# Part 1 General

# Section Includes

## Vivid Bi-Fold door top hung system and frame complete with hardware, glazing, weather strip, grilles-between-the-glass, simulated divided lite, trim, and accessories

# Construction Specification Institute (CSI) MasterFormat Numbers and Titles

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

## Section 01 62 00 – Product Options

## Section 01 25 13 – Product Substitution Procedures

## Section 01 65 00 – Product Delivery Requirements

## 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 finish

# References

## ASTM, International:

### E90: Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements

### 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

## 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: NAFS: North American Fenestration, Standard/Specification for windows, doors, and skylights

## Window and Door Manufacturers Association (WDMA)

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

### WDMA I.S.2: Hallmark Certification Program

## Insulating Glass Certification Council (IGCC) and Fenestration Glazing Industry Alliance (FGIA) Glass Products Council (GPC)

## Fenestration Glazing Industry Alliance (FGIA) – note: AAMA combined with IGMA and formed FGIA as of 08/01/2019

### AAMA 624: Voluntary Specification, Performance Requirements and Test Procedures for Organic Coatings on Fiber Reinforced Thermoset Profiles

### AAMA 2605: Voluntary Specification for High Performance Organic Coatings on Aluminum Extrusions and Panels

## National Fenestration Rating Council (NFRC):

### NFRC 100: Procedure for Determining Fenestration Product U-factors

### NFRC 200: Procedure for Determining Solar Heat Gain Coefficients at Normal Incidence

## Window Covering

### 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 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:

### Submit corner section under provision of CSI MasterFormat Section 01 33 00

### 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. Seal unfinished top and bottom edges of door panels if panels 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 hanging

# Warranty

## This Limited Warranty applies to Infinity windows and doors purchased on or after the Effective Date from an authorized Infinity retailer and installed in the U.S.A. or Canada. “Limited Warranty” means and includes the Limited Lifetime Warranty and the 10/20 Limited Warranty.

## Windows shall be warranted to be free from defects in manufacturing, materials, and workmanship for a period of ten (10) years from the purchase date.

## Insulating glass shall be warranted against visible obstruction through the glass caused by a failure of the insulating glass air seal for a period of twenty (20) years from the date of the original purchase.

## Complete and current warranty information is available at infinitywindows.com/warranty. The following summary is subject to the terms, conditions, limitations, and exclusions set forth in the Infinity Windows and Doors Limited Warranty and Products in Coastal Environments Limited Warranty Suppose

# Part 2 Products

# Manufactured Units

## Description: Vivid Bi-fold Door/s, as manufactured by Marvin, West Fargo, North Dakota.

### 1 to 7 panel options

### 28 configurations including: Stationary and Left, right, or center operation

### Rectangular doors only

### Some configurations include an access panel like a traditional swinging door

# Frame Description

## Interior: Laminate-wrapped, finger-jointed pine. Exterior: Fiberglass reinforced Ultrex®

1. Jamb
	1. Sealing points for panel perimeter. Provides locking point for applicable configurations.
	2. Ultrex with laminate-wrapped wood to the interior
	3. Width of 1 11/16” (43mm) by depth of 5 11/16” (144mm)

## Head Jamb

* 1. Suspends the panels for smooth operation. Sealing points for panel perimeter.
	2. Ultrex with laminate wrapped wood to the interior and aluminum head track.
	3. Width of 3 39/64” (92mm) by depth of 5 11/16” (144mm)

## Frame depth: 5 11/16 inches (144mm).

## Sills

## Ultrex with aluminum sill liner to the interior. Extruded vinyl sill track insert. 5 11/16” (144mm) wide x 2 3/16” (55mm) high

## Beige/Bronze fiberglass reinforced pultrusion (Ultrex®) sill with color matched interior sill liner.

# Panel Description

## Panels provide visibility through the passageway and separation from the elements. Operator panels provide a means of passage through swinging and/or folding to the exterior.

## Fiberglass reinforced pultrusion (Ultrex®)

## Composite panel thickness: 1 3/4 inches (43mm)

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

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

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

## On bi-parting configurations and unidirectional configurations with access panel, Astragals are used for structure and sealing. They are pine-based with PVC cap, 1 13/16” wide (46mm) by 1 15-32” depth (37mm)

# Glazing

## Select quality complying with ASTM C1036. Insulating glass is manufactured and tested level ASTM E2190 and is IGCC certified. STC and OITC ratings are certified to the level in accordance with ASTM E90-09 (2016).

