

Section 08 52 00
Wood Ultimate Double Hung Collection

Part 1 General

1.1 Section Includes

- A. Wood Ultimate Double Hung, Single Hung, Transom, Picture window complete with hardware, glazing, weather strip, insect screen, simulated divided lite, jamb extension, and standard or specified anchors, trim, and attachments.
- B. No work will be performed on windows with leaded glass.

1.2 Related Sections

- A. The successful bidder will be required to turnkey the project and complete all work for the successful completion of this project. This will include but shall not be limited to demolition of exiting windows, abatement of any lead that is present, the installation of the new windows in conformance with the City of Milwaukee Historic Preservation requirements, related millwork, joint sealants for sills and perimeter and final painting of the inside and outside to match existing.

1.3 References

- A. American Society for Testing Materials (ASTM):
 - 1. E283: Standard Test method for Rate of Air Leakage through Exterior Windows, Curtain Walls and Doors
 - 2. E330: Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls and Door by Uniform Static Air Pressure Difference
 - 3. E547: Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls and Doors by Cyclic Static Air Pressure Differential
 - 4. E2190: Specification for Sealed Insulated Glass Units
 - 5. C1036: Standard Specification for Flat Glass
 - 6. E2068: Standard Test Method for Determination of Operating Force of Sliding Windows and Doors
- B. American Architectural Manufacturer's Association/Window and Door Manufacturer's Association (AAMA/WDMA/CSA):
 - 1. AAMA/WDMA/CSA 101/I.S.2/A440-08, North American Fenestration, Standard/Specification for window, doors and skylights
 - 2. AAMA/WDMA/CSA 101/I.S.2/A440-11,NAFS 2011 – North American Fenestration, Standard/Specification for windows, doors and skylights
- C. WDMA I.S.4: Industry Standard for Water Repellant Preservative Treatment for Millwork
- D. Window and Door Manufacturer's Association (WDMA): 101/I.S.2 WDMA Hallmark Certification Program
- E. Sealed Insulating Glass Manufacturer's Association/Insulating Glass Certification Council (SIGMA/IGCC)
- F. American Architectural Manufacturer's Association (AAMA): 2605: Voluntary Specification for High Performance Organic Coatings on Architectural Extrusions and Panels
- G. National Fenestration rating Council (NFRC):
 - 1. 101: Procedure for Determining Fenestration Product thermal Properties
 - 2. 200: Procedure for Determining Solar Heat Grain Coefficients at Normal Incidence
- H. Window Covering Manufacturer's Association
 - 1. A100.1: Standard for safety of corded covering products

1.4 System Description

A. Design and Performance Requirements:

Product	Air Tested to psf	Water Tested to psf	Structural Tested to psf	Certification Rating	Design Pressure (DP)	Overall Width		Overall Height	
						in	mm	in	mm
Wood Double Hung Window 3644	1.57	6	60	LC-PG40-H	40	41 3/8	(1051)	97	(2464)
Wood Double Hung Window 3644 High Performance	1.57	8.25	60	LC-PG40-H	40	41 3/8	(1051)	97	(2464)
Wood Ultimate Double Hung 4026	1.57	6	60	LC-PG40-H	40	45 3/8	(1153)	61	(1549)
Wood Ultimate Double Hung 4036	1.57	6	45	LC-PG40-H	40	45 3/8	(1153)	81	(2057)
Wood Double Hung Window 4036 High Performance	1.57	8.25	60	LC-PG40-H	40	45 3/8	(1153)	81	(2057)
Wood Ultimate Double Hung 2830 High Performance	1.57	7.5	75	LC-PG50-H	50	33 3/8	(848)	69	(1753)
Wood Ultimate Double Hung 3026 High Performance	1.57	7.5	75	LC-PG50-H	50	35 3/8	(899)	61	(1549)

Product	Air Tested to psf	Water Tested to psf	Structural Tested to psf	Certification Rating	Design Pressure (DP)	Overall Width		Overall Height	
						in	mm	in	mm
Wood Ultimate Double Hung Round Top 4036	1.57	4.5	45	LC-PG30-H	30	45 3/8	(1153)	81	(2057)
Wood Ultimate Double Hung Picture/Transom Round Top & Polygon	1.57	9	90	CW-PG60-FW	60	75	(1905)	90	(2286)

