#### Part 1 General

# Section Includes

## Elevate® Sliding Patio Door and frame, complete with hardware, glazing, weather strip, screen, grilles-between-the-glass, simulated divided lite, jamb extension, and standard or specified anchors, trim and attachments.

# Construction Specification Institute (CSI) MasterFormat Numbers and Titles

1. Section 01 33 23 – Submittal Procedures: Shop Drawings, Product Data, and Samples
2. Section 01 62 00 – Product Options
3. Section 01 25 15 – Product Substitution Procedures
4. Section 01 65 00 – Product Delivery
5. Section 01 66 00 – Product Storage and Handling Requirements
6. Section 01 71 00 – Examination and Preparation
7. Section 01 73 00 - Execution
8. Section 01 74 00 – Cleaning and Waste Management
9. Section 01 75 00 – Starting and Adjusting
10. Section 01 76 00 – Protecting Installed Construction
11. Section 06 22 00 – Millwork: Wood trim other than furnished by door and frame manufacturer
12. Section 07 92 00 – Joint Sealants: Sill sealant and perimeter caulking
13. Section 08 71 00 – Door Hardware: Hardware other than furnished by door and frame manufacturer
14. Section 09 90 00 – Paints and Coatings: Paint and stain other than finish
    1. **References**

## ASTM, International:

### E283: Standard Test Method for Determining Rate of Air Leakage through Exterior Windows, Skylights, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen

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

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

### E2190: Standard Specification for Insulating Glass Unit Performance and Evaluation

### C1036: Standard Specification for Flat Glass

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

1. North American Fenestration Standard (NAFS) - American Architectural Manufacturer’s Association/Window and Door Manufacturer’s Association/Canadian Standards Association (AAMA/WDMA/CSA 101/I.S.2/A440):

### AAMA/WDMA/CSA 101/I.S.2/A440-17: NAFS: North American Fenestration, Standard/Specification for windows, doors, and skylights

1. Window and Door Manufacturers Association (WDMA)
2. WDMA I.S.4: Industry Standard for Water Repellent Preservative Treatment for Millwork
3. WDMA I.S.2: Hallmark Certification Program
4. Insulating Glass Certification Council (IGCC) and Fenestration Glazing Industry Alliance (FGIA) Glass Products Council (GPC)
5. Fenestration Glazing Industry Alliance (FGIA) – note: AAMA combined with IGMA and formed FGIA as of 08/01/2019
6. AAMA 2605: Voluntary Specification for High Performance Organic Coatings on Architectural Extrusions and Panels
7. National Fenestration Rating Council (NFRC):

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

1. NFRC 200: Procedure for Determining Solar Heat Gain Coefficients at Normal Incidence
2. Window Covering

### WCMA A100.0: American National Standard for Safety of Window Covering Products

# System Description

## Design and Performance Requirements:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Product | Air Tested to psf | Water Tested to psf | Design Pressure (DP) | Certification  Rating | Max  Overall Width | Max  Overall Height |
| Sliding  Patio Door (ELSPD 6070 XO/OX) | 1.57 | 6.00 | 40 | LC-PG40-SD | 71 | 86 |
| Sliding  Patio Door (ELSPD 8080 XO/OX) | 1.57 | 4.50 | 30 | LC-PG30-SD | 95 | 95.5 |
| Sliding  Patio Door (ELSPD 9070 OOX/XOO) | 1.57 | 4.50 | 30 | LC-PG30-SD | 106.5 | 86 |
| Sliding  Patio Door (ELSPD 9080 OOX/XOO) | 1.57 | 4.50 | 30 | LC-PG30-SD | 106.5 | 95.5 |
| Sliding  Patio Door  (ELSPD 12070 OOX/XOO) | 1.57 | 3.75 | 25 | LC-PG25-SD | 142.5 | 86 |
| Sliding  Patio Door  (ELSPD 12080 OOX/XOO) | 1.57 | 3.75 | 25 | LC-PG25-SD | 142.5 | 95.5 |
| Sliding  Patio Door (ELSPD 9070 OXO) | 1.57 | 4.50 | 30 | LC-PG30-SD | 106.5 | 86 |
| Sliding  Patio Door (ELSPD 9080 OXO) | 1.57 | 4.50 | 30 | LC-PG30-SD | 106.5 | 95.5 |
| Sliding  Patio Door  (ELSPD 12070 OXO) | 1.57 | 3.75 | 25 | LC-PG25-SD | 142.5 | 86 |
| Sliding  Patio Door  (ELSPD 12080 OXO) | 1.57 | 3.75 | 25 | LC-PG25-SD | 142.5 | 95.5 |
| Sliding  Patio Door  (ELSPD 16070 OXXO) | 1.57 | 3.75 | 25 | LC-PG25-SD | 189 | 86 |
| Sliding  Patio Door  (ELSPD 16080 OXXO) | 1.57 | 3.75 | 25 | LC-PG25-SD | 189 | 95.5 |

