#### Part 1 General

# Section Includes

## Vivid Direct Glaze window complete with glazing, grilles-between-the-glass, simulated divided lite, jamb extension and standard or specified anchors, trim and attachments.

# Related Sections

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

## Section 01 62 00 – Product Options

## Section 01 65 00 – Product Delivery

## Section 01 66 00 – 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 76 00 – Protecting Installed Construction

## Section 06 22 00 – Millwork: Wood trim other than furnished by window manufacturer

## Section 07 92 00 – Joint Sealants: Sill sealant and perimeter caulking

## Section 09 90 00 – Paints and Coatings: Paint or stain other than factory applied finish

# 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 Static Air Pressure Differential.

### 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 Manufacturers Association / Window and Door Manufacturers 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 Manufacturer’s Association (WDMA):

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

### WDMA:I.S.2 WDMA 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 2605: Voluntary Specification for High Performance Organic Coatings on Architectural 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

## G.  Window Covering Manufacturer’s Association

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

# System Description

STANDARD

### Window units shall be designed to comply with 101/I.S.2/A440-11 and 101/I.S.2/A440-17: CW-PG50 ratings.

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

### No water penetration when tested at the following pressure according to ASTM E547: 7.2psf

### Units shall be designed to comply with ASTM E330 for structural performance when tested at the following pressures: 75 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:

### 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

## Code 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. Defects 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 Black Endur 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 Vivid Direct Glaze window as manufactured by Marvin, Kansas City, Kansas.

# Frame Description

## Interior: Fiberglass Reinforced Composite

## Exterior: Pultruded Fiberglass (Ultrex®)

## Frame thickness: 1 5/8” (41mm)

## Frame depth: 3 5/8” (92mm)

## Exterior Accessory Kerf

## Integrated Drywall Return

# Glazing

## Select quality complying with ASTM C1036. Insulating glass SIGMA/IGCC certified to performance level CBA when tested in accordance with ASTM E2190. STC ratings are certified to the level in accordance with ASTM E90.

## Glazing Method: 3/4" (19mm), 7/8” (22mm), or 15/16” (25) Dual Pane Insulting glass

## Glass fill: Air with capillary tubes, Argon

## Glass Type: Low E1, E2, E3, E2/ERS, E3/ERS

## Glass Type Options: Obscure Glass, or California Fire Glass (Annealed exterior and tempered interior glazing configuration), Rain Glass, Glue Chip, Narrow Reed, Reed, Frost, Bronze Tint, Gray Tint, Green Tint.

## Glazing Seal: Silicone bedding at exterior, closed cell co-polymer foam tape at interior

## Optional Glazing: STC/OITC upgrade

## Triple Pane glazing: Units are manufactured with 1-1/4” (32mm), 1-3/16” (30mm), or 1-5/16” (33mm)

## Triple-Pane Glass Type: Low E2/E1, Low E3/E1, Low E2/E1/ERS, Low E3/E1/ERS

* 1. **Mulling**

## Factory mulled or Prep for Field mulling

## Two Mull Systems

1. Standard Mull: includes mull pin, sealing tape, installation brackets, exterior and interior trim.
2. ½” Mull Reinforcement (MRF): ½” space mull includes interlocking opposing mull pins, sealing weather strip, installation brackets, exterior and interior trim.
3. **Standard Mull** (PG25)

### Vertical (Ribbon) Mulls:

* 1. Maximum Factory Assembled (by Frame Size): not to exceed 144” (3658) x 96” (2438)
  2. Maximum Certified Continuous Span x Tributary Width (Frame Size): not to exceed 96” (2438) x 72” (1829)

1. **Horizontal** (Stacked) Mulls:
   1. Maximum Factory Assembled (by Frame Size): not to exceed 96” (2438) x 96” (2438)
   2. Maximum Certified Continuous Span x Tributary Width (Frame Size): not to exceed 96” (3658) x 72” (1829)
2. Multi-Wide x Multi-High Mulls: Not available.
3. **Mull Reinforcement** (PG40)

