

Capital Budget Request

Repair Derring Hall Envelope	
Overview	
Agency	Virginia Polytechnic Institute and State University (208)
Project Code	none
Project Type	Improvements-Other
Biennium	2022-2024
Budget Round	Amended Bill
Bill Version	Regular Session
Request Type	New Project
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	
<p>Agency Description</p> <p>Executive Summary:</p> <p>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.</p> <p>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.</p> <p>The Capital Budget Request Instructions released in July 2022 include a new capital priority for "funding requests to address a significant maintenance reserve-type issue at an existing facility", and this request is to repair the building envelope of Derring Hall.</p> <p>Project Description:</p> <p>Derring Hall was built in 1969, is 208,000 gross square feet, has a Facility Condition Index score of 53.6 percent, and is the university's largest undergraduate science laboratory instruction building.</p> <p>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.</p> <p>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.</p> <p>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.</p>	

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

The project cost in 2022 dollars is \$14 million. The project costs are estimated to a mid-point of construction in 2024 using the current CR-1 Project Planning form (as of July 2022).

The 2022 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 envelope 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	Amount
Full Funding	2024	2322 - Construction, Buildings	01000 - General Fund	\$18,374,000
Total				\$18,374,000

Project Costs

Cost Type	Requested Funding
Acquisition Cost	\$0
Building & Built-in Equipment	\$16,666,000
Sitework & Utility Construction	\$0
Construction Cost Total	\$16,666,000
DESIGN & RELATED SERVICE ITEMS	
A/E Basic Services	\$636,000
A/E Reimbursables	\$3,000
Specialty Consultants (Food Service, Acoustics, etc.)	\$0
CM Design Phase Services	\$0
Subsurface Investigations (Geotech, Soil Borings)	\$0
Land Survey	\$0
Archeological Survey	\$0
Hazmat Survey & Design	\$0
Value Engineering Services	\$0
Cost Estimating Services	\$0
Other Design & Related Services	\$17,000

Design & Related Services Total	\$656,000
INSPECTION & TESTING SERVICE ITEMS	
Project Inspection Services (inhouse or consultant)	\$75,000
Project Testing Services (conc., steel, roofing, etc.)	\$28,000
Inspection & Testing Services Total	\$103,000
PROJECT MANAGEMENT & OTHER COST ITEMS	
Project Management (inhouse or consultant)	\$66,000
Work By Owner	\$4,000
BCOM Services	\$0
Advertisements	\$0
Printing & Reproduction	\$0
Moving & Relocation Expenses	\$0
A/V Cabling	\$0
IT Cabling	\$0
Telephone Cabling	\$0
A/V Equipment	\$0
IT Equipment	\$0
Telephone Equipment	\$0
Signage	\$0
Demolition	\$0
Hazardous Material Abatement	\$0
Utility Connection Fees	\$0
Utility Relocations	\$0
Commissioning	\$35,000
Miscellaneous Other Costs	\$94,000
Project Management & Other Costs Total	\$199,000
Furnishings & Movable Equipment	\$0
Construction Contingency	\$750,000
TOTAL PROJECT COST	\$18,374,000

Size and Scope

Cost Type	Unit of Measure	Units	Cost Per Unit
Acquisition Cost		0	\$0
Construction Cost		0	\$0
Total Project Cost	gsf	208,000	\$88

Supporting Documents

File Name	File Size	Uploaded By	Upload Date	Comment
+CR-1 Derring Hall Envelope Repairs 8.4.22.xlsx	594,242	Matthew Digman	8/5/2022	

Workflow History

User Name	Claimed	Submitted	Step Name	Submit Action
Matthew Digman	08/03/2022 09:48 AM	08/03/2022 09:48 AM	Enter Capital Budget Request	Continue Working
Matthew Digman	08/03/2022 09:48 AM	08/03/2022 09:48 AM	Continue Drafting	Continue Working
Matthew Digman	08/04/2022 02:48 PM	08/04/2022 03:07 PM	Continue Drafting	Continue Working
Jennifer Hundley	08/04/2022 05:47 PM	08/04/2022 05:59 PM	Continue Drafting	Continue Working
Jennifer Hundley	08/04/2022 06:38 PM	08/04/2022 06:40 PM	Continue Drafting	Continue Working
Matthew Digman	08/05/2022 08:40 AM	08/05/2022 08:46 AM	Continue Drafting	Continue Working

Matthew Digman	08/05/2022 10:03 AM	08/05/2022 10:03 AM	Continue Drafting	Continue Working
Matthew Digman	08/05/2022 10:13 AM	08/05/2022 10:14 AM	Continue Drafting	Continue Working
Matthew Digman	08/05/2022 11:12 AM	08/05/2022 11:13 AM	Continue Drafting	Continue Working
Rob Mann	08/05/2022 11:35 AM	08/05/2022 11:41 AM	Continue Drafting	Submit for Agency Review
Rob Mann	08/05/2022 12:01 PM	08/05/2022 12:01 PM	Agency Review Step 1	Ready for DPB Bulk Submit
Rob Mann	08/05/2022 12:04 PM	08/05/2022 12:04 PM	Ready for DPB Submission	Submit to DPB
			DPB Review	