RB00
University System of Maryland

Capital Budget Summary

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

Projects	2019 Request	2020 Est.	2021 Est.	2022 Est.	2023 Est.	Total
University of Maryland, Baltimore Campus	$8.564	$13.821	$12.000	$8.100	$12.700	**$55.185**
University of Maryland, College Park Campus	16.797	19.132	16.580	30.000	61.488	**143.997**
Bowie State University	0.000	0.000	5.000	9.739	28.000	**42.739**
Towson University	60.744	73.491	6.437	30.339	74.523	**245.534**
University of Maryland Eastern Shore	0.000	10.015	44.700	26.600	0.000	**81.315**
Frostburg State University	2.000	0.000	39.448	41.851	0.000	**83.299**
Coppin State University	1.634	0.000	20.903	19.358	0.000	**41.895**
Salisbury University	0.000	0.000	0.000	0.000	3.000	**3.000**
University of Maryland Baltimore County	64.159	1.676	7.000	6.767	0.000	**79.602**
University of Maryland Center for Environmental Science	0.000	0.000	1.200	6.803	8.039	**16.042**
University System of Maryland Office	68.479	68.257	32.000	32.000	32.000	**232.736**
Total	**$222.377**	**$186.392**	**$185.268**	**$211.557**	**$219.750**	**$1025.344**

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Fund Source	2019 Request	2020 Est.	2021 Est.	2022 Est.	2023 Est.	Total
GO Bonds	$198.377	$152.392	$153.268	$181.557	$189.750	**$875.344**
Revenue Bonds	24.000	34.000	32.000	30.000	30.000	**150.000**
Total	**$222.377**	**$186.392**	**$185.268**	**$211.557**	**$219.750**	**$1025.344**

GO: general obligation

Budget Overview

The fiscal 2019 capital budget provides $198.4 million of general obligation (GO) bond funds for 12 projects at seven University System of Maryland (USM) institutions. This is supplemented with $24 million in Academic Revenue Bonds (ARB) authorized under separate legislation, which includes USM's annual request of $17 million to fund various facilities renewal projects at all the institutions. In addition, the University of Maryland, College Park Campus (UMCP) leverages $95.3 million in private donations to fund the construction of three projects of which $86.1 million is related to the New Cole Field House.

Issues

1. Facilities Renewal Backlog

In order to obtain more accurate information not only on the replacement cost of its facilities but the backlog of deferred maintenance, five USM institutions – University of Maryland, Baltimore Campus (UMB), UMCP, Bowie State University, Towson University (TU), and Salisbury University – hired consultants to conduct an assessment and evaluate their facilities. USM is sharing the cost-driven data provided by the consultants with the other institutions in order to help recalculate and improve data on replacement costs and deferred maintenance. This results in USM having comparable data across all institutions.

Previously, in order to assess the relative size of its deferred maintenance backlog, USM used a ratio of renovation to replacement value. However, under this method, some institutions combined renovation and deferred maintenance and others did not, resulting in some overstating their estimated backlog. In order to get a more accurate estimate of its true deferred maintenance, USM surveyed institutions requesting them to categorize deferred maintenance costs into five categories:

- building-related structural and envelope repairs that are deferred or reaching the end of its useful life (*e.g.*, roofs, windows, doors, masonry, and curtain wall systems);
- building-related mechanical and electrical system upgrades/replacements that are currently deferred or needed in the short term (within the next 5 to 10 years);
- needed building-related life safety and regulatory improvements (*e.g.*, American Disabilities Act) if it can be separated from other categories;
- programmatic improvements, including renovation, remodeling, reconfiguration, modernization, and information technology/communications; and
- general utilities repairs and critical campus improvements.

The first three categories represent the total deferred maintenance backlog across USM which, as shown in **Exhibit 1**, totals $1.9 billion. In addition, institutions identified $464.6 million related to infrastructure, such as electrical and water lines and landscape and sidewalk improvements that are not related to a specific building.

Exhibit 1
Systemwide Renewal Backlog for State-supported Buildings
October 2017

Backlog Classification	Cost
Structural/Envelope Repairs	$391,313,848
Mechanical/Electrical	1,226,200,420
Life Safety/Regulatory	246,157,627
Subtotal – Deferred Maintenance	***$1,863,671,895***
Programmatic Improvements	$1,807,622,433
Total – Building Renovations	**$3,671,294,328**
General Utilities/Campus Improvements	$464,593,613
Total	**$4,135,887,941**

Source: University System of Maryland

The total backlog of deferred maintenance as calculated in using the survey is $531.4 million lower compared to using the ratio based on the replacement value of State-supported facilities, as shown in **Exhibit 2**. It should be noted, starting with the fall 2017 survey, USM's regional higher education centers are included in the backlog of deferred maintenance.

Exhibit 2
Deferred Maintenance Backlog for State-supported Facilities
Comparison of Ratio and Survey Data
($ in Thousands)

	Ratio Fall 2015	Survey Fall 2017
University of Maryland, Baltimore Campus	$675,230	$376,815
University of Maryland, College Park Campus	946,354	651,925
Bowie State University	58,590	60,131
Towson University	163,729	177,347
University of Maryland Eastern Shore	73,347	83,538
Frostburg State University	49,729	25,455
Coppin State University	64,713	50,700
University of Baltimore	83,003	105,258
Salisbury University	64,566	88,402
University of Maryland Baltimore County	197,783	208,700
University of Maryland Center for Environmental Science	18,055	27,074
USM Regional Centers[1]		8,325
Total	**$2,395,099**	**$1,863,672**

USM: University System of Maryland

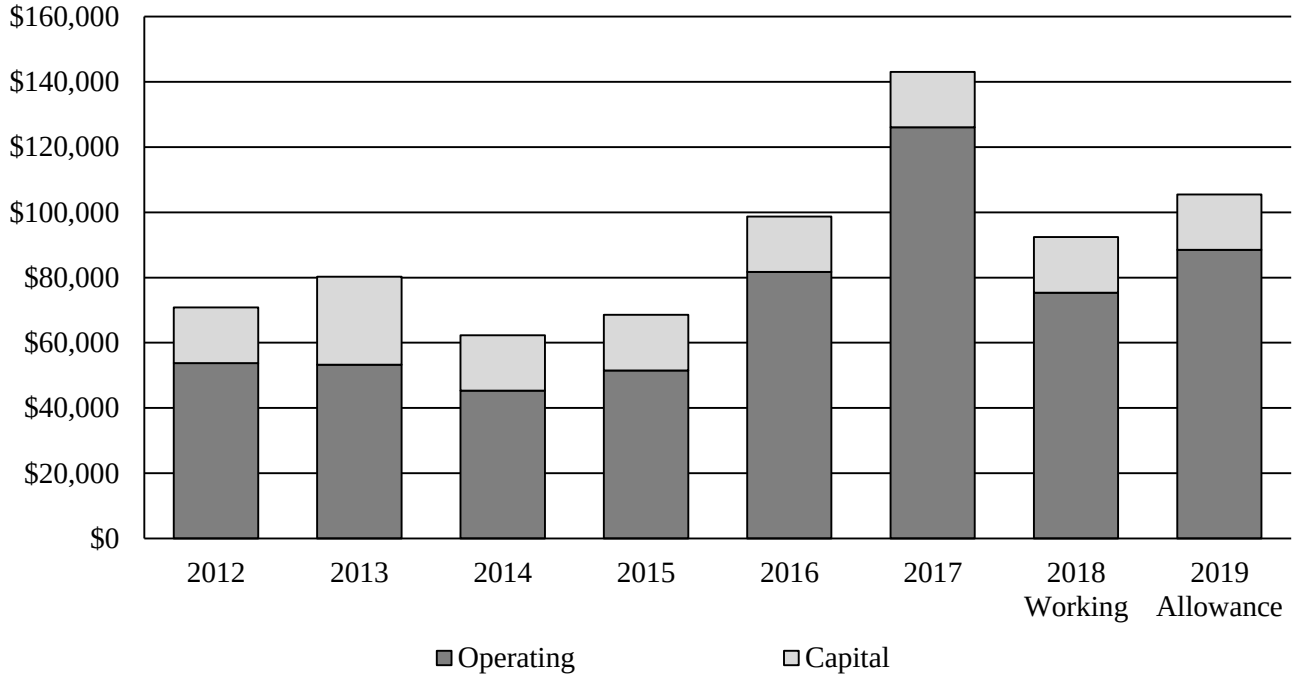
[1] Previously, regional higher education centers were not included.

Source: University System of Maryland

Spending on Facilities Renewal

As shown in **Exhibit 3**, since fiscal 2014, spending on facilities renewal grew 178.2%, or $80.8 million, reflecting a steady increase in operating expenditures. Most of this growth occurred in fiscal 2017 with a 54.3%, or $44.4 million, increase in operating expenditures. This trend reflects renewal as a priority of the Board of Regents (BOR) and the Chancellor, in which presidents will be held accountable for meeting the BOR target of annually increasing expenditures on renewal until the 2% target (operating expenditures equal 2% of the replacement value of State facilities) is reached. However, spending in the fiscal 2018 working budget decreases 35.4%, or $50.7 million. It should be noted, $17 million in ARBs has been provided since fiscal 2012 for facilities renewal projects

Exhibit 3
Operating and Capital Spending on Facility Renewal
Fiscal 2012-2019
($ in Thousands)

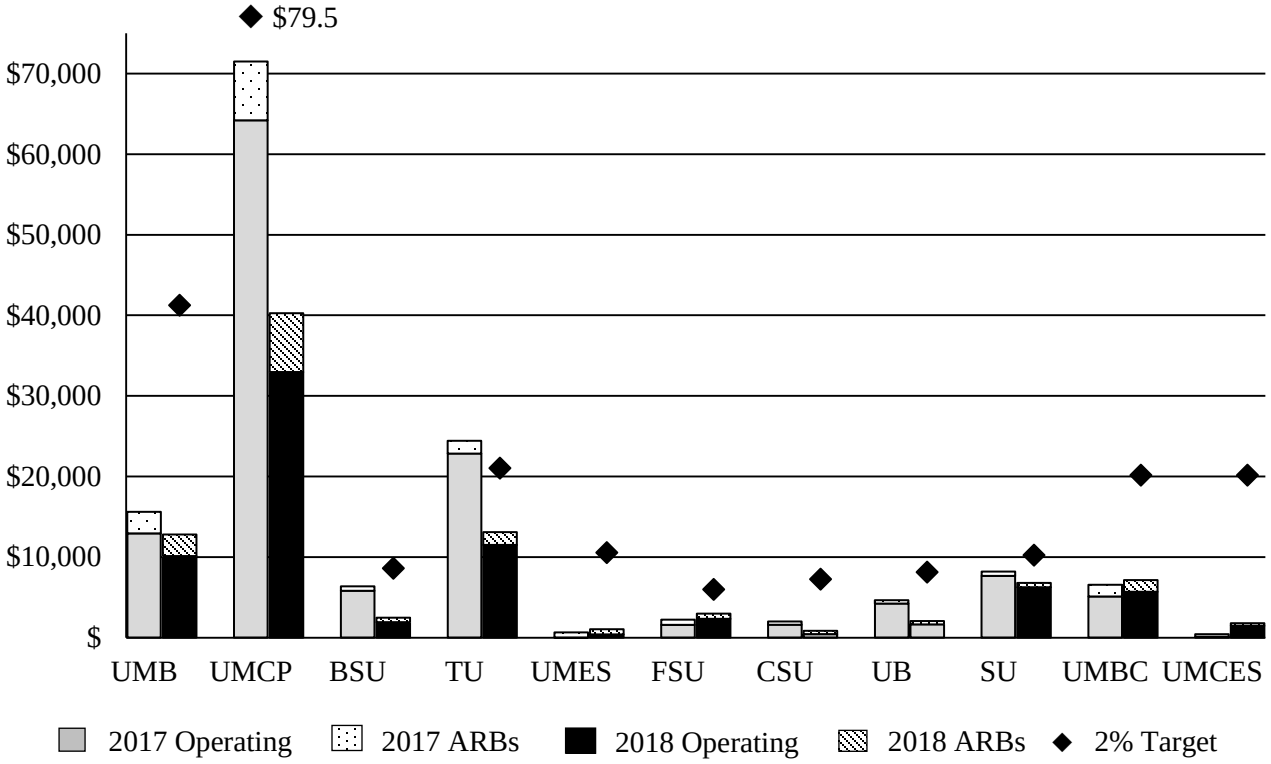


Note: Fiscal 2013 includes a one-time $10 million in general obligation bond funding to fund renewal projects at institutions.

