Realizing the Vision

2018 Facilities Master Plan
University of Maryland, Baltimore County
What is a Facilities Master Plan?

- Framework for orderly growth, linked to university mission and strategic plan
- Development plan for building renewals, new buildings, utility upgrades, and site improvements
- Strategy to address challenge of climate change
- Basis of capital plan
<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Activities</th>
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<tbody>
<tr>
<td>2016</td>
<td>JUL</td>
<td>Gather Information and Inputs</td>
</tr>
<tr>
<td></td>
<td>AUG</td>
<td>Meet with Stakeholder Groups</td>
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<td></td>
<td>SEP</td>
<td>Meet with Stakeholder Groups</td>
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<tr>
<td></td>
<td>OCT</td>
<td>Integrate</td>
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<tr>
<td></td>
<td>NOV</td>
<td>Concept and Plan Development</td>
</tr>
<tr>
<td></td>
<td>DEC</td>
<td>Visualizations and Plan Development</td>
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<tr>
<td>2017</td>
<td>JAN</td>
<td>Campus Reviews</td>
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<tr>
<td></td>
<td>FEB</td>
<td>Final Reviews and Outreach</td>
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<tr>
<td></td>
<td>MAR</td>
<td>Final Draft</td>
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<td>APR</td>
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<tr>
<td></td>
<td>MAY</td>
<td>Board of Regents Presentation</td>
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<tr>
<td></td>
<td>JUNE</td>
<td>USM BOR Approval</td>
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Guiding Principles

1. Align campus development with UMBC’s strategic plan.
2. Provide for enrollment growth in an intentional manner.
3. Assure the campus is welcoming and accessible.
4. Promote meaningful interactions through thoughtful planning.
5. Advance carbon neutrality and protect the natural environment through responsible stewardship.
6. Optimize utilization of existing resources.
7. Encourage interdisciplinary scholarship and research through purposeful adjacencies.
Historic Campus Development

1988
Historic Campus Development
Most Innovative Schools
1. Arizona State University—Tempe
2. Stanford University
3. Massachusetts Institute of Technology
4. Georgia State University
5. Carnegie Mellon University
6. Northeastern University
7. UMBC
8. University of Michigan—Ann Arbor
9. Harvard University
10. Duke University
11. Portland State University
12. California Institute of Technology

Best Undergraduate Teaching
1. Princeton University
2. Dartmouth College
3. Brown University
4. Rice University
5. Miami University-Oxford
6. University of Michigan—Ann Arbor
7. College of William and Mary
8. Georgia State University
9. Stanford University
10. Duke University
11. Yale University
12. Wake Forest University
13. UMBC
14. Indiana University—Bloomington
15. University of Wisconsin—Madison
16. Vanderbilt University
“Honor Roll” excelled in nearly every measured category

“Best Value University” for 8th year in a row

Top 2% of Universities Worldwide

“for students seeking a superb education with great career preparation and at an affordable price”

One of the World’s Top Universities for 6th consecutive time
Making a Difference

UMBC 2018 Facilities Master Plan

UNDERGRADUATE STEM ENROLLMENT

<table>
<thead>
<tr>
<th>Year</th>
<th>Enrollment</th>
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<tbody>
<tr>
<td>2007</td>
<td>3,989</td>
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<tr>
<td>2009</td>
<td>4,433</td>
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<tr>
<td>2011</td>
<td>4,989</td>
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<tr>
<td>2013</td>
<td>5,873</td>
</tr>
<tr>
<td>2015</td>
<td>6,315</td>
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<tr>
<td>2017</td>
<td>6,438</td>
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Making a Difference

55% of Bachelor’s Degree recipients are in Arts, Humanities, & Social Sciences

- 45.4% UMBC
- 20.2% Maryland public 4 yr
- 15.0% USM
**Teachers of the Year**
*Washington Post*
Shalonda Holt ‘07 (2016)
*Baltimore County*
Corey Carter ‘08, ‘10

**Lakeland Partnership**
Sherman Family Foundation
Lakeland Elementary
Lakeland Middle School
Southwest Baltimore

**Whiting Fellowship**
Denise Meringolo, Professor of History
for Baltimore Uprising public history project
Performing Arts Making a Difference

- Proscenium Theatre
- Black Box Theatre
- Concert Hall
- Dance Cube
Faculty Making a Difference

Kate Brown, Professor of History
2016 Carnegie Fellow for nuclear disaster research
2016 Berlin Prize Fellowship