1.5 Submittals

- A. Shop Drawings: Submit shop drawings under provision of Section 01 33 23
- B. Product Data: Submit catalog data under provision of Section 01 33 23
- C. Samples:
 - 1. Submit corner section under provision of section 01 33 23
 - 2. Include glazing system, quality of construction and specified finish
- D. Quality Control Submittals: Certificates: submit manufacturer's certification indicating compliance with specified performance and design requirement under provision of section 01 33 23

1.6 Quality Assurance

- A. Requirements: consult local code for IBC [International Building Code] and IRC [International Residential Code] adoption year and pertinent revisions for information on:
 - 1. Egress, emergency escape and rescue requirements
 - 2. Basement window requirements
 - 3. Windows fall prevention and/or window opening control device requirements

1.7 Delivery

- A. Comply with provisions of Section 01 65 00
- B. Deliver in original packaging and protect from weather

1.8 Storage and Handling

- A. Prime and seal wood surfaces, including to be concealed by wall construction, if more than thirty (30) days will expire between delivery and installation
- B. Store window units in an upright position in a clean and dry storage area above ground to protect from weather under provision of Section 01 66 00

1.9 Warranty

Complete and current warranty information is available at marvin.com/warranty. The following summary is subject to the terms, condition, limitations and exclusions set forth in the Marvin Windows and Door Limited Warranty and Products in Coastal Environments Limited Warranty Supplement:

- A. Clear insulating glass with stainless steel spacers is warranted against seal failure caused by manufacturing defects and resulting in visible obstruction through the glass for twenty (20) years from the original date of purchase. Glass is warranted against stress cracks caused by manufacturing defects from ten (10) years from the original date of purchase.
- B. Factory applied interior finish is warranted to be free from finish defects for a period of five (5) years from the original date of purchase.
- C. Hardware and other non-glass components are warranted to be free from manufacturing defects for ten (10) years from the original date of purchase.

Part 2 Products

2.1 Manufactured Units

- A. Description: Wood Ultimate Double Hung, Single Hung, Transom, Picture, as Manufactured by Marvin Windows and Doors, Warroad, Minnesota.

2.2 Frame Description

- A. Finger-jointed core with non finger-jointed Pine veneer
 - 1. Kiln-dried to moisture content no greater than 12 percent at the time of fabrication
 - 2. Water repellent, preservative treated in accordance with ANSI/WDMA I.S.4.
- B. Frame thickness: 1 1/16" (17mm) head and side jambs
- C. Frame depth: Frame depth had an overall 5 21/32" jamb (144mm). 4 9/16" (116mm) jamb depth from the nailing fin plane to the interior face of the frame for new construction.
- D. Frame bevel: 8 degree bevel on sill and subsill
- E. Subsill: 1 3/32" (28mm)

2.3 Sash Description

- A. Interior: finger-jointed core with non finger-jointed Pine veneer
 - 1. Kiln-dried to moisture content no greater than twelve (12) percent at the time of fabrication.
 - 2. Water repellent preservative treated with accordance with WDMA I.S.4.
- B. Sash thickness: 1 5/8" (41mm) for operable units, 1 5/8" (41mm) or 2" (51mm) for picture units
- C. Operable sash tilt to interior for cleaning or removal
- D. Sash Options: Unequal Sash

E. Interior Sash Sticking

1. Standard: Ovolo

2.4 Glazing

- A. Select quality complying with ASTM C1036. Insulating glass SIGMA/IGCC certified to performance level CBA when tested in accordance with ASTM E2190.
- B. Glazing method: Insulating glass
- C. Glazing seal: Silicone glazed
- D. Glass Type: Tempered, Obscure, Low E2 with Argon

2.5 Finish

1. Interior/Exterior: Primed wood factory-applied enamel primer. Available on Pine product only. The successful bidder shall be responsible for painting the interior and exterior to match the existing colors.

2.6 Hardware

- A. Balance System: Coil spring block and tackle with nylon cord and fiber filled nylon clutch
- B. Jamb Carrier: Vinyl extrusion with wood inserts
 1. Color: beige
- C. Lock: High pressure zinc die-cast cam lock and keeper
 1. Finish: Phosphate coated and electrostatically painted Satin Taupe, Bronze, White, Brass, Satin Chrome, Satin Nickel, Antique Brass, Oil Rubbed Bronze
- D. Check rail guide
- E. The city might require reusing the existing lock and keeper.

