	DP50	73 1/4	(1861)	27 11/16	(703)
UDHG2 (5044) *	1.57	6	60	LC-PG35	DP35	55 1/4	(1403)	95 1/2	(2426)
UDHG2CW (4826)	1.57	7.5	75	CW-PG50	DP50	53 1/4	(1353)	59 1/2	(1511)
UDHG2CW (4848)	1.57	7.5	75	CW-PG50	DP50	53 1/4	(1353)	103 1/2	(2629)
UDHG2CW (5056)	1.57	7.5	60	CW-PG40	DP40	55 1/4	(1403)	119 1/2	(3035)
UDHG2CW (5456)	1.57	7.5	45	CW-PG30	DP30	59 1/4	(1505)	119 1/2	(3035)

NOTE: For CE ratings, please refer to CE Performance Section.

CW Performance is an Option

CE mark is not available on IZ3 units.

\*Tested with the Performance Bracket removed\

**Certified Sizes and Ratings (IZ3)**

Product	Air Test to PSF	Water Tested to psf	Structural Tested to psf	Certification Rating	Design Pressure	Overall Width		Overall Height	
						in	mm	in	mm
UDHG2 (4036 - IZ3)	1.57	9.75	97.5	LC-PG65	DP65	45 1/4	(1149)	79 1/2	(2019)
UDHG2 (4450 - IZ3)	1.57	9.75	97.5	LC-PG65	DP65	49 1/4	(1251)	107 1/2	(2731)
UDHG2IZ3 (4256 - IZ3)	1.57	9.75	97.5	LC-PG65	DP65	47 1/4	(1200)	119 1/2	(3035)
UDHG2 (4848 - IZ3)	1.57	9.75	97.5	LC-PG65	DP65	53 1/4	(1353)	103 1/2	(2629)
UDHTRG2IZ3 (6820-IZ3)	1.57	9.75	97.5	LC-PG65	DP65	73 1/4	(1861)	27 11/16	(703)
UDHPG2IZ3 (60102-IZ3)	1.57	9.75	97.5	CW-PG65	DP65	61 1/4	(1556)	103 1/2	(2629)

NOTE: CE mark is not available on IZ3 units.

**Measurement Conversions**

Ultimate Double Hung G2 Operating Unit						
Unit Measurements		Width		Height		
From	To					
<b>Rough Opening</b>		<b>in</b>	<b>mm</b>		<b>in</b>	<b>mm</b>
OM of Frame	Rough Opening	+ 1	(25)		+ 1/2	(13)
Masonry Opening	Rough Opening	+ 1/2	(13)		+ 1/4	(06)
Masonry Opening w/BMC	Rough Opening	-2 1/8	(54)		-1 29/32	(48)
Masonry Opening w/Flat Casing	Rough Opening	-5 1/2	(140)		-3 19/32	(91)
Masonry Opening w/BMC (all sides)	Rough Opening	-2 1/8	(54)		-1 55/64	(47)
Masonry Opening w/Flat Casing (all sides)	Rough Opening	-5 1/2	(140)		-5 15/64	(133)
<b>Frame</b>		<b>in</b>	<b>mm</b>		<b>in</b>	<b>mm</b>
OM of BMC	OM of Frame	-2 5/8	(67)		-1 29/32	(48)
OM of Flat Casing	OM of Frame	-6	(152)		-3 19/32	(91)
Daylight Opening	OM of Frame	+ 6 33/64	(165)	× 2	+ 10	(254)
Glass Size	OM of Frame	+ 5 1/4	(133)	× 2	+ 7 1/2	(191)
<b>Top Sash</b>		<b>in</b>	<b>mm</b>		<b>in</b>	<b>mm</b>
OM of Frame	OM of Top Sash	-3 11/64	(81)	+ 2	-3/4	(19)
Daylight Opening	OM of Top Sash	+ 3 11/32	(85)		+ 4 1/4	(108)
<b>Bottom Sash</b>		<b>in</b>	<b>mm</b>		<b>in</b>	<b>mm</b>
OM of Frame	OM of Bottom Sash	-3 11/64	(81)	+ 2	-1/32	(01)
Daylight Opening	OM of Bottom Sash	+ 3 11/32	(85)		+ 4 31/32	(126)
<b>Glass</b>		<b>in</b>	<b>mm</b>		<b>in</b>	<b>mm</b>
Daylight Opening	Glass	+ 1 17/64	(32)		+ 1 1/4	(32)
<b>Aluminum Screen</b>		<b>in</b>	<b>mm</b>		<b>in</b>	<b>mm</b>
Daylight Opening	OM of Screen	+ 4 41/64	(118)		+ 8 1/4	(210)
<b>Aluminum Half Screen</b>		<b>in</b>	<b>mm</b>		<b>in</b>	<b>mm</b>
OM of Frame	OM of Screen	-1 7/8	(48)	+ 2	+ 7/16	(11)
Daylight Opening	OM of Screen	+ 4 41/64	(118)		+ 5 7/16	(138)
<b>Magnum Screen</b>		<b>in</b>	<b>mm</b>		<b>in</b>	<b>mm</b>
Daylight Opening	OM of Screen	+ 4 41/64	(118)		+ 8 1/4	(210)
<b>Magnum Half Screen</b>		<b>in</b>	<b>mm</b>		<b>in</b>	<b>mm</b>
OM of Frame	OM of Screen	-1 7/8	(48)	+ 2	+ 23/32	(18)
Daylight Opening	OM of Screen	+ 4 41/64	(118)		+ 5 45/64	(145)
<b>Combination</b>		<b>in</b>	<b>mm</b>		<b>in</b>	<b>mm</b>
OM of Frame	OM of Combination	-1 51/64	(45)		-1 11/16	(43)
Daylight Opening	OM of Combination	+ 4 23/32	(120)	× 2	+ 8 5/16	(211)

NOTE: For standard cottage style double hung conversion, see info under unit features

## Measurement Conversions

Ultimate Double Hung G2 Transoms					
Unit Measurements		Width		Height	
From	To	in	mm	in	mm
<b>Rough Opening</b>					
OM of Frame	Rough Opening	+ 1	(25)	+ 1/2	(13)
Masonry Opening	Rough Opening	+ 1/2	(13)	+ 1/4	(06)
Masonry Opening w/BMC	Rough Opening	-2 1/8	(54)	-1 29/32	(48)
Masonry Opening w/Flat Casing	Rough Opening	-5 1/2	(140)	-3 19/32	(91)
Masonry Opening w/BMC (all sides)	Rough Opening	-2 1/8	(54)	-1 55/64	(47)
Masonry Opening w/Flat Casing (all sides)	Rough Opening	-5 1/2	(140)	-5 15/64	(133)
<b>Frame</b>					
OM of BMC	OM of Frame	-2 5/8	(67)	-1 29/32	(48)
OM of Flat Casing	OM of Frame	-6	(152)	-3 19/32	(91)
Daylight Opening	OM of Frame	+ 6 33/64	(165)	+ 6 15/16	(176)
Glass Size	OM of Frame	+ 5 1/4	(133)	+ 5 11/16	(145)
<b>Sash</b>					
OM of Frame	OM of Sash	-3 11/64	(81)	-1 51/64	(46)
Daylight Opening	OM of Sash	+ 3 11/32	(85)	+ 5 9/64	(131)
<b>Glass Size</b>					
Daylight Opening	Glass	+ 1 17/64	(32)	+ 1 1/4	(32)

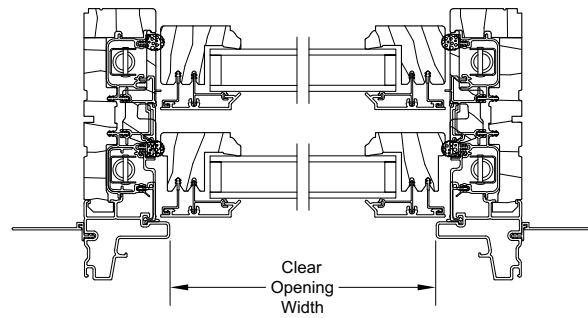
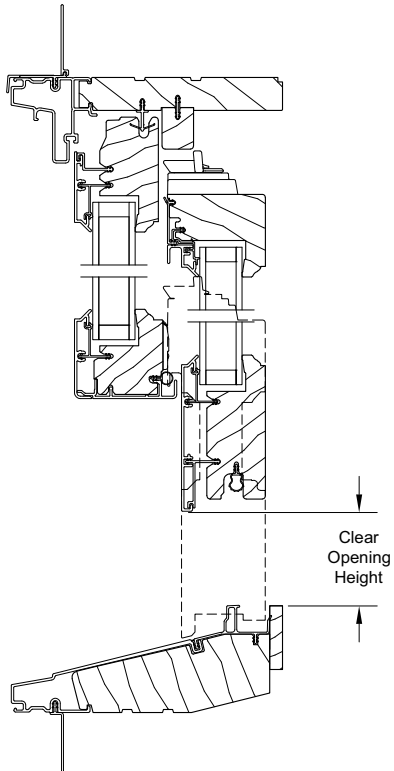
Double Hung Picture					
Unit Measurements		Width		Height	
From	To	in	mm	in	mm
<b>Rough Opening</b>					
OM of Frame	Rough Opening	+ 1	(25)	+ 1/2	(13)
Masonry Opening	Rough Opening	+ 1/2	(13)	+ 1/4	(06)
Masonry Opening w/BMC	Rough Opening	-2 1/8	(54)	-1 29/32	(48)
Masonry Opening w/Flat Casing	Rough Opening	-5 1/2	(140)	-3 19/32	(91)
Masonry Opening w/BMC (all sides)	Rough Opening	-2 1/8	(54)	-1 55/64	(47)
Masonry Opening w/Flat Casing (all sides)	Rough Opening	-5 1/2	(140)	-5 15/64	(133)
<b>Frame</b>					
OM of BMC	OM of Frame	-2 5/8	(67)	-1 29/32	(48)
OM of Flat Casing	OM of Frame	-6	(152)	-3 19/32	(91)
Daylight Opening	OM of Frame	+ 6 33/64	(165)	+ 8 5/64	(205)
Glass Size	OM of Frame	+ 5 1/4	(133)	+ 6 53/64	(174)
<b>Sash</b>					
OM of Frame	OM of Sash	-1 23/32	(44)	-2 7/16	(62)
Daylight Opening	OM of Sash	+ 4 51/64	(122)	+ 5 5/16	(135)
<b>Glass</b>					
Daylight Opening	Glass	+ 1 17/64	(32)	+ 1 1/4	(32)

**Measurement Conversions****Egress Formulas with Standard Screen****Clear Opening Width:**

- Clear Opening Width = Frame OM Width - 3 19/32" (91)

**Clear Opening Height:**

- Clear Opening Height = Glass Size Height - 1 5/16" (33)
- Clear Opening Area (ft<sup>2</sup>) = (clear Opening Width x Clear Opening Height) / 144



Standard Unit Measurements: Double Hung

CN	Masonry Opening		Rough Opening		Frame Size		Sash Size		Screen OM		1/2 Screen OM		Daylight Opening	
	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm
16	1-9 3/4	(552)	1-10 1/4	(565)	1-9 1/4	(540)	1-6 5/64	(459)	1-7 3/8	(492)	1-7 3/8	(492)	14 47/64	(374)
20	2-1 3/4	(654)	2-2 1/4	(667)	2-1 1/4	(641)	1-10 5/64	(561)	1-11 3/8	(594)	1-11 3/8	(594)	18 47/64	(476)
24	2-5 3/4	(756)	2-6 1/4	(768)	2-5 1/4	(743)	2-2 5/64	(662)	2-3 3/8	(695)	2-3 3/8	(695)	22 47/64	(577)
26	2-7 3/4	(806)	2-8 1/4	(819)	2-7 1/4	(794)	2-4 5/64	(713)	2-5 3/8	(746)	2-5 3/8	(746)	24 47/64	(628)
28	2-9 3/4	(857)	2-10 1/4	(870)	2-9 1/4	(845)	2-6 5/64	(764)	2-7 3/8	(797)	2-7 3/8	(797)	26 47/64	(679)
30	2-11 3/4	(908)	3-0 1/4	(921)	2-11 1/4	(895)	2-8 5/64	(815)	2-9 3/8	(848)	2-9 3/8	(848)	28 47/64	(730)
32	3-1 3/4	(959)	3-2 1/4	(972)	3-1 1/4	(946)	2-10 5/64	(865)	2-11 3/8	(899)	2-11 3/8	(899)	30 47/64	(781)
36	3-5 3/4	(1060)	3-6 1/4	(1073)	3-5 1/4	(1048)	3-2 5/64	(967)	3-3 3/8	(1000)	3-3 3/8	(1000)	34 47/64	(882)
40	3-9 3/4	(1162)	3-10 1/4	(1175)	3-9 1/4	(1149)	3-6 5/64	(1069)	3-7 3/8	(1102)	3-7 3/8	(1102)	38 47/64	(984)
44	4-1 3/4	(1264)	4-2 1/4	(1276)	4-1 1/4	(1251)	3-10 5/64	(1170)	3-11 3/8	(1203)	3-11 3/8	(1203)	42 47/64	(1085)
48	4-5 3/4	(1365)	4-6 1/4	(1378)	4-5 1/4	(1353)	4-2 5/64	(1272)	4-3 3/8	(1305)	4-3 3/8	(1305)	46 47/64	(1187)
54	4-11 3/4	(1518)	5-0 1/4	(1530)	4-11 1/4	(1505)	4-8 5/64	(1424)	4-9 3/8	(1457)	4-9 3/8	(1457)	52 47/64	(1339)
60	5-5 3/4	(1670)	5-6 1/4	(1683)	5-5 1/4	(1657)	5-2 5/64	(1577)	4-9 3/8	(1457)	4-9 3/8	(1457)	58 47/64	(1492)

