

Capital Budget Request

Address Campus Fire Alarms and Accessibility

Overview

Agency	Virginia Polytechnic Institute and State University (208)
Project Code	none
Project Type	Improvements-Life Safety Code
Biennium	2018-2020
Budget Round	Initial Bill
Request Origin	New Project
Project Location	Roanoke Area
Facility/Campus	Blacksburg Main Campus
Source of Request	Agency Request
Infrastructure Element	Multi-Purpose
Contains significant technology costs? No	
Contains significant energy costs? No	
Project will be used by other than a state or local governmental entity? No	

Agency Narrative

Agency Description
Project Summary:

The University's health, safety, and accessibility initiative for the campus is an ongoing effort. The University has made important progress toward improving the campus and its E&G facilities in this regard in phases, over a period of years, with prior General Fund appropriations that supported critical safety and accessibility improvements.

The goal of this project request is to obtain authorization and funding to continue progress on needed campus and Educational and General facility improvements. The focus of this request is accessibility improvements and life safety improvements that are beyond the scope of normal Maintenance Reserve program activities.

Program Description:

Virginia Tech is a land grant-University with a three-part mission: instruction, research, and outreach. Under this mission, activities occurring on campus should take place in a healthy, safe, and accessible environment and should ensure compliance with all applicable federal and state requirements. The campus is a daily meeting place for students, faculty, staff, alumni, and a vast array of visitors. Ensuring the safety, health, and accessibility of the campus environment is critical to the long-term success of the University and its service to the Commonwealth.

Justification
Project Description:

The project will be described in two parts: 1) accessibility improvements and 2) life safety improvements.

A. Accessibility Improvements:

The University has identified nine Educational and General building locations with high priority accessibility requirements. Specific improvements to these facilities would establish a system of accessible buildings and connecting pathways to ensure accessible service in the core academic enterprise.

The facilities and their related improvements are listed below:

- 1) Wallace Hall - Provision of accessible toilets is needed throughout the facility.
- 2) Derring Hall - Provision of accessible toilets and accessible door hardware are needed throughout the facility.

- 3) President's Quad - Installation of accessible sidewalks in place of steep walks and/or exterior stairs, including accessible handrails.
- 4) Hancock Hall - Power-activated door openers and accessible way-finding signage is needed throughout the facility.
- 5) Burruss Hall - An accessible access route from the Drillfield into Burruss is needed. A potential route at the west side of Burruss has been identified.
- 6) McBryde Hall – Power-activated door openers throughout the facility and accessible way-finding signage are needed.
- 7) Whittemore Hall – Provision of accessible door hardware is needed throughout the facility. Accessible sidewalks and route improvements are needed.
- 8) Pamplin Hall – Provision of accessible toilets, power-activated door openers throughout the facility, and accessible way-finding signage are needed.
- 9) Whittemore/Durham pathway – Provision of an accessible pathway across the upper level academic precinct, along the north side of Durham Hall is needed.

Improvements between the buildings to ensure appropriate accessible pathways include reconfiguration or installation of accessible stair handrails, installation of accessible stair markings, alteration of existing topography and installation of new accessible sidewalks or ramps at steep slopes, and installation of sidewalk curb cuts and crosswalks. The priority for this portion of the project will include heavily used sidewalks that are major pedestrian routes through the north zone of campus.

B. Life Safety Improvements:

The University has identified 22 Educational and General Buildings with high priority life safety requirements. Specific improvements to these facilities would establish a system of fire alarm and suppression and emergency communications across critical academic and academic support buildings.

In general, the nature of improvements that will make a significant contribution to the life and safety of the occupants include fire alarm control panels, accessible pull stations, smoke detection systems, accessible audio-visual announcement devices, sprinkler systems and fire pump installation as necessary, building wide systems of emergency lighting for paths of egress, paths of egress are appropriately fire rated, provision of emergency phones for immediate availability in case of any type of security or life safety situation, and mass notification system ability through our existing fire alarm system in multiple campus buildings. Emergency phones will direct dial 911 and the mass notification system will add components and networking capability to existing fire alarm systems such that the system can be used to make recorded or live messages to select buildings from a central point.

