

RB24B
Towson University
University System of Maryland

Smith Hall Expansion and Renovation (Baltimore County)

General Obligation Bonds \$5,700,000

Summary of Recommended Bond Actions

1. Smith Hall Expansion and Renovation

Approve.

Bill Text: Provide funds to begin design of the expansion and renovation of Smith Hall.

Project Description: Renovate 123,300 net assignable square feet (NASF)/215,245 gross square feet (GSF) and construct a 61,100 NASF/106,700 GSF expansion of Smith Hall which houses the Fisher College of Science and Mathematics. This project will not only replace failing building systems but provide modern laboratory space accommodating enrollment growth in the college. The expansion will be constructed first, thereby providing space in which to relocate some of the current occupants of Smith Hall. The renovation will occur in three phases over a 30-month time period. The estimated total cost of the project is \$162.2 million and will reduce Towson University's (TU) backlog of deferred maintenance by \$8.7 million.

Project Summary Information – Expansion

Total Project Cost:	\$73,943,000	Cost Per Square Foot – Base:	\$330
Budget Estimate Stage:	Budget	With Escalation and Contingencies:	\$450
Program Plan Status:	Approved	Gross Square Footage:	106,700
Green Building:	Yes	Net Usable Square Footage:	61,100
Est. Completion Date:	September 2017	Building Efficiency:	57.3%
Project Design Cost %:	9.8%		

For further information contact: Sara J. Baker

Phone: (410) 946-5530

Project Summary Information – Renovation

Total Project Cost:	\$85,559,190	Cost Per Square Foot – Base:	\$180
Budget Estimate Stage:	Budget	With Escalation and Contingencies:	\$264
Program Plan Status:	Approved	Gross Square Footage:	215,245
Green Building:	Yes	Net Usable Square Footage:	123,300
Est. Completion Date:	February 2020	Building Efficiency:	57.3%
Project Design Cost %:	9.9%		

Project Analysis

The fiscal 2013 budget provides \$5.7 million for the design of the renovation and expansion of Smith Hall which houses the College of Science and Mathematics. The project was included in the 2011 *Capital Improvement Program* (CIP) with an estimated cost of \$149.7 million; however, the project was deferred for one year due to other budgetary priorities, resulting in the cost increasing \$12.5 million to \$162.2 million. According to the cost estimate worksheet, the projected costs of the expansion and renovation are \$73.9 million and \$85.6 million, respectively, for a total cost of \$159.5 million. This is \$2.7 million lower than the amount in the CIP, but being a multi-year project for which design has yet to begin, it will be reconciled in the proceeding years.

The 61,100 NASF/106,700 GSF expansion will be constructed first, providing additional laboratory space to accommodate the increased demand for basic science and health profession related courses. Once completed, some of the occupants in Smith Hall will be relocated to the new space during renovations to the building. Renovations of 123,300 NASF/215,245 GSF, totaling \$85.6 million, will occur in three phases over a 30-month time period and include replacing building systems and correcting problems with the building envelope. Construction on the expansion is projected to start in October 2015 and be completed by September 2017, at which time renovations to Smith Hall will begin and be finished by February 2020.

Smith Hall was built in 1964 (Smith I) and 1976 (Smith II) and due to the age, cannot support the instructional technology used in today's classes or meet the space needs of the academic programs currently housed in the building. All of the building systems and components are original and are past the industry standard life cycle. The heating, ventilation, and air conditioning systems no longer have the capacity to adequately support the building, resulting in some interior spaces being unusable during hot weather, while the lack of humidity control caused the growth of mold in some academic and support spaces. The unit ventilators in Smith I leak and are corroded from years of use in a scientific environment, while the system for Smith II cannot adequately cool the academic and research laboratory, and support spaces. Air handlers and unit ventilators are corroded from the

inside and discharge metal particles. In addition, plumbing lines and valves are corroded, particularly in the chemistry laboratories, which have flooded classrooms, thereby limiting the use of these rooms.