Standard Double Hung Unit Measurements																
Height																
CN	Masonry Opening		Rough Opening		Frame Size		Top Sash Size		Bottom Sash Size		Screen OM		1/2 Screen OM		Daylight Opening	
	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm
12	2-7 3/4	(806)	2-8	(813)	2-7 1/2	(800)	1-3	(381)	1-3 23/32	(399)	2-5 3/4	(756)	1-4 3/16	(411)	10 3/4	(273)
14	2-11 3/4	(908)	3-0	(914)	2-11 1/2	(902)	1-5	(432)	1-5 23/32	(450)	2-9 3/4	(857)	1-6 3/16	(462)	12 3/4	(324)
16	3-3 3/4	(1010)	3-4	(1016)	3-3 1/2	(1003)	1-7	(483)	1-7 23/32	(501)	3-1 3/4	(959)	1-8 3/16	(513)	14 3/4	(375)
18	3-7 3/4	(1111)	3-8	(1118)	3-7 1/2	(1105)	1-9	(533)	1-9 23/32	(552)	3-5 3/4	(1060)	1-10 3/16	(564)	16 3/4	(425)
20	3-11 3/4	(1213)	4-0	(1219)	3-11 1/2	(1207)	1-11	(584)	1-11 23/32	(603)	3-9 3/4	(1162)	2-0 3/16	(614)	18 3/4	(476)
22	4-3 3/4	(1314)	4-4	(1321)	4-3 1/2	(1308)	2-1	(635)	2-1 23/32	(653)	4-1 3/4	(1264)	2-2 3/16	(665)	20 3/4	(527)
24	4-7 3/4	(1416)	4-8	(1422)	4-7 1/2	(1410)	2-3	(686)	2-3 23/32	(704)	4-5 3/4	(1365)	2-4 3/16	(716)	22 3/4	(578)
26	4-11 3/4	(1518)	5-0	(1524)	4-11 1/2	(1511)	2-5	(737)	2-5 23/32	(755)	4-11 3/4	(1518)	2-6 3/16	(767)	24 3/4	(629)
28	5-3 3/4	(1619)	5-4	(1626)	5-3 1/2	(1613)	2-7	(787)	2-7 23/32	(806)	5-1 3/4	(1568)	2-8 3/16	(818)	26 3/4	(679)
30	5-7 3/4	(1721)	5-8	(1727)	5-7 1/2	(1715)	2-9	(838)	2-9 23/32	(857)	5-5 3/4	(1670)	2-10 3/16	(868)	28 3/4	(730)
32	5-11 3/4	(1822)	6-0	(1829)	5-11 1/2	(1816)	2-11	(889)	2-11 23/32	(907)	5-9 3/4	(1772)	3-0 3/16	(919)	30 3/4	(781)
34	6-3 3/4	(1924)	6-4	(1930)	6-3 1/2	(1918)	3-1	(940)	3-1 23/32	(958)	6-1 3/4	(1873)	3-2 3/16	(970)	32 3/4	(832)
36	6-7 3/4	(2026)	6-8	(2032)	6-7 1/2	(2019)	3-3	(991)	3-3 23/32	(1009)	6-5 3/4	(1975)	3-4 3/16	(1021)	34 3/4	(883)
40	7-3 3/4	(2229)	7-4	(2235)	7-3 1/2	(2223)	3-7	(1092)	3-7 23/32	(1111)	7-1 3/4	(2178)	3-8 3/16	(1122)	38 3/4	(984)
42	7-7 3/4	(2330)	7-8	(2337)	7-7 1/2	(2324)	3-9	(1143)	3-9 23/32	(1161)	7-5 3/4	(2280)	3-10 3/16	(1173)	40 3/4	(1035)
50	8-11 3/4	(2737)	9-0	(2743)	8-11 1/2	(2731)	4-5	(1346)	4-5 23/32	(1365)	8-9 3/4	(2686)	4-6 3/16	(1376)	48 3/4	(1238)
56	9-11 3/4	(3042)	10-0	(3048)	9-11 1/2	(3035)	4-11	(1499)	4-11 23/32	(1517)	9-9 3/4	(2991)	5-0 3/16	(1529)	54 3/4	(1391)
60	10-7 3/4	(3245)	10-8	(3251)	10-7 1/2	(3239)	5-3	(1600)	5-3 23/32	(1619)	9-10 3/4	(3016)	5-4 3/16	(1630)	58 3/4	(1492)



**Standard Unit Measurements: Picture**

Standard Double Hung Picture Unit Measurements										
Width										
CN	Masonry Opening		Rough Opening		Frame Size		Sash Size		Daylight Opening	
	ft - in	mm	ft - in	mm	ft - in	mm	ft-in	mm	ft - in	mm
40	3-5 3/4	(1060)	3-6 1/4	(1073)	3-5 1/4	(1048)	3-3 17/32	(1004)	2-10 47/64	(882)
48	4-1 3/4	(1264)	4-2 1/4	(1276)	4-1 1/4	(1251)	3-11 17/32	(1207)	3-6 47/64	(1085)
52	4-5 3/4	(1365)	4-6 1/4	(1378)	4-5 1/4	(1353)	4-3 17/32	(1309)	3-10 47/64	(1187)
60	5-1 3/4	(1568)	5-2 1/4	(1581)	5-1 1/4	(1556)	4-11 17/32	(1512)	4-6 47/64	(1390)
68	5-9 3/4	(1772)	5-10 1/4	(1784)	5-9 1/4	(1759)	5-7 17/32	(1715)	5-2 47/64	(1593)

Standard Double Hung Picture Unit Measurements										
Height										
CN	Masonry Opening		Rough Opening		Frame Size		Sash Size		Daylight Opening	
	ft - in	mm	ft - in	mm	ft - in	mm	ft-in	mm	ft - in	mm
38	3-3 3/4	(1010)	3-4	(1016)	3-3 1/2	(1003)	3-1 1/16	(941)	2-7 27/64	(798)
42	3-7 3/4	(1111)	3-8	(1118)	3-7 1/2	(1105)	3-5 1/16	(1043)	2-11 27/64	(900)
46	3-11 3/4	(1213)	4-0	(1219)	3-11 1/2	(1207)	3-9 1/16	(1145)	3-3 27/64	(1001)
50	4-3 3/4	(1314)	4-4	(1321)	4-3 1/2	(1308)	4-1 1/16	(1246)	3-7 27/64	(1103)
54	4-7 3/4	(1416)	4-8	(1422)	4-7 1/2	(1410)	4-5 1/16	(1348)	3-11 27/64	(1204)
58	4-11 3/4	(1518)	5-0	(1524)	4-11 1/2	(1511)	4-9 1/16	(1449)	4-3 27/64	(1306)
62	5-3 3/4	(1619)	5-4	(1626)	5-3 1/2	(1613)	5-1 1/16	(1551)	4-7 27/64	(1408)
66	5-7 3/4	(1721)	5-8	(1727)	5-7 1/2	(1715)	5-5 1/16	(1653)	4-11 27/64	(1509)
70	5-11 3/4	(1822)	6-0	(1829)	5-11 1/2	(1816)	5-9 1/16	(1754)	5-3 27/64	(1611)
74	6-3 3/4	(1924)	6-4	(1930)	6-3 1/2	(1918)	6-1 1/16	(1856)	5-7 27/64	(1712)
78	6-7 3/4	(2026)	6-8	(2032)	6-7 1/2	(2019)	6-5 1/16	(1957)	5-11 27/64	(1814)
86	7-3 3/4	(2229)	7-4	(2235)	7-3 1/2	(2223)	7-1 1/16	(2161)	6-7 27/64	(2017)
90	7-7 3/4	(2330)	7-8	(2337)	7-7 1/2	(2324)	7-5 1/16	(2262)	6-11 27/64	(2119)

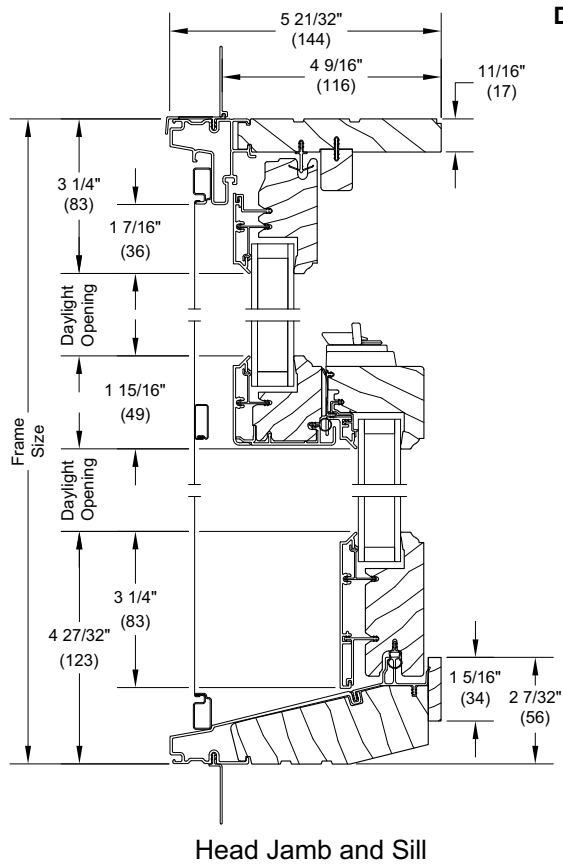
**Standard Unit Measurements: Transom**

Standard Double Hung Transom Unit Measurements										
Width										
CN	Masonry Opening		Rough Opening		Frame Size		Sash Size		Daylight Opening	
	ft - in	mm	ft - in	mm	ft - in	mm	ft-in	mm	ft - in	mm
16	1-9 3/4	(552)	1-10 1/4	(565)	1-9 1/4	(540)	1-6 1/16	(459)	1-2 47/64	(374)
20	2-1 3/4	(654)	2-2 1/4	(667)	2-1 1/4	(641)	1-10 1/16	(560)	1-6 47/64	(476)
24	2-5 3/4	(756)	2-6 1/4	(768)	2-5 1/4	(743)	2-2 1/16	(662)	1-10 47/64	(577)
26	2-7 3/4	(806)	2-8 1/4	(819)	2-7 1/4	(794)	2-4 1/16	(713)	2-0 47/64	(628)
28	2-9 3/4	(857)	2-10 1/4	(870)	2-9 1/4	(845)	2-6 1/16	(764)	2-2 47/64	(679)
30	2-11 3/4	(908)	3-0 1/4	(921)	2-11 1/4	(895)	2-8 1/16	(814)	2-4 47/64	(730)
32	3-1 3/4	(959)	3-2 1/4	(972)	3-1 1/4	(946)	2-10 1/16	(865)	2-6 47/64	(781)
36	3-5 3/4	(1060)	3-6 1/4	(1073)	3-5 1/4	(1048)	3-2 1/16	(967)	2-10 47/64	(882)
40	3-9 3/4	(1162)	3-10 1/4	(1175)	3-9 1/4	(1149)	3-6 1/16	(1068)	3-2 47/64	(984)
54	4-11 3/4	(1518)	5-0 1/4	(1530)	4-11 1/4	(1505)	4-8 1/16	(1424)	4-4 47/64	(1339)

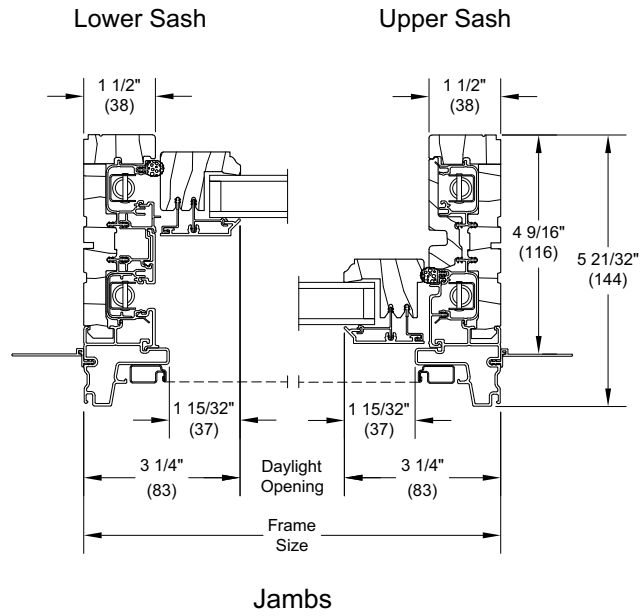
Standard Double Hung Transom Unit Measurements										
Height										
CN	Masonry Opening		Rough Opening		Frame Size		Sash Size		Daylight Opening	
	ft - in	mm	ft - in	mm	ft - in	mm	ft-in	mm	ft - in	mm
12	1-7 15/16	(506)	1-8 3/16	(513)	1-7 11/16	(500)	1-5 7/8	(454)	1-0 3/4	(324)
20	2-3 15/16	(710)	2-4 3/16	(716)	2-3 11/16	(703)	2-1 7/8	(657)	1-8 3/4	(527)

**Section Details: Operating**

Scale: 3" = 1' 0"

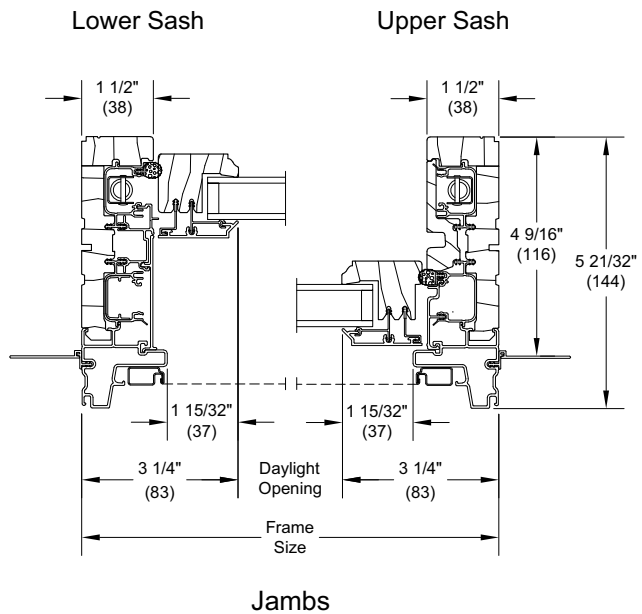
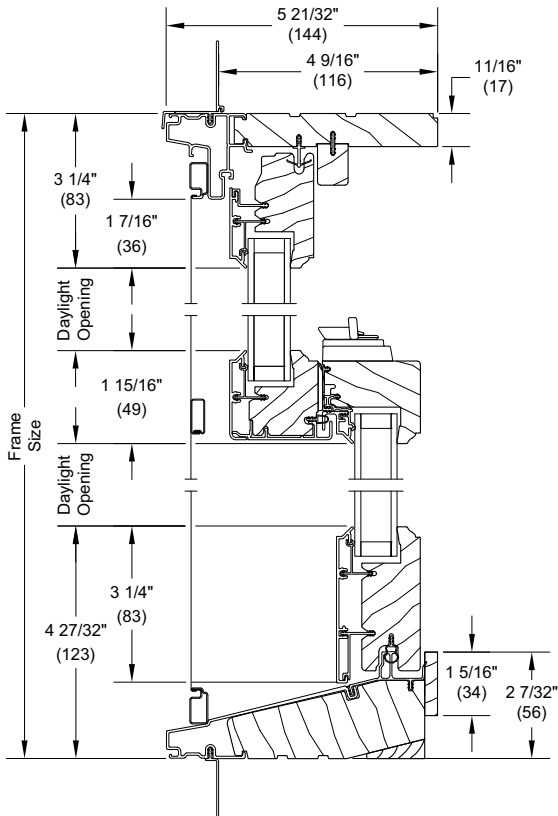