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

## Glass type: Low E1 Tempered, Low E2 Tempered, Low E3 Tempered, Low E2/ERS, Low E3/ERS with Air or Argon gas, Obscure, Glue Chip, Frost, Bronze Tint, Gray Tint, Green Tint.

## Glazing Seal: Silicone bedding, interior and exterior

# Finish

1. Exterior:

### Pultruded Fiberglass.

1. Acrylic Capstock.
2. Meets AAMA 624-10 requirements.
3. Color: Stone White, Pebble Gray, Bronze, Ebony.
4. Interior:

### Fiberglass reinforced composite.

1. Color: Stone White, Ebony.
2. Acrylic based capstock

# Hardware

## Hinges contain both horizontal and vertical adjustment feature

### Two or three hinges on all operator panels

### Finish: Black or brushed stainless steel

## Handle Set: Lever operated

### Keyed Interior and Exterior finishes are selected separately

### Powder Coat finishes: White, Matte Black

### PVD finishes: Satin Nickel, Oil Rubbed Bronze

## Locking System:

### Multi-point locking system, stainless steel

### Standard deadbolt, top and bottom shoot bolt are operated by the handle set

### Secondary lock, stainless steel.

### Standard top and bottom shoot bolt are operated by the handle set

## Twin bolt (on folding panels), stainless steel.

### Shoot bolt (accessible from internal only) and handle set.

### Color: Black or brushed stainless.

## Magnetic Catch

### Exterior magnets to secure panels in the open position

### Material: Non-corrosive materials, high-strength earth magnet

### Standard offering for folding panels, spring loaded cushion resists door impact

### Colors: PVD Bronze, Stainless Steel

# Insect Screen (optional)

## Sliding screen interior, retractable pleated screen.

### Extruded aluminum sliding frame

### Dimensions:

### Max Screen Frame OM Height for all configurations: 118” (2997 mm)

### Single (opens from either side): Max Width, 177” (4496mm)

### Double (opens from both ends and meets in center): Max width, 315” (8001mm)

### Screen mesh: pleated, charcoal, polypropylene with UV surface treatment

### Frame finish: White, Black

# Weather Strip

## All units are constructed with vinyl weather strip at all panel perimeter joints. Weather strip exposed to the exterior will be a UV (ultraviolet) resistant material.

## Sill weather strip seals against the panel

### Foam-filled leaf

### Colors: Beige for beige sill, Black for bronze sill

## Jamb weather strip seals against the interior of the panel

### Dual, hollow bulb applied to jamb, seals against interior of panel

### Colors: Black

## Head Jamb weather strip

### Foam-filled leaf is applied to the interior head jamb and seals against panel

### Single, Hollow bulb is used to seal against the exterior of the top rails

### Color: Black

## Panel weather strip

### Stile weather strip

### Between panels, each opposing stile has two rows of single bulb weather strip to seal against each other.

### Between the jamb and panel, there are locking stiles and pivot stiles. Locking stiles have a single row of single bulb weather strip. Pivot stiles use two rows of single bulb weather strip

### Color: Black

### Bottom rail weather strip

### Under each panel, there is one row of single hollow bulb weather strip to seal against the exterior of the sill.

## Astragal weather strip

### Dual hollow bulb

### Single hollow bulb on exterior

### Color: Black

# Simulated Divided Lite (SDL)

## 7/8 inch (22mm) wide with internal aluminum spacer bars

## Exterior Ultrex, finish to match exterior color

## Interior bars: ABS (Acrylonitrile Butadiene Styrene) or cPVC (Cellular Polyvinyl Chloride), finish to match interior color

## Patterns: Equal Rectangular, Cottage Style/Oriel Style, Prairie Cut, Checkrail

# Grilles-Between-The-Glass (GBG)

## 23/32” (18mm) aluminum contoured bar

## Exterior Finish: Stone White, Pebble Gray, Bronze, Ebony

## Interior Finish: Stone White, and Ebony

## Available in equal rectangular, prairie cut, Cottage/Oriel, and Checkrail patterns

# Installation Accessories:

## Factory-applied nail fin with through-jamb installation is standard.

* 1. Masonry brackets are available in place of nailing fin for installation into masonry openings.
	2. Through-jamb-only installation is available.

# 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 Section CSI MasterFormat 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