

# Health Sciences Facility III Baltimore, MD



South Elevation Rendering\*

## CONSTRUCTION

- Placement of concrete is pumped from the foundations to the 5<sup>th</sup> floor, crane and bucket for the remaining floors
- Tower crane will stay throughout the construction of the superstructure and façade
- Material hoist on west wall will have two cages to transport both material and workers

## ARCHITECTURE

- Open lab layout to promote collaboration
- Offices mainly along the south wall of each floor
- Primary occupants include the School of Medicine, Pharmacy and Dentistry
- Main exterior façade elements of brick, precast, and curtain wall
- Multiple green roofs located on the atrium and south tower roof
- LEED silver qualified

## STRUCTURE

- 44" mat foundation
- Concrete superstructure, 5000 psi, 8"-10" elevated slabs
- Steel framing in atrium, hollow tube steel trusses
- Average span of CIP columns is 21 feet

## MECHANICAL

- Mechanical penthouse holds main equipment
- 100% DOAS AHUs—(4) service labs and (2) service vivariums
- (2) AHUs are 35% outside air to service the office spaces
- All systems have airside economizer controls, reheat coils, chilled beams and VAV units
- Process cooling water system in the lab spaces
- Glycol heat exchangers and cooling towers service the chillers and fin tube radiators around the perimeter

## ELECTRICAL

- Skylights along atrium roof to promote daylighting
- Main electrical room in basement to receive dual redundant 13.2 KV feeders
- Anticipated load of building is 7,447 KVA
- (4) main switchgears at 100 KAIC, 5000A, 480/277 Wye, two of which are backup switchgears
- (2) electrical rooms per floor to service half of the floor
- Distribution panels are divided into lighting, receptacle, lab, equipment, and emergency panels

## BUILDING INFORMATION

**Size:** 435,000 GSF

**Stories:** 11 above grade, 2 below

**Occupancy:** mixed-use lab/office/assembly

**Construction Cost:** \$206 million

**Construction:** July 2013-Sept 2017

**Delivery Method:** Fast Track Construction

**Contract Type:** CM at Risk with GMP

## PROJECT TEAM

**Owner:** University of Maryland

**Architect:** HOK

**MEP Engineer:** AEI

**Structural Engineer:** Cagley & Associates

**Civil Engineer:** Site Resources

**Construction Manager:** Barton Malow

\*Images courtesy  
of HOK



North Elevation Rendering\*

**Barton  
Malow**

**UNIVERSITY of MARYLAND**  
THE FOUNDING CAMPUS

**Kathryn Gonzales | Construction Option  
Advisor: Dr. Asadi**

<http://www.engr.psu.edu/ae/thesis/portfolios/2015/keg5247/index.html>