

## Product Evaluation

CWSF78 | 0223

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

**Evaluation ID:** CWSF-78

**Effective Date:** February 1, 2023

**Re-evaluation Date:** February 2027

**Product Name:** Series IP1900 Aluminum Curtain Wall System, Impact Resistant

**Manufacturer:** Arcadia, Inc.  
2301 East Vernon Ave.  
Vernon, CA 90058  
(323) 908-5416

### General Description:

This evaluation report is for the IP1900 aluminum curtain wall system. The curtain wall system is used for commercial installations. This evaluation report includes the following curtain wall assemblies:

- Single Span System
- Twin Span System

**Doors:** Arcadia doors used with these assemblies must be listed in separate TDI product evaluation reports.

**Product Identification:** An Arcadia label will be affixed to the curtain wall assembly. The label includes the manufacturer's name (Arcadia); the product name (IP1900 Curtain Wall-Large & Small Missile Impact Insulated Glass Unit Laminated Dry Glazed); that the design pressures and dimensions are per drawing ARC008; the test standards (ASTM E 330, ASTM E 1886, ASTM E 1996); and the Missile Level (Missile Level E).

**Compliance:** The store front assemblies passed test criteria equivalent to ASTM E 330-14, ASTM E 1996-13a, and ASTM E 1996-14a.

**Limitations:**

**Design Drawings:** Curtain wall assemblies must comply and be installed in accordance with the following design drawing:

Drawing No. ARC008; "Series IP1900 Curtain Wall System (Impact);" Sheets 1 thru 14 of 14; dated May 10, 2022; signed and sealed by Hermes F. Norero, P.E on January 10, 2023. This evaluation report refers to the stated drawings as the approved drawings.

**Fabrication and Assembly:** The Arcadia IP1900 curtain wall system is fabricated in the factory. The aluminum curtain wall system is assembled and glazed at the jobsite. The approved drawings referenced in this evaluation report indicate the options for the glazing construction.

**Design Pressure (DP):**

The aluminum curtain wall system has a maximum design pressure of +50/-50 psf. Refer to the approved drawing for specific design pressure requirements.

If the curtain wall system is used with doors, then the design pressure rating of the complete assembly will be the lesser of the allowable design pressure rating for the doors specified in a separate evaluation report and the curtain wall system in this evaluation report.

**Impact Resistance:** The curtain wall system has been tested for windborne debris resistance. These assemblies passed Missile Level E specified in ASTM E 1996-14a. Install these assemblies at any height on the structure that does not exceed the assembly's design pressure rating. For essential facilities, the assembly may be installed at all heights in Wind Zone 3 and in Wind Zone 2 as defined in ASTM E 1996-14a.

**Acceptance of Other Assemblies:**

The approved drawing specifies the limitations on maximum frame height, maximum width, maximum daylight opening width, and maximum daylight opening height.

Assemblies must not exceed the heights shown on the approved drawing.

Doors used with these assemblies must be listed in separate TDI product evaluation reports.

**Installation Instructions:**

**General:** Prepare and install the assembly in accordance with Arcadia's installation instructions and the approved drawings specified in this evaluation report. Detailed installation instructions are available from Arcadia.

**Installation:**

**Wall Framing Construction:** The aluminum store front system may be mounted to several types of wall framing construction. The types of wall framing construction allowed include:

- concrete (minimum compressive strength: 2,730 psi)
- CMU (ASTM C-90; minimum compressive strength: 1,924 psi)
- aluminum (minimum 1/8" wall thickness, 6063-T5)
- steel (minimum 1/8" wall thickness; 33 ksi minimum yield strength)
- wood (minimum specific gravity, SG=0.55)

Refer to the appropriate design drawing for specific wall construction requirements.

**Fastener Requirements:**

Refer to the approved drawings for the anchor layout and notes.

Refer to the approved drawings for the minimum embedment depths for the fasteners and the minimum edge distances (minimum distance fastener must be from the edge of the substrate material) for the fasteners.

**Note:** Keep the manufacturer's installation instructions available on the job site during installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.