**Double Hung**



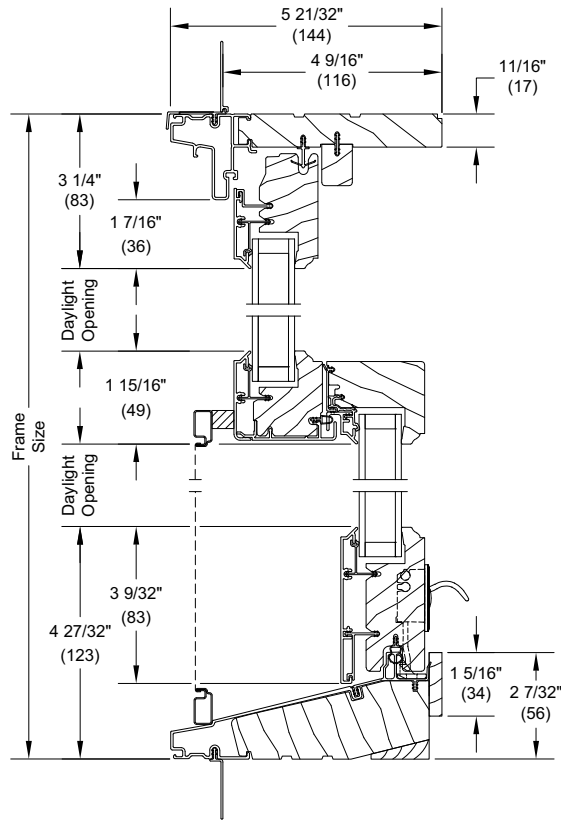
**Head Jamb and Sill**

**Single Hung**



**Section Details: Operating (with Optional Lift Lock Hardware)**

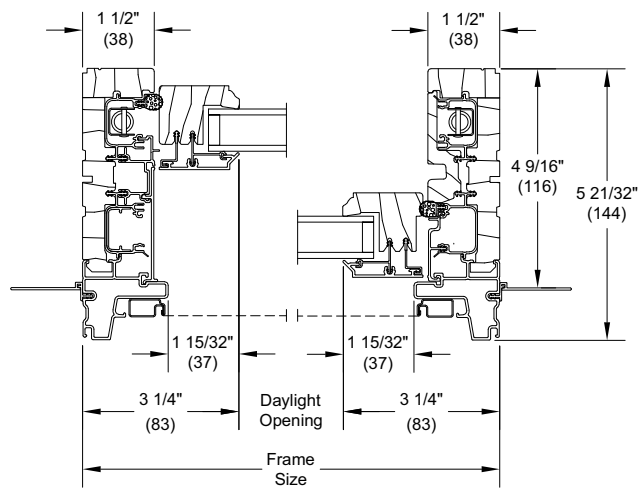
Scale: 3" = 1' 0"



Head Jamb and Sill

Lower Sash

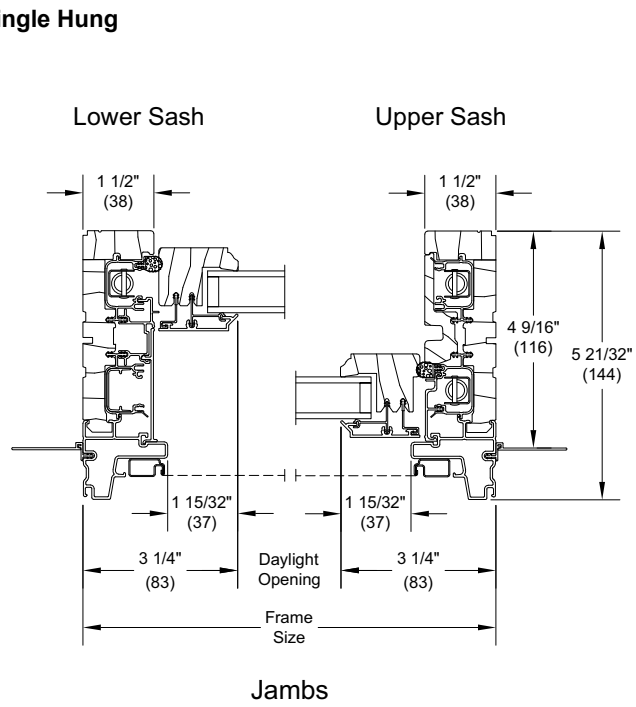
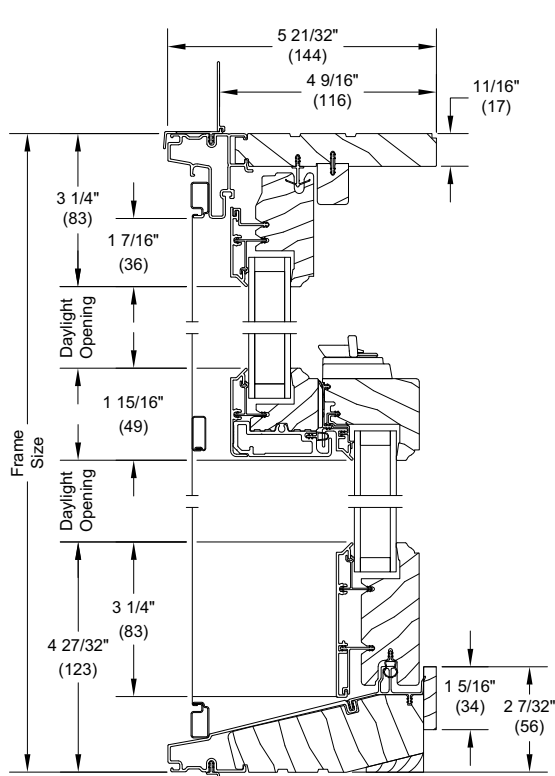
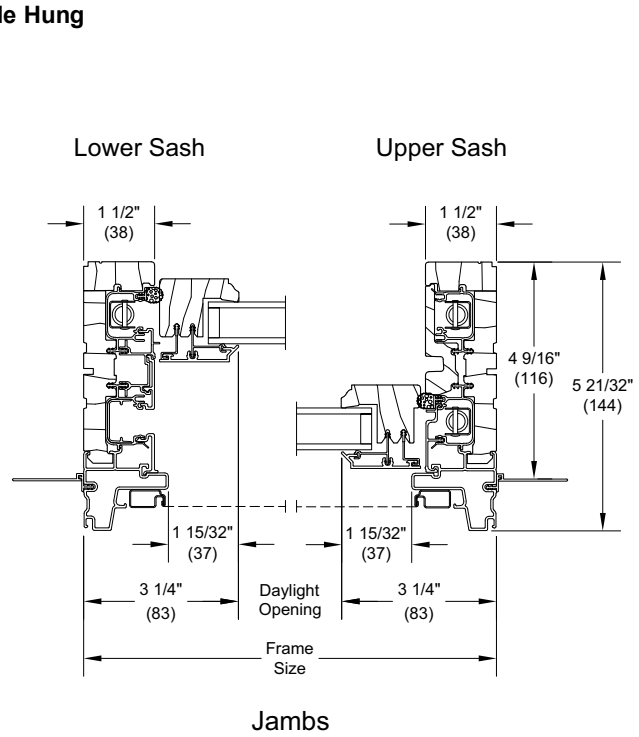
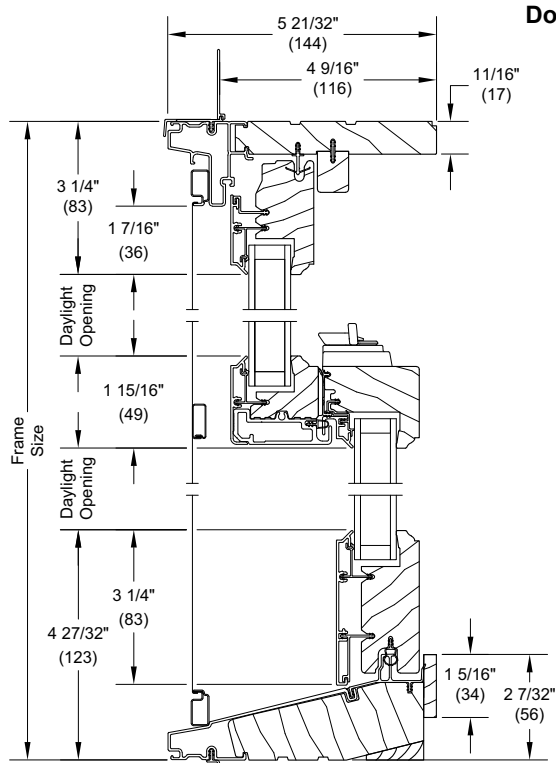
Upper Sash



Jambs

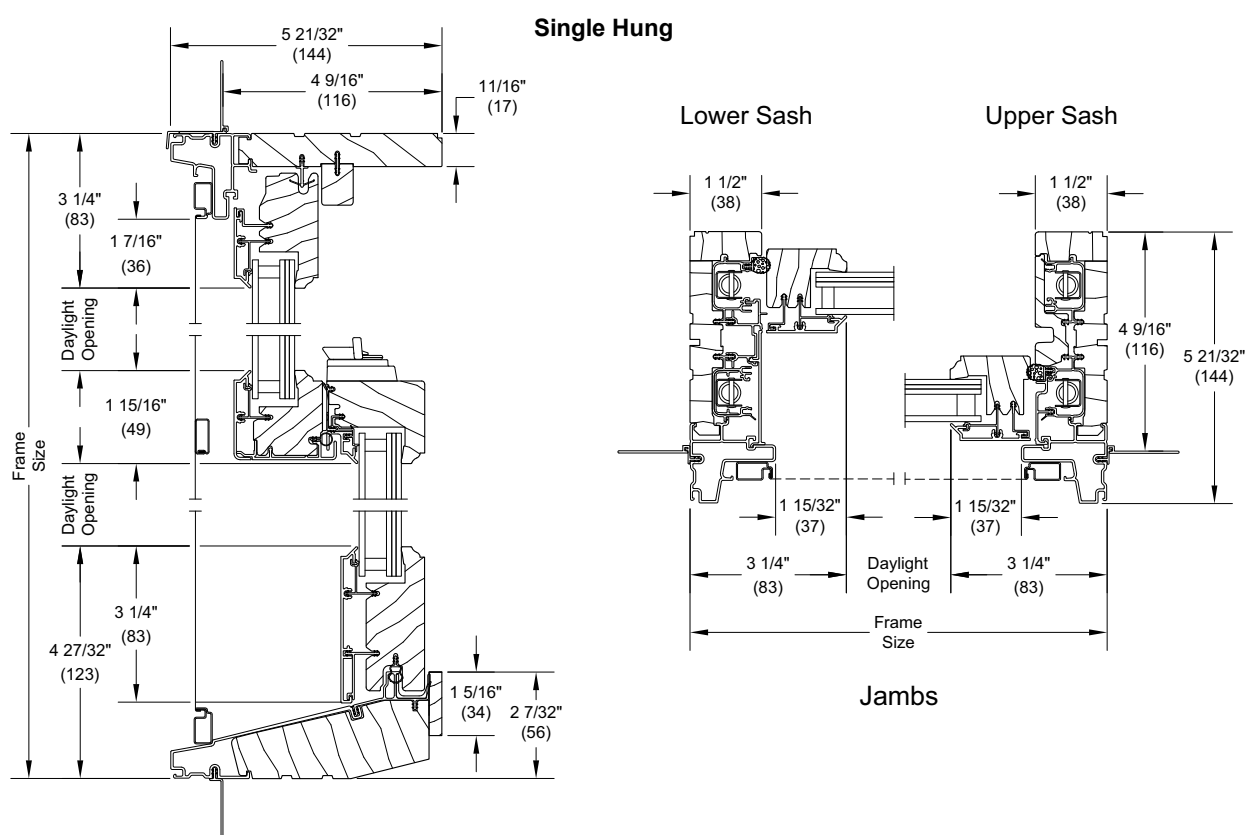
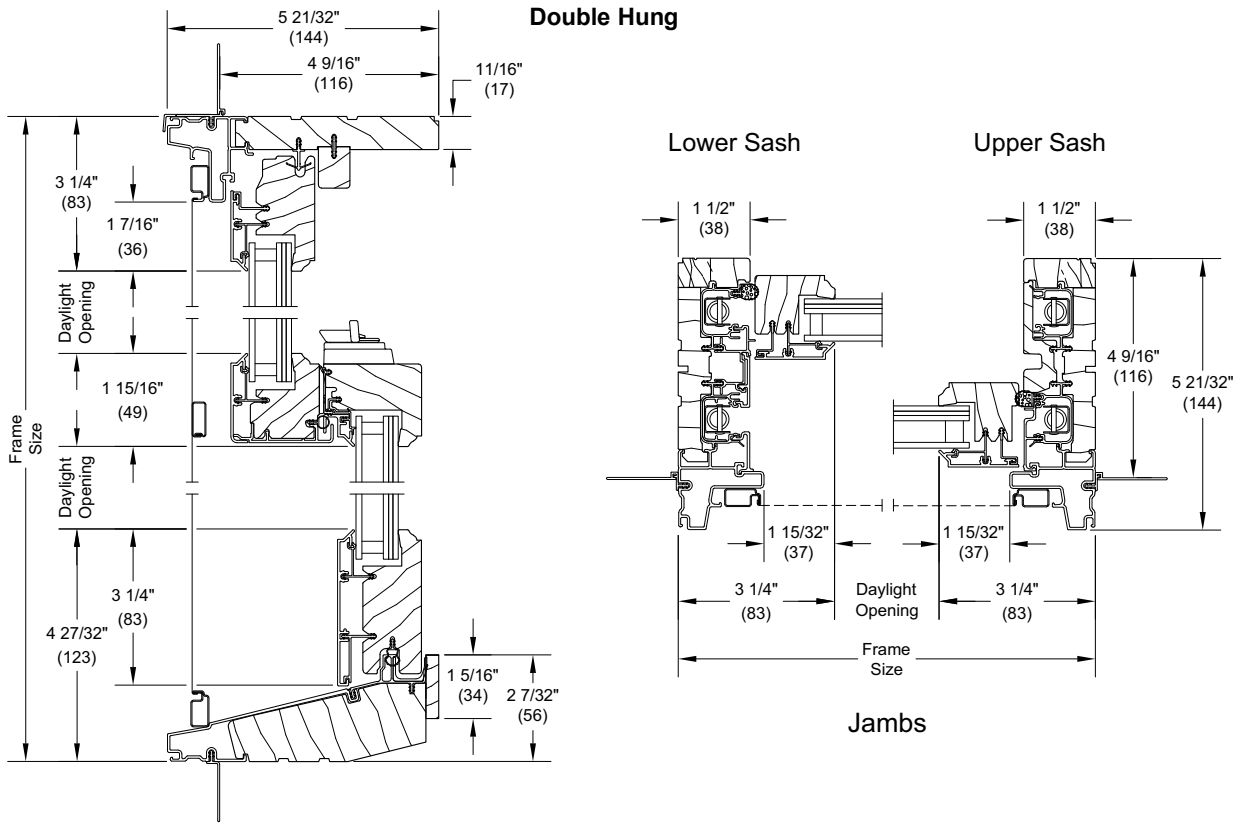
**Section Details: Operating (Commercial Window Performance Rating)**

