

Capital Outlay Plan for 2024-2030

JOINT FINANCE AND RESOURCE MANAGEMENT COMMITTEE AND BUILDINGS AND GROUNDS COMMITTEE

February 27, 2023

Background:

The university prepares an updated Six-Year Capital Outlay Plan (Plan) every two years as part of its normal financial planning processes. The Plan is a critical component of positioning the university for state support of Educational and General capital projects and for advancing high priority projects that may be funded entirely with nongeneral fund resources.

The state requires each institution's Board of Visitors to approve the Plan prior to submitting requests through the state capital budget process. Virginia Tech's delegated authority as a Tier III institution under the Higher Education Restructuring Act further requires the university, with Board of Visitor approval, to develop and maintain a capital plan that defines its capital needs.

The university sets a six-year planning period, identifying two lists of projects: i) a list of General Fund projects for submission in the state budget process and ii) a list of projects the university anticipates funding entirely through nongeneral funds.

The Plan is updated biennially to coincide with the state's capital budget process. Typically, the state releases instructions for capital budget submissions in the summer of odd-numbered years. Based on that timetable, the university should be prepared to submit a plan to the state in June of 2023. At this time, the state has not yet provided instructions or specific guidance for the development of those requests.

The prioritized rankings of General Fund projects for both the University Division and the Cooperative Extension/Agricultural Experiment Station (CE/AES) are shown in Attachment A. The list of projects that call for entirely nongeneral fund support are listed in Attachment B. A brief description of each project is shown in Attachment C.

Approval of the Plan by the Board of Visitors does not approve funding or action for any of the projects listed in the Plan. The Board of Visitors must approve separately requests to initiate design and construction for a project listed on the Plan. To the extent the university determines that issuing debt is necessary to support the cash flow requirements of a capital project, the Board of Visitors must also approve the debt issuance.

Process to Identify and Select Projects for the Plan:

In preparation for the 2024-2030 Plan update, the university engaged with its deans and vice presidents to identify a comprehensive list of space and facility needs for the planning period and to select the highest priority items for funding.

The process identified 127 needs, which included nine duplicate requests, and are shown in Appendix 1 by senior management area with their priority ranking. The 118 unique needs were then filtered and grouped into the five subsets listed below. A description of the filtering process for the subsets is shown in Appendix 2.

Subsets:

1. Projects that do not meet the capital project threshold (i.e., expenditures of at least \$3 million and/or at least 5,000 square feet) that may be addressed as operating projects (24 items);
2. Projects logistically beyond the six-year planning period that will be held until their precursors are underway (15 items);
3. Projects that must be referred for further planning to better define the program and/or funding plan (46 items);
4. Agency 208 projects that are “actionable,” meaning they can be executed in the six-year time horizon and have funding plans sufficient to meet the anticipated needs of the project, (28 items); and
5. Agency 229 projects that are actionable (5 items).

The lists of 33 actionable projects for Agency 208 and Agency 229 are then grouped by those that meet state qualifications for General Fund support and those that must be funded entirely with nongeneral funds or for which the university has developed an entirely nongeneral fund plan.

Strategic Priorities for the Planning Period:

The university established four strategic priorities to guide the needs identification for the planning period. The priorities include:

- Top 100 Global University,
- Facility Asset Management and Renewal,
- Student Experience and Success, and
- Alignment with state capital funding priorities.

Planning Constraints:

Estimated financial resources for any planning period are finite and constrain the size of a plan and the likely pace of progress to implement projects on the plan. The five key financial constraints for the planning period are described below:

1. General Fund for Agency 208:

The level of the state capital funding program ebbs and flows over time, with large bond programs over the past five years that advanced multiple projects at Virginia Tech. The availability of state funding depends on the priorities of the Governor and General Assembly, the Commonwealth’s financial position, and the backlog of capital projects

previously funded. Based on internal analyses of the state's historical investments in capital outlay, Virginia Tech could expect to position for approximately \$350 million of capital appropriations during the six-year planning period.

2. General Fund for Agency 229:

The state funding program for agency 229 is expected to generally follow the same pattern as agency 208 but at a smaller scale with an optimistic positioning for approximately \$75 million during the planning period.

3. Nongeneral Fund Cash for Projects:

Educational and General operating dollars, including General Fund appropriations and tuition, are not used to support capital outlays.

Nongeneral fund revenues for capital outlays include auxiliary enterprise rates for residential and dining, auxiliary enterprise sales and services, comprehensive fees, overhead generated from indirect cost recoveries from grants and contracts, and private gifts.

In general, the scale of these revenue sources is efficient relative to the costs they are designated to support; thus, the university does not generally accumulate large cash reserves that may be used to support capital projects.

The cash that does accumulate is normally the result of cash flows that are positioned to service debt. To the extent these stores are available, the university uses them as a source in a capital project budget to reduce the amount of debt that would otherwise be required.

The exception is private gifts designated for capital outlays. The university strives for private gift payments to be structured over a five-year payment schedule which is a very close alignment to the cash outflows of a capital project; thus, any amount of debt required to carry pledge payments should be minimal.

4. Nongeneral Fund Revenues for Debt Service:

The nongeneral fund sources described in item 3 above may also be used to support debt service.

The use of the university's debt capacity for a project is first determined by the strength of revenues to support debt service obligations. The university's budget and planning processes include extensive due diligence and business planning work to ensure a high level of confidence that future revenues will be available and sufficient to service and retire any planned debt issuances, including long term leases.

