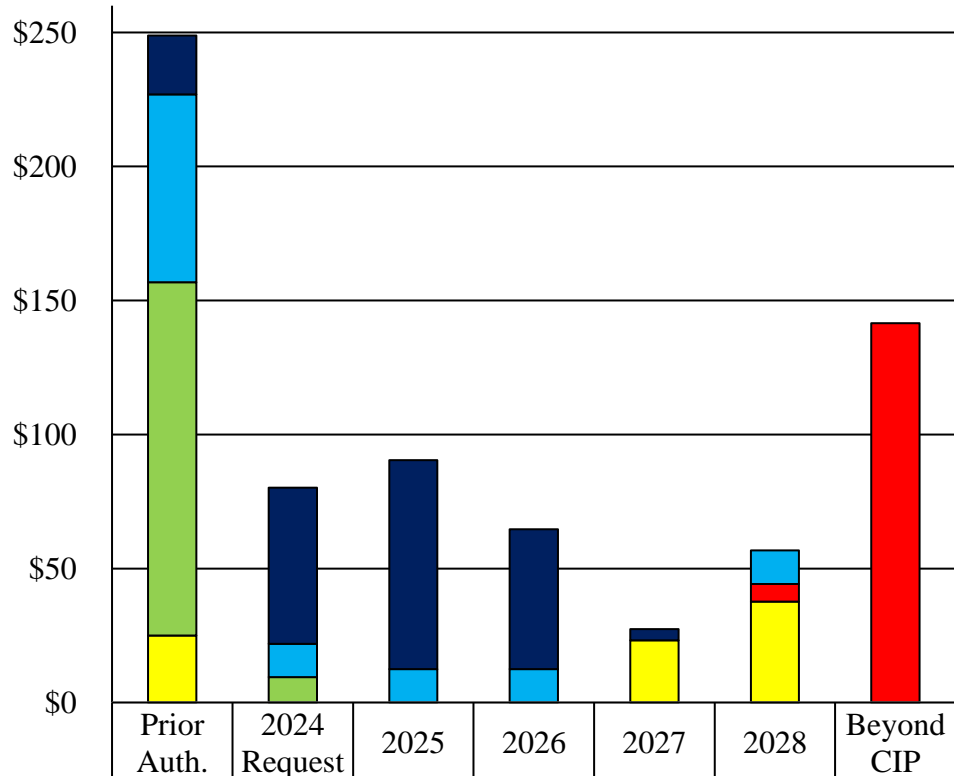


**RB22**  
**University of Maryland, College Park Campus – Capital**  
**University System of Maryland**

***Capital Budget Summary***

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

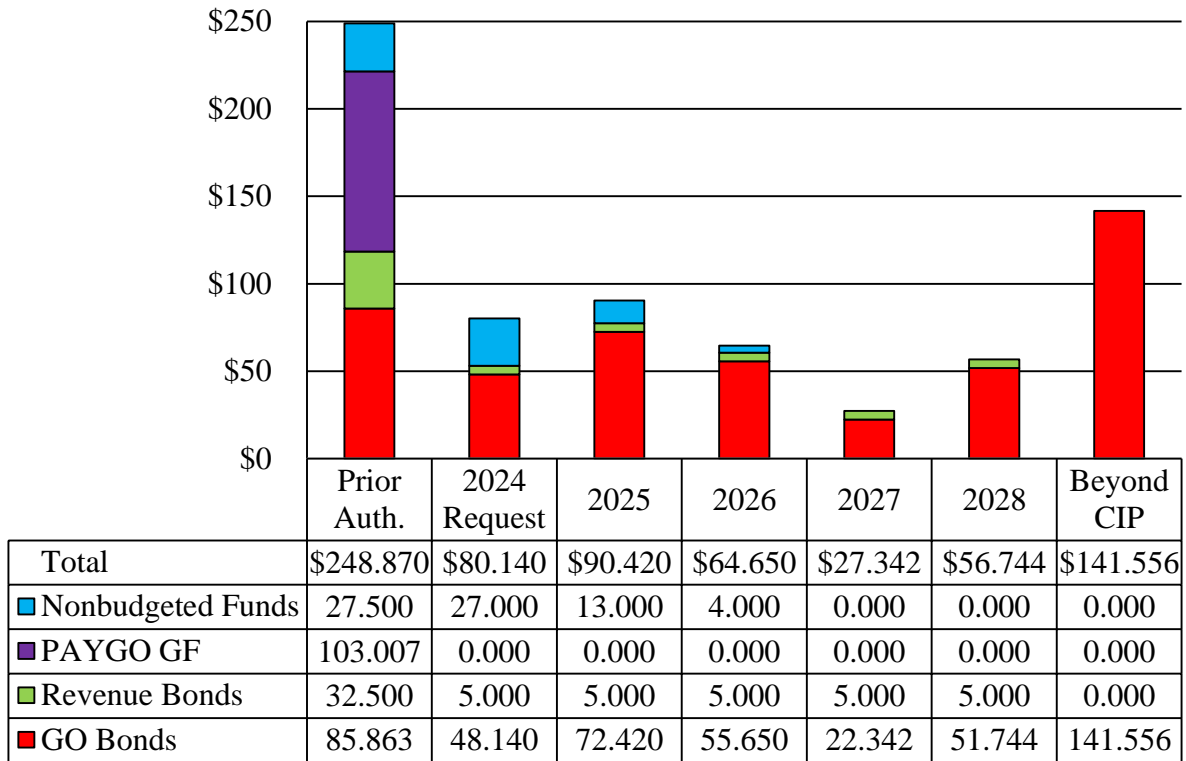


|   | Prior Auth. | 2024 Request | 2025     | 2026     | 2027     | 2028     | Beyond CIP |
|---|-------------|--------------|----------|----------|----------|----------|------------|
| <b>Total</b>  | \$248.870   | \$80.140     | \$90.420 | \$64.650 | \$27.342 | \$56.744 | \$141.556  |
| ■ Interdisciplinary Engineering Building                      | 22.000      | 58.210       | 77.920   | 52.150   | 4.120    | 0.000    | 0.000      |
| ■ Campuswide Building Systems and Infrastructure Improvements | 70.000      | 12.500       | 12.500   | 12.500   | 0.000    | 12.500   | 0.000      |
| ■ Chemistry Building Wing 1 Replacement                       | 131.870     | 9.430        | 0.000    | 0.000    | 0.000    | 0.000    | 0.000      |
| ■ Hornbake Library Conversion                                 | 0.000       | 0.000        | 0.000    | 0.000    | 0.000    | 6.541    | 141.556    |
| ■ Health and Human Sciences Complex                           | 25.000      | 0.000        | 0.000    | 0.000    | 23.222   | 37.703   | 0.000      |

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CIP: *Capital Improvement Program*  
 GF: general funds

GO: general obligation  
 PAYGO: pay-as-you-go

## ***GO Bond Recommended Actions***

1. Approve all proposed authorizations and preauthorizations for the University of Maryland, College Park Campus.

