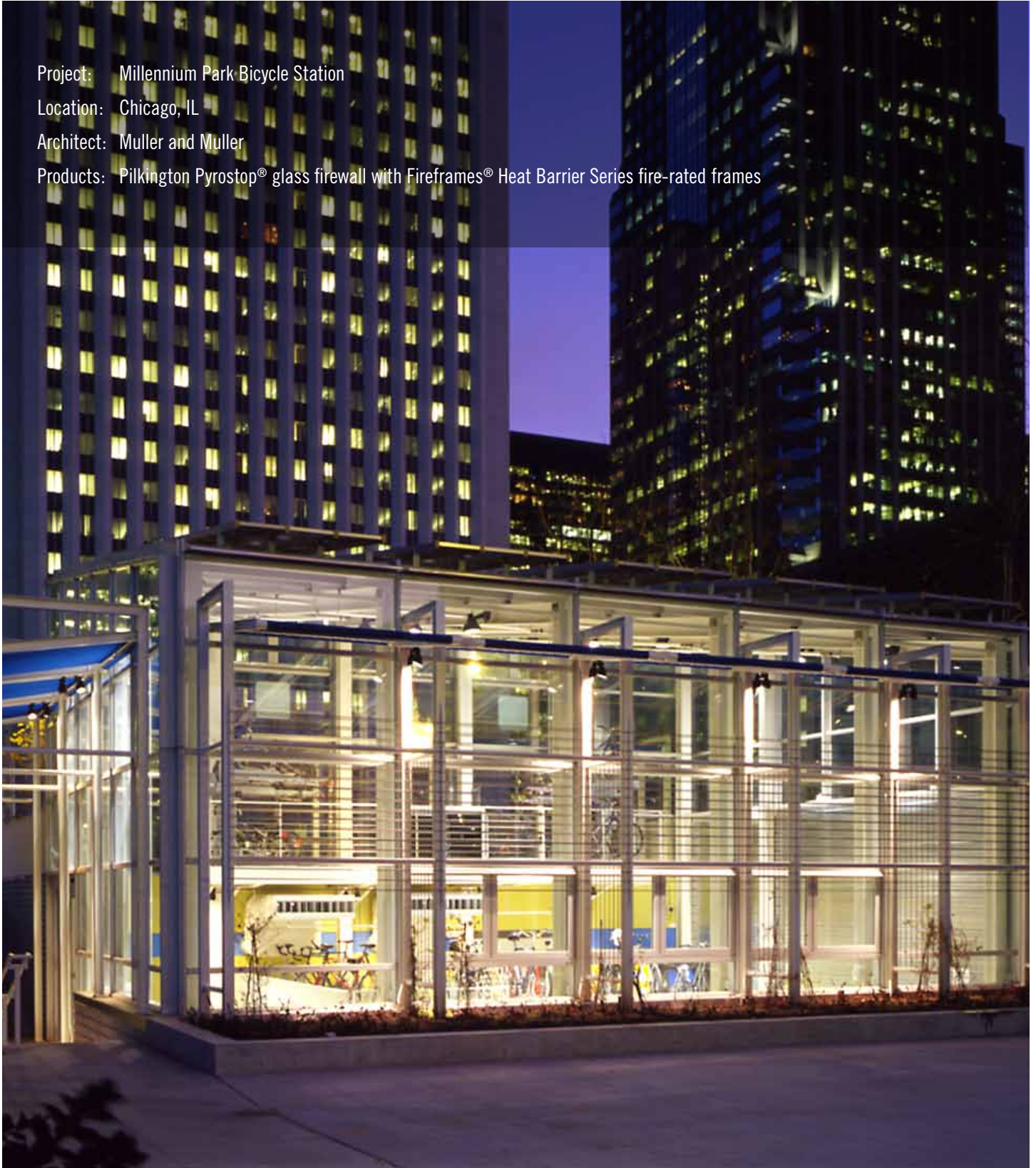


Project: Millennium Park Bicycle Station

Location: Chicago, IL

Architect: Muller and Muller

Products: Pilkington Pyrostop® glass firewall with Fireframes® Heat Barrier Series fire-rated frames



The City of Chicago had one heck of a challenge when designing its new Millennium Park. With downtown Chicago as its backdrop, home of some of the most spectacular architecture in the world, expectations were high for any new buildings within the park. Yet, the project designers delivered a jewel that exceeds all the expectations and one small building, in particular, is getting more than its share of attention.



The Millennium Park Bicycle Station is located in the northeast corner of the park and near the intersection of Randolph Street and Columbus Drive. It is conveniently located within a short walk of the nearby South Shore terminal, and both Metra's Randolph Street station and the McCormick Place Busway connect directly to the park. So, bicyclers can comfortably take a train into town, pick up their bike at the Bicycle Station and peddle the rest of the way to work.