Conversely, without the assurance that a revenue source will be available and sufficient for the entire repayment term of an issuance, debt is not allocated to a project.

5. Debt Capacity:

The net available debt capacity to allocate to projects for the planning period is approximately \$770 million. Factoring in anticipated issuances for capital projects already approved by the Board of Visitors, the capacity for new debt-funded capital projects is \$724 million. The university traditionally reserves approximately \$100 million of capacity during any planning period for unexpected, unforeseen opportunities; thus, the adjusted net amount for the period is \$624 million.

The projects with funding plans that call for debt financing and for which revenues are available and sufficient are included in the Plan. As shown on Attachment A and Attachment B, the total debt consumption for the planning period would be \$586 million if all are executed in this time frame. The unallocated debt capacity would be approximately \$138 million, or \$38 million above and beyond the \$100 million strategic placeholder.

General Fund Project List, Attachment A:

The highest priority projects requesting General Fund resources are listed under each division of Virginia Tech in their priority order, which reflects the strategic priorities of the university and state priorities as understood at this time. Notably, four of the seven projects under the university division are facilities that support programs in science, technology, engineering and biomedical sciences with the remaining projects targeted to ensuring appropriate facility renewal. The total dollar value of the list exceeds projected resources likely to be allocated to Virginia Tech during the planning period. By including a variety of high priority needs in the listing, the university ensures it has the flexibility to adapt to various state capital funding programs that may emerge over the upcoming 12 months.

The state requires that an institution's Board of Visitors review and approve projects prior to submission in the state budget process. Because the submission date to the state may occur before the June 2023 Board of Visitors meeting, the university is seeking the review and approval of the Plan at the March 2023 meeting of the Board of Visitors.

When guidance and instructions are received from the state, the university will prepare and submit its capital budget items based upon the projects included in Attachment A. If future instructions and/or guidance from the state necessitate a change in the rankings or arrangement of projects in the General Fund listing, a final list with adjustments as submitted to the state will be brought to the Board of Visitors for review and ratification at a subsequent meeting.

Nongeneral Fund Project List, Attachment B:

Attachment B lists the highest priority projects that call for entirely nongeneral fund resources in their budget and that are reasonably expected to be implemented by 2030. This section covers the auxiliary enterprise system projects and other projects requesting some combination of private support, returned overhead dollars, external construction grants, and/or nongeneral fund debt to fund the total costs, including long-term leases.

Under the university's Management Agreement with the state for Capital Projects, the Board of Visitors has the authority to approve and implement projects supported 100 percent by nongeneral funds. Each project follows a three-step budgetary approval process by the Board of Visitors and those that require external debt require a fourth approval step. The steps include 1) inclusion in the approved Six-Year Capital Outlay Plan, 2) authorization for planning to produce design documents to validate the project's feasibility, 3) authorization for construction when funding is available and sufficient, and 4) approval of external debt required for any capital project prior to issuance.

Auxiliary enterprise projects with a financing plan that calls for an increase of student fees depend on Board of Visitors approval of the rates as part of the annual tuition and fee actions. Projects with a financing plan that calls for private gifts depend on the successful completion of donation commitments and cash receipts.

Project Costs:

The university uses two parametric-based cost estimating methods for each project which are then compared and reconciled to inform the cost amounts used in the Plan.

The first method is the Commonwealth's July 2022 Department of General Services (DGS) Construction Cost Database plus a 1.3 regional market premium factor with a 1.23 escalation rate to reach a July 2026 midpoint of construction. [Note: escalation rates for this planning period are higher than historical norms of 1.12 to 1.14.]

The second method is based on historical data reflecting actual project costs for similar projects escalated to a date that matches the "as of date" of the DGS cost database and then escalated to the same July 2026 midpoint of construction.

These cost estimates provide a reasonable order of magnitude for planning purposes. Actual project budgets and costs may stray from the amounts used in the plan when escalation runs at a pace significantly different from the rates used in these estimates and/or the approved project scope is modified when design is authorized to proceed.

Debt Financing:

Projects with nongeneral fund support, including portions of some gift campaigns, may use external debt to finance a portion of the project. Each potential debt financing undergoes an internal financial feasibility assessment to ensure future revenue sources will be sufficient and available to cover the entire debt service term without unnecessary financial risk.

The amount and positioning of debt are further analyzed to ensure the university does not exceed the parameters of the university debt policy or debt management practices, which sets a maximum limit of a six percent ratio of total annual debt service to total operating expenses. This evaluation is projected six years out and includes anticipated issuances for projects in the Plan.

A projection of the timing and amount of expected debt issuances is shown in a table in Attachment D. A graph of the estimated impact on the debt ratio is shown in Attachment E, and a graph of the estimated impact on debt capacity is shown in Attachment F. The attachments show the planned debt issuances would remain within the six percent debt ratio guideline established by the Board of Visitors and would provide an approximately \$138 million of unallocated capacity for unforeseen and/or unexpected opportunities that may arise during the planning period. Beyond the planning period, debt capacity returns with an estimated \$635 million of unallocated capacity by FY34.

The Board of Visitors reviews and approves an annual report of debt capacity and debt ratio and authorizes individual debt packages prior to an issuance. These practices provide an important set of controls to ensure the institution's debt obligations do not become a point of inflexibility in reaching the operational goals of the institution, to ensure the university is holding sufficient debt capacity for its highest priorities, and to ensure compliance with restructuring requirements for credit ratings and debt ratios.