### **Updates**

- ***Health and Human Sciences Complex:*** This project will complete recently constructed shell space in the New Cole Field House to house the Health and Human Sciences complex, which will include the Department of Kinesiology, the Maryland Institute for Applied Health, and the Brain and Behavior Institute from the School of Public Health. The complex will provide research and clinical space for researchers, increasing the ability to secure sponsored research funding. The General Assembly added \$25.0 million to the fiscal 2023 capital budget and included a \$10.0 million preauthorization for fiscal 2024 to construct out the shell space. The preauthorized funds for fiscal 2024 are not included in the budget as submitted, as the construction phase is not scheduled to commence until fiscal 2027. The estimated cost of the project is \$85.9 million.

- **Hornbake Library Conversion:** This project is new to the 2023 *Capital Improvement Program* (CIP) and is programmed to receive design funding in fiscal 2028. The project will renovate the north side of the building, which is 50 years old and has only had limited, piecemeal renovations. Also, the building systems will be upgraded, and part of the building will be converted to better meet the institution’s needs, including space for the College of Information Studies. The estimated cost of the project is \$148.1 million.

## ***Summary of Fiscal 2024 Funded State-owned Projects***

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### **Interdisciplinary Engineering Building**

**Project Summary:** In October 2017, the University of Maryland, College Park Campus (UMCP) announced its largest donation of \$219.5 million from the A. James and Alice B. Clark Foundation that included provisions to provide 30% or \$55 million (the lesser of the two) 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. The new facility will house elements of the Department of Civil and Environmental Engineering, the Maryland Transportation Institute, the Department of Mechanical Engineering, and the Quantum Technology Center. It will also include space for collaboration with institutional and industrial partners.