Scale: 3" = 1' 0"



**Section Details: IZ3 Operating**

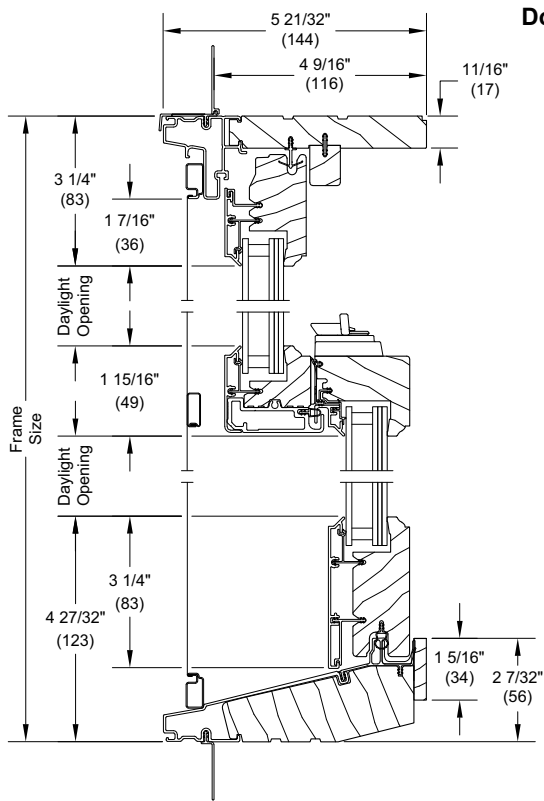
Scale: 3" = 1' 0"



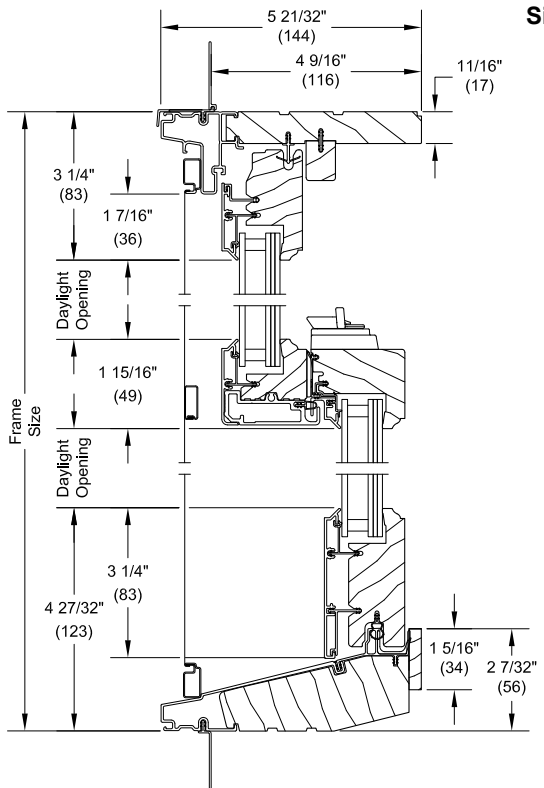
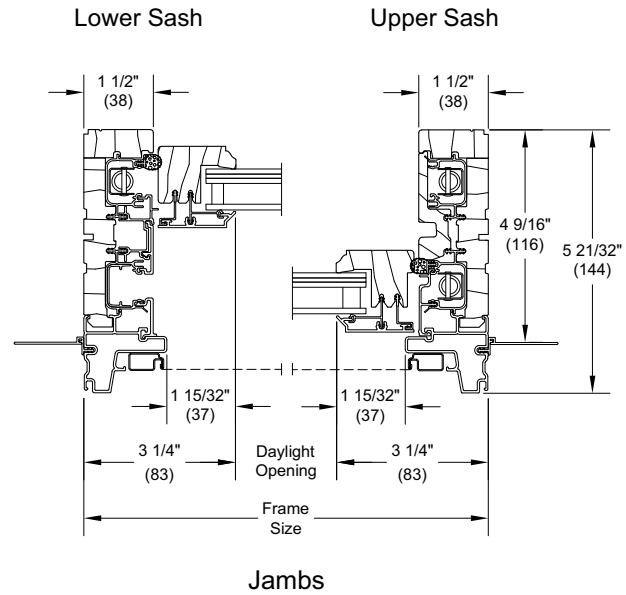
NOTE: CE mark is not available on IZ3 units.

**Section Details: IZ3 Operating**

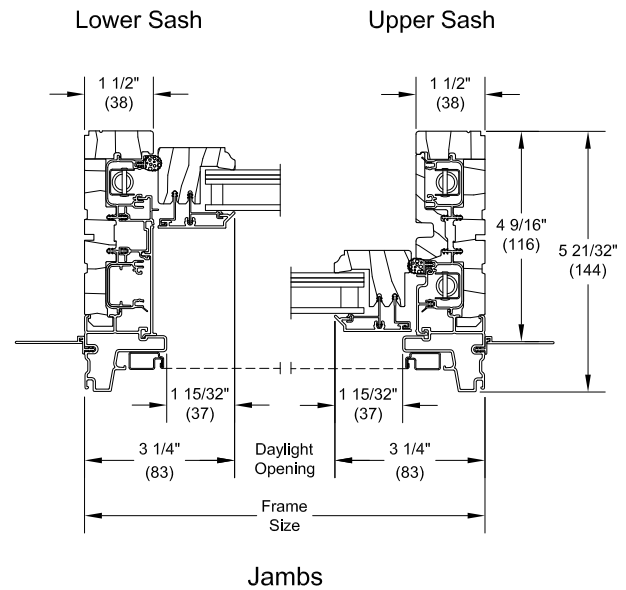
Scale: 3" = 1' 0"



Head Jamb and Sill



Head Jamb and Sill



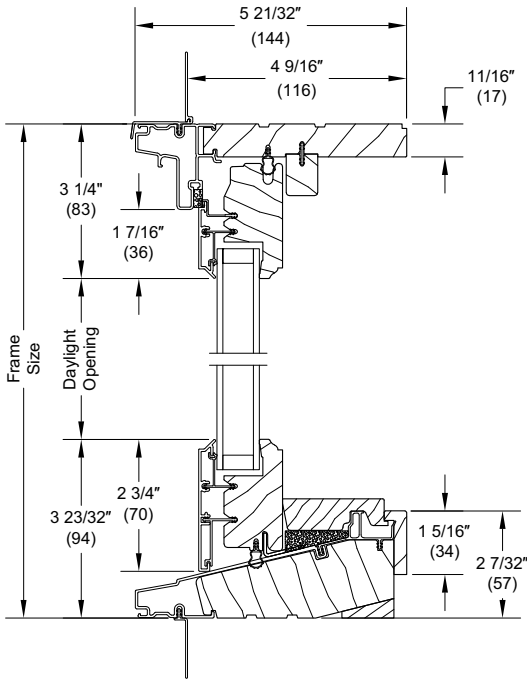
NOTE: CE mark is not available on IZ3 units.

Reinforced check rail required for applicable sizes)

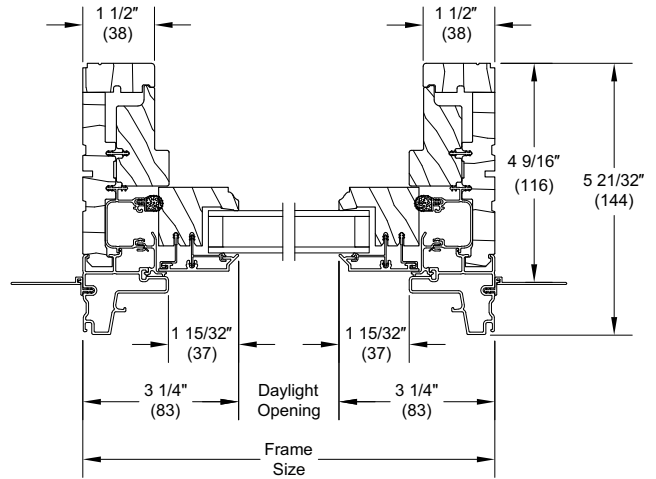
**Section Details: Transom and Picture**

Scale: 3" = 1' 0"

**Transom**

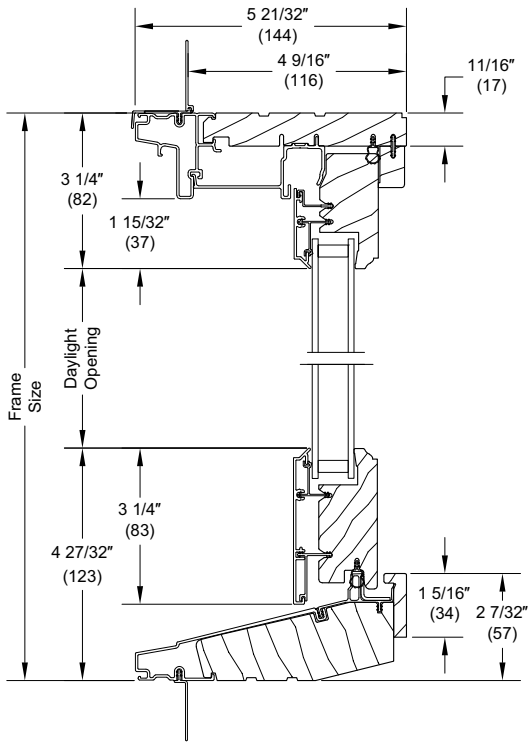


**Head Jamb and Sill**

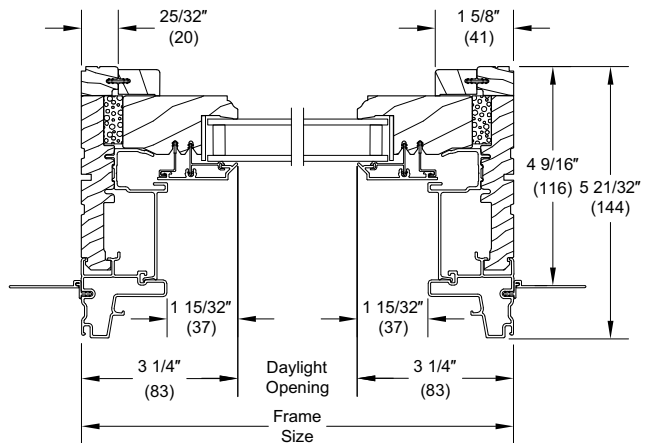


**Jambs**

**Picture**



**Head Jamb & Sill**

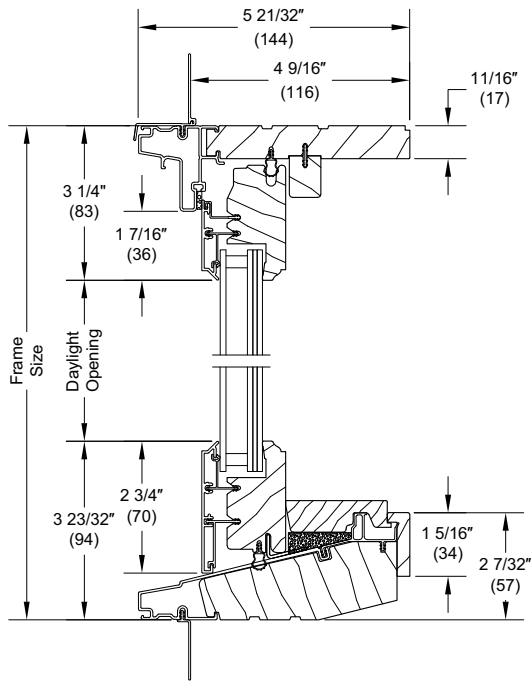


**Jambs**



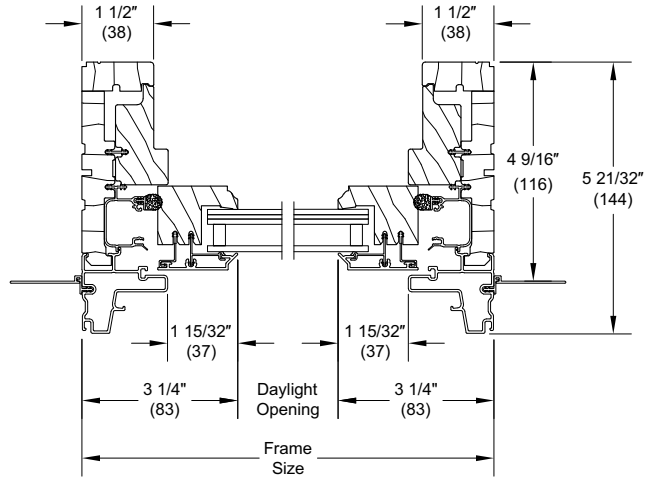
**Section Details: IZ3 Transom and Picture**

Scale: 3" = 1' 0"

