



Photography: © Bob Perzel

ARCHITECT

Verner Johnson, Inc.
Boston, Massachusetts

GLAZING CONTRACTOR

JPI Glass
Kansas City, Missouri

GENERAL CONTRACTOR

McCown Gordon Construction LLC
Kansas City, Missouri

FEATURED PRODUCTS

1600 Wall System™2 Curtain Wall
(custom four-sided structural silicone glazed veneer system)
Trifab™ 451UT Framing System
Trifab™ VersaGlaze™ 450 Framing System
500 Wide Stile Doors
Flushline™ Entrances

**Museum at
Prairiefire**

OVERLAND PARK, KANSAS

Museum at Prairiefire

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PROJECT PROFILE

ARTS & LEISURE

Established in 2010 as part of a partnership with the American Museum of Natural History (AMNH), the Museum at Prairiefire (MAP) is the centerpiece of a 60-acre mixed-use development in the Kansas City, Kansas suburb of Overland Park. MAP owner Merrill Companies, LLC, wanted a design as distinctive as its offering for visitors to view cutting-edge, world-renowned exhibits and artifacts from the AMNH.

Boston-based Verner Johnson, Inc. joined the project to generate conceptual drawings. Lead project architect Jonathan Kharfen, AIA LEED senior associate, took notice of the local practice of controlled prairie burns. These seasonal planned fires work as a rejuvenation tool, eliminating excess leaf litter and making it possible for plants to flower, produce seed and grow. With these images as inspiration, his team presented a concept reflecting the imagery of the tallgrass prairie, including one of its most unique aspects: prairie fire burns.

Kansas City-based JPI Glass served as the glazing contractor and self-performed all of the glass and glazing requirements for the complex project. The museum, dubbed "The Jewel of Overland Park," is LEED Silver® and has received rave reviews since opening.

DESIGN HIGHLIGHTS

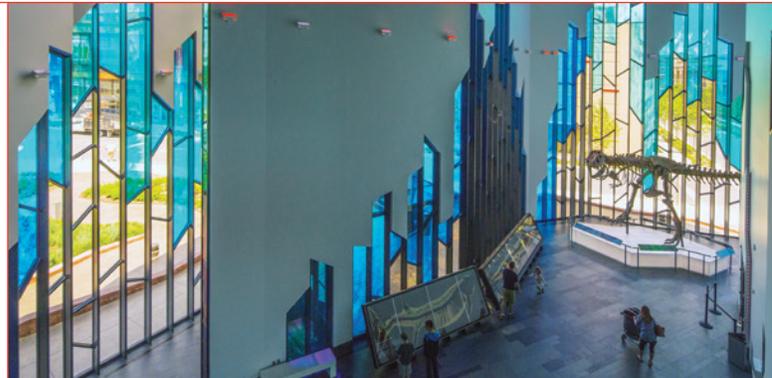
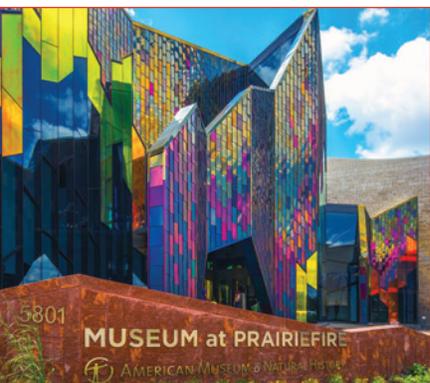
The expansive lobby is enclosed in "lines of fire" – faceted vertical planes composed of tinted vision glazing, dichroic glass and iridescent stainless steel panels set in a composition invoking flames. The glass and steel shift color depending on perspective, creating a vibrant, animated glow of color around the building. MAP is the only building in the United States to feature dichroic glass. The glass was manufactured by Goldray Industries using 3M film originally developed by NASA.

CHALLENGES

- While the design called for a mullion system that could offer crisp corners and support the roof, columned spaces were dismissed because of their bulky look.
- The application had to remain watertight, sustain high wind loads and maintain the gravitational loads associated with the structure's weight after removing most of the curtain wall's aluminum for aesthetics.
- The architect used a series of angled glass panels and punched-opening windows with sloped tops to make the façades appear animated, which required precision installation.

SOLUTIONS

- The architects determined Kawneer's 1600 Wall System™2 Curtain Wall was a perfect fit for the MAP application, due in large part to its crisp, monolithic appearance and flexibility, and a veneer stick-fabricated, pressure glazed curtain wall.
- The veneer system featured a minimal depth interior aluminum mullion gutter attached to a steel grid tube for structural integrity.
- Kawneer engineered two custom adjustable curtain wall corners to handle all the various angles, a huge improvement over the original 14-extrusion design.



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ARCHITECTURAL SYSTEMS | ENTRANCES + FRAMING | CURTAIN WALLS | WINDOWS