|                                  |                    |                 |                 |                 |   |                |                   |                  |
|----------------------------------|--------------------|-----------------|-----------------|-----------------|---|----------------|-------------------|------------------|
| <b>New/Ongoing:</b> Ongoing      |                    |                 |                 |                 |   |                |                   |                  |
| <b>Start Date:</b> December 2021 |                    |                 |                 |                 | <b>Est. Completion Date:</b> January 2026 |                |                   |                  |
| <b>Fund Sources:</b>             |                    |                 |                 |                 |   |                |                   |                  |
| <b>(\$ in Millions)</b>          | <b>Prior Auth.</b> | <b>2024</b>     | <b>2025</b>     | <b>2026</b>     | <b>2027</b>                               | <b>2028</b>    | <b>Beyond CIP</b> | <b>Total</b>     |
| <b>GO Bonds</b>                  | \$11.000           | \$31.210        | \$64.920        | \$48.150        | \$4.120                                   | \$0.000        | \$0.000           | \$159.400        |
| <b>Nonbudgeted</b>               | 11.000             | 27.000          | 13.000          | 4.000           | 0.000                                     | 0.000          | 0.000             | 55.000           |
| <b>Total</b>                     | <b>\$22.000</b>    | <b>\$58.210</b> | <b>\$77.920</b> | <b>\$52.150</b> | <b>\$4.120</b>                            | <b>\$0.000</b> | <b>\$0.000</b>    | <b>\$214.400</b> |
| <b>Fund Uses:</b>                |                    |                 |                 |                 |   |                |                   |                  |
| <b>(\$ in Millions)</b>          | <b>Prior Auth.</b> | <b>2024</b>     | <b>2025</b>     | <b>2026</b>     | <b>2027</b>                               | <b>2028</b>    | <b>Beyond CIP</b> | <b>Total</b>     |
| <b>Planning</b>                  | \$16.000           | \$1.051         | \$0.000         | \$0.000         | \$0.000                                   | \$0.000        | \$0.000           | \$17.051         |
| <b>Construction</b>              | 6.000              | 57.159          | 72.920          | 38.150          | 2.120                                     | 0.000          | 0.000             | 176.349          |
| <b>Equipment</b>                 | 0.000              | 0.000           | 5.000           | 14.000          | 2.000                                     | 0.000          | 0.000             | 21.000           |
| <b>Total</b>                     | <b>\$22.000</b>    | <b>\$58.210</b> | <b>\$77.920</b> | <b>\$52.150</b> | <b>\$4.120</b>                            | <b>\$0.000</b> | <b>\$0.000</b>    | <b>\$214.400</b> |

- **Need:** The new facility will address two key problems:
  - lack of space to accommodate projected growth: an analysis of the Clark School of Engineering existing facilities and academic metrics determined undergraduate

and graduate enrollment will increase by 16% and 26%, respectively, and faculty and staff will grow 13% and 20%, respectively. In addition, to remain competitive with peer engineering programs, research space for each principal investigator and graduate student needs to, on average, increase by 550 and 85 net assignable square feet, respectively, and;

- insufficient modern facilities for the Department of Civil and Environmental Engineering and Department of Mechanical Engineering: these disciplines are primarily housed in facilities constructed in 1948 and 1949 that no longer meet the requirements to educate engineering students or effectively support sponsored research. Engineering students participate in one or more team-based design courses and the currently available space is overcrowded, and there is no dedicated space for the Department of Civil and Environmental Engineering and Department of Mechanical Engineering students.
- **Changes:** Overall, the total cost of the project increases by \$9.4 million over what was programmed last year due to an increase in the escalation rate applied to the estimate for construction-related expenditures. In addition, the project is projected to be completed in fiscal 2027 compared to fiscal 2026 as programmed in the 2022 CIP.
- **Other Comments:** The budget provides three authorizations – \$64.9 million for fiscal 2025, \$38.2 million for fiscal 2026, and \$2.1 million for fiscal 2027 – to allow the construction contract to be bid and awarded.
- **Concerns:** The estimate upon which the project budget is based has not been informed by the design effort, which commenced over a year ago in December 2021. At this point, a more reliable schematic design or even a 50% construction design estimate should be forthcoming. Since construction has commenced and various construction contracts will be bid and awarded in fiscal 2024, it is important, especially given the magnitude of the project, that the most up-to-date design estimate is factored into the legislature’s funding decisions in the 2023 session. This will help to mitigate any potential delays that might result from a shortfall of funding, which could further increase costs. **UMCP should comment on whether the established budget is sufficient to complete the project.**

## **Campuswide Building Systems and Infrastructure Improvements**

**Project Summary:** This is a stand-alone facility renewal initiative to address critical deferred maintenance projects which, if left unaddressed, pose serious health, life, and safety issues. The program addresses a variety of renewal projects that can be categorized into two general categories – building systems and infrastructure. Building systems include replacing electrical gear; upgrading fire alarm systems, automatic fire sprinkler systems, and fire pump controls; replacing HVAC equipment; and replacing equipment in utility buildings. Infrastructure improvements include replacing underground heating and cooling piping and domestic water

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pipes; repairing building foundations; replacing underground foundation drain and sanitary piping; replacing exterior security lighting, cameras, and telephones; repairing and/or repaving roads; and repairing storm drain outfall and ponds.