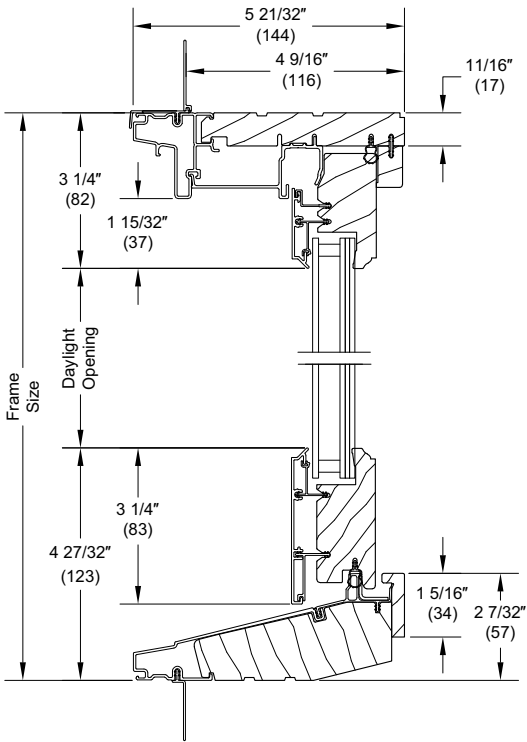


**Head Jamb and Sill**

**Transom**

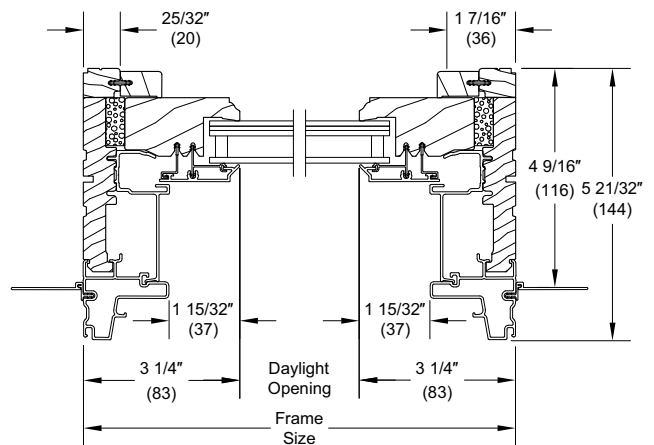


**Jamb**



**Head Jamb & Sill**

**Picture**

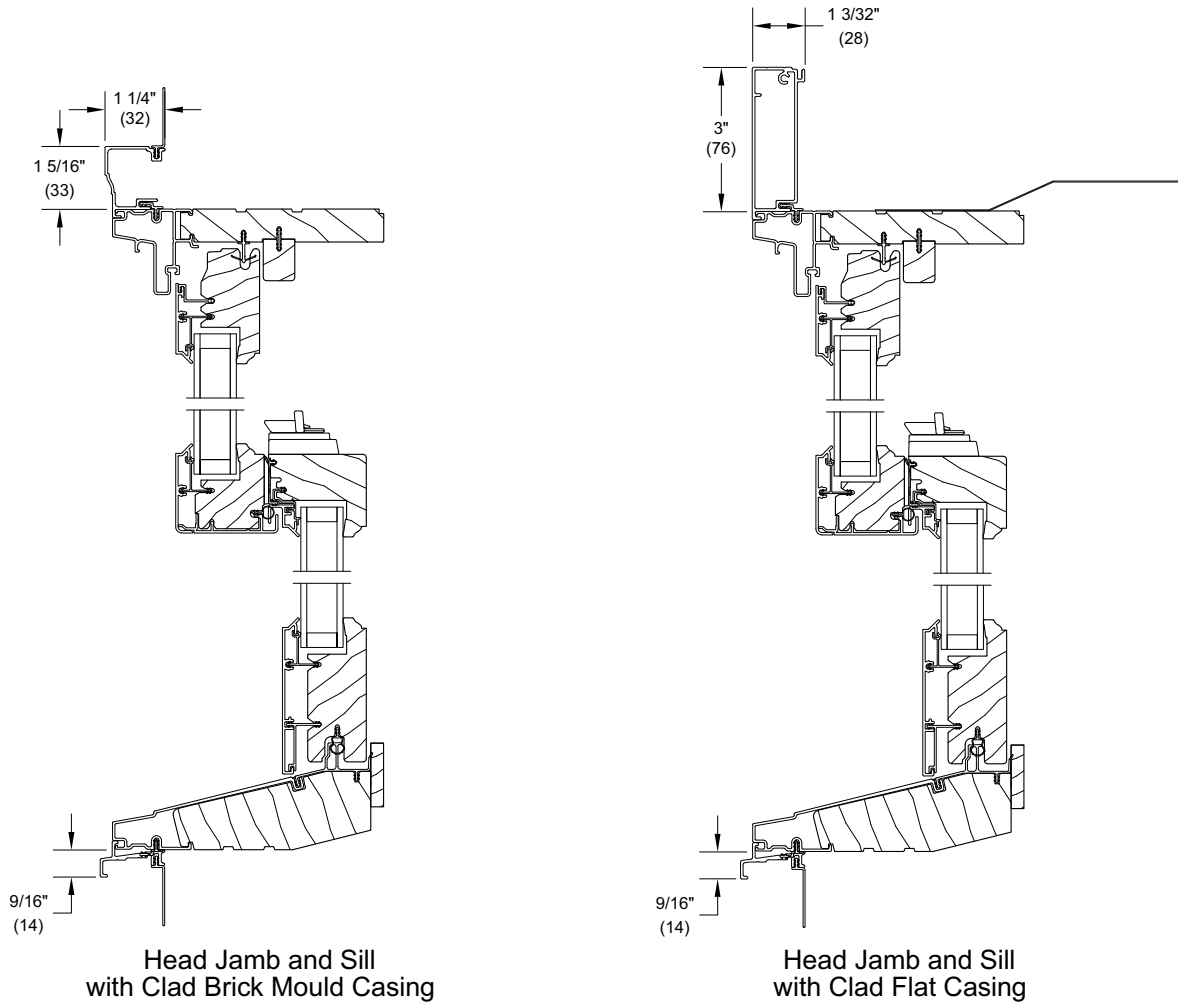


**Jamb**

*NOTE: CE mark is not available on IZ3 units.*

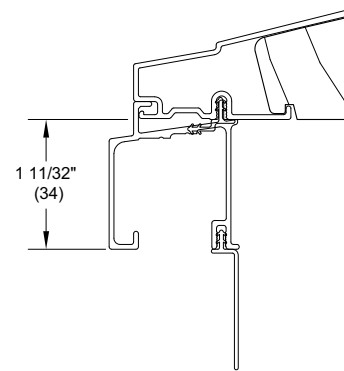
**Section Details: Casings**

Scale: 3" = 1' 0"



Head Jamb and Sill  
with Clad Brick Mould Casing

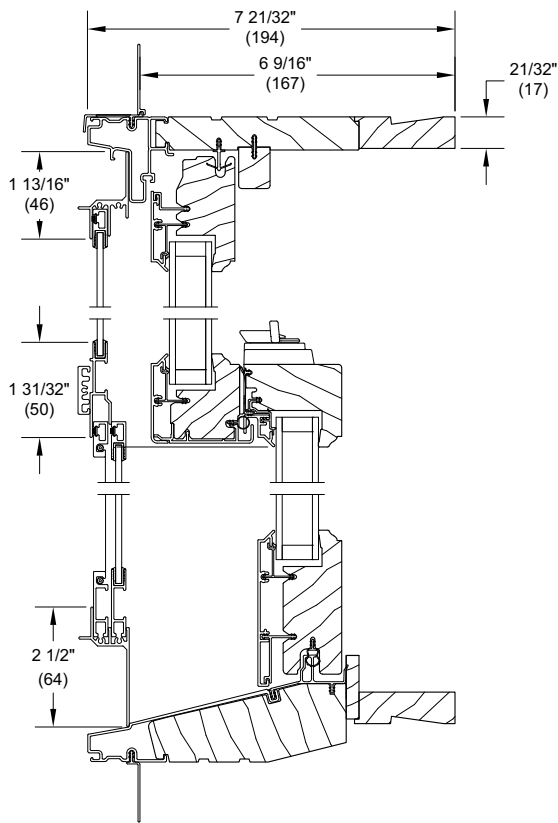
Head Jamb and Sill  
with Clad Flat Casing



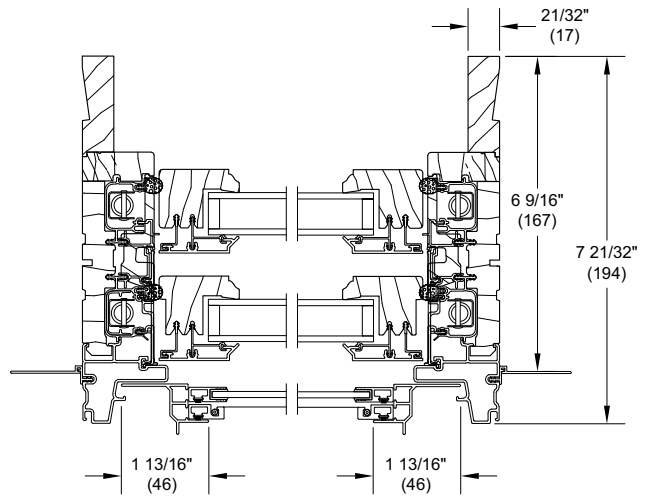
Sill with (A217) Simulated Thick Subsill  
Scale: 2:1

**Section Details: 6 9/16" Combination**

Scale: 3" = 1' 0"



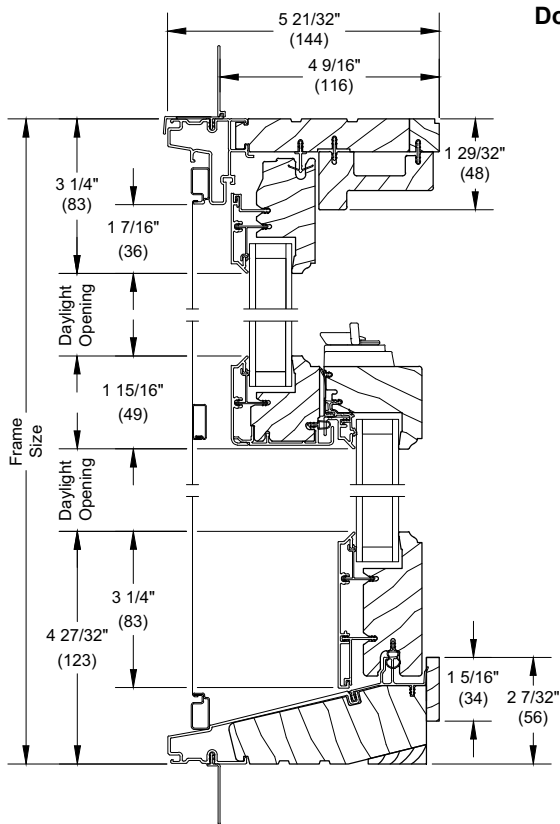
Head Jamb and Sill



Jamb

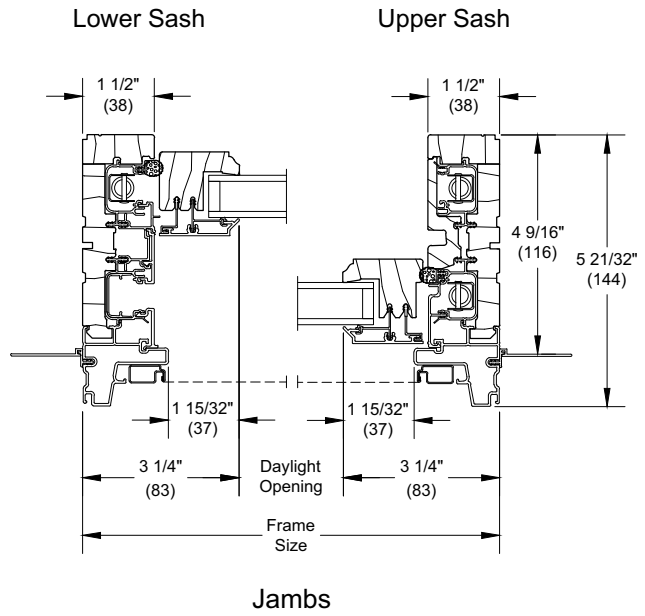
**Section Details: Operating (with Lock Status Sensor)**

Scale: 3" = 1' 0"

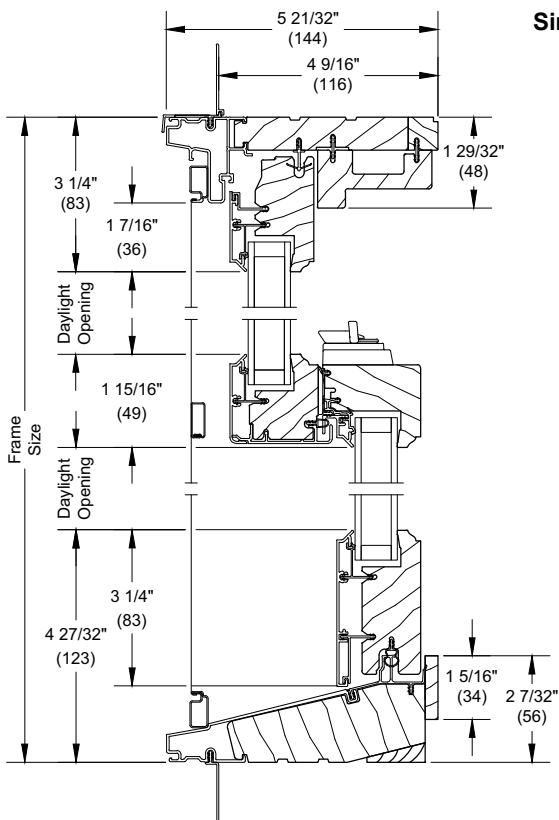


**Head Jamb and Sill**

**Double Hung**

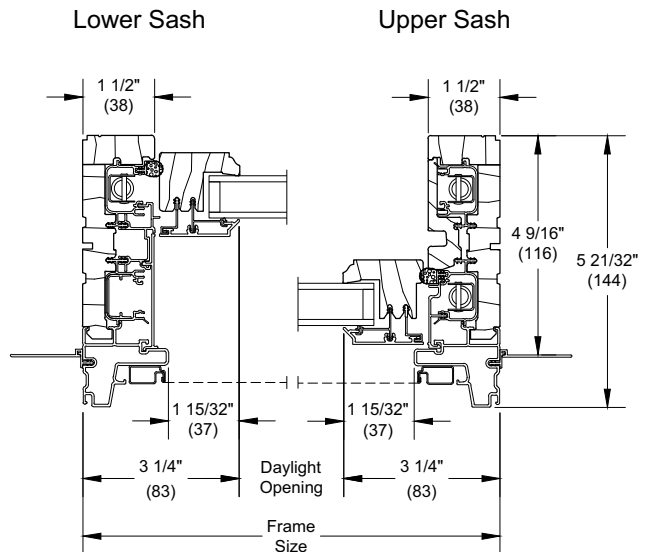


**Jambs**



**Head Jamb and Sill**

**Single Hung**



**Jambs**

**Bows and Bays: Min/Max Sizing and Projection**

Configuration	Rough Opening									
	Width		x	Height		Width		x	Height	
	in	mm		in	mm	in	mm		in	mm
Bow - 3 Wide	65 15/32	(1663)	x	33 5/32	(842)	136 7/16	(3466)	x	81 5/32	(2061)
Bow - 4 Wide	86 3/8	(2194)	x	33 5/32	(842)	164 3/16	(4170)	x	81 5/32	(2061)
Bow - 5 Wide	106 11/32	(2701)	x	33 5/32	(842)	163 3/4	(4159)	x	93 5/32	(2366)
Bow - 6 Wide	125 5/32	(3179)	x	33 5/32	(842)	147 5/8	(3750)	x	93 5/32	(2366)
Bay - 30°	63 11/32	(1609)	x	33 5/32	(842)	128 29/32	(3274)	x	81 5/32	(2061)
Bay - 45°	58 5/16	(1481)	x	33 5/32	(842)	116 1/4	(2953)	x	81 5/32	(2061)
Bay - 90°	23	(584)	x	32 7/8	(835)	47	(1194)	x	80 7/8	(2054)

Configuration	Projection Depth			
	Minimum		Maximum	
	in	mm	in	mm
Bow - 3 Wide	3 13/32	(87)	7 9/16	(192)
Bow - 4 Wide	6 7/8	(175)	15 1/8	(384)
Bow - 5 Wide	10 1/4	(260)	20 1/16	(510)
Bow - 6 Wide	15 1/4	(387)	26 7/32	(666)
Bay - 30°	8 5/8	(219)	18 5/8	(473)
Bay - 45°	12 21/32	(321)	26 13/16	(681)
Bay - 90°	22 1/16	(560)	42 1/16	(1068)

NOTE: CE mark is not available on Bow and Bay units.