Summary:

The university's updated Plan for the 2024-2030 period, as shown in Attachment A and Attachment B, provides a compliment of projects to advance the goals of i) becoming a Top 100 Global University, ii) addressing facility asset management and renewal to ensure the continuity of ongoing programs and services, iii) strengthening the student experience and success, and iv) alignment with state capital funding priorities.

The Plan also positions the university to compete for future state capital funding programs and is based on sound financial planning to provide confidence on the acquisition and delivery of nongeneral fund projects.

Because the university maintains an active capital program with a portfolio that is continually loading new projects and discharging completed projects, the university updates its Six-Year Capital Plan every two years.

RECOMMENDATION:

That the Capital Outlay Plan for 2024-2030 as shown in Attachments A and B, be approved and for the university to submit the items in Attachment A in the state's capital budget process in accordance with future instructions and guidance from the state.

March 20, 2023

ATTACHMENT A

General Fund Six-Year Capital Outlay Plan for 2024-2030

as of February 27, 2023

					Dollars in Thousands Escalated to July 2026 (23% Escalation Over July 2022)			
					<u>General Fund</u>	<u>Nongeneral Fund</u>	<u>Debt</u>	<u>Total</u>
University Division								
1	Virginia Tech-Carilion School of Medicine and Fralin Biomedical Research Institute Expansion	\$ 135,000	\$ -	\$ 25,000	\$ 160,000			
2	Hahn Hall South Renovation and Expansion	91,800	-	36,200	128,000			
3	Derring Hall Renovation	117,500	9,500	-	127,000			
4	Newman Library Renovation	92,000	-	-	92,000			
5	Robeson Hall Renovation	46,800	9,200	-	56,000			
6	Classroom Renovations	25,000	-	-	25,000			
7	Life, Health, Safety, Code Compliance Package	8,000	-	-	8,000			
	Total University Division Projects	<u>\$ 516,100</u>	<u>\$ 18,700</u>	<u>\$ 61,200</u>	<u>\$ 596,000</u>			
Cooperative Extension / Agriculture Experiment Station Division (CE/AES)								
1	Center Woods Complex Improvements	\$ 17,000	\$ -	\$ -	\$ 17,000			
2	System-wide Agricultural Research and Extension Centers Improvements, Phase I	30,000	-	-	30,000			
3	Relocate Animal-Based Facilities from Glade Road	41,000	-	-	41,000			
4	Plant and Environmental Sciences Research Facility (HABB-II)	91,000	-	-	91,000			
5	Renew Animal and Livestock Facilities	34,000	-	-	34,000			
	Total CE/AES Division Projects	<u>\$ 213,000</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 213,000</u>			
Total General Fund Capital Plan for 2024-2030					<u><u>\$ 729,100</u></u>	<u><u>\$ 18,700</u></u>	<u><u>\$ 61,200</u></u>	<u><u>\$ 809,000</u></u>

ATTACHMENT B

Nongeneral Fund Six-Year Capital Outlay Plan for 2024-2030

as of February 27, 2023

	Dollars in Thousands Escalated to July 2026 (23% Escalation Over July 2022)			
	General Fund	Nongeneral Fund	Debt	Total
Blacksburg & Roanoke Academic				
Architecture, Arts, & Design Renovations				
Renovate Architecture Annex	\$ -	\$ 5,200	\$ -	\$ 5,200
Renovate Media Building	-	4,400	-	4,400
Renovate Squires Performance Spaces	-	3,800	-	3,800
Expand Vivarium Spaces	-	-	54,000	54,000
FBRI Cancer Research Facility	-	112,000	-	112,000
Pamplin College of Business	-	28,100	52,700	80,800
Renovate G. Burke Johnston Student Center	-	5,000	5,000	10,000
Veterinary Teaching Hospital Expansion	-	29,000	20,000	49,000
	-	187,500	131,700	319,200
Blacksburg Auxiliaries & Campus Services				
Food Processing Center and Warehouse	\$ -	\$ -	\$ 15,000	\$ 15,000
Football Locker Room Renovation	-	5,000	-	5,000
Mail Services Facility	-	3,000	-	3,000
Parking Garage	-	9,700	26,300	36,000
Replace Kmart Lease	-	-	11,000	11,000
Rescue Squad Facility	-	6,000	-	6,000
Student Life Village Phase I:				
Dining Component	-	-	40,000	40,000
Recreation Component	-	-	10,000	10,000
Residential Component	-	20,000	230,000	250,000
Utilities and Infrastructure	-	-	50,000	50,000
	-	43,700	382,300	426,000
Greater Washington D.C., Metro Area				
Children's National Lease Expansion II	\$ -	\$ -	\$ 6,000	\$ 6,000
Research Space Reconfiguration at VTRC-A	-	-	5,000	5,000
Upfit Floor 6 of Innovation Campus Academic Building I	-	9,000	-	9,000
	-	9,000	11,000	20,000
Total Nongeneral Fund Capital Plan for 2024-2030	\$ -	\$ 240,200	\$ 525,000	\$ 765,200
GRAND TOTAL SIX-YEAR CAPITAL OUTLAY PLAN	\$ 729,100	\$ 258,900	\$ 586,200	\$ 1,574,200

Attachment C

Project Descriptions for the 2024-2030 Capital Outlay Plan

JOINT FINANCE AND RESOURCE MANAGEMENT COMMITTEE AND BUILDINGS AND GROUNDS COMMITTEE

February 27, 2023

General Fund Projects – Listed in Attachment A:

University Division

1. Virginia Tech-Carilion School of Medicine and Fralin Biomedical Research Institute Expansion

This project envisions 100,000 GSF of new construction to double the enrollment of the School of Medicine, and a backfill renovation of 51,000 gross square feet (GSF) of the vacated space to expand the Fralin Biomedical Research Institute.