The facilities and their related improvements are listed below:

- 1) Saunders Hall: A sprinkler system is needed due to building's open stairway that is the only means of egress. This facility houses research labs and offices as well as a large general use classroom.
- 2) Price Hall: A sprinkler system is needed due to building's all wood construction.
Smyth/Hutcheson Halls: A sprinkler system is needed due to open stairways and non-rated corridor partitions
- 3) War Memorial Chapel: A networked building-wide alarm system is needed. This building is not protected by detection devices and has no notification system.
- 4) Media Building: A networked building-wide alarm system is needed. This building is not protected by detection devices and has no notification system.
- 5) Solid Fuel Combustion Lab: A networked building-wide alarm system is needed. This building is not protected by detection devices and has no notification system.
- 6) Structural Testing Lab: A networked building-wide alarm system is needed. This building is not protected by detection devices and has no notification system.
- 7) Aquaculture Facility: A networked building-wide alarm system is needed. This building is not protected by detection devices and has no notification system.
- 8) Pamplin: A building-wide emergency egress lighting system is needed in this facility that has many general assignment classrooms.
- 9) Plant Pathology: A networked building-wide alarm system is needed. This building is not protected by detection devices and has no notification system.
- 10) Major Williams Hall: An emergency phone is needed.
- 11) Seitz Hall: An emergency phone is needed.

- 12) Life Sciences: An emergency phone is needed.
- 13) HABB: An emergency phone is needed.
- 14) Cheatham Hall: An emergency phone is needed.
- 15) Wallace Hall: An emergency phone is needed.
- 16) Litton Reaves Hall: An emergency phone is needed.
- 17) Whittemore: Fire alarm control panel modifications and network connections are needed to allow for use as mass notification system.
- 18) Fralin Hall: Fire alarm control panel modifications and network connections are needed to allow for use as mass notification system.
- 19) Shanks Hall: Fire alarm control panel modifications and network connections are needed to allow for use as mass notification system.
- 20) Durham Hall: Fire alarm control panel modifications and network connections are needed to allow for use as mass notification system.
- 21) Burruss Hall: Fire alarm control panel modifications and network connections are needed to allow for use as mass notification system.
- 22) Williams Hall: Fire alarm control panel modifications and network connections are needed to allow for use as mass notification system.

Funding Plan:

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

Options Considered:

Delaying this project to a future biennium is not a favorable option because of the backlog of current campus safety and accessibility projects. These projects are normally addressed ad hoc as operating finances permit. Without capital funding, the accumulation of a backlog of requests for improvements related to access, fire alarm systems, stormwater and code compliance will grow.

Alternatives Considered

Costing Methodology

The costs are based on internal estimates developed by University staff based on historical comparables of on-campus work. The costing analysis utilized past and current compliance projects, to include electrical, ADA, egress, etc. upgrades around campus. The project is planned to utilize the traditional Design, Bid, Build delivery method. Project costs are estimated to the mid-point of construction using three percent escalation in accordance with the instructions for developing the Six-Year Capital Outlay Plan.

Agency Funding Request				
Phase	Year	Fund	Subobject	Requested Amount
Construction	2019	01000 - General Fund	2322 - Construction, Buildings	\$5,500,000
Total				\$5,500,000
Project Costs				
Cost Type	Total Project Costs	Requested Funding	DGS Rec	
Acquisition Cost	\$0	\$0		
Building & Built-in Equipment	\$3,962,335	\$3,962,335		
Sitework & Utility Construction	\$0	\$0		
Construction Cost Total	\$3,962,335	\$3,962,335		
DESIGN & RELATED SERVICE ITEMS				
A/E Basic Services	\$819,071	\$819,071		
A/E Reimbursables	\$0	\$0		
Specialty Consultants (Food Service, Acoustics, etc.)	\$0	\$0		
CM Design Phase Services	\$0	\$0		
Subsurface Investigations (Geotech, Soil Borings)	\$0	\$0		