Source: University System of Maryland

Exhibit 4 shows the allocation of the fiscal 2017 and 2018 operating expenditures and ARBs for facilities renewal and the 2% target. In order for USM to meet the 2% target, institutions would need to spend a total of $219.6 million on deferred maintenance. UMCP accounted for 50.9% of the total amount spent on facilities renewal in fiscal 2017, and TU comprised 18.1% of the total. TU exceeded the 2% target in fiscal 2017, while UMCP's spending was equivalent to 1.8% of the replacement value of State-supported facilities.

Exhibit 4
University System of Maryland Operating and Capital Facility Renewal Expenditures
Fiscal 2017-2018
($ in Thousands)



ARB: Academic Revenue Bond
BSU: Bowie State University
CSU: Coppin State University
FSU: Frostburg State University
SU: Salisbury University
TU: Towson University
UB: University of Baltimore
UMB: University of Maryland, Baltimore Campus
UMBC: University of Maryland Baltimore County
UMCES: University of Maryland Center for Environmental Science
UMCP: University of Maryland, College Park Campus
UMES: University of Maryland Eastern Shore

Note: UMCP includes $5 million in general obligation bonds and $5 million in ARBs to fund campuswide building system and infrastructure improvements; the University of Maryland University College does not have a spending target due to the unique nature of its facilities profile, which includes leased buildings and building that are off-campus or outside of the State.

Source: University System of Maryland

Facilities Renewal Quasi-endowment

In order to have an additional annual source of funding to help address the backlog of deferred maintenance, Chapter 742 of 2017 established a $50 million facilities renewal quasi-endowment fund. These funds are invested similarly as other endowment funds and are invested and managed to last in perpetuity with the interest being used to support facilities renewal. However, unlike endowment funds, in which the donor typically places restrictions on the use of funds (*e.g.*, endow professorships or chairs, or scholarships), a quasi-endowment has no such restrictions placed on its use and, therefore, can be used to support facilities renewal projects. **Exhibit 5** shows the contributions from the institutions to the endowment and the estimated spendable annual income. Overall, it is expected that the endowment will generate $2.1 million annually. It should be noted, TU states that it can meet the 2% target through operating expenditures; the University of Maryland Eastern Shore cannot contribute to the endowment due to its current financial situation.

Exhibit 5
Institutional Share and Estimated Annual Spendable Income from Quasi-endowment
Fiscal 2019

	Funding	Estimated Income
University of Maryland, Baltimore Campus	$12,224,788	$519,554
University of Maryland, College Park Campus	20,788,909	883,529
Bowie State University	1,265,879	53,800
Towson University	0	0
University of Maryland Eastern Shore	0	0
Frostburg State University	1,235,920	52,527
Coppin State University	1,062,384	45,151
University of Baltimore	1,478,625	62,842
Salisbury University	1,985,698	84,392
University of Maryland University College	5,034,663	213,973
University of Maryland Baltimore County	3,882,667	165,013
University of Maryland Center for Environmental Science	524,420	22,288
University System of Maryland Office[1]	516,047	21,932
Total	**$50,000,000**	**$2,125,001**

[1] The University System of Maryland Office portion will serve as an emergency fund.

Note: Towson University states that it does not need funds from the endowment to meet the 2% target. Due to the current financial situation of the University of Maryland Eastern Shore, it does not have the funds to participate in the endowment.

Source: University System of Maryland

2. Plant Funds

Institutions can transfer operating funds to the plant fund, which are a group of accounts similar to a savings account in which institutions can set aside funds for anticipated capital expenditures. Funds are used to finance the acquisition, construction, renovation, and maintenance of facilities. Plant funds may only be used for facilities and capital activities and may not be easily transferred to other accounts for noncapital purposes. For State-supported facilities, the use of plant funds is governed by the capital budget process in accordance with State law and BOR policies. BOR oversees the use of self-supported plant funds.

Specifically, funds are set aside for:

- facilities renewal and deferred maintenance needs of State-supported facilities;
- debt service payments and retirement of debt;
- periodic or major facilities renewal of self-support or auxiliary facilities;
- nonbudgeted funds requirements in the *Capital Improvement Program* (CIP); and
- facilities or land acquisitions.

Through its efforts to protect its credit rating, USM has been fiscally conservative in building up its available funds, which include plant funds and fund balance. The growth in these funds has allowed USM to fund capital projects that otherwise may not have the funding to proceed, such as the Cole Field House or the Iribe Computing Center. In addition, if an institution receives donor funding to support the construction of a facility, it may have to temporarily borrow funds, also known as a bridge loan, from its account until it receives the donor funds. As shown in **Exhibit 6**, from fiscal 2012 to 2017, plant funds grew 31.9%, or $233.6 million, of which $213.8 million was related to State-supported funds. In fiscal 2017, plant funds totaled $965.7 million, of which $589.3 million was State-supported.

Exhibit 6
Plant Fund Balances
Fiscal 2012-2017
($ in Thousands)

Fiscal Year	Non-State Supported	State-supported	Total	Annual Change $ Change	Annual Change % Change
2012	$365,530	$366,566	$732,096	$110,065	17.7%
2013	300,290	473,398	773,688	41,592	5.7%
2014	312,753	454,801	767,554	-6,134	-0.8%
2015	346,686	456,894	803,580	36,026	4.7%
2016	380,863	534,805	915,668	112,088	13.9%
2017	385,412	580,331	965,743	50,075	5.5%

Source: University System of Maryland

Exhibit 7 shows how institutions used plant funds in fiscal 2016. Deferred maintenance and renewal/replacement projects accounted for 33.9%, or $64.9 million, of the total expenditures while bridge loans accounted for 19.8% of spending. Overall, institutions transferred $285.7 million to the plant fund and expended $191.1 million resulting in an ending balance of $736.3 million. These totals exclude funds held by the University System of Maryland Office (USMO) totaling $179.3 million.

Exhibit 7
Plant Fund Activity
Fiscal 2016

	Beginning Balance	Transfer In	Total Expended	Ending Balance	Type of Projects
UMB	$118,369,848	$39,527,903	-$21,616,778	$136,280,973	Approved projects (Health Sciences Facility III)($16.0 million) and deferred maintenance ($5.5 million)
UMCP	108,434,251	134,274,590	-106,422,614	136,286,227	Land acquisition ($0.6 million); renewal/replace ($37.1 million); deferred maintenance ($6.2 million); approved projects (*e.g.*, Cole Field House, Shipley field, remote library storage) ($30.7 million); set aside for future projects ($10.9 million); and service center – projects at other institutions ($21.0 million)
BSU	29,602,112	5,345,000	-497,739	34,449,373	Deferred maintenance
TU	99,562,397	34,784,024	-18,555,897	115,790,524	Renewal/replacement ($6.9 million); authorized projects (*e.g.*, arena, public safety, site and safety) ($6.6million); deferred maintenance ($4.3 million); and change in accounts ($0.7 million)
UMES	7,338,238	125,879	-4,394,963	3,069,154	Deferred maintenance ($4.3 million) and service center management ($0.2 million)
FSU	8,693,765	2,222,349	-1,776,922	9,139,192	Deferred maintenance ($0.6 million) and future debt service ($1.2 million)
CSU	-808,578	2,591,847	-1,465,621	317,648	Cash funded – Daley Hall structural repairs ($0.8 million) and deferred maintenance ($0.7 million)
UB	17,269,711	5,358,918	-790,918	21,837,711	Nonbudgeted funds ($0.4 million); renewal/replacement ($0.3 million); and cash funded (*e.g.*, library, new law school, Ashland relocation) ($0.1 million)
SU	49,476,359	21,092,462	-24,108,110	46,460,711	Cash funded (stadium, relocation tennis courts, and athletic complex renovation) ($18.4 million); nonbudgeted fund (Academic commons) ($2.9 million); deferred maintenance ($2.4 million); and future project – Severn Hall ($0.5 million)
UMUC	161,443,007	19,250,000	-860,109	179,832,898	Renewal/replacement ($0.4 million); set aside future project ($0.3 million); and Cash funded – Administrative renovation ($0.2 million)

	Beginning Balance	Transfer In	Total Expended	Ending Balance	Type of Projects
UMBC	42,766,762	21,127,263	-10,655,293	53,238,732	Cash funded (event center, fine arts and resident hall renovation, and resurface parking lot) ($9.6 million) and service center management ($1.1 million)
UMCES	-376,643	0	-4,265	-380,908	Debt service
Total[1]	**$641,771,229**	**$285,700,235**	**-$191,149,229**	**$736,322,235**	

BSU: Bowie State University
CSU: Coppin State University
FSU: Frostburg State University
SU: Salisbury University
TU: Towson University
UB: University of Baltimore
UMB: University of Maryland, Baltimore Campus
UMBC: University of Maryland Baltimore County
UMCES: University of Maryland Center for Environmental Science
UMCP: University of Maryland, College Park Campus
UMES: University of Maryland Eastern Shore
UMUC: University of Maryland University College

[1] Does not include $179.3 million related to the University System of Maryland Office, which is primarily academic debt service funds collected from institutions to pay debt service.

Source: University System of Maryland

3. Building Together: An Investment in Maryland

In October 2017, UMCP announced its largest donation of $219.5 million from the A. James & Alice B. Clark Foundation. This gift not only provides funds to support scholarships, chairs, and fellowships but also two new facilities – the Innovate, Design, and Engineer for America (IDEA) Building and a new engineering building.

IDEA Building

The IDEA Building is envisioned as a 60,000 gross square feet (GSF) facility that will inspire innovation and entrepreneurship among engineering students and enable world class research in robotics, quantum technology, transportation, and advanced/additive engineering. The facility will enhance collaborations among students, faculty, and staff to conceive ideas, develop designs, build prototypes, develop business plans, and bring products to market.

The facility will include open workspaces for students, rapid prototyping facilities, immersive engineering design/instructional studios, a mobile applications laboratory, an Internet of things laboratory, and a student-run incubator. It will also house the Alfred Gessow Rotorcraft Laboratory, Robotics Realization Laboratory, Advanced/Additive Manufacturing Laboratory, Quantum Technology Laboratory, and the Maryland Transportation Institute. The IDEA Building will be located on the site of the Potomac Building that was originally constructed in 1955 and will be connected to the Jeong H. Kim Engineering Building. The occupants of the Potomac Building will be relocated to other buildings.