Most of Millennium Park is built above street level on top of a parking garage that covers the Illinois Central railway lines. The Bicycle Station, however, is located below grade on levels five and six of the parking garage with just a 1,000 square-foot glass enclosed atrium at park level.

Bicyclers come and go from the Bicycle Station by walking their bicycles (riding is not allowed) up and over the 940-foot long BP Bridge, designed by renowned architect Frank Gehry. The bridge originates in the nearby Daley Bicentennial plaza and slopes sinuously over Columbus Drive to connect with Millennium Park just south of the Bicycle Station. The gradual slope (less than five percent) and overall length of the bridge conforms to the American with Disabilities Act so bicyclists as well as pedestrians can share it.

Keeping the interior spaces open and full of light was a real challenge in the below grade space. Low ceiling heights also required vertical chaseways for mechanical systems, which gave it more of a closed in feeling.

"The real heart of the facility is underground," says the project architect David Steele of Chicago-based Muller and Muller. "The purpose of the atrium was really to give it an identifiable presence above ground and bring light down into the space below."

Bicyclists bring their bicycles into the building and negotiate a winding ramp down to a bicycle parking area. There's also a staircase leading downward to other areas, which presented a real challenge to maintaining a sense of openness within the building.

"We wanted to leave the staircase open so the light would flow through," Steele adds, "but the city wanted them enclosed for safety reasons." To address both concerns, Steele looked into available glazing solutions.

"The local building code would have allowed for fire-rated wire glass on the stair case, but we really wanted a product that also had a heat rating. After all, what's the point of having fire rated glass if the heat comes right through?" says Steele. "So, we specified a product from Technical Glass Products that also allowed us to install the largest size of glass we could get with minimal framing. That way, people can see their destination which really helped maintain the building's sense of openness."

The product they chose was Pilkington Pyrostop®, a fire and impact safety rated glass fire wall, with Fireframes® Heat Barrier Series, a fire-rated framing that provides a barrier to heat for glass fire wall systems. Pilkington Pyrostop is tested to the same standards as a solid barrier wall, and it blocks the heat generated by a fire. Combined with the Heat Barrier Series, the two form a system that offers fire ratings of up to two hours.

"Working with Technical Glass Products was really easy," says Steele. "I just pulled all the product details off the Web site. Any time a product is so easy to use, it's good for the architect. With all due respect, I'm really the one who has to go in and sell the product to the client. If I can't get the information I need then I can't stand behind it. A lot of companies don't seem to understand that as well as Technical Glass Products."

In keeping with its environmentally friendly mission, the Bike Station atrium also features 120 black laminate solar panels that collect energy from the sun and generate 6.5 percent of the electricity needed to run the facility. The solar and other reflective panels allow dappled light to come through, which adds to the open atmosphere while still providing valuable shade to help keep the structure cool on sunny days.

One of the biggest challenges for the architect was the project schedule. The design process began in late August with bid drawings ready mid-December and construction beginning the following March. Yet, despite all the challenges, the 16,448-square-foot, heated Bicycle Station opened, along with the rest of Millennium Park, on July 16, 2004.

The finished Bicycle Station includes free indoor parking for 300 bikes, showers and lockers, bicycle rental and repair, and a café. You can also purchase a daily pass to the locker rooms, which are sold for just \$1 and sold in packs of ten, a monthly pass for \$15 or an annual membership for just \$99. Both male and female locker rooms house an equal 150 lockers, 100 of which are reserved for members with the remaining 50 available to those with daily passes. In addition to commuter and recreational bicyclists, the facility also serves runners and inline skaters.

The Chicago Park District runs the Station. The city also provides free valet bicycle parking at the Station during summer performances and festivals at Millennium and adjacent Grant Park. An internet kiosk is available to send a quick email, join/renew memberships, register for events and register your bicycle with the Chicago Police Department, whose Lakefront Bicycle Patrol Unit is stationed within the facility. You also can sign up for a nonprofit car-sharing program called IGO, and you can stop by for a guided bicycle tour during the summer months.

Funding for the \$3.1 million Bicycle Station was provided by a federal grant from the federal Congestion Mitigation and Air Quality program awarded to projects that ease traffic congestion and improve air quality.

The only downside to this wonderful facility is the current waiting list for memberships. All 200 available memberships sold out within the first two weeks.

For more information on Pilkington Pyrostop and Fireframes Heat Barrier Series, visit Technical Glass Products' Web site at www.fireglass.com.