# Part 1 General

# Section Includes

## Essential® Sliding Patio Door complete with hardware, glazing, weather strip, insect screen, grilles-between-the-glass, jamb extension, sheet rock return, j-channel and standard anchors or specified anchors, trim and attachments.

* 1. **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):
23. AAMA/WDMA/CSA 101/I.S.2/A440-17: NAFS: North American Fenestration, Standard/Specification for windows, doors, and skylights
24. Window and Door Manufacturers Association (WDMA)
25. WDMA I.S.4: Industry Standard for Water Repellent Preservative Treatment for Millwork
26. WDMA I.S.2: Hallmark Certification Program
27. Insulating Glass Certification Council (IGCC) and Fenestration Glazing Industry Alliance (FGIA) Glass Products Council (GPC)
28. Fenestration Glazing Industry Alliance (FGIA) – note: AAMA combined with IGMA and formed FGIA as of 08/01/2019
29. AAMA 2605: Voluntary Specification for High Performance Organic Coatings on Architectural Extrusions and Panels
30. National Fenestration Rating Council (NFRC):
31. NFRC 101: Procedure for Determining Fenestration Product Thermal Properties
32. NFRC 200: Procedure for Determining Solar Heat Gain Coefficients at Normal Incidence
33. Window Covering
34. WCMA A100.0: American National Standard for Safety of Window Covering Products

# 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:

1. Submit corner section under provision of CSI MasterFormat Section 01 33 23
2. Specified performance and design requirements under provisions of CSI MasterFormat Section 01 33 23

## Quality Control Submittals: Certificates: submit manufacturer’s certification indicating compliance with specified performance and design requirements under provision of CSI MasterFromat 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

# Delivery

## Comply with provisions of CSI MasterFormat Section 01 65 00

## Deliver in original packaging and protect from weather

# Storage and Handling

## 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

#### **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 is available at marvin.com/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 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: Essential® Sliding Patio Door as manufactured by Marvin Windows and Doors, Roanoke, Virginia.

# Frame Description

## The frame is composed of Ultrex® material.

## Exterior: Colors are stone white, pebble gray, bronze, cashmere, gunmetal, or ebony.

## Interior: Colors are stone white, bronze, gunmetal, or ebony. Split finishes are not available for Dark interior options.

## The sill is composed of Ultrex, bronze in color, and meets AAMA 624-17 and 00022716.

## Frame installation depth using the folding nailing fin is 3 3/8 inch (86mm).

# Sash/Panel Description

## The panels are stationary and operating, sliding horizontally.

## Both stile and rail share a common one-piece Ultrex profile that gives structure to the panel.

## The Sash/Panel is 1 ¼ inch (29mm) thick with an Ultrex interior and exterior.

## Exterior: Stone white, pebble gray, bronze, cashmere, gunmetal, and ebony.

## Interior: Stone white, bronze, gunmetal, or ebony. Split finishes are not available for Dark interior options.

# Glazing

## Select quality complying with ASTM C 1036. Insulating glass IGMA/IGCC when tested in accordance with ASTM E 2190. STC/OITC ratings are tested to the stated performance level in accordance with ASTM E 90-09.

## Glazing Method: ¾” (19mm) insulating tempered glass (altitude adjusted)

## 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 bedding at exterior. Vinyl glazing boot applied to the interior of glazing system.

## Perimeter Spacer: Default color is mill finish (stainless). An optional black spacer color is available on all interior color selections.

## Glazing Option: STC/OITC upgrade

# Standard and Reinforced Mulling

## Stacked mull limits: 1 wide by 2 units high; 72” x 100” (1829mm x 2540mm)

# Finish

## Exterior: Ultrex with a cross-head extruded acrylic organic coating system. Meets AAMA 624-17 requirements.

## Interior: Ultrex with a cross-head extruded acrylic organic coating system. Meets AAMA 624-17 and 00022716 requirements.

## Color: Stone White exterior with Stone White interior, Pebble Gray exterior with Stone White interior, Bronze exterior with Stone White interior, Cashmere exterior with Stone White interior, Ebony exterior with Stone White interior, Gunmetal exterior with Stone White interior, Bronze exterior with Bronze interior, Gunmetal exterior with Gunmetal interior, and Ebony exterior with Ebony interior. Split finishes are not available for Dark interior options.

