

CHAPTER 26

WOOD ULTIMATE DOUBLE HUNG

Product Information

Unit Features	26.2
NFRC Values	26.3
Design Pressure / Minimums and Maximums	26.4
Egress, Lite and Vent Information	26.5
Measurement Conversions	26.6

Elevations and Sections

Elevations: Double Hung	26.8
Elevations: Picture	26.9
Elevations: Double Hung Cottage and Transom	26.10
Section Details: Double Hung and Single Hung	26.11
Section Details: 1 5/8" Transom	26.12
Section Details: Picture	26.13
Section Details: Combination and Storm Sash	26.14
Section Details: Mullions	26.15
Section Details: Divided Lite Options	26.16
Daylight Opening Conversions	26.17
Section Details: Standard Divided Lite Patterns	26.18
Section Details: Construction	26.22

Bow and Bay Assemblies

Section Details: 45 or 30 Degree Bay, Vertical	26.24
Section Details: 30 Degree Bay, Horizontal	26.25
Width Measurements: 30 Degree Bay	26.26
Section Details: 45 Degree Bay, Horizontal	26.27
Width Measurements: 45 Degree Bay	26.28
Section Details: 60 Degree Bay, Operating Horizontal	26.29
Section Details: 60 Degree Bay, Picture Horizontal	26.30
Width Measurements: 60 Degree Bay	26.31
Section Details: 90 Degree Bay	26.32

NOTE:

Specifications and technical data are subject to change without notice.

Allow 1/16" (2) tolerance on all measurements.

Metric measurements are shown in parenthesis.

For accessories dimensions and applications see the Accessories section of this manual.

For technical assistance for Marvin products you may call our Architectural Hotline 1-800-346-3363 or visit our website: www.Marvin.com.

WOOD ULTIMATE DOUBLE HUNG

UNIT FEATURES

Frame:

- Pine wood interior and exterior standard. Optional mahogany or vertical grain Douglas fir
- Frame width: 4 9/16" (116)
- Frame thickness: 1 1/16" (17)
- Sill: 8 Degree bevel

Sash:

- Pine wood interior and exterior standard. Optional mahogany or vertical grain Douglas fir
- Operating and transom unit sash thickness: 1 5/8" (41)
- Picture sash thickness: 1 5/8" (41) or 2" (51)
- Operating sash are removable for cleaning

Interior and exterior finish:

- Treated bare wood or white primed (pine only)

Operating Hardware:

- Sash lock and keeper: Open style crescent cam lock with sash release lever, surface mounted. Color: Satin Taupe. Optional: White, Brass, Satin Chrome, Antique Brass, Bronze, Oil Rubbed Bronze, Satin Nickel
- Sash lift: Color: Satin Taupe. Optional: White, Brass, Satin Chrome, Antique Brass, Bronze, Oil Rubbed Bronze, Satin Nickel
- Balance system: Block and tackle balance system

Weatherstrip:

- Operating units: Continuous foam filled bulb weather strip at head jamb, jambs, check rail and bottom rail
- Picture and Transom units: Continuous weather strip at perimeter; foam filled bulb weather strip at jamb, head and sill

Jamb Extensions:

- Jamb extensions available for various wall thickness factory applied, finish to match interior

Insect Screens:

- Aluminum screen: Full screen standard, half screen optional. Frame color: Stone White, Pebble Gray, Bronze, Bahama Brown or Evergreen. Select and custom colors available
- Wood screen: Full or half screen optional. Frame surround finish: Bare or Primed
- Screen mesh: 18 by 16 mesh. Screen type: Charcoal fiberglass, Charcoal aluminum wire, Black aluminum wire, Bright aluminum wire, Bright bronze wire

Wood Combination Storm Sash and Screen:

- Frame: Treated bare wood or white primed (prime only)
- Storm panel: Select quality glass in and extruded aluminum frame. Frame color: Stone White, Pebble Gray, Bronze, Bahama Brown or Evergreen. Select and custom colors available
- Insect screen: 18 by 16 mesh. Screen type: Charcoal fiberglass, Charcoal aluminum wire, Black aluminum wire, Bright aluminum wire, Bright bronze wire
- Weather strip: Pile weather strip between operating panels, center rail, and at stiles of main frame
- Hardware: Spring loaded latches to secure storm panel

Wood Storm Sash:

- Frame: Treated bare wood or white primed (prime only)
- Glazing: Select quality glass

Removable Interior Grilles:

- Bar: Pine, 3/4" (19) or 1 1/8" (29) wide bars
- Pattern: Rectangular or custom lite layouts available, contact your Marvin representative

Interior / Exterior Simulated Divided Lites (SDL):

- Bar (interior and exterior): 7/8" (22) or 1 1/8" (29) wide bars. Pine wood standard, optional mahogany or vertical grain Douglas fir. Finish to match interior and exterior
- Pattern: Rectangular, custom lite layouts available, contact your Marvin representative

Grilles-between-the-glass (GBG):

- 1 1/16" (17mm) white contoured aluminum bar. Optional flat aluminum spacer bar, contact your Marvin representative

Authentic Divided Lite (ADL):

- Bar (interior and exterior): single glazed 7/8" (22) wide bars, insulated glass 1 1/16" (43) wide bars: available in standard pine and optional mahogany or vertical grain Douglas fir. Finish to match interior and exterior
- Pattern: Rectangular, custom lite layouts available, contact your Marvin representative

Glass and Glazing:

- Glazing method: Insulated Glass, Single glazed, or Single glazed with energy panel
- Glazing seal: Silicone glazed
- Glazing type: Clear, Low E II with argon, Laminated, Tempered, Obscure, Bronze tint, Gray tint, or Reflective Bronze
- Glazing will be altitude adjusted for higher elevations, argon gas not included

Accessories:

- Installation Brackets: 6 3/8" (162), 9 3/8" (238), or 15 3/8" (390)
- Masonry Brackets: 6" (152) or 10" (254)
- Marvin SillGuard™
- Exterior Wood casings: Brick mould casing, Stucco casing, or Flat casing

NOTE:

Values shown in parenthesis represent metric equivalents
For product specifications please refer to the CSI Product Specifications, contact your Marvin representative

WOOD ULTIMATE DOUBLE HUNG

NFRC VALUES

NFRC Unit Values					
Glazing Type	U-Factor	R-Value	Solar Heat Gain Coefficient	Visible Light Transmittance	Energy Star
Double Hung / Single Hung					
Size Tested	47 x 59	47 x 59	47 x 59	47 x 59	
Single Glaze	0.84	1.19	0.61	0.63	-
Single Glaze with ADL	0.83	1.20	0.55	0.56	-
Single Glaze with EP	0.45	2.22	0.56	0.58	-
Single Glaze with EP and ADL	0.45	2.22	0.46	0.53	-
Single Glaze with Low E EP	0.36	2.78	0.55	0.58	-
Single Glaze with Low E EP and ADL	0.37	2.70	0.41	0.47	NC
Insulating glass	0.46	2.17	0.55	0.58	-
Insulating glass - SDL	0.46	2.17	0.49	0.51	-
Insulating glass - SDL with spacer bars	0.46	2.17	0.49	0.51	-
Insulating Low E II glass	0.33	3.03	0.30	0.51	N, NC, SC, S
Insulating Low E II glass - SDL	0.33	3.03	0.27	0.45	N, NC, SC, S
Insulating Low E II glass - SDL with spacer bars	0.34	2.94	0.27	0.45	N, NC, SC, S
Insulating Low E II glass - Argon	0.30	3.33	0.29	0.51	N, NC, SC, S
Insulating Low E II glass - Argon, SDL	0.30	3.33	0.26	0.45	N, NC, SC, S
Insulating Low E II glass - Argon, SDL with spacer bars	0.31	3.23	0.26	0.45	N, NC, SC, S
Picture - 1 5/8" Sash 3/4" IG					
Size Tested	47 x 59	47 x 59	47 x 59	47 x 59	
Single Glaze	0.85	1.18	0.64	0.67	-
Single Glaze with ADL	0.84	1.19	0.58	0.59	-
Single Glaze with EP	0.45	2.22	0.58	0.61	-
Single Glaze with EP and ADL	0.45	2.22	0.52	0.54	-
Single Glaze with Low E EP	0.35	2.86	0.48	0.55	N, NC
Single Glaze with Low E EP and ADL	0.36	2.78	0.43	0.49	NC
Insulating glass	0.45	2.22	0.57	0.61	-
Insulating glass - SDL	0.45	2.22	0.51	0.54	-
Insulating glass - SDL with spacer bars	0.45	2.22	0.51	0.54	-
Insulating Low E II glass	0.32	3.13	0.31	0.53	N, NC, SC, S
Insulating Low E II glass - SDL	0.32	3.13	0.28	0.47	N, NC, SC, S
Insulating Low E II glass - SDL with spacer bars	0.33	3.03	0.28	0.47	N, NC, SC, S
Insulating Low E II glass - Argon	0.28	3.57	0.31	0.53	N, NC, SC, S
Insulating Low E II glass - Argon, SDL	0.28	3.57	0.25	0.42	N, NC, SC, S
Insulating Low E II glass - Argon, SDL with spacer bars	0.29	3.45	0.28	0.47	N, NC, SC, S
Picture - 2" Sash 1" IG					
Size Tested	47 x 59	47 x 59	47 x 59	47 x 59	
Insulating glass	0.44	2.27	0.55	0.60	-
Insulating glass - SDL	0.44	2.27	0.49	0.53	-
Insulating glass - SDL with spacer bars	0.44	2.27	0.49	0.53	-
Insulating Low E II glass	0.31	3.23	0.30	0.52	N, NC, SC, S
Insulating Low E II glass - SDL	0.31	3.23	0.27	0.46	N, NC, SC, S
Insulating Low E II glass - SDL with spacer bars	0.32	3.13	0.27	0.46	N, NC, SC, S
Insulating Low E II glass - Argon	0.28	3.57	0.30	0.52	N, NC, SC, S
Insulating Low E II glass - Argon, SDL	0.28	3.57	0.27	0.46	N, NC, SC, S
Insulating Low E II glass - Argon, SDL with spacer bars	0.29	3.45	0.27	0.46	N, NC, SC, S
Transom 3/4" IG					
Size Tested	47 x 59	47 x 59	47 x 59	47 x 59	
Single Glaze	0.85	1.18	0.66	0.68	-
Single Glaze with ADL	0.84	1.19	0.59	0.61	-
Single Glaze with EP	0.44	2.27	0.60	0.62	-
Single Glaze with EP and ADL	0.45	2.22	0.53	0.56	-
Single Glaze with Low E EP	0.34	2.94	0.49	0.57	N, NC
Single Glaze with Low E EP and ADL	0.35	2.86	0.44	0.50	N, NC
Insulating glass	0.45	2.22	0.59	0.62	-
Insulating glass - SDL	0.45	2.22	0.53	0.55	-
Insulating glass - SDL with spacer bars	0.45	2.22	0.53	0.55	-
Insulating Low E II glass	0.31	3.23	0.32	0.54	N, NC, SC, S
Insulating Low E II glass - SDL	0.31	3.23	0.28	0.48	N, NC, SC, S
Insulating Low E II glass - SDL with spacer bars	0.32	3.13	0.28	0.48	N, NC, SC, S
Insulating Low E II glass - Argon	0.28	3.57	0.31	0.54	N, NC, SC, S
Insulating Low E II glass - Argon, SDL	0.28	3.57	0.28	0.48	N, NC, SC, S
Insulating Low E II glass - Argon, SDL with spacer bars	0.28	3.57	0.28	0.48	N, NC, SC, S

NOTE:

Product Values are determined using the National Fenestration Rating Council (NFRC) Procedures for determining fenestration product values.

U-Factor: (Btu/hr-sq ft-°F) Lower the U-Factor, the greater the resistance to heat flow and better its insulating value.

R-Value: (1/U-Value) Higher the R-Value, the greater the resistance to heat flow and better its insulating value.

Visible Light Transmittance (VLT): Percentage of visible light transmitted through the unit.

Solar Heat Gain Coefficient (SHGC): The lower a window's SHGC, the less solar heat it transmits, and the greater its shading ability.

Capillary tubes are required for IG units at high elevations. Argon will not be furnished in units with capillary tubes.

Contact the Architectural Department Hotline at (800-346-3363) for additional NFRC Unit Values.

WOOD ULTIMATE DOUBLE HUNG

DESIGN PRESSURE VALUES / MINIMUM AND MAXIMUM MEASUREMENTS

Design Pressure Values - Double Hung									
Call #	16	20	24	26	28	30	32	36	40
	Width								
12	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40
14	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40
16	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40
18	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40
20	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40
22	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40
24	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40
26	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40
28	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 30	DP 30	DP 30
30	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 30	DP 30	DP 30
32	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 30	DP 30	DP 30
34	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 30	DP 30	DP 30
36	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 30	DP 30	DP 30

NOTE:

Design Pressure values represent Pounds Per Square Foot (PSF). Values indicated represent standard units only. Refer to the Product Performance and Information section for additional information on Design Pressures.

Minimum and Maximum Measurements					
Glazing Type	Minimum RO Width	Minimum RO Height	Maximum RO Width	Maximum RO Height	Maximum Glass Square Feet
Double Hung					
Insulated Glass	14 3/8" (365)	25 1/2" (648)	50 3/8" (1280)	105 1/2" (2680)	10.0 Sq. Feet (.93 Sq. Meters)
Single Glazed	14 3/8" (365)	25 1/2" (648)	50 3/8" (1280)	105 1/2" (2680)	12.0 Sq. Feet (1.11 Sq. Meters)
Single Glazed with Energy Panel	14 3/8" (365)	25 1/2" (648)	50 3/8" (1280)	105 1/2" (2680)	10.0 Sq. Feet (.93 Sq. Meters)
Picture 1 5/8" and 2" Sash Thickness					
Insulated Glass - 1 5/8" (41) Sash	14 3/8" (365)	16 3/16" (411)	105" (2667)	105" (2667)	25.0 Sq. Feet (2.32 Sq. Meters)
Single Glazed - 1 5/8" (41) Sash	14 3/8" (365)	16 3/16" (411)	105" (2667)	105" (2667)	38.0 Sq. Feet (3.53 Sq. Meters)
Single Glazed with Energy panel - 1 5/8" (41) Sash	14 3/8" (365)	16 3/16" (411)	105" (2667)	105" (2667)	25.0 Sq. Feet (2.32 Sq. Meters)
Insulated Glass - 2" (51) Sash	14 3/8" (365)	16 3/16" (411)	121" (3073)	121" (3073)	49.0 Sq. Feet (4.55 Sq. Meters)
Transom					
Insulated Glass	14 3/8" (365)	13 7/8" (352)	105" (2667)	62" (1575)	25.0 Sq. Feet (2.32 Sq. Meters)
Single Glazed	14 3/8" (365)	13 7/8" (352)	105" (2667)	62" (1575)	25.0 Sq. Feet (2.32 Sq. Meters)
Single Glazed with Energy Panel	14 3/8" (365)	13 7/8" (352)	105" (2667)	62" (1575)	25.0 Sq. Feet (2.32 Sq. Meters)

NOTE:

These minimum and maximum measurements are guidelines for configuring custom sized units, all measurements are specific to glass type. For assistance please contact our technical support hotline at 800-346-3363 or your Marvin representative.

