# Part 1 General

# Section Includes

## Ultimate Wood Double Hung, Single Hung, Picture window complete with hardware, glazing, weather strip, insect screen, simulated divided lite, jamb extension, combination storm/screen, and standard or specified anchors, trim, and attachments

# Construction Specification Institute (CSI) MasterFormat Numbers and Titles

## Section 01 33 00 – Submittal Procedures; Shop Drawings, Product Data and Samples

## Section 01 62 00 – Product Options

## Section 01 65 00 – Product Delivery

## Section 01 66 00 – Storage and Handling Requirements

## Section 01 71 00 – Examination and Preparation

## Section 01 73 00 - Execution

## Section 01 74 00 – Cleaning and Waste Management

## Section 01 76 00 – Protecting Installed Construction

## Section 06 22 00 – Millwork: Wood trim other than furnished by window manufacturer

## Section 07 92 00 – Joint Sealant: Sill sealant and perimeter caulking

## Section 09 90 00 – Painting and Coasting: Paint and stain other than factory-applied finish

# References

## American Society for Testing Materials (ASTM):

### E283: Standard Test method for Rate of Air Leakage through Exterior Windows, Curtain Walls and Doors

### E330: Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls and Door by Uniform Static Air Pressure Difference

### E547: Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls and Doors by Cyclic Static Air Pressure Differential

### E2112: Standard Practice for Installation of Exterior Windows, Doors, and Skylights

### E2190: Specification for Sealed Insulating Glass Units

### C1036: Standard Specification for Flat Glass

### E2068: Standard Test Method for Determination of Operating Force of Sliding Windows and Doors

### E1996: Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors and Storm Shutters Impacted by Missile (s) and Exposed to Cyclic Pressure Differentials

### E1886: Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors, and Storm Shutters Impacted by Missile (s) and Exposed to Cyclic Pressure Differentials

## American Architectural Manufacturer’s Association/Window and Door Manufacturer’s Association (AAMA/WDMA/CSA):

### AAMA/WDMA/CSA 101/I.S.2/A440-08, North American Fenestration, Standard/Specification for window, doors and skylights

### AAMA/WDMA/CSA 101/I.S.2/A440-11,NAFS 2011 – North American Fenestration, Standard/Specification for windows, doors and skylights

## WDMA I.S.4: Industry Standard for Water Repellant Preservative Treatment for Millwork

## Window and Door Manufacturer’s Association (WDMA): 101/I.S.2 WDMA Hallmark Certification Program

## Sealed Insulating Glass Manufacturer’s Association/Insulating Glass Certification Council (SIGMA/IGCC)

## American Architectural Manufacturer’s Association (AAMA): 2605: Voluntary Specification for High Performance Organic Coatings on Architectural Extrusions and Panels

## National Fenestration Rating Council (NFRC):

### 101: Procedure for Determining Fenestration Product Thermal Properties

### 200: Procedure for Determining Solar Heat Grain Coefficients at Normal Incidence

## Window Covering Manufacturer’s Association

### A100.1: Standard for safety of corded window covering products

# System Description

## Design and Performance Requirements:

### Window units shall be designed to comply with ASTM E1996 Wind Zone 3 Missile Level D Rating: +55/-65 psf

### Air leakage shall not exceed the following when tested at 6.24 psf according to ASTM E283: ≤0.30 cfm per square foot of frame

### No water penetration when tested at the following pressure according to ASTM E547: 8.25 psf

### Assembly shall withstand a positive or negative uniform Structural Load of +82.5/-97.5 psf without damage when tested according to ASTM E330

### Impact and Cycling per ASTM E1996 and E1886 with passing results for Missile Level D and Pressure Cycling of Operator of +55/-65 psf

# Submittals

## Shop Drawings: Submit shop drawings under provision of CSI MasterFormat Section 01 33 00.

## Product Data: Submit product data for certified option under provision of CSI MasterFormat Section 01 33 00. Product performance rating information may be provided via quote, performance rating summary (NFRC Data), or certified performance grade summary (WDMA Hallmark data).

