#### Part 1 General

# Section Includes

## Ultimate Multi-Slide Door and frame complete with glazing, weather strip, hardware, sill, jambs, simulated divided lite, and standard or specified anchors, trim, attachments, and accessories

# Related Sections

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

## Section 01 62 00 – Product Options

## Section 01 63 00 – Product Substitution Procedures

## Section 01 65 00 – Product Delivery

## Section 01 66 00 – Product 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 75 00 – Starting and Adjusting

## Section 01 76 00 – Protecting Installed Construction

## Section 06 22 00 – Millwork: Wood trim other than furnished by door and frame manufacturer

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

## Section 08 71 00 – Door Hardware: Hardware other than furnished by door and frame manufacturer

## Section 09 90 00 – Paints and Coatings: Paint and stain other than factory applied finish

# References

## American Society for Testing and 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 Doors by Uniform Static Air Pressure Difference

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

### E2190: Specification for Sealed Insulating Glass Units

### C1036: Standard Specification for Flat Glass

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

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

### AAMA/WDMA/CSA 101/I.S.2/A440-05: Standard/Specification for windows, doors, and unit skylights

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

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

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

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

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

## American Architectural Manufactures 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:

1. Submit corner section under provision of CSI MasterFormat Section 01 33 00.
2. 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

# Delivery

## Comply with provisions of 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. Seal unfinished top and bottom edges of doors if doors are stored at the job site more than one (1) week.

## Store door panels flat on a level surface in a clean and dry storage area above ground to protect from weather under provision of CSI MasterFormat Section 01660

## Condition doors to local average humidity before installing.

# 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:**

## 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 (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 Manufacture’s Association’s (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 another 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 Multi-Slide Door, as manufactured by Marvin, Ripley, Tennessee.

# Frame Description

## Ultrex and aluminum base with non finger-jointed Pine, Mahogany, Vertical Grain Douglas Fir, Mixed Grain Douglas Fir, Cherry, or White Oak to the interior.

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

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

## Frame exterior aluminum clad with 1/16” (1.3mm) thick extruded aluminum

## Frame width:

### Jamb Depths Minimum for Stacked with Nail Fin:

1. 2 tracks – 6 25/32” (172mm), 3 tracks – 9 51/64” (249mm),
4 tracks – 12 13/16” (326mm), 5 tracks – 15 27/32” (402mm),
6 tracks – 18 55/64” (479mm).

### Jamb Depths Minimums for Pockets or Stacked without Nail Fin:

1. 1 track – 4 55/64” (123mm), 2 tracks – 7 7/8” (200mm),
3 tracks – 10 57/64” (277mm), 4 tracks – 13 59/64” (353mm),
5 tracks – 16 15/16” (430mm), 6 tracks – 19 61/64” (507mm).

## Frame thickness: 1 31/32” (37mm)

## Standard flush sill is designed to be installed into any floor foundation; is interlocking to ensure parallelism for multiple sills. Requires a pan to be installed on site and must equal the height of the interior sill liner.

### Sill is glass-filled polyurethane with aluminum covers and sill liners and available in Bronze and Beige. Nominal height 3/4” (19mm) and nominal width 3 1/64” (76mm) per sill track.

## Performance sill (LC-PG-40) same as the standard except with a taller interior sill liner. Requires pan to be installed on-site and must equal the height of the interior sill liner.

### Nominal height 1 13/16” (46mm) nominal width per sill track: 3 1/64” (76mm)

### Nominal height 1 13/16” (46mm) nominal width per sill track: 3 1/64” (76mm)

### Design feature and components include drainage system, interlocking, standard Flush Sill.

## High Performance sill (LC-PG-50) uses Flush sill with an alternate exterior liner and sloped system. Designed to be installed into a recessed opening.

### A preservative treated, finger jointed pine sloped wedge will be provided for each section of sill track and will run the full width of the opening. Requires a pan to be installed on top of the sloped wedge and must equal the height of the interior sill liner.

### Plastic counter shims will be provided to allow a flat surface for the sill to rest on. Plastic flat shims will be provided for fine tuning, leveling.

### Nominal height 2 7/16” (mm) and nominal width 3 1/64” per sill track.

### High Performance sill not available with the Corner Doors.

# Panel Description

## Interior: finger-jointed, edge-glue Pine core and LVL core with clear, Bare Pine, Mahogany, Vertical Grain Douglas Fir, Cherry, and White Oak veneer to the interior and extruded aluminum to the exterior. Wood parts are preservative treated.

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

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

## Panel exterior aluminum clad with 5/64” (2.03mm) thick extruded aluminum

## Panel thickness: 2 1/4“(70mm)

## Top/Bottom rail and stile width: 4 47/64” (120mm)

## Wood glazing cap is applied to interior with vinyl glazing bead.

## Panel corners glued and doweled with 4” x 5/8” (101mm x 15mm) fluted hardwood dowels

# Glazing

## Select quality complying with ASTM C 1036. Shall comply with 16 CFR 1201 Safety Standard for Architectural Glazing Materials.

## Glazing Method: Tempered insulating glass (altitude adjusted)

## Dual-pane thickness: 15/16”; Tri-pane thickness: 1 1/4".

## 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

## Triple-Pane glass(TG): Triple-Pane Low E3/E1/ERS, Triple-Pane E2/E1/ERS, Triple-Pane Low E1, Triple-Pane Low E2, Triple-Pane Low E3.

## This glass type is dependent on sash thickness and availability. Consult ADM or OMS for availability

## Glazing Seal: Silicone bedding, exterior

## Glazing Profile:

### 1. Standard: Ogee

### 2. Optional: Square Interior Sticking

# 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, Vertical Grain Douglas Fir, Cherry and White oak. Meets WDMA TM-14 requirements.

