



**Testimony to the Maryland General Assembly
Presented by
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I am pleased to provide testimony to the General Assembly for our FY 2025 capital budget request. We appreciate the General Assembly's ongoing support of our capital requests, which is transforming our campus and the state's economy. Together, we are constructing the state's future.

We have three projects in our capital request this year. The Interdisciplinary Engineering Building (Zupnik Hall) will significantly enhance the University's research, education, and innovation capabilities. Much of the work in this building will contribute to the state's skilled workforce and its knowledge economy. As in previous projects, the cutting-edge research and education supported by Zupnik Hall will translate into new private sector and federal partnerships. For example, the University is now a major innovation hub in fields such as quantum computing and artificial intelligence—greatly enhanced by the General Assembly's previous capital support. This building will have a similar magnetic effect on talent and investment, spurring advancements in fields including energy, transportation and unmanned vehicle systems. Graduate Housing Site Development will allow a developer to create affordable graduate housing on-campus, enhancing our ability to recruit and retain the best and brightest graduate students. Campuswide Building System and Infrastructure Improvements will replace failing infrastructure and help prevent major service interruptions, improve safety and reduce ongoing maintenance costs.

Facilities renewal needs and space shortages remain our greatest long-term programmatic and fiscal challenges. These projects are essential to advancing the state's strategic goals for the economy and workforce, as well as achieving the 55 percent college completion goal.

Facilities Renewal Needs

We have an estimated facilities renewal need of \$1.3 billion on our main campus: \$1 billion for the 8.5 million GSF of state-supported buildings and \$0.3 billion for exterior infrastructure such as roads, sidewalks and underground utilities. We are addressing the most critical needs through ten-year CIP and institutional facilities renewal plans.

Two of our CIP projects this year address facilities renewal. Graduate Housing Site Development includes demolition of obsolete buildings and site and utility improvements. Campuswide Building

System and Infrastructure Improvements requests \$12.5M to renew failing infrastructure. In some notable cases we have lost major faculty because of sub-par conditions.

Space Shortages

Based on state formulas, we currently have a shortage of 1.44M NASF of state-supported space, 0.82M NASF of which is in research space. The proposed new Zupnik Hall will help address this. Further details regarding our space shortages are attached.

Campuswide Building Systems and Infrastructure Improvements **\$12.5M for Planning and Construction**

This program provides UMD with annual capital funds to help address a portion of our tremendous facilities renewal need, which is estimated at \$1.3 billion. This annual funding program began in FY 2012 and to date there has been a total of \$82.5M in funding. We are extremely grateful to the General Assembly and USM for their past support of this critical need and urge the General Assembly to continue annual funding this year.

This multi-phased project addresses needs in two general categories: buildings and exterior infrastructure. The building category includes systems such as electrical gear, fire protection systems, HVAC equipment and elevators. Infrastructure includes work outside such as underground utilities, roads, bridges, storm water management ponds and exterior security lighting. This is critically needed to improve safety and protect lives, prevent major service interruptions and reduce on-going maintenance and repair costs.

Aging and inadequate HVAC and electrical systems limit the type of research that can be conducted, interfere with instruction, and hinder our ability to meet our strategic goals. Failing exterior lighting can compromise the safety of pedestrians and vehicles; failing storm drain lines can result in exterior flooding, disrupting university operations; failing roofs can result in interior flooding that can damage parts of buildings and equipment and disrupt university operations, as well as pose safety issues for building occupants; and failing elevators can trap passengers and compromise their safety.

A total of \$12.5M is proposed for this program in FY 2025. We will use \$6.0M to replace aged and failing chillers that provide air-conditioning to McKeldin Library with more energy efficient chillers that use environmentally friendly refrigerant. We will use \$3.25M to replace the original HVAC and electrical infrastructure in the 30 year-old Biomolecular Sciences Building. We will use \$2.25M to continue an on-going effort to renew building systems in the three-floor south wing of Cole Student Activities Building, much of which remains unchanged since being built in the 1950's and is currently underutilized. Spaces have no air-conditioning, restrooms are the original locker room style, much of the mechanical and electrical systems date to the original construction, and there are no fire sprinklers or elevator. And we will use \$1.0M to replace the HVAC system on the ground floor of Hornbake Library which is original to the 1972 building. This will augment \$10M provided by the General Assembly in FY 2024 to convert underutilized library space on the ground floor to accommodate the space needs of our rapidly growing College of Information Studies. The new HVAC system will be designed to support the programmatic space changes.

Interdisciplinary Engineering Building (Zupnik Hall)

\$64.92M for Construction and Equipment

This project leverages \$58.2M of donor funds, coupled with State funds, to construct a 163,692 GSF state-of-the-art engineering building for the A. James Clark School of Engineering. The building will house elements of the Department of Civil and Environmental Engineering and elements of other departments in the Clark School. It will also include space for collaboration with institutional and industrial partners, including the Center for Advanced Transportation Technology, and spaces for identity-based student organizations including the Society of Hispanic Professional Engineers, Society of Women Engineers and Black Engineers Society. It will enhance the University's ability to meet its strategic goals for growth of its engineering programs, secure sponsored research opportunities and contribute to the economic growth of the State and region.