The projects funded in fiscal 2024 include:

- renewing the mechanical and electrical systems in the south wing of Cole Field House that was not part of the recently completed New Cole Field House project (\$3.9 million to continue construction): \$1.5 million and \$6.1 million of pay-as-you-go funding in fiscal 2021 and 2022, respectively, were provided for design and to initiate construction;
- replacing failing heating and chilled water piping along Fieldhouse Drive (\$2.7 million to complete construction): \$8.1 million in facilities renewal funds from fiscal 2021 to 2023 were used to fund the design and construction;
- replacing failing water and sanitary piping along Union Lane (\$1.5 million): \$0.3 million of institutional funds were for design;
- replacing AV Williams Building cooling tower (\$2.4 million): \$89,500 of institutional funds were used for design; and
- replacing Avrum Gudelsky Veterinary Center water cooled chillers (\$2.1 million).

| <b>New/Ongoing: Ongoing</b>  |                 |                 |                 |                 |                                  |                 |            |                  |
|------------------------------|-----------------|-----------------|-----------------|-----------------|----------------------------------|-----------------|------------|------------------|
| <b>Start Date:</b> Est. 2013 |                 |                 |                 |                 | <b>Est. Completion Date:</b> n/a |                 |            |                  |
| <b>Fund Sources:</b>         |                 |                 |                 |                 |                                  |                 |            |                  |
| (\$ in Millions)             | Prior Auth.     | 2024            | 2025            | 2026            | 2027                             | 2028            | Beyond CIP | Total            |
| <b>GO Bonds</b>              | \$37.500        | \$7.500         | \$7.500         | \$7.500         | \$0.000                          | \$7.500         | n/a        | \$67.500         |
| <b>Revenue Bonds</b>         | 32.500          | 5.000           | 5.000           | 5.000           | 0.000                            | 5.000           | n/a        | 52.500           |
| <b>Total</b>                 | <b>\$70.000</b> | <b>\$12.500</b> | <b>\$12.500</b> | <b>\$12.500</b> | <b>\$0.000</b>                   | <b>\$12.500</b> | <b>n/a</b> | <b>\$120.000</b> |
| <b>Fund Uses:</b>            |                 |                 |                 |                 |                                  |                 |            |                  |
| (\$ in Millions)             | Prior Auth.     | 2024            | 2025            | 2026            | 2027                             | 2028            | Beyond CIP | Total            |
| <b>Construction</b>          | \$70.000        | \$12.500        | \$12.500        | \$12.500        | \$0.000                          | \$12.500        | n/a        | \$120.000        |
| <b>Total</b>                 | <b>\$70.000</b> | <b>\$12.500</b> | <b>\$12.500</b> | <b>\$12.500</b> | <b>\$0.000</b>                   | <b>\$12.500</b> | <b>n/a</b> | <b>\$120.000</b> |

- **Need:** Infrastructure failures have caused disruption in electricity and HVAC services and caused water damage to buildings, resulting in classes being canceled, relocated to another building, or suspended, and has resulted in lost research. When failures occur, it often requires custom fabrication due to the age of the systems, which increased the length of service disruption and increases repair costs.

- **Changes:** While the 2022 CIP programmed a total of \$12.5 million of funding annually through fiscal 2027, as programmed in the 2023 CIP, funding is put on hold in fiscal 2027 and resumes in fiscal 2028.
- **Other Comments:** This stand-alone, ongoing facilities renewal project will help address UMCP’s backlog of deferred maintenance, which currently totals \$900.5 million, by \$12.5 million, annually.

