ARCHITECTURAL FACT SHEET

The Forum
Columbia University Manhattanville Campus

Project Description

The Forum has been designed by Renzo Piano Building Workshop as a gateway to Columbia's new Manhattanville campus, to welcome the University community, academic visitors from around the world, neighborhood residents and the public at large. Anchoring the southmost corner of the Manhattanville campus, the building houses an auditorium, meeting rooms, offices, an information center/program space and street-level retail space. Like the rest of the Manhattanville campus, the building is designed to be both a University-wide facility, drawing together students and faculty in all disciplines and professions, and a resource that is open to and engaged with the surrounding West Harlem community.

LOCATION AND RELATIONSHIP TO THE CAMPUS

The Forum is built on a triangular site bounded on the east by Broadway, on the south by West 125th Street and on the north by West 129th Street. It is one of three buildings and a plaza that define the southeastern section of the new 17-acre Manhattanville campus. Immediately to the north of the Forum is the Jerome L. Greene Science Center, housing the Mortimer B. Zuckerman Mind Brain Behavior Institute. To the west is the Small Square, which stretches from West 125th Street to the entrance of the Lenfest Center for the Arts.

Like all new buildings being developed for the Manhattanville campus, the Forum, the Jerome L. Greene Science Center and the Lenfest Center are glass enclosed and open to the public at street level. Above street level, the predominant skin of the Forum is precast concrete and glass; of the Jerome L. Greene Science Center, glass; and of the Lenfest Center, metal panel. The contrasting materials serve the different functions of the three initial buildings while also establishing the architectural palette for the campus.

DESIGN

Renzo Piano Building Workshop

ARCHITECTS OF RECORD

Dattner Architects, Executive Architect

ASSOCIATE ARCHITECT

Caples Jefferson Architects, Associate Architect

PROJECT SIZE

56,000 square feet
- 41,000 square feet above grade (three floors)
- 15,000 square feet below grade (one floor)
- Building footprint: 17,846 square feet
- Building height: 69 feet

KEY DATES

Planning initiated: 2003
City Council approval of Manhattanville campus plan: 2007
Beginning of preconstruction site work: 2008
Manhattanville campus dedication: October 24, 2016
Forum topping off: April 2017
Opening of Jerome L. Greene Science Center, Lenfest Center for the Arts and Small Square: May 2017
Opening of the Forum: September 2018

FLOOR-BY-FLOOR PROGRAM

All four program areas (Screening Room, performance space, Wallach Art Gallery and presentation space) are given double-height spaces.

- **Street Level:** Lobby (1,970 sf), information center/program space (2,628 sf) and retail space (4,214 sf)
- **Floors 2 and 3:** 437-seat auditorium (31 feet 10 inches high floor to ceiling, approximately 52 feet x 77 feet), meeting rooms, offices, 3rd-floor terrace
- **Below Grade:** Retail support space (including a warming kitchen for a café), storage, building support space

PRINCIPAL DESIGN FEATURES

• Complementarity
The first two buildings in Manhattanville were dedicated to science and the arts. The Forum adds communication and community to the mix, as the third fundamental element needed to establish a campus.

• Transparency and Permeability
The active and luminous street level is open to the public and can accommodate a variety of activities, including exhibitions, Columbia events and events by community groups. The main body of the Forum looks like a ship that is levitating above this light and transparent urban layer.

• Form
The functions accommodated within the Forum have dictated the building's architectural vocabulary. The opacity necessary for the building's largest volume, the auditorium, is expressed with a precast concrete skin. The offices, which require daylight, are expressed with a glazed façade. Mechanical systems are expressed on the roof.

PRINCIPAL STRUCTURAL AND MECHANICAL FEATURES

• Foundation
The foundation consists of reinforced poured concrete mat slab and drainage course, with a topping slab above.

• Structure
The building consists of a steel-framed structure with metal decking.