The IDEA building leverages $25 million from the Clark Foundation and another $25 million from other private donors. To date, UMCP has signed a gift agreement for $10 million and has leads for other donations resulting in UMCP raising over $40 million of the $50 million needed to construct the building.

New Engineering Building

The gift also included $55 million to support the construction of a new building for the A. James Clark School of Engineering, which is to be leveraged with State and institutional funds. To fully assess the facility needs of the Clark School, Ballinger and Associates were hired to conduct a thorough analysis of UMCP's current engineering facilities and help the school to plan for the next 50 years. UMCP is currently reviewing the analysis and has begun working on the long-term capital needs for the school. Preliminary results indicate that the engineering school will need a major new interdisciplinary engineering research and education building to house the Departments of Civil and Environmental Engineering and Mechanical Engineering. Civil and Mechanical Engineering are currently housed in Glen L. Martin Hall that was built in 1948 and can no longer accommodate the needs for modern interdisciplinary engineering research and education. A potential new building would support research in the fields of transportation, additive manufacturing, energy, robotics and autonomy, cybersecurity, construction management, nanotechnology, and disaster resilience.

While the donation offers an unprecedented opportunity to address campus facility goals, the impact on the State's five-year planning process has yet to be recognized. It is very likely that the donation will result in requests for State support, and UMCP should be prepared to brief the committees on the anticipated amounts and timing of State support for projects incentivized by the donation.

University of Maryland, Baltimore Campus

Central Electric Substation and Electrical Infrastructure Upgrades

Construct a new building to serve as an electric substation and replacement recycling facility at the northern end of UMB and upgrade the existing electrical infrastructure serving the campus. The scope of work includes providing redundancy for the campus by constructing a new electric substation that is fed from a second Baltimore Gas and Electric source, new duct banks throughout the campus, new cables, and the upgrading of the existing substation located beneath the University of Maryland Medical Center facility. The electric substation and recycling center facility will total approximately 6,200 net assignable square feet (NASF).

Authorization Uses
($ in Millions)

Description	Prior Authorization	2019 Request	2020 Estimate	2021 Estimate	2022 Estimate	2023 Estimate
Planning	$5.890	$0.000	$0.000	$0.000	$0.000	$0.000
Construction	1.000	8.564	13.721	12.000	8.100	12.700
Equipment	0.000	0.000	0.100	0.000	0.000	0.000
Total	**$6.890**	**$8.564**	**$13.821**	**$12.000**	**$8.100**	**$12.700**

Authorization Sources
($ in Millions)

Description	Prior Authorization	2019 Request	2020 Estimate	2021 Estimate	2022 Estimate	2023 Estimate
GO Bond	$6.890	$8.564	$13.821	$12.000	$8.100	$12.700
Nonbudgeted	0.000	0.000	0.000	0.000	3.000	0.000
Total	**$6.890**	**$8.564**	**$13.821**	**$12.000**	**$11.100**	**$12.700**

Comments: The total estimated cost for this project of $79.0 million remains unchanged from the amount anticipated in last year's CIP. The fiscal 2019 request for $8.6 million is almost $2 million less than anticipated in last year's CIP due to cash flow requirements. A fiscal 2020 pre-authorization of $13.7 million for this project is included in Section 12 of the Maryland Consolidated Capital Bond Loan (MCCBL) of 2018.

Recommendation: Approve.

University of Maryland, College Park Campus

Capital Improvement Program: Two projects receive the last of funding for construction. Changes in the scope of the New Cole Field House lead to an increase in cost and an extension of the construction schedule. The School of Public Policy (SPP) Building is provided funding to start construction, and GO bond funding for the Chemistry Building Wing 1 Replacement is deferred for a year.

($ in Millions)

Projects	Prior Auth.	2019 Est.	2020 Est.	2021 Est.	2022 Est.	2023 Est.	Beyond CIP
New Cole Field House	$91.515	$93.385	$10.800	$0.000	$0.000	$0.000	$0.000
Brendan Iribe Center for Computer Science and Innovation	145.450	6.800	0.000	0.000	0.000	0.000	0.000
A. James Clark Hall – New Bioengineering Building	164.867	3.608	0.000	0.000	0.000	0.000	0.000
School of Public Policy Building	3.000	8.300	29.200	4.500	0.000	0.000	0.000
Chemistry Building Wing 1 Replacement	14.700	0.000	2.691	4.080	20.000	51.488	6.235
Campuswide Building System and Infrastructure Improvements	45.000	0.000	0.000	10.000	10.000	10.000	0.000
Total	**$464.532**	**$112.093**	**$42.691**	**$18.580**	**$30.000**	**$61.488**	**$6.235**

Fund Source	Prior Auth.	2019 Est.	2020 Est.	2021 Est.	2022 Est.	2023 Est.	Beyond CIP
GO Bonds	$242.827	$16.797	$19.132	$11.580	$25.000	$56.488	$6.235
Revenue Bonds	62.500	0.000	0.000	5.000	5.000	5.000	0.000
Nonbudgeted	159.205	95.296	23.559	2.000	0.000	0.000	0.000
Total	**$464.532**	**$112.093**	**$42.691**	**$18.580**	**$30.000**	**$61.488**	**$6.235**

New Cole Field House

This project will convert and expand the Cole Student Activities Building that will house the Center for Sports Medicine, Health, and Human Performance (in partnership with the UMB School of Medicine), an adjacent orthopedic center, the Academy for Innovation and Entrepreneurship, and the Terrapin Performance Center – a full size indoor football field and new training facilities.

Authorization Uses
($ in Millions)

Description	Prior Authorization	2019 Request	2020 Estimate	2021 Estimate	2022 Estimate	2023 Estimate
Planning	$14.323	$3.052	$0.655	$0.000	$0.000	$0.000
Construction	77.192	90.333	7.645	0.000	0.000	0.000
Equipment	0.000	0.000	2.500	0.000	0.000	0.000
Total	**$91.515**	**$93.385**	**$10.800**	**$0.000**	**$0.000**	**$0.000**

Authorization Sources
($ in Millions)

Description	Prior Authorization	2019 Request	2020 Estimate	2021 Estimate	2022 Estimate	2023 Estimate
GO Bond	$13.770	$7.289	$3.941	$0.000	$0.000	$0.000
Nonbudgeted	77.745	86.096	6.859	0.000	0.000	0.000
Total	**$91.515**	**$93.385**	**$10.800**	**$0.000**	**$0.000**	**$0.000**

Comments: The estimated total cost of the project increases $40.7 million in the 2018 CIP, resulting in the estimated total cost increasing from $155 million to $195.7 million. This is due to changes in the scope, which include:

- expanding and changing the focus of the Center for Sports Medicine, Health, and Human Performance from occupational health and physiology to treating brain trauma;

- increasing the size of the orthopedic clinic to serve the community rather than only varsity athletes;

- decreasing space for the Academy for Innovation and Entrepreneurship;
- increasing the size of the indoor practice facility, football training complex, strength training facilities, and dining area; and
- adding a tunnel connecting the locker rooms in Cole Field House with the football stadium.

These changes resulted in the size of the facility increasing by 41,895 NASF/119,223 GSF.

The project was added to the 2015 CIP and included $25 million in GO bonds to fund academic and research spaces with the remaining $130 million being leveraged in private donations, institutional funds, Big Ten revenues, and revenues generated from the clinic. The academic portion of the facility was estimated to cost $59 million with UMCP providing $34 million. However, changes in the scope to the academic and research space resulted in the cost increasing $2.5 million. UMCP requested that the State increase GO bond funding by $15 million to $40 million.

The General Assembly added language to the 2018 capital budget pre-authorizing an additional $7.5 million in fiscal 2019, increasing total GO bond funding to $32.5 million ($18.7 million in fiscal 2019). However, the 2018 CIP provides $7.3 million in fiscal 2019. This is due to the change in the scope resulting in the construction schedule being extended from December 2018 to November 2019. Given this, the remaining $3.9 million of the $25 million of GO bonds is deferred to fiscal 2020, with a pre-authorization included in the capital budget.

The project leverages $155.7 million from private gifts ($90 million); Big Ten revenues ($44.2 million); institutional funds ($11.5 million); and rental income from the clinical operations ($10 million). However, if UMCP does not receive the additional $15 million in GO bond funding, it will have to increase the amount of nonbudgeted funds.

The facility will house the Center for Sports Medicine, Health, and Human Performance that will:

- focus on traumatic brain injury, creating enhanced diagnostic tools, and using big data computing to map the brain's metabolic pathways and neuronal connections;
- enhance the ability to recruit clinical scientists and faculty;
- compete for research funding; and
- increase clinical space to meet the needs of the area.

In addition, specialized space will be provided to expand the Academy for Innovation and Entrepreneurship that will allow students to leave their work-in-progress in the classroom.

The project also includes the Terrapin Performance Center, an indoor football training and practice facility. The facility will provide practice, medical, and staff facilities allowing UMCP to be competitive with the rest of the conference.

Recommendation: Approve $7.3 million in GO bonds to continue construction of the Human Performance and Academic Research Facility housed in the New Cole Field House.

School of Public Policy Building

This project will construct a new facility for the SPP to consolidate operations into a single location. When completed, space occupied by the School of Public Policy in the Van Munching Hall will be vacated, allowing the School of Business to expand. The facility enables SPP to meet its Strategic Plan goals for growth, including expanding program offering and the Do Good Institute, and becoming a nationwide top-10 public policy program.

Authorization Uses
($ in Millions)

Description	Prior Authorization	2019 Request	2020 Estimate	2021 Estimate	2022 Estimate	2023 Estimate
Planning	$2.954	$0.708	$0.500	$0.000	$0.000	$0.000
Construction	0.046	7.592	28.500	2.100	0.000	0.000
Equipment	0.000	0.000	0.200	2.400	0.000	0.000
Total	**$3.000**	**$8.300**	**$29.200**	**$4.500**	**$0.000**	**$0.000**

Authorization Sources
($ in Millions)

Description	Prior Authorization	2019 Request	2020 Estimate	2021 Estimate	2022 Estimate	2023 Estimate
GO Bond	$3.000	$2.000	$12.500	$2.500	$0.000	$0.000
Nonbudgeted	0.000	6.300	16.700	2.000	0.000	0.000
Total	**$3.000**	**$8.300**	**$29.200**	**$4.500**	**$0.000**	**$0.000**

The project was new to the 2017 CIP, which programmed $3.1 million in nonbudgeted funds in fiscal 2019 to facilitate an expedited project and immediately start the design process. However, the General Assembly provided an additional $3 million of GO bonds for design in fiscal 2018 and added language pre-authorizing $9 million and $8 million in fiscal 2019 and 2020, respectively, for a total State commitment of $20.0 million for the estimated $45 million of total project cost. Based on an

updated project schedule and cash flow, UMCP only requires $2 million in GO bond funding in fiscal 2019; $12.5 million in fiscal 2020; and $2.5 million in fiscal 2021, which is reflected in the 2018 CIP and for which pre-authorizations are included in the fiscal 2019 capital budget. While the estimated date for construction completion has been delayed from December 2019 to June 2020, UMCP expects the project to remain within the budgeted $45 million, and the State's share remains at $20 million.

The 2017 CIP programmed a total of $16.2 million in GO bond funding and $5 million in ARBs. Total GO bond funding increases to $20 million in the 2018 CIP with the increase to be used in lieu of the ARBs. The project leverages $15 million in institutional funds and a $10 million private donation. In addition, the private donor also contributed an undisclosed amount to support SPP and the Do Good Institute.