WOOD ULTIMATE DOUBLE HUNG

EGRESS, LITE AND VENT INFORMATION

Egress, Lite and Vent Measurements - Double Hung													
Call #	Total Square Feet	Clear Opening Width	Clear Opening Height	Floor to Sill Height	Vent Opening	Lite (Both Sash)	Call #	Total Square Feet	Clear Opening Width	Clear Opening Height	Floor to Sill Height	Vent Opening	Lite (Both Sash)
1612	1.27	17.86	10.25	52.44	1.27	2.27	3012	2.24	31.86	10.13	52.44	2.24	4.39
1614	1.52	17.86	12.25	48.41	1.52	2.68	3014	2.68	31.86	12.13	48.41	2.68	5.20
1616	1.77	17.86	14.25	44.43	1.77	3.10	3016	3.13	31.86	14.13	44.43	3.12	6.00
1618	2.02	17.86	16.25	40.43	2.02	3.51	3018	3.57	31.86	16.13	40.43	3.56	6.81
1620	2.26	17.86	18.25	36.43	2.26	3.93	3020	4.01	31.86	18.13	36.43	4.00	7.61
1622	2.51	17.86	20.25	32.43	2.51	4.34	3022	4.45	31.86	20.13	32.43	4.45	8.41
1624	2.76	17.86	22.25	27.93	2.76	4.76	3024	4.90	31.86	22.13	27.93	4.89	9.22
1626	3.01	17.86	24.25	23.93	3.00	5.17	3026	5.34	31.86	24.13	23.93	5.33	10.02
1628	3.26	17.86	26.25	19.93	3.26	5.59	3028*	5.81	31.86	26.25	19.93	5.77	10.87
1630	3.50	17.86	28.25	15.93	3.50	6.00	3032*	6.25	31.86	28.25	15.93	6.21	11.68
1632	3.75	17.86	30.25	11.93	3.75	6.42	3030*	6.69	31.86	30.25	11.93	6.66	12.48
1634	4.00	17.86	32.25	7.93	4.00	6.83	3034*	7.14	31.86	32.25	7.93	7.10	13.29
1636	4.25	17.86	34.25	3.93	4.25	7.25	3036*	7.58	31.86	34.25	3.93	7.54	14.09
2012	1.56	21.86	10.25	52.44	1.23	2.88	3212	2.41	33.86	10.25	52.44	2.38	4.75
2014	1.86	21.86	12.25	48.41	1.86	3.40	3214	2.88	33.86	12.25	48.41	2.85	5.61
2016	2.16	21.86	14.25	44.43	2.16	3.93	3216	3.35	33.86	14.25	44.43	3.32	6.47
2018	2.47	21.86	16.25	40.43	2.47	4.45	3218	3.82	33.86	16.25	40.43	3.79	7.33
2020	2.77	21.86	18.25	36.43	2.77	4.98	3220	4.29	33.86	18.25	36.43	4.26	8.19
2022	3.07	21.86	20.25	32.43	3.07	5.51	3222	4.76	33.86	20.25	32.43	4.73	9.05
2024	3.38	21.86	22.25	27.93	3.38	6.03	3224	5.23	33.86	22.25	27.93	5.20	9.91
2026	3.68	21.86	24.25	23.93	3.68	6.56	3226*	5.70	33.86	24.25	23.93	5.67	10.77
2028	3.98	21.86	26.25	19.93	3.98	7.09	3228*	6.17	33.86	26.25	19.93	6.14	11.63
2030	4.29	21.86	28.25	15.93	4.29	7.61	3230*	6.64	33.86	28.25	15.93	6.60	12.49
2032	4.59	21.86	30.25	11.93	4.59	8.14	3232*	7.11	33.86	30.25	11.93	7.07	13.35
2034	4.90	21.86	32.25	7.93	4.90	8.66	3234*	7.58	33.86	32.25	7.93	7.54	14.20
2036	5.20	21.86	34.25	3.93	5.20	9.19	3236*	8.05	33.86	34.25	3.93	8.01	15.06
2412	1.84	25.86	10.25	52.44	1.84	3.48	3612	2.69	37.86	10.25	52.44	2.66	5.37
2414	2.20	25.86	12.25	48.41	2.20	4.12	3614	3.22	37.86	12.25	48.41	3.18	6.34
2416	2.56	25.86	14.25	44.43	2.56	4.76	3616	3.75	37.86	14.25	44.43	3.71	7.31
2418	2.92	25.86	16.25	40.43	2.92	5.40	3618	4.27	37.86	16.25	40.43	4.24	8.28
2420	3.28	25.86	18.25	36.43	3.28	6.03	3620	4.80	37.86	18.25	36.43	4.76	9.25
2422	3.64	25.86	20.25	32.43	3.64	6.67	3622	5.32	37.86	20.25	32.43	5.29	10.22
2424	4.00	25.86	22.25	27.93	4.00	7.31	3624	5.85	37.86	22.25	27.93	5.81	11.19
2426	4.35	25.86	24.25	23.93	4.35	7.94	3626*	6.38	37.86	24.25	23.93	6.34	12.16
2428	4.71	25.86	26.25	19.93	4.71	8.58	3628*	6.90	37.86	26.25	19.93	6.86	13.13
2430	5.07	25.86	28.25	15.93	5.07	9.22	3630*	7.43	37.86	28.25	15.93	7.39	14.10
2432	5.43	25.86	30.25	11.93	5.43	9.86	3632*	7.95	37.86	30.25	11.93	7.91	15.07
2434*	5.79	25.86	32.25	7.93	5.79	10.49	3634*	8.48	37.86	32.25	7.93	8.44	16.04
2436*	6.15	25.86	34.25	3.93	6.15	11.13	3636*	9.00	37.86	34.25	3.93	8.96	17.01
2612	1.98	27.86	10.25	52.44	1.98	3.79	4012	2.98	41.86	10.25	52.44	2.94	5.98
2614	2.37	27.86	12.25	48.41	2.37	4.48	4014	3.56	41.86	12.25	48.41	3.52	7.06
2616	2.76	27.86	14.25	44.43	2.76	5.17	4016	4.14	41.86	14.25	44.43	4.10	8.14
2618	3.14	27.86	16.25	40.43	3.14	5.87	4018	4.72	41.86	16.25	40.43	4.68	9.22
2620	3.53	27.86	18.25	36.43	3.53	6.56	4020	5.31	41.86	18.25	36.43	5.26	10.31
2622	3.92	27.86	20.25	32.43	3.92	7.25	4022	5.89	41.86	20.25	32.43	5.84	11.39
2624	4.30	27.86	22.25	27.93	4.30	7.94	4024	6.47	41.86	22.25	27.93	6.43	12.47
2626	4.69	27.86	24.25	23.93	4.69	8.64	4026*	7.05	41.86	24.25	23.93	7.01	13.55
2628	5.08	27.86	26.25	19.93	5.08	9.33	4028*	7.63	41.86	26.25	19.93	7.59	14.63
2630	5.47	27.86	28.25	15.93	5.47	10.02	4030*	8.21	41.86	28.25	15.93	8.17	15.71
2632*	5.85	27.86	30.25	11.93	5.85	10.72	4032*	8.79	41.86	30.25	11.93	8.75	16.80
2634*	6.24	27.86	32.25	7.93	6.24	11.41	4034*	9.37	41.86	32.25	7.93	9.33	17.88
2636*	6.63	27.86	34.25	3.93	6.63	12.10	4036*	9.96	41.86	34.25	3.93	9.91	18.96
2812	2.13	29.86	10.25	52.44	2.13	4.09							
2814	2.54	29.86	12.25	48.41	2.54	4.84							
2816	2.95	29.86	14.25	44.43	2.95	5.59							
2818	3.37	29.86	16.25	40.43	3.37	6.34							
2820	3.78	29.86	18.25	36.43	3.78	7.09							
2822	4.20	29.86	20.25	32.43	4.20	7.83							
2824	4.61	29.86	22.25	27.93	4.61	8.58							
2826	5.03	29.86	24.25	23.93	5.03	9.33							
2828	5.44	29.86	26.25	19.93	5.44	10.08							
2830*	5.86	29.86	28.25	15.93	5.86	10.83							
2832*	6.27	29.86	30.25	11.93	6.27	11.57							
2834*	6.69	29.86	32.25	7.93	6.69	12.32							
2836*	7.10	29.86	34.25	3.93	7.10	13.07							

NOTE:

* These windows meet national egress codes for fire evacuation. Local codes may differ.

Floor to sill height is based on 6' - 10 1/4" from finished floor to rough opening header. Egress widths represent standard operating hardware.

International Building Code - 2000
Section 1009 Emergency Escape and Rescue

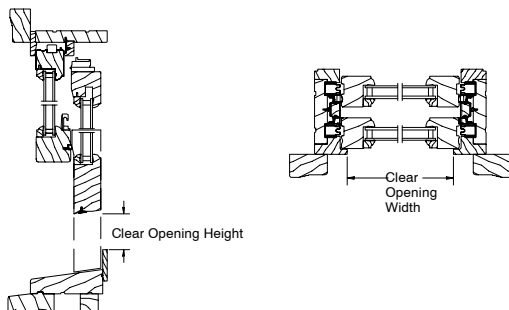
1009.2 Minimum size: Emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet (0.53 m²). Exception: The minimum net clear opening for emergency escape and rescue openings on the ground level at grade is 5.0 square feet (0.46 m²).

1009.2.1 Minimum dimensions: The minimum net clear opening height dimension shall be 24 inches (610 mm). The net clear opening width dimension shall be 20 inches (508 mm). The net clear opening dimensions shall be the result of normal operation of the opening.

1009.3 Maximum height from the floor: Emergency escape and rescue opening shall have the bottom of the clear opening not greater than 44 inches (1118 mm) measured from the floor.

1009.4 Operational constraints: Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools. Bars, grilles, grates, or similar devices are permitted to be placed over emergency escape and rescue openings provided the minimum net clear opening size complies with Section 1009.2 and such devices shall be releasable or removable from the inside without the use of a key, tool, or force greater than that which is required for normal operation of the escape and rescue opening.

Code restrictions may vary depending on your local building codes.



WOOD ULTIMATE DOUBLE HUNG

Built around you.™

MEASUREMENT CONVERSIONS

Measurement Conversions - Double Hung										
Size Referenced	Daylight Opening Each Sash		Glass Size		Frame Size		Rough Opening		Masonry Opening	
Daylight Opening Each Sash	Dimension Needed									
			Width	+ 1 1/16" (27)	Width	+ 6 7/16" (164)	Width	+ 7 7/16" (189)	Width	+ 9 9/16" (243)
Glass Size			Height	+ 1 1/16" (27)	Height	DLO x 2 + 11 1/8" (283)	Height	DLO x 2 + 11 5/8" (295)	Height	DLO x 2 + 12 11/16" (322)
	Width	- 1 1/16" (27)			Width	+ 5 3/8" (137)	Width	+ 6 3/8" (162)	Width	+ 8 1/2" (216)
Frame Size	Height	- 1 1/16" (27)			Height	GS x 2 + 9" (229)	Height	GS x 2 + 9 1/2" (241)	Height	GS x 2 + 10 9/16" (268)
	Width	- 6 7/16" (164)	Width	- 5 3/8" (137)			Width	+ 1" (25)	Width	+ 3 1/8" (79)
Rough Opening	Height	- 11 1/8" + 2 (283)	Height	- 9" + 2 (229)			Height	+ 1/2" (13)	Height	+ 1 9/16" (40)
	Width	- 7 7/16" (189)	Width	- 6 3/8" (162)	Width	- 1" (25)			Width	+ 2 1/8" (54)
Masonry Opening	Height	- 11 5/8" + 2 (295)	Height	- 9 1/2" + 2 (241)	Height	- 1/2" (13)			Height	+ 1 1/16" (27)
	Width	- 9 9/16" (243)	Width	- 8 1/2" (216)	Width	- 3 1/8" (79)	Width	- 2 1/8" (54)		
	Height	- 12 11/16" + 2 (322)	Height	- 10 9/16" + 2 (268)	Height	- 1 9/16" (40)	Height	- 1 1/16" (27)		

Egress Conversions: Net Clear opening Height = Glass size height - 1 3/4" (44), Net Clear Opening Width = Glass size width + 1 7/8" (48)

Measurement Conversions - Transom (Without Subsill)										
Size Referenced	Daylight Opening		Glass Size		Frame Size		Rough Opening		Masonry Opening	
Daylight Opening	Dimension Needed									
			Width	+ 1 1/16" (27)	Width	+ 6 7/16" (164)	Width	+ 7 7/16" (189)	Width	+ 9 9/16" (243)
Glass Size			Height	+ 1 1/16" (27)	Height	+ 6 7/16" (164)	Height	+ 6 15/16" (176)	Height	+ 8" (203)
	Width	- 1 1/16" (27)			Width	+ 5 3/8" (137)	Width	+ 6 3/8" (162)	Width	+ 8 1/2" (216)
Frame Size	Height	- 1 1/16" (27)			Height	+ 5 3/8" (137)	Height	+ 5 29/32" (150)	Height	+ 6 15/16" (176)
	Width	- 6 7/16" (164)	Width	- 5 3/8" (137)			Width	+ 1" (25)	Width	+ 3 1/8" (79)
Rough Opening	Height	- 6 7/16" (164)	Height	- 5 3/8" (137)			Height	+ 1/2" (13)	Height	+ 1 9/16" (40)
	Width	- 7 7/16" (189)	Width	- 6 3/8" (162)	Width	- 1" (25)			Width	+ 2 1/8" (54)
Masonry Opening	Height	- 6 15/16" (176)	Height	- 5 7/8" (149)	Height	- 1/2" (13)			Height	+ 1 1/16" (27)
	Width	- 9 9/16" (243)	Width	- 8 1/2" (216)	Width	- 3 1/8" (79)	Width	- 2 1/8" (54)		
	Height	- 8" (203)	Height	- 6 15/16" (176)	Height	- 1 9/16" (40)	Height	- 1 1/16" (27)		

If a subsill is used, add 1 3/32" to the Frame, Rough, and Masonry Opening Height Measurements.

NOTE:

Conversions represent units without dividers. Contact Marvin's for additional conversions. Masonry opening conversions are based on units with standard brick mould casing applied.

WOOD ULTIMATE DOUBLE HUNG

Built around you.™

MEASUREMENT CONVERSIONS

Measurement Conversions - Picture 1 5/8" Sash with Subsill										
Size Referenced	Daylight Opening		Glass Size		Frame Size		Rough Opening		Masonry Opening	
Daylight Opening	Dimension Needed									
			Width	+ 1 1/16" (27)	Width	+ 6 7/16" (164)	Width	+ 7 7/16" (189)	Width	+ 9 9/16" (243)
Glass Size			Height	+ 1 1/16" (27)	Height	+ 8 3/4" (222)	Height	+ 9 1/4" (235)	Height	+ 10 5/16" (262)
	Width	- 1 1/16" (27)			Width	+ 5 3/8" (137)	Width	+ 6 3/8" (162)	Width	+ 8 1/2" (216)
Frame Size	Height	- 1 1/16" (27)			Height	+ 7 11/16" (195)	Height	+ 8 3/16" (208)	Height	+ 9 1/4" (235)
	Width	- 6 7/16" (164)	Width	- 5 3/8" (137)			Width	+ 1" (25)	Width	+ 3 1/8" (79)
Rough Opening	Height	- 8 3/4" (222)	Height	- 7 11/16" (195)			Height	+ 1/2" (13)	Height	+ 1 9/16" (40)
	Width	- 7 7/16" (189)	Width	- 6 3/8" (162)	Width	- 1" (25)			Width	+ 2 1/8" (54)
Masonry Opening	Height	- 9 1/4" (235)	Height	- 8 3/16" (208)	Height	- 1/2" (13)			Height	+ 1 1/16" (27)
	Width	- 9 9/16" (243)	Width	- 8 1/2" (216)	Width	- 3 1/8" (79)	Width	- 2 1/8" (54)		
	Height	- 10 5/16" (262)	Height	- 9 1/4" (235)	Height	- 1 9/16" (40)	Height	- 1 1/16" (27)		

Measurement Conversions - Picture 2" Sash with Subsill										
Size Referenced	Daylight Opening		Glass Size		Frame Size		Rough Opening		Masonry Opening	
Daylight Opening	Dimension Needed									
			Width	+ 1 3/16" (30)	Width	+ 6 7/16" (164)	Width	+ 7 7/16" (189)	Width	+ 9 9/16" (243)
Glass Size			Height	+ 1 3/16" (30)	Height	+ 8 3/4" (222)	Height	+ 9 1/4" (235)	Height	+ 10 5/16" (262)
	Width	- 1 3/16" (30)			Width	+ 5 1/4" (133)	Width	+ 6 1/4" (159)	Width	+ 8 3/8" (213)
Frame Size	Height	- 1 3/16" (30)			Height	+ 7 9/16" (192)	Height	+ 8 1/16" (205)	Height	+ 9 1/8" (232)
	Width	- 6 7/16" (164)	Width	- 5 1/4" (133)			Width	+ 1" (25)	Width	+ 3 1/8" (79)
Rough Opening	Height	- 8 3/4" (222)	Height	- 7 9/16" (192)			Height	+ 1/2" (13)	Height	+ 1 9/16" (40)
	Width	- 7 7/16" (189)	Width	- 6 1/4" (159)	Width	- 1" (25)			Width	+ 2 1/8" (54)
Masonry Opening	Height	- 9 1/4" (235)	Height	- 8 1/16" (205)	Height	- 1/2" (13)			Height	+ 1 1/16" (27)
	Width	- 9 9/16" (243)	Width	- 8 3/8" (213)	Width	- 3 1/8" (79)	Width	- 2 1/8" (54)		
	Height	- 10 5/16" (262)	Height	- 9 1/8" (232)	Height	- 1 9/16" (40)	Height	- 1 1/16" (27)		






















































































































NOTE:
 Conversions represent units without dividers. Contact Marvin for additional conversions.
 Masonry opening conversions are based on units with standard brick mould casing applied.

WOOD ULTIMATE DOUBLE HUNG

ELEVATIONS: DOUBLE HUNG

NOT TO SCALE

CAUTION: It is recommended that a minimum of 1/4" be added to the rough opening height when using a rigid sill pan product such as Marvin SillGuard™.

Mas. Opg. Rgh. Opg. Frame Size Sash Opg. Glass Size	2-0 1/2 (622) 1-10 3/8(568) 1-9 3/8 (543) 1-8 (508) 16" (406)	2-4 1/2 (724) 2-2 3/8 (670) 2-1 3/8 (645) 2-0 (610) 20" (508)	2-8 1/2 (826) 2-6 3/8 (772) 2-5 3/8 (746) 2-4 (711) 24" (610)	2-10 1/2 (876) 2-8 3/8 (822) 2-7 3/8 (797) 2-6 (762) 26" (660)	3-0 1/2 (927) 2-10 3/8(873) 2-9 3/8 (848) 2-8 (813) 28" (711)	3-2 1/2 (978) 3-0 3/8 (924) 2-11 3/8(899) 2-10 (864) 30" (762)	3-4 1/2(1029) 3-2 3/8 (975) 3-1 3/8 (949) 3-0 (914) 32" (813)	3-8 1/2 (1130) 3-6 3/8(1076) 3-5 3/8(1051) 3-4 (1016) 36" (914)	4-0 1/2 (1232) 3-10 3/8 (1178) 3-9 3/8 (1153) 3-8 (1118) 40" (1016)
									
	WUDH1612	WUDH2012	WUDH2412	WUDH2612	WUDH2812	WUDH3012	WUDH3212	WUDH3612	WUDH4012
									
	WUDH1614	WUDH2014	WUDH2414	WUDH2614	WUDH2814	WUDH3014	WUDH3214	WUDH3614	WUDH4014
									
	WUDH1616	WUDH2016	WUDH2416	WUDH2616	WUDH2816	WUDH3016	WUDH3216	WUDH3616	WUDH4016
									
	WUDH1618	WUDH2018	WUDH2418	WUDH2618	WUDH2818	WUDH3018	WUDH3218	WUDH3618	WUDH4018
									
	WUDH1620	WUDH2020	WUDH2420	WUDH2620	WUDH2820	WUDH3020	WUDH3220	WUDH3620	WUDH4020
									
	WUDH1622	WUDH2022	WUDH2422	WUDH2622	WUDH2822	WUDH3022	WUDH3222	WUDH3622	WUDH4022
									
	WUDH1624	WUDH2024	WUDH2424	WUDH2624	WUDH2824	WUDH3024	WUDH3224	WUDH3624	WUDH4024
									
	WUDH1626	WUDH2026	WUDH2426	WUDH2626	WUDH2826	WUDH3026	WUDH3226*	WUDH3626*	WUDH4026*
									
	WUDH1628	WUDH2028	WUDH2428	WUDH2628	WUDH2828	WUDH3028*	WUDH3228*	WUDH3628*	WUDH4028*
									
	WUDH1630	WUDH2030	WUDH2430	WUDH2630	WUDH2830*	WUDH3030*	WUDH3230*	WUDH3630*	WUDH4030*
									
	WUDH1632	WUDH2032	WUDH2432	WUDH2632*	WUDH2832*	WUDH3032*	WUDH3232*	WUDH3632*	WUDH4032*
									
	WUDH1634	WUDH2034	WUDH2434*	WUDH2634*	WUDH2834*	WUDH3034*	WUDH3234*	WUDH3634*	WUDH4034*
									
	WUDH1636	WUDH2036	WUDH2436*	WUDH2636*	WUDH2836*	WUDH3036*	WUDH3236*	WUDH3636*	WUDH4036*

NOTE:

* These units meet international egress codes for fire evacuation. Local codes may differ. See egress chart for additional information.