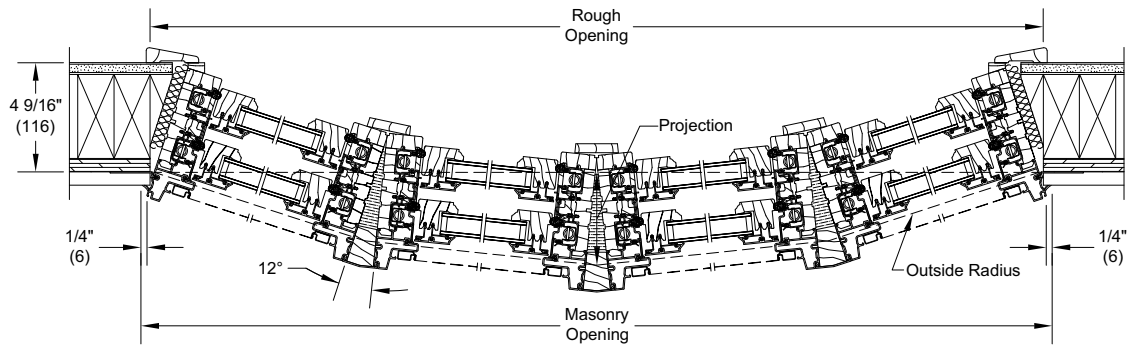
### Bows and Bays: Measurement Conversions

Unit Measurements		Width		Height	
From	To				
<b>Rough Opening - 30° Bay</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
Masonry Opening with BMC	Rough Opening (w/ head and seat boards)	-3 25/32	(96)	-1/4	(06)
Masonry Opening w/out BMC	Rough Opening (w/ head and seat boards)	-1 7/32	(31)	+ 3/8	(10)
<b>Rough Opening - 45° Bay</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
Masonry Opening with BMC	Rough Opening (w/ head and seat boards)	-4 31/32	(126)	-1/4	(06)
Masonry Opening w/out BMC	Rough Opening (w/ head and seat boards)	-1 13/16	(46)	+ 3/8	(10)
<b>Rough Opening - 90° Bay</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
Masonry Opening with BMC	Rough Opening (w/ head and seat boards)	-10 3/16	(259)	-1/4	(06)
Masonry Opening w/out BMC	Rough Opening (w/ head and seat boards)	-10 3/16	(259)	+ 3/8	(10)
<b>Rough Opening - 3W Bow</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
Masonry Opening with BMC	Rough Opening (w/ head and seat boards)	-2 45/64	(69)	-25/32	(20)
Masonry Opening w/out BMC	Rough Opening (w/ head and seat boards)	-37/64	(15)	+ 1/4	(06)
<b>Rough Opening - 4W Bow</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
Masonry Opening with BMC	Rough Opening (w/ head and seat boards)	-3 1/32	(77)	-25/32	(20)
Masonry Opening w/out BMC	Rough Opening (w/ head and seat boards)	-51/64	(20)	+ 1/4	(06)
<b>Rough Opening - 5W Bow</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
Masonry Opening with BMC	Rough Opening (w/ head and seat boards)	-3 25/64	(86)	-25/32	(20)
Masonry Opening w/out BMC	Rough Opening (w/ head and seat boards)	-1 1/64	(26)	+ 1/4	(06)
<b>Rough Opening - 6W Bow</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
Masonry Opening with BMC	Rough Opening (w/ head and seat boards)	-3 25/32	(96)	-25/32	(20)
Masonry Opening w/out BMC	Rough Opening (w/ head and seat boards)	-1 7/32	(31)	+ 1/4	(06)

NOTE: CE mark is not available on Bow and Bay units.

**Bow Rough Opening and Projection**

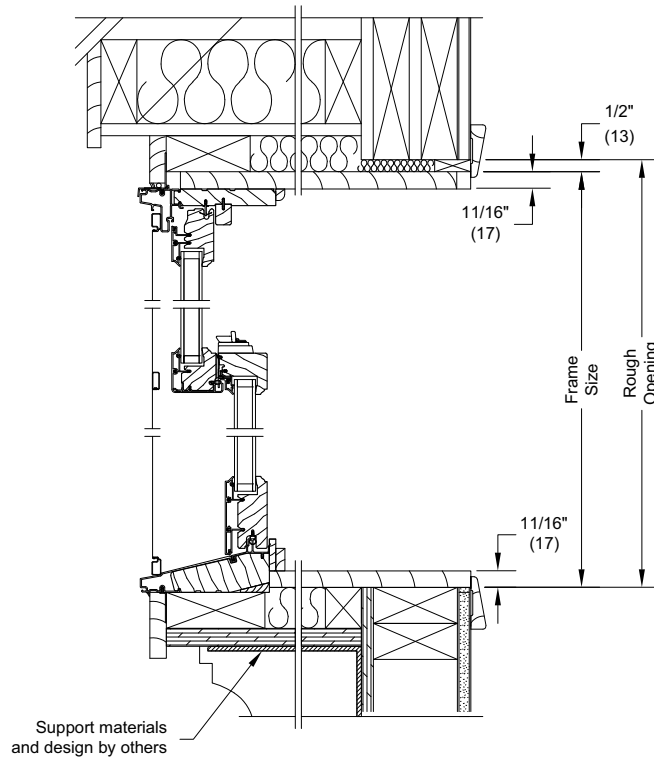
Call Number (Width)	Number Wide	Bow					
		MO		RO		Projection	
16	3	5-6 1/16	(1678)	5-5 31/64	(1663)	0-4 35/64	(115)
16	4	7-3 11/64	(2214)	7-2 23/64	(2194)	0-9 3/32	(231)
16	5	8-11 11/32	(2726)	8-10 21/64	(2701)	1-1 35/64	(344)
16	6	10-6 11/32	(3209)	10-5 1/8	(3178)	1-8 11/64	(512)
20	3	6-5 57/64	(1979)	6-5 5/16	(1964)	0-5 3/8	(137)
20	4	8-6 47/64	(2609)	8-5 59/64	(2589)	0-10 3/4	(273)
20	5	10-6 15/32	(3212)	10-5 29/64	(3187)	1-4	(406)
20	6	12-4 27/32	(3781)	12-3 5/8	(3750)	1-11 53/64	(605)
24	3	7-5 23/32	(2279)	7-5 9/64	(2264)	0-6 13/64	(158)
24	4	9-10 19/64	(3005)	9-9 1/2	(2984)	1-0 13/32	(315)
24	5	12-1 39/64	(3698)	12-0 19/32	(3673)	1-6 29/64	(469)
26	3	7-11 41/64	(2429)	7-11 1/16	(2414)	0-6 5/8	(168)
26	4	10-6 5/64	(3202)	10-5 9/32	(3182)	1-1 15/64	(336)
26	5	12-11 11/64	(3941)	12-10 5/32	(3915)	1-7 11/16	(500)
28	3	8-5 35/64	(2579)	8-4 31/32	(2565)	0-7 3/64	(179)
28	4	11-1 55/64	(3400)	11-1 1/16	(3380)	1-2 1/16	(357)
28	5	13-8 47/64	(4184)	13-7 23/32	(4158)	1-8 59/64	(531)
30	3	8-11 15/32	(2730)	8-10 57/64	(2715)	0-7 29/64	(189)
30	4	11-9 41/64	(3598)	11-8 27/32	(3577)	1-2 57/64	(378)
32	3	9-5 3/8	(2880)	9-4 51/64	(2865)	0-7 7/8	(200)
32	4	12-5 27/64	(3795)	12-4 5/8	(3775)	1-3 23/32	(399)
36	3	10-5 7/32	(3180)	10-4 5/8	(3166)	0-8 45/64	(221)
36	4	13-8 63/64	(4191)	13-8 3/16	(4170)	1-5 3/8	(441)
40	3	11-5 3/64	(3481)	11-4 29/64	(3466)	0-9 17/32	(242)



NOTE: CE mark is not available on Bow and Bay units.

**Bows and Bays: Standard Heights**

Call Number Height	MO Height (w/head&seat boards)		RO Height (w/ head & seat boards)		Frame Size Height (w/ head & seat boards)	
	ft-in	mm	ft-in	mm	ft-in	mm
12	2-8 29/32	(836)	2-9 5/32	(842)	2-8 3/8	(822)
14	3-0 29/32	(937)	3-1 5/32	(944)	3-0 3/8	(924)
16	3-4 29/32	(1039)	3-5 5/32	(1045)	3-4 3/8	(1026)
18	3-8 29/32	(1141)	3-9 5/32	(1147)	3-8 3/8	(1127)
20	4-0 29/32	(1242)	4-1 5/32	(1249)	4-0 3/8	(1229)
22	4-4 29/32	(1344)	4-5 5/32	(1350)	4-4 3/8	(1330)
24	4-8 29/32	(1445)	4-9 5/32	(1452)	4-8 3/8	(1432)
26	5-0 29/32	(1547)	5-1 5/32	(1553)	5-0 3/8	(1534)
28	5-4 29/32	(1649)	5-5 5/32	(1655)	5-4 3/8	(1635)
30	5-8 29/32	(1750)	5-9 5/32	(1757)	5-8 3/8	(1737)
32	6-0 29/32	(1852)	6-1 5/32	(1858)	6-0 3/8	(1838)
34	6-4 29/32	(1953)	6-5 5/32	(1960)	6-4 3/8	(1940)
36	6-8 29/32	(2055)	6-9 5/32	(2061)	6-8 3/8	(2042)
40	7-4 29/32	(2258)	7-5 5/32	(2265)	7-4 3/8	(2245)
42	7-8 29/32	(2360)	7-9 5/32	(2366)	7-8 3/8	(2346)



*NOTE: CE mark is not available on Bow and Bay units.*



Bay Standard Width Call Number: 30° - Operable Center Unit

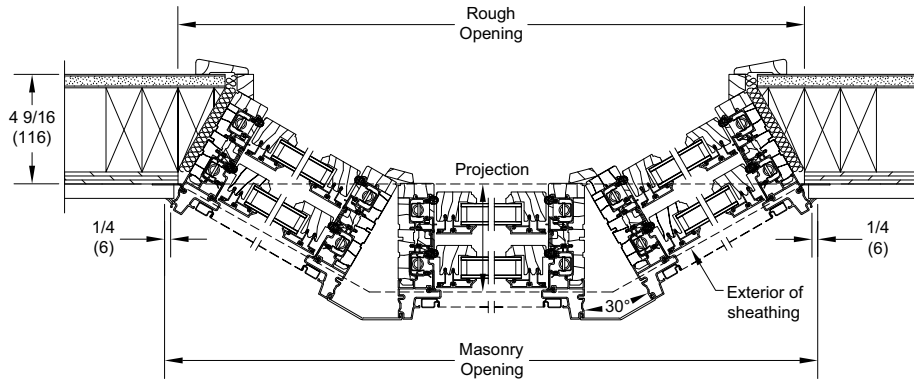
Call Number (Width)			30° Bay					
Side	Center	Side	MO		RO		Projection	
16	16	16	5-4 35/64	(1640)	5-3 21/64	(1609)	0-11 19/64	(287)
16	20	16	5-8 35/64	(1741)	5-7 21/64	(1710)	0-11 19/64	(287)
16	24	16	6-0 35/64	(1843)	5-11 21/64	(1812)	0-11 19/64	(287)
16	26	16	6-2 35/64	(1894)	6-1 21/64	(1863)	0-11 19/64	(287)
16	28	16	6-4 35/64	(1944)	6-3 21/64	(1914)	0-11 19/64	(287)
16	30	16	6-6 35/64	(1995)	6-5 21/64	(1964)	0-11 19/64	(287)
16	32	16	6-8 35/64	(2046)	6-7 21/64	(2015)	0-11 19/64	(287)
16	36	16	7-0 35/64	(2148)	6-11 21/64	(2117)	0-11 19/64	(287)
16	40	16	7-4 35/64	(2249)	7-3 21/64	(2218)	0-11 19/64	(287)
20	20	20	6-3 31/64	(1917)	6-2 17/64	(1886)	1-1 19/64	(338)
20	24	20	6-7 31/64	(2019)	6-6 17/64	(1988)	1-1 19/64	(338)
20	26	20	6-9 31/64	(2070)	6-8 17/64	(2039)	1-1 19/64	(338)
20	28	20	6-11 31/64	(2120)	6-10 17/64	(2089)	1-1 19/64	(338)
20	30	20	7-1 31/64	(2171)	7-0 17/64	(2140)	1-1 19/64	(338)
20	32	20	7-3 31/64	(2222)	7-2 17/64	(2191)	1-1 19/64	(338)
20	36	20	7-7 31/64	(2324)	7-6 17/64	(2293)	1-1 19/64	(338)
20	40	20	7-11 31/64	(2425)	7-10 17/64	(2394)	1-1 19/64	(338)
24	24	24	7-2 13/32	(2195)	7-1 3/16	(2164)	1-3 19/64	(389)
24	26	24	7-4 13/32	(2246)	7-3 3/16	(2215)	1-3 19/64	(389)
24	28	24	7-6 13/32	(2296)	7-5 3/16	(2265)	1-3 19/64	(389)
24	30	24	7-8 13/32	(2347)	7-7 3/16	(2316)	1-3 19/64	(389)
24	32	24	7-10 13/32	(2398)	7-9 3/16	(2367)	1-3 19/64	(389)
24	36	24	8-2 13/32	(2500)	8-1 3/16	(2469)	1-3 19/64	(389)
24	40	24	8-6 13/32	(2601)	8-5 3/16	(2570)	1-3 19/64	(389)
26	26	26	7-7 7/8	(2334)	7-6 21/32	(2303)	1-4 19/64	(414)
26	28	26	7-9 7/8	(2384)	7-8 21/32	(2353)	1-4 19/64	(414)
26	30	26	7-11 7/8	(2435)	7-10 21/32	(2404)	1-4 19/64	(414)
26	32	26	8-1 7/8	(2486)	8-0 21/32	(2455)	1-4 19/64	(414)
26	36	26	8-5 7/8	(2588)	8-4 21/32	(2557)	1-4 19/64	(414)
26	40	26	8-9 7/8	(2689)	8-8 21/32	(2658)	1-4 19/64	(414)
28	28	28	8-1 11/32	(2472)	8-0 1/8	(2441)	1-5 19/64	(439)
28	30	28	8-3 11/32	(2523)	8-2 1/8	(2492)	1-5 19/64	(439)
28	32	28	8-5 11/32	(2574)	8-4 1/8	(2543)	1-5 19/64	(439)
28	36	28	8-9 11/32	(2676)	8-8 1/8	(2645)	1-5 19/64	(439)
28	40	28	9-1 11/32	(2777)	9-0 1/8	(2746)	1-5 19/64	(439)
30	30	30	8-6 51/64	(2611)	8-5 37/64	(2580)	1-6 19/64	(465)
30	32	30	8-8 51/64	(2662)	8-7 37/64	(2631)	1-6 19/64	(465)
30	36	30	9-0 51/64	(2764)	8-11 37/64	(2733)	1-6 19/64	(465)
30	40	30	9-4 51/64	(2865)	9-3 37/64	(2834)	1-6 19/64	(465)
32	32	32	9-0 17/64	(2750)	8-11 3/64	(2719)	1-7 19/64	(490)
32	36	32	9-4 17/64	(2852)	9-3 3/64	(2821)	1-7 19/64	(490)
32	40	32	9-8 17/64	(2953)	9-7 3/64	(2922)	1-7 19/64	(490)
36	36	36	9-11 3/16	(3028)	9-9 31/32	(2997)	1-9 19/64	(541)
36	40	36	10-3 3/16	(3129)	10-1 31/32	(3098)	1-9 19/64	(541)
40	40	40	10-10 1/8	(3305)	10-8 29/32	(3274)	1-11 19/64	(592)