The project will address the following issues:

- ***Lack of Space to Expand and Grow:*** A goal of SPP's strategic plan is to expand its programs, including increasing undergraduate and graduate course offerings and growing the number of faculty, staff, and students. In 2015, there were 240 full-time and 87 part-time graduate majors that SPP expects to increase to 317 full-time and 115 part-time graduate students by 2025; and with the new undergraduate program that was launched in fall 2016, SPP expects that it will have 540 full-time and 54 part-time undergraduate students. In terms of personnel, SPP had 61 full-time faculty, 20 part-time faculty and staff, and 57 graduate/teaching/research assistants who needed office space in 2015. By 2025, SPP projects to have 109 full-time faculty, 30 part-time faculty and staff, 65 graduate/teaching/research assistants, and 10 student workers.

- ***Located in Several Buildings:*** SPP occupies 16,639 NASF in Van Munching Hall, 5,564 NASF in Preinkert Hall, and 2,378 NASF in Taliaferro Hall. Being housed in separate buildings impedes opportunities for collaboration and interaction among faculty, staff, and students.

- ***Campuswide Space Shortages:*** SPP shares space with the Robert H. Smith School of Business in Van Munching Hall. Van Munching Hall was originally constructed in 1992 for the School of Business and SPP. Additions were constructed in 2002, 2008, and 2011 to accommodate growth in the School of Business. From fall 2011 to 2017, enrollment in the the School of Business has grown 5.9%. Due to limited resources, including space, and in order to maintain quality, the business program is a limited enrollment program in which undergraduate enrollment is capped at 2,000 to 2,200. Once the space occupied by SPP is vacated, it will allow the School of Business to expand and increase enrollment above the current cap.

The new facility will allow SPP to consolidate its operations in a single location and provide space to grow its programs. As shown in **Exhibit 8**, 61.9% of the NASF will be office space and will include five classrooms ranging in size from 25 to 125 seats totaling 6,310 NASF. While classroom space is below the State guidelines of 16,822 NASF, SPP will use classrooms in other buildings and the conference rooms in the new facility for seminar classes in order to meet the demand for courses.

Exhibit 8
Space by Classification Provided in the School of Public Policy Building

Space	Net Assignable Square Feet
Office	23,740
Classroom	6,310
Lounge	2,000
Conference	1,850
Open Laboratory	1,800
Open Stack Study	1,200
Other	1,455
Total	**38,355**

Source: Department of Budget and Management

Recommendation: Approve $2 million in GO bonds to continue design and begin construction of the SPP Building.

A. James Clark Hall – New Bioengineering Building

The A. James Clark Hall – New Bioengineering Building will house the Fischell Department of Bioengineering and the Robert E. Fischell Institute for Biomedical Devices providing needed space and allowing for the continued expansion and growth of the Bioengineering Program. The $168.5 million project leverages $22 million in private donations and institutional funds. The fiscal 2019 capital budget provides $3.6 million to complete construction and finish equipping the facility.

Recommendation: Approve $3.6 million in GO bonds to complete construction and equip the New Bioengineering Building.

Brendan Iribe Center for Computer Science and Innovation

The Brendan Iribe Center for Computer Science and Innovation will house the Department of Computer Science and the University of Maryland Institute for Advanced Computer Studies, providing space needed to support the growth of the department and facilitate the integration of modern teaching and research activities. The facility will be designed with flexible spaces and be adaptable to the changing needs of the department. The $152.3 million project leverages $47.7 million in private and institutional funds. This is $9.7 million more than budgeted, of which $6.8 million is to fit out shell

space. The remaining $2.9 million will fund a roof top garden that was requested by the primary donor and required relocating the building's cooling tower from the roof to a site across the road in a parking lot. The fiscal 2019 capital budget provides $3.9 million to complete construction and equip the facility.

Recommendation: Approve $3.9 million in GO bonds to complete construction and equip the Brendan Iribe Center for Computer Science and Innovation.

Summary of Other Projects in the Capital Improvement Program

Chemistry Building Wing 1 Replacement

The replacement of space for the chemistry department has been in and out of the State CIP for many years but continues to be deferred in favor of other projects. UMCP originally planned the chemistry building renovations as a multiphase project to be completed in small phases due to the lack of permanent relocation and/or surge space. The project was modified in the 2005 CIP to be completed in two phases. Phase I would renovate Wing 2 and a portion of Wing 1, and the balance of Wing 1 would be renovated under Phase II of the project. The 2013 CIP programmed a total of $4.1 million for planning in fiscal 2016 and 2017, with $20.7 million ($10.7 million in GO bonds and $10 million in revenue bonds) for construction planned in fiscal 2018. The total estimated cost was $80.2 million. However, construction of the St. John Center afforded UMCP the opportunity to expand the project and incorporate six teaching chemistry laboratories, housed in Wing 1, into the project.

The 2017 CIP programmed $0.3 million in GO bonds in fiscal 2019 to begin design of the project with an estimated total cost of $138.4 million. UMCP has since revised the scope of Phase II, reducing the total cost to the State by $40 million to $98 million. Changes included:

- relocating the nuclear magnetic resonance to renovated space in Wing 2, rather than build a new facility;
- eliminating space to be renovated to accommodate relocation of the occupants, instead occupants will move to underutilized space in the Chemistry Building; and
- reducing the scope of the renovation (Phase II) with major renovations decreasing from 28,500 NASF to 14,308 NASF; 16,703 NASF will undergo limited renovation, and the heating, ventilation, and air conditioning will be upgraded in the second and third floors of Wing 2.

UMCP will provide $14.7 million in institutional funds to fund Phase II of the project. Phase III will demolish and replace Wing I with a 55,900 NASF/105,500 GSF facility with an estimated total cost of $99.2 million that would be funded by the State. Overall, the estimated total cost of the project is $113.9 million.

The 2018 CIP includes prior authorization of $14.7 million of nonbudgeted funds. These are institutional funds approved by BOR to fund the relocation of occupants currently housed in Wing I.

GO bond funding is deferred to fiscal 2020 in the 2018 CIP due to nonbudgeted funds being used to fund a portion of the project. The 2018 CIP programs $4.1 million in GO bonds in fiscal 2021 and $20 million and $51.5 million for construction in fiscal 2022 and 2023, respectively.

Wing 1 was constructed in 1968 and has not had significant renovations since the original construction and, as such, has numerous deficiencies, including:

- lack of central air conditioning and poorly functioning heating system resulting in extreme temperature conditions that are not conducive to teaching and research;
- outmoded laboratory configurations;
- antiquated casework;
- inadequate fume hood exhaust systems;
- obsolete and deficient electrical systems; and
- insufficient environmental controls.

Campuswide Building System and Infrastructure Improvements

Between fiscal 2013 and 2016, $10 million in funding was provided annually, equally from GO bonds and revenue bonds, to fund campuswide building system and infrastructure improvements to address the backlog of deferred maintenance. This stand-alone facility renewal initiative is intended to address critical deferred maintenance projects that if left unaddressed pose serious health, life, and safety issues, and could lead to a shutdown of entire buildings. The multi-year project was first initiated in fiscal 2013 and was anticipated to be an annually funded initiative. To date, the State has provided $25 million of GO bonds with another $20 million coming from USM ARB debt. The project was put on hold so that other UMCP projects could be moved up. The 2018 CIP, as well as the 2017 CIP, programs a return to funding the initiative in fiscal 2021. Future funding of the project will be contingent on the need for additional project components and the availability of State funds.

Towson University

Capital Improvement Program: The 2018 CIP includes a total of $241.5 million of GO bonds to support two projects at TU. One of these projects receives funding in the MCCBL of 2018, a New Science Facility. Fiscal 2019 funds provided for this project total $58.7 million. The other project, New College of Health Professions Building, does not begin until fiscal 2020.

($ in Millions)

Projects	Prior Auth.	2019 Est.	2020 Est.	2021 Est.	2022 Est.	2023 Est.	Beyond CIP
New Science Facility	$47.850	$60.744	$75.225	$0.000	$0.000	$0.000	$0.000
New College of Health Professions Building	0.000	0.000	5.266	6.437	30.339	74.523	44.115
Total	**$47.850**	**$60.744**	**$80.491**	**$6.437**	**$30.339**	**$74.523**	**$44.115**

Fund Source	Prior Auth.	2019 Est.	2020 Est.	2021 Est.	2022 Est.	2023 Est.	Beyond CIP
GO Bonds	$37.850	$58.744	$71.491	$6.437	$30.339	$74.523	$44.115
Revenue Bonds	0.000	2.000	2.000	0.000	0.000	0.000	0.000
Nonbudgeted Funds	10.000	0.000	7.000	0.000	0.000	0.000	0.000
Total	**$47.850**	**$60.744**	**$80.491**	**$6.437**	**$30.339**	**$74.523**	**$44.115**

New Science Facility

The New Science Facility will house the College of Science and Mathematics and will provide space that will accommodate enrollment growth and will allow for the expansion of the academic programs. The project was originally planned as an expansion and renovation of Smith Hall. However, a detailed engineering review and assessment of Smith Hall revealed significant deficiencies in the building envelope. The review also determined that the existing structural system could not accommodate the additional weight of the rooftop mechanical equipment needed for a modern science facility. The New Science Facility will be 316,000 GSF, with 182,242 net square feet (NSF). The facility will include:

- classroom laboratory space (72,635 NSF, 39.8% of the NSF);

- research laboratory space (38,321 NSF, 21.0%);
- office space (26,440 NSF, 14.5%);
- classroom space (22,175 NSF, 12.1%);
- study, lounge, and food facilities space (12,758 NSF, 7.0%);
- greenhouse (3,796 NSF, 2.0%);
- animal quarters (2,921 NSF, 1.6%); and
- other (3,196 NSF, 1.8%).

The total building square footage includes a 16,000 GSF/9,000 NSF shell space, which the university will fit out at a later date. The $4.0 million cost associated with the shell space will be provided by non-State funds and is not included in the total project cost of $183.8 million.

Authorization Uses
($ in Millions)

Description	Prior Authorization	2019 Request	2020 Estimate	2021 Estimate	2022 Estimate	2023 Estimate
Planning	$14.519	$0.000	$0.000	$0.000	$0.000	$0.000
Construction	33.331	60.744	66.275	0.000	0.000	0.000
Equipment	0.000	0.000	8.500	0.000	0.000	0.000
Total	**$47.850**	**$60.744**	**$75.225**	**$0.000**	**$0.000**	**$0.000**

Authorization Sources
($ in Millions)

Description	Prior Authorization	2019 Request	2020 Estimate	2021 Estimate	2022 Estimate	2023 Estimate
GO Bond	$37.850	$58.744	$66.225	$0.000	$0.000	$0.000
Nonbudgeted	10.000	0.000	7.000	0.000	0.000	0.000
Revenue Bonds	0.000	2.000	2.000	0.000	0.000	0.000
Total	**$47.850**	**$60.744**	**$75.225**	**$0.000**	**$0.000**	**$0.000**

Comments: The total cost of the project remains unchanged from last year's estimate of $183.9 million. However, the amount needed for fiscal 2019 is reduced by $2.9 million from last year's estimate due to slight changes in the project schedule and the cash flow needs of the project in fiscal 2019. The altered construction start date was the result of a delay in completion of design and the release of bidding documents. TU still expects that the project will be complete in time for the building to open for the fall 2020 semester. TU states that the work on the concrete foundation is expected to begin in March 2018, with work on the building frame beginning in summer 2018.