2. Hahn Hall South Renovation and Expansion

Hahn Hall was constructed in 1988 with an addition in 2002, and no major renovations since construction was completed. The proposed project includes renovating the entire 71,100 GSF existing building for modern research laboratory and classroom space for the chemistry program and expanding with a 53,000 GSF addition to provide space for instructional classrooms, laboratory space, and support space for the physics program.

3. Derring Hall Renovation

Derring Hall was constructed in 1969 with only one major improvement via renovation since the original construction was completed. This request is to renovate and modernize this high demand instructional building for the physical sciences programs.

4. Newman Library Renovation

Newman Library was constructed in 1955 with an addition in 1980, with no major renovations since construction was completed. This project envisions constructing a new high-density library storage facility off-campus to hold volumes that need to be retained followed by a renovation of Newman Library to address outdated and undersized restroom and plumbing facilities, electrical systems, HAVC systems, and egress points to meet student demand for modern academic collaboration and interactive learning formats.

5. Robeson Hall Renovation

Robeson Hall was constructed in 1960 with no major improvements or renovations since construction was completed. The project includes renovating the 66,000 GSF existing building to provide modern laboratories and support space to meet the needs for instructional classrooms and laboratory space for the physics and materials sciences programs.

6. Classroom Renovations

This project will renovate 75,000 GSF of outdated and underutilized general assignment classroom space to modernize instructional spaces to meet the existing space demand for interactive learning and uphold the quality of education.

7. Life, Health, Safety, Code Compliance Package

The university's health, safety, and accessibility initiative for the campus is an ongoing effort, and the university includes a request for this program in each capital plan. This project continues progress on needed campus improvements including accessibility improvements and life safety repairs that are beyond the scope of the Maintenance Reserve program.

Cooperative Extension / Agricultural Experiment Station Division

1. Center Woods Complex Improvements

This project proposes an approximately 26,000 GSF of improvements to the Center Woods Complex for the Fisheries and Wildlife program, located off Plantation Road in Blacksburg.

2. System-wide Agricultural Research and Extension Centers Improvements, Phase I

This project will address the top priority infrastructure and renovation needs for three Agricultural Research and Extension Center sites: Eastern Shore, Southern Piedmont, and Tidewater. This phase of the project includes approximately a total of 71,000 GSF of improvements for the research and extension programmatic needs at these locations.

3. Relocate Animal-Based Facilities at Glade Road

This project relocates agricultural and animal-based assets from the Glade Road area to permanent locations near the existing facilities the College of Agriculture and Life Sciences and the Virginia-Maryland College of Veterinary Medicine. The project includes the construction of multiple new buildings of approximately 64,200 GSF and the demolition of outdated assets.

4. Plant and Environmental Sciences Research Facility (HABB-II)

This project is to provide a second 94,000 GSF modern research laboratory space that will focus on plant sciences and will include the laboratories, laboratory support spaces, research offices, faculty offices, and graduate student research space.

5. Renew Animal and Livestock Facilities

This project includes replacing approximately 100,000 GSF of outdated facilities primarily serving beef cattle, equine, sheep, and poultry. The replacement facilities consolidate functions and operational efficiencies.

Nongeneral Fund Projects – Listed in Attachment B:

Blacksburg Academic

Architecture, Arts, and Design Renovations

The university's College of Architecture, Arts, and Design is in need of renovations for the Media Building, the Performance Spaces in Squires Student center, and the Architecture Annex to provide updated spaces for the visual arts programs and the performing arts programs.

- Media Building renovation includes approximately 13,200 GSF,
- Squires Performance Spaces renovation includes approximately 11,300 GSF,
- Architecture Annex renovation includes approximately 15,800 GSF.

Expand Vivarium Spaces

This project proposes a new Vivarium facility constructed in the Corporate Research Center with an estimated size of approximately 77,000 GSF.

FBRI Cancer Research Facility

This project is for the construction of a new facility in Riverside location in Roanoke, Virginia to expand the Fralin Biomedical Research Institute's cancer research program. The funding plan calls for \$112 million of private gifts.

Pamplin College of Business

The project envisions approximately 100,000 GSF of new construction to house the Pamplin College of Business. The proposed building will provide the college expanded, modern instructional space sufficient to meet demand for interactive learning including a variety of general purpose and specialized classrooms, learning laboratories, and seminar rooms. The funding plan for this project includes \$40.4 million of private gifts.

Renovate G. Burke Johnston Student Center

This project will renovate the entire 24,500 GSF of the G. Burke Johnson Student Center for future academic use including academic advising and student success.

Veterinary Teaching Hospital Expansion

The project includes approximately 25,000 GSF of renovation and a 43,000 GSF additional of new construction at the veterinary hospital to meet the demand for client services and clinical instruction. The funding plan for this project includes \$15 million of private gifts.

Blacksburg Auxiliaries and Campus Services

Food Processing Center and Warehouse

This project is for a new 45,000 GSF food processing center and warehouse to provide Dining Services with modern space for central food preparation, bakeshop, and cold storage to meet the demands of campus dining centers.

