#### Part 1 General

# Section Includes

## Ultimate Glider Window (and related picture or triple sash units) complete with hardware, glazing, weather strip, insect screen, grilles-between-the-glass, simulated divided lite, jamb extension, and standard or specified anchors, trim and attachments

# Related Sections

## 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

### E2190: Specification for Sealed Insulated Glass Units

### C1036: Standard Specification for Flat Glass

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

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

### F2090: Standard Specification for Window Fall Prevention Devices with Emergency Escape (Egress) Release Mechanisms.

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

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

### AAMA/WDMA/CSA 101/I.S.2/A440-11, 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 Gain Coefficients at Normal Incidence

# Submittals

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

## Product Data: Submit product data for certified options 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 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.

## Standard exterior aluminum cladding finish is warranted against manufacturing defects resulting in chalk, fade and loss of adhesion (peel) per the American Architectural Manufacturer’s Association (AAMA) Specification 2605-11 Section 8.4 and 8.9 for twenty (20) 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: Factory-assembled Ultimate Glider (operating and stationary) horizontally sliding window manufactured by Marvin, Warroad, Minnesota.

# Frame Description

## Interior: Non Finger-Jointed Pine or finger-jointed core with non finger-jointed Pine veneer; optional non finger-jointed Douglas Fir or finger-jointed core with non finger-jointed Douglas Fir veneer; optional non finger-jointed White Oak or finger-jointed with non finger-jointed Oak veneer; non finger-jointed Cherry or finger-jointed core with Cherry 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 exterior aluminum clad with 0.050” (1.3mm) thick extruded aluminum

## Frame thickness: 1 21/32” (42mm)

## Frame depth: The overall frame depth is 5 21/32” (144mm). The depth from the inside of the nailing fin to the inside face of the jamb is 4 9/16” (116mm)

## Sill: 1 7/16” (37mm)

## Available configurations: CUGL (XO, OX, XX, OXXO), CUGLTS (XOX), CUGLP (O)

### With an XX operation, there is a beige or white vinyl sash track exposed on exterior sill

# Sash Description

## Interior: Non Finger-Jointed Pine or finger-jointed core with non finger-jointed Pine veneer; optional non finger-jointed Douglas Fir or finger-jointed core with non finger-jointed Douglas Fir veneer; optional non finger-jointed White Oak or finger-jointed with non finger-jointed Oak veneer; non finger-jointed Cherry or finger-jointed core with Cherry 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 exterior aluminum clad with 0.050” (1.3mm) thick extruded aluminum

## Sash thickness: 1 9/16” (40mm)

## Operable sash tilt to interior for cleaning or removal

## Sash Options: Unequal Sash and/or tall bottom rail, unique lite cuts for each sash or different glazing in each sash

## Interior Sash Sticking

### Standard is: Ogee

### Optional Interior Square sticking

## XO and OX configurations contain a stationary sash and operating sash that moves horizontally

## XX configuration contains two operating sash that both move horizontally

## XOX configuration contain an operator sash to each side of a stationary center sash

## OXXO configuration contains two operating sash in the center of the unit with two stationary sash to the outside of the unit. (OXXO units available in ¼”, ¼”, ¼”, ¼” sash ratios)

## O configuration contains a single inoperable sash

# 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 bedding at the interior and tap glazing on the exterior

## Insulating glass will be altitude adjusted with capillary tubes for higher elevations. Argon gas is not available for elevations that require capillary tubes

## Dual Pane thickness: 11/16”

## Glass fill: Air with capillary tubes, Argon

## Glass Type: Clear; Bronze, Gray, Reflective Bronze, Tempered; Obscure; Laminated; Low E2; Low E3; Low E1, Low E2/ERS, Low E3/ERS.

# Finish

## Exterior: Aluminum clad. Fluoropolymer modified acrylic topcoat over a primer. Meets AAMA 2605 requirements.

### Aluminum clad color options: 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)

### Custom colors: Contact your Marvin representative

## Interior Finish options:

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

### 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, Mixed Grain Douglas Fir, Vertical Grain Douglas Fir, Cherry, White Oak. Meets WDMA TM-14 requirements.

### 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, Mixed Grain Douglas Fir, Vertical Grain Douglas Fir, Cherry, White Oak. Colors available: Wheat, Honey, Hazelnut, Leather, Cabernet, and Espresso. Meets WDMA TM-14 requirements.

# Hardware

## One die-cast zinc handle activates one or two latches, depending on the unit height, into one or two keepers on the secondary sash. The bottom of the lock handle is inset approximately 5” (127mm) from the bottom of the sill into the meeting stile of the primary sash and is used to feature a secondary handle field applied on the secondary sash to assist in the operation.

## A single handle actuation multi-point lock system and sash retainer bar for tilting or removing the sash to the interior

## The lock handle is inset into the meeting stile and is made of die-cast zinc

### Default finish: Satin Taupe

### Optional finishes: White, Bronze, Matte Black, Brass, Antique Brass, Polished Chrome, Satin Chrome, Oil Rubbed Bronze, and Satin Nickel

## Factory-applied Window Opening Control Device (WOCD) is a sash limiter that prevents the window opening more than 4”. It meets ASTM F2090-10 specifications for window fall prevention standards. The system consists of a device that allows for egress (when applied to an egress size window) by bypassing the 4” stop feature.

