

## Capital Budget Request

### Construct Addition to Library Facility

#### Overview

Agency	Virginia Polytechnic Institute and State University (208)
Project Code	none
Project Type	New Construction
Biennium	2016-2018
Budget Round	Initial Bill
Request Origin	Previously Submitted
Project Location	Roanoke Area
Facility/Campus	Blacksburg Main Campus
Source of Request	Agency Request
Infrastructure Element	Library / Resource Center

Contains significant technology costs? No

Contains significant energy costs? No

#### Agency Narrative

##### Agency Description

The project request is to construct a 6,000 gross square foot addition to the Records Management/Library Storage Building located on Country Club Drive. The addition will contain high-bay, self-supporting, heavy-duty storage shelving capable of handling up to 750,000 volumes. The addition will increase the ability to efficiently store and quickly retrieve materials. This project will also free up library floor space to restore needed student study areas that have been lost because floor shelving is the only current means to manage the growth of critical on-site volume storage.

##### Justification

###### Program Description:

Changes in teaching and learning practices require more informal learning spaces for students to meet and discuss group projects and team problem solving. Newman Library is being reconfigured to provide additional group project rooms, secured study carrel desks for graduate students, and an information commons that will consolidate library help staff in one area and also house a variety academic support functions such as the writing center, audio-visual assistance, and a foreign languages laboratory. The library has also become the site of our most technologically advanced classrooms and multi-media laboratories. The consolidated information commons concept will allow users to stop at one location for help with most library services; and staff will be more efficiently located to provide services to library visitors. Internally funded renovations have made progress toward these goals but more space is needed to fully implement the reconfiguration of the existing library. The proposed collections facility will free up stack space that will be reallocated to accommodate these critical programmatic needs.

The size of the university's collection (over 2.3 million volumes), and young age mean that it is unsuitable to move major parts of the collection to a storage site distant and remote from central campus. Proximity to the campus library will also avoid increased staffing and operating costs for off-campus collections maintenance and retrieval. The proposed project will install high-bay fixed, self-supporting storage shelving connected to the existing Records Management/ Library Storage Building.

The university strategic plan, A Plan for a New Horizon includes the following principal strategies that will be supported by this project:

- Developing an appropriate infrastructure for e-learning
- Reviewing and revise current business practices for opportunities to optimize efficiency, flexibility, and accountability without sacrificing need to remain innovated and competitive
- Increasing undergraduate involvement in meaningful research experiences and experiential learning (hands on minds on)
- Increasing support for international experiences and foreign-language competency for all students
- Developing ways to integrate computational science/informatics and digital fluency for managing and analyzing complex data sets across a wide range of disciplines.
- Continuing to investigate, develop, and utilize current and emerging technologies to enhance traditional classrooms, provide mobile access, and expand high-quality distance -learning opportunities.
- Identifying opportunities during construction and renovation to create flexible classroom spaces that fully support e-learning components.
- Increasing the quality and availability of academic advising for all students
- Pursuing quality-of-life initiatives in support of the university as a vibrant, dynamic, and sustainable workplace
- Promoting life-long learning

In addition, the Virginia Tech library and its extensive collections and special collections serve as a resource for the entire Commonwealth. Additional storage space will allow the library to retain the most important elements of its collection to be readily accessible to citizens of the Commonwealth.

The storage addition is planned as tilt-up construction of concrete panels forming the three exterior sides of the building addition. The 32 foot plus interior clear span height will permit inclusion of high bay storage units in multiple rows. The floor will be sealed concrete, and an interior overhead coiling door will provide the interior connection between the existing storage facility and this addition.

**Existing Facilities:**

Newman Library, the main Virginia Tech facility, was constructed in 1955, with an addition in 1980. Student support, book storage, and all other library functions for the university are managed at this facility. At approximately 227,000 gross square feet, Newman is a comparatively small library for a university of over 30,800 FTE students and the building is at full capacity. New storage space is needed for two reasons: First, to accommodate a conservatively projected growth of collections in recognition of the likely mix of future print and electronic resources. Second, to free up floor space in Newman, allowing the library to be reconfigured to meet the needs of 21st century students and scholars.

**Funding Plan:**

The program for this project is entirely Educational and General library space; thus, the funding plan calls for 100 percent general fund support.

**Options considered:**

Other options considered but not selected include leasing off-campus storage capacity or delaying the project to a later biennium. Constructing an addition to the Records Management/Library Storage Building with high-bay storage shelving is the selected option because it is the most effective choice for meeting expanded storage needs in close proximity to campus. Leasing off-campus storage space is not preferred because of the impact on timely service to students and faculty needing for library materials and the impact on long-term operating costs for staffing, vehicles and building rental. Current shelf storage capacity has been nearly exhausted and additional space is necessary to meet the needs of expanding academic and research programs and changing pedagogical practices.

**Alternatives Considered**

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**Costing Methodology**

The method for estimating costs includes: 1) using unit costs in the Bureau of Capital Outlay Management's Construction Costs Database updated April 2015 with a regional market multiplier and a multiplies for softs costs; and 2) comparables as shown in the CR-3. Both methods are escalated to a construction midpoint of 2019 at three percent.