### Chemistry Building Wing 1 Replacement

**Project Summary:** This is the third phase of a project to renovate and replace space for the chemistry department. Phase I expanded the scope of the St. John Center to include six teaching chemistry laboratories. Phase II, funded with \$16.5 million of institutional funds, updated selected spaces and upgraded the HVAC in the second and third floors of Wing 2. Phase III demolishes and replaces Wing 1 and will house 26 research laboratories and support space.

|                             |                    |                |                |                |  |                |                   |                  |
|-----------------------------|--------------------|----------------|----------------|----------------|--|----------------|-------------------|------------------|
| <b>New/Ongoing:</b> Ongoing |                    |                |                |                |  |                |                   |                  |
| <b>Start Date:</b> May 2019 |                    |                |                |                | <b>Est. Completion Date:</b> November 2023 |                |                   |                  |
| <b>Fund Sources:</b>        |                    |                |                |                |  |                |                   |                  |
| <b>(\$ in Millions)</b>     | <b>Prior Auth.</b> | <b>2024</b>    | <b>2025</b>    | <b>2026</b>    | <b>2027</b>                                | <b>2028</b>    | <b>Beyond CIP</b> | <b>Total</b>     |
| <b>GO Bonds</b>             | \$12.363           | \$9.430        | \$0.000        | \$0.000        | \$0.000                                    | \$0.000        | \$0.000           | \$21.793         |
| <b>GF</b>                   | 103.007            | 0.000          | 0.000          | 0.000          | 0.000                                      | 0.000          | 0.000             | 103.007          |
| <b>Nonbudgeted</b>          | 16.500             | 0.000          | 0.000          | 0.000          | 0.000                                      | 0.000          | 0.000             | 16.500           |
| <b>Total</b>                | <b>\$131.870</b>   | <b>\$9.430</b> | <b>\$0.000</b> | <b>\$0.000</b> | <b>\$0.000</b>                             | <b>\$0.000</b> | <b>\$0.000</b>    | <b>\$141.300</b> |
| <b>Fund Uses:</b>           |                    |                |                |                |  |                |                   |                  |
| <b>(\$ in Millions)</b>     | <b>Prior Auth.</b> | <b>2024</b>    | <b>2025</b>    | <b>2026</b>    | <b>2027</b>                                | <b>2028</b>    | <b>Beyond CIP</b> | <b>Total</b>     |
| <b>Planning</b>             | \$10.581           | \$0.000        | \$0.000        | \$0.000        | \$0.000                                    | \$0.000        | \$0.000           | \$10.581         |
| <b>Construction</b>         | 115.789            | 7.730          | 0.000          | 0.000          | 0.000                                      | 0.000          | 0.000             | 123.519          |
| <b>Equipment</b>            | 5.500              | 1.700          | 0.000          | 0.000          | 0.000                                      | 0.000          | 0.000             | 7.200            |
| <b>Total</b>                | <b>\$131.870</b>   | <b>\$9.430</b> | <b>\$0.000</b> | <b>\$0.000</b> | <b>\$0.000</b>                             | <b>\$0.000</b> | <b>\$0.000</b>    | <b>\$141.300</b> |

- **Need:** With the completion of this project, UMCP anticipates a 35% increase in faculty, researchers, and research assistants. In addition, the number of graduate assistants and support staff is expected to increase 26%. Nearly half of UMCP’s undergraduate students take chemistry during their first year, and advanced coursework in chemistry and biochemistry is required for a broad spectrum of campus majors in life and agricultural sciences, public health, and engineering. UMCP estimates the replacement of Wing 1 will increase research funding by \$12 million annually to \$25 million in fiscal 2026.

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- ***Schedule:*** The proposed fiscal 2024 funding will complete the construction and equipment funding for this multiphase project.
- ***Other Comments:*** Since this project replaces an existing facility, it reduces UMCP's deferred maintenance backlog. Completion of the project will reduce the backlog by \$9.4 million in fiscal 2024.

**Appendix 1**  
**Executive’s Operating Budget Impact Statement – State-owned Projects**  
**Fiscal 2024-2028**  
**(\$ in Millions)**

|  | 2024 | 2025 | 2026 | 2027 | 2028 |
|--|------|------|------|------|------|
|--|------|------|------|------|------|

| <b>Chemistry Building Wing 1 Replacement</b>  |         |         |         |         |         |
|---|---------|---------|---------|---------|---------|
| Estimated Operating Cost                      | \$0.490 | \$0.461 | \$0.458 | \$0.455 | \$0.452 |
| Estimated Staffing                            | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| <b>Interdisciplinary Engineering Building</b> |         |         |         |         |         |
| Estimated Operating Cost                      | \$0.000 | \$0.000 | \$3.174 | \$5.244 | \$5.409 |
| Estimated Staffing                            | 0.00    | 0.00    | 30.31   | 30.31   | 30.31   |

Since the Chemistry Building project replaces an existing facility, operating costs are those related to equipment expenditures. The Interdisciplinary Engineering Building impacts the operating budget in fiscal 2026 and reflects additional personnel to maintain the facility and other expenses related to operating the facility, such as fuel, utilities, supplies, and equipment.