Football Locker Room Renovation

This project will make improvements to the existing football locker rooms and related facilities. The funding plan for this renovation includes \$5 million of private gifts.

Mail Services Facility

This project will relocate the Mail Services facilities on or adjacent to campus.

Parking Garage

This project provides additional parking capacity to address unmet demand in the North Academic area of campus.

Replace Kmart Lease

This project will replace the current lease for university surplus property, mail services, the sign shop, and departmental storage.

Rescue Squad Facility

The Virginia Tech Rescue Squad needs new and expanded facilities to support its operations. The envisioned facility would address critical elements including temperature-controlled vehicle garage, office, bunk, lounge, storage, lockers, and restroom facilities.

Student Life Village Phase I

This project implements four high priority facilities to meet student expectations for campus services:

- Dining: The dining component is envisioned as 48,500 GSF of new construction.
- Recreation: The recreational component is envisioned as 23,000 GSF of new construction.
- Residential: The residential component is envisioned as 594,000 GSF of new residence hall construction.
- Utilities and Infrastructure: This project will provide the utilities and infrastructure for the site of the Student Life Village.

Greater Washington D.C., Metro Area

Children's National Lease Expansion II

This project includes exercising an expansion option to acquire more space for the research partnership between the Fralin Biomedical Research Institute and Children's National Research Institute located in Washington, DC.

Research Space Reconfiguration at VTRC-A

This project is for a 20,000 GSF redesign of research space for the Virginia Tech Research Center in Arlington. The reconfiguration will create designated space to serve the university's goals in furthering research related to national security.

Upfit Floor 6 of Innovation Campus Academic Building I

This project is for an approximately 30,000 GSF upfit to create additional space for academic programs at the Innovation Campus Academic Building including the relocation and expansion of the Pamplin College of Business programs.

ATTACHMENT D

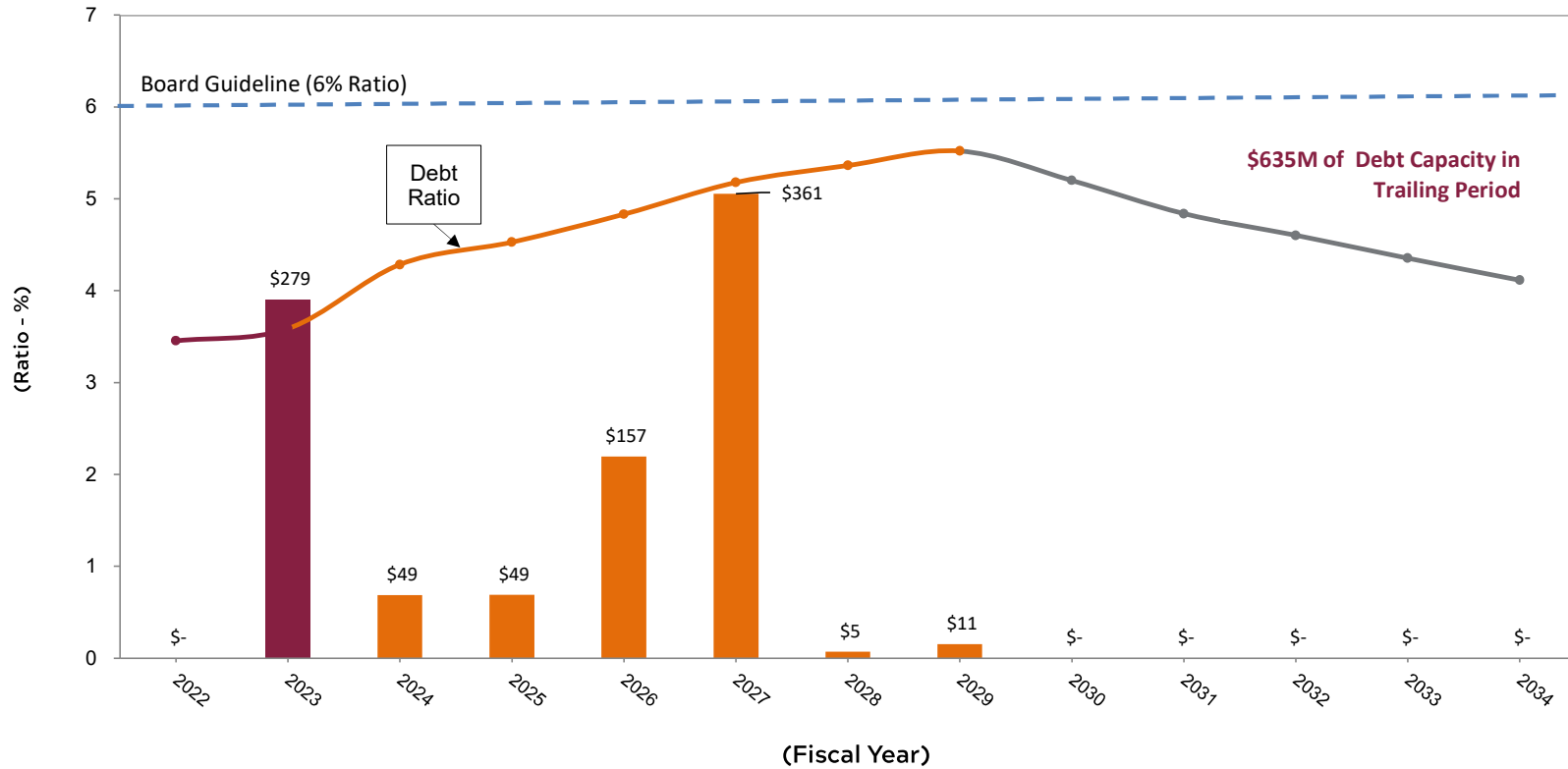
**Debt Allocations and Debt Capacity at a Six Percent Ratio
FOR THE 2024-2030 CAPITAL OUTLAY PLAN AND TRAILING PERIOD
as of February 27, 2023
(Dollars in Thousands)**

