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 2020 capital budget request. We greatly appreciate the General Assembly's ongoing support of our capital requests, which is having a transformative impact on our campus and the state's economy.

Similarly, the two projects described in this testimony will significantly enhance the University's research, education, and innovation capabilities. Much of the work in these new facilities will contribute to the state's skilled workforce and its knowledge economy.

As in previous projects, the cutting-edge research and education these buildings support may translate into new private sector and federal partnerships. For example, the University is now a major innovation hub in fields such as quantum computing—greatly enhanced by the General Assembly's previous capital support. These new facilities will have a similar magnetic effect attracting talent and investment to spur innovation in the fields of energy, sustainability, health and philanthropy.

We are partners with the General Assembly in constructing the state's future. The University deeply appreciates all that your support makes possible.

The two projects are all the more critical because renovation needs and space shortages remain our greatest long-term programmatic and fiscal challenges.

Renovation Needs. We have an estimated need of $2.2 billion to renovate the 8.1 million GSF of state-supported buildings and the exterior infrastructure on our main campus. This includes $0.7 billion to renew failing building systems and meet current life safety and other building codes; $1.2 billion to modernize building systems and remodel/reconfigure space to meet current programmatic needs; and $0.3 billion to renew exterior infrastructure such as underground utilities, roads and sidewalks. Based on a facilities audit conducted in 2015, 18 percent of the space in our major state-supported buildings was deemed in poor condition, 52 percent in fair condition and 30 percent in good condition. We are addressing the spaces deemed in poor condition through a ten-year CIP and institutional facilities renewal plans. Renovation and replacement of portions of the Chemistry

Building, a facility that was deemed to be in poor condition, is one of the two projects we are requesting funding for this year. 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 1.6M NASF of state-supported space which is 28 percent of our existing inventory of about 5.6M NASF. Roughly one half of this shortfall (0.8M NASF) is in research space. These space shortages are very significant and of great concern. Details regarding our space shortages are attached.

The projects recommended for funding this year are critically needed to help address both our space renewal and space shortage problems. The projects will also help advance the State's strategic goals for the economy and workforce, as well as the 55 percent college completion goal.

New School of Public Policy Building ($12.5M for Planning and Construction)

This new building - leveraged by $25M of private and institutional funds as well as additional private funds for operating support – will enable the School of Public Policy to meet its growing needs to support its undergraduate major, growing research programs and outreach activities, including its work to prepare future leaders for the nonprofit corporate sector and its direction of the campus-wide Do Good Institute. It has also become an international leader in climate change policy research. All this is part of the School's strategic goal of becoming a nationwide top-ten public policy program.

Since its creation in 1982, the School of Public Policy has become a superb professional school, fully integrating the teaching of professional practice with the best traditions of scholarly research and analysis. In 2018 US News ranked the School 27th among public policy analysis programs nationwide. It is distinguished by a stellar faculty, an integrated domestic and international affairs curriculum, and a program that emphasizes the confluence of the public, private and nonprofit sectors. With its Washington D.C. area location, at the intersection of media and public policy, and its unique comprehensive curriculum, the School of Public Policy has the potential to become one of the nation's top schools of public policy.

Over the past few years, UMD has created programs that engage all our 41,000 plus students in innovation and entrepreneurship experiences to prepare them to tackle the world's toughest problems. Much of these activities focus on bringing ideas and products to the marketplace. UMD is now working to engage all our students in social innovation and entrepreneurship. A key mission of the School of Public Policy is to infuse a culture of philanthropy across UMD to create the next generation of leaders and spur innovation in the field of philanthropy.

A donor has committed $10M for the building as well as a significant endowment to support the School's programmatic needs and plans for growth. In addition, UMD will provide $15M for the building from institutional funds.

Design is currently underway. The $12.5M requested in FY 2020 is needed to complete design and fund a portion of construction.

Chemistry Building Wing 1 Replacement ($4.7M for Planning)

This project will renovate and upgrade parts of the Chemistry Building to provide modern research and office space and demolish and replace Wing 1 with a new building that contains state-of-the-art research and instructional laboratories. It will enhance the ability of the Department of Chemistry and Biochemistry to partner with government and industry to pursue new technologies in the fields of energy, sustainability and health.

Among the most promising discoveries and technologies this new facility will support: ***batteries*** with much greater capacity and smaller size, with applications in health care, defense, and the alternate energy industry; better and cheaper ***water purification devices*** for parts of the world where potable water is becoming scarce; ***smart textiles*** and fabrics that can be used to monitor the health of the wearer; and ***new nanomaterials*** that deliver and concentrate drugs directly at the disease targets, for increased effectiveness in treating cancer, arthritis and other diseases.

The upgraded and new facilities will also transform chemistry teaching from the traditional lecture/lab approach to a research based approach. Students will investigate real world problems under guidance from faculty and industry partners who will also be conducting translational research in the same building as the instructional labs. This will help produce better trained graduates for Maryland's workforce.

The existing research and teaching facilities are woefully outmoded, with very inadequate humidity and temperature control, limited control of chemical fumes, and inefficient layouts. This has resulted in faculty either foregoing certain explorations or seeking off-campus labs that are willing to support their research, which creates obstacles to discovery. Top faculty are leaving UMD for better-equipped universities. This project is needed to expand the types of research that can be conducted in the building and recruit and retain top faculty and students.

STATE-SUPPORTED SPACE DEFICIENCY FACTS

Below are the current and projected space deficits on campus for state-supported facilities based on Fall 2017 data.

MAJOR ROOM USES	Current FALL 2017 Deficit (NASF)		Projected FALL 2027 Deficit (NASF)	
Classrooms	(90,043)		(61,468)	
Class Laboratories	(4,434)		(19,013)	
Research Laboratories	(776,025)		(865,334)	
Office	(129,335)	(1)	(96,673)	(1)
Subtotal	(999,837)		(1,042,488)	
Study Spaces	(414,534)		(424,439)	
Other Room Uses (2)	(170,006)	(1)	(206,316)	(1)
TOTAL	**(1,584,377)**		**(1,673,243)**	

(1) Applied 62.5% 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 take into account the projects in the last Governor's 5-year CIP.

The total current inventory of state-supported space is 5,562,511 NASF (excludes leased space). This includes 4,835,240 NASF on the main campus and 727,271 NASF off-campus.

NEW SCHOOL OF PUBLIC POLICY BUILDING

Architect's rendering of the building, which will occupy a prominent spot along Baltimore Avenue.