2.7 Weather Strip

- A. Operating units:
 1. Continuous, leaf weather strip at head jamb, parting stop, dual durometer bulb at check rail, foam bulb type dual durometer weather strip on vertical sash edge; dual durometer bulb weather strip at bottom rail
- B. Stationary units:

1. Continuous, bulb weather strip at perimeter of sash, concealed slotted bulb weather strip on exterior of sash, pile strip on interior of blind stop, dual durometer bulb weather strip at bottom rail.

2.8 Jamb Extension

- A. Jamb extensions are available for various wall thickness factory-applied up to a 12" (305mm) wide
- B. Finish: Match interior frame finish

2.9 Insect Screen

- A. Factory-installed half screen. Half screen covers sash opening.
 - 1. Screen Mesh: Charcoal fiberglass, Hi-Tran fiberglass mesh
- A. Aluminum frame finish: Owner will choose finish prior to job start.
 - 1. Color: Bahama Brown, Bronze,

2.10 Simulated Divided Lites (SDL)

- A. 5/8" (16mm) wide, 7/8" (22mm) wide, 1 1/8" (29mm), 1 3/4" (44mm), 2 13/32" (61mm) wide with or w/out internal spacer bar. The daylight opening of the new window must conform to the City of Milwaukee requirements.
- B. Muntins: Pine, Mahogany, or Vertical Grain Douglas Fir
- C. Muntins adhere to glass with closed-cell copolymer acrylic foam tape
- D. Sticking:
 - 1. Standard: Ovolo
 - 2. Optional: Interior Square sticking
- E. Pattern: Rectangular, diamond, custom lite cut
- F. Finish: Match panel finish

2.11 Accessories and Trim

- A. Installation Accessories:
 - 1. Factory installed vinyl nailing/drip cap
 - 2. Installation brackets: 6 3/8" (162mm), 9 3/8" (283mm), 15 3/8" (390mm)
 - 3. Masonry brackets: 6" (152mm), 10" (254mm)
- B. Exterior Wood Moulding:

1. Profile: Brick Mould Casing, Flat Casing, Stucco Brick Mould, Stucco Flat Casing, Special Casing 3 (SPC3), Special Casing 7 (SPC7), Special Casing 21 (SPC21), Special Casing 18 (SPC18), Special Casing 26 (SPC26)
 2. Finish: Match exterior frame finish
- C. Cedar Dress:
1. Sill
 2. Subsill
 3. Blind stops and jamb covers
 4. Mull covers
 5. Brick Mould and Flat Casing
 6. Available on Pine frames
 7. Bare cedar

Part 3 Execution

3.1 Examination

- A. Verification of Condition: Before installation, verify openings are plumb, square and of proper dimensions as required in Section 01 71 00. Report frame defects or unsuitable conditions to the General contractor before proceeding.
- B. Acceptance of Condition: Beginning on installation confirms acceptance of existing conditions.

3.2 Installation

- A. Comply with Section 01 73 00.
- B. Assemble and install window/door unit(s) according to manufacturer's instruction and reviewed shop drawing.
- C. Install sealant and related backing materials at perimeter of unit or assembly in accordance with Section 07 92 00 Joint Sealants. Do not use expansive foam sealant.
- D. Install accessory items as required.
- E. Use finish nails to apply wood trim and mouldings.

3.3 Field Quality Control

- A. Remove visible labels and adhesive residue according to manufacturer's instruction.

- B. Unless otherwise specified, air leakage resistance tests shall be conducted at a uniform static pressure of 75 Pa (~1.57 psf). The maximum allowable rate of air leakage shall not exceed 2.3 L/sm² (~0.45 cfm/ft²).
- C. Unless otherwise specified, water penetration resistance testing shall be conducted per AAMA 502 and ASTM E1105 at 2/3 of the fenestration products design pressure (DP) rating using "Procedure B" – cyclic static air pressure difference. Water penetration shall be defined in accordance with the test method(s) applied.

3.4 Cleaning

- A. Remove visible labels and adhesive residue according to manufacturer's instruction.
- B. Leave windows and glass in a clean condition. Final cleaning as required in Section 01 74 00.

3.5 Protecting Installed Construction

- A. Comply with Section 07 76 00.
- B. Protecting windows from damage by chemicals, solvents, paint or other construction operations that may cause damage.

End of Section