

**VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
(Agency 208)**

Capital Project Budget Amendment Proposal

Undergraduate Science Laboratory Building

	<u>2018-19</u>	<u>2019-20</u>
Additional Funds Requested:		
General Fund	\$75,000,000	\$0
Nongeneral Fund	\$0	\$0

The Undergraduate Science Laboratory building is the university's top priority instruction project in its 2018-2024 capital outlay plan and is essential to support the growing demand for STEM-H majors at Virginia Tech. The University graduates more than twice as many STEM-H majors as any other Virginia institution. Over the past decade, STEM-H majors at Virginia Tech have increased by 30 percent while the total enrollment grew by about eleven percent. Thus, as the total number of students is expanding, the number of STEM-H majors is growing at a faster rate.

The increasing number of students majoring in engineering, traditional sciences, and in new degree programs such as neuroscience have generated a significant demand increase for course sections of chemistry, biology, and physics laboratory instruction. The university last constructed an undergraduate laboratory facility in 2004 for instruction in chemistry and physics, and the university's existing inventory of science laboratories for instruction is now too small and generally outdated to accommodate the current demand for instruction spaces by engineering and science majors. Because laboratory rooms are not available to meet the demand for course sections, students must defer courses and potentially extend time to degree completion.

The proposed building is envisioned to be a 102,000 gross square foot, four-story structure, clad in a combination of Hokie Stone, precast concrete panels and trim, and a combination of curtain wall glazing and punched opening windows. The proposed building site is located on an existing paved parking lot adjacent to the new undergraduate Classroom Building which was opened in August 2016. The proposed building is expected to provide a strong connection to the site including landscaping for outdoor classroom sections.

The program for this building includes 14 dry laboratories, 10 wet laboratories, support/storage space for all the laboratories, five classrooms, faculty offices, graduate teaching assistant workspace, and library study areas and project work areas.

Detailed Planning for this project was authorized in Item 4 of Chapter 759 of the 2016 Acts of Assembly with an effective date of July 1, 2017. The University internally advanced a feasibility study and primed the procurement process to be ready for a July 1, 2017 design contract execution. Schematic Designs are currently underway for this project.

Under this approach, Schematic Designs will be completed in May 2018 and Preliminary Designs (Detail Planning) will be complete in December 2018. After these designs are

completed and then reviewed by the Bureau of Capital Outlay Management, the project would be ready for construction funding.

The state's current capital program would have the construction funding ready in fiscal year 2020 (start July 2019), which would mean the project would sit idle for approximately 6 months and then complete Working Drawings and be ready for construction start in December 2019. The estimated cost increases due to escalation for the 11 month holding period are \$2.5 million.

The University respectfully requests a nongeneral fund debt authorization to provide and infuse temporary construction funding effective in fiscal year 2019 to collapse the project schedule to avoid the estimated \$2.5 million of escalation costs, provide needed services to undergraduate students a full year earlier, and preserve a small portion of the state's future debt capacity.

Under this proposal, the University's temporary financing would be reimbursed by state funding in fiscal year 2020, which would be consistent with the state's capital construction funding schedule. The University would be willing to absorb the carrying costs of the temporary financing under this arrangement and recognizes the timing for permanent construction funding is not guaranteed in fiscal year 2020.

This proposal is for authorization and funding of the Undergraduate Science Laboratory Building capital project. The estimated total project costs are \$75 million and the funding plan calls for General Fund support. Because the project is a high priority, the agency is willing to temporarily fund the project with nongeneral fund resources provided the agency is reimbursed by future General Fund allocations when the project is funded to move into the construction phase.