Fiscal 2019 represents the second year of construction funding. Fiscal 2020 is the final year of planned funding for the project. The $75.2 million planned for fiscal 2020 will be used for construction funds and equipment for the building. The fiscal 2020 planned GO bond funding of $66.2 million is pre-authorized in the 2018 MCCBL for the remaining amount to fund the construction phase.

In addition to GO bond funds, the project is expected to receive $2.0 million in ARBs in each fiscal 2019 and 2020. The project also includes $17.0 million in non-State funds. This includes equipment support of $7.0 million in fiscal 2020 from USM and $10.0 million in other funds previously authorized. The $10.0 million is expected to be available from fundraising ($5.0 million) and a contribution by the university ($5.0 million). TU reports that to date it has raised $1.5 million. The university has additional solicitations planned through which it expects to receive an additional $1.3 million. With this level of fundraising, TU would need an additional $2.15 million to reach the $5.0 million planned from fundraising. If additional funds are not raised, the university will have to provide additional university funding to support the project.

Recommendation: Approve fiscal 2019 funds and pre-authorization for fiscal 2020.

Summary of Other Projects in the Capital Improvement Program

New College of Health Professions Building

The 2018 CIP plans $116.6 million in GO bonds from fiscal 2020 through 2023 for the New College of Health Professions Building. The total project cost is expected to be $160.7 million. The New College of Health Professions Building is intended to accommodate the departments of health science, nursing, occupational therapy, communication sciences and disorders, collaborative programs, and the majority of kinesiology. These departments are currently spread over multiple buildings and the space is insufficient to meet the increased enrollment. The departments also currently have inadequate office space and outdated laboratory design.

The total estimated project cost is $160.8 million, up from the $156.3 estimate in last year's CIP. At this point, the estimates are very preliminary and not informed by the architect and engineer service, which are not scheduled to be funded until fiscal 2020 and 2021. The 2018 CIP reflects a revised project schedule that moves the start of construction to later in fiscal 2022, which will result in some construction funds shifting to fiscal 2023.

Frostburg State University

Education Professions and Health Sciences Center

The Education Professions and Health Sciences Center will provide modern classrooms, laboratories, and office space for the College of Education, the Exercise and Sports Science Program, Health Professions, the Nursing Program, and the campus Health Center. These programs are currently housed in four buildings that are too small to accommodate the program growth and that lack adequate academic and support space.

Authorization Uses
($ in Millions)

Description	Prior Authorization	2019 Request	2020 Estimate	2021 Estimate	2022 Estimate	2023 Estimate
Planning	$3.500	$2.000	$0.000	$3.057	$0.000	$0.000
Construction	0.000	0.000	0.000	33.391	38.851	0.000
Equipment	0.000	0.000	0.000	3.000	3.000	0.000
Total	**$3.500**	**$2.000**	**$0.000**	**$39.448**	**$41.851**	**$0.000**

Authorization Sources
($ in Millions)

Description	Prior Authorization	2019 Request	2020 Estimate	2021 Estimate	2022 Estimate	2023 Estimate
GO Bond	$3.500	$2.000	$0.000	$34.448	$41.851	$0.000
Revenue Bonds	0.000	0.000	0.000	5.000	0.000	0.000
Total	**$3.500**	**$2.000**	**$0.000**	**$39.448**	**$41.851**	**$0.000**

Comments: The fiscal 2019 capital budget provides $2.0 million to continue the project design phase. The current estimated total cost of the project is $86.8 million, an increase of $3.6 million from last year's estimate. The additional cost results from moving the start of construction from fiscal 2020 to 2021. The overall size of the facility remains at 57,115 square feet (sq. ft.), as originally projected. However, 2,400 sq. ft. designated for classroom space has been exchanged for space to provide a simulation laboratory for nursing students. According to Frostburg State University (FSU), the

elimination of the classroom space will not pose a problem. The need for a nursing simulation laboratory was identified in 2016 by the Health Care Workforce Working Group. The current cost estimate for the project does not include the cost for the nursing simulation laboratory. FSU states that negotiations are underway with the architect, and cost estimates for the simulation laboratory will be available by June 2018. Once determined, this cost should be added to the construction cost estimate.

FSU should discuss how the university will accommodate the elimination of 2,400 sq. ft. of classroom space, given that an issue the facility is supposed to address includes the lack of adequate instructional space.

Recommendation: Approve $2 million in GO bonds to continue design of the Education Professions and Health Science Center.

Coppin State University

Percy Julian Building

The Percy Julian Science and Art Building was constructed in 1967 and was formerly the science building for Coppin State University (CSU). The Percy Julian Science and Art Building has been vacant since August 2015 after the construction of the State-funded Science and Technology Center. The renovation plans for the Percy Julian Science and Art Building would take place to develop a business center for the school. Both the College of Business and the School of Graduate Studies are currently housed in the Grace Hill Jacobs Building.

Authorization Uses
($ in Millions)

Description	Prior Authorization	2019 Request	2020 Estimate	2021 Estimate	2022 Estimate	2023 Estimate
Planning	$1.336	$ 1.634	$0.000	$0.802	$0.000	$0.000
Construction	0.000	0.000	0.000	15.101	15.858	0.000
Equipment	0.000	0.000	0.000	5.000	3.500	0.000
Total	**$1.336**	**$1.634**	**$0.000**	**$20.903**	**$19.358**	**0.000**

Authorization Sources
($ in Millions)

Description	Prior Authorization	2019 Request	2020 Estimate	2021 Estimate	2022 Estimate	2023 Estimate
GO Bond	$1.336	$1.634	$0.000	$20.903	$19.358	$0.000
Total	**$1.336**	**$1.634**	**$0.000**	**$20.903**	**$19.358**	**$0.000**

Comments: In fall 2012, CSU reorganized several academic units and placed six undergraduate programs within its new College of Business to create a traditional undergraduate business program. Current facilities in Grace Hill Jacobs Building do not offer the specialized class laboratory space that CSU would like for its College of Business.

The Percy Julian Science and Art Building renovations would provide new classroom and class laboratory space that will offer specialized rooms that can simulate real world scenarios, like casino operations. Renovations also include updating or replacing the Percy Julian Science and Art Building's heating, ventilation, and air conditioning systems. Because the building is currently vacant, the renovation project would bring the State-owned building back online.

While CSU reports that the new facility would increase enrollment in its business programs, there is no evidence that this trend has taken place with regard to the Science and Technology Center building or the Health and Human Services Building that were both State-funded capital projects. The overall enrollment has seen significant declines over the last decade.

In the 2017 session, as a result of low enrollment, the committees expressed concern about the need for the project and restricted funding pending the receipt of a report outlining the daily student contact hours for the College of Business and the School of Graduate Studies as well as the Health and Human Services Building and Science and Technology Center. The restrictive language also required an assessment of alternatives for providing adequate space for the College of Business and the School of Graduate Studies.

The report submitted by CSU shows a decline in use of the Health and Human Services Building. There has also been a continued decline in enrollment for Health and Human Services programs since the completion of construction. While the decline in student contact hours is evident for the Health and Human Services Building, and there is a slight increase in student contact hours for the Science and Technology Center, as shown in **Exhibit 9**, it is difficult to draw conclusions from this data because there are no projections to compare it to. In a November 2017 report to the budget committees, CSU has provided projections for future years and those can be used to compare actual student contact hours.

Exhibit 9
Daily Student Contact Hours at New Academic Buildings
Fiscal 2014-2017

	Actual						Projected			
	2014	2015	2016	2017	Change	%Change	2018	2019	2020	2021
Health and Human Services Building	21,025	19,381	17,472	16,901	-4,124	19.60%	17,408	17,930	18,468	18,838
Science and Technology Center			16,379	16,429			16,568	16,734	16,901	17,070

Source: Coppin State University

While the College of Business has shown continued decline in enrollment, CSU asserts that their goal to become a hub for innovative business and entrepreneurial initiatives in West Baltimore will be a key factor in reversing this enrollment trend. A published academic paper written by CSU professors argues that recent changes in the economy foster an opportunity for CSU to become the

premier location for revitalizing the economy of West Baltimore by creating an ecosystem that fosters entrepreneurship. CSU asserts that they have been working to implement initiatives to foster the growth that will support the need for the new Percy Julian Science and Art Building. Some initiatives include:

- a pending Memorandum of Understanding (MOU) with the University of Baltimore to provide preferential admission into the Accounting and Business Advisory program for CSU Accounting undergraduate students;

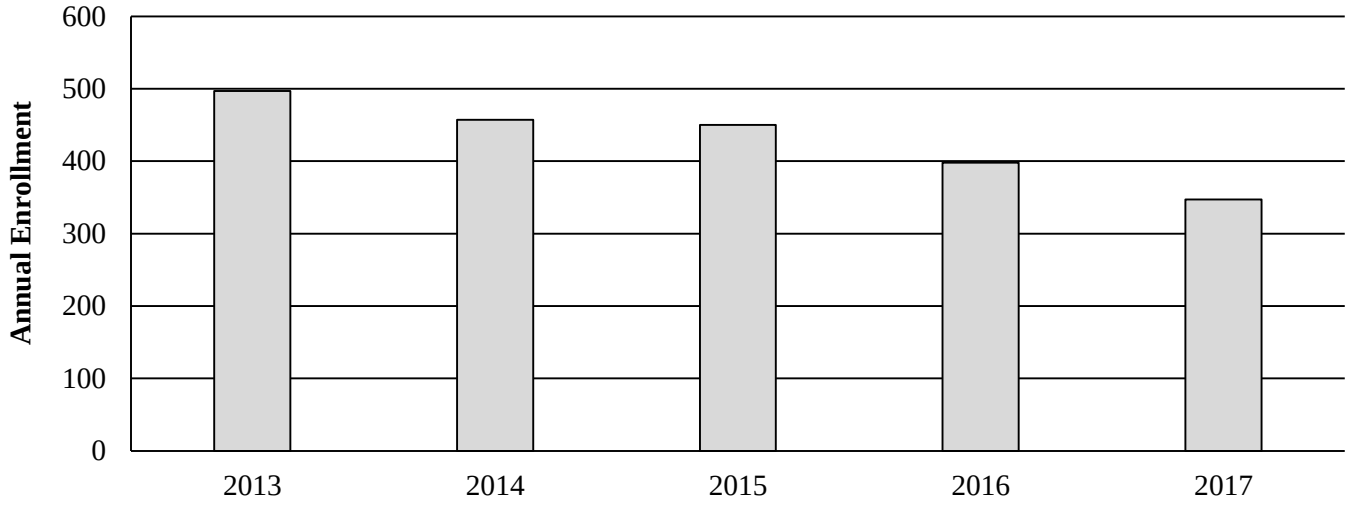
- a current agreement with Baltimore City Community College for transfer students to enroll from several business-related majors; and

- several marketing strategies have been implemented to promote the College of Business.

There is also a pending partnership with University of Maryland University College to optimize recruitment for the online management degree program. While this is a sound strategy for the recruitment of the online program, it does not support the renovating of the Percy Julian Science and Art Building because students will not be matriculating on campus. Many of these initiatives are new and CSU has based future enrollment projects at least in part on the success of these initiatives.

However, there are concerns that CSU is already implementing several of the initiative programs, and the enrollment for the College of Business continues to decline, as shown in **Exhibit 10**. There has been a 30% decline in enrollment for business majors over the last five years. It is also important to note that while CSU estimates a 30% increase in enrollment for the College of Business by 2024, the occupational outlook for in Maryland is projected at only a 20% growth in business occupations by 2024.