# Submittals

## Shop Drawings: Submit shop drawings under provision of CSI MasterFormat Section 01 33 23

## Product Data: Submit catalog data under provision of CSI MasterFormat Section 01 33 23

## Samples:

### Submit corner section under provision of CSI MasterFormat Section 01 33 23

### Include glazing system, quality of construction, and specified finish

## Quality Control Submittals: Certificates: Submit manufacturer’s certification indicating compliance with specified performance and design requirement under provision of CSI MasterFormat Section 01 33 23

# 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 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 01660

# Warranty

#### **The following limited warranty is subject to conditions and exclusions. There are certain conditions or applications over which Marvin has no control. Defect or problems as a result of such conditions or applications are not the responsibility of Marvin. For a more complete description of the Marvin limited warranty, refer to the complete and current warranty information available at marvin.com/support/warranty.**

## 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.

## 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 Elevate® Sliding Patio Door, as manufactured by Marvin Windows and Doors, West Fargo, North Dakota.

# Frame Description

## Interior: clear pine exposed surfaces

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

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

## Exterior: Fiberglass reinforce Ultrex®, 0.080 inch (2mm) thick

## Composite frame thickness: 1 31/64 (38mm) inches

## Frame depth: 4 9/16 (116mm) inches

## Beige or Bronze fiberglass reinforced Ultrex® sill with cellular PVC interior sill liner

# Panel Description

## Interior: Clear pine

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

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

## Exterior: fiberglass reinforced Ultrex®, 0.110 inch (2.8mm) thick

## Composite panel thickness: 1 3/4 (44mm) inch

## Rail height dimensions: 2 5/16 (59mm) inches

# Glazing

## Select quality complying with ASTMC1036. Insulating glass SIGMA/IGCC certified to performance level CBA when tested in accordance with ASTM E2190

## Glazing Method: ¾ (19mm) inch tempered insulating glass

## Glass Type: Low E1, E2, E3, E3/ERS with air or Argon gas, Rain Glass, Glue Chip, Narrow Reed, Reed, Frost, Bronze Tint, Gray Tint, Green Tint.

## Glazing Seal: Silicone bead on interior and exterior

## Glazing option: STC/OITC upgrade

# Certified Mulling for Standard Units

1. Directional mull limits: 1 unit wide by 2 units high: Rough Opening not to exceed 72 x 100 1/2 (1828mm x 2552mm) inches.

# Certified Reinforced Space Mulling for Standard Units

1. Directional mull limits (Horizontal ½” Space Mull): 1 unit wide by 2 units high: Rough Opening not to exceed 72 x 100 1/2 (1828mm x 2552mm) inches.

# Finish

## Exterior:

### Pultruded Fiberglass

### Factory baked on acrylic urethane

### Meets AAMA 624-10 requirements

### Color: Stone White, Pebble Gray, Bronze, Cashmere, Gunmetal, Ebony

## Interior:

### Bare treated pine

### Optional white, designer black, or clear interior factory finish

# Hardware

## Multi-point locking system:

### Keyed.

### An anti-slam pin is standard to prevent from locking when door is open

## Handle set:

### High pressure zinc die-cast single point non-keyed handle/lock with Almond Frost, Matte Black and White.

### Brass substrate with a single point non-keyed handle/lock is used for products with PVD finishes including Satin Nickel, Oil Rubbed Bronze, and Brass.