WOOD ULTIMATE DOUBLE HUNG

ELEVATIONS: PICTURE 1 5/8" and 2" SASH

NOT TO SCALE

CAUTION: It is recommended that a minimum of 1/4" be added to the rough opening height when using a rigid sill pan product such as Marvin SillGuard™.

Mas. Opg.	3-8 1/2 (1130)	4-4 1/2 (1334)	4-8 1/2 (1435)	5-4 1/2 (1638)	6-0 1/2 (1842)
Rgh. Opg.	3-6 3/8 (1076)	4-2 3/8 (1280)	4-6 3/8 (1381)	5-2 3/8 (1610)	5-10 3/8 (1813)
Frame Size	3-5 3/8 (1051)	4-1 3/8 (1254)	4-5 3/8 (1356)	5-1 3/8 (1559)	5-9 3/8 (1762)
Sash Opg.	3-4 (1016)	4-0 (1219)	4-4 (1321)	5-0 (1524)	5-8 (1727)
3-6 9/16 (1081) 3-5 1/2 (1054) 3-5 (1041) 3-1 3/8 (949)					
3-10 9/16 (1183) 3-9 1/2 (1156) 3-9 (1143) 3-5 (1051)					
4-2 9/16 (1284) 4-1 1/2 (1257) 4-1 (1245) 3-9 3/8 (1153)					
4-6 9/16 (1386) 4-5 1/2 (1359) 4-5 (1346) 4-1 3/8 (1254)					
4-10 9/16 (1488) 4-9 1/2 (1461) 4-9 (1448) 4-5 3/8 (1356)					
5-2 9/16 (1589) 5-1 1/2 (1562) 5-1 (1549) 4-9 3/8 (1457)					
5-6 9/16 (1691) 5-5 1/2 (1664) 5-5 (1651) 5-1 3/8 (1559)					
5-10 9/16 (1792) 5-9 1/2 (1765) 5-9 (1753) 5-5 3/8 (1661)					
6-2 9/16 (1894) 6-1 1/2 (1867) 6-1 (1854) 5-9 3/8 (1762)					
6-6 9/16 (1996) 6-5 1/2 (1969) 6-5 (1956) 6-1 3/8 (1864)					
6-10 9/16 (2097) 6-9 1/2 (2070) 6-9 (2057) 6-5 3/8 (1965)					

NOTE:
Sash Opening measurements are for 1 5/8". For 2" sash please contact your Marvin representative.

WOOD ULTIMATE DOUBLE HUNG

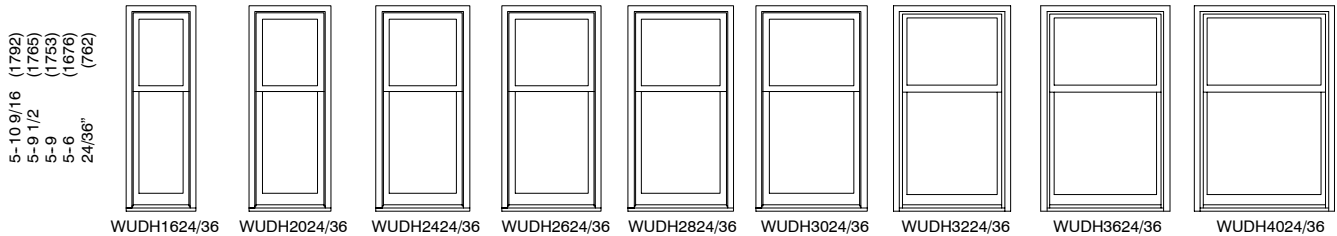
ELEVATIONS: DOUBLE HUNG COTTAGE AND TRANSOM

NOT TO SCALE

CAUTION: It is recommended that a minimum of 1/4" be added to the rough opening height when using a rigid sill pan product such as Marvin SillGuard™.

Cottage Style Units

Mas. Opg.	2-0 1/2 (622)	2-4 1/2 (724)	2-8 1/2 (826)	2-10 1/2 (876)	3-0 1/2 (927)	3-2 1/2 (978)	3-4 1/2 (1029)	3-8 1/2 (1130)	4-0 1/2 (1232)
Rgh. Opg.	1-10 3/8 (568)	2-2 3/8 (670)	2-6 3/8 (772)	2-8 3/8 (822)	2-10 3/8 (873)	3-0 3/8 (924)	3-2 3/8 (975)	3-6 3/8 (1076)	3-10 3/8 (1178)
Frame Size	1-9 3/8 (543)	2-1 3/8 (645)	2-5 3/8 (746)	2-7 3/8 (797)	2-9 3/8 (848)	2-11 3/8 (899)	3-1 3/8 (949)	3-5 3/8 (1051)	3-9 3/8 (1153)
Sash Opg.	1-8 (508)	2-0 (610)	2-4 (711)	2-6 (762)	2-8 (813)	2-10 (864)	3-0 (914)	3-4 (1016)	3-8 (1118)
Glass Size	16" (406)	20" (508)	24" (610)	26" (660)	28" (711)	30" (762)	32" (813)	36" (914)	40" (1016)



NOTE: 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. Add the top and bottom glass heights together:
3. Divide the total glass height by the ratio of the top sash:
4. Round to the nearest standard glass height:
5. Subtract from total glass height:
6. The call number for the example is: **WUDH2420/28**:

Example

WUDH with a 2/5-3/5 cottage style. If the rough opening is 2' 6-3/8" X 4' 8-7/8" the standard size for that RO is: WUDH2424

24" + 24" = 48"

48" divided by 2/5 = 19-13/64"

20"

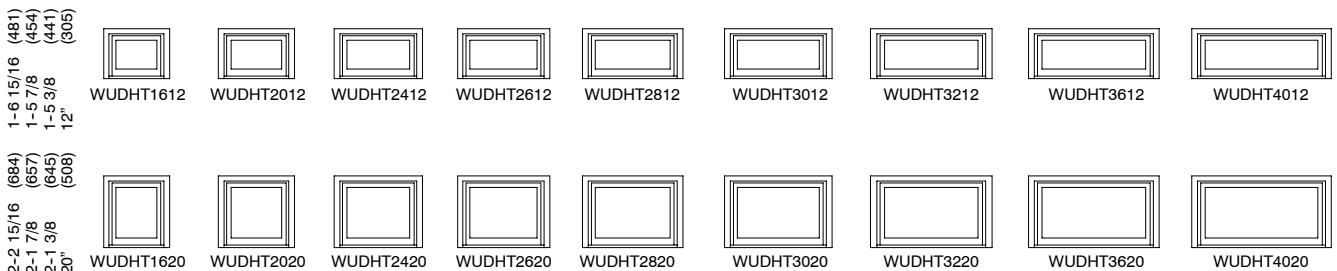
48" - 20" = 28"

The top sash will be a 2420 and the bottom sash will be a 2428

CAUTION: It is recommended that a minimum of 1/4" be added to the rough opening height when using a rigid sill pan product such as Marvin SillGuard™.

Transom Units

Mas. Opg.	2-0 1/2 (622)	2-4 1/2 (724)	2-8 1/2 (826)	2-10 1/2 (876)	3-0 1/2 (927)	3-2 1/2 (978)	3-4 1/2 (1029)	3-8 1/2 (1130)	4-0 1/2 (1232)
Rgh. Opg.	1-10 3/8 (568)	2-2 3/8 (670)	2-6 3/8 (772)	2-8 3/8 (822)	2-10 3/8 (873)	3-0 3/8 (924)	3-2 3/8 (975)	3-6 3/8 (1076)	3-10 3/8 (1178)
Frame Size	1-9 3/8 (543)	2-1 3/8 (645)	2-5 3/8 (746)	2-7 3/8 (797)	2-9 3/8 (848)	2-11 3/8 (899)	3-1 3/8 (949)	3-5 3/8 (1051)	3-9 3/8 (1153)
Glass Size	16" (406)	20" (508)	24" (610)	26" (660)	28" (711)	30" (762)	32" (813)	36" (914)	40" (1016)



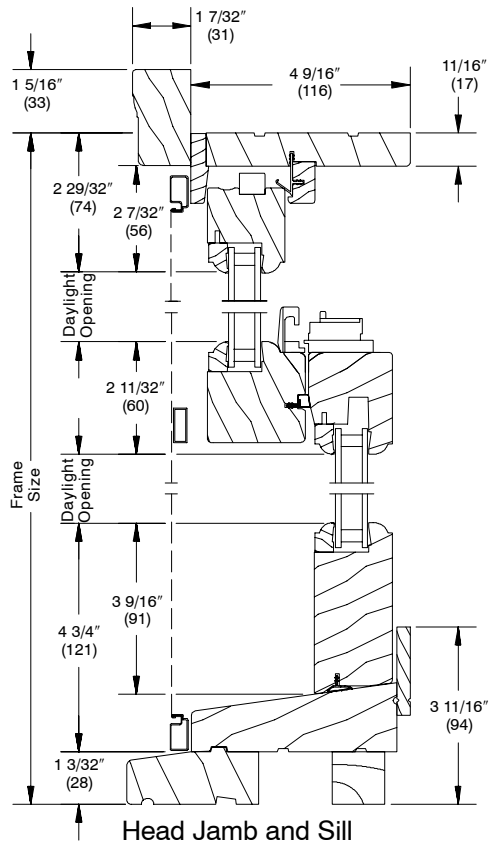
NOTE:

Transom unit heights shown above do not include a subsill. If a subsill is required, add 1 3/32" (28) to all height measurements.

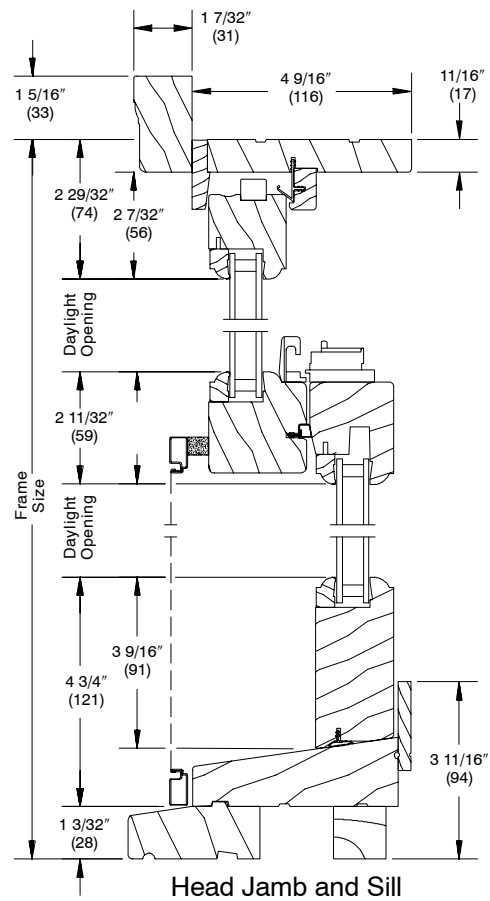
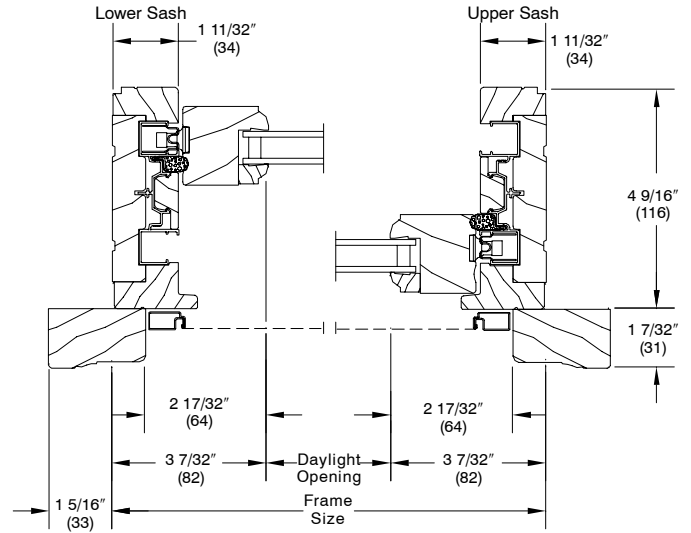
WOOD ULTIMATE DOUBLE HUNG

SECTION DETAILS: OPERATING ONLY

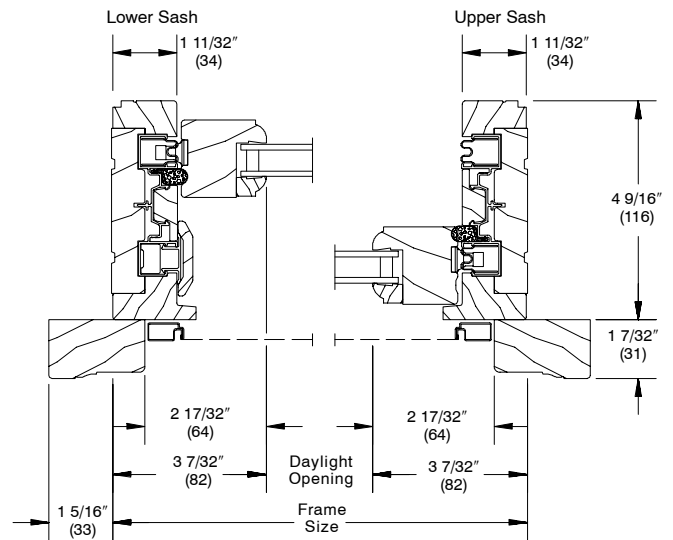
SCALE: 3" = 1' 0"



Double Hung



Single Hung



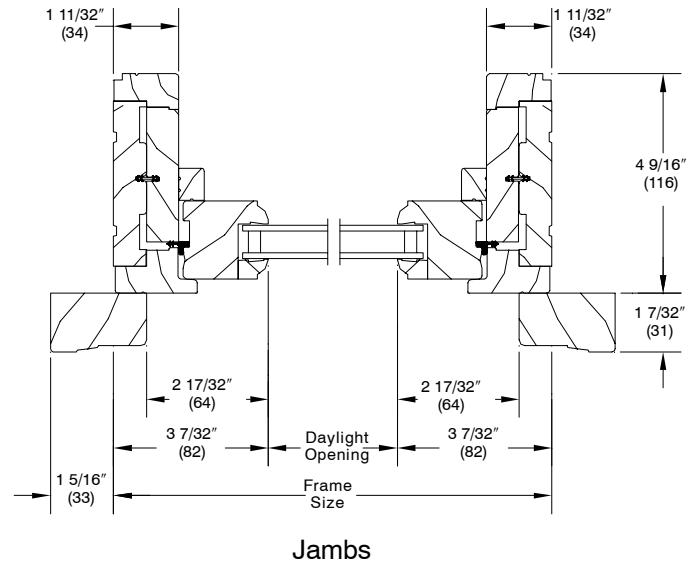
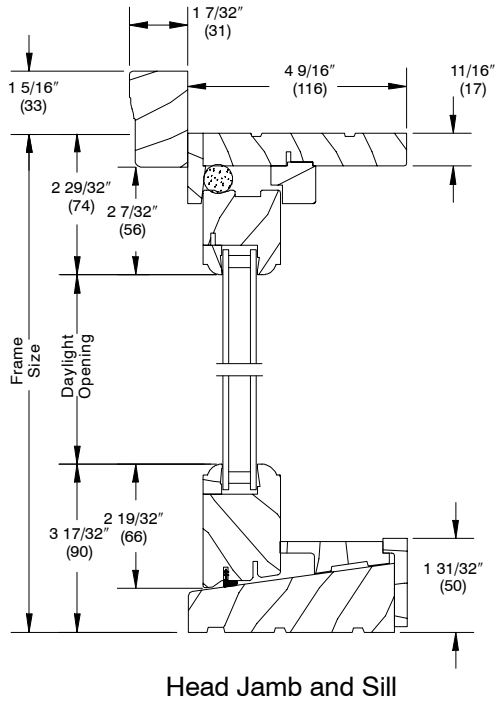
NOTE:
Optional half screen shown.

