

Case Study

KC LIVE! *Kansas City*

Single-Layer ETFE
Roof Replacement

FABRITECTURE



Project Overview

Case Study

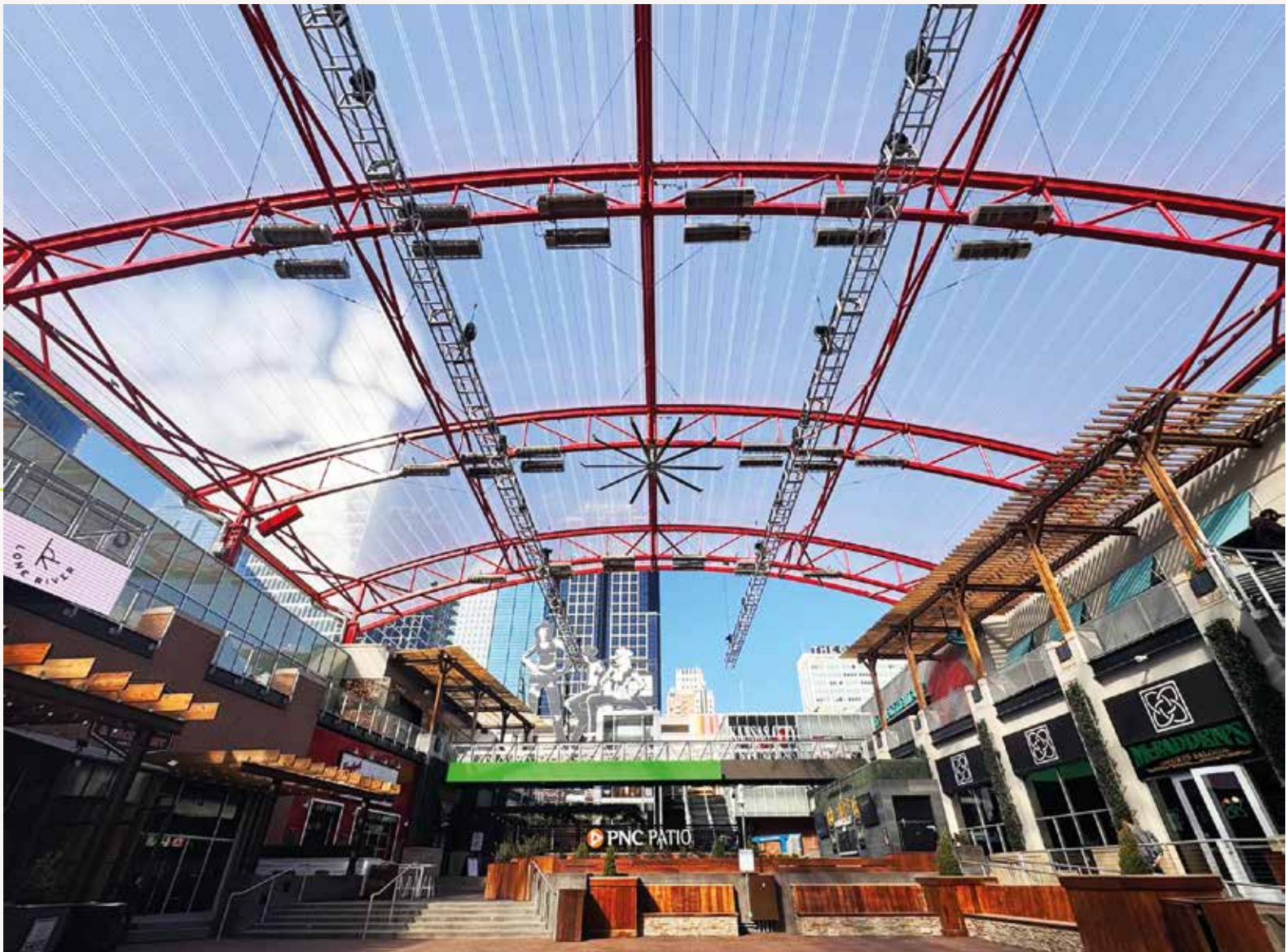


Right in the heart of downtown Kansas City sits KC Live!, the centerpiece of the Power & Light District and known locally as “Kansas City’s Living Room” Fabritecture USA was engaged to **design and construct** the replacement of the venue's **single-layer ETFE roof**, addressing seam failures in the original ETFE panels dating back to 2007 and restoring structural performance and environmental protection.

Working alongside engineer **Wayne Rendely**, with the membrane supplied by **Nowofol** and fabricated by **Fabric8**, Fabritecture USA delivered a Design and Construct scope covering **engineering, supply, and installation** of a new 300-micron ETFE membrane system with silver dot matrix frit and protective coating, across a total plan area of **26,220 sqft**.