### Factory applied water-borne 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, Cherry and White oak. Colors available: Wheat, Honey, Hazelnut, Leather, Cabernet, or Espresso. Meets TM-14 requirements.

# Hardware

## Multi-point lock: Two locking points that engage/disengage with keeper and provides security of the unit in the locked position.

## Operating panels use two adjustable stainless steel tandem rollers each that support the weight of the operating panels during motion.

## Handle Set: Interior flush mounted handle provides a recessed pull and thumb latch that engage/disengage the locking points of the panel with recess finger pull area on the active panel. Exterior: The non-keyed exterior flush mounted handle provides a recessed finger pull.

## Handle Set Finishes: Matte Black, Oil Rubbed Bronze PVD – default, Satin Nickel PVD option, Mixed finish available.

## Panel edge pull: Applied to the meeting stile edge of the active and inactive panel of pocket units. Provides mean to pull the panel from the pocket.

### Finish: Satin Chrome

# Screen

## Scenic Door Ultimate Sliding Screen is optional

### Interior application only.

### No Screen available on Corner Doors

## Frame Colors

### Available in three standard colors: White, Bronze, and Black. Options: Screen Sill will default to the screen frame color, but screen sill can be any of the three colors.

### Handle pull colors: Black or White

## Mesh

### Material: Vinyl-coated polyester

### Color: Charcoal

## Sill: Aluminum sill with Rubber Insert

## Size and Configurations

### Uni-Directional, opens from left to right or right to left. Uni-Directional screen not available on a bi-parting door. Screen is handed and dependent on installation method. Maximum Screen Frame OM Width is 152 17/64” (3868mm).

### Bi-Parting, two screens open from each side and meet together. Maximum Screen Frame OM Width is 296 17/64” (7524 mm). Maximum Screen Frame OM Height for all configurations is 125 5/32” (3179mm).

# Sliding Door Automatic Control (Optional)

## Sliding Door Automatic Control

### Door unit is factory-prepared for a integrated motor system. Motor mount outside of the rough opening and require a 12” minimum width x 24” minimum height wall cavity, starting from the door head jamb and going down. Refer to Site Preparation guide.

### Access panel is required to service motor and controller. Refer to Site Preparation guide.

1. Not available on Corner Doors.

## Sliding Door Automatic Control Option Includes:

### Motor – 24V DC

* 1. Peak – smaller motor that will handle small and medium doors
	2. Everest – higher torque motor for large doors
	3. Motor will automatically be selected based on door size and weight

### Controller – 110V AC

### Home Automation Port

### Interior Wall Switch – Wired 9-in-1 touch screen

### Exterior Secure Keypad

* 1. Color: White or Black

### Motion Sensor - Wired

* 1. Colors: Black

### Motor Alignment Jig/ Mounting Bracket

### Component cables

## Components - Optional

1. Bluetooth Module and Mobile app
2. Voice Command Module
3. Interior Wired Motion Sensor

## Sizes and Configurations

### Uni-directional Pocket - must have two or more panels. Maximum door size for motorized system is six 60120 CN panels with a 479 21/32” (12183) x 142 23/32” (3625) frame size

### Uni-directional Stacked - must have two or more panels. Maximum door size for motorized system is six 60120 CN panels with a 404 9/16” (10276) x 142 23/32” (3625) frame size

### Bi-parting Pocket - must have four or more panels. Maximum door size for motorized system is eight 50120CN panels with a 572 9/32” (14536) x 142 23/32” (3625) frame size and ten 40120CN with a 536 15/16” (13638) x 142 23/32” (3625) frame size.

### Bi-parting Stacked - must have four or more panels. Maximum door size for motorized system is ten 50120CN panels with a 554 47/64” (14090) x 142 23/32” (3625) frame size.

# 2.9 Lock Status Sensor (Optional)

1. Lock Status Sensor
2. Unit is factory-prepared for an integrated lock status sensor system. Sensor and Magnet mounted inside the boundaries of the operating panel. Refer to **Lock Status Sensor Installation Instructions**.
3. Lock Status Sensor is wireless only.
	1. Requires purchase of secondary transmitter for operation. Marvin will prep for this option.
4. For Multi-Slide Doors, the sensor will always be routed into the door stile, under the lock bar.
5. The **actuator** (magnet) for the sensor is located on the lock bar for the locking hardware.
6. Lock Status Sensor Option Includes:
7. Sensor - Reed
8. Actuator – Neodymium Magnet

## **2.10 Weather Strip**

## A. Vinyl weather strip at panel perimeter and interlocks

## 1. Color: Black/Bronze or Beige, color will follow the sill color

# Simulated Divided Lites (SDL)

## 5/8” (16mm) wide, 7/8” (22mm) wide, 1 1/8” (29mm) wide, 1 15/16” (49mm) wide with or without internal spacer bar

## Muntins: Pine, Mahogany, Vertical Grain Douglas Fir, Cherry, or White Oak

## Muntins adhere to glass with double coated acrylic foam tape

## Pattern: Rectangular, Cottage, Custom lite layout

## Finish: Match panel finish

## Sticking:

### Standard: Ogee

### Optional: Square

# Gilles-Between-the-Glass (GBG)

## 23/32” contured aluminum bar

### Exterior: The exterior GBG color is designed to be 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 Color: White is the default. 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: Units are shipped KD and trained installers preferred.

## Aluminum Extrusions:

### Factory installed nailing fin/drip cap

### Profile: brick mould casing, flat casing– applicable to stacked configurations only – shipped loose.

### Finish: Match exterior frame finish

#### 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