WOOD ULTIMATE DOUBLE HUNG

SECTION DETAILS: TRANSOM

SCALE: 3" = 1' 0"

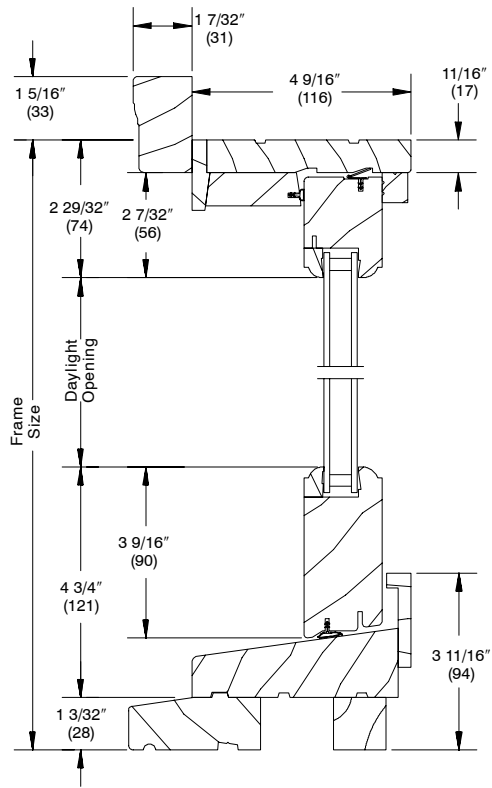
Transom



WOOD ULTIMATE DOUBLE HUNG

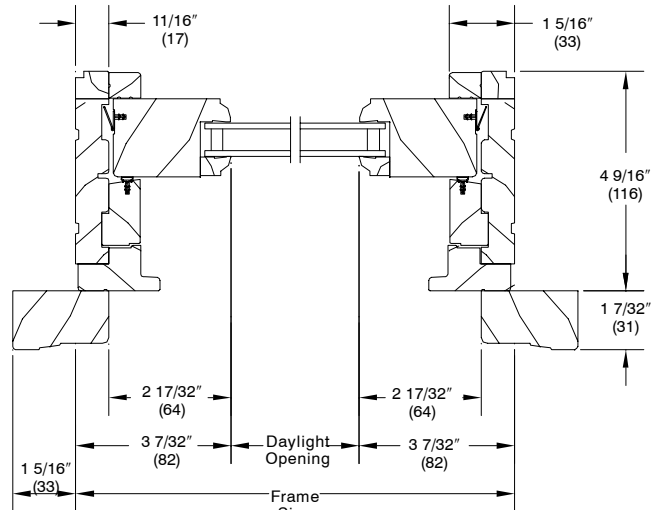
SECTION DETAILS: PICTURE

SCALE: 3" = 1' 0"



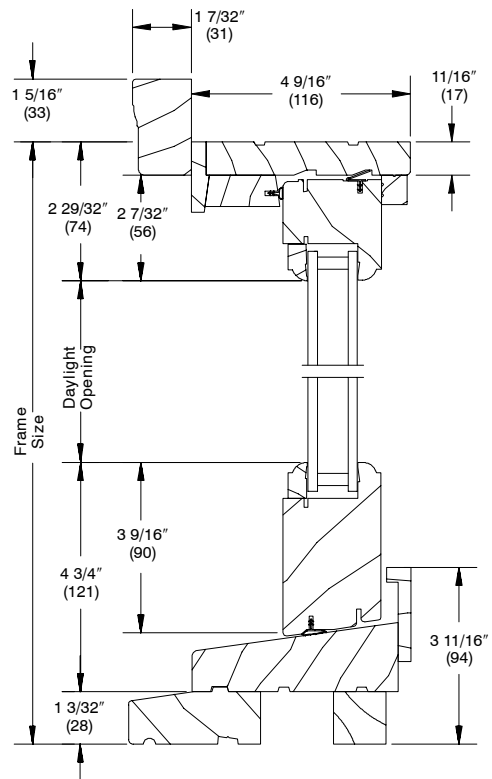
Head Jamb and Sill

Picture 1 5/8" Sash

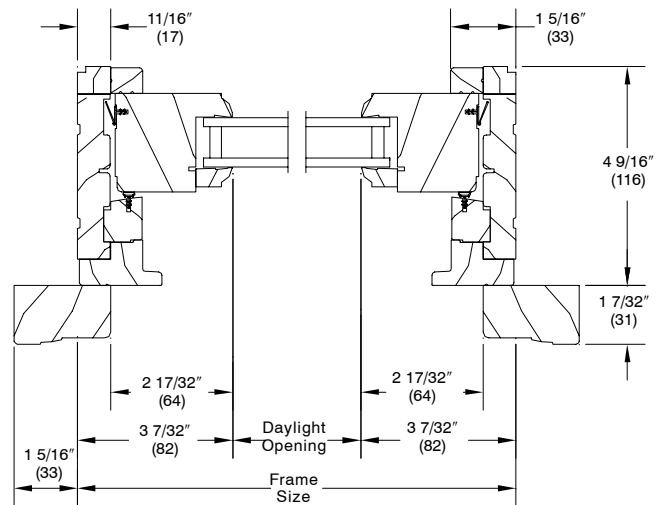


Jamb

Picture 2" Sash



Head Jamb and Sill



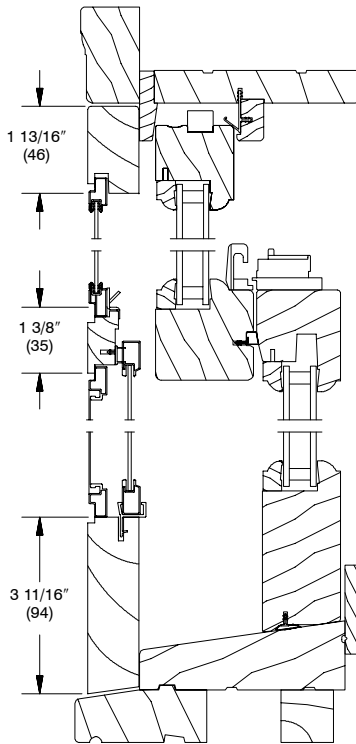
Jamb

WOOD ULTIMATE DOUBLE HUNG

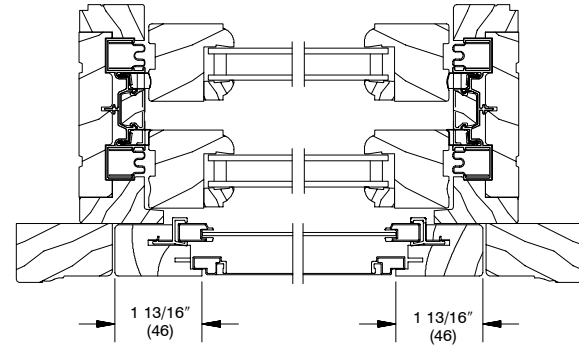
SECTION DETAILS: COMBINATION / STORM SASH

SCALE: 3" = 1' 0"

Combination

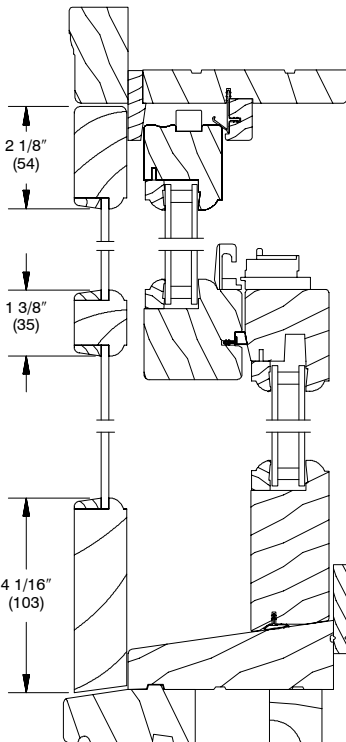


Head and Sill

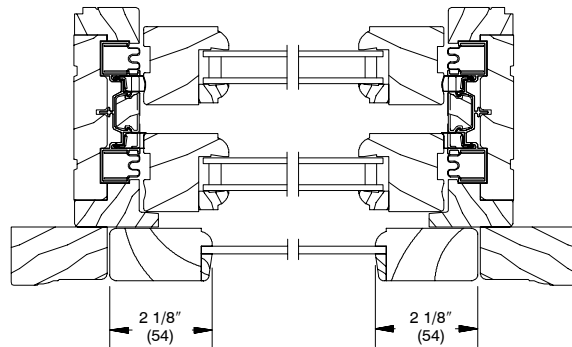


Jambs

Storm Sash



Head and Sill

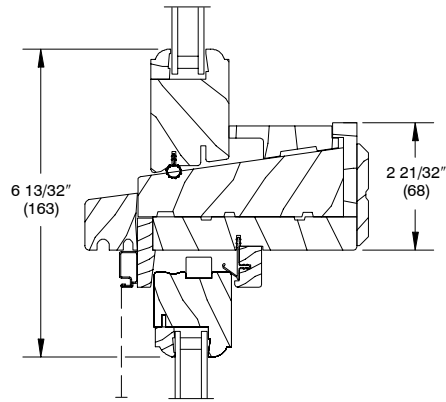


Jambs

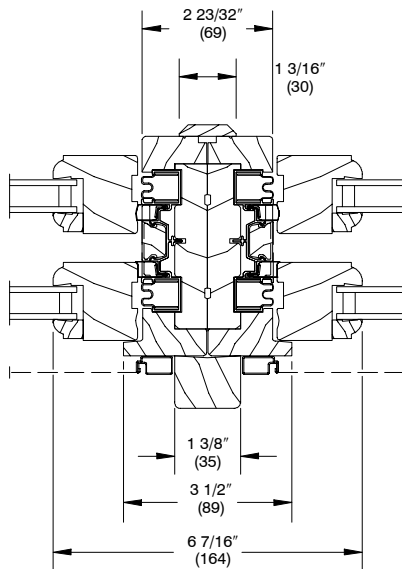
WOOD ULTIMATE DOUBLE HUNG

SECTION DETAILS: MULLIONS

SCALE: 3" = 1' 0"

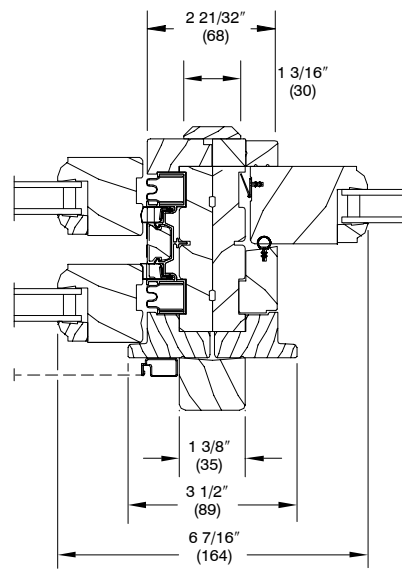


Horizontal Mullion
Transom over Double Hung

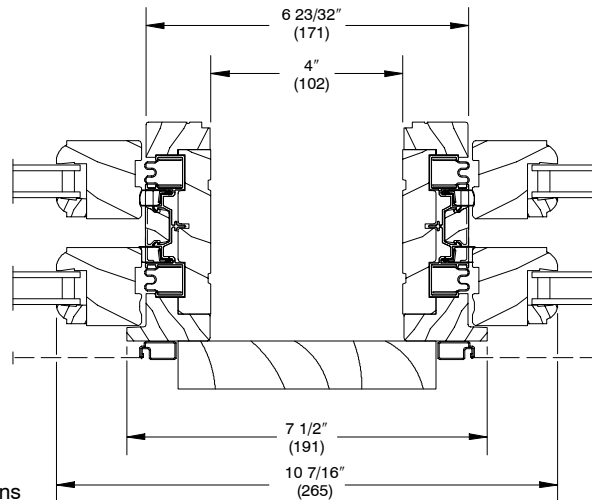


Vertical Mullion
Double Hung
Frame to Frame

NOTE:
Interior trim
supplied by Marvin
applied by others



Vertical Mullion
Double Hung and Picture
Frame to Frame



Vertical Mullion
Double Hung with 4" Space Mull

NOTE:
For information on structural mullions
refer to the Product Performance and
Information section.

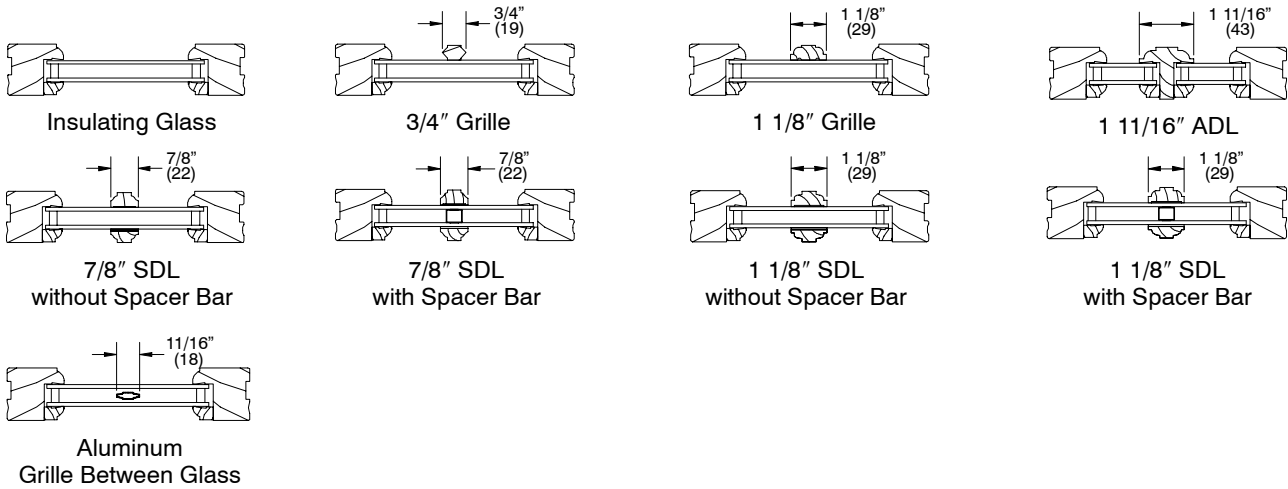
WOOD ULTIMATE DOUBLE HUNG

SECTION DETAILS: DIVIDED LITE OPTIONS

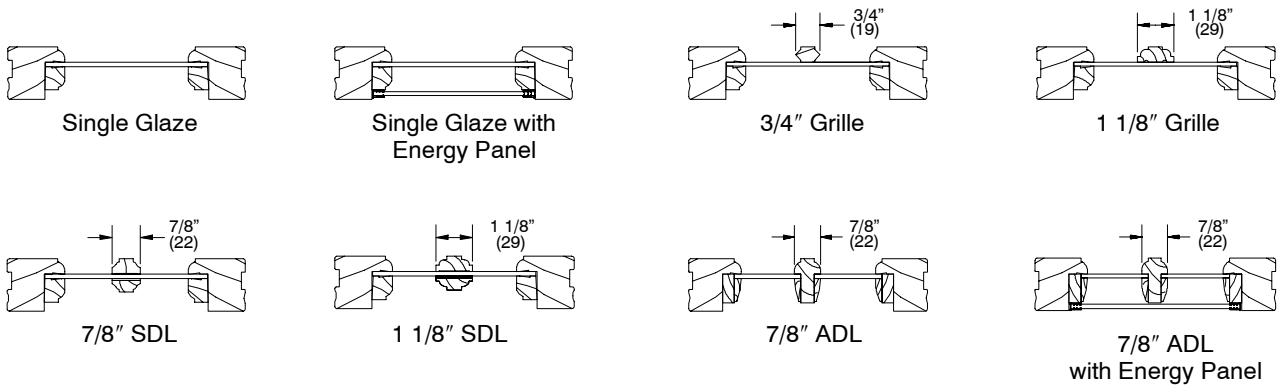
NOT TO SCALE

Operator, Transom and Picture 1 5/8" Sash

Insulating Glass

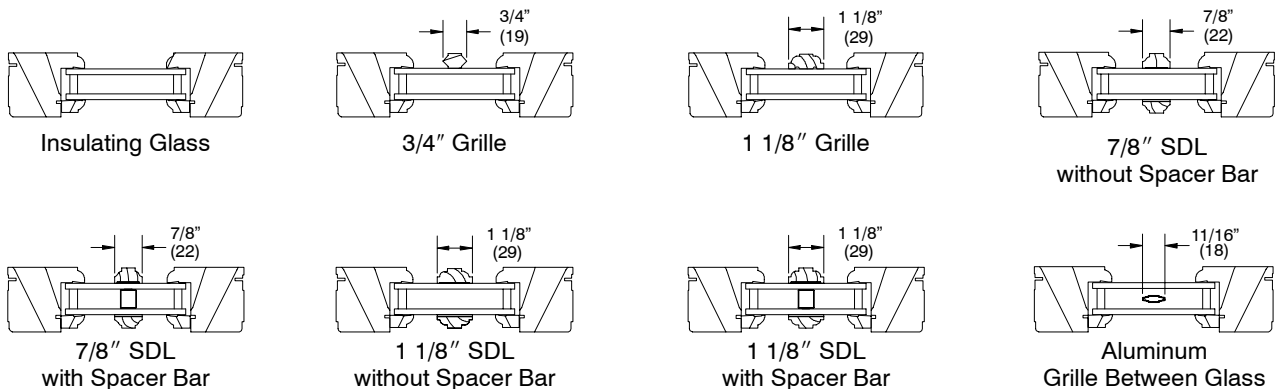


Single Glaze



Picture 2" Sash

Not available in ADL

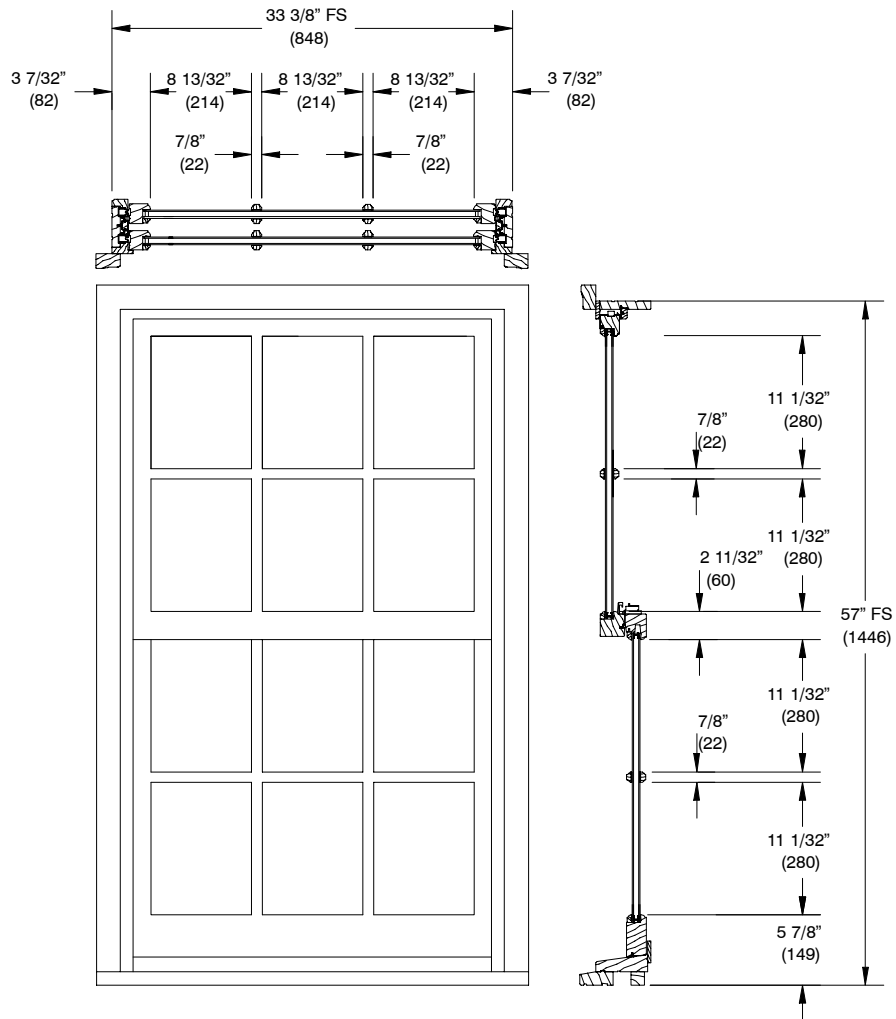


NOTE:

Grille = Removable interior divider
SDL = Simulated divided lite
ADL = Authentic divided lite

WOOD ULTIMATE DOUBLE HUNG

DAYLIGHT OPENING CONVERSIONS



Conversion Formula:

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

NOTE:

For additional information on individual daylight openings please contact your Marvin representative.

