New Louisville Arena Pedway

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After posting about the <u>JPM Patisserie</u> on Tuesday, I received 2 very kind and supportive emails from <u>Architectural Glass Art</u> (AGA). Kenneth F. von Roenn, Jr., President/Director of Design and Ursula Vourvoulis, V.P. Project Development both took time out of their busy schedules to let me know how much they appreciate and enjoy the *Looking At Glass* blog.

Mr. von Roenn, Jr. was nice enough to send me AGA's latest project information and photos. This project brings together incredible design engineering with beautiful glass. It is in one word...Amazing.

Back on October 25th, <u>Architectural Glass Art</u> unveiled its latest design project on Main Street in the heart of <u>downtown Louisville</u>. The pedway, connecting the existing <u>Galt House Hotel & Suites</u> and the new <u>KFC Yum! Center</u>, was designed by AGA president and lead designer Kenneth F. von Roenn, Jr., an internationally recognized glass designer whose works include the world's largest glass sculpture, which crowns the top of <u>Wachovia Bank</u> in Charlotte, North Carolina.

The pedway allows pedestrians to enter the arena above street level and also serves as a gateway into downtown Louisville from a primary freeway entrance. The pedway is designed as a ceremonial entrance into the arena by providing a dramatic, visual experience.





The all glass structure is composed of one-inch thick laminated glass for the walls and roof, which are supported by laminated glass trusses with dichroic and holographic films, which change colors when viewed from different perspectives and when illuminated from different directions. The glass trusses are secured to the glass walls and roof with stainless steel hardware and structural silicone. The pedway is illuminated internally with LED lights at the base of each truss, which are activated by the movement of pedestrians. The exterior sides of the pedway are rolled perforated metal panels with LED lights behind that are programmed for continuous movement of colors with special effects during events at the arena.





The structure is unique in several ways. First, the glass trusses are secured to the steel beams that span the street by stainless steel pin connections, which allow for the movement of the bridge as well as for

the movement of the glass. Second, the vertical and diagonal components of the trusses are joined by means of one-inch thick laminated glass gusset plates. The bolts connecting the gusset plates and the truss elements are isolated so there is no bearing of the glass on any of the stainless steel bolts.







"The pedway was designed as a synthesis of art, architecture and engineering to the degree that the architecture IS the art and the art IS the architecture," said von Roenn. "This is achieved by designing the primary structural component—the truss—as the most visually expressive element of the work."

These structural trusses are visually prominent because of the dichroic glass films within the inner layer of the lamination. These films cast one color and reflect the complementary color when illuminated creating a dynamic appearance. The trusses were preassembled in the studio and lifted as units onto the structural steel beams after which the glass walls and roof were installed with stainless steel hardware fittings and sealed with structural silicone.

<u>Glasswerks</u> in Los Angeles, CA produced the glass walls and roof and <u>Grove Glass</u> in Garden Grove, CA fabricated the glass trusses. The dichroic/holographic film was produced at <u>Architectural Glass Art</u>, which also assembled the trusses. Akins Company Incorporated of Louisville, KY installed the glass.