NOTE: CE mark is not available on Bow and Bay units.

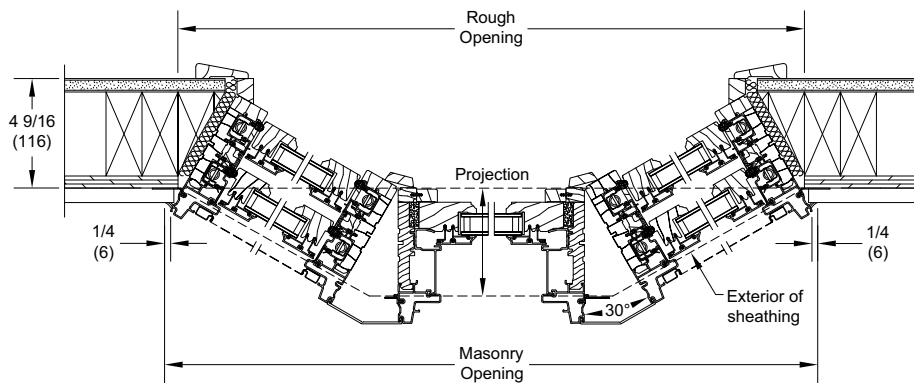
**Bay Section Details: 30°**

Not to Scale

**Operating Center Unit**



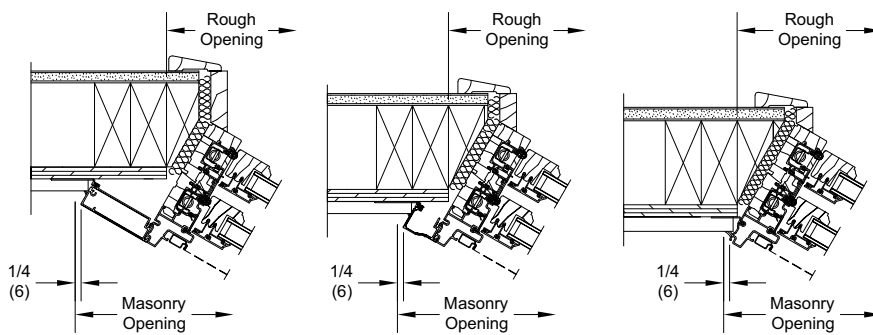
**Picture Center Unit**



**Flat Casing**

**Brick Mould Casing**

**No Casing**



**NOTE: 30° UDHG2 Bay with optional Brick Mould Casing.** Bow or Bay assemblies with clad brick mould casing use enclosed profile casing. For 30° bay masonry opening widths using clad brick mould casing, add 3 21/32" (93) to the rough opening width.

**30° UDHG2 Bay with optional 3 1/2" (89) Flat Casing.** Bow or bay assemblies with clad flat casing use enclosed profile casing. For 30° bay masonry opening widths using clad flat casing, add 6 7/16" (164) to the rough opening width.

CE mark is not available on Bow and Bay units.

**Bay Rough Opening and Projection Calculations: 30°**

Ultimate Double Hung G2 Bay	
30-Degree (no casing)	
Projection	(OM <b>width</b> of flanker unit PLUS 1.223) x 0.5
Rough Opening Width	(Projection x 1.732) x 2 PLUS 2.82 + <b>Width</b> of Center Unit
Masonry Opening Unit	Add 1 7/32" (31) to Rough Opening <b>width</b>
Rough Opening Height (with Head and Seat boards)	OM height on center unit(s) PLUS 25/32" (20)
Masonry Opening Height (with Head and Seat boards)	Rough Opening height PLUS 1/4" (6)

*NOTE: If no head board, Deduct 11/16" (17) from Rough Opening Height  
Clad BMC or Flat Casing will change Rough Opening and Projection. Contact your Marvin representative.  
CE mark is not available on Bow and Bay units.*

**Bay Standard Width Call Number: 45° - Operable Center Unit**

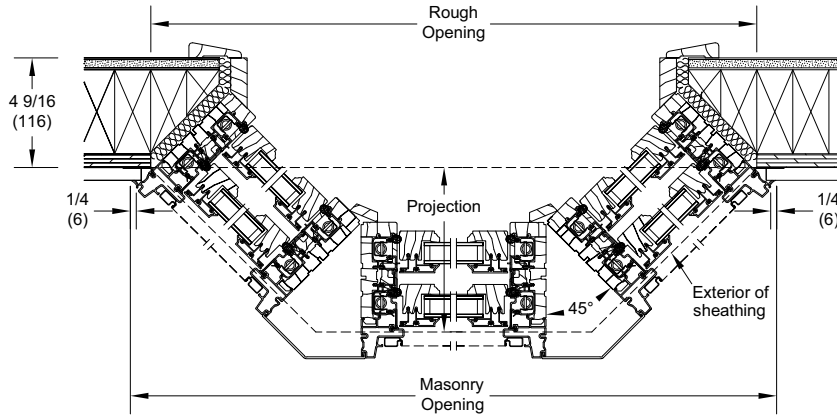
Call Number (Width)			45° Bay					
Side	Center	Side	MO		RO		Projection	
16	16	16	5-0 7/64	(1527)	4-10 5/16	(1481)	1-4 29/64	(418)
16	20	16	4-8 1/2	(1435)	4-6 45/64	(1389)	1-0 41/64	(321)
16	24	16	5-0 1/2	(1537)	4-10 45/64	(1491)	1-0 41/64	(321)
16	26	16	5-2 1/2	(1587)	5-0 45/64	(1542)	1-0 41/64	(321)
16	28	16	5-4 1/2	(1638)	5-2 45/64	(1593)	1-0 41/64	(321)
16	30	16	5-6 1/2	(1689)	5-4 45/64	(1643)	1-0 41/64	(321)
16	32	16	5-8 1/2	(1740)	5-6 45/64	(1694)	1-0 41/64	(321)
16	36	16	6-0 1/2	(1841)	5-10 45/64	(1796)	1-0 41/64	(321)
16	40	16	6-4 1/2	(1943)	6-2 45/64	(1897)	1-0 41/64	(321)
20	20	20	5-2 5/32	(1579)	5-0 23/64	(1533)	1-3 15/32	(393)
20	24	20	5-6 5/32	(1680)	5-4 23/64	(1635)	1-3 15/32	(393)
20	26	20	5-8 5/32	(1731)	5-6 23/64	(1685)	1-3 15/32	(393)
20	28	20	5-10 5/32	(1782)	5-8 23/64	(1736)	1-3 15/32	(393)
20	30	20	6-0 5/32	(1833)	5-10 23/64	(1787)	1-3 15/32	(393)
20	32	20	6-2 5/32	(1884)	6-0 23/64	(1838)	1-3 15/32	(393)
20	36	20	6-6 5/32	(1985)	6-4 23/64	(1939)	1-3 15/32	(393)
20	40	20	6-10 5/32	(2087)	6-8 23/64	(2041)	1-3 15/32	(393)
24	24	24	5-11 13/16	(1824)	5-10 1/64	(1778)	1-6 19/64	(465)
24	26	24	6-1 13/16	(1875)	6-0 1/64	(1829)	1-6 19/64	(465)
24	28	24	6-3 13/16	(1926)	6-2 1/64	(1880)	1-6 19/64	(465)
24	30	24	6-5 13/16	(1976)	6-4 1/64	(1931)	1-6 19/64	(465)
24	32	24	6-7 13/16	(2027)	6-6 1/64	(1982)	1-6 19/64	(465)
24	36	24	6-11 13/16	(2129)	6-10 1/64	(2083)	1-6 19/64	(465)
24	40	24	7-3 13/16	(2230)	7-2 1/64	(2185)	1-6 19/64	(465)
26	26	26	6-4 41/64	(1947)	6-2 27/32	(1901)	1-7 23/32	(501)
26	28	26	6-6 41/64	(1997)	6-4 27/32	(1952)	1-7 23/32	(501)
26	30	26	6-8 41/64	(2048)	6-6 27/32	(2003)	1-7 23/32	(501)
26	32	26	6-10 41/64	(2099)	6-8 27/32	(2053)	1-7 23/32	(501)
26	36	26	7-2 41/64	(2201)	7-0 27/32	(2155)	1-7 23/32	(501)
26	40	26	7-6 41/64	(2302)	7-4 27/32	(2257)	1-7 23/32	(501)
28	28	28	6-9 15/32	(2069)	6-7 43/64	(2024)	1-9 1/8	(537)
28	30	28	6-11 15/32	(2120)	6-9 43/64	(2074)	1-9 1/8	(537)
28	32	28	7-1 15/32	(2171)	6-11 43/64	(2125)	1-9 1/8	(537)
28	36	28	7-5 15/32	(2272)	7-3 43/64	(2227)	1-9 1/8	(537)
28	40	28	7-9 15/32	(2374)	7-7 43/64	(2328)	1-9 1/8	(537)
30	30	30	7-2 19/64	(2192)	7-0 1/2	(2146)	1-10 35/64	(573)
30	32	30	7-4 19/64	(2243)	7-2 1/2	(2197)	1-10 35/64	(573)
30	36	30	7-8 19/64	(2344)	7-6 1/2	(2299)	1-10 35/64	(573)
30	40	30	8-0 19/64	(2446)	7-10 1/2	(2400)	1-10 35/64	(573)
32	32	32	7-7 1/8	(2315)	7-5 21/64	(2269)	1-11 61/64	(609)
32	36	32	7-11 1/8	(2416)	7-9 21/64	(2370)	1-11 61/64	(609)
32	40	32	8-3 1/8	(2518)	8-1 21/64	(2472)	1-11 61/64	(609)
36	36	36	8-4 25/32	(2560)	8-2 63/64	(2514)	2-2 25/32	(680)
36	40	36	8-8 25/32	(2661)	8-6 63/64	(2616)	2-2 25/32	(680)
40	40	40	9-2 7/16	(2805)	9-0 41/64	(2759)	2-5 39/64	(752)

NOTE: CE mark is not available on Bow and Bay units.

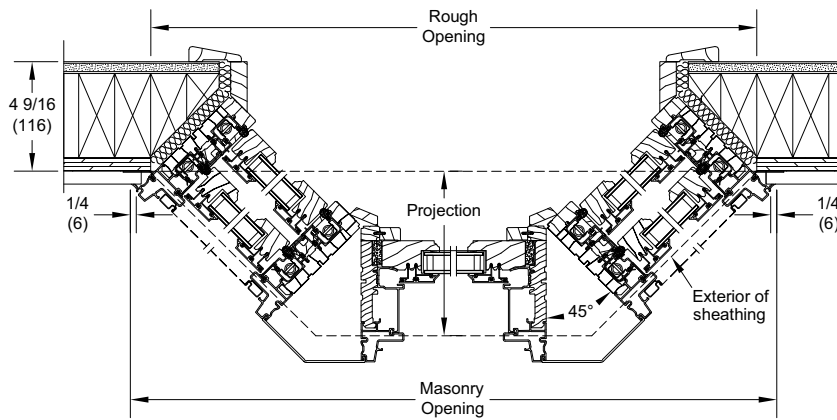
**Bay Section Detail: 45°**

Not to Scale

Operating Center Unit



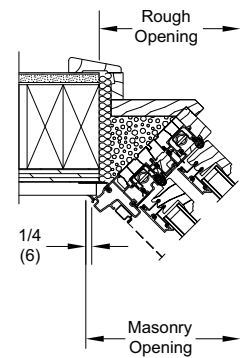
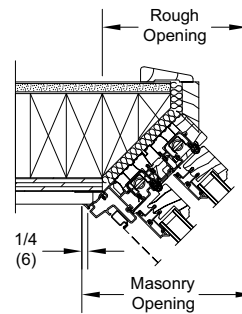
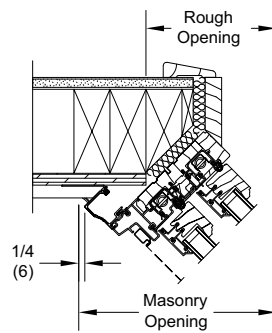
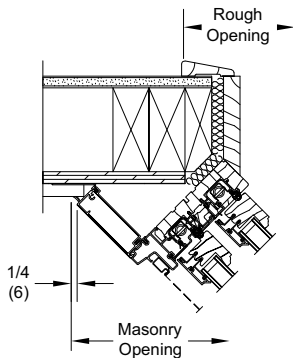
Picture Center Unit



Flat Casing

Brick Mould Casing

No Casing



**NOTE: 45° UDHG2 Bay with optional Brick Mould Casing.** Bow or bay assemblies with clad brick mould casing use enclosed profile casing. For 45° bay masonry opening widths using clad brick mould casing, add 3 7/8" (98) to the rough opening width.