WOOD ULTIMATE DOUBLE HUNG

STANDARD RECTANGULAR DIVIDED LITE PATTERNS

NOT TO SCALE

3/4" (19) Grille

7/8" (22) Simulated Divided Lite (SDL)

7/8" (22) Authentic Divided Lite (ADL) Single glaze only

	2W	3W	3W	3W	3W	3W	4W	4W	4W
2H									
	WUDH1612	WUDH2012	WUDH2412	WUDH2612	WUDH2812	WUDH3012	WUDH3212	WUDH3612	WUDH4012
2H									
	WUDH1614	WUDH2014	WUDH2414	WUDH2614	WUDH2814	WUDH3014	WUDH3214	WUDH3614	WUDH4014
2H									
	WUDH1616	WUDH2016	WUDH2416	WUDH2616	WUDH2816	WUDH3016	WUDH3216	WUDH3616	WUDH4016
2H									
	WUDH1618	WUDH2018	WUDH2418	WUDH2618	WUDH2818	WUDH3018	WUDH3218	WUDH3618	WUDH4018
2H									
	WUDH1620	WUDH2020	WUDH2420	WUDH2620	WUDH2820	WUDH3020	WUDH3220	WUDH3620	WUDH4020
2H									
	WUDH1622	WUDH2022	WUDH2422	WUDH2622	WUDH2822	WUDH3022	WUDH3222	WUDH3622	WUDH4022
2H									
	WUDH1624	WUDH2024	WUDH2424	WUDH2624	WUDH2824	WUDH3024	WUDH3224	WUDH3624	WUDH4024
2H									
	WUDH1626	WUDH2026	WUDH2426	WUDH2626	WUDH2826	WUDH3026	WUDH3226	WUDH3626	WUDH4026
2H									
	WUDH1628	WUDH2028	WUDH2428	WUDH2628	WUDH2828	WUDH3028	WUDH3228	WUDH3628	WUDH4028
2H									
	WUDH1630	WUDH2030	WUDH2430	WUDH2630	WUDH2830	WUDH3030	WUDH3230	WUDH3630	WUDH4030
3H									
	WUDH1632	WUDH2032	WUDH2432	WUDH2632	WUDH2832	WUDH3032	WUDH3232	WUDH3632	WUDH4032
3H									
	WUDH1634	WUDH2034	WUDH2434	WUDH2634	WUDH2834	WUDH3034	WUDH3234	WUDH3634	WUDH4034
3H									
	WUDH1636	WUDH2036	WUDH2436	WUDH2636	WUDH2836	WUDH3036	WUDH3236	WUDH3636	WUDH4036

NOTE:

Lite pattern identifications are shown at the top of each column and to the left of each row.

Height patterns indicated as 1H represent a 1 high lite pattern.

Width patterns indicated as 2W represent a 2 wide lite pattern.

Patterns vary depending on size of unit and type of divider.

WOOD ULTIMATE DOUBLE HUNG

STANDARD RECTANGULAR DIVIDED LITE PATTERNS

NOT TO SCALE

- 1 1/8" (29) Grille
- 1 1/8" (29) Simulated Divided Lite (SDL)
- 1 11/16" (43) Authentic Divided Lite (ADL) Insulated glass only

	2W	2W	3W	3W	3W	3W	3W	3W	4W
2H									
	WUDH1612	WUDH2012	WUDH2412	WUDH2612	WUDH2812	WUDH3012	WUDH3212	WUDH3612	WUDH4012
2H									
	WUDH1614	WUDH2014	WUDH2414	WUDH2614	WUDH2814	WUDH3014	WUDH3214	WUDH3614	WUDH4014
2H									
	WUDH1616	WUDH2016	WUDH2416	WUDH2616	WUDH2816	WUDH3016	WUDH3216	WUDH3616	WUDH4016
2H									
	WUDH1618	WUDH2018	WUDH2418	WUDH2618	WUDH2818	WUDH3018	WUDH3218	WUDH3618	WUDH4018
2H									
	WUDH1620	WUDH2020	WUDH2420	WUDH2620	WUDH2820	WUDH3020	WUDH3220	WUDH3620	WUDH4020
2H									
	WUDH1622	WUDH2022	WUDH2422	WUDH2622	WUDH2822	WUDH3022	WUDH3222	WUDH3622	WUDH4022
2H									
	WUDH1624	WUDH2024	WUDH2424	WUDH2624	WUDH2824	WUDH3024	WUDH3224	WUDH3624	WUDH4024
2H									
	WUDH1626	WUDH2026	WUDH2426	WUDH2626	WUDH2826	WUDH3026	WUDH3226	WUDH3626	WUDH4026
2H									
	WUDH1628	WUDH2028	WUDH2428	WUDH2628	WUDH2828	WUDH3028	WUDH3228	WUDH3628	WUDH4028
2H									
	WUDH1630	WUDH2030	WUDH2430	WUDH2630	WUDH2830	WUDH3030	WUDH3230	WUDH3630	WUDH4030
3H									
	WUDH1632	WUDH2032	WUDH2432	WUDH2632	WUDH2832	WUDH3032	WUDH3232	WUDH3632	WUDH4032
3H									
	WUDH1634	WUDH2034	WUDH2434	WUDH2634	WUDH2834	WUDH3034	WUDH3234	WUDH3634	WUDH4034
3H									
	WUDH1636	WUDH2036	WUDH2436	WUDH2636	WUDH2836	WUDH3036	WUDH3236	WUDH3636	WUDH4036

NOTE:

Lite pattern identifications are shown at the top of each column and to the left of each row.
 Height patterns indicated as 1H represent a 1 high lite pattern.
 Width patterns indicated as 2W represent a 2 wide lite pattern.
 Patterns vary depending on size of unit and type of divider.

WOOD ULTIMATE DOUBLE HUNG

STANDARD RECTANGULAR DIVIDED LITE PATTERNS

NOT TO SCALE

3/4" (19) Grille
7/8" (22) Simulated Divided Lite (SDL)
7/8" (22) Authentic Divided Lite (ADL) Single glaze only

1 1/8" (29) Grille
1 1/8" (29) Simulated Divided Lite (SDL)
1 1/16" (43) Authentic Divided Lite (ADL) Insulated glass only

	4W	5W	5W	6W	7W
4H	WUDHP4038	WUDHP4838	WUDHP5238	WUDHP6038	WUDHP6838
4H	WUDHP4042	WUDHP4842	WUDHP5242	WUDHP6042	WUDHP6842
4H	WUDHP4046	WUDHP4846	WUDHP5246	WUDHP6046	WUDHP6846
4H	WUDHP4050	WUDHP4850	WUDHP5250	WUDHP6050	WUDHP6850
4H	WUDHP4054	WUDHP4854	WUDHP5254	WUDHP6054	WUDHP6854
4H	WUDHP4058	WUDHP4858	WUDHP5258	WUDHP6058	WUDHP6858
4H	WUDHP4062	WUDHP4862	WUDHP5262	WUDHP6062	WUDHP6862
4H	WUDHP4066	WUDHP4866	WUDHP5266	WUDHP6066	WUDHP6866
6H	WUDHP4070	WUDHP4870	WUDHP5270	WUDHP6070	WUDHP6870
6H	WUDHP4074	WUDHP4874	WUDHP5274	WUDHP6074	WUDHP6874
6H	WUDHP4078	WUDHP4878	WUDHP5278	WUDHP6078	WUDHP6878

	3W	4W	4W	5W	6W
2H	WUDHP4038	WUDHP4838	WUDHP5238	WUDHP6038	WUDHP6838
4H	WUDHP4042	WUDHP4842	WUDHP5242	WUDHP6042	WUDHP6842
4H	WUDHP4046	WUDHP4846	WUDHP5246	WUDHP6046	WUDHP6846
4H	WUDHP4050	WUDHP4850	WUDHP5250	WUDHP6050	WUDHP6850
4H	WUDHP4054	WUDHP4854	WUDHP5254	WUDHP6054	WUDHP6854
4H	WUDHP4058	WUDHP4858	WUDHP5258	WUDHP6058	WUDHP6858
4H	WUDHP4062	WUDHP4862	WUDHP5262	WUDHP6062	WUDHP6862
4H	WUDHP4066	WUDHP4866	WUDHP5266	WUDHP6066	WUDHP6866
6H	WUDHP4070	WUDHP4870	WUDHP5270	WUDHP6070	WUDHP6870
6H	WUDHP4074	WUDHP4874	WUDHP5274	WUDHP6074	WUDHP6874
6H	WUDHP4078	WUDHP4878	WUDHP5278	WUDHP6078	WUDHP6878

NOTE:

Lite pattern identifications are shown at the top of each column and to the left of each row.
Height patterns indicated as 1H represent a 1 high lite pattern.
Width patterns indicated as 2W represent a 2 wide lite pattern.
Patterns vary depending on size of unit and type of divider.

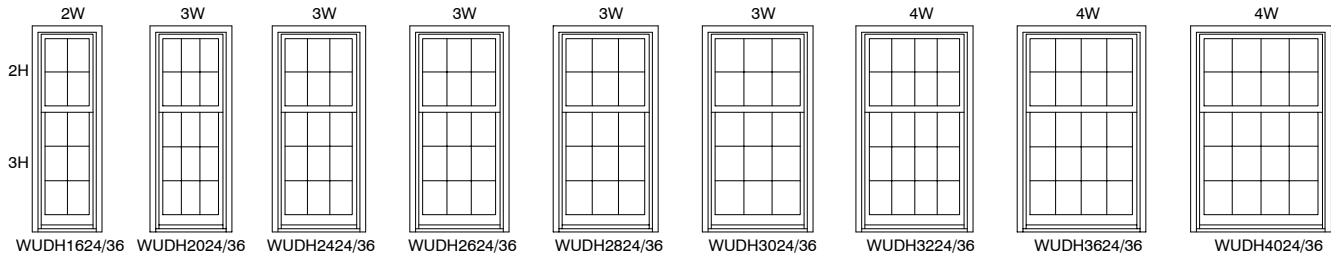
WOOD ULTIMATE DOUBLE HUNG

STANDARD RECTANGULAR DIVIDED LITE PATTERNS

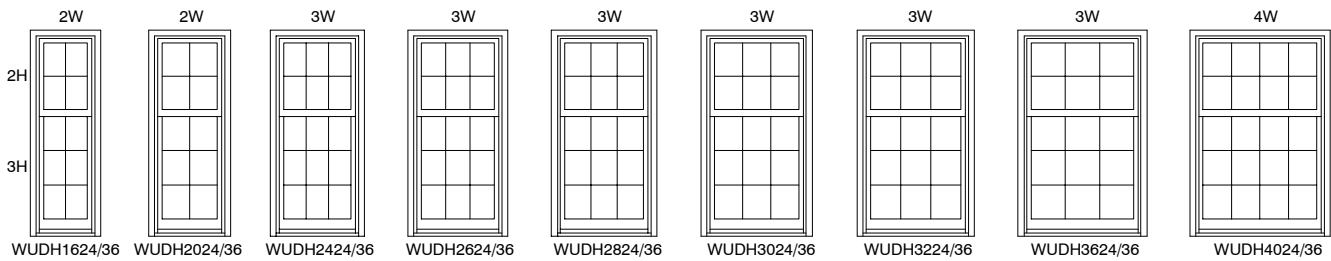
NOT TO SCALE

Cottage Style Units

- 3/4" (19) Grille
- 7/8" (22) Simulated Divided Lite (SDL)
- 7/8" (22) Authentic Divided Lite (ADL) Single glaze only

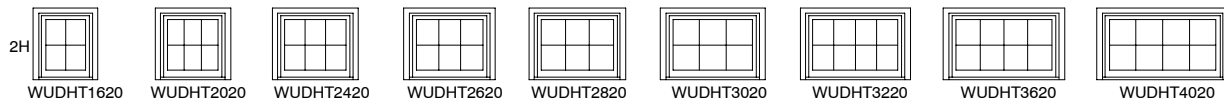
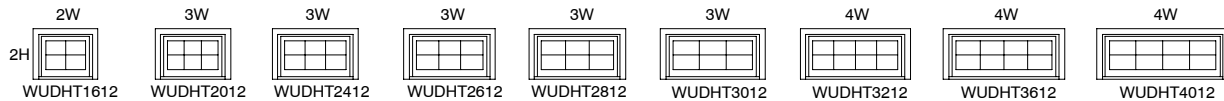


- 1 1/8" (29) Grille
- 1 1/8" (29) Simulated Divided Lite (SDL)
- 1 11/16" (43) Authentic Divided Lite (ADL) Insulated glass only

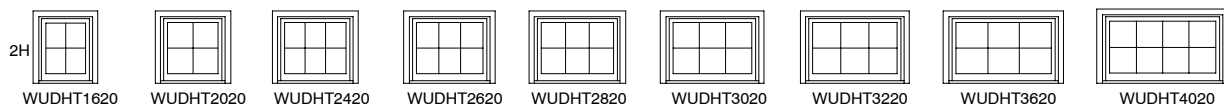
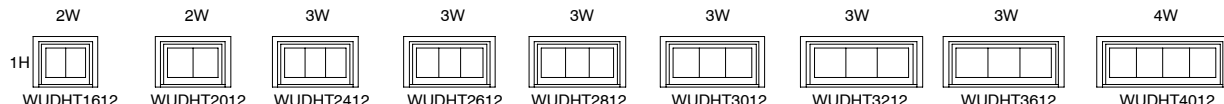


Transom Units

- 3/4" (19) Grille
- 7/8" (22) Simulated Divided Lite (SDL)
- 7/8" (22) Authentic Divided Lite (ADL) Single glaze only



- 1 1/8" (29) Grille
- 1 1/8" (29) Simulated Divided Lite (SDL)
- 1 11/16" (43) Authentic Divided Lite (ADL) Insulated glass only



NOTE:

Lite pattern identifications are shown at the top of each column and to the left of each row.

Height patterns indicated as 1H represent a 1 high lite pattern.

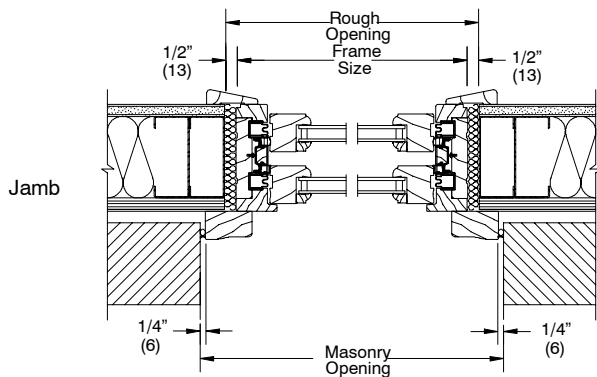
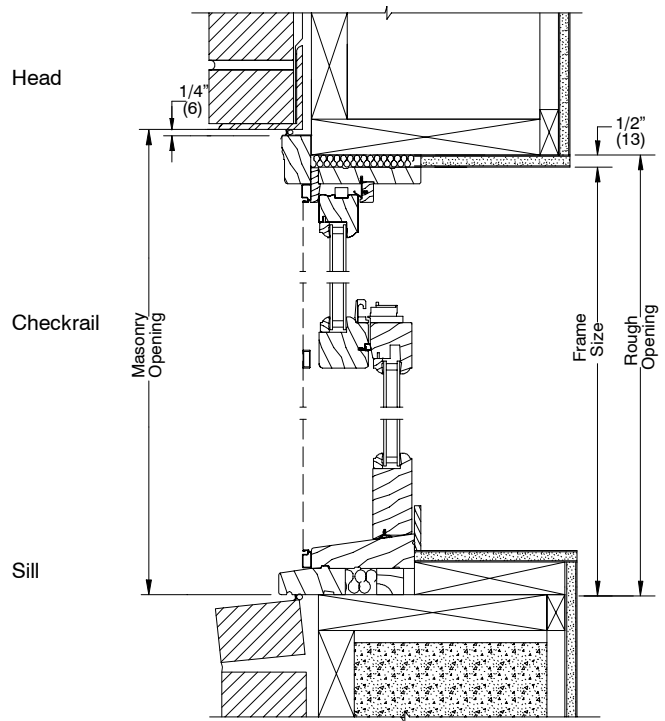
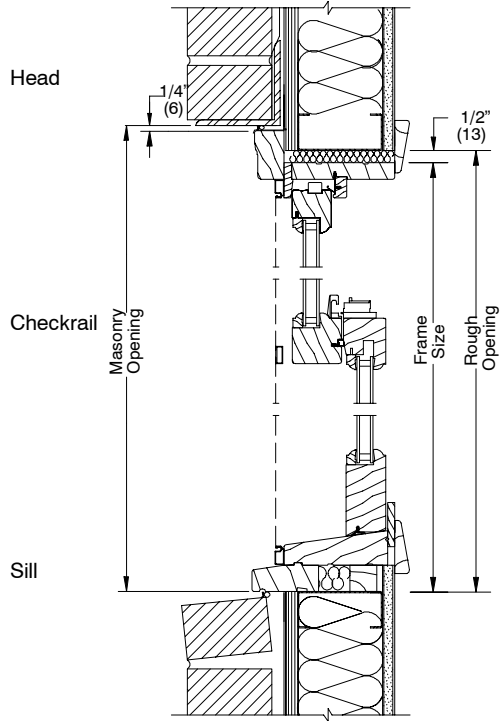
Width patterns indicated as 2W represent a 2 wide lite pattern.

Patterns vary depending on size of unit and type of divider.