### Available on all sizes of XO, OX, XX and XOX configured Ultimate Glider Windows

### Default color: Satin Taupe

### Optional finishes: White, Bronze, Matte Black, Brass, Antique Brass, Polished Chrome, Satin Chrome, Oil Rubbed Bronze, and Satin Nickel

## Factory installed Sash limiter device is available on operating units. XO, OX and XOX. XO and OX require 1 limiter per window, XOX requires 2 limiters per window. Opening is specified at 4” (102) Net Clear Opening per sash, on an XOX configuration each sash would open 4” (102). Color default: Beige Headliner/Sill track = Beige sash limiter and White Headliner/Sill track = White sash limiter. There is no option to pick a color.

# Weather Strip

## All weather strip is an easily removed bulb type available in 3 colors; White, Beige, and Black. The color is the weather strip will depend on the aluminum cladding color or interior color selection.

### Sill track: Determined by interior color selection (white or beige)

### Jamb: Determined by interior color selection (white or beige)

### Sill cover, head jamb cover, jamb cover: Determined by aluminum clad color

### Head Jamb: Determined by interior color selection (white or beige)

# 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

## Material:

### 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. (Exception OXXO screen is extruded aluminum.)

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

### Screen to match exterior frame aluminum clad color

## Screen Configurations

### Window units operating OX or XO will have a screen that covers the active sash opening. The screen sits in the track which allows it to slide across the stationary sash

### Window units operating XX will have a double screen that will cover the entire sash opening. This screen will be made of 2 screens sitting in the same track that allows the screen to slide when one of the screens are removed.

### Window units operating XOX (1/4-1/2-1/4) will have screen similar to the XO/OX

### Window units operating OXXO (1/4-1/4-1/4-1/4) will have screens that cover the active sash openings as standard. No full unit screen configuration is available. The screens sit in a track to the exterior of the sash.

# Combination Storm Sash and Screen

## Frame: Exterior extruded aluminum 0.045” (1.1mm) thick

## Finish: Fluoropolymer modified acrylic topcoat applied over Fluoropolymer primer. Meets AAMA 2605 requirements.

### Finish: Stone White, Bahama Brown, Bronze, Evergreen, Pebble Gray

## Hardware: Spring-loaded locking pins to hold movable storm panel in position. Heavy metal clips to lock upper and lower storm panels together.

## Weather strip: Dual durometer weather strip on center cross rail seals against operating panel in closed position

## Storm panel: Select quality glass in an aluminum frame

### Frame finish: Stone White, Bahama Brown, Bronze, Evergreen, Pebble Gray

## Insect screen panel:

### Extruded aluminum surround, screen mesh: Standard is Marvin Bright ViewTM. Optional Charcoal Aluminum Wire, Black Aluminum Wire, Bright Bronze Aluminum Wire, and Bright Aluminum Wire

### Aluminum frame finish: Bronze, White

## Combinations not available with OXXO configuration.

# Simulated Divided Lites (SDL)

## 5/8” (16mm) wide, 7/8” (22mm) wide, 1 1/8” (29mm), 1 15/16” (49mm), 2 13/32” (61mm) wide with or w/out internal spacer bar

## Exterior muntins: 0.055” (1.4mm) thick extruded aluminum

## Interior muntins: Pine, Mixed Grain Douglas Fir, White Oak, Cherry, Mahogany, Vertical Grain Douglas Fir

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

## Sticking:

### Standard: Ogee

### Optional: Square

## Patterns: rectangular, diamond, custom lite cut

## Finish – exterior matched exterior aluminum clad colors, interior matches’ interior wood species and color

# Grilles-Between-the–Glass (GBG)

## 23/32” (18mm) contoured aluminum bar

### Exterior Colors: exterior matches exterior aluminum clad colors. The exterior GBG color is designed to best match the Marvin aluminum clad color when used with Low E glass. The use of different types of glazing may alter the exterior GBG color appearance

### Interior Colors: White is the default color. Optional colors: Bronze, Pebble Gray, Sierra, White, Ebony (only available with Ebony exterior)

## Optional flat aluminum spacer bar. Contact your Marvin representative.

## Pattern: Rectangular, cottage, custom lite layout

# 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)

## Aluminum Extrusions:

### Casing Profile: Brick Mould Casing (BMC), Flat Casing, Columbus Casing, Grayson Casing, Ridgeland Casing, Stratton Casing, Thorton Casing, Potter Casing

### Aluminum clad Extrusion: Frame Expander, Jamb Extender, Mullion Cover, Mullion Expander, Subsill, Subsill End Cap and Lineal Cap

### Finish: Fluoropolymer modified acrylic topcoat applied over primer. Meets AAMA 2605 requirements

### Available in all exterior aluminum clad colors

# Lock Status Sensor (Optional)

## Lock Status Sensor

### Unit is factory-prepared for an integrated lock status sensor system. Sensor and Magnet mounted inside the boundaries of the overall frame size. Refer to **Lock Status Sensor Installation Instructions**.

1. Available configurations: OX (1 sensor), XO (1 sensor), XOX (2 sensors). Not available on XX (both sash active) configurations.
2. Lock Status Sensor may be wired or wireless.
	1. For wired option, check with local codes on potential contractor requirements for low voltage networking connections.
	2. Wireless option available. Requires purchase of secondary transmitter for operation. Marvin will prep for this option.

### For Glider products, the **sensor** will always be located behind the top-most keeper on the stationary sash.

1. **Actuator** (magnet) for the sensor will be integrated into the locking hardware of the operating sash.

## Lock Status Sensor Option Includes:

### Sensor - Reed

### Actuator – Neodymium Magnet

#### 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 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 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