# Part 1 General

# Section Includes

## Ultimate Sliding French Door and frame complete with glazing, weather strip, hardware, screen, simulated divided lite, grilles-between-the-glass, jamb extension, raised/ flat panels, 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

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

### E2190: Specification for Sealed Insulated Glass Units

### C1036: Standard Specification for Flat Glass

### E1996: Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors and Storm Shutters Impacted by Windborne Debris in Hurricanes

### E1886: Standard Test Method for Performance of Exterior Windows, Curtain Walls, Door 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/A440-05: 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

## 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

## Window Covering Manufacturer’s Association

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

# System Description

## Design and Performance requirements:

### Units shall be designed to comply with WDMA certification per ASMT E1996 and AAMA/WDMA/CSA 101/I.S.2/A440-05 & 08: Standard/Specification for windows, doors, and unit skylights

### Air leakage shall not exceed (≤.3) cfm per square foot of overall frame when tested at 1.57 psf according to ASTM E283

### No water penetration when tested at (DP55-8.35) psf according to ASTM E547

### OX, XO Units shall be designed to comply with ASMTE196 for Wind Zone 3, Missile Level D impact and cycle (+DP55/-DP65) psf

### OX, XO Units shall be designed to comply with ASTM E330 for structural performance, when tested to +82.5/-97.5) psf

### OOX, XOO and OXO Units shall be designed to comply with ASTM E196 for Wind Zone 3, Missile Level D impact and cycle (+DP55/-DP65) psf

### OOX, XOO and OXO Units shall be designed to comply with ASTM E330 for structural performance, when tested to +82.5/-97.5) psf

### OXXO Units shall be designed to comply with ASTM E196 for Wind Zone 3, Missile Level D impact and cycle (+DP50/-DP55) psf

### OXXO Units shall be designed to comply with ASTM E330 for structural performance, when tested to +75/-82.5 psf

# 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 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 door panel 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

## Store door panel 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 hanging

# 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 (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; Factory assembled Ultimate Sliding French Door, as manufactured by Marvin Windows and Doors, Ripley, Tennessee.

# Frame Description

## Interior: Finger-Jointed, edge-glued Pine core with non finger-jointed Pine veneer; finger-jointed, edge glued Mixed Grain Douglas Fir core with non finger-jointed Mixed Grain Douglas Fir veneer; finger-jointed, edge-glued White Oak core with non finger-jointed White Oak veneer; finger-jointed, edge-glued Cherry core with non finger-jointed Cherry veneer; finger-jointed, edge-glued Mahogany core with non finger-jointed Mahogany veneer; finger-jointed, edge-glued Vertical Grain Douglas Fir core with non finger-jointed Vertical Grain Douglas Fir veneer.

### 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 0.050” (1.3mm) thick extruded aluminum

## Frame width: 4 9/16” (116mm); 6 9/16” (167mm)

## Frame thickness: 1 1/16” (27mm)

## Beige, Bronze fiberglass reinforced plastic (frp) sill 0.115” (3.0mm) thick, with a polycarbonate thermoplastic roller track. Red Oak, Mahogany or Cherry interior sill liner.

# Sash Description

## Interior: finger-jointed, edge-glued or LVL Pine, Mixed Grain Douglas Fir, White Oak, Cherry, Mahogany, Vertical Grain Douglas Fir cores with non finger-jointed Pine, White Oak, Cherry, Mahogany, or Vertical Grain Douglas Fir veneers

### 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.

## Sash exterior aluminum clad with 0.050” (1.3mm) thick extruded aluminum

## Panel thickness: 1 ¾” (44mm)

## Top rail and stile width: 4 ¾” (1210mm)

## Bottom rail height: 8 1/8” (206mm)

## Panel corners glued and fastened with 5/8” x 4 inch (16mm by 102mm) 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: Laminated annealed interior and tempered exterior

## Gas fill: Air with capillary tubes, Argon

## Glass Type: Clear, Bronze, Gray, Green, Obscure, Low E2, Low E3, Low E1

## Glazing Seal: Wood interior glazing stops fastened with 1 1/2” (38mm) or 2” (51mm) nails, sealed with silicone bead at perimeter

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

# Hardware

## Handle Set: Zinc die-cast substrate

### Powder Coat finishes: Satin Taupe (default)

#### Optional Powder Coat finishes: White or Dark Bronze

#### Optional Metal finishes (Brass Substrate): Brass PVD, Antique Brass, Oil Rubbed Bronze, Oil Rubbed Bronze PVD, Satin Chrome, Polished Chrome, and Satin Nickel PVD.