Project Details

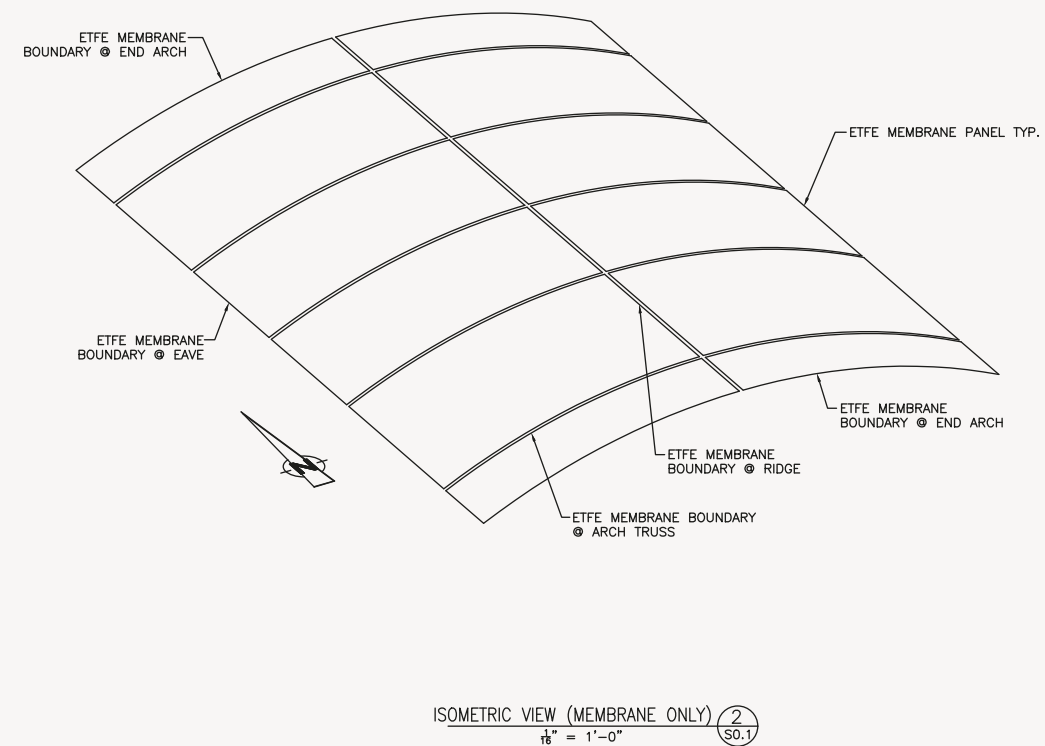
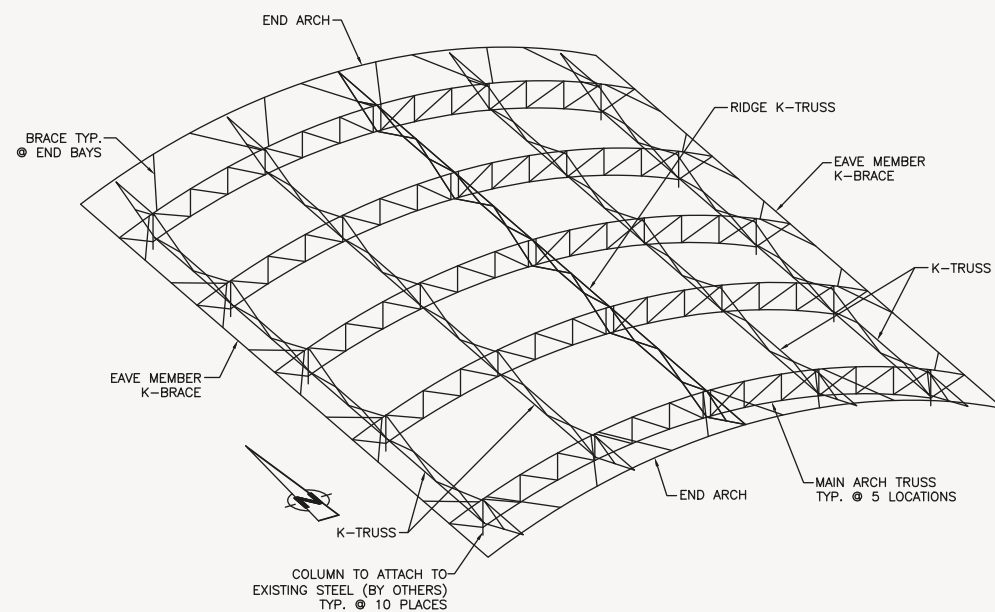
Location:	Kansas City, MO, USA
Completed:	2025
Scope:	Design and Construct: engineering, supply & installation of new single-layer ETFE system
Size:	26,220 sqft (2,436 m ²)
Fabric:	Nowofol 300-micron ETFE
Building Type:	Commercial (Events & Hospitality)