## Samples:

### Submit corner section under provision of CSI MasterFormat Section 01 33 00.

### Specified performance and design requirements under provisions of CSI MasterFormat Section 01 33 00.

# Quality Assurance

## Requirements: consult local code for IBC [International Building Code] and IRC [International Residential Code] adoption year and pertinent revisions for information on:

### Egress, emergency escape and rescue requirements

### Basement window requirements

### Windows fall prevention and/or window opening control device requirements

# Delivery

## Comply with provisions of CSI MasterFormat Section 01 65 00

## Deliver in original packaging and protect from weather

# Storage and Handling

## Prime and seal wood surfaces, including to be concealed by wall construction, if more than thirty (30) days will expire between delivery and installation

## Store window units in an upright position in a clean and dry storage area above ground to protect from weather under provision of CSI MasterFormat Section 01 66 00

# Warranty

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

## 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.

## 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.

## 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

# Manufactured Units

## Description: Ultimate Wood Double Hung, Single Hung, Picture, as Manufactured by Marvin, Warroad, Minnesota.

# Frame Description

## Non Finger-Jointed Pine or finger-jointed core with non finger-jointed Pine veneer; non finger-jointed Mahogany or finger-jointed core with non finger-jointed Mahogany veneer; non finger-jointed Vertical Grain Douglas Fir or finger-jointed with non finger-jointed Vertical Grain Douglas Fir veneer

### Kiln-dried to moisture content no greater than 12 percent at the time of fabrication

### Water repellant, preservative treated in accordance with ANSI/WDMA I.S.4.

## Frame thickness: 11/16” (17mm) head and side jambs

## 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.

## Frame bevel: 8 degree bevel on sill and subsill

## Subsill: 1 3/32” (28mm)

# Sash Description

## Interior: Non Finger-Jointed Pine or finger-jointed core with non finger-jointed Pine veneer; non finger-jointed Mahogany or finger-jointed core with non finger-jointed Mahogany veneer; non finger-jointed Vertical Grain Douglas Fir or finger-jointed with non finger-jointed Vertical Grain Douglas Fir veneer

### Kiln-dried to moisture content no greater than twelve (12) percent at the time of fabrication

### Water repellant preservative treated with accordance with WDMA I.S.4.

## Sash thickness: 1 5/8” (41mm) for operable units, 1 5/8” (41mm) or 2” (51mm) for picture units

## Operable sash tilt to interior for cleaning or removal

## Sash Options: Unequal Sash

## Interior Sash Sticking

### Standard is: Ovolo

### Optional: Interior Square Sticking

# Glazing

## Select quality complying with ASTM C1036. Insulating glass SIGMA/IGCC certified to performance level CBA when tested in accordance with ASTM E2190.

## Glazing method: Insulating glass

## Glazing seal: Silicone glazed

## Glass fill: Air with capillary tubes, Argon

## Glass Type: All Laminated: Clear, Obscure, Low E2, Low E3, Low E1

# Finish

## Interior/Exterior: Treated bare wood

### Prime: Factory-applied water-borne acrylic primer. Meets WDMA TM-11 requirements..

## Interior Finish options:

### Painted Interior Finish. Factory-applied water-borne acrylic enamel. Available on Pine product only.Available in White or Designer Black. Meets WDMA TM-14 requirements.

### Factory-applied water-borne acrylic enamel clear coat. Applied in two separate coats with light sanding between coats. Available on Pine, Mahogany, and Vertical Grain Douglas Fir.

### Factory-applied water-borne urethane stain. Stain applied over a wood (stain) conditioner. A water-borne acrylic enamel clear coat applied in two separate coats, with light sanding between coats, applied over the stain. Available on Pine, Mahogany, and Vertical Grain Douglas Fir. Colors available: Wheat, Honey, Hazelnut, Leather, Cabernet, and Espresso.

# Hardware

## Balance System:

### Coil spring block and tackle with nylon cord and fiber filled nylon clutch

## Jamb Carrier:

### Vinyl extrusion with wood inserts

### Color: Beige

## Lock:

### High pressure zinc die-cast cam lock and keeper

### Finish: Phosphate coated and electrostatically painted Satin Taupe, Bronze, Matte Black, White, Brass, Satin Chrome, Satin Nickel, Antique Brass, or Oil Rubbed Bronze

## Four stainless steel jamb storm brackets

## Two plastic sash stays

## Optional Window Operating Control Device

# Weather Strip

## Operating units:

### 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

## Stationary units:

### 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

# Jamb Extension

## Jamb extensions are available for various wall thickness factory-applied up to a 12” (305mm) wide

## Finish: Match interior frame finish

# Insect Screen

## Factory-installed full or half screen

### Half screen covers sash opening

### Window Frame Height less than or equal to 54 ½” Aluminum Screen Frame. Option: Extruded Aluminum Screen Frame.

### Window Frame Height greater than 54 ½” Extruded Screen Frame. Option: None.

### Screen Mesh: Standard is Marvin Bright ViewTM. Optional: Black Aluminum Wire, Bright Aluminum Wire, Bright Bronze Aluminum Wire, Charcoal Aluminum Wire