Anne Sarah Rubin, Professor of History and
Associate Director of the Imaging Research Center
eLincoln Prize
James Harvey Robinson Prize

George Derek Musgrove ’97, Assoc. Professor of History
Author of Chocolate City: A History of Race and Democracy in the Nation’s Capital

Jessica Berman, Director of Dresher Center for the Humanities
The Inclusion Imperative supported by the Andrew Mellon Foundation
Faculty Making a Difference

Michael Summers, Professor of Chemistry & Biochemistry
Investigator with Howard Hughes Medical Institute
National Academy of Sciences Member
Retrovirus (HIV-1) Assembly and Structure

Govind Rao, Professor of Chemical, Biochemical, & Environmental Engineering and Director of Center for Advanced Sensor Technology
2017 Pioneer Award, Technologies Saving Lives & Empowering Patients
Portable bioreactors to rapidly manufacture medicines
Affordable incubator for vulnerable newborns in low-resource areas

Gymama Slaughter, Associate Professor of Computer Science & Electrical Engineering
Human-Powered Biosensors ($400,000 NSF CAREER Award)
Bioreactors for Life-Saving Organ Transplants ($1.5M from U.S. Army Medical Research and Materiel Command)
$98 million in FY17 Extramural Research Awards
UMBC/UMB Partnership

Joint Degree Programs

- Graduate program in biochemistry and molecular biology
- Ph.D. programs in gerontology and in biostatistics
- Dual-Campus School of Social Work

Institute of Marine and Environmental Technology (IMET)

Center for Brain Imaging Research (CBIR)

UMBC-UMB Research and Innovation Partnership Seed Grant Program

Nuclear Magnetic Resonance Core Facility
Partnerships Making a Difference

bwtech@UMBC North

- Three incubators focused on cybersecurity, life sciences, and clean technology
- 130 companies
- 50% focused on cybersecurity and IT
- Over 1,600 direct jobs and 2,500 indirect jobs
- 1,000 annual student internships
- More than 25% of CEOs are minorities and 30% are women
UMBC GENERATES:

- 78,000 JOBS STATEWIDE, including jobs held by alumni. (3% of jobs in Maryland)

- $7.8 BILLION in household income (4% of Maryland HHI)

- $531 MILLION in state and local government taxes

Nearly 70% of our 70,000 alumni live in Maryland.

UMBC defeats Vermont to win a bid to the NCAA men’s basketball tournament
Launch Point for Leaders

You’ll find UMBC alumni making a difference at all levels—in Baltimore, across Maryland, and on the national stage.

U.S. Surgeon General
Jerome Adams ’97, M4

President
Clemson University
James Clements ’85, M.S. ’91, Ph.D. ’93

Director, Applied Physics Laboratory
Johns Hopkins University
Ralph Semmel, Ph.D ’92

Vice Provost for Information Technology and CI
Johns Hopkins University
Stephanie Reel ’85

Dean of the School of Dentistry
University of Maryland
Mark A. Reynolds ’78

President and CEO
Winthrop Rockefeller Foundation
Sherece West-Scantlebury, Ph.D. ’07

President/CEO
Associated Black Charities
Diane Bell McCoy ’73

Co-founder and Chair, Betamore
Chair, Baltimore Angels
Greg Cangialosi ’96

Founder and CEO,
Center for Urban Families
Joseph T. Jones, Jr ’06

Vice President & General Manager at
Lockheed Martin RMS—Cyber, Ships & Advanced Technologies
Chair, Greater Baltimore Committee
Stephanie Hill ’86
Launch Point for Leaders

You’ll find UMBC alumni making a difference at all levels—in Baltimore, across Maryland, and on the national stage.

Speaker Pro Tem
Maryland State Delegate
Adrienne Jones ’76

Maryland State Delegate
Haven Shoemaker ’87

Maryland State Delegate
Charles Sydnor III, M.P.R. ’00

Delegate
Mark Chang ’99

Chief of Staff
Office of the Governor,
Matt Clark ’00

Deputy Chief of Staff,
Office of the Governor,
Tiffany Robinson ’97

Maryland State Senator
James Mathias ’74

Howard County Executive
Allan Kittleman ’81
UMBC 2018 Facilities Master Plan

By The Numbers
Fall 2017

13,662 students

Faculty and staff
1,019 1,930

4.0 million gross square feet (GSF)

