

Project: Fayette County Courthouse

Location: Lexington, KY

Architect: K Norman Berry Architects in conjunction with Deborah Berke Partners

Product: Fireframes ClearFloor® System with Pilkington Pyrostop® fire-rated glass



The historic Fayette County Courthouse was once the shining jewel of Lexington, Kentucky. Constructed in 1899, the Richardsonian Romanesque-style building was one of the first fully electrified structures in the city. Its heralded central dome used electric lighting to create a star-like ceiling visible to occupants from the ground floor entrance. But in the 1960s, this one-of-a-kind viewing experience changed.

A new central elevator shaft and heating and air conditioning equipment obscured views of the prominent dome and prevented it from streaming daylight throughout the building. As the Lexington Herald-Leader newspaper reported, “Over the next 60 years, the dome area deteriorated and became home to pigeons and other birds. Only courthouse and maintenance staff — and the occasional reporter — saw the dome.” The building remained in this declining state until 2002, when it was vacated by the Fayette County Courthouse. The city eventually shut down the historic courthouse in 2012 due to concerns about deterioration and asbestos hazards.

Unwilling to let such a historic building go to waste, the City of Lexington approved a \$32 million renovation of the building in 2016. They hired K Norman Berry Architects, in conjunction with Deborah Berke Partners, to convert the courthouse into a beautiful, modern mixed-use office and restaurant space, with leasable event rooms in the upper rotunda. According to K Norman Berry Architects, the goal was to “preserve the character of the building, especially its existing architectural fabric, while updating it for a new mix of uses to once again make the building an accessible and dynamic focal point of downtown.”

During this process, a key point of emphasis was restoring the splendor of the building’s original domed area. The design team put plans in place to reconstruct the plastered interior of the dome and add lighting to evoke a starry sky. To spatially connect the lower floors to the dramatic upper domed space while bringing the building up to current fire- and life-safety building codes, they specified two Fireframes ClearFloor® fire-rated glass floor systems from Technical Glass Products. The fire-rated glass floor systems were centered and aligned under the dome on the third and fourth floors.

To meet the requisite needs of the space, the fire-rated glass floor systems consist of Pilkington Pyrostop® fire-rated glass; a tempered, laminated walking surface glass; and a steel framing grid. The systems are fire-rated for two hours and provide a barrier to flames and smoke, as well as radiant and conductive heat. In the event of a fire, this ensures their surface remains cool enough for individuals to walk across for the duration of their two-hour fire rating.

In application, the code-compliant fire-rated glass floor systems transfer daylight into the center of the building, while also allowing lower-floor occupants to glimpse the grandeur of the dome. To further enhance the viewing experience, the fire-rated glass floors feature a ceramic frit on the top (floor side) of the glass. It creates a sparkly appearance that enhances the starry sky lighting in the newly remodeled dome, while also functioning as a durable non-slip walking surface. To account for safe pedestrian use, the fire-rated glass floor systems support loads up to 150psf (732 kg/m²).

From run-down to restored, the courthouse is once again the centerpiece of the town. With the help of fire-rated glass floor systems, its dome is now on display for all to see. As the Lexington Herald-Leader newspaper reported when the building first opened for public viewing, “Visitors marveled at the glass floor in the center of the new fourth floor of the courthouse. That glass floor — also on the floor below — will allow visitors on the first floor to look all the way up to the dome.”

To learn more about the Fireframes ClearFloor System from Technical Glass Products, visit www.fireglass.com.

