Elmhurst Community Library

The borough's second-busiest library engages the community it serves with a transparent and welcoming structure that is alive with activity day and night.

IN THE DECADES FOLLOWING WORLD War II, Elmhurst, Queens, became—and continues to become—one of New York City's most ethnically diverse neighborhoods, as well as one of the most linguistically rich places in the world.

It makes sense, then, that the Elmhurst Community Library is the second busiest circulating library in the borough's network of 64 libraries, with more than 80,000 card-holding users speaking more than 57 languages. The library lends approximately 1.2 million items per year, and it often serves as a front door to this country, as well as a community center and a great equalizer.

But Elmhurst had outgrown its original 1904 Lord & Hewlett-designed Carnegie library, an imposing monolithic structure that was adapted multiple times to support increasing numbers of visitors, and in December 2016 it finally welcomed a new home built partly over the Carnegie's old foundation. The 32,000-square-foot Elmhurst Community Library, which is double the size of the Carnegie, was designed by Marpillero Pollak Architects (MPA) in collaboration with the Queens Borough Public Library and the NYC Department of Design and Construction. "Coming to library is part of the process of assimilation," says Sandro Marpillero, a founding partner of MPA. "The goal was to celebrate the diversity of this place and to try to set up the most inviting and fluid sense of spaces to respect individual patrons' differences."

A monumental, stringerless stair connects the two main floors of the library. The extra-wide landing encourages social interaction.

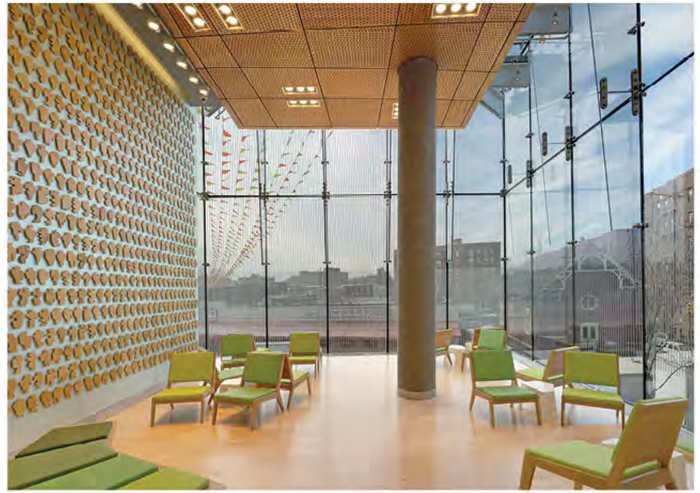
This page Construction photos show the installation of the glass curtain walls in the library's two glazed cubes. All of the steel beams and outriggers are purposefully exposed and cambered toward their apex in the most exposed corner of the cube at the center of the park. (Only the outriggers are visible, against the glass roof return, in the Broadway cube.)

The new structure is transparent and welcoming, with state-of-the-art technology and ample spaces to read, learn, and relax. It holds more than 75,000 books and multimedia for children and adults in English, and 36,000 books and multimedia in nine different languages. The design team took great care to reference historical elements of the Carnegie building, adding a "memory wall" at the entrance to the library made of bricks from the original facade and a fireplace mantel from the previous library's children's room.

Making the best use of community garden and park space that had become overshadowed by a neighboring 15-story residential tower built in the 1970s, the library now re-asserts its civic presence on the corner of Broadway and 51st Avenue. Somewhat Z-shaped in plan, it consists of two main volumes joined at the now transparent center of the site and clad in a terracotta rainscreen, with aluminum inserts marking the floors slabs and articulating bands of vertical windows. This neighborhood-appropriate treatment contrasts with two glazed cubes for reading rooms, which position patrons in the city and park. One, to the east and engaging Broadway, floats above the main entrance. The other, to the north, extends into the community park and makes a showcase of a cantilevered, monumental stair. These glowing, smaller volumes are beacons at night. In scale they reference the neighborhood's surrounding historic fabric, including the landmark 1760 St. James Episcopal Church Parish Hall across Broadway.

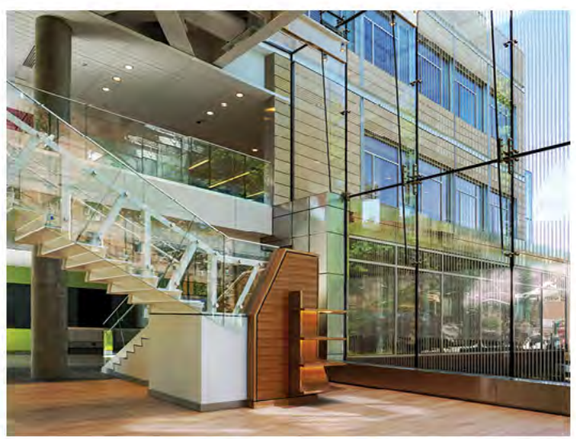
All photos: Marpillero Pollak Architects