73 buildings main campus

75% 40%

Highly residential freshmen/undergraduates living on campus

4,000 beds in residential communities
Space Needs Tied to Enrollment Growth

UMBC 2018 Facilities Master Plan

Total Headcount

<table>
<thead>
<tr>
<th>Previous Cumulative (GSF)</th>
<th>New Development (GSF)</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,129</td>
<td>5,690</td>
<td>9,738</td>
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<tr>
<td>10,264</td>
<td>12,543</td>
<td>13,662</td>
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<tr>
<td>18,000</td>
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Gross Square Feet

1966-1969: 2,129
1971-1979: 5,690
1981-1989: 9,738
1991-1999: 10,264
2001-2009: 12,543
2011-2017: 13,662
2011-2017: 18,000

Building the Vision
Key Planning Concepts
Vitalize the Heart of the Campus
Vitalize the Heart of the Campus

New Informal Recreation Park
The Commons Renovation and Addition

New Student Services/Student Life Building

Central Green

AOK Library & Gallery Renewal
New Informal Recreation Park

courts
ball field
pavilion
equipment storage
viewing pergola
New Student Services / Student Life Building

Framing an Improved Central Green
Albin O. Kuhn Library & Gallery Renewal

24 HR STUDY • recharge learning commons
focus • Faculty and Graduate Research
3D design and printing • collaborate
Renew the Academic Core
Renew the Academic Core

- Retriever Activities Center Renewal
- Five Academic Building Renovations
- New Academic and Research Building
Retrieve Activities Center Renewal

STRENGTH • Fitness • HEALTH SERVICES

Physical Conditioning • WELLNESS

Outdoor Adventure • RECREATION
West Academic and Research Building

UMBC 2018 Facilities Master Plan

Multi-disciplinary ● Research
Teaching Labs ● HANDS ON LEARNING
Create a new Residential Village
Create a New Residential Village

- Two New 320-bed Residences
- Dining
- Learning commons
- Pedestrian pathway and bridge
New Residential Village

UMBC 2018 Facilities Master Plan

MORE BEDS • integrated learning facilities
Living Learning Community
Study Spaces • Maker Labs • Dining
New Residential Village

More beds • integrated learning facilities

Living Learning Community

Study Spaces • Maker Labs • Dining
Expand the East Academic District
UMBC 2018 Facilities Master Plan

New Interdisciplinary Life Sciences Building
Two New Academic and Research Buildings
New Parking Garage
Interdisciplinary Life Sciences Building

Under Construction

Interdisciplinary Research Labs
Shared Core Research Facilities
Innovative Teaching Classrooms and Labs
East Academic and Research Buildings

multi-disciplinary  ●  advanced technology

Building on Success

Active-learning  ●  Applied research
Implementation Plan

- 7 Building Renovations
- 4 New Academic Buildings
- 2 New Residential Buildings
- 1 New Student Life Building
- 2 New Parking Garages
- 2 New Recreation Areas
- 1 Renovated Sports Facility

Legend:
- Proposed New Building
- Proposed Renovation
- ILSB under construction
- Proposed Site Feature
- Proposed Partnership Opportunity
- Existing Building
Open Space Framework

Enhance our network of plazas and green quadrangles

Create places to rest, meet friends and share ideas

Support student events and key university celebrations

Legend
- Quadrangles
- Plazas and Residential Courtyards
- Areas for Formal and Informal Recreation
Parking and Circulation

Shift parking outside of Hilltop Circle as new buildings are located on parking lots.

Improve campus access from Westland Boulevard.

Increase safety - pedestrianize Poplar Avenue.

Celebrate portals to campus.
Pedestrian Framework

Clear hierarchy of paths

New linkages between residential and the academic core

New bridges traverse the topography

Placement of parking garages to reinforce pedestrian movement
Bicycling

Improve connectivity to adjoining communities and surrounding housing

Covered parking and repair facilities at green dots

Dual-use bicycling and running path on north and east sections of the loop road

Bicycle racks and marked paths strategically located to minimize conflicts with pedestrians
Natural Systems Improvements

Targeted stormwater improvements, like new wetlands, gardens, and forest buffers address SWM at watershed scale

Protecting our streams and stream banks

Blending of working landscapes into our open spaces

Reducing mowed lawns, especially on steep slopes

Legend

- Areas Proposed for Stormwater and other Natural Systems Improvements
Implementation Plan

1.1 million
New Buildings (GSF)

1.0 million
Total Renovations (GSF)

650 thousand
Additional Teaching and Research Space (GSF)

450 thousand
Additional Student Affairs Space (GSF)

640
Additional Beds

3
New or Renovated Recreation Facilities
Modeling the Master Plan in 3D
Modeling the Master Plan in 3D

UMBC 2018 Facilities Master Plan