CapitalBudgetRequest

Repair Derring Hall Envelope

Overview

Agency	Virginia Polytechnic Institute and State University (208)
Project Code	18674
Project Title	Renovate Derring Hall
Project Type	Improvements-Other
Biennium	2024-2026
Budget Round	Amended Bill
Bill Version	Regular Session
Request Type	Previously Approved
Project Location	Roanoke Area
Facility/Campus	Derring Hall
Source of Request	Agency Request
Infrastructure Element	Maintenance / Repairs

Contains O & M costs? No

Contains significant technology costs? No

Contains significant energy costs? No

Possible that project will be used by other than a state or local governmental entity, or for research under sponsored programs (higher education)? No

Agency Narrative

Agency Description

Executive Summary:

Virginia Tech places a high priority on facility maintenance and mitigating deferred maintenance. The university's commitment is demonstrated by fully embracing the state's FICAS system for facility monitoring, aggressively addressing repairs, exceeding the 85 percent E&G Maintenance Reserve spending requirement every biennium since the introduction of the performance requirement, establishing a nongeneral fund Maintenance Reserve program in 1996 for its auxiliary enterprises, and allocating funds to address routine maintenance funding.

The state's General Fund Maintenance Reserve program has been the lynchpin for the university to address deferred maintenance for its E&G facilities. However, several facilities have deferred maintenance needs that exceed the limits of the Maintenance Reserve program.

The Capital Budget Request Instructions released in May 2023 and again in July 2024 include a capital priority for "funding requests to address a significant maintenance reserve-type issue at an existing facility", as well as the Administration's stated capital priority number 4 of "renovations necessary for prolonging the life of existing spaces"; and this request is to gain construction authorization to repair the building envelope of Derring Hall.

The State authorized a Capital planning authorization for this project in Item C-48 in Chapter 2 of Special Session I of the 2024 General Assembly. The planning and design process is currently getting underway. Based on the anticipated pace of the planning and design activities, Preliminary Designs will be obtained by summer 2025 and construction authorization will be needed to continue this critical project in the most efficient manner. This request is for the project to be authorized for construction funding during the 2025 General Assembly Session.

Project Description:

Derring Hall was built in 1969, is 208,000 gross square feet, has a Facility Condition Index score of 55 percent, and is the university's largest undergraduate science laboratory instruction building.

Derring Hall is an essential building to deliver required undergraduate courses to students; however, the building is at risk because of significant spalling, delamination, and cracking of the exterior concrete walls, columns, parapets, and window sealants. A recent engineering study documented over 330 spalls, some as large as six square feet.

Routine maintenance and Maintenance Reserve projects are not sufficient to address the repair needs of the building. The envelope is progressively deteriorating with accelerating moisture damage.

The university commissioned a consultant study that shows the necessary long-term repair solution is to remove the loose concrete and install an overclad system to confine future spalls and protect the building from future moisture damage.

These repairs would extend the service life of the building by 25 years.

Justification

Program Description:

This Maintenance Reserve-like project will make critical repairs to Derring Hall which is a primary facility for life sciences instruction.

Funding Plan:

The scope of this project is entirely Educational and General programming: thus, the funding plan calls for 100 percent General Fund support.

Options Considered:

Deferring the project was considered but not selected because the progressive deterioration of the building is increasing the risk of a shortened service life and disruption to student instruction.

Implementing the significant repairs through Maintenance Reserve is not an option because the project cost is beyond the $2 million threshold.

Methodology

Cost Explanation and Methodology:

The project cost is $16.6 million. The project costs are estimated to a mid-point of construction in 2025 using the current CR-1 Project Planning form (as of July 2024).

The 2024 project cost amount is based on internal estimates developed by university staff using historical comparables of on-campus work. The costing analysis utilized past and current projects that concerned numerous repairs altogether within an academic building. The project is planned to utilize the traditional Design-Bid-Build delivery method.

Funding Request

Phase	Year	Subobject	Fund	Agency Request
Full Funding	2026	2411 - Unallotted Capital Amount	01000 - General Fund	$16,600,000
			Total	$16,600,000

Project Costs

Cost Type	Requested Funding
Acquisition Cost	$0
Building & Built-in Equipment	$14,861,639
Sitework & Utility Construction	$0
Construction Cost Total	**$14,861,639**
DESIGN & RELATED SERVICE ITEMS	
A/E Basic Services	$655,927
A/E Reimbursables	$2,915

Other Design & Related Services	$17,491
Design & Related Services Total	**$676,333**
INSPECTION & TESTING SERVICE ITEMS	
Project Inspection Services (inhouse or consultant)	$77,254
Project Testing Services (conc., steel, roofing, etc.)	$29,152
Inspection & Testing Services Total	**$106,406**
PROJECT MANAGEMENT & OTHER COST ITEMS	
Project Management (inhouse or consultant)	$68,508
Work By Owner	$4,373
BCOM Services	$350
Commissioning	$36,440
Miscellaneous Other Costs	$187,283
Project Management & Other Costs Total	**$296,954**
Furnishings & Movable Equipment	$0
Construction Contingency	$658,668
TOTAL PROJECT COST	**$16,600,000**

Size and Scope

Cost Type	Unit of Measure	Units	Cost Per Unit
Acquisition Cost		0	$0
Construction Cost	gsf	208,000	$71
Total Project Cost		0	$0

Supporting Documents

File Name	File Size	Uploaded By	Upload Date	Comment
CR-1 Derring Envelope 8.14.24.xlsx	1,784,066	Rob Mann	8/23/2024	