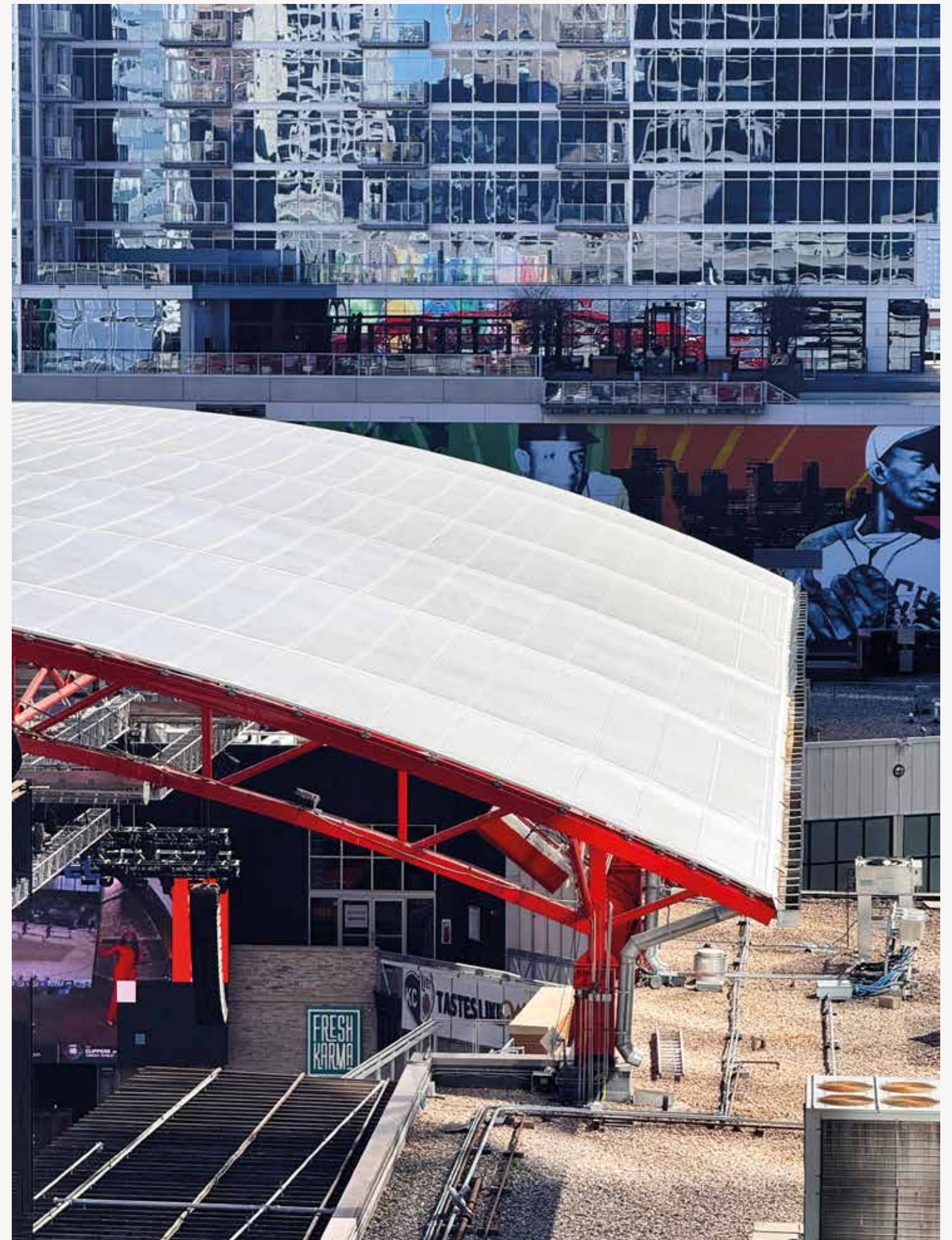
Design Features

This project required a targeted, precise replacement, addressing failing welds and deteriorated panels within a live, high-traffic commercial district.

- + **Targeted replacement:** careful removal of broken ETFE panels while preserving surrounding structural integrity and minimizing disruption to the venue.
- + **High-performance ETFE system:** Nowofol 300-micron fritted ETFE with protective coating was selected for light transmission, durability, and long-term resistance to environmental exposure.
- + **Live commercial environment:** operating within an active commercial district required close coordination, staging, and controlled installation sequencing, all while restaurants on the main courtyard level remained open to the public.



Case Study



Structural Systems

Case Study



The original roof was built in 2007. Over time, welds in the ETFE began to fail, and after roughly 15-20 years in service (against a possible lifespan of 30+ years) the membrane needed replacing, timed ahead of the ***FIFA World Cup 2026***, a major draw for the venue.