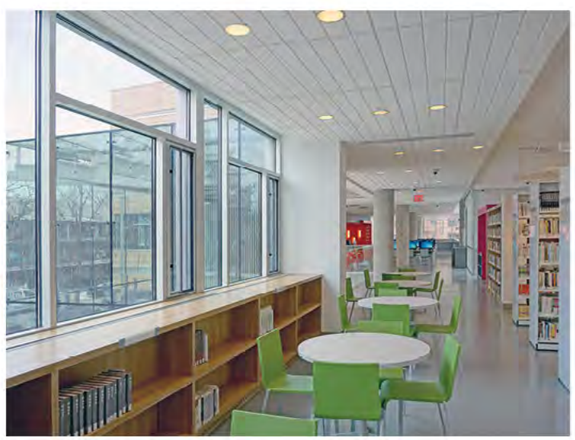
Clockwise from top The glazed Broadway Reading Room cantilevers over the street, engaging passersby with artist Allan McCollum's 20-by-20-foot "Shapes" wall installation made of elm wood. For the roof return glass in the cubes, W&W Glass selected Pilkington Optiwhite low-iron insulating PVB laminated glass with white, silk-screened vertical frit on the #3 surface. The second floor adult stacks look out over a community park. Point-supported structural glass is used in the library's two cubes, allowing natural light to flood the space. The glass walls are supported by cantilevered laminated glass fins, which lend high levels of structural support without significantly reducing the transparency of the system.



The architects and design team, including Severud Associates Principal Cawsie Jijina, established strict performance standards for the structural glass cubes, leading them to select W&W Glass. Together the team conceived of a plan to install Pilkington Planar point-supported structural glass comprised of heavy-duty Pilkington Optiwhite low-iron insulating glass units with HP 69/37 Low-e on the #2 surface and insulating units. Custom white, silk-screened frit on the #3 surface provides excellent thermal performance and glare control, with variations in pattern density on differently oriented surfaces.

For the roof return glass, the team selected Pilkington Optiwhite low-iron insulating PVB laminated glass with HP 69/37 Low-e on the #2 surface and white, silk-screened frit on the #3 surface. The facade glass is supported by steel outriggers that extend from the roof's structure and hold hanging Pilkington Optiwhite low-iron SentryGlas laminated glass fins. As Jijina explains, the weight of the glass—held more than 20 feet above the floor—puts it in tension, making it rigid enough to withstand wind loads. A 1-inch





Above The two glass cubes connect the library to newly designed side and rear parks. Windows facing the southern park feature terracotta baguettes attached to vertical metal fins anchored to the curtain wall. These louvers help to filter light daylight.
Facing The library's glass volumes act as lanterns at night and remind passersby that the building is often open after lending hours for events and classes.

air gap at the base allows the glass to expand in the heat without touching the base of the shoe.

In the reading room that overlooks Broadway there is no dead load on the slab because there is no weight from the three-dimensional structural glass enclosure hanging from the roof's outriggers. This allows for the dramatic cantilever, which acts as a thin canopy above the main entrance. HVAC ducts are carefully sculpted between the exposed steel beams in both glass cubes. The openings in the beams are shaped to conform to the grand architectural plan. Every structural steel connection is formed so that bolt heads across a central spine are symmetric on either side. Within the glass cubes' structural framing, even the hex-head bolts are torqued to a position such that the top edge of the hexagon is always parallel to the beam flange.

For the whimsical monumental stringerless glass and steel stair, Jijina engineered a one-sided exposed truss railing from which a single steel folded plate stair is hung, adding floating glass plates to the sides of this long-span structure.

Six-inch-diameter columns, acting as supports for roof and wind load, modulate the interior of the library's two stainless steel-clad volumes that emerge from the terracotta enclosure (one story in front and two stories towards the back). "They allowed us to have the same section of aluminum curtain wall on the horizontal and the vertical members in the two-story high portion, while also matching the profiles of the lower one and those of all of the recessed windows in the terracotta," says Marpillero. The rhythm of these thin columns, juxtaposed with the exposed concrete ones along the circulation spine, establish both visual continuity and variation.

MPA used a diagonal central spine that runs on an east-west axis as an organizing tool for the library's circulation and program spaces, which are identifiable by their brightly colored thresholds portals. An Adult Learning Center and related classrooms are below ground. A long checkout and help desk greets visitors in the lobby, leading them to a newsstand kiosk and the elm wood-clad Carnegie Reading Room that overlooks the community learning garden. On the second floor, teens get their own space behind a lit entry portal, while the third floor contains the children's library and multipurpose room. The Adult Learning Center and the multipurpose room are often open after hours, increasing opportunities for community programs, such as Tai Chi classes, dance workshops, and discussions of relevant civic issues.

"The idea is that the library is now an extension of the city: patrons encounter different spaces of different scales and identities as they walk through it," says Marpillero. As far as melting pots go, the Elmhurst Community Library is a near-perfect model.

ELMHURST COMMUNITY LIBRARY

Location: **86-07 Broadway, Queens, NY**
Owner/Developer: **New York City Department of Design and Construction (DDC)**, *New York, NY*
Architect: **Marpillero Pollak Architects**, *New York, NY*
Structural Engineer: **Severud Associates**, *New York, NY*
Mechanical Engineer: **ADS Engineers**, *New York, NY*
Construction Manager: **Staloo Construction, Inc.**, *Islandia, NY*
Structural Steel Erector: **Swingline Steel**, *Smithtown, NY*
Miscellaneous Iron Fabricator and Erector: **Mid Island Erectors, Ltd.**, *Middle Island, NY*
Curtain Wall Fabricator: **Pilkington Planar**, *Hauppauge, NY*
Curtain Wall Erector: **W&W Glass, LLC**, *Nanuet, NY*