• Façade:
At street level, the façade consists of a custom-glazed curtain wall system with complete transparency. Along the south side, fritted glass awnings protect pedestrians from rain and the interior spaces from direct sunlight. Levels 2 and 3 consist primarily of a precast concrete cladding system with punch windows on the eastern half of the north and south façades. A glass curtain wall assembly defines the western half of the north and south façades.

• Auditorium:
Wood panels on the walls and ceiling are strategically placed to enhance acoustics.

• Heating and Cooling:
Steam from the Manhattanville campus's underground central energy plant is supplied to hot-water convertors in the Forum's below-grade mechanical room, and the hot water is delivered to air-handling units by circulating pumps. Chilled water produced by the central energy plant is delivered to cooling coils located in custom-designed rooftop air handling units, and the chilled air is delivered throughout the building through ducts. A radiant floor heating and cooling system circulates the hot and chilled water through polypropylene tubing embedded throughout the building's ground floor concrete slab for enhanced occupant comfort.

• Reduction of Energy Consumption:
Lighting control systems in perimeter spaces with windows switch on or dim lights in response to the changing availability of daylight. Occupancy sensors are provided in offices, conference rooms, stairwells, storage spaces, restrooms and mechanical/electrical rooms. Interior motorized roll-down shades on the first, second and third floors and in conference rooms tie into the daylight control system.

MANHATTANVILLE CAMPUS

The largest and most ambitious capital project undertaken by Columbia University since its landmark Morningside Heights campus (McKim, Mead and White, dedicated 1896), the Manhattanville campus was proposed by University President Lee C. Bollinger in 2003. It is master planned by Renzo Piano Building Workshop (with Skidmore, Owings & Merrill as urban design team) to provide the innovative academic space that will keep Columbia at the forefront of the world's research universities and fulfill its mission to address society's challenges through the creation of new knowledge. Defining Columbia's building footprint for decades to come, the 17-acre campus is intended to create a different kind of space from that in the past, with facilities that encourage the University-wide, cross-disciplinary interaction that is crucial to advances in all fields and reflective of New York's dynamism. At the same time, the open, sustainable campus is designed to deepen the connections between Columbia and its local community, so that the City and the University can enliven and strengthen each other. The Manhattanville campus plan will enable Columbia to extend beyond its beloved but enclosed Morningside Heights setting with an open, welcoming campus, embedded in New York's existing street grid without traditional gates or barriers. The long-term plan will eventually create 6.8 million square feet of new academic space, as well as more than an acre of publicly accessible green space, landscaped paths and street-level commercial and civic facilities open to the public.

Situated a few blocks northwest of Morningside Heights, the Manhattanville campus occupies an area from 125th Street to 133rd Street, and from either side of Broadway to 12th Avenue. The site was characterized since the late 19th century by industrial buildings, some of which will be adaptively reused amid the new construction.

Distinct from the campus, but directly connected with it and financially supported by Columbia, is the West Harlem Piers Park on the Hudson River.

FORUM DESIGN TEAM

Columbia University Manhattanville Development Team
R. Kasdin, Senior Executive Vice President; J. Ienuso and D. Greenberg, Executive Vice Presidents; P. Pitruzzello, Senior Vice President; M. Velez, Vice President; F. Gong, W. Elmes and M. Fletcher, Associate Vice Presidents; S. Neissen, J. Pepe and D. Cole, Directors; L. Price, A. Djonbalic, N. Joseph, A. Collazo, J. Sugaste and R. Akovity

Renzo Piano Building Workshop
Renzo Piano, Founder and Principal
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Structural and Cost Engineer: AECOM
MEP Engineer: WSP Group
Auditorium, Acoustics and IT: Arup
Lighting: Tillotson Design Associates
Audiovisual: Cerami
Façade: Front, Inc.
Civil Engineer: Stantec
Security: Aggleton & Associates
Geotechnical Engineer: Mueser Rutledge Consulting Engineers
Landscape Architect: James Corner Field Operations
Vertical Transportation: Jenkins & Huntington
Geotechnical Engineer: Mueser Rutledge Consulting Engineers
Radio Frequency: The Clarient Group
Cost Consultant, Columbia University: VJ Associates
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