**45° UDHG2 Bay with optional Flat Casing.** Bow or bay assemblies with clad flat casing use enclosed profile casing. For 45° bay masonry opening widths, using clad flat casing, add 6 1/16" (154) to the rough opening width.

CE mark is not available on Bow and Bay units.

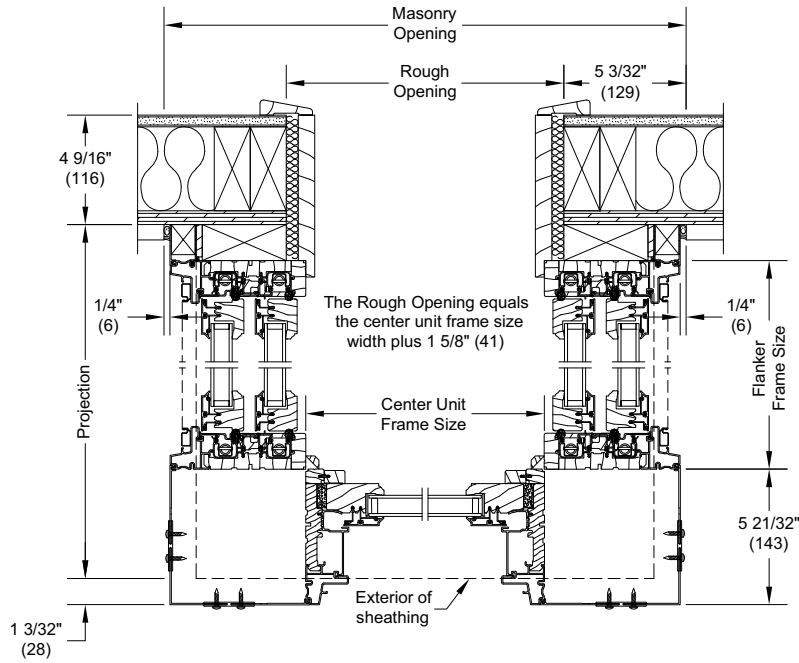
**Bay Rough Opening and Projection Calculations: 45°**

<b>Ultimate Double Hung G2 Bay</b>	
<b>45-Degree (no casing)</b>	
Projection	OM <b>width</b> of flanker unit PLUS 1.89 x 0.707
Rough Opening Width	Projection x 2 + 4.03 Plus OM <b>width</b> of Center Unit
Masonry Opening Width	Add 1 13/16" (46) to Rough Opening <b>width</b>
Rough Opening Height (with Head and Seat Boards)	OM height on center unit(s) Plus 25/32" (20)
Masonry Opening Height (with Head and Seat Boards)	Rough Opening height Minus 1 /4" (6)

*NOTE: If no head board, Deduct 11/16" (17) from Rough Opening Height  
Clad BMC or Flat Casing will change Rough Opening and Projection. Contact your Marvin representative.  
CE mark is not available on Bow and Bay units.*

**Bay Section Detail: 90°**

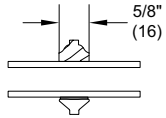
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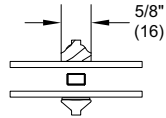
<b>Ultimate Double Hung G2 Bay</b>	
<b>90-Degree (no casing)</b>	
Projection	OM <b>width</b> of flanker unit PLUS 6 1/16" (154)
Rough Opening Width	OM <b>width</b> of Center Unit(s) PLUS 1 5/8" (41)
Masonry Opening Unit	Add 10 3/16" (259) to Rough Opening <b>width</b>
Rough Opening Height (with Head and Seat boards)	OM height on center unit(s) PLUS 25/32" (20)
Masonry Opening Height (with Head and Seat boards)	Rough Opening height MINUS 1/4" (6)

*NOTE: CE mark is not available on Bow and Bay units.*

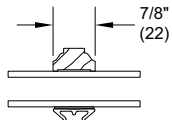
**Lite Options**



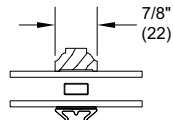
5/8" SDL



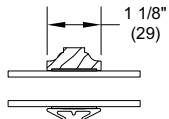
5/8" SDL  
W/Spacer



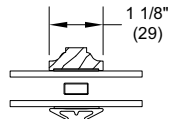
7/8" SDL



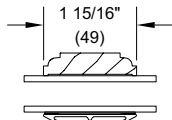
7/8" SDL  
W/Spacer Bar



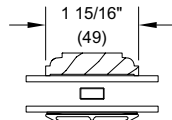
1 1/8" SDL



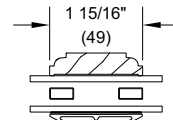
1 1/8" SDL  
W/Spacer Bar



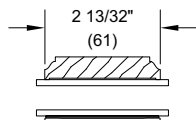
1 15/16 " SDL



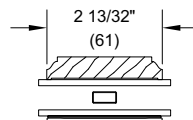
1 15/16 " SDL  
W/One Spacer Bar



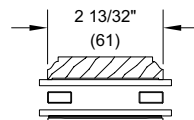
1 15/16 " SDL  
W/Two Spacer Bars



2 13/32" SDL



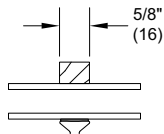
2 13/32" SDL  
W/One Spacer Bar



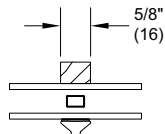
2 13/32" SDL  
W/Two Spacer Bars



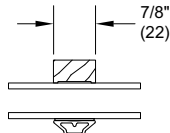
**Optional Interior Square Simulated Divided Lite Option**



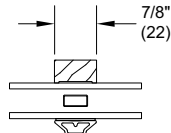
5/8" SDL



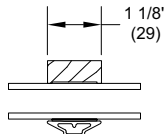
5/8" SDL  
W/Spacer



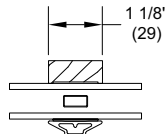
7/8" SDL



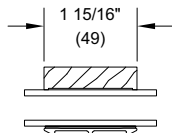
7/8" SDL  
W/Spacer Bar



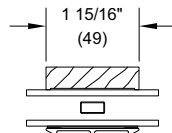
1 1/8" SDL



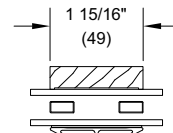
1 1/8" SDL  
W/Spacer Bar



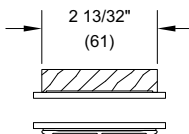
1 15/16" SDL



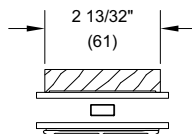
1 15/16" SDL  
W/One Spacer Bar



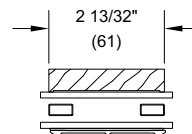
1 15/16" SDL  
W/Two Spacer Bars



2 13/32" SDL



2 13/32" SDL  
W/One Spacer Bar



2 13/32" SDL  
W/Two Spacer Bars

**Standard Divided Lite Options**

**SDL Patterns (5/8" or 7/8" SDL)**

CN HEIGHT	CN Width												
	16	20	24	26	28	30	32	36	40	44	48	54	60
12	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	4W2H	4W2H	4W2H	4W2H	5W2H	5W2H
14	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	4W2H	4W2H	4W2H	4W2H	5W2H	5W2H
16	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	4W2H	4W2H	4W2H	4W2H	5W2H	5W2H
18	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	4W2H	4W2H	4W2H	4W2H	5W2H	5W2H
20	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	4W2H	4W2H	4W2H	4W2H	5W2H	5W2H
22	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	4W2H	4W2H	4W2H	4W2H	5W2H	5W2H
24	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	4W2H	4W2H	4W2H	4W2H	5W2H	5W2H
26	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	4W2H	4W2H	4W2H	4W2H	5W2H	5W2H
28	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	4W2H	4W2H	4W2H	4W2H	5W2H	5W2H
30	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	4W2H	4W2H	4W2H	4W2H	5W2H	5W2H
32	2W3H	3W3H	3W3H	3W3H	3W3H	3W3H	4W3H	4W3H	4W3H	4W3H	4W3H	5W3H	5W3H
34	2W3H	3W3H	3W3H	3W3H	3W3H	3W3H	4W3H	4W3H	4W3H	4W3H	4W3H	5W3H	5W3H
36	2W3H	3W3H	3W3H	3W3H	3W3H	3W3H	4W3H	4W3H	4W3H	4W3H	4W3H	5W3H	5W3H
40	2W4H	3W4H	3W4H	3W4H	3W4H	3W4H	4W4H	4W4H	4W4H	4W4H	4W4H	5W4H	5W4H
42	2W4H	3W4H	3W4H	3W4H	3W4H	3W4H	4W4H	4W4H	4W4H	4W4H	4W4H	5W4H	5W4H
50	2W4H	3W4H	3W4H	3W4H	3W4H	3W4H	4W4H	4W4H	4W4H	4W4H	4W4H	5W4H	5W4H
56	2W4H	3W4H	3W4H	3W4H	3W4H	3W4H	4W4H	4W4H	4W4H	4W4H	4W4H	5W4H	5W4H
60	2W4H	3W4H	3W4H	3W4H	3W4H	3W4H	4W4H	4W4H	4W4H	4W4H	4W4H	5W4H	5W4H

**SDL Patterns (1 1/8" SDL)**

CN HEIGHT	CN Width												
	16	20	24	26	28	30	32	36	40	44	48	54	60
12	2W1H	2W1H	3W1H	3W1H	3W1H	3W1H	3W1H	3W1H	4W1H	4W1H	4W1H	5W1H	5W1H
14	2W1H	2W1H	3W1H	3W1H	3W1H	3W1H	3W1H	3W1H	4W1H	4W1H	4W1H	5W1H	5W1H
16	2W1H	2W1H	3W1H	3W1H	3W1H	3W1H	3W1H	3W1H	4W1H	4W1H	4W1H	5W1H	5W1H
18	2W2H	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	4W2H	4W2H	5W2H	5W2H
20	2W2H	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	4W2H	4W2H	5W2H	5W2H
22	2W2H	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	4W2H	4W2H	5W2H	5W2H
24	2W2H	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	4W2H	4W2H	5W2H	5W2H
26	2W2H	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	4W2H	4W2H	5W2H	5W2H
28	2W2H	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	4W2H	4W2H	5W2H	5W2H
30	2W2H	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	4W2H	4W2H	5W2H	5W2H
32	2W3H	2W3H	3W3H	3W3H	3W3H	3W3H	3W3H	3W3H	4W3H	4W3H	4W3H	5W3H	5W3H
34	2W3H	2W3H	3W3H	3W3H	3W3H	3W3H	3W3H	3W3H	4W3H	4W3H	4W3H	5W3H	5W3H
36	2W3H	2W3H	3W3H	3W3H	3W3H	3W3H	3W3H	3W3H	4W3H	4W3H	4W3H	5W3H	5W3H
40	2W4H	2W4H	3W4H	3W4H	3W4H	3W4H	3W4H	3W4H	4W4H	4W4H	4W4H	5W4H	5W4H
42	2W4H	2W4H	3W4H	3W4H	3W4H	3W4H	3W4H	3W4H	4W4H	4W4H	4W4H	5W4H	5W4H
50	2W4H	2W4H	3W4H	3W4H	3W4H	3W4H	3W4H	3W4H	4W4H	4W4H	4W4H	5W4H	5W4H
56	2W4H	2W4H	3W4H	3W4H	3W4H	3W4H	3W4H	3W4H	4W4H	4W4H	4W4H	5W4H	5W4H
60	2W4H	2W4H	3W4H	3W4H	3W4H	3W4H	3W4H	3W4H	4W4H	4W4H	4W4H	5W4H	5W4H

**Standard Divided Lite Options**

**Pictures**

Picture - 1 1/8" SDL or 1 1/8" Grille					
CN HEIGHT	CN Width				
	40	48	52	60	68
38	3W2H	4W2H	4W2H	5W2H	6W2H
42	3W4H	4W4H	4W4H	5W4H	6W4H
46	3W4H	4W4H	4W4H	5W4H	6W4H
50	3W4H	4W4H	4W4H	5W4H	6W4H
54	3W4H	4W4H	4W4H	5W4H	6W4H
58	3W4H	4W4H	4W4H	5W4H	6W4H
62	3W4H	4W4H	4W4H	5W4H	6W4H
66	3W4H	4W4H	4W4H	5W4H	6W4H
70	3W6H	4W6H	4W6H	5W6H	6W6H
74	3W6H	4W6H	4W6H	5W6H	6W6H
78	3W6H	4W6H	4W6H	5W6H	6W6H
86	3W8H	4W8H	4W8H	5W8H	6W8H
90	3W8H	4W8H	4W8H	5W8H	6W8H

Picture - 5/8" or 7/8" SDL, 3/4" Grille, or GBG					
CN HEIGHT	CN Width				
	40	48	52	60	68
38	4W4H	5W4H	5W4H	6W4H	7W4H
42	4W4H	5W4H	5W4H	6W4H	7W4H
46	4W4H	5W4H	5W4H	6W4H	7W4H
50	4W4H	5W4H	5W4H	6W4H	7W4H
54	4W4H	5W4H	5W4H	6W4H	7W4H
58	4W4H	5W4H	5W4H	6W4H	7W4H
62	4W4H	5W4H	5W4H	6W4H	7W4H
66	4W4H	5W4H	5W4H	6W4H	7W4H
70	4W6H	5W6H	5W6H	6W6H	7W6H
74	4W6H	5W6H	5W6H	6W6H	7W6H
78	4W6H	5W6H	5W6H	6W6H	7W6H
86	4W8H	5W8H	5W8H	6W8H	7W8H
90	4W8H	5W8H	5W8H	6W8H	7W8H

**Transoms**

Transom - 1 1/8" SDL or 1 1/8" Grille										
CN HEIGHT	CN Width									
	16	20	24	26	28	30	32	36	40	54
12	2W1H	2W1H	3W1H	3W1H	3W1H	3W1H	3W1H	3W1H	4W1H	5W1H
20	2W2H	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	5W2H

TRANSOM - 5/8, or 7/8, SDL, 3/4, Grille, or GBG										
CN HEIGHT	CN Width									
	16	20	24	26	28	30	32	36	40	54
12	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	4W2H	4W2H	5W2H
20	2W2H	3W2H	3W2H	3W2H	3W2H	3W2H	4W2H	4W2H	4W2H	5W2H