## Rollers: Two adjustable (steel) roller assemblies per operating panel

### Two ball bearing wheels per roller assembly

### Maximum vertical adjustment: 5/16” (8mm)

### Optional: stainless steel rollers

## Locking System:

### Marvin exclusive multi-point with 2 locking hooks, stainless steel mechanism and keepers. Locking system operated at handle assembly. (Key lock cylinder – for active handles).

### Optional: Three point locking system with stainless steel keepers and mechanism.

#  Lock Status Sensor (Optional)

1. Lock Status Sensor
2. Unit is factory-prepared for an integrated lock status sensor system. Contact sensor mounted inside the boundaries of the operating panel. Refer to **Lock Status Sensor Installation Instructions**.
3. Lock Status Sensor wireless only.
	1. Only wireless option available. Requires purchase of secondary transmitter for operation. Marvin will prep for this option.
4. For Sliding Doors, the **sensor** will always be integrated into the locking hardware system.
5. The **actuator** (keyed or thumb turn) is integrated into the locking hardware system.

# Weather Strip

## Interlock weather strip between the sliding panel and meeting stile on stationary panel

## Two sets of bulb weather strip on operating jamb

## Continuous slip coat weather strip along sill, head jamb, and meeting stiles

# Jamb Extension

## Factory applied up to 3” (76mm), for other wall thickness indicated or required (shipped loose)

## Finish: Matches interior frame finish

# Insect Screen

## Standard Sliding Screen: Aluminum top hung sliding screen with adjustable rollers and replaceable bottom guide. Frame to have edge-mounted wool pile bug strip.

### Sliding screen for XO, OX, OOX, XOO, OXO, OXXO operation

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

### Standard Sliding Screen available in Bahama Brown, Bronze, Evergreen, Pebble Gray, White

## Ultimate Sliding Screen: Extruded aluminum top hung roller assembly with stainless steel ball-bearing in nylon wheels, top rollers adjustable up to ¼” (6mm). Frame to have edge-mounted wool pile bug strip.

### Sliding screen for XO, OX, OOX, XOO, OXO, OXXO operation

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

### Ultimate Sliding Screen available in 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)

# Simulated Divided Lites (SDL)

## 5/8” (16mm) wide, 7/8” (22mm) wide, 1 1/8” (29mm) wide, 1 15/16” (49mm), 2 13/32” (61mm) wide with or without internal spacer bar

## Sticking:

### Standard: Ogee

### Optional: Square

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

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

## Pattern: Rectangular, Cottage, Custom lite layout

## Finish: Match panel finish

#  Grilles-Between-the–Glass (GBG)

## 23/32” contoured aluminum bar

### Exterior 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 Color: White is the default. Optional colors: Bronze, Pebble Gray, Sierra White.

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

## Pattern: Rectangular, Cottage, Custom lite layout

#  Raised or Flat Panels

## Stamped raised panel uses .080 aluminum to the exterior with foam backing. Core is medium density fiberboard (MDF) with clear wood laminate to the interior. Available bare wood or selected interior finish. Exterior match aluminum clad color.

## Flat panel uses .125” aluminum to the exterior. Core is medium density fiberboard (MDF) with clear wood laminate to the interior. Available bare wood or selected interior finish. Exterior matches aluminum clad color.

## Utilizes 4 ¾” intermediate rail. Visible panel height is 12 1/64” (305mm)

#  Accessories and Trim

## Installation and Hardware Accessories:

### Factory installed Aluminum nailing fin/drip cap

### Installation brackets: 6 3/8” (162mm), 9 3/8” (238mm), 15 3/8” (390mm)

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

## Aluminum Extrusions:

### Profile: Brick mould casing, flat casing, stucco brick mold, stucco flat casing, frame expander, jamb extender, mullion cover, mullion expander, as indicated on drawings.

### 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 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 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