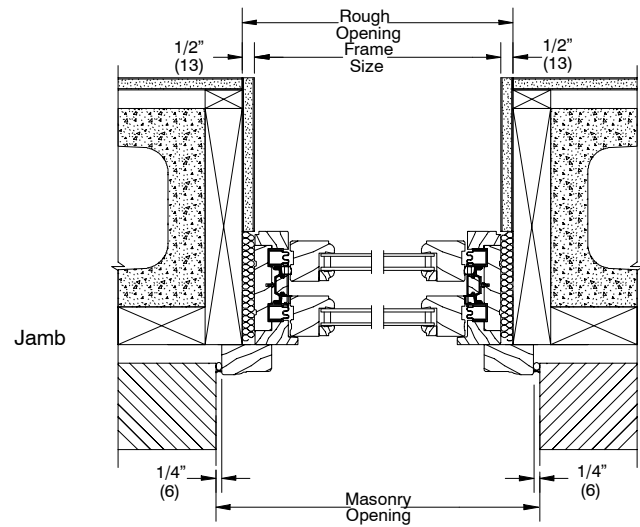
WOOD ULTIMATE DOUBLE HUNG

SECTION DETAILS: CONSTRUCTION

NOT TO SCALE



Brick Veneer with Steel Stud Construction



Brick Veneer with Concrete Block Construction

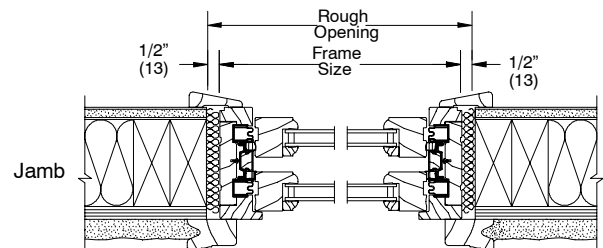
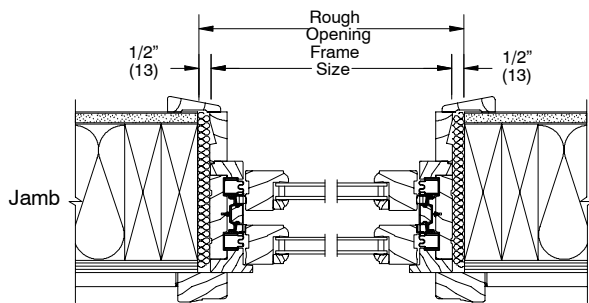
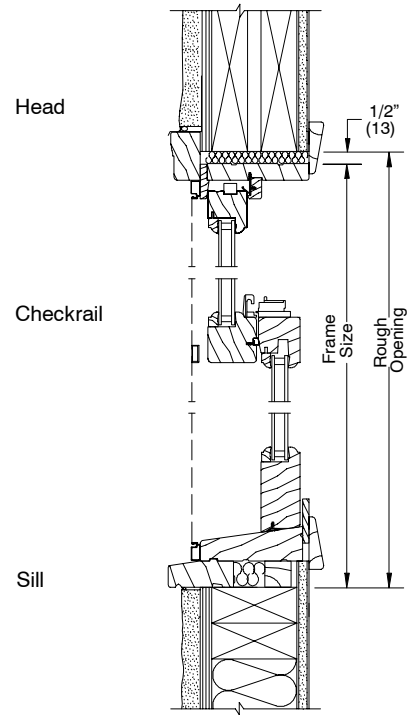
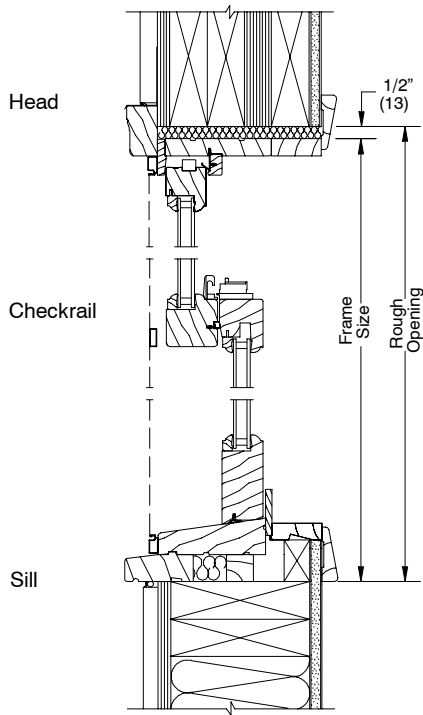
NOTE:

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

WOOD ULTIMATE DOUBLE HUNG

SECTION DETAILS: CONSTRUCTION

NOT TO SCALE



Wood Siding with 2x6
Frame Construction

Stucco with 2x4
Frame Construction

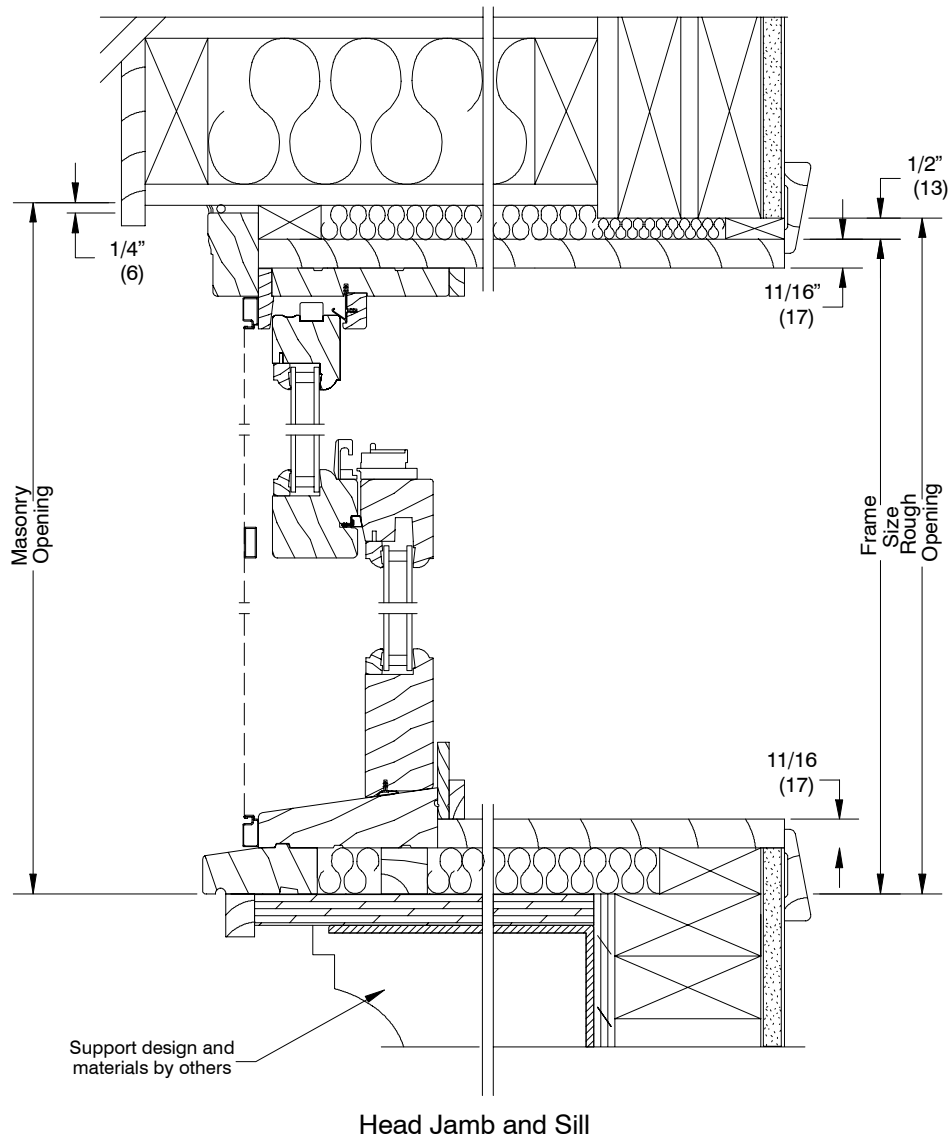
NOTE:

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

WOOD ULTIMATE DOUBLE HUNG BAY

SECTION DETAILS: BAY

NOT TO SCALE



NOTE:

Rough opening heights listed include head board. If head board is not specified, subtract 11/16" (17) from the Rough Opening. See vertical cross section above. Construction materials supplied by others.

Masonry opening heights are based on units with standard brick mould casing applied.

Bay Assembly Heights		
Height	Rough Opening Height	Masonry Opening Height
16	42 3/16 (1072)	42 9/16 (1081)
18	46 3/16 (1173)	46 9/16 (1183)
20	50 3/16 (1275)	50 9/16 (1284)
22	54 3/16 (1376)	54 9/16 (1386)
24	58 3/16 (1478)	58 9/16 (1487)
26	62 3/16 (1580)	62 9/16 (1589)
28	66 3/16 (1681)	66 9/16 (1691)
30	70 3/16 (1783)	70 9/16 (1792)
32	74 3/16 (1884)	74 9/16 (1894)
34	78 3/16 (1986)	78 9/16 (1995)
36	82 3/16 (2088)	82 9/16 (2097)

How To Specify:

To specify a bay assembly using standard units, components and mull configuration must be indicated. For example: A 30 degree assembly with 2026 flankers and a 4058 center unit uses the following product identification: WBAY 20-4058-20 30°

- WBAY = Product identification
- 2026 = 1st flanker unit width and height
- 4058 = Center unit width and height
- 2026 = 2nd flanker unit width and height
- 30 = Assembly degree

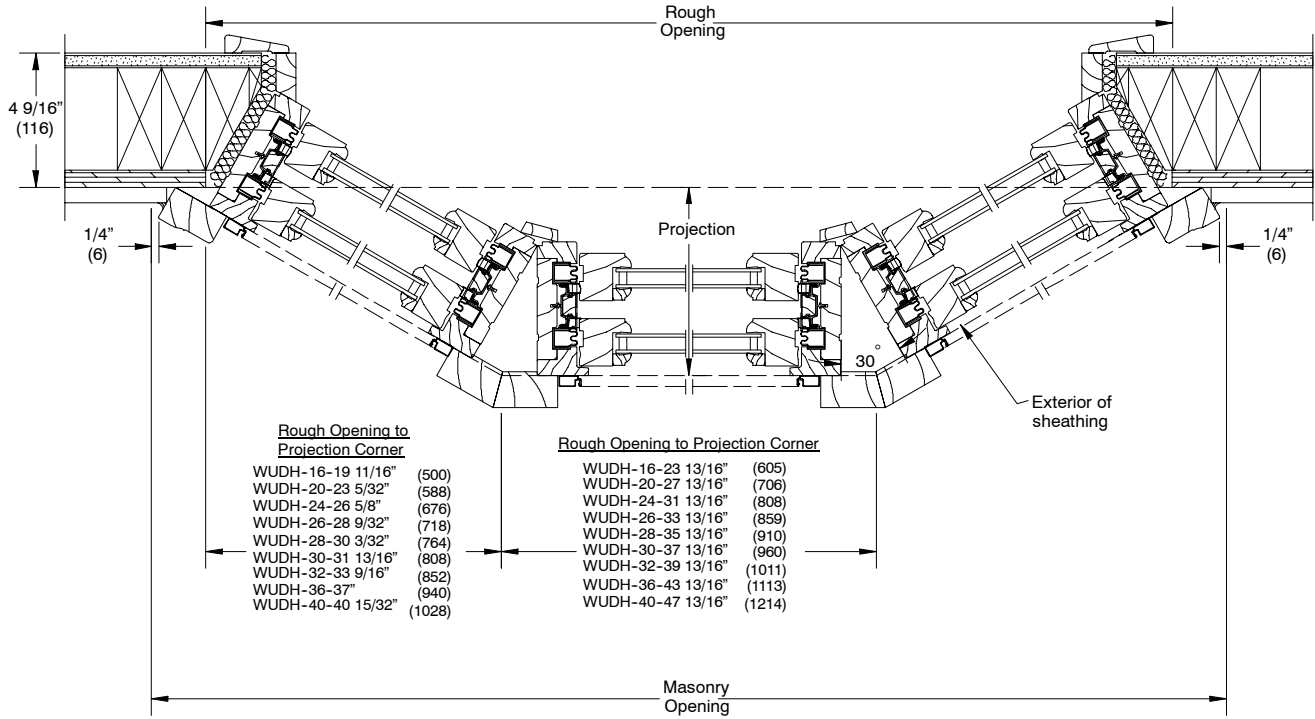
If standard units are not used, indicate unit rough openings instead of call numbers.

WOOD ULTIMATE DOUBLE HUNG BAY

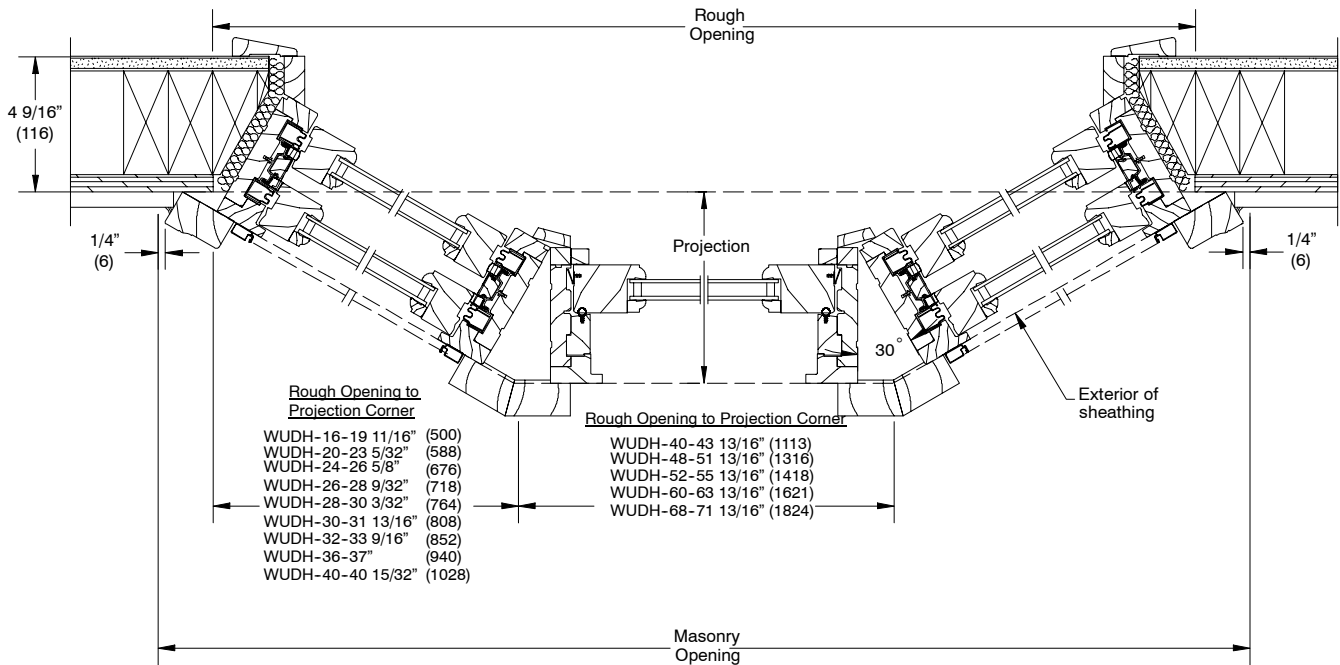
SECTION DETAILS: 30 DEGREE BAY

NOT TO SCALE

Operating Center Unit



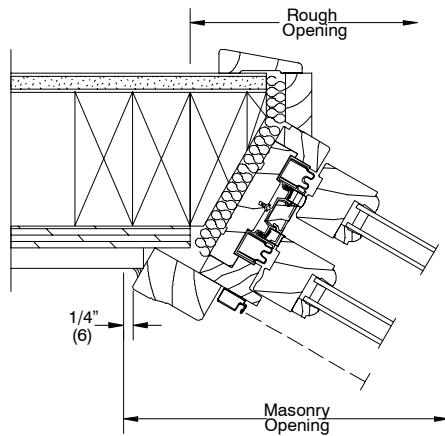
Picture Center Unit



WOOD ULTIMATE DOUBLE HUNG BAY

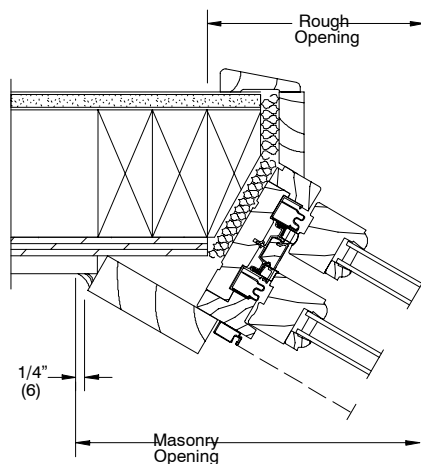
HORIZONTAL 30 DEGREE WIDTH MEASUREMENTS

Brick Mould Casing



30 Degree WUDH Bay with standard Brick Mould Casing

Flat Casing



30 Degree WUDH Bay with optional 3 1/2" Flat Casing

For 30 degree bay masonry opening widths using 3 1/2" (89) Flat Casing, add 6 1/4" (159) to the rough opening width.