	Planning Period						Trailing Period					Total
	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34	
Authorized Projects												
<u>Scheduled Issuances</u>												
Innovation Campus - Academic Building I	\$5,836											\$5,836
Mitchell Hall	6,600											6,600
Building Envelope Repairs	15,685	\$17,935										33,620
	28,121	17,935	-	-	-	-	-	-	-	-	-	46,056
Placeholder Allocations for Six-Year Capital Outlay Plan												
Debt Issuances for Projects												
Food Processing Center and Warehouse	15,000											15,000
Parking Structure at Blacksburg Campus		26,300										26,300
SLV Phase I - Utilities and Infrastructure			\$50,000									50,000
Pamplin College of Business			52,700									52,700
VTC-School of Medicine & FBRI Expansion				\$25,000								25,000
Hahn Hall South Renovation and Expansion				36,000								36,000
Veterinary Teaching Hospital Expansion				20,000								20,000
SLV Phase I - Recreation				10,000								10,000
SLV Phase I - Dining				40,000								40,000
SLV Phase I - Residential				230,000								230,000
Renovate G. Burke Johnston Student Center					\$5,000							5,000
Long-Term Leases												
Children's National Lease Expansion, Phase II	6,000											6,000
Research Space Reconfiguration at VTRC-A		5,000										5,000
Expand Vivarium Spaces			54,000									54,000
Replace Kmart Lease						\$11,000						11,000
	21,000	31,300	156,700	361,000	5,000	11,000	-	-	-	-	-	586,000
Total Issuances	\$49,121	\$49,235	\$156,700	\$361,000	\$5,000	\$11,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$632,056
Remaining Debt Capacity at a Six Percent Ratio	\$440,980	\$386,624	\$313,127	\$225,166	\$178,245	\$137,550	\$237,324	\$355,747	\$442,040	\$537,557	\$635,510	

ATTACHMENT E

Graph of Debt Ratio Trend

FOR THE 2024-2030 CAPITAL OUTLAY PLAN AND TRAILING PERIOD



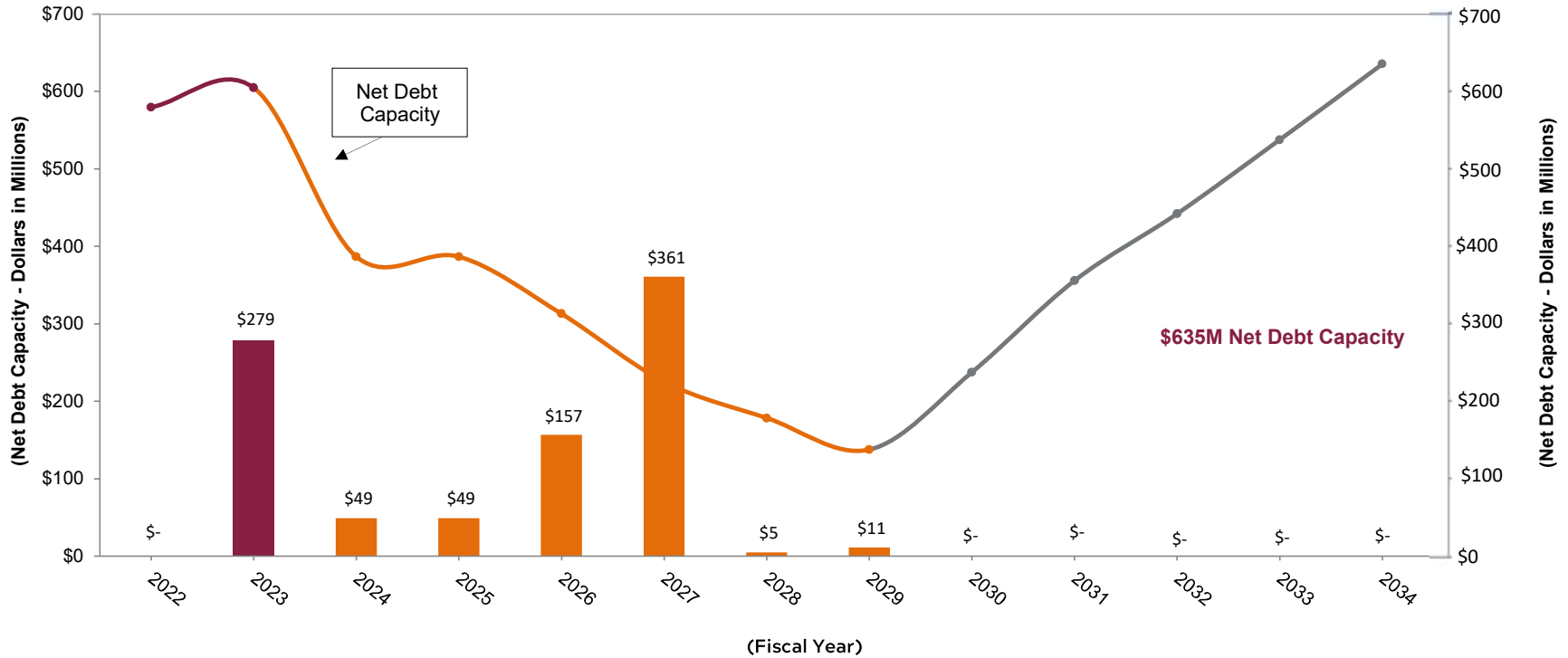
Maroon Line = FY22 FY23 Debt Burden Ratio
 Maroon Bar = FY23 Issuances
 Orange Line = Debt Burden Ratio for the Planning Period
 Orange Bars = Issuances for the Planning Period
 Gray Line = Debt Burden Ratio for the Trailing Period

