

# THE ROY AND DIANA VAGELOS EDUCATION CENTER

## New Medical and Graduate Education Building at Columbia University

### ARCHITECTURAL FACT SHEET

**PROJECT DESCRIPTION** The Vagelos Education Center is a new, state-of-the-art medical and graduate education building at Columbia University Medical Center. The building, designed by Diller Scofidio + Renfro, in collaboration with Gensler as executive architect, is a 100,000-square-foot, 14-story glass tower that incorporates technologically advanced classrooms, collaboration spaces, and a modern simulation center to reflect how medicine is taught, learned, and practiced in the 21<sup>st</sup> century. The design seeks to reshape the look and feel of the Medical Center, and to create spaces that facilitate the development of skills essential for modern medical practice.

<b>KEY DATES</b>	Design Competition	March 2010
	Groundbreaking	September 16, 2013
	Opening	August 16, 2016

**LOCATION** Columbia University Medical Center, 104 Haven Avenue, New York, NY

**DESIGN ARCHITECT** Diller Scofidio + Renfro

**EXECUTIVE ARCHITECT** GENSLER

**SCALE** 14-story tower + cellar and mechanical penthouse

Site dimensions	125' X 100'
Gross floor area	110,000 SF
Zoned floor plate	81,000 SF
Tower floor plate	6,000 SF
Base floor plate	12,500 SF
Total building height	220'-0"

**LEED** The Vagelos Education Center targets LEED Gold certification. Sustainable features include environmental assets, such as fixed and operable shading to optimize the regulation of daylighting and solar gain by program area; an innovative mechanical system designed to maximize tenant comfort, and minimize energy and water use within the building; green roof technologies that reduce the heat-generating effects of urban asphalt and concrete, lower building energy consumption, and recycle stormwater runoff; and the use of native plantings adapted to the area's sun and wind conditions to minimize irrigation requirements and produce year-round texture, color, and shelter.

## DESIGN AND CONSTRUCTION TEAM

*Diller Scofidio +  
Renfro*

Partner-in-Charge: Elizabeth Diller  
Principal Designers: Ricardo Scofidio AIA, Charles Renfro AIA, Benjamin Gilmartin AIA  
Project Director: Anthony Saby  
Project Architect: Chris Hillyard, AIA  
Design Team: Chris Andreacola AIA, David Chacon AIA, Christopher Kupski AIA LEED AP, Barak Pliskin AIA LEED AP, Kevin Rice AIA, Gerard Sullivan AIA, Mary Broaddus, Charles Curran, Robert Donnelly, Amber Foo, Yoon-Young Hur, Joshua Jow, Andreas Kostopoulos, Joseph Dart Messick, Patrick Ngo, Matt Ostrow, Stefano Paiocchi, Jesse Saylor, Jack Solomon, Hallie Terzopolos, Elizabeth Wisecarver

*Gensler*

Principal-in-Charge: Madeline Burke-Vigeland AIA, LEED AP  
Project Manager: Kristian Gregerson AIA  
Technical Director: Ambrose Aliaga-Kelly AIA  
Design Team: Joanne Fernando AIA, Jinho Kim AIA, Michelle Neary AIA, Bill DuBois, Ana Espejo, Mariano Ortiz, Henry Hong RA, Scott Wilson AIA

*Structural Engineer*

Leslie E. Robertson Associates (LERA)

*MEP Engineer*

Jaros Baum & Bolles (JB&B)

*Landscape Architect*

SCAPE/Landscape Architecture

*Curtain Wall Consultants*

Buro Happold Consulting Engineers P.C.

*Lighting Consultants*

Tillotson Design Associates

*Acoustic / Audio / Visual  
Consultants*

Cerami & Associates, Inc.

*Building Code  
Consultants*

Milrose Consultants, Inc.

*Elevator Consultants*

Jenkins & Huntington, Inc. (JHI)

*Graphic Designers*

2x4 and Gensler

*Civil / Geotechnical  
Engineers*

Thornton Tomasetti, Weidlinger Transportation Practice

*Security and IT  
Consultants*

Jaros Baum & Bolles (JB&B)

*Sustainability  
Consultants*

Vidaris Inc.

*Foodservice Consultants*

Cini-Little International, Inc.

*Construction Managers*

FJ Sciamè Construction Co., Inc.

*Owners Representative*

Group PMX

# TECHNICAL & MATERIAL DESCRIPTION

## The Glass Fiber Reinforced Concrete (GFRC)

cladding panel system follows the trajectories of the cascade and defines each 'neighborhood' zone of the building.

## Insulated stick built glass fin curtainwall

with low-iron glass and low-e coating optimizes energy and allows for maximum transparency. Each of the glass fins is unique: length 1.2 to 9m, depth 34 to 61cm, build-up 3 x 10 / 12 / 15mm, weight 70kg to 620kg.

The **interior finishes** of the study cascade include Douglas Fir wood veneer wall and ceiling panels, Douglas Fir end grain wood flooring, and solid wood millwork. Higher traffic areas use terrazzo flooring.

The **West Court**, a garden space shared between the new building and adjacent student residences, features local plant species from the Palisades and views across the Hudson River and to the George Washington Bridge.

The **South Court**, a new amenity created by configuring the entry to the CUMC parking garage to create a landscaped garden with shaded seating areas and views of the Hudson River.

## Ceramic "frit" patterns and gradients

are baked onto the north end of the building to filter and diffuse sunlight while mitigating solar gain.