30 Degree Width Measurements Double Hung flankers and center units

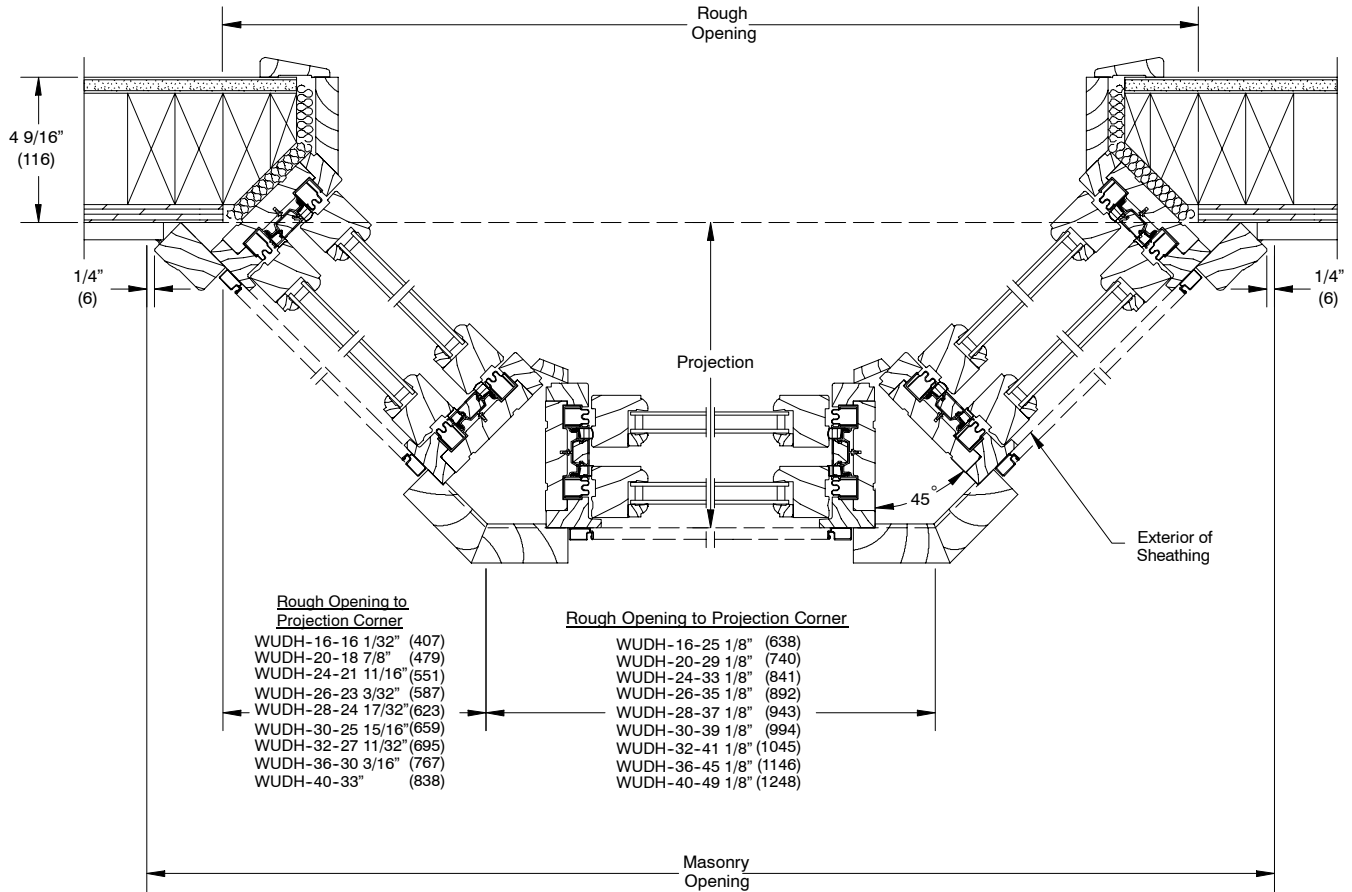
Unit Number	Masonry Opening	Rough Opening	Projection
16-16-16	5-6 31/32 (1701)	5-3 3/16 (1605)	11 15/16 (304)
16-20-16	5-10 31/32 (1803)	5-7 3/16 (1707)	11 15/16 (304)
16-24-16	6-2 31/32 (1905)	5-11 3/16 (1809)	11 15/16 (304)
16-26-16	6-4 31/32 (1955)	6-1 3/16 (1859)	11 15/16 (304)
16-28-16	6-6 31/32 (2006)	6-3 3/16 (1910)	11 15/16 (304)
16-30-16	6-8 31/32 (2057)	6-5 3/16 (1961)	11 15/16 (304)
16-32-16	6-10 31/32 (2108)	6-7 3/16 (2012)	11 15/16 (304)
16-36-16	7-2 31/32 (2209)	6-11 3/16 (2113)	11 15/16 (304)
16-40-16	7-6 31/32 (2311)	7-3 3/16 (2215)	11 15/16 (304)
20-20-20	6-5 29/32 (1979)	6-2 1/8 (1883)	13 15/16 (354)
20-24-20	6-9 29/32 (2081)	6-6 1/8 (1985)	13 15/16 (354)
20-26-20	6-11 29/32 (2131)	6-8 1/8 (2032)	13 15/16 (354)
20-28-20	7-1 29/32 (2182)	6-10 1/8 (2086)	13 15/16 (354)
20-30-20	7-3 29/32 (2233)	7-0 1/8 (2137)	13 15/16 (354)
20-32-20	7-5 29/32 (2284)	7-2 1/8 (2188)	13 15/16 (354)
20-36-20	7-9 29/32 (2385)	7-6 1/8 (2289)	13 15/16 (354)
20-40-20	8-1 29/32 (2487)	7-10 1/8 (2391)	13 15/16 (354)
24-24-24	7-4 27/32 (2257)	7-1 1/16 (2160)	15 15/16 (405)
24-26-24	7-6 27/32 (2307)	7-3 1/16 (2211)	15 15/16 (405)
24-28-24	7-8 27/32 (2358)	7-5 1/16 (2262)	15 15/16 (405)
24-30-24	7-10 27/32 (2409)	7-7 1/16 (2313)	15 15/16 (405)
24-32-24	8-0 27/32 (2460)	7-9 1/16 (2364)	15 15/16 (405)
24-36-24	8-4 27/32 (2561)	8-1 1/16 (2465)	15 15/16 (405)
24-40-24	8-8 27/32 (2663)	8-5 1/16 (2567)	15 15/16 (405)
26-26-26	7-10 9/32 (2395)	7-6 1/2 (2299)	16 15/16 (431)
26-28-26	8-0 9/32 (2446)	7-8 1/2 (2350)	16 15/16 (431)
26-30-26	8-2 9/32 (2497)	7-10 1/2 (2401)	16 15/16 (431)
26-32-26	8-4 9/32 (2548)	8-0 1/2 (2452)	16 15/16 (431)
26-36-26	8-8 9/32 (2649)	8-4 1/2 (2553)	16 15/16 (431)
26-40-26	9-0 9/32 (2751)	8-8 1/2 (2655)	16 15/16 (431)
28-28-28	8-3 3/4 (2534)	7-11 31/32 (2438)	17 15/16 (456)
28-30-28	8-5 3/4 (2585)	8-1 31/32 (2489)	17 15/16 (456)
28-32-28	8-7 3/4 (2636)	8-3 31/32 (2540)	17 15/16 (456)
28-36-28	8-11 3/4 (2737)	8-7 31/32 (2641)	17 15/16 (456)
28-40-28	9-3 3/4 (2839)	8-11 31/32 (2743)	17 15/16 (456)
30-30-30	8-9 7/32 (2673)	8-5 7/16 (2577)	18 15/16 (481)
30-32-30	8-11 7/32 (2724)	8-7 7/16 (2628)	18 15/16 (481)
30-36-30	9-3 7/32 (2825)	8-11 7/16 (2729)	18 15/16 (481)
30-40-30	9-7 7/32 (2927)	9-3 7/16 (2831)	18 15/16 (481)
32-32-32	9-2 11/16 (2812)	8-10 29/32 (2716)	19 15/16 (507)
32-36-32	9-6 11/16 (2913)	9-2 29/32 (2817)	19 15/16 (507)
32-40-32	9-10 11/16 (3015)	9-6 29/32 (2919)	19 15/16 (507)
36-36-36	10-1 5/8 (3089)	9-9 27/32 (2993)	21 15/16 (558)
36-40-36	10-5 5/8 (3191)	10-1 27/32 (3095)	21 15/16 (558)
40-40-40	11-0 17/32 (3367)	10-8 3/4 (3271)	23 15/16 (608)

WOOD ULTIMATE DOUBLE HUNG BAY

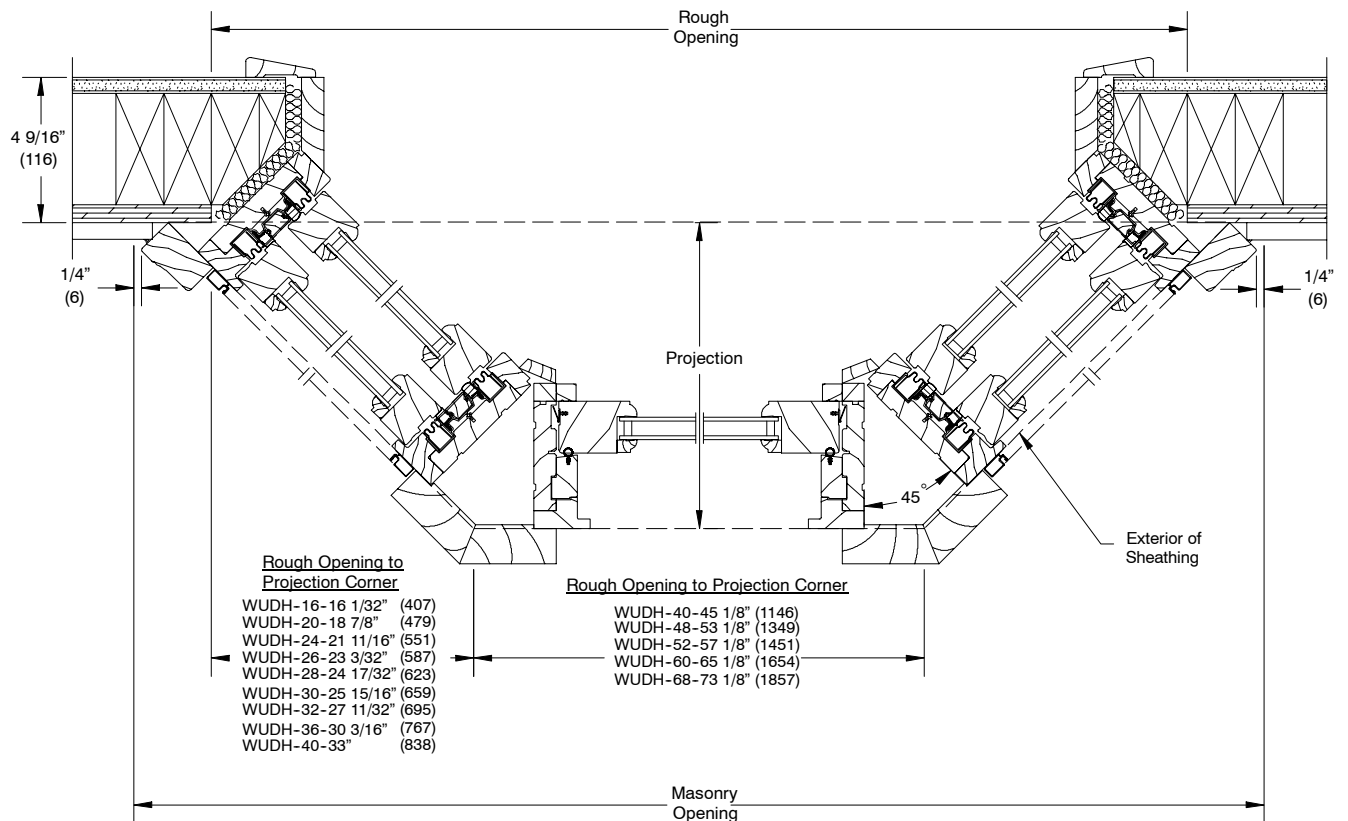
SECTION DETAILS: 45 DEGREE BAY

NOT TO SCALE

Operating Center Unit

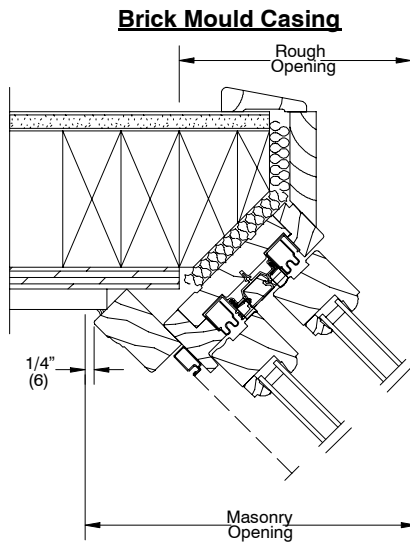


Picture Center Unit

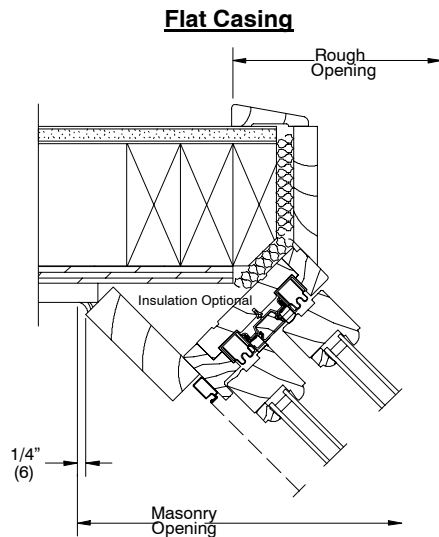


WOOD ULTIMATE DOUBLE HUNG BAY

HORIZONTAL 45 DEGREE WIDTH MEASUREMENTS



45 Degree WUDH Bay with standard Brick Mould Casing



45 Degree WUDH Bay with optional 3 1/2" Flat Casing

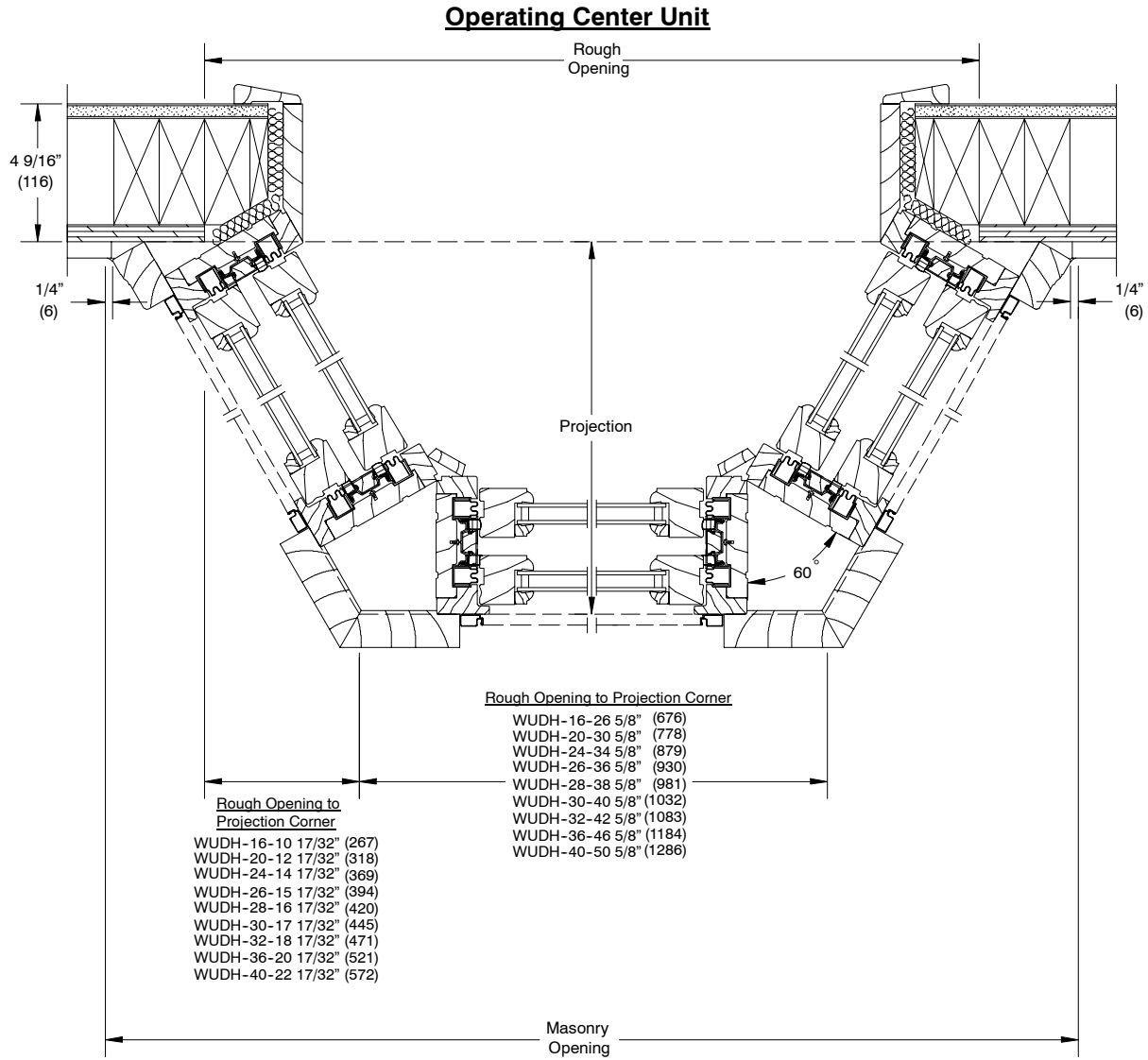
For 45 degree bay masonry opening widths using 3 1/2" (89) Flat Casing, add 6 7/8" (175) to the rough opening width.