### Interior and exterior finish are selected separately.

### Optional keyed handle available.

## Rollers:

### Two adjustable steel roller assemblies per operating panel

### Two ball bearing wheels per roller assembly

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

## Flush Bolts:

### OXXO doors use top and bottom flush bolt assemblies to secure the secondary operator panel in the closed position

### Stainless steel finish used on coastal and non-coastal

# Weather Strip

## Astragal has a bulb style weather strip.

## Interlock has a bulb-type weather strip and fin at the meeting stiles.

## Jamb, head jamb and sill utilize a leaf style weather strip

# Jamb Extension

1. Furnish jamb extension: 6 9/16 inch (167mm) or 6 13/16 inch (173mm) factory-installed
2. Optional jamb extension: 4 11/16 inch (119mm), 4 13/16 inch (122mm), or 5 1/16 inch (129mm) – 8 9/16 inch (217mm) shipped loose.
3. Finish: White, Clear Lacquer, Designer Black

# Insect Screen

## Extruded aluminum sliding frame 0.045 (1.1mm) thick

### Top hung roller assembly with stainless steel ball bearings in nylon wheels, top rollers adjustable up to 3/8 (10mm) inch

### Frame to have edge-mounted wool pile bug strip

## Screen mesh: Marvin Bright ViewTM

## Frame finish: White, Pebble Gray, Bronze, Cashmere, Gunmetal, and Ebony

# Simulated Divided Lites (SDL)

## 7/8 inch (22mm) wide. Available with optional spacer bars

## 1. Exterior muntins: Ultrex finished to color match exterior

## 2. Interior muntins: Bare pine wood or optional white, designer black, or clear interior finish

### Patterns:

* 1. Rectangular
  2. 9-lite Prairie cut with 4” DLO corners
  3. 6 lite top or bottom Prairie cut with 4” DLO corners
  4. 6 lite left or right Prairie cut with 4” DLO corners
  5. Cottage style up to 2H with specified DLO height (4” min)
  6. Size limitations may apply to Prairie and Cottage lite cut availability

### Simulated Check rail option: 2 11/32” (60mm). Available with optional spacer bars.

# Grilles-Between-the–Glass (GBG)

## Manufactured from aluminum in a 23/32 inch (18mm) wide contoured profile between the two panes of glass.

1. Colors:

* 1. Interior: White, Bronze, Ebony
  2. Exterior: White, Pebble Gray, Bronze, Cashmere, Gunmetal, or Ebony

2. Patterns:

1. Rectangular
2. 9 lite Prairie cut with 4” DLO corners
3. 6 lite top or bottom Prairie cut with 4” DLO corners
4. 6 lite left or right Prairie cut with 4” DLO corners
5. Cottage style up to 2H with specified DLO height (3” min)
6. Size limitations may apply to Prairie and Cottage lite cut availability

# Accessories and Trim

## Exterior Casing:

### Non-integral to the unit – fastened to the exterior wall with barb and kerf

### 2 inch (51mm) Brick Mould Casing available as a header and jamb surround

### 3 ½ (89mm) inch Flat Casing as a header and jamb surround. Available with 1 (25mm) inch ranch style header overhang

### Color: Stone White, Pebble Gray, Bronze, Cashmere, Gunmetal, Ebony

## Installation Accessories:

### Factory-installed nailing fin at head and side jambs

### Installation Brackets: 6 3/8 inches (163mm), 9 3/8 inches (238mm), 15 3/8 inches (390mm)

### Mullion kit: Mullion kit for field assembly of units – Kit includes: instructions, aluminum pins, mulling tie, sealant foam tape, installation brackets, screws, interior mullion trim and nailing fin connectors

### 1/2” Space Mullion kit: Structural mullion kit with ½” spacing for field assembly or related units available in horizontal and multi-wide, multi high configurations. Kit includes: mulling pins, mull reinforcement, mull support, weatherstrip, plugs, exterior mull cover, interior mull trim, brackets, drip cap and hardware.

#### 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