RB31
University of Maryland Baltimore County
University System of Maryland

Capital Budget Summary

State-owned *Capital Improvement Program*
($ in Millions)

Projects	Prior Auth.	2017 Request	2018 Est.	2019 Est.	2020 Est.	2021 Est.	Beyond CIP
Interdisciplinary Life Sciences Building	$10.100	$2.640	$10.000	$41.504	$65.398	$0.000	$0.000
Total	**$10.100**	**$2.640**	**$10.000**	**$41.504**	**$65.398**	**$0.000**	**$0.000**

Fund Source	Prior Auth.	2017 Request	2018 Est.	2019 Est.	2020 Est.	2021 Est.	Beyond CIP
GO Bonds	$10.100	$2.640	$10.000	$41.504	$65.398	$0.000	$0.000
Total	**$10.100**	**$2.640**	**$10.000**	**$41.504**	**$65.398**	**$0.000**	**$0.000**

CIP: *Capital Improvement Program*

Summary of Recommended Bond Actions

1. Interdisciplinary Life Sciences Building

   Approve continued funding of the design for the Interdisciplinary Life Sciences Building.

2. SECTION 2 – University of Maryland Baltimore County – New Performing Arts and Humanities Facility

   Approve the de-authorization of $1 million.

3. SECTION 2 – University of Maryland Baltimore County – New Performing Arts and Humanities Facility

   Approve the de-authorization of $1 million.

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Budget Overview

Interdisciplinary Life Sciences Building

The Interdisciplinary Life Sciences Building will address a shortage of teaching space to support science, technology, engineering, and mathematics (STEM) programs and provide interdisciplinary research space supporting life sciences and graduate education. Additionally, it will address deficiencies in research support facilities including animal research space.

The 2014 *Capital Improvement Plan* (CIP) deferred funding for the project for one year from fiscal 2016 to 2017 and programmed $4.3 million to initiate design in fiscal 2017, as shown in **Exhibit 1**. The General Assembly accelerated the project by two years in 2014 by authorizing $4.1 million to begin design and included language expressing the intent that construction funds would be authorized in the Maryland Consolidated Capital Bond Loan of 2016 and 2017. The 2015 CIP programmed $6.0 million in fiscal 2016 to continue design and $8.3 million in fiscal 2017 to complete design and begin construction. In fiscal 2015, the General Assembly pre-authorized $53.0 million and $43.0 million for construction in fiscal 2018 and 2019, respectively. While the 2016 CIP programs $2.6 million in fiscal 2017 to complete design, funding for construction was deferred to fiscal 2018 with $105.1 million for construction split funded over three years from fiscal 2018 to 2020. The total cost of the project increased $3.9 million since the 2015 CIP from $125.7 million to $129.6 million due to deferring construction of the project by one year and extending construction from two to three years.

Exhibit 1
Changes in Funding Timeline
Fiscal 2015-2020

	2015	2016	2017	2018	2019	2020
2014 CIP			$4.3	$5.5	**$56.9**	
2014 GA	$4.1	**Intent for constuction funding**				
2015 CIP	4.1	$6.0	**8.3**	**30.0**	**77.3**	
2015 GA	4.1	6.0	**8.3**	**53.0**	**43.0**	
2016 CIP	4.1	6.0	2.6	**10.0**	**41.5**	**$65.4**

Design
Construct and Equip
Design and Construct

CIP: *Capital Improvement Program*
GA: General Assembly

Source: *Capital Improvement Program*; Department of Legislative Services

The University of Maryland Baltimore County (UMBC) relies on active learning instructional methods in STEM disciplines in which students work in small groups to solve problems and develop ideas and principles needed for a deeper understanding of the material. These classrooms are configured differently from the traditional instructional spaces and incorporate more technology. UMBC has two active-learning classrooms that are used all day during the week. Additional active-learning classrooms are needed in order to accommodate the enrollment growth in STEM programs, and multi-disciplinary teaching laboratories are needed to support courses taught in the active-learning classrooms to provide hands-on experiments in a wet laboratory setting. Overall, between fall 2011 and 2014, undergraduate and graduate STEM enrollment grew 29.3% leading to a shortage of classroom and teaching laboratories.

There is a shortage of interdisciplinary research space supporting life sciences and graduate education resulting in UMBC not being unable to grow research programs and limiting its ability to compete for research grant and contract funding. Currently, life science research laboratory space is located in various buildings throughout campus and is fully occupied. Furthermore, there are no research laboratories designed to support interdisciplinary research.

The animal research facilities are insufficient to perform animal procedures and lack dedicated quarantine rooms. The animal facilities are currently located in two locations: (1) 2,361 net assignable square feet (NASF) in the Biological Sciences building that was designed more than 30 years ago; and (2) 1,976 NASF in Sondheim Hall, a general classroom building not designed for this purpose. The facilities have poor ventilation and inadequate humidity control leading to odor and the presence of allergens. An insufficient number of procedure spaces results in the animals being transported to the principal investigator's laboratory for routine procedures. The lack of quarantine rooms puts all animals in the facility at risk of being infected. If one animal becomes infected, this results in the need to treat all of the animals to prevent the spread of infections, which is expensive and time-consuming. In addition, animal research protocols involving the use of biological agents that are infectious to humans cannot be performed. The existing facility in the Biological Sciences building is at full capacity and can only accommodate six researchers. Furthermore, existing facilities cannot be retrofitted to gain the Association for Assessment and Accreditation of Laboratory Animal Care accreditation, thereby affecting UMBC's ability to obtain funding for animal-based research.

Overall, the CIP will provide 131,000 gross square feet/70,857 NASF of space, which includes 17,721 NASF and 6,701 NASF of classroom and teaching laboratory space, respectively; 27,859 NASF of research laboratory space; and 10,726 NASF of office space. In addition, 6,072 NASF is provided for animal facilities.

Operating Budget Impact Statement

Executive's Operating Budget Impact Statement – State-owned Projects
($ in Millions)

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Interdisciplinary Life Sciences Building					
Estimated Operating Cost	$0.000	$0.000	$0.000	$0.686	$3.006
Estimated Staffing	0	0	0	1	3
Total Operating Impact					
Estimated Operating Cost	**$0.000**	**$0.000**	**$0.000**	**$0.686**	**$3.006**
Estimated Staffing	**0**	**0**	**0**	**1**	**3**

GO Bond Recommended Actions

1. Approve $2.6 million in general obligation bonds to continue design of the Interdisciplinary Life Sciences Building.

2. Approve the de-authorization of $1 million in general obligation bonds to construct and equip the new Performing Arts and Humanities Facility.

3. Approve the de-authorization of $1 million in general obligation bonds to construct the new Performing Arts and Humanities Facility.