#### Part 1 General

# Section Includes

## Elevate® Sliding French 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**
15. ASTM, International:
16. 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
17. E330: Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls by Uniform Static Air Pressure Difference
18. E547: Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls, by Cyclic Air Pressure Difference
19. E2190: Standard Specification for Insulating Glass Unit Performance and Evaluation
20. C1036: Standard Specification for Flat Glass
21. E2112: Standard Practice for Installation of Exterior Windows, Doors, and Skylights
22. 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 Testedto psf** | **Water Tested to psf** | **Design Pressure psf** | **CertificationRating** | **Max Overall Width** | **MaxOverall Height** |
| **inches** | **mm** | **inches** | **mm** |
| Elevate Sliding French Door (XO/OX) | 1.57 | 6.00 | 40 | LC-PG40-SD | 95  | (2413) | 86  | (2184) |
| Elevate Sliding French Door (XO/OX) | 1.57 | 4.60 | 30 | LC-PG30-SD | 95  | (2413) | 95 1/2  | (2426) |
| Elevate Sliding French Door (OOX/OOX) | 1.57 | 6.00 | 40 | LC-PG40-SD | 106 1/2  | (2705) | 86  | (2184) |
| Elevate Sliding French Door (OOX/OOX) | 1.57 | 4.60 | 30 | LC-PG30-SD | 142 1/2  | (3620) | 95 1/2  | (2426) |
| Elevate Sliding French Door (OXO) | 1.57 | 6.00 | 40 | LC-PG40-SD | 106 1/2  | (2705) | 86  | (2184) |
| Elevate Sliding French Door (OXO) | 1.57 | 4.60 | 30 | LC-PG30-SD | 142 1/2  | (3620) | 95 1/2  | (2426) |
| Elevate Sliding French Door (OXXO) | 1.57 | 4.60 | 30 | LC-PG30-SD | 189  | (4801) | 95 1/2  | (2426) |
| Elevate Sliding French Door (XO/OX)HP | 1.57 | 7.52 | 50 | LC-PG50-SD | 95  | (2413) | 95 1/2  | (2426) |
| Elevate Sliding French Door (OOX/XOO)HP | 1.57 | 7.52 | 50 | LC-PG50-SD | 106 1/2  | (2705) | 95 1/2  | (2426) |
| Elevate Sliding French Door (OXO)HP | 1.57 | 7.52 | 50 | LC-PG50-SD | 106 1/2  | (2705) | 95 1/2  | (2426) |
|  |  |  |  |  |  |  |  |  |

### Air leakage shall not exceed the following when tested at 1.57 psf according to AST E283: 0.30 cfm per square foot of frame

### No water penetration when tested at the following pressure according to ASTM E547: See chart below:

### Assembly shall withstand a positive or negative uniform static air pressure difference, as listed in the table below, without damage when tested according to ASMT E330.

## Design and Performance Requirements for Impact Units:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Product** | **Air Testedto psf** | **Water Tested to psf** | **Design Pressure psf** | **CertificationRating** | **Max Overall Width** | **MaxOverall Height** |
| **inches** | **mm** | **inches** | **mm** |
| Elevate Sliding French Door (XO/OX)Impact | 1.57 | 8.25 | +55/-55 | LC-PG55-SD | 95  | (2413) | 95 1/2  | (2426) |

### Air leakage shall not exceed the following when tested at 1.57 psf according to AST 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 static air pressure difference of 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 +55/-55 psf

# 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 door panels flat on a level surface in a clean and dry storage area under provision of Section 01 66 00. Seal unfinished top and bottom edges of door panels if stored at the job site more than one (1) week.

## Condition doors to local average humidity before hanging

# 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 French 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 reinforced Ultrex®, 0.080 inch (2mm) thick

## Composite frame thickness: 1 7/16 inches (37mm)

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

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

# Panel Description

## Interior: Finger-jointed cores with clear pine veneers

### Kiln-dried to moisture content no greater than twelve (12) percent at time of fabrication. Panel corners have cope and reverse cope, assembled with dowels and glue

### 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 inches (44mm)

### Ultrex® panel corners have corner keys and sealant injection

## Stile dimensions: 3 5/8 inches (92 mm)

### Rail dimensions:

* + 1. Top rail: 3 5/8 inches (92mm)
		2. Bottom rail: 6 inches (152mm)

# Glazing

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

## Glazing Method: 3/4 inch (19mm) Tempered Insulating Glass

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

## Glazing Seal: Silicone bedding, interior and exterior

## Glazing option: STC/OITC upgrade

## Impact Zone 3 for Sliding French Doors

* + 1. Impact Zone 3 for windows up to 140 miles per hour
		2. Glass is insulating Low E2 or Low E3 with Argon, consisting of tempered glass to the exterior and laminated glass to the interior
		3. The laminated glass is made up of two pieces of glass with SGP laminated between them
		4. The interior and exterior glazing compound is silicone, in a sandwich style glazing system

# Certified Mulling for Standard Units

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

# Certified Reinforced Space Mulling for Standard Units

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

# 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, clear interior, and designer black interior factory finishes

# Hardware

## Multi-point locking system with keyed cylinder

### Lock assembly and keeper feature a two point opposing engagement providing tamper prevention

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

### Upper and lower flush bolts, featured on the secondary operator panel of OXXO units, ensure the door is locked properly and also provides extra engagement for structural performance. Flush bolts are zinc die-cast and will be painted Pearl White or Black.

## Color: Almond Frost, White, Brass, Satin Nickel, Oil Rubbed Bronze, Matte Black

### Interior and exterior colors are selected separately

## Rollers:

### Two adjustable steel roller assemblies per operating panel

### Two ball bearing wheel per roller assembly

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

## Coastal hardware available

# Weather Strip

## Jambs, head jamb and sill utilizes a leaf-type weather strip

## Operator interlock uses full length leaf weather strip

## Stationary interlock utilizes a bulb weather strip

## 4 panel door – extruded bulb weather strip is secured to the secondary operator panel astragal and seals against the primary panel

# Jamb Extension

## Furnish jamb extension: 6 9/16 inch (167mm) or 6 13/16 inch (160mm) factory-installed

1. 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.
2. Finish: White, Clear Lacquer, Designer Black

# Interior Jamb Cover

## Units with a white or designer black interior finish receive a vinyl interior jamb cover shipped loose with the unit

* 1. Cover is PVC with weatherable capping
	2. Color: black or white to compliment interior finish
1. Units with bare or clear lacquer interior finish receive a wood interior jamb cover shipped loose
	1. Cover is straight pine, secured by tape
	2. Color is bare or clear lacquer to complement interior finish

#  Insect Screen

### Top-hung extruded aluminum screen

### One screen per operating panel

### Aluminum metal to match exterior Ultrex® color

### Screen Mesh: Marvin Bright ViewTM

## Includes all mounting and latching hardware – non-handed

# 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, clear interior, and designer black interior finish
	3. 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
	4. Simulated Check rail option: 2 11/32” (60mm). Available with optional spacer bars

# Grilles-Between-the–Glass (GBG)

## Not available for Impact glazed units

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

1. Colors:
	* 1. Interior: White, Bronze, Black
		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 inch (89mm) Flat Casing as a header and jamb surround – available with 1 inch (25mm) 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: Instruction, aluminum pins, mullion tie, sealant foam tape, structural brackets, mull brackets, screws, interior mullion trim, and nailing fin connectors

### ½” 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.

## 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).

1. 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