Exhibit 10
Enrollment for the Business School
Fall 2013-2017



Source: Coppin State University

Because of the lack of empirical data to support the success of these new initiatives and the lack of evidence for full utilization of the Health and Human Services Building and the Science and Technology Center, it may be more fiscally prudent for CSU to use current facilities to support the College of Business until enrollment data can more definitively illustrate the need for the updated facility. CSU states that the Grace Hill Jacobs Building, which currently houses both the College of Business and the College of Graduate Studies is no longer sufficient to house both colleges and the space within the Grace Hill Jacobs Building and the faculty offices and other administrative spaces are significantly undersized. The Grace Hill Jacobs Building also does not have the infrastructure to support the advancements in technology necessary to compete with other business programs. Further, both the Health and Human Services Building and the Science and Technology Center were designed with specific programmatic elements and are not suited for housing a business program. While there are elements in the buildings suited specifically for health- and science-related curriculum, there is no evidence that suggests this would prohibit business students' academic pursuits, particularly when current data suggests that neither building is being used at full capacity for the intended programs. More specifically, when asked about the assertion that the Health and Human Services Building is fully occupied, CSU responded that the buildings are currently used by all of the colleges on campus. Even with the presence of other programs in the building, overall student contacts have continued to decline.

While CSU has been responsive to requests for additional data, the need for the new CSU building has not been sufficiently justified. Neither enrollment data nor indicators from the new initiatives of the business school sufficiently outline a tangible need for students to have additional space. In October 2017, the committees released the initial design authorization that was restricted

pending submission of enrollment and space utilization data justifying the need for the Percy Julian renovation. While the data continues to call into question the need for the project, DLS recommends approval of the fiscal 2019 funds to complete the design phase. The 2018 CIP does not program construction funds until fiscal 2021 and 2022, which will give CSU time to fully implement its strategic initiative intended to increase enrollment in the School of Business. The relative success in achieving enrollment growth can be evaluated at the time construction funding is proposed.

Recommendation: Approve.

University of Maryland Baltimore County

Capital Improvement Program: The 2018 CIP for the University of Maryland Baltimore County (UMBC) includes $64.2 million in fiscal 2019 funding for the Interdisciplinary Life Sciences Building ($62.8 million) and for utility upgrades ($1.4 million). Funding in fiscal 2019 is comprised of $59.2 million in GO bonds and $5 million in revenue bonds.

($ in Millions)

Projects	Prior Auth.	2019 Est.	2020 Est.	2021 Est.	2022 Est.	2023 Est.	Beyond CIP
Interdisciplinary Life Sciences Building	$57.989	$62.799	$0.000	$0.000	$0.000	$0.000	$0.000
Utility Upgrades	0.000	1.360	1.676	7.000	6.767	0.000	0.000
Total	**$57.989**	**$64.159**	**$1.676**	**$7.000**	**$6.767**	**$0.000**	**$0.000**

Fund Source	Prior Auth.	2019 Est.	2020 Est.	2021 Est.	2022 Est.	2023 Est.	Beyond CIP
GO Bonds	$57.989	$59.159	$1.676	$7.000	$6.767	$0.000	$0.000
Revenue Bonds	0.000	5.000	0.000	0.000	0.000	0.000	0.000
Total	**$57.989**	**$64.159**	**$1.676**	**$7.000**	**$6.767**	**$0.000**	**$0.000**

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 fiscal 2019 funding amount of $62.8 million is $5.9 million more than previously planned because equipment funding previously programmed for fiscal 2020 will instead be funded in fiscal 2019. While $12.74 million was authorized for design, the actual design contract totaled $11.04 million, or $1.7 million less than planned. In addition, the size of the building slightly changed from 71,506 NASF/133,385 GSF to 71,533 NASF/133,267 GSF.

Comments: 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, in the last 10 years, undergraduate and graduate STEM enrollment grew 61%, 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 able 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 the campus and is fully occupied. Furthermore, there are no research laboratories designed to support interdisciplinary research. The new building will provide labs for nearly 40 investigators, more than 100 graduate students and post-doctoral fellows, and many undergraduate students.

The animal research facilities are insufficient to perform animal procedures and lack dedicated quarantine rooms. 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 facility will provide 17,458 NASF and 6,699 NASF of classroom and teaching laboratory space, respectively; 28,747 NASF of research laboratory space; and 11,324 NASF of office and conference space. In addition, 5,536 NASF is provided for animal facilities.

Recommendation: Approve.

Utility Upgrades

The fiscal 2019 capital budget provides $1.4 million to begin planning for utility upgrades and site improvements. This project will replace deteriorated utility system components and respond to State environmental regulations. The scope of the project includes the replacement of primary electric feeders, the upgrade of secondary electrical system equipment, the renewal of domestic water lines, the replacement of central plant equipment, and the addition of stormwater management best practices to

prevent the pollution of downstream watersheds. The project is estimated to cost $16.8 million, $500,000 more than previously planned.

Comments: This project was accelerated to fiscal 2019 after previously being scheduled for a fiscal 2020 start. The acceleration is needed to address critical infrastructure issues that have caused extended power and water outages. During the last five years, the campus has experienced three to four power outages per year, including one that closed campus for three days and cost $1.2 million to repair. There have also been more than 12 water main breaks on campus since 2011.

Recommendation: Approve.

University System of Maryland Office

Capital Improvement Program: The capital budget provides funding to complete construction of the Shady Grove Educational Center – Biomedical Sciences and Engineering Building and funds to begin construction of a third building at the Southern Maryland Higher Education Center (SMHEC).

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

Projects	Prior Auth.	2019 Est.	2020 Est.	2021 Est.	2022 Est.	2023 Est.	Beyond CIP
Biomedical Sciences and Engineering Building	$139.367	$23.114	$0.000	$0.000	$0.000	$0.000	$0.000
Southern Maryland Higher Education Center	7.011	28.365	46.257	0.000	0.000	0.000	0.000
Total	**$146.378**	**$51.479**	**$46.257**	**$0.000**	**$0.000**	**$0.000**	**$0.000**

Fund Source	Prior Auth.	2019 Est.	2020 Est.	2021 Est.	2022 Est.	2023 Est.	Beyond CIP
GO Bonds	$145.378	$54.479	$41.257	$0.000	$0.000	$0.000	$0.000
Revenue Bonds	0.000	0.000	5.000	0.000	0.000	0.000	0.000
Nonbudgeted	1.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**$146.378**	**$54.479**	**$46.257**	**$0.000**	**$0.000**	**$0.000**	**$0.000**

Capital Improvement Program
($ in Millions)

Program	2017 Approp.	2018 Approp.	2019 Request	2020 Est.	2021 Est.	2022 Est.	2023 Est.
Capital Facilities Renewal	$17.000	$17.000	$17.000	$22.000	$32.000	$32.000	$32.000
Total	**$17.000**	**$17.000**	**$17.000**	**$22.000**	**$32.000**	**$32.000**	**$32.000**

Fund Source	2017 Approp.	2018 Approp.	2019 Request	2020 Est.	2021 Est.	2022 Est.	2023 Est.
GO Bonds	$0.000	$0.000	$0.000	$0.000	$10.000	$7.000	$7.000
Revenue Bonds	17.000	17.000	17.000	22.000	22.000	25.000	25.000
Total	**$17.000**	**$17.000**	**$17.000**	**$22.000**	**$32.000**	**$32.000**	**$32.000**

Biomedical Sciences and Engineering Education Facility

The Biomedical Sciences and Engineering Education Facility will provide specialized laboratory space for new and existing programs and provide additional space to support future enrollment growth.

Authorization Uses
($ in Millions)

Description	Prior Authorization	2019 Request	2020 Estimate	2021 Estimate	2022 Estimate	2023 Estimate
Planning	$13.800	$0.000	$0.000	$0.000	$0.000	$0.000
Construction	114.916	14.765	0.000	0.000	0.000	0.000
Equipment	10.651	8.349	0.000	0.000	0.000	0.000
Total	**$139.367**	**$23.114**	**$0.000**	**$0.000**	**$0.000**	**$0.000**

Authorization Sources
($ in Millions)

Description	Prior Authorization	2019 Request	2020 Estimate	2021 Estimate	2022 Estimate	2023 Estimate
GO Bond	$139.367	$23.144	$0.000	$0.000	$0.000	$0.000
Total	**$0.000**	**$0.000**	**$0.000**	**$0.000**	**$0.000**	**$0.000**

Comments: It is expected that UMCP, UMBC, and UMB will offer various programs in the new facility, including engineering and biosciences, a combined dental hygiene and nursing program, and agriculture science and technology. USM is developing and negotiating an MOU between the Universities at Shady Grove and institutions that will offer programs at the center. **The Chancellor should comment on MOUs that have been signed and what programs are slated to be offered when the facility opens in 2019.**

The fiscal 2019 capital budget provides $23.1 million to complete construction and finish equipping the facility.

Recommendation: Approve $23.1 million in GO bonds to complete construction and equip the Shady Grove Educational Center – Biomedical Sciences and Engineering Building.

Southern Maryland Higher Education Center

The project will provide a third academic facility on the SMHEC campus to support new education, research, and professional training programs.

Authorization Uses
($ in Millions)

Description	Prior Authorization	2019 Request	2020 Estimate	2021 Estimate	2022 Estimate	2023 Estimate
Planning	$7.011	$0.000	$0.000	$0.000	$0.000	$0.000
Construction	0.000	26.865	40.757	0.000	0.000	0.000
Equipment	0.000	1.500	5.500	0.000	0.000	0.000
Total	**$7.011**	**$28.365**	**$46.257**	**$0.000**	**$0.000**	**$0.000**

Authorization Sources
($ in Millions)

Description	Prior Authorization	2019 Request	2020 Estimate	2021 Estimate	2022 Estimate	2023 Estimate
GO Bond	$6.011	$28.365	$41.257	$0.000	$0.000	$0.000
Revenue Bonds	0.000	0.000	5.000	0.000	0.000	0.000
Nonbudgeted Funds	1.000	0.000	0.000	0.000	0.000	0.000
Total	**$7.011**	**$28.365**	**$46.257**	**$0.000**	**$0.000**	**$0.000**

Comments: On September 28, 2017, the Board of Governors of SMHEC voted to merge with USM effective July 1, 2018, and approved an MOU laying out the details of the merger in January 2018. The MOU was approved by USM BOR in February 2018. It should be noted that $0.5 million of operating funds for SMHEC that were budgeted in the Maryland Higher Education Commission have been transferred to USMO in the allowance. However, since SMHEC was established by statute in 1994, the General Assembly would need to pass legislation allowing the merger. Legislation has been introduced in the 2018 session (SB 903 and HB 1143) that authorizes the merger.

USM and SMHEC initiated discussions on how they could work together to meet the postsecondary and economic needs of the Southern Maryland region over four years ago when language was included in the 2013 capital budget providing $1.5 million to USMO and a $250,000 grant to the Southern Maryland Navy Alliance and Board of Commissioners of St. Mary's County to design a third academic facility at SMHEC. Restrictive language placed on USMO's appropriation required a formal agreement between USM, the Southern Maryland Higher Education Council, and the Southern Maryland Navy Alliance on the roles and responsibilities of each in the construction and operation of the facility and a report from the Southern Maryland Higher Education Council assessing the educational needs in Southern Maryland.