45 Degree Width Measurements Double Hung flankers and center units			
Unit Number	Masonry Opening	Rough Opening	Projection
16-16-16	5-2 3/16 (1579)	4-9 3/16 (1453)	17 3/8 (441)
16-20-16	5-6 3/16 (1681)	5-1 3/16 (1554)	17 3/8 (441)
16-24-16	5-10 3/16 (1783)	5-5 3/16 (1656)	17 3/8 (441)
16-26-16	6-0 3/16 (1833)	5-7 3/16 (1707)	17 3/8 (441)
16-28-16	6-2 3/16 (1884)	5-9 3/16 (1758)	17 3/8 (441)
16-30-16	6-4 3/16 (1935)	5-11 3/16 (1808)	17 3/8 (441)
16-32-16	6-6 3/16 (1986)	6-1 3/16 (1859)	17 3/8 (441)
16-36-16	6-10 3/16 (2087)	6-5 3/16 (1961)	17 3/8 (441)
16-40-16	7-2 3/16 (2189)	6-9 3/16 (2062)	17 3/8 (441)
20-20-20	5-11 27/32 (1825)	5-6 27/32 (1698)	20 3/16 (513)
20-24-20	6-3 27/32 (1926)	5-10 27/32 (1800)	20 3/16 (513)
20-26-20	6-5 27/32 (1977)	6-0 27/32 (1851)	20 3/16 (513)
20-28-20	6-7 27/32 (2028)	6-2 27/32 (1901)	20 3/16 (513)
20-30-20	6-9 27/32 (2079)	6-4 27/32 (1952)	20 3/16 (513)
20-32-20	6-11 27/32 (2129)	6-6 27/32 (2003)	20 3/16 (513)
20-36-20	7-3 27/32 (2231)	6-10 27/32 (2105)	20 3/16 (513)
20-40-20	7-7 27/32 (2333)	7-2 27/32 (2206)	20 3/16 (513)
24-24-24	6-9 1/2 (2070)	6-4 1/2 (1943)	23 1/32 (585)
24-26-24	6-11 1/2 (2121)	6-6 1/2 (1994)	23 1/32 (585)
24-28-24	7-1 1/2 (2172)	6-8 1/2 (2045)	23 1/32 (585)
24-30-24	7-3 1/2 (2222)	6-10 1/2 (2096)	23 1/32 (585)
24-32-24	7-5 1/2 (2273)	7-0 1/2 (2147)	23 1/32 (585)
24-36-24	7-9 1/2 (2375)	7-4 1/2 (2248)	23 1/32 (585)
24-40-24	8-1 1/2 (2476)	7-8 1/2 (2350)	23 1/32 (585)
26-26-26	7-2 5/16 (2193)	6-9 11/32 (2066)	24 7/16 (621)
26-28-26	7-4 5/16 (2243)	6-11 11/32 (2117)	24 7/16 (621)
26-30-26	7-6 5/16 (2294)	7-1 11/32 (2168)	24 7/16 (621)
26-32-26	7-8 5/16 (2345)	7-3 11/32 (2219)	24 7/16 (621)
26-36-26	8-0 5/16 (2447)	7-7 11/32 (2320)	24 7/16 (621)
26-40-26	8-4 5/16 (2548)	7-11 11/32 (2422)	24 7/16 (621)
28-28-28	7-7 5/32 (2315)	7-2 5/32 (2189)	25 27/32 (657)
28-30-28	7-9 5/32 (2366)	7-4 5/32 (2240)	25 27/32 (657)
28-32-28	7-11 5/32 (2417)	7-6 5/32 (2290)	25 27/32 (657)
28-36-28	8-3 5/32 (2518)	7-10 5/32 (2392)	25 27/32 (657)
28-40-28	8-7 5/32 (2620)	8-2 5/32 (2494)	25 27/32 (657)
30-30-30	8-0 31/32 (2438)	7-7 (2311)	27 9/32 (693)
30-32-30	8-2 31/32 (2489)	7-9 (2362)	27 9/32 (693)
30-36-30	8-6 31/32 (2590)	8-1 (2464)	27 9/32 (693)
30-40-30	8-10 31/32 (2692)	8-5 (2565)	27 9/32 (693)
32-32-32	8-4 13/16 (2561)	7-11 13/16 (2434)	28 11/16 (729)
32-36-32	8-8 13/16 (2662)	8-3 13/16 (2536)	28 11/16 (729)
32-40-32	9-0 13/16 (2764)	8-7 13/16 (2637)	28 11/16 (729)
36-36-36	9-2 15/32 (2806)	8-9 15/32 (2679)	31 1/2 (801)
36-40-36	9-6 15/32 (2907)	9-1 15/32 (2781)	31 1/2 (801)
40-40-40	10-0 1/8 (3051)	9-7 1/8 (2925)	34 11/32 (872)

WOOD ULTIMATE DOUBLE HUNG BAY

SECTION DETAILS: 60 DEGREE BAY

NOT TO SCALE

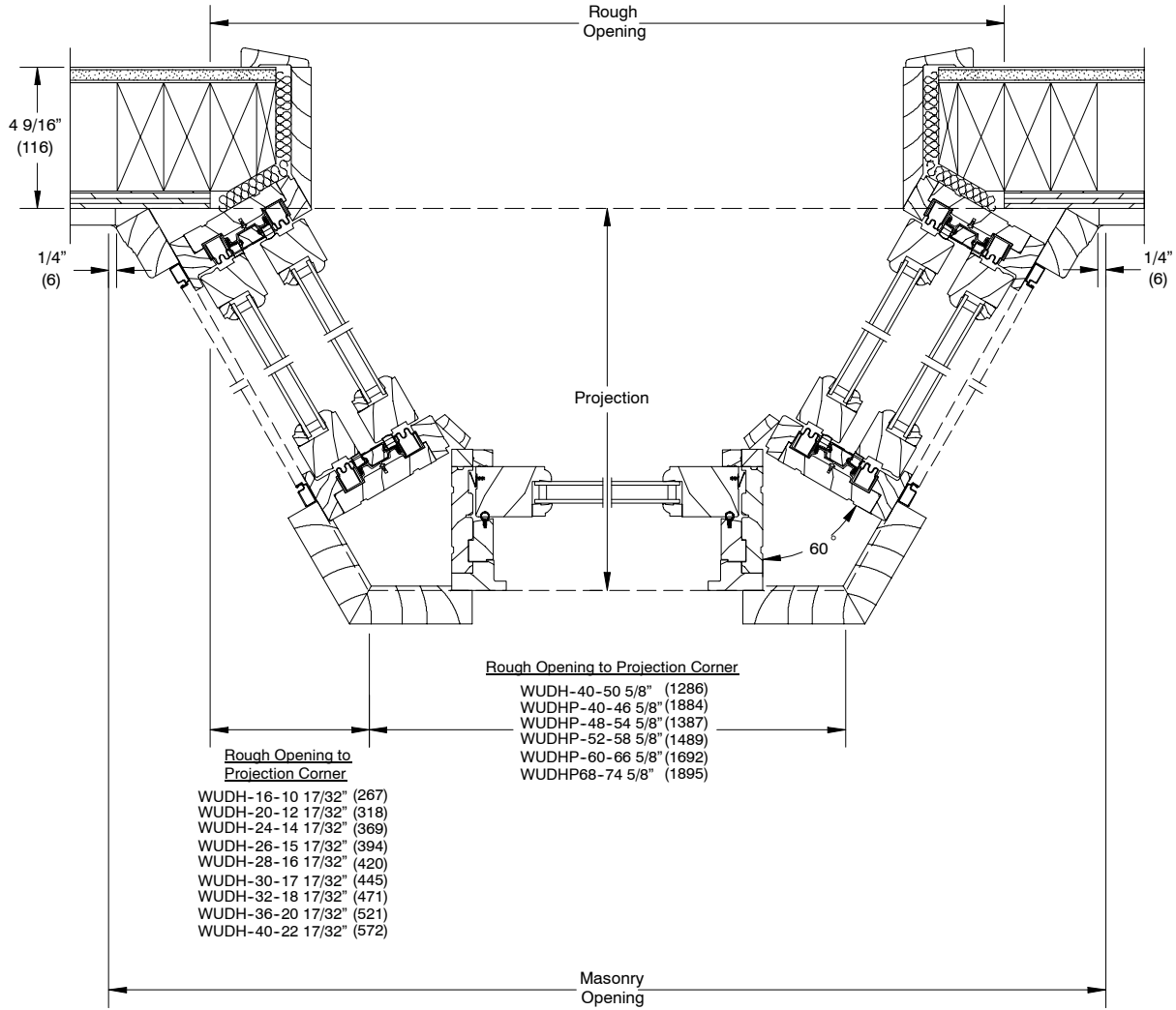


WOOD ULTIMATE DOUBLE HUNG BAY

SECTION DETAILS: 60 DEGREE BAY

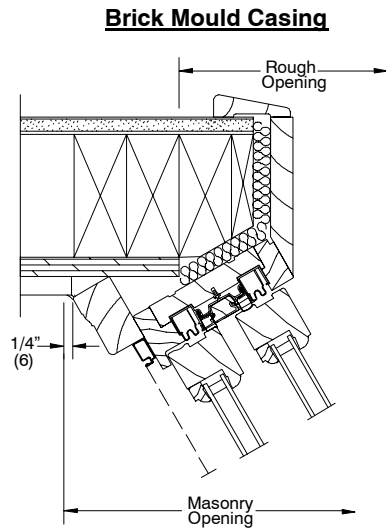
NOT TO SCALE

Picture Center Unit

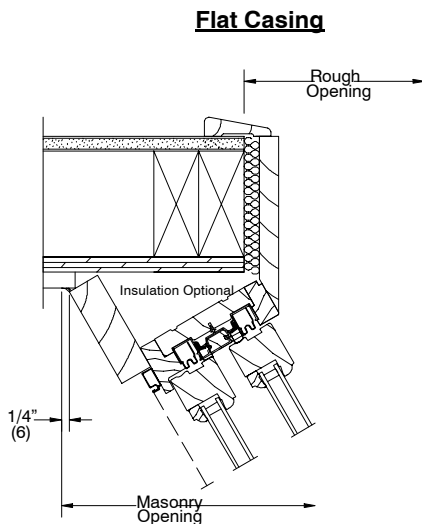


WOOD ULTIMATE DOUBLE HUNG BAY

HORIZONTAL 60 DEGREE WIDTH MEASUREMENTS



60 Degree WUDH Bay with standard Brick Mould Casing



60 Degree WUDH Bay with optional 3 1/2" Flat Casing

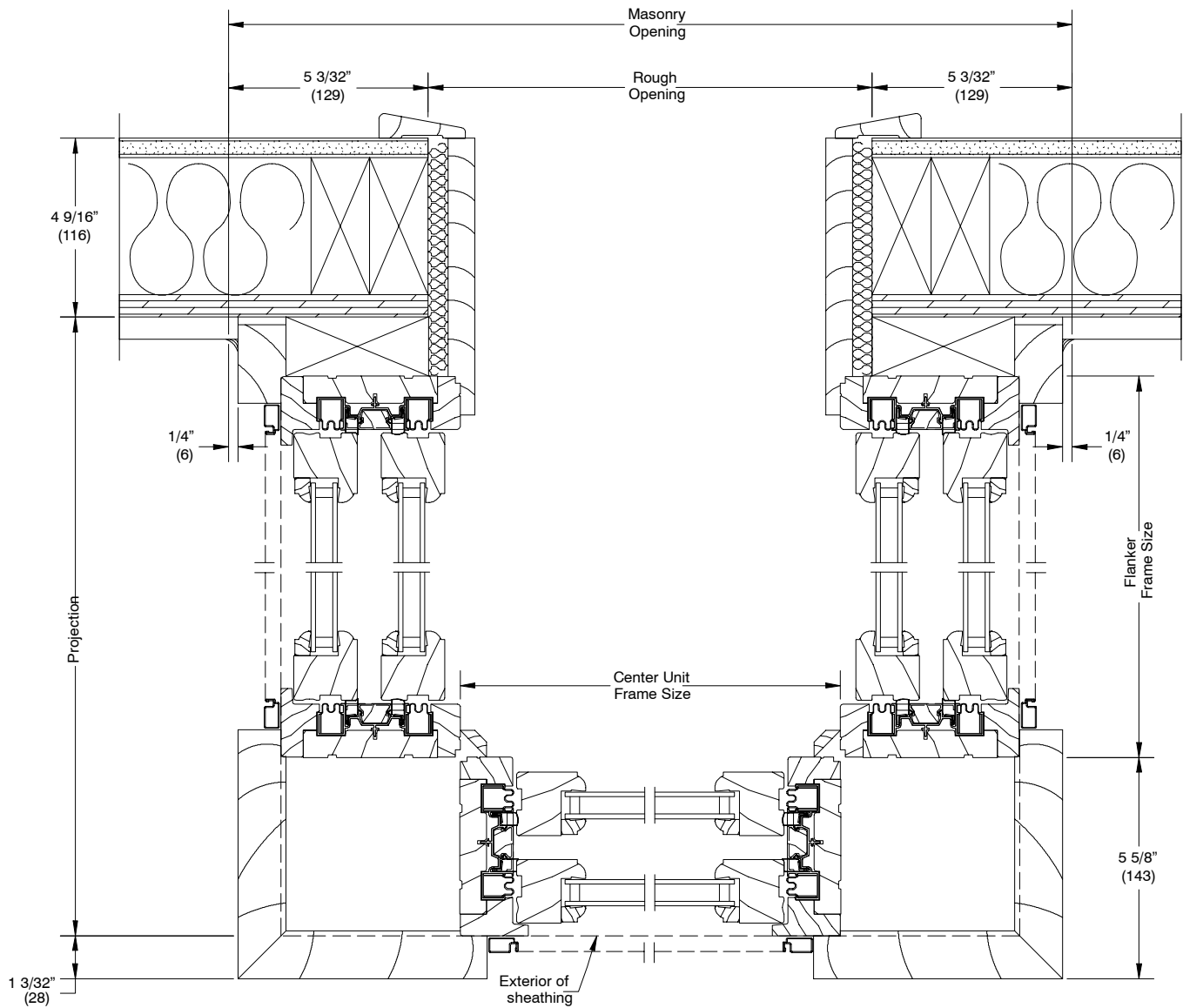
For 60 degree bay masonry opening widths using 3 1/2" (89) Flat Casing, add 8 5/32" (207) to the rough opening width.

60 Degree Width Measurements Double Hung flankers and center units						
Unit Number	Masonry Opening		Rough Opening		Projection	
16-16-16	4-6	5/8 (1388)	3-11	23/32 (1212)	21	29/32 (557)
16-20-16	4-10	5/8 (1489)	4-3	23/32 (1314)	21	29/32 (557)
16-24-16	5-2	5/8 (1591)	4-7	23/32 (1415)	21	29/32 (557)
16-26-16	5-4	5/8 (1642)	4-9	23/32 (1466)	21	29/32 (557)
16-28-16	5-6	5/8 (1692)	4-11	23/32 (1577)	21	29/32 (557)
16-30-16	5-8	5/8 (1743)	5-1	23/32 (1568)	21	29/32 (557)
16-32-16	5-10	5/8 (1794)	5-3	23/32 (1618)	21	29/32 (557)
16-36-16	6-2	5/8 (1896)	5-7	23/32 (1720)	21	29/32 (557)
16-40-16	6-6	5/8 (1997)	5-11	23/32 (1822)	21	29/32 (557)
20-20-20	5-2	5/8 (1591)	4-4	23/32 (1415)	25	3/8 (645)
20-24-20	5-6	5/8 (1692)	4-11	23/32 (1517)	25	3/8 (645)
20-26-20	5-8	5/8 (1743)	5-1	23/32 (1568)	25	3/8 (645)
20-28-20	5-10	5/8 (1794)	5-3	23/32 (1618)	25	3/8 (645)
20-30-20	6-0	5/8 (1845)	5-5	23/32 (1669)	25	3/8 (645)
20-32-20	6-2	5/8 (1896)	5-7	23/32 (1720)	25	3/8 (645)
20-36-20	6-6	5/8 (1997)	5-11	23/32 (1822)	25	3/8 (645)
20-40-20	6-10	5/8 (2099)	6-3	23/32 (1923)	25	3/8 (645)
24-24-24	5-10	5/8 (1794)	5-3	23/32 (1618)	28	27/32 (733)
24-26-24	6-0	5/8 (1845)	5-5	23/32 (1669)	28	27/32 (733)
24-28-24	6-2	5/8 (1896)	5-7	23/32 (1720)	28	27/32 (733)
24-30-24	6-4	5/8 (1946)	5-9	23/32 (1771)	28	27/32 (733)
24-32-24	6-6	5/8 (1997)	5-11	23/32 (1822)	28	27/32 (733)
24-36-24	6-10	5/8 (2099)	6-3	23/32 (1923)	28	27/32 (733)
24-40-24	7-2	5/8 (2200)	6-7	23/32 (2025)	28	27/32 (733)
26-26-26	6-2	5/8 (1896)	5-7	23/32 (1720)	30	19/32 (777)
26-28-26	6-4	5/8 (1946)	5-9	23/32 (1771)	30	19/32 (777)
26-30-26	6-6	5/8 (1997)	5-11	23/32 (1822)	30	19/32 (777)
26-32-26	6-8	5/8 (2048)	6-1	23/32 (1872)	30	19/32 (777)
26-36-26	7-0	5/8 (2150)	6-5	23/32 (1974)	30	19/32 (777)
26-40-26	7-4	5/8 (2251)	6-9	23/32 (2076)	30	19/32 (777)
28-28-28	6-6	5/8 (1997)	5-11	23/32 (1822)	32	5/16 (821)
28-30-28	6-8	5/8 (2048)	6-1	23/32 (1872)	32	5/16 (821)
28-32-28	6-10	5/8 (2099)	6-3	23/32 (1923)	32	5/16 (821)
28-36-28	7-2	5/8 (2200)	6-7	23/32 (2025)	32	5/16 (821)
28-40-28	7-6	5/8 (2302)	6-11	23/32 (2126)	32	5/16 (821)
30-30-30	6-10	5/8 (2099)	6-3	23/32 (1923)	34	1/32 (865)
30-32-30	7-0	5/8 (2150)	6-5	23/32 (1974)	34	1/32 (865)
30-36-30	7-4	5/8 (2251)	6-9	23/32 (2076)	34	1/32 (865)
30-40-30	7-8	5/8 (2353)	7-1	23/32 (2177)	34	1/32 (865)
32-32-32	7-2	5/8 (2200)	6-7	23/32 (2025)	35	25/32 (909)
32-36-32	7-6	5/8 (2302)	6-11	23/32 (2126)	35	25/32 (909)
32-40-32	7-10	5/8 (2404)	7-3	23/32 (2228)	35	25/32 (909)
36-36-36	7-10	5/8 (2404)	7-3	23/32 (2228)	39	1/4 (997)
36-40-36	8-2	5/8 (2505)	7-7	23/32 (2330)	39	1/4 (997)
40-40-40	8-6	5/8 (2607)	7-11	23/32 (2431)	42	23/32 (1085)

WOOD ULTIMATE DOUBLE HUNG BAY

SECTION DETAILS: 90 DEGREE BAY

NOT TO SCALE



Measurement Conversions:

Rough Opening = Center unit frame size width + $1 \frac{5}{8}"$ (41)

Masonry Opening = Rough opening + $10 \frac{3}{16}"$ (259)

Projection = Flanker unit frame size width + $6 \frac{1}{16}"$ (154)