Land Survey	\$0	\$0
Archeological Survey	\$0	\$0
Hazmat Survey & Design	\$6,348	\$6,348
Value Engineering Services	\$0	\$0
Cost Estimating Services	\$6,348	\$6,348
Other Design & Related Services	\$15,903	\$15,903
Design & Related Services Total	\$847,670	\$847,670
INSPECTION & TESTING SERVICE ITEMS		
Project Inspection Services (inhouse or consultant)	\$188,604	\$188,604
Project Testing Services (conc., steel, roofing, etc.)	\$0	\$0
Inspection & Testing Services Total	\$188,604	\$188,604
PROJECT MANAGEMENT & OTHER COST ITEMS		
Project Management (inhouse or consultant)	\$259,947	\$259,947
Work By Owner	\$26,887	\$26,887
BCOM Services	\$23,125	\$23,125
Advertisements	\$0	\$0
Printing & Reproduction	\$0	\$0
Moving & Relocation Expenses	\$3,809	\$3,809
AV Cabling	\$0	\$0
IT Cabling	\$0	\$0
Telephone Cabling	\$0	\$0
AV Equipment	\$0	\$0
IT Equipment	\$7,343	\$7,343
Telephone Equipment	\$0	\$0
Signage	\$635	\$635
Demolition	\$0	\$0
Hazardous Material Abatement	\$16,653	\$16,653
Utility Connection Fees	\$0	\$0
Utility Relocations	\$0	\$0
Commissioning	\$0	\$0
Miscellaneous Other Costs	\$48,752	\$48,752
Project Management & Other Costs Total	\$387,151	\$387,151
Furnishings & Movable Equipment	\$0	\$0
Construction Contingency	\$114,240	\$114,240
TOTAL PROJECT COST	\$5,500,000	\$5,500,000

Capacity

Cost Type	Unit of Measure	Units	Cost Per Unit
Acquisition Cost	N/A	0	\$0
Construction Cost	N/A	0	\$0
Total Project Cost	N/A	0	\$0

Operating and Maintenance Costs (Agency)

Cost Type	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
GF Dollars	\$0	\$0	\$0	\$0	\$0	\$0
NGF Dollars	\$0	\$0	\$0	\$0	\$0	\$0
GF Positions	0.00	0.00	0.00	0.00	0.00	0.00
NGF Positions	0.00	0.00	0.00	0.00	0.00	0.00
GF Transfer	\$0	\$0	\$0	\$0	\$0	\$0

GF Revenue	\$0	\$0	\$0	\$0	\$0	\$0
Layoffs	0	0	0	0	0	0

Planned start date of new O&M costs (if different than the beginning of the fiscal year):---

Supporting Documents

No supporting documents for this adjustment

Workflow History

User Name	Claimed	Submitted	Step Name	Submit Action
Jennifer Hundley	06/09/2017 04:38 PM	06/09/2017 04:38 PM	Enter Capital Budget Request	Continue Working
Jennifer Hundley	06/09/2017 04:38 PM	06/09/2017 04:58 PM	Continue Drafting	Continue Working
Jennifer Hundley	06/09/2017 05:10 PM	06/09/2017 05:10 PM	Continue Drafting	Continue Working
Rob Mann	07/07/2017 11:55 AM	07/07/2017 12:04 PM	Continue Drafting	Submit for Agency Review
Rob Mann	07/07/2017 12:04 PM	07/07/2017 12:06 PM	Agency Review Step 1	Ready for DPB Bulk Submit
Bob Broyden	07/07/2017 04:35 PM	07/07/2017 04:35 PM	Ready for DPB Submission	Submit to DPB
			DPB Review	