The replacement membrane was installed using an extrusion system typically reserved for ETFE cushion systems, adapted by Fabritecture USA for this single-layer, mechanically prestressed system application. This adaptation ensures the panel connections remain ***more watertight than the original installation***.

Installation took place over an active, operating venue. While parts of the space were closed at times, restaurants on the main courtyard level remained open throughout, requiring careful staging and pedestrian consideration.

Materials

Fabritecture USA selected **Nowofol 300-micron fritted ETFE with protective coating** for its performance and longevity.

- + **Durability:** the renewed membrane is expected to perform for **35+ years** with a low maintenance profile.
- + **Climate resistance:** designed to **perform in all conditions**, from intense sun and heavy rain to snow loads of 12-14 inches or more.



- + **Aesthetics:** the frit pattern, a silver dot matrix in aluminum oxide, **reduces solar gain** for comfort in direct sun, **while still transmitting natural light** to preserve the venue's open, light-filled atmosphere. The owner wanted to maintain sightlines to the surrounding development from within the venue, so Fabritecture USA balanced **transparency and shading** using clear ETFE combined with the silver dot matrix frit
- + **Sustainability:** the ETFE removed from the original 2007 roof **didn't go to landfill**. Fabritecture USA partnered with **Fluoropolymer Resources (FRL)**, a Connecticut-based recycler and the leading processor of melt fluoropolymer plastics in North America, to **give the old membrane a second life**. Founded in 1991, FRL specializes in cleaning and reprocessing fluoropolymer scrap, including ETFE, back to a quality comparable to virgin resin, supplying industries from wire and cable to chemical processing. Rather than being discarded, the material removed from KC Live!'s roof was broken down and remanufactured into new products, keeping it in circulation instead of landfill. As sustainability becomes a bigger factor in material specification, partnerships like this show how **legacy ETFE structures can be renewed responsibly**.

Construction

- + **Methodology:** on-site installation began January 2025, with the project reaching completion in October 2025.
- + **Coordination:** Fabritecture USA worked within the operational commercial district, coordinating staging and sequencing to minimize disruption. Restaurants on the main courtyard level remained open to the public throughout the works.
- + **Timing:** The Cordish Companies, which owns and operates the Power & Light District, sitting adjacent to the popular T-Mobile Center arena, identified 2024-25 as the ideal window for the replacement, completing the improvement well ahead of the FIFA World Cup 2026, a major draw for the venue.





The replacement restores the *original architectural intent* of the KC Live! roof while enhancing its *reliability* and *long-term performance*.

The venue keeps its open, light-filled atmosphere and continues to serve as a *central hub* for major events, including the Big 12 Tournament, Kansas City's largest annual draw, bringing thousands of fans from across the conference into the district each year.



For Fabritecture USA, the project reinforces a long relationship with this venue, first built in 2007 and now *renewed for its next chapter*. That timing proved well placed.

In 2026, KC Live! served as one of Kansas City's official watch-party venues for the *FIFA World Cup*, sheltering thousands of fans under the renewed canopy through the tournament's summer heat.

The End Result



“

Fabritecture USA delivers high-performance, lightweight structures for some of the most demanding public environments. Spaces like this don't pause, and the structure above them can't either. We build to perform.

Bart Dreiling

Business Development &
Pre-Construction Consultant

Kansas City's Living Room

KC Live! sits at the heart of the Power & Light District, directly across from the T-Mobile Center arena. Known locally as **Kansas City's Living Room**, the venue is a year-round destination, hosting:

The Big 12 Tournament, Kansas City's largest annual draw, bringing thousands of fans from across the conference.

Concerts, live events, and community gatherings throughout the year.

In 2026, the venue's own “Soccer in the City” series turned it into one of Kansas City's official FIFA World Cup fan zones, drawing thousands of fans for match watch parties throughout the tournament.

A jumbo video board built into the canopy also makes the venue a **popular gathering spot for watch parties**, from the Super Bowl to MLB and NBA finals, plus before and after parties for concerts in the district.

Space heaters hung below the trusses to keep the courtyard comfortable through cold months, and circulation fans to manage airflow during peak summer heat.

A fritted ETFE membrane that reduces solar gain, keeping the space comfortable even in direct sun.

By renewing the roof over this year-round programming, the project keeps one of Kansas City's most active public spaces **reliable**, whatever the season or the size of the crowd.







Legacy

The KC Live! ETFE replacement reinforces Fabritecture USA's **long-term presence in the North American market**, delivered just in time for Kansas City's run as a FIFA World Cup 2026 host city.

Combining **responsive engineering** with **proven material performance**, the project ensured one of downtown Kansas City's most recognizable public spaces was ready for its moment on the world stage.

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