## Aluminum frame finish:

### Color: Bahama Brown, Bronze, Cadet Gray, Cascade Blue, Cashmere, Clay, Coconut Cream, Ebony, Evergreen, Gunmetal, Hampton Sage, Pebble Gray, Sierra White, Stone White, Suede, Wineberry, Bright Silver (pearlescent), Copper (pearlescent), Liberty Bronze (pearlescent)

# Wood Combination Strom Sash and Screen

## Frame: Finger-jointed Pine, Mahogany, Vertical Grain Douglas Fir

### Kiln-dried to moisture content no greater than twelve (12) percent at the time of fabrication

### Water repellant preservative treated in accordance with WDMA I.S.4.

### Frame thickness: 1-1/16 inches (26 mm)

### Extruded aluminum track utilized to hold storm and screen panels

### Finish: Treated bare wood; Latex prime coat, white – available for Pine wood species only

## Hardware: Spring loaded latches to hold removable storm panel in position

## Weather strip: Pile weather strip seals between operating panels and against stiles of main frame

## Storm Panel: Select quality glass in aluminum frame

### Frame finish: Bronze; Stone White

## Insect Screen Panel:

### Extruded aluminum surround

### Screen Mesh: Standard is Marvin Bright ViewTM. Optional: Black Aluminum Wire, Bright Aluminum Wire, Bright Bronze Aluminum Wire, Charcoal Aluminum Wire

### Aluminum frame finish: Bronze; Stone White

## Wood Storm Sash: Select quality glass in non finger-jointed Pine

## frame.

### Top Rail and stiles: 2-1/8 inches (54 mm) wide

### Bottom rail: 4-1/16 inches (103 mm) wide

### Sash thickness: 1-3/32 inches (28 mm)

### Finish: Latex prime coat, white – available for Pine wood species only

# Simulated Divided Lites (SDL)

## 5/8” (16mm) wide, 7/8” (22mm) wide, 1 1/8” (29mm), 1 ¾” (44mm), 2 13/32” (61mm) wide with or w/out internal spacer bar

## Muntins: Pine, Mahogany, or Vertical Grain Douglas Fir

## Muntins adhere to glass with closed-cell copolymer acrylic foam tape

## Sticking:

### Standard: Ovolo

### Optional: Interior Square Sticking

## Pattern: Rectangular, diamond, custom lite cut

## Finish: Match panel finish

# Accessories and Trim

## Installation Accessories:

### Factory-installed vinyl nailing/drip cap

### Installation brackets: 6 3/8” (162mm), 9 3/8” (283mm), 15 3/8” (390mm)

### Masonry brackets: 6” (152mm), 10” (254mm)

## Exterior Wood Moulding:

### 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)

### Finish: Match exterior frame finish

## Cedar Dress:

### Sill

### Subsill

### Blind Stop and jamb covers

### Mull covers

### Brick Mould and Flat Casing

### Available on Pine frames

### Bare cedar

# Part 3 Execution

# Examination

## Verification of Condition: Before installation, verify openings are plumb, square and of proper dimensions as required in CSI MasterFormat Section 01 71 00. Report frame defects or unsuitable conditions to the General contractor before proceeding.

## Acceptance of Condition: Beginning on installation confirms acceptance of existing conditions.

# Installation

## Comply with CSI MasterFormat Section 01 73 00.

## Assemble and install window/door unit(s) according to manufacturer’s instruction and reviewed shop drawing.

## Install sealant and related backing materials at perimeter of the unit or assembly in accordance with CSI MasterFormat Section 07 92 00 Joint Sealants. Do not use expansive foam sealant.

## Install accessory items as required.

## Use finish nails to apply wood trim and mouldings.

# Field Quality Control

## Remove visible labels and adhesive residue according to the manufacturer’s instruction.

## 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).

## 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.

# Cleaning

## Remove visible labels and adhesive residue according to manufacturer’s instruction.

## Leave windows and glass in a clean condition. Final cleaning as required in CSI MasterFormat Section 01 74 00.

# Protecting Installed Construction

## Comply with CSI MasterFormat Section 07 76 00.

## Protecting windows from damage by chemicals, solvents, paint or other construction operations that may cause damage.

End of Section