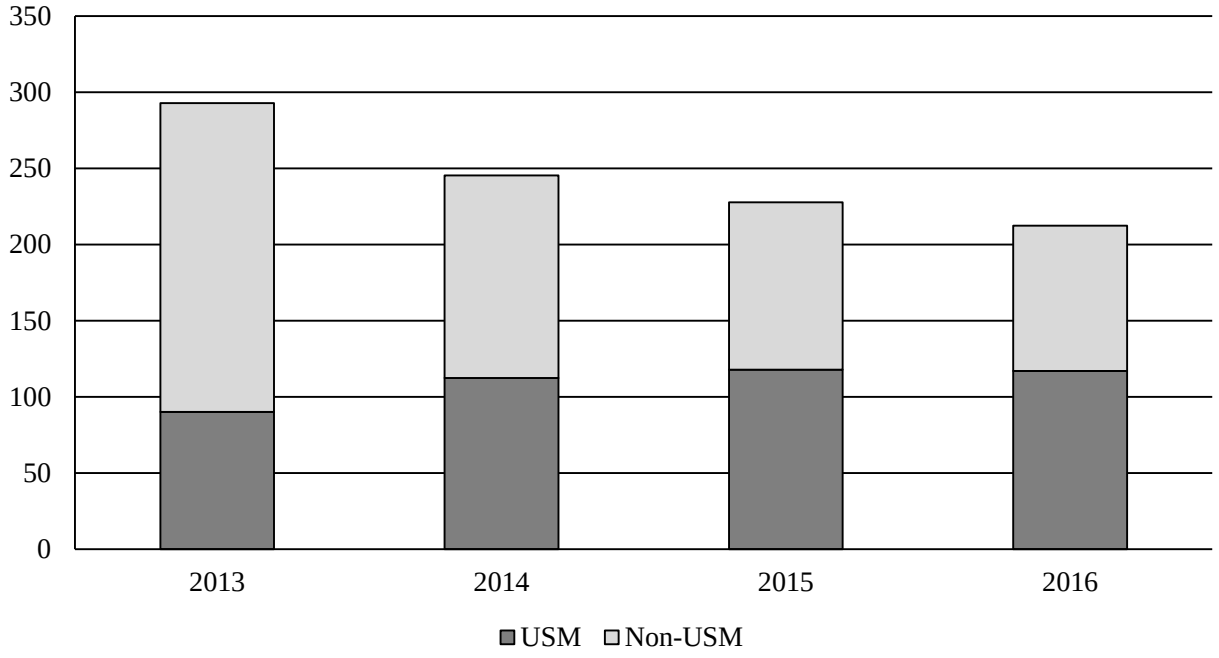
A formal agreement on the design, construction, and management of a third facility was submitted in December 2013. The agreement contained a provision that SMHEC and USM negotiate an MOU that includes a transition plan for a possible merger.

The recommendations of the council's report included that the third academic facility at SMHEC should be a USM regional center operation that coordinates regional academic and research opportunities. Furthermore, SMHEC would continue to be open to all accredited public and independent institutions. In addition, the council recommended that the facility expansion should include research space that can support basic and applied research needs of the region. This resulted in the scope of the project more than doubling from 38,121 GSF to 84,388 GSF to include more engineering teaching laboratories, research space, and an auditorium with the cost of the facility increasing from $13.4 million to $78.3 million, as programmed in the 2015 CIP. The cost subsequently increased to $82.0 million in the 2016 CIP due to the inclusion of an auditorium, which will be funded with a $1 million contribution from St. Mary's County and an increase in equipment costs.

The 2017 CIP programmed $27.9 million in GO bonds in fiscal 2019; however, the fiscal 2019 capital budget provides $28.4 million in funding. The increase is due to additional equipment funding. The 2018 CIP programs $41.3 million in GO bonds and $5 million in revenue bonds in fiscal 2020 to complete construction and equip the facility.

In fiscal 2017, 12 institutions (5 USM, 4 out-of-state, and 3 Maryland independent institutions) offered 19 graduate and graduate certificate programs and 7 upper level undergraduate programs. However, as shown in **Exhibit 11,** enrollment in programs offered at SMHEC declined 27.5%, or 80.6 full-time equivalent students (FTES), between fiscal 2013 and 2016. While enrollment in USM programs grew 29.8% during this time period, those offered by non-USM institutions fell 53.0%. A primary driver behind the overall decline is a 66.2% drop, or 73.7 FTES, in the engineering programs. As shown in **Exhibit 12**, all institutions experienced a decline in engineering students with The Johns Hopkins University incurring the largest loss of 30.9 FTES. Enrollment in UMCP's program declined 23.7%, or 7.3 FTES.

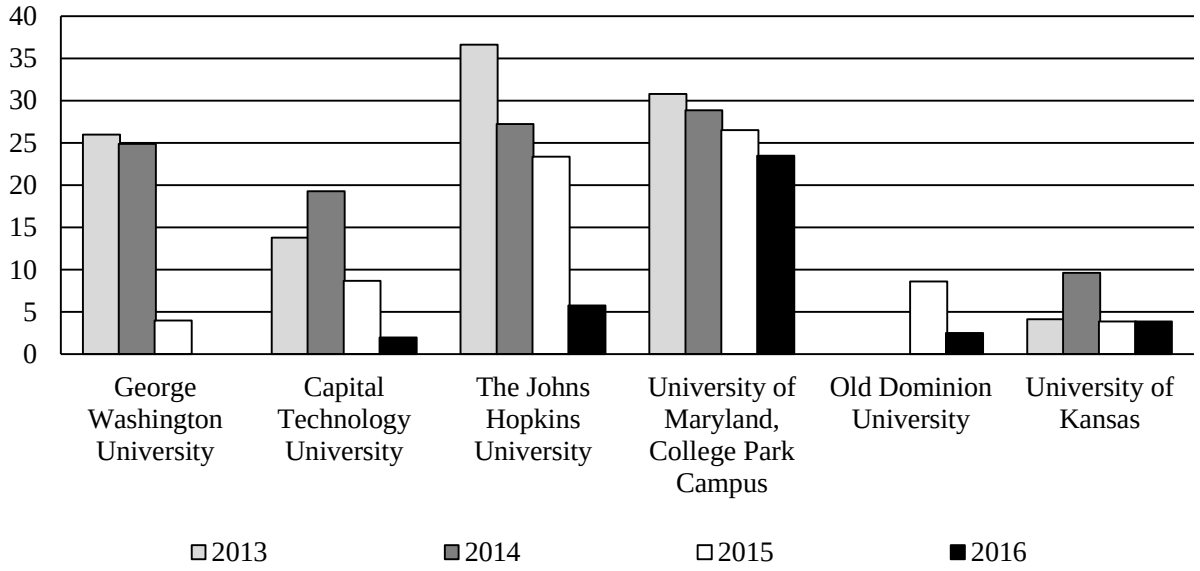
Exhibit 11
Full-time Equivalent Enrollment at Southern Maryland Higher Education Center
Fiscal 2013-2016



USM: University System of Maryland

Source: Maryland Higher Education Commission

Exhibit 12
Full-time Equivalent Student Enrollment in Engineering Programs
Fiscal 2013-2016



Source: Maryland Higher Education Commission

The new facility includes five classrooms that can hold 36 students and will allow for the expansion of other academic programs. Classrooms in the two buildings at SMHEC are too small with only three rooms able to accommodate a maximum of 32 students. Institutions offering programs at SMHEC require larger classrooms that can accommodate 36 students.

The new facility would provide engineering classroom and laboratory space and support spaces, such as an electronic shop and storage space for materials for engineering programs. This will allow SMHEC to increase the availability of undergraduate engineering programs by expanding existing programs and offering new programs. UMCP launched an undergraduate electrical engineering program in fall 2016, primarily for Navy personnel, limiting enrollment to 10 students. The Naval Air Weapons Aviation Center has agreed to provide 10 full scholarships. While the current facilities do not have the research or laboratory space needed to support the electrical engineering program, UMCP will retrofit existing classroom space into laboratory space. While not ideal or a permanent solution, the retrofitted laboratory can work for the short term. Once the new facility is completed, UMCP plans to expand enrollment in the electrical engineering program to 20 students. However, the recent downward trend in enrollment, particularly in engineering programs, raises concerns about the program mix and if SMHEC is offering programs that meet the demands of the workforce. **The Chancellor should comment on factors contributing to the decline in enrollment, particularly in the engineering programs and if the program mix at the center is being reevaluated to ensure programs are being offered that meet the region's workforce demand.**

The facility will support local and regional initiatives related to Unmanned Autonomous Systems (UAS) which, due to its location near the Naval Air Warfare Center Aircraft Division at Patuxent River, is expected to generate significant UAS activity in the tri-county region of Calvert, Charles, and St. Mary's counties. In addition, UMCP has established a test site for UAS at the St. Mary's County Regional Airport as part of the Mid-Atlantic Aviation Partnership with Virginia and New Jersey.

The facility will also provide additional conference space to accommodate demand for training programs and conferences. SMHEC held 1,262 training programs serving approximately 87,500 people between fiscal 2011 and 2015. In fiscal 2015, SMHEC turned away 31 events due to the lack of space. The facility includes a 330-seat auditorium that will be funded by St. Mary's County.

Overall, the facility will provide 12,797 NASF and 6,230 NASF of classroom and instructional laboratory space, respectively; 14,175 NASF of research space; 5,280 NASF of conference space; and 4,903 NASF of office space.

Due to concerns that the justification for the project does not support the scope of the project, the Department of Legislative Services recommends deleting the appropriation for the project. In addition, USMO should submit a report reevaluating the project and include an assessment of the current and planned program offerings and how programs will meet the workforce demands of the region.

Recommendation: Delete the appropriation for SMHEC.

Capital Facilities Renewal

This annual facilities renewal program provides funding for infrastructure improvements at various facilities at USM institutions. Capital facilities renewal funds are allocated among institutions on a pro rata share of self-reported replacement costs for all State-funded academic facilities. Funding for fiscal 2019 includes $17 million in ARBs that will enable USM to undertake 31 projects at 11 institutions. The 2018 CIP programs an additional $5 million in ARBs in fiscal 2020 and another $3 million in fiscal 2022, bringing the total to $25 million. It should be noted, in fiscal 2021 to 2023, the 2018 CIP programs an additional $5 million for UMCP for campuswide building system and infrastructure improvements. The 2018 CIP also programs $10 million in GO bonds in fiscal 2021 and $7 million in fiscal 2022 and 2023, resulting in a total of $32 million to fund facility renewal projects. This results in all ARBs going toward facility renewal projects addressing USM's $1.8 billion backlog of deferred maintenance.

Summary of Other Projects in the Capital Improvement Program for Universities Not Represented

Bowie State University

Communication Arts and Humanities Building: State support for this project first appeared in the 2017 CIP. The estimated cost of this project totals $136.0 million, and the 2018 CIP schedules initial design funding in fiscal 2021. This project includes the construction of a new humanities building on the site of the existing Martin Luther King, Jr. Building to accommodate the departments of communications, English and modern languages, and history and government. The project includes the demolition of the Martin Luther King, Jr. Building. The new facility will replace functionally inadequate and poorly configured space in the existing Martin Luther King, Jr. Building. The new building will include multimedia classrooms, specialized laboratories, and media production facilities.