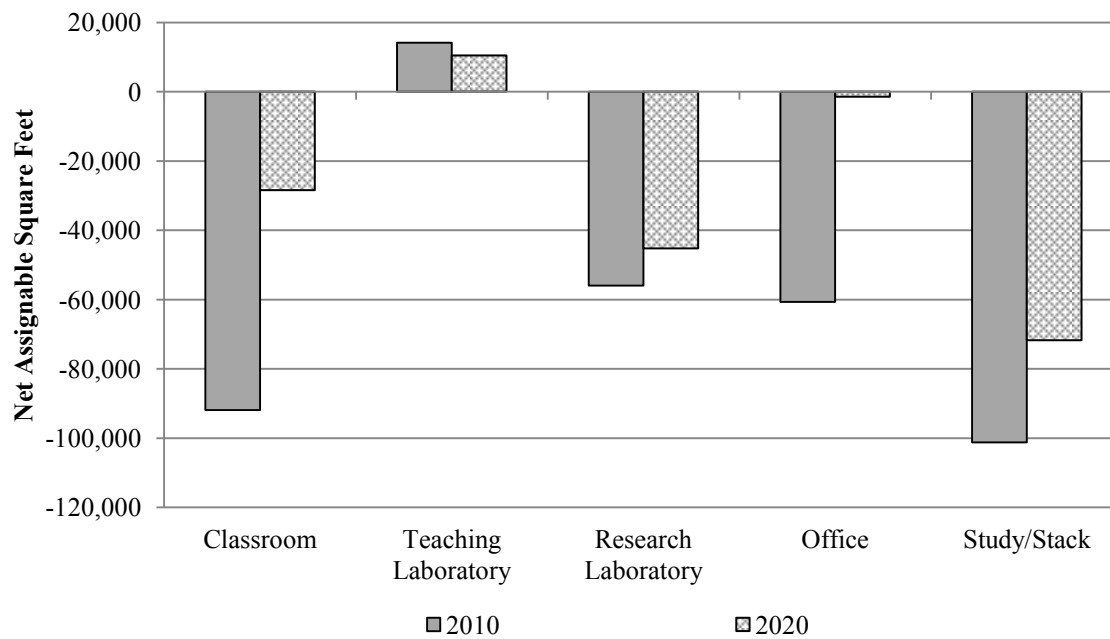
In addition to replacement of building systems, Smith I does not have a sprinkler system. Smith I and II have code deficiencies in accessibility, elevators, electrical, and energy conservation. Furthermore, during renovations building envelope problems will be corrected along with energy conservation improvements and upgrades to the interior of the building.

The laboratory space in Smith Hall does not provide the flexibility to support changes in teaching methods. The current layout of the permanent laboratory benches and concrete block walls do not allow a room to be easily reconfigured to support changes in curriculum, research, or support new technologies. Additionally, many of the academic and research laboratories are ineffectively shaped and do not provide adequate bench space for modern equipment, thereby limiting research.

Smith Hall lacks adequate laboratory space to support the demand for those general education courses and prerequisite science courses required for those majoring in the health professions programs. Only a limited number of these courses can be offered each semester, resulting in students being waitlisted for these classes which can increase a student's time to degree. In spring 2010, the College of Science and Mathematics produced 21% of the total undergraduate and graduate credit hours. Furthermore, headcount enrollment in the college increased 23% from 4,499 in fall 2002 to 5,523 in fall 2007, with it projected to grow to 7,224 by fall 2019.

Currently, Smith Hall has 63,727 NASF of teaching laboratory space, 21,174 NASF of research laboratory space, and 18,137 NASF of classroom space. As shown in **Exhibit 1**, the Maryland Higher Education Commission projects TU's classroom space deficit will be reduced by 63,520 NASF by fiscal 2020 based on an enrollment growth of 10% in full-time day equivalent students. This reduction is mainly attributed to the opening of the new College of Liberal Arts Complex in fiscal 2012, which provides an additional 52,030 NASF of space. Additionally, this facility will help alleviate TU's office space deficiency by adding 54,778 NASF of new office space. The Smith Hall expansion will further ease the classroom and office space deficiency by providing 4,531 NASF and 7,354 NASF, respectively, of new space. While TU has a 14,188 NASF surplus of teaching laboratories, as previously discussed, the space is not adequate to meet student demand. The expansion will provide an additional 13,628 NASF of space. Overall, the project will eliminate the current \$8.7 million of deferred maintenance related to Smith Hall.

Exhibit 1
Academic Space Deficiency
Fiscal 2010 and Projected Fiscal 2020



Source: Maryland Higher Education Commission, Four-year Public Colleges and Universities Academic Space Surplus/Deficiency, Fiscal 2010, Projected 2020

Prior Authorization and Capital Improvement Program

Authorization Uses (\$ in Millions)

<i>Fund Uses</i>	<i>Prior Authorization</i>	<i>2013 Request</i>	<i>2014 Estimate</i>	<i>2015 Estimate</i>	<i>2016 Estimate</i>	<i>2017 Estimate</i>
Acquisition	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000
Planning	0.000	5.700	3.200	0.000	1.450	3.750
Construction	0.000	0.000	0.000	0.000	31.850	31.850
Equipment	0.000	0.000	0.000	0.000	0.000	3.000
Total	\$0.000	\$5.700	\$3.200	\$0.000	\$33.300	\$38.600

Authorization Sources (\$ in Millions)

<i>Fund Sources</i>	<i>Prior Authorization</i>	<i>2013 Request</i>	<i>2014 Estimate</i>	<i>2015 Estimate</i>	<i>2016 Estimate</i>	<i>2017 Estimate</i>
GO Bond	\$0.000	\$5.700	\$3.200	\$0.000	\$33.300	\$38.600
Total	\$0.000	\$5.700	\$3.200	\$0.000	\$33.300	\$38.600

Executive's Operating Budget Impact Statement

(\$ in Millions)

	<i>FY 2013</i>	<i>FY 2014</i>	<i>FY 2015</i>	<i>FY 2016</i>	<i>FY 2017</i>
Estimated Operating Cost	\$0.000	\$0.000	\$0.000	\$0.000	\$0.195
Estimated Staffing	0	0	0	0	0

According to the fiscal 2013 CIP, the renovation and expansion of Smith Hall will impact the operating budget in fiscal 2017 by \$0.1 million for amortized equipment costs.