## Unitized aluminum mullion curtainwall

with integrated GFRC elements clads the north end of the building.

The building's **structural spine** is a site-formed reinforced concrete vertical core, which provides shear capacity. In the cascade, there are reinforced architectural concrete columns with embedded steel-up girders. Post-tensioned, reinforced concrete slabs with embedded structural steel and cobiax void-formers enable the long spans and cantilevers of the south facade.



To Campus



# INTERNAL ORGANIZATION

## STUDY CASCADE

A network of social and study spaces distributed across oversized landings along an open 14-story stair - a single, interconnected vertical space that extends from the lobby to the top of the building.

### Sky Lounge

Intimate and informal gathering space for study groups.

### Exterior Terraces

Available for student use at 4th, 8th, 10th, and 13th floors.

### Stepped Lounge

A tiered study lounge (on floors 7-8 and 11-12) provides opportunity for formal and informal study.

### The Student Commons

A double-height space that features a café, lounge seating, and balconies for both social gatherings and independent study.

### Study Spaces

A range of intimate lounge-style and desk areas are distributed throughout the study cascade.

### Multi-purpose auditorium

A 275-seat flexible space used for campus-wide events including lectures, screenings, and concerts.

### Lobby

The space is formed by a seating area, cafe, and a "study bar" overlooking the outdoor courts.

## SPECIALIZED SPACES

A vertical stack of loft classrooms, laboratories, technical spaces, offices, and controlled environments.

### Active Learning Classrooms

Divided by operable partitions, these 30 / 60 person flexible spaces offer indirect sunlight and controlled views through continuous, full height windows. Flexible furniture configurations are made possible by distributed power and data at the floor, and by suspended ceilings.

### Administration Suites

Office and support spaces for faculty and administration.

### Simulation Center

A specialized zone with mock examination rooms, clinics, and operating rooms.

### Anatomy Quad

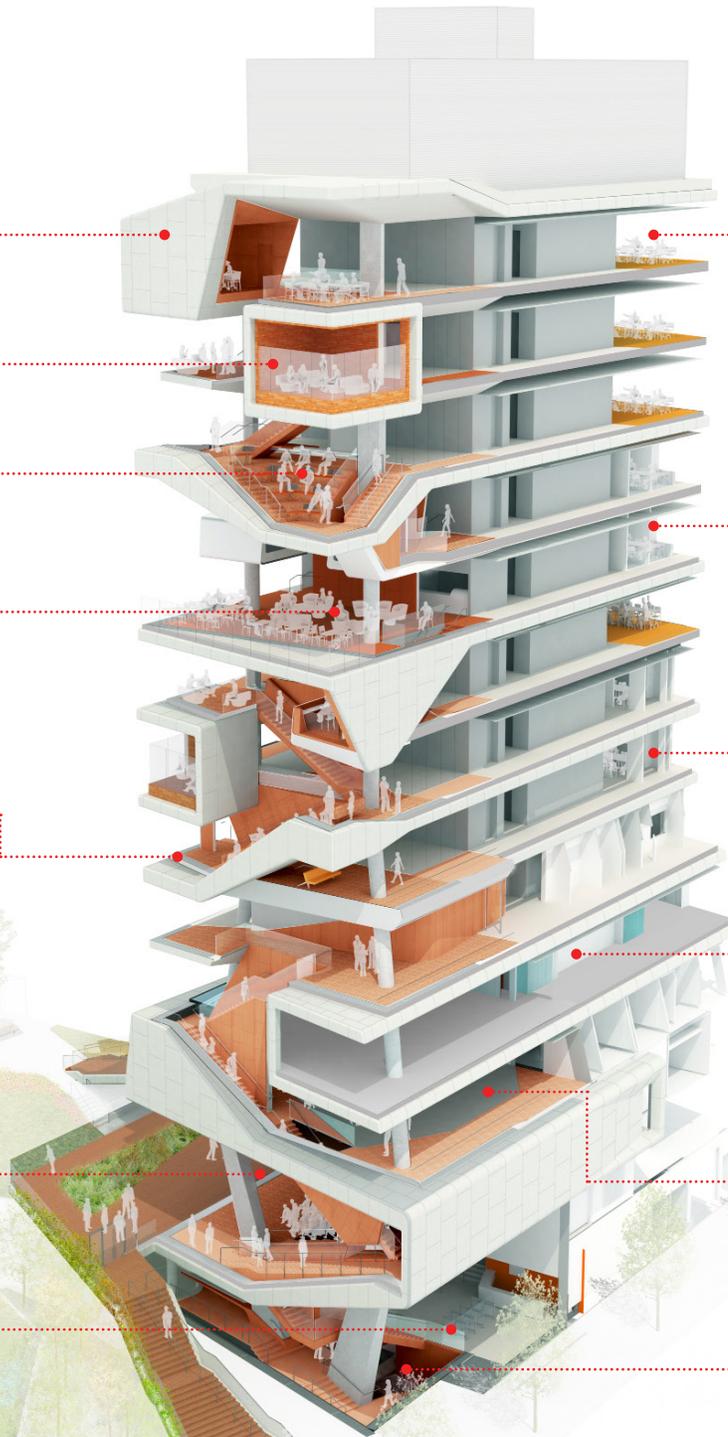
Suspended booms with integrated screens and task lighting. Large footprint and central location allows for flexible use.

### Special Event Space

190-person classroom / flexible event space with catering support.

### Simulation Suite

An open reception area with debriefing rooms and support spaces, as well as further mock examination rooms, clinics, and operating rooms.



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