ATTACHMENT F

Graph of Debt Capacity Trend at a Six Percent Ratio

FOR THE 2024-2030 CAPITAL OUTLAY PLAN AND TRAILING PERIOD

(Dollars in Millions)



Maroon Line = FY23 Net Debt Capacity
 Orange Line = Planning Period Net Debt Capacity
 Gray Line = Trailing Period Net Debt Capacity
 Maroon Bar = Actual Issuances
 Orange Bar = Projected Issuances

APPENDIX 1

Project Needs

Proposals from Deans and Vice Presidents 2024-2030 Six-Year Capital Outlay Plan Update December 7, 2022

College of Agriculture and Life Sciences

- 1 Hutcheson and Smyth Hall Renovations
- 2 Saunders and Seitz Hall Renovation
- 3 Litton-Reaves Vivarium Refurbishment
- 1 - 229 Revised System-wide AREC Improvements, Phase I
- 2 - 229 Relocate Animal-Based Facilities from Glade Road
- 3 - 229 Plant and Environmental Sciences Research Facility (HABB-II)
- 4 - 229 Renew Animal and Livestock Facilities
- 5 - 229 System-wide AREC Improvements, Phase II

College of Architecture, Arts, and Design

- 1 Music and Arts Building
- 2 College of Architecture, Arts, and Design Building
- 3 Road and Pedestrian Network to Plantation Road
- 4 Marching Virginians Facility Expansion
- 5 Plantation Road Research and Scholarship Buildings
- 6 Squires Renovations for Music Rehearsal and Practice Rooms
- 7 Renovate Armory
- 8 Renovate Squires Performance Spaces
- 9 Renovate Media Building
- 10 Renovate Media Annex
- 11 Renovate Architecture Annex

College of Engineering

- 1 Electrical and Computer Engineering Expansion Building
- 2 Transdisciplinary Biomedical Research Building
- 3 Patton Hall Renovation
- 4 Relocate Water Laboratory Facility
- 5 Expand student-team project space for Engineering
- 6 Large Projects Building
- 7 Relocate Turbo Lab and Advance Propulsion and Power Laboratory (APPL)

- 8 Blacksburg component to Hitt Research Building in Falls Church
- 9 Norris Hall Renovation
- 10 Support Shared Research Facilities (i.e. Renovate Robeson Hall)

College of Liberal Arts and Human Sciences

- 1 School of Education Space
- 2 Renovate Wallace Hall
- 3 Life Span and Family Services Research Center
- 4 Consolidate off-campus leases for TTAC and School of Education

College of Natural Resources and Environment

- 1 Cheatham Hall Renovation and Expansion
- 2 Paver patio outside of Cheatham Hall (southside)
- 1 - 229 Center Woods Complex Improvements
- 2 - 229 Brooks Center Renovation and Expansion

College of Science

- 1 Hahn Hall South Renovation and Expansion
- 2 Robeson Hall Renovation
- 3 Derring Hall Renovation
- 4 Instruction Swing Space for Robeson, Hahn, and Derring Renovations

College of Veterinary Medicine

- 1 Veterinary Teaching Hospital Expansion
- 2 Additional instructional space for the Public Health Program
- 3 Space to grow One Health Research Program

Graduate School

- 1 Graduate and professional student and family housing (Blacksburg)
- 1 Graduate and professional student and family housing (Roanoke)
- 1 Graduate and professional student and family housing (NCR)
- 2 Affordable child care space on or adjacent to campus
- 3 Large Auditorium / Multipurpose space (NCR)

Honors College

- 1 Honors College Core Elements
(F/S offices, seminar space, group rooms, studio space)
- 2 Honors College Academic Commons Shared Spaces
(study space, studio/maker spaces, conference rooms)
- 3 Honors College residential space

Innovation Campus

- 1 Innovation Campus: Upfit of Academic Building I
- 2 Innovation Campus: Innovation Building master lease
- 3 Regional central administrative services hub (Procurement, HR, Sponsored Programs)
- 4 VTRC-A Reconfiguration to advance NSI thematic alignment
- 5 Innovation Academic Building II (Health IT alignment)
- 6 Innovation Academic Building III

Pamplin College of Business

- 1 Pamplin College of Business
- 2 PCOB Relocating from Falls Church to Innovation Campus

Provost Office

- 1 General Assignment Classroom Renovations
- 2 Spaces for Transdisciplinary Engagement

University Libraries

- 1 Newman Library Renovation
- 2 Library Storage Facility Expansion

Virginia Tech-Carilion School of Medicine

- 1 Roanoke: New Medical School Building

Athletics

- 1 Football Locker Room Renovation
- 2 Cassell Coliseum Renovation and Enhancements
- 3 Tennis Center Improvements
- 4 Softball Park Improvements
- 5 Soccer/Lacrosse Field Improvements