GO Bond Recommended Actions

1. Approve \$5.7 million to fund the design for the expansion and renovation of Smith Hall.

Capital Project Cost Estimate Worksheet

Department: Towson University
Project Number: RB24B
Project Title: Smith Hall Renovation
Analyst: Sara Baker

Structure

New Construction:	0 Sq. Ft. X	\$0.00 Sq. Ft. =	\$0
New Construction:	0 Sq. Ft. X	\$0.00 Sq. Ft. =	0
Renovation:	215,245 Sq. Ft. X	\$180.00 Sq. Ft. =	38,744,100
Renovation:	0 Sq. Ft. X	\$0.00 Sq. Ft. =	0
Built-in Equipment:			2,300,000
Demolition:			200,000
Information Technology:	0 GSF X	\$0.00 GSF =	900,000
Telecommunications:			0
Miscellaneous – Other:	Asbestos Removal		350,000
Subtotal			\$42,494,100
Regional Factor:	100.0%		0
Subtotal			\$42,494,100
Escalation to Mid-point:	7.83 Yrs. X	3.9% =	30.83% 13,100,931
Total Cost of Structure (Bid Cost)			\$55,595,031

Site Work and Utilities

Site Improvements:	1,274,823 + regional factor + mid-point escalation	\$1,667,851
Utilities:	3,459,705 + regional factor + mid-point escalation	4,526,332
Project Subtotal (Bid Cost)		\$61,789,214

Fees and Miscellaneous Costs

Green Building Premium:	2.0%	\$1,235,784
Total Construction Contingency:	10.0%	6,178,921
Inspection Cost:	2.2%	1,359,363
Miscellaneous:	CM Cost Construction Share	1,019,522
Miscellaneous:	CM Pre-Construction Fee	926,838
Miscellaneous:	CPM Schedule	30,000
Miscellaneous:	Building Equipment Commissioning	722,735
Miscellaneous:	Movable Equipment	4,500,000
Miscellaneous:	Information Technology Equipment	1,000,000
A/E Fee through Construction Phase @	9.6%	6,796,813
Total Cost of Project		\$85,559,190

Base Cost Per Renovated Square Foot	\$0
Adjusted Cost Per New Square Foot (incl. escalation, contingencies, and Green Bldg.)	\$0
Base Cost Per Renovated Square Foot	\$180
Adjusted Cost Per Renovated Square Foot (incl. escalation, conting., and Green Bldg.)	\$264

Capital Project Cost Estimate Worksheet

Department: Towson University
Project Number: RB24B
Project Title: Smith Hall Expansion
Analyst: Sara Baker

Structure

New Construction:	106,700 Sq. Ft. X	\$330.00 Sq. Ft. =	\$35,211,000
New Construction:	0 Sq. Ft. X	\$0.00 Sq. Ft. =	0
Renovation:	0 Sq. Ft. X	\$0.00 Sq. Ft. =	0
Renovation:	0 Sq. Ft. X	\$0.00 Sq. Ft. =	0
Built-in Equipment:			950,000
Demolition:			0
Information Technology:	106,700 GSF X	\$0.00 GSF =	500,000
Telecommunications:			0
Miscellaneous – Other:	Asbestos Removal		0
Subtotal			\$36,661,000
Regional Factor:	100.0%		0
Subtotal			\$36,661,000
Escalation to Mid-point:	5.50 Yrs. X	3.9% =	21.50% 7,882,115
Total Cost of Structure (Bid Cost)			\$44,543,115

Site Work and Utilities

Site Improvements:	2,883,050 + regional factor + mid-point escalation	\$3,502,906
Utilities:	5,690,550 + regional factor + mid-point escalation	\$6,914,018
Project Subtotal (Bid Cost)		\$54,960,039

Fees and Miscellaneous Costs

Green Building Premium:	2.0%	\$1,099,201
Total Construction Contingency:	10.0%	5,496,004
Inspection Cost:	2.2%	1,209,121
Miscellaneous:	CM Cost Construction Share	906,841
Miscellaneous:	CM Pre-Construction Fee	824,401
Miscellaneous:	CPM Schedule	36,024
Miscellaneous:	Building Equipment Commissioning	668,147
Miscellaneous:	Movable Equipment	2,600,000
Miscellaneous:	Information Technology Equipment	400,000
A/E Fee through Construction Phase @	9.2%	5,743,324
Total Cost of Project		\$73,943,102

Base Cost Per Renovated Square Foot	\$330
Adjusted Cost Per New Square Foot (incl. escalation, contingencies, and Green Bldg.)	\$450
Base Cost Per Renovated Square Foot	\$0
Adjusted Cost Per Renovated Square Foot (incl. escalation, conting., and Green Bldg.)	\$0