University of Maryland Eastern Shore

The School of Pharmacy and Health Professions Building: When completed, the new building will house the School of Pharmacy's Doctor of Pharmacy and Doctor of Pharmaceutical Sciences program, providing the modern instructional and research space needed to support the current and future growth of the school. The project will address the intermediate and long-term needs of the school, ensuring that the facilities are in compliance with accreditation standards. The new facility will provide 65,000 NASF/120,250 GSF and will include shared space for other health science disciplines, including physical therapy, kinesiology, and rehabilitation. The project includes 14,705 NASF and 11,520 NASF of class laboratory and classroom space, respectively; 12,540 NASF of office and conference space; 3,900 NASF of meeting space; and 2,500 NASF of demonstration space. In addition, the project provides 8,180 NASF of research space and 3,915 NASF of animal research space. This project first appeared in the 2016 CIP that programmed $3.5 million and $3.7 million in fiscal 2019 and 2020, respectively, to design the facility with construction funding programmed in the out-years. The General Assembly accelerated the project by adding a $3.5 million authorization to begin design in fiscal 2017. The fiscal 2018 capital budget authorized an additional $3.0 million to fund the design phase to the 100% construction document stage. The schedule is moved back some in the 2018 CIP with construction expected to commence in the later part of fiscal 2020. Construction funds of $73.0 million are scheduled in fiscal 2021 through 2023.

Salisbury University

Blackwell Hall Renovation: New to the State's five-year capital plan is the renovation of Blackwell Hall to provide a modern facility for student service functions. With the completion of the new Patricia R. Guerrieri Academic Commons, the former library, Blackwell Hall, will be renovated to become a student services center or one-stop shop. Student service departments, including the Registrar, Financial Aid, Academic Advising, Career Services, Bursar, Admissions, Counseling Center,

Health Center, and Welcome Center units will be combined into one building. This will provide for better service and efficiencies as well as open space in other buildings for much needed academic classroom, laboratory, and study space. The project will also include the entire replacement of the outdated mechanical, plumbing, and electrical systems that are at the end of its life as well as bringing the building up to code, including new elevators and restrooms that meet the Americans with Disabilities Act (ADA) requirement. The estimated cost of this project totals $33,000,000.

University of Maryland Center for Environmental Science

Chesapeake Analytics Collaborative Building: This project first appeared in the State's five-year capital plan in the 2017 CIP. The 2018 CIP makes no major changes to the cost estimate or funding sequence programming design and construction over fiscal 2021 through 2023 for the estimated $16.0 million project. The project will construct the new Chesapeake Analytics Collaborative Building at the University of Maryland Center for Environmental Science (UMCES), Chesapeake Biological Laboratory (CBL) in Solomons Island. UMCES-CBL currently does not have modern research collaboration space. In addition, existing library space is not ADA compliant and is insufficient to house CBL's library collection. The building will provide adequate space for the library collection, including the Chesapeake Archives, and house information technology and "big data" visualization systems needed to support collaborative research and instructional programs.

Pre-authorizations and De-authorizations

Exhibit 13 provides details on the pre-authorizations and de-authorizations for USM.

Exhibit 13
Pre-authorizations and De-authorizations
($ in Millions)

Pre-authorizations

Project	2020	2021	2022	2023
UMB – Central Electric Substation and Electrical Infrastructure Upgrade	$13.721	$0.000	$0.000	$0.000
UMCP – New Cole Field House	3.941	0.000	0.000	0.000
UMCP – School of Public Policy Building	12.500	2.100	0.000	0.000
TU – Science Facility	66.225	0.000	0.000	0.000
USMO – Southern Maryland Regional Higher Education Center	40.757	0.000	0.000	0.000

De-authorizations

Project	De-authorized Amount	Reason
CSU – Pedestrian Bridge ADA Improvements	$652,000	Project complete.
UMBC – New Performing Arts and Humanities Facility	$114,891	Project complete.
CSU – New Science and Technology Center	$223,724	Funds not needed to complete.
UMBC – New Performing Arts and Humanities Facility	$1,000,000	Project complete.

CSU: Coppin State University
TU: Towson University
UMB: University of Maryland, Baltimore Campus
UMBC: University of Maryland Baltimore County
UMCP: University of Maryland, College Park Campus
USMO: University System of Maryland Office

Source: Department of Budget and Management, 2018 *Capital Improvement Program*

GO Bond Recommended Actions

1. Approve $8.564 million in general obligation bond funds for the University of Maryland, Baltimore Campus Central Electric Substation project.

2. Approve $3.6 million in general obligation bond funds to complete construction and equip the A. James Clark Hall – New Bioengineering Building at the University of Maryland, College Park Campus.

3. Approve $3.9 million in general obligation bond funds to complete construction and equip the Brendan Iribe Center for Computer Science and Innovation at the University of Maryland, College Park Campus.

4. Approve $7.3 million in general obligation bond funds to continue design and construction of the Human Performance and Academic Research Facility housed in the New Cole Field House at the University of Maryland, College Park Campus.

5. Approve $2 million in general obligation bond funds to continue design and construction of the School of Public Policy Building at the University of Maryland, College Park Campus.

6. Approve $58.7 million in general obligation bond funds for the New Science Facility at Towson University.

7. Approve $2 million in general obligation bond funds to continue design of the Education Professions and Health Science Center at Frostburg State University.

8. Approve $1.6 million in general obligation bond funds to support the design of the Percy Julian Building renovation for fiscal 2019 at Coppin State University.

9. Approve $57.8 million in general obligation bond funds to complete construction and equipping a new academic facility for interdisciplinary life sciences at the University of Maryland Baltimore County.

10. Approve $1.36 million in general obligation bond funds to begin design to replace, repair, and upgrade utility systems and campus infrastructure at the University of Maryland Baltimore County.

11. Approve $23.1 million in general obligation bond funds to complete construction and equip the Shady Grove Education Center – Biomedical Sciences and Engineering Education Building.

12. Delete funding for construction for scope not being justified.

RB36B	Southern Maryland Regional Higher Education Center	$ 0

Allowance	Change	Authorization
28,365,000	-28,365,000	0

Explanation: This action deletes $28.7 million in general obligation bonds for the construction of the Southern Maryland Regional Higher Education Center due to the scope of the project not being justified.

13. Adopt the following narrative:

Report on Program Mix: The budget committees are concerned about the decline in enrollment at the Southern Maryland Higher Education Center (SMHEC) and if programs are being offered that meet the workforce demands of the region. Of particular concern is the decrease in the number of students enrolled in engineering programs since a justification for the construction of a third academic faculty at SMHEC is to increase the availability of undergraduate engineering programs. Therefore, the committees request that the University System of Maryland Office (USMO) submit a report reevaluating the project justification, including the size and scope. The report should also include an assessment of the program mix, including current and planned programs, enrollment by program, and how planned programs would meet the workforce demands of the region. The report should be submitted by October 15, 2018.

Information Request	Author	Due Date
Report on program mix	USMO	October 15, 2018

14. Approve the de-authorization of $1,000,000 in general obligation bond funds for the New Performing Arts and Humanities Facility at the University of Maryland Baltimore County because the project is complete.

15. Approve the de-authorization of $0.7 million in general obligation bond funds for the Pedestrian Bridge and Americans with Disabilities Act improvements at Coppin State University because the project is complete.

16. Approve the de-authorization of $114,891 in general obligation bond funds for the New Performing Arts and Humanities Facility at the University of Maryland Baltimore County because the project is complete.

17. Approve the de-authorization of $0.2 million in general obligation bond funds for the Science and Technology Center at Coppin State University because the project is complete.

18. Approve amending language under the Interdisciplinary Life Sciences Building to allow fiscal 2016 funds to be used for construction at the University of Maryland Baltimore County.

19. Approve amending language under the Interdisciplinary Life Sciences Building to allow fiscal 2017 funds to be used for construction at the University of Maryland Baltimore County.

20. Approve the pre-authorization of $13.721 million in fiscal 2020 for the University of Maryland, Baltimore Campus Central Electric Substation project.

21. Approve the pre-authorization of $3.9 million in general obligation bond funds for fiscal 2020 to complete construction of the Human Performance and Academic Research Facility located within the New Cole Field House at the University of Maryland, College Park Campus.

22. Approve the pre-authorization of $12.5 million in general obligation bond funds in fiscal 2020 to continue construction of the School of Public Policy Building at the University of Maryland, College Park Campus.

23. Approve the fiscal 2020 pre-authorization of $66.2 million for the New Science Facility at Towson University.

24. Delete construction funding for the Southern Maryland Higher Education Center.

ZF4100	SECTION 12 – University System of Maryland Office – Southern Maryland Regional Higher Education Center.....	$ 0

Explanation: This action deletes a pre-authorization for $46.3 million in general obligation bond funding for the Southern Maryland Higher Education Center for fiscal 2020.

25. Approve the pre-authorization of $2.1 million in general obligation bond funds in fiscal 2021 to complete construction of the School of Public Policy Building at the University of Maryland, College Park Campus.

Total General Obligation Bonds Reductions/Additions	**$28,365,000**
Total Pre-authorization (2018) Reductions/Additions	**$40,757,000**
Total Reductions	**$69,122,000**

Operating Budget Impact Statement

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

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
UMCP – A. James Clark Hall – New Bioengineering Building					
Estimated Operating Cost	$4.045	$4.088	$4.133	$4.180	$2.905
Estimated Staffing	4.61	4.61	4.61	4.61	4.61
UMCP – Brendan Iribe Center for Computer Science and Innovation					
Estimated Operating Cost	$1.645	$4.785	$4.834	$4.886	$4.939
Estimated Staffing	4.83	5.27	5.27	5.27	5.27
UMCP – New Cole Field House					
Estimated Operating Cost	$0.016	$2.246	$2.547	$2.580	$2.614
Estimated Staffing	0.00	2.29	3.43	3.43	3.43
UMCP – School of Public Policy Building					
Estimated Operating Cost	$0.000	$0.000	$1.274	$1.259	$1.276
Estimated Staffing	0.00	0.00	1.74	1.74	1.74
TU – New Science Facility					
Estimated Operating Cost	$0.000	$0.000	$5.727	$5.944	$6.050
Estimated Staffing	0.00	0.00	7.24	7.90	7.90
FSU – Education Professions and Health Sciences Center					
Estimated Operating Cost	$0.000	$0.000	$0.000	$0.000	$1.023
Estimated Staffing	0.00	0.00	0.00	0.00	2.50

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
CSU – Percy Julian Building					
Estimated Operating Cost	$0.000	$0.000	$0.000	$0.450	$0.662
Estimated Staffing	0.00	0.00	0.00	0.54	1.61
UMBC – Interdisciplinary Life Sciences Building					
Estimated Operating Cost	$0.402	$4.882	$4.923	$4.966	$5.011
Estimated Staffing	0.83	3.33	3.33	3.33	3.33
USMO – Biomedical Sciences and Engineering Building					
Estimated Operating Cost	$1.295	$4.632	$4.708	$4.787	$4.869
Estimated Staffing	2.86	5.72	5.72	5.72	5.72
USMO – Southern Maryland Higher Education Center					
Estimated Operating Cost	$0.000	$0.000	$1.585	$1.575	$1.603
Estimated Staffing	0.00	0.00	2.11	2.11	2.11
Total Operating Impact					
Estimated Operating Cost	**$7.403**	**$20.633**	**$29.733**	**$30.627**	**$30.951**
Estimated Staffing	**13.13**	**21.22**	**33.45**	**34.65**	**38.22**

CSU: Coppin State University
FSU: Frostburg State University
TU: Towson University
UMBC: University of Maryland Baltimore County
UMCP: University of Maryland, College Park Campus
USMO: University System of Maryland Office