RB22B

University of Maryland, College Park

University System of Maryland

Campuswide Building System and Infrastructure Improvements (Prince George's County)

General Obligation Bonds	**$5,000,000**
Revenue Bonds	**$5,000,000**

Summary of Recommended Bond Actions

1. Campuswide Building System and Infrastructure Improvements

   Approve. Funding to upgrade University of Maryland, College Park's campus life safety systems and failing infrastructure.

Bill Text: Provide funds to design, construct, and equip campuswide infrastructure improvements at the College Park campus.

Project Description: This is a multi-phased project to upgrade building and system infrastructure including fire protection systems; electrical gear; heating, ventilation, and air conditioning equipment; emergency power generators; underground water piping; and security systems. These projects will prevent major service interruptions, improve life safety systems, and reduce ongoing maintenance costs.

Project Analysis

The 2012 *Capital Improvement Program* (CIP) included $5.0 million annually, starting in fiscal 2013, to fund campuswide building system and infrastructure improvements. However, due to the size and scope and the regular failure of the underground infrastructure of pipes, wires, and drains, $5.0 million in general obligation bond (GO) funds were included in the fiscal 2012 budget. This allowed the University of Maryland, College Park (UMCP) to begin addressing its backlog of deferred maintenance and, in particular, those projects related to its failing infrastructure. The fiscal 2013 budget continues the funding of these projects, providing $10.0 million which is equally funded from GO and revenue bonds. Projects for fiscal 2013 include $5.0 million to replace 2 air handling units; $2.3 million for 6 electrical gear improvement projects; $1.8 million to replace equipment in 1 satellite central utility building and 2 water lines; and $0.9 million for 10 fire safety projects.

For further information contact: Sara J. Baker Phone: (410) 946-5530

Projects can be classified into two categories: infrastructure and building systems. Infrastructure includes work outside of the buildings such as replacing underground heating, cooling and water piping, repairing building foundations, and replacing exterior security lighting and cameras. Disruptions in water, electricity, heating, ventilation, and air conditioning resulted in the loss of research and cancellation or relocation of classes. Due to the age of the infrastructure, failures require costly custom repairs and increases the time of the service disruption. Furthermore, it is not cost effective to maintain these obsolete systems.

Building systems include the installation or upgrade of life safety systems. Current systems compromise the ability of UMCP to ensure the safety of faculty, staff, students, and visitors. The sprinkler system covers 10.1 million, of the total 13.1 million, of gross square feet on campus, but it does not meet current safety standards and does not provide many of the safety functions considered critical to occupant safety in the event of a fire. For instance, the Americans with Disabilities Act requires fire alarm systems provide a visual alarm to alert the hearing impaired and newer systems transmit information to a central monitoring system alerting emergency personnel to the location of the fire. Low flow sprinkler systems have become the standard due to its rapid response which also provides assistance to those exiting the building in the event of a fire. Additionally, exterior security lighting failures have left portions of the campus dark at night compromising the security of students, faculty, staff, and visitors. Security cameras and exterior security telephones are reaching the end of their useful life and are not as reliable as the latest technology.

Overall, 32%, or 1.4 million net assignable square feet (NASF) of UMCP's State-supported space has not had a major renovation in 40 years, of which 786,053 NASF has not been renovated in more than 50 years. UMCP's backlog of deferred maintenance totals $654.3 million, which includes restoration of 17 key buildings that were constructed before 1962 and are at the core of the university. In many cases, the infrastructure supporting those buildings are 50 to 70 years old and are failing causing major disruptions to academic and administrative activities and have led to costly repairs. In addition, there is about $100 million of backlog for infrastructure outside buildings, such as underground utilities, roads, and exterior lighting for a total backlog, according to UMCP, of three-quarters of a billion dollars.

In fiscal 2012, UMCP developed a 7-year plan to replace its infrastructure that included 72 projects with an estimated cost of $119 million. Projects were prioritized based on a risk assessment with those posing the most imminent threat recommended for immediate funding. Annual funding for these projects ranged from $14 million to $25 million, totaling $130 million over the 7-year period. However, this plan did not include upgrades to fire protection systems or improvements to security systems totaling $11 million which are included in the program plan.

Due to the limited availability of funding, a plan was devised that will enable UMCP to make significant progress toward repairing its failing infrastructure. Under the plan, $10 million will be provided annually with $5 million from GO bonds and a corresponding amount from revenue bonds. The General Assembly chose to begin funding the program in fiscal 2012 rather than wait until fiscal 2013 and requested the Capital Debt Affordability Committee to evaluate the University System of Maryland's (USM) ability to match the State's $5 million GO bond contribution by increasing the system's annual Academic Revenue Bonds issuance. As introduced, SB 1036 and

HB 782 of 2012 increase the USM Academic Facilities bonding authority to a total of $32 million, of which $5 million is authorized for the UMCP infrastructure project. The 2012 CIP reflects continued use of USM financing through the 5-year planning period. Expectations are that this system contribution will continue throughout the full term of the multi-year project. The estimated cost for upgrades and improvements to the infrastructure totals $135 million over a 14-year time period.

Prior Authorization and Capital Improvement Program

Authorization Uses
($ in Millions)

Fund Uses	*Prior Authorization*	*2013 Request*	*2014 Estimate*	*2015 Estimate*	*2016 Estimate*	*2017 Estimate*
Acquisition	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
Planning	0.000	0.000	0.000	0.000	0.000	0.000
Construction	5.000	10.000	10.000	10.000	10.000	10.000
Equipment	0.000	0.000	0.000	0.000	0.000	0.000
Total	**$5.000**	**$10.000**	**$10.000**	**$10.000**	**$10.000**	**$10.000**

Authorization Sources
($ in Millions)

Fund Sources	*Prior Authorization*	*2013 Request*	*2014 Estimate*	*2015 Estimate*	*2016 Estimate*	*2017 Estimate*
GO Bond	$5.000	$5.000	$5.000	$5.000	$5.000	$5.000
Revenue	0.000	5.000	5.000	5.000	5.000	5.000
Total	**$5.000**	**$10.000**	**$10.000**	**$10.000**	**$10.000**	**$10.000**

GO Bond Recommended Actions

1. Approve funding of $10 million ($5 million general obligation and $5 million revenue bonds) to upgrade fire safety systems and security systems and replace the failing infrastructure.