# Hardware

## Operating panel has two adjustable roller assemblies to allow adjustment and horizontal movement. Each roller assembly consists of two wheels; the rollers are made of steel coated with zinc yellow dichromate.

## Mortise lock is steel with zinc yellow dichromate finish; the keeper is cast zinc with yellow dichromate finish. Operator lock stops are available in beige for stone white interiors and black for bronze and ebony interiors.

## Optional keyed cylinder available

## Handle Set Colors: Interior and exterior selected separately

## Colors: Almond Frost (powder coat finish), White (powder coat finish), Bright Brass PVD, Oil Rubbed Bronze PVD, Satin Nickel PVD, and Matte Black (powder coat finish).

## Powder coat finished are zinc die cast and PVD finishes have a brass substrate

## Optional 32” (813m) Net Clear Opening Handle Set.

## Handle is zinc die cast

## Handle is 7 3/8” tall x 29/32” wide x 1 11/32” deep

## Keyed handle set is available

## Handle Set Colors: Interior and exterior selected separately

## Handle set colors available: White, Almond Frost, Bronze, and Matte Black powder coat finishes

## Fastener colors available: Stone White, Almond Frost, Black, Silver, Brass Plated

# Weather Strip

## Jambs and Head Jamb use a rigid leaf-type weather strip. Bottom rail uses a rigid-pile assembly against the sill. Rigid interlocks use full length individual pile weather strip. Color of weather strip is black.

## Color of rigid is black

## Color of pile weather strip is black.

# Jamb Extension

## Standard jamb depth is 3 3/8” (86mm). 4 9/16” (116mm) and 6 9/16” (167mm) jamb extension available. Factory applied or in lineal lengths for field application.

## Available in Stone White, Bronze, Gunmetal, or Ebony. Default color will match the unit interior selection

## Split finishes are not available for Dark interior options.

## Stone White jamb extension is available for all interior color selections.

# Insect Screen

## Top hung

## Extruded Aluminum frame finish: stone white, bronze, pebble gray, cashmere, gunmetal, and ebony

## Includes all mounting and latching hardware

# Grilles-Between-the–Glass (GBG)

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

## Colors:

## Interior: White, Bronze, Gunmetal, or Ebony (matches unit interior color)

## Split finishes are not available for Bronze, Gunmetal, and Ebony interior colors

## Exterior: White, Pebble Gray, Bronze, Cashmere, Gunmetal, or Ebony

## Customer selectable exterior color on stone white interior units

## Patterns:

## Rectangular

## 9 lite Prairie cut with 4” DLO corners

## 6 lite top or bottom Prairie cut with 4” DLO corners

## 6 lite left or right Prairie cut with 4” DLO corners

## Cottage style up to 2H with specified DLO height (3” min)

## 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” Brick Mould available as a header and jamb surround

## 3 ½" Flat Casing available as a header and jamb surround. Also available with 1 inch Ranch Style header overhang.

## Colors: Stone White, Bronze, Pebble Gray, Cashmere, Gunmetal, Ebony.

## Installation Accessories:

## Factory-installed vinyl nailing fin/drip cap at head, sill and side jambs.

## Installation brackets for masonry applications

## Mullion kit: standard mullion kit for field assembly of related units available in horizontal, vertical and 2-wide and/or 2-high configurations. Kit includes instruction, interior and exterior mull covers, mull plugs, kerf weather strip, and brackets.

## Sheet rock return

### Available Colors: Stone White, Bronze, Gunmetal, or Ebony. The default color will match unit interior selection. Stone White is available for all interior color selections.

## J-channel

### Available Colors: Stone White, Pebble Gray, Cashmere, Gunmetal, Bronze or Ebony

## ¾" Receiver

### Available Colors: Stone White, Bronze, Gunmetal, or Ebony. The default color will match unit interior selection. Stone White is available for all interior color selections.

## Frame Expander (1” or 3” option available)

### Available Colors: Stone White, Pebble Gray, Cashmere, Bronze, Gunmetal, or Ebony.

#### 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 review 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