

BUILDING STATISTICS PART 1

UNIVERSITY OF MARYLAND – BALTIMORE HEALTH SCIENCES FACILITY III

666 W. BALTIMORE ST. BALTIMORE, MD

KENNETH MOORE LIGHTING / ELECTRICAL THESIS ADVISOR: SHAWN GOOD

TABLE OF CONTENTS

EXCECUTIVE SUMMARY	page 2
GENERAL BUILDING DATA	page 3
ARCHITECTURE	page 5
GENERAL INFORMATION	page 5
APPLICABLE CODES	page 5
ZONING	page 5
HISTORICAL REQUIREMENTS	page 5
BUILDING ENCLOSURE	page 6
BUIDLING FAÇADE	page 6
ROOFING	page 6
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SUSTAINABILITY FEATURES	page 7

EXECUTIVE SUMMARY

The following statistical summary describes the general building data for the University of Maryland – Baltimore Health Sciences Facility III, including the companies involved in its construction and design. There is a brief evaluation of the existing architecture. The building is not restricted by local zoning codes as it is located on a college campus. The sustainability features include a green roof and water filtration system.

GENERAL BUILDING DATA | HEALTH SCIENCE FACILITY III

Building: Health Sciences Facility 3
Location and Site: University of Maryland – Baltimore
666 W. Baltimore Street, Baltimore, MD 21201
Building Occupant: University Students and Staff
Occupancy Type: Business use Group B, Assembly use Group A-3, Storage use Group S
Size: Approximately 430,000 square feet
Number of Stories above Grade: 10
Total Number of Stories: 13 (Includes the upper and lower basement levels. The Mechanical Penthouse and Mechanical Mezzanine are considered an additional level because it encompasses the entire rooftop structure)
Dates of Construction: July 2013 - September 2017 (including Demo)
Cost Information: \$216 million total building construction cost
Project Delivery Method: CM at Risk
Project Directory:

- University of Maryland-Baltimore, Office of Facilities Management Owner
 220 Arch Street
 Baltimore, MD 21201
 http://www.umbfm.umaryland.edu/
- Barton Malow Company Construction Manager
 300 W. Pratt Street, Suite 310 Baltimore, MD 21201
 http://www.bartonmalow.com/
- Hellmuth, Obata, & Kassabaum (HOK) Architect
 3223 Grace Street, NW Washington , DC 20007 <u>http://www.hok.com/</u>
- Design Collective Associate Architect
 601 East Pratt Street, Suite 300 Baltimore, MD 21202

http://www.designcollective.com/

- AEI Engineers
 Mechanical Engineer
 401 N. Washington St. Suite 400
 Rockville, MD 20850
 <u>http://aeiengineering.com/</u>
- WFT Engineers
 Plumbing/FA/FP Engineer
 9737 Washingtonian Blvd. Suite 588
 Gaithersburg, MD 20878
 http://www.wfteng.com/
- Cagley & Associates Structural Engineer 6141 Executive Blvd, Rockville, MD 20852 http://cagley.com/
- Site Resources
 Civil Engineer/Landscape Architect
 14315 Jarrettsville Pike,
 Phoenix, MD 21131-0249
 http://www.siteresourcesinc.com/
- Jacobs Consultancy
 Lab Planning
 303 South Broadway, Suite G20
 Tarrytown, NY 10591
 <u>http://www.jacobsconsultancy.com/</u>
- Melville Thomas Architects, Inc. Interior Architects
 600 Wyndhurst Ave. Suite 315 Baltimore, MD 21210 http://mtarx.com/
- Kim Engineering, Inc. Geotechnical Engineer
 1520 Caton Center Drive, Suite E-2 Baltimore, MD 21227
 http://www.kimengineering.com/

ARCHITECTURE | GENERAL INFORMATION

The new Health Sciences building for the University of Maryland campus will be a highly advanced research facility. It is designed to house research groups from the university's School of Medicine, Pharmacy, and Dentistry. The building is divided into 4 main sections. First, the 10 story tower that serves as a wet lab for research and office space. A second, smaller tower serves as a dry lab which also features offices and workstations for research. The third section is the main atrium. This 7 story glass atrium connects the two main towers with open bridges on the upper floors, providing accessible transference between both buildings. The final east tower is the main connection between all 4 spaces mainly consisting of elevator lobbies, stairwells, and conference room space. The exterior site will provide additional green space to the campus featuring a landscaped walkway around the building and a drop-off circle for vehicles.

ARCHITECTURE APPLICABLE CODES

- Maryland Building Performance Standards, COMAR 05.02.07 (2012 Edition) and State of Maryland Fire Prevention Code COMAR 29.06.01 (2013 Edition)
- International Building Code (IBC), 2012 Edition
- International Mechanical Code (IMC), 2012 Edition
- International Fire Code (IFC), 2012 Edition
- American with Disabilities Act, Titles II and III (ADA), 2010 Edition
- ASME A17.1, Safety Code for Elevators and Escalators
- NFPA 101 Life Safety Code (LSC), 2009 Edition
- NFPA 70, National Electrical Code (NEC), 2011 Edition
- NFPA 45, Standard for Fire Protection for Laboratories using chemicals, 2011 Edition
- NFPA 72, National Fire Alarm and Signaling Code, 2010 Edition
- NFPA 90A, Standard for the Installation of Air-Conditioning and Ventilating Systems, 2012 Edition
- NFPA 92B, Smoke Management Systems in Malls, Atriums and Large Spaces, 2009 Edition
- NFPA 1, Fire Code, 2012 Edition

ARCHITECTURE ZONING

Not Applicable: On Campus Location

ARCHITECTURE | HISTORICAL REQUIREMENTS

None

BUILDING ENCLOSURE | FAÇADE

The majority of the southern exterior façade is an insulated glass curtain wall. The north tower is mainly a precast wall with punch out windows. There is a curtain wall that juts out from the precast on the north façade adding an additional feature to the exterior. The rest of the north tower is a combination of 4" nominal brick veneer and composite aluminum metal panels on the penthouse floors. Below is an image of the curtain wall section. The laminated glass units are 9/16" thick with a fritted PVB interlayer.



Image provided by contract documents.

BUILDING ENCLOSURE | ROOFING

The roofing features sloped concrete slab sections for rainwater collection. The North tower is the only space not covered by green roof which consists mostly of exposed precast and hot fluid applied, rubberized asphalt. Uncured neoprene flashing is embedded in the roofing membrane.

SUSTAINABILITY FEATURES | HEALTH SCIENCE FACILITY III

Features a Green Roof on all building towers except for the roof of the North Tower. The 2nd floor of the north tower has a small exterior space which also functions as a green roof. Below is an image showing the standard depth of green roof.



Image provided by contract documents.