### Vertical (Ribbon) Mulls:

* 1. Maximum Factory Assembled (by Frame Size): not to exceed 144” (3658) x 96” (2438)
  2. Maximum Certified Continuous Span x Tributary Width (Frame Size): not to exceed 96” (2438) x 72 1/2” (1841)

1. Horizontal (Stacked) Mulls:
   1. Maximum Factory Assembled (by Frame Size): not to exceed 96” (2438) x 96” (2438)
   2. Maximum Certified Continuous Span x Tributary Width (Frame Size): not to exceed 96” (3658) x 72 1/2” (1829)
2. **Mull Reinforcement** (PG50)

### Vertical (Ribbon) Mulls:

* 1. Maximum Factory Assembled (by Frame Size): not to exceed 112 1/2” (2857) x 96” (2438)
  2. Maximum Certified Continuous Span x Tributary Width (Frame Size): not to exceed 96” (2438) x 56 1/2” (1435)

1. Horizontal (Stacked) Mulls:
   1. Maximum Factory Assembled (by Frame Size): not to exceed 96” (2438) x 96” (2438)
   2. Maximum Certified Continuous Span x Tributary Width (Frame Size): not to exceed 96” (3658) x 56 1/2” (1435)
2. Multi-Wide x Multi-High Mulls:
   1. Maximum Factory Assembled (by Frame Size): not to exceed 96” (2438) x 96” (2438)
   2. Maximum Certified Continuous Span x Tributary Width (Frame Size): not to exceed 96” (3658) x 48 1/2” (1225)

# Finish

A. Exterior:

### Pultruded Fiberglass.

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

B. Interior:

### Fiberglass reinforced composite.

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

# Jamb Extension

## Pine jamb extension: 4 9/16” (115mm), 6 9/16” (167mm) or 6 13/16” (173mm) factory-installed

1. Finish: White, Designer Black. Color selection may optionally differ from the interior color of frame.

# Simulated Divided Lites (SDL)

## Rectangle units only. 7/8 inch (22mm) wide. Includes spacer bars between all panes.

### Exterior Ultrex: Stone White, Pebble Gray, Bronze, Ebony.

### Interior Fiberglass Reinforced Composite: Stone White or Ebony

### Patterns:

1. Rectangular (4” min DLO)
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. Horizontal Trellis
6. Cottage style up to 2H with specified DLO height (4” min)
7. Size limitations may apply to Prairie and Cottage lite cut availability

### Simulated Check rail option: 2” (50mm). Includes spacer bars between all panes.

# Grilles-Between-The-Glass (GBG)

## Rectangle units only. Manufactured from aluminum in an 23/32 inch (18mm) wide contoured profile placed between the two panes of glass. On tri-pane configurations, GBG profile is placed in both air spaces.

## 1. Colors:

### a. Interior: Stone White, Ebony

### b. Exterior: Stone White, Pebble Gray, Bronze, or Ebony

### Patterns:

a. Rectangular (with 3” min DLO)

b. 9 lite Prairie cut with 4” DLO corners

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

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

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

f. Size limitations may apply to Prairie and Cottage lite cut availability

# Accessories and Trim

## Exterior Casing (Rectangular Unit Only)

### Non-integral to the unit. Fastened to the exterior wall with barb and kerf

### 2 inch Brick Mould available as a full surround or with Sill Nosing

### 3 ½ inch Flat Casing available as full surround or with Sill Nosing

### Color: Stone White, Pebble Gray, Bronze, Ebony. Color selected may optionally differ from exterior color of frame.

## Installation Accessories:

### Factory-applied rigid nailing fin is standard.

### If specified on order, structural brackets for masonry applications are available in place of the rigid nailing fin.

### If specified on order, through-jamb screws are available in place of or in addition to the rigid nailing fin.

### Through-Jamb installation method is standard on Insert Application.

### All units include pre-drilled holes for through-jamb screws.

#### 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 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 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 Section 01 74 00.

# Protecting Installed Construction

## Comply with Section 07 76 00.

## Protecting windows from damage by chemicals, solvents, paint or other construction operations that may cause damage.

End of Section