In fall 2022 Stanley R. Zupnik, a 1959 alum of the Clark School who has been contributing to UMD for almost 40 years, made a \$25M pledge for this building. The majority will go toward long-term support for academic programs within the building and a portion will help fund its construction. The building has been named Stanley R. Zupnik Hall.

Zupnik Hall will enhance the University's ability to produce more well-qualified engineers for Maryland's workforce and help spur innovation in Maryland's defense, construction, manufacturing, and cybersecurity industries as well as the emerging fields of energy, transportation and unmanned vehicle systems. The facility program for this project noted that in the United States, jobs for civil and environmental engineers are expected to increase 10% from 2016 to 2026, and by 9% for mechanical engineers. It also noted that with this building, the University expects to increase undergraduate majors in these fields by 15% and graduate majors by 29% by 2030 to help meet this demand. In addition, the building will support a projected 25% increase in the number of invention disclosures, patents, and licensing agreements as well as approximately 25 new start-up companies over the next decade.

The Clark School of Engineering's 2018 Academic Facilities Plan concluded that the Clark School needs an additional 223,000 NASF over the next 20 years in order to be competitive with its peers. The University overall has a space deficit of 1.44M NASF, with 0.82M NASF of that in research space, and cannot currently accommodate this growth.

Zupnik Hall will add about 36,000 NASF of modern research space to the campus inventory, enhancing the ability of faculty to secure research grants. Total research expenditures of the programs associated with this project are projected to grow from \$56M in FY 2020 to \$86.8M in FY 2030.

We awarded a design/build contract in December 2021 and started construction in December 2022. Early site and utility work is completed, and construction of the building foundations is underway. The \$64.92M requested in FY 2025 is needed to continue construction and begin purchasing some long-lead equipment.

Graduate Student Housing Site Development

\$5M for Construction

This project is critically needed to allow the University to implement a major initiative to create affordable graduate student housing on-campus in order to enhance our ability to recruit and retain the best and brightest graduate students. We have engaged a developer to create below-market rate graduate housing in the east campus. This project will develop the site to make it more financially feasible for the developer to build the below-market rate graduate housing. The project will demolish old housing and offices, relocate existing utilities from the site, convert a vacated portion of a former dining hall into offices for the department that is being relocated from the site, and perform site improvement work.

There is a shortage of affordable on or near-campus housing for graduate students. Based on surveys one-third of single graduate students and 41 percent of graduate students with families report difficulty finding housing close to campus. A 2020 housing study found unmet demand for over 800 graduate student housing beds. Existing graduate housing dating back to the 1950's house fewer than 750 students and have large waitlists each year; over the past five years there was an average of about 500 lease applicants annually and about 150 beds provided. As a consequence, many graduate students have to commute to campus, with 37 percent commuting at least 25 minutes. With the projected 23 percent growth of graduate student enrollment from 10,439 in 2022 to 12,800 by 2032, even more graduate students will have lengthy commutes. Failure to meet the demand for affordable graduate student housing will hinder the University's ability to recruit and retain the best and brightest graduate students.

The funding plan for this project is \$5M per year for four consecutive years beginning in FY 23. We are extremely grateful to the General Assembly for allocating the first two years of funding for this critical need and urge the General Assembly to continue annual funding this year.

We have completed the demolitions, started the utility relocations, and will soon begin designing the conversion of the vacated portion of the former dining hall. The \$5M in FY 25 is for construction of the conversion of the former dining hall and construction of the site improvements, and the \$5M in FY 26 will complete funding for this work.

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STATE-SUPPORTED SPACE DEFICIENCY FACTS

Below are the current and projected space deficits on campus for state-supported facilities based on Fall 2022 data.

<u>MAJOR ROOM USES</u>	<u>Current</u> <u>FALL 2022</u> <u>Deficit (NASF)</u>	<u>Projected</u> <u>FALL 2032</u> <u>Deficit (NASF)</u>
Classrooms	(96,886)	(45,611)
Class Laboratories	38,441	2,635
Research Laboratories	(823,615)	(1,184,078)
Office	(73,019) (1)	(155,012) (1)
<i>Subtotal</i>	(955,079)	(1,382,066)
 Study Spaces	 (378,309)	 (552,573)
Other Room Uses (2)	(107,742) (1)	(236,262) (1)
 TOTAL	 (1,441,130)	 (2,170,901)

(1) Applied 61% to the total deficit which reflects the proportion of state-supported space on the main campus.

(2) Special Use, General Use and Support Facilities - e.g., lounge, storage

NOTE: Projections are predicated upon full funding of the USM Strategic Plan. In addition, the projections include the projects in the last Governor's five-year CIP.

The total current inventory of state-supported space is 5,796,155 NASF (excludes leased space). This includes 5,120,866 NASF on the main campus and 675,269 NASF off-campus.

INTERDISCIPLINARY ENGINEERING BUILDING (ZUPNIK HALL)



Architect's rendering of the building



Construction activity

GRADUATE STUDENT HOUSING SITE DEVELOPMENT



Architect's rendering of the proposed housing development



Demolished old housing on the proposed site