On a total project cost basis, inclusive of design, construction, and equipment, the unit costs are \$423 per gross square foot. The unit construction costs of the project are \$318 per gross square foot, including self-performed construction work. The building types in this request are Library addition in the Bureau of Capital Outlay Management's Construction Costs Database.

The University's project cost estimates are derived from a database of on-campus construction costs of comparable project types. Virginia Tech building construction reflects the high level of quality, durability and tradition that makes Virginia Tech a distinctive and memorable place for students. Our estimates also include the cost of energy efficiency goals of the institution.

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	Subsubject	Requested Amount
Construction	2021	0100 - General Fund	2322 - Construction, Buildings	\$3,000,000
Total				\$3,000,000
Project Costs				
Cost Type	Total Project Costs	Requested Funding	DGS Rec	
Acquisition Cost	\$0	\$0		
Building & Built-in Equipment	\$1,478,000	\$1,478,000		
Sitework & Utility Construction	\$118,000	\$118,000		
<b>Construction Cost Total</b>	<b>\$1,596,000</b>	<b>\$1,596,000</b>		
DESIGN & RELATED SERVICE ITEMS				
A/E Basic Services	\$189,000	\$189,000		
A/E Reimbursables	\$12,000	\$12,000		

Specialty Consultants (Food Service, Acoustics, etc.)	\$7,000	\$7,000
CM Design Phase Services	\$0	\$0
Subsurface Investigations (Geotech, Soil Borings)	\$2,000	\$2,000
Land Survey	\$0	\$0
Archeological Survey	\$0	\$0
Hazmat Survey & Design	\$0	\$0
Value Engineering Services	\$0	\$0
Cost Estimating Services	\$9,000	\$9,000
Other Design & Related Services	\$30,000	\$30,000
<b>Design &amp; Related Services Total</b>	<b>\$249,000</b>	<b>\$249,000</b>
<b>INSPECTION &amp; TESTING SERVICE ITEMS</b>		
Project Inspection Services (inhouse or consultant)	\$296,000	\$296,000
Project Testing Services (conc., steel, roofing, etc.)	\$59,000	\$59,000
<b>Inspection &amp; Testing Services Total</b>	<b>\$355,000</b>	<b>\$355,000</b>
<b>PROJECT MANAGEMENT &amp; OTHER COST ITEMS</b>		
Project Management (inhouse or consultant)	\$266,000	\$266,000
Work By Owner	\$2,000	\$2,000
BCOM Services	\$0	\$0
Advertisements	\$0	\$0
Printing & Reproduction	\$0	\$0
Moving & Relocation Expenses	\$0	\$0
Non Built-In Data and Voice Communications	\$30,000	\$30,000
Signage	\$1,000	\$1,000
Demolition	\$0	\$0
Hazardous Material Abatement	\$0	\$0
Utility Connection Fees	\$0	\$0
Utility Relocations	\$71,000	\$71,000
Commissioning	\$30,000	\$30,000
Miscellaneous Other Costs	\$84,000	\$84,000
<b>Project Management &amp; Other Costs Total</b>	<b>\$484,000</b>	<b>\$484,000</b>
Furnishings & Movable Equipment	\$284,000	\$284,000
Construction Contingency	\$32,000	\$32,000
<b>TOTAL PROJECT COST</b>	<b>\$3,000,000</b>	<b>\$3,000,000</b>

### Capacity

Cost Type	Unit of Measure	Units	Cost Per Unit
Acquisition Cost		0	\$0
Construction Cost	GSF	6,000	\$266
Total Project Cost	GSF	6,000	\$500

### Operating and Maintenance Costs (Agency)

Cost Type	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
GF Dollars	\$0	\$0	\$31,321	\$32,260	\$33,228	\$34,225
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
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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
Rob Mann	05/18/2015 11:32 PM	05/18/2015 11:32 PM	Enter Capital Budget Request
Rob Mann	05/18/2015 11:32 PM	05/18/2015 11:34 PM	Continue Drafting
Jennifer Hundley	06/12/2015 05:26 PM	06/12/2015 05:42 PM	Continue Drafting
Rob Mann	06/13/2015 10:50 AM	06/13/2015 10:52 AM	Continue Drafting
Rob Mann	06/13/2015 01:15 PM	06/13/2015 01:16 PM	Agency Review Step 1
Rob Mann	06/13/2015 07:53 PM	06/13/2015 07:56 PM	Agency Review Step 1
Bob Broyden	06/14/2015 02:18 PM	06/14/2015 02:18 PM	Ready for DPB Submission
Ruth Anderson	06/15/2015 01:27 PM	06/15/2015 01:28 PM	DPB Review
Ruth Anderson	06/15/2015 01:28 PM	06/15/2015 01:28 PM	DPB Review
Ruth Anderson	06/18/2015 10:59 AM	06/18/2015 10:59 AM	DPB Review
Anne Smith	06/19/2015 02:50 PM	06/19/2015 02:50 PM	DPB Review
Rob Mann	06/19/2015 03:24 PM	06/19/2015 03:24 PM	Agency Review Step 1
Bob Broyden	06/19/2015 03:51 PM	06/19/2015 03:51 PM	Ready for DPB Submission
			DPB Review