VP for Advancement

- 1 Holtzman Alumni Center Refurbishments

VP for Campus Planning, Infrastructure, and Facilities

- 1 Campus Infinite Loop
- 2 Infrastructure & Utilities for Student Life Village
- 3 Perry Street Expansion
- 4 Northern 1/3 Western Perimeter Road
- 5 Heritage Protection and Preservation
- 6 Campus Green Links and Wayfinding
- 7 Infrastructure & Utilities for Life Sciences & Technology District
- 8 New high efficiency co-generation Energy Plant
- 9 Life, Health, Safety, Code Compliance Package

VP for Enterprise Administrative and Business Services

- 1 Mail Services Facility
- 2 Parking Garage
- 3 Rescue Squad Facility
- 4 Police Training Facility and Firing Range
- 5 System-wide Security Access Controls and Cameras

VP for Finance

- 1 Additional space for Hokie Passport Services

VP for Health Sciences and Technology

- 1 Fralin Biomedical Research Institute Expansion
- 2 FBRI Cancer Research Facility
- 3 Partnership with Children's National Medical Center III
- 4 Expand the HS&T Campus: New program - School for Climate Health Sciences
- 5 Expand the HS&T Campus: New program - Pharmaceutical Sciences
- 6 Commercial Incubator Facility
- 7 Center for Advanced Imaging Technologies

VP for Information Technology

- 1 Student Life Village Living Learning District Core Extension
- 2 Owens Cabling Center Relocation
- 3 Statewide Networking at each campus
- 4 Blacksburg Campus Infrastructure Expansion

VP for Outreach and International Affairs

- 1 Replacement space for International Affairs Offices
- 2 Relocate VP-OIA office back to campus
- 3 Consolidated Global Facility

VP for Research and Innovation

- 1 Expand Vivarium Spaces
- 2 Comprehensive Nanofabrication Facility
- 3 Expansion of National Security Facilities/CRC
- 4 Research Space Reconfiguration at VTRC-A

VP for Strategic Affairs and Diversity

- 1 Student Opportunities and Achievement Resources (SOAR) program space

VP for Strategic Initiatives

Senior Manager does not have any capital priorities.

VP for Student Affairs

- 1 Food Processing Center and Warehouse
- 2 Student Life Village Phase I
 - Student Life Village: Dining Component
 - Student Life Village: Recreation/Wellness Components
 - Student Life Village: Residential Component
 - Slusher Hall Demolition
- 3 Student Life Village Phase II
- 4 Renovate Pritchard Hall
- 5 Student Life Village Phase III
 - Oak Lane Residence Demolition (included in SLV Phase III plans)
- 6 Renovate Hoge Hall
- 7 Drillfield Residence Hall Renovations (Campbell/Eggleston)

Virginia Tech Foundation

- 1 University Mall / Glade Road Redevelopment
- 2 CRC Build-out

Staff Placements

- 1 Price Hall Renovation
- 2 Repurpose Pamplin Hall
- 3 Lane Hall Renovation
- 4 Renovate G. Burke Johnston Student Center
- 5 Campus Mobility and Parking
- 6 Transdisciplinary Research WAREhouse
- 7 Replace Kmart Lease
- 8 Burruss Hall Renovation
- 9 Collapsing the temporary recreation facility, e.g. 'Big White Tent'
- 10 Upfit Floor 6 of Innovation Campus Academic Building I
- 11 Property Acquisiton
- 12 Children's National Lease Expansion II

APPENDIX 2

Capital Needs Filtering Process 2024-2030 Capital Outlay Plan Update February 27, 2023

A critical task of the Six-Year Plan update cycle is categorizing the collected capital needs and organizing them based on predetermined qualifiers. The 118 unique capital needs are classified into one of five subcategories based on the definitions below.

1. **Non-capital items:** This category is for facility and space needs with a scope less than \$3 million and/or 5,000 gross square feet. The solution may be implemented through normal operating processes with university departments such as Procurement, Facility Operations, or Real Estate Management. This category contains 24 projects.
2. **Projects Logistically Beyond Six Years:** This category is for capital needs that require prerequisite projects to be completed before advancing or for needs that are too far down the senior management area's priority list to be considered actionable during the Six-Year capital planning period. This category contains 15 projects.
3. **Projects Referred for Further Internal Planning:** This category is composed of capital needs that have not satisfied the nine qualifiers established to determine if a project can be considered actionable as a capital outlay activity. This category holds 46 projects. The qualifiers for this category include the following:
 - i. Program space chart completed in assignable square feet and gross square feet;
 - ii. Space solution identified: renovation, demolition and replacement, or new space;
 - iii. Location and site identified;
 - iv. Acquisition method identified: lease, purchase, PPEA, CM@Risk, Design-Build, Hard Bid;
 - v. Parametric cost estimate calculated for rough order of magnitude;
 - vi. Operating pro forma completed for auxiliary enterprise and research projects;
 - vii. Funding plan for the entire project costs;
 - viii. If external debt is part of the funding plan, sources committed for the entire debt service period; and
 - ix. Private fund component approved by central Office of Advancement.
4. **Agency 208 Projects Actionable Within Six Years:** This category is for Agency 208 capital needs that have satisfied the preceding qualifiers to be considered actionable during the planning period. This category contains 28 projects.
5. **Agency 229 Projects Actionable Within Six Years:** This category is for Agency 229 capital needs that have satisfied the preceding qualifiers to be considered actionable during the planning period. This category contains 5 projects.