BOARD OF VISITORS

MEETING

August 22-23, 2022

Virginia Polytechnic Institute and State University
Board of Visitors Retreat/Meeting Schedule
August 21-23, 2022
Hampton, Newport News, and Virginia Beach

**Sunday, August 21:** *(Business casual attire—more casual than business)*

- Breakfast on your own
- 8:00 a.m. Bus departs Newport News Marriott at City Center, stops at Norfolk International Airport to pick up Board members, and continues to Virginia Beach.
- 9:15 a.m. BOV members arrive at the Hampton Roads Agricultural Research and Extension Center (1444 Diamond Springs Road, Virginia Beach, VA 23455)
- 9:30 a.m. **Orientation – Introduction by Rector Long, then FOIA briefing by Kay Heidbreder** (30 minutes)
  - **Retreat Session I – Freedom of Speech/Academic Freedom** to include a break-out session for discussion of two scenarios
- 11:40 a.m. **Presentation/Tour** of the Hampton Roads Agricultural Research and Extension Center
  - Lunch for Board members and invited administrators
- 1:30 p.m. **Board Retreat, Session II – Access and Affordability.**
- 3:30 p.m. **Board Retreat, Session III – The Landscape for Intercollegiate Athletics and Implications for Virginia Tech.**
- 5:30 p.m. Depart by bus for Suffolk
- 6:00 p.m. Dinner – Decoys Seafood, 3305 Ferry Road, Suffolk, VA (757-977-1081) (invitation only)
- 8:30 p.m. Travel to Newport News Marriott at City Center (and check in for those arriving Sunday) (740 Town Center Drive, Newport News, VA 23606)

**Monday, August 22:** *(Business casual attire—more business than casual; comfortable shoes)*

- 7:30 a.m. **Buffet Breakfast** in Rotunda, Newport News Marriott at City Center
  - **Executive Committee** dines separately with President Sands in Blue Point Room I
- 8:30 a.m. Depart hotel by bus for Virginia Seafood Agricultural Research and Extension Center (102 S. King Street, Hampton, VA 23669)
- 9:00 a.m. **Presentation/Tour** of Seafood AREC (and walk to VT Coastal Collaborator, time permitting)
- 10:45 a.m. Depart Seafood AREC by bus for **Lunch** for Board members and invited administrators
- 11:00 a.m. Lunch at Al Fresco, 11710 Jefferson Avenue, Newport News, VA (757-873-0644)
- 12:30 p.m. Depart Al Fresco’s by bus for Virginia Tech Newport News Center (700 Tech Center Parkway, Suite 305, Newport News, VA 23606)
- 12:45 p.m. Tour Newport News Center/Tech Center Research Park
Board of Visitors Retreat/Meeting Schedule
August 21-23, 2022
Hampton, Newport News, and Virginia Beach

Monday, August 22 (continued):

1:30 p.m.  Academic, Research, & Student Affairs Committee meets in Closed and Open Sessions in the Maroon & Orange Room
1:30 p.m.  Building & Grounds Committee meets in Open Session in the Hokie Stone Room
1:30 p.m.  Finance & Resource Management Committee meets in Closed and Open Sessions in the Conference Room

3:45 p.m.  Buildings & Grounds and Finance & Resource Management Committees meet jointly in Open Session in the Hokie Stone Room

4:15 p.m.  Presentation on JLAB (Thomas Jefferson National Accelerator Facility) by Stuart Henderson, Director, in Maroon & Orange Room – Open Session

4:30 p.m.  Depart by bus for Tour of JLab – for BOV members only (due to space limitations) (12000 Jefferson Avenue, Newport News, VA) (Special clothing instructions will be provided to participants)

Note:  Proof of COVID vaccination (two doses) will be required beforehand. BOV members will receive an email directly from JLAB with instructions.

4:30 p.m.  Others will return by bus to Newport News Marriott at City Center

6:00 p.m.  Depart by bus for Dinner (from JLAB and the Marriott)
6:15 p.m.  Dinner – Schlesinger’s Steak House, 1106 William Styron Square, Newport News (757-599-4700)

Tuesday, August 23:  (Business casual attire; all meetings are at the Virginia Tech Newport News Center, unless otherwise noted. Check out of your room before breakfast and have luggage held at the front desk.)

7:30 a.m.  Compliance, Audit, & Risk Committee meets in Closed and Open Sessions in Pearl Ballroom Salon I, Newport News Marriott at City Center. Buffet breakfast will be provided.

8:00 a.m.  Buffet breakfast for remainder of Board and other participants in Marriott Rotunda

9:00 a.m.  Depart Marriott by bus for Virginia Tech Newport News Center

9:15 a.m.  Information Session for Full Board in Maroon & Orange Room (Open Session) (Livestreamed) Agenda:  Retreat follow-up discussion, research competitive growth, foundation partnership, IT transformation dashboard, constituent reports

11:15 a.m.  Committee Chairs Meeting in Maroon & Orange Room (Open Session)

11:50 p.m.  Depart VT Newport News Center for Marriott
12:00 p.m.  Lunch for Board Members and invited administrators in Pearl Ballroom Salon I, Newport News Marriott at City Center.

1:00 p.m.  Depart Marriott by bus for Virginia Tech Newport News Center (take luggage with you)
1:15 p.m.  Full Board Meeting in Maroon & Orange Room (Open Session Livestreamed)

4:00 p.m.  (time approximate) Meeting adjourns. Board members depart Newport News. VT planes depart from Newport News/Williamsburg International Airport
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- Graduate/Professional Student Representative to the Board - Anna Buhle
- Staff Representative to the Board - Serena Young
- Administrative and Professional Faculty Representative to the Board - Holli Drewry
- Faculty Representative to the Board - Robert Weiss

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Tab T  **Motion to Return to Open Session**

*These items have been reviewed by the Academic, Research, and Student Affairs Committee and the Finance and Resource Management Committee of the Board of Visitors.

**These items have been reviewed by the Buildings and Grounds Committee and the Finance and Resource Management Committee of the Board of Visitors.

There is no public comment period at this meeting.
CURRENT MEMBERS OF THE BOARD OF VISITORS:

Mr. Edward H. Baine, Vice-Rector
Ms. Shelley B. Barlow
Mr. David L. Calhoun
Ms. Carrie H. Chenery
Ms. Sandy C. Davis
Ms. Greta J. Harris
Mr. Charles T. Hill
Mr. Brad Hobbs
Ms. Anna L. James
Ms. Letitia A. Long, Rector
Ms. Sharon Brickhouse Martin
Dr. Melissa Nelson
Mr. L. Chris Petersen
Mr. Jeff E. Veatch

Undergraduate Student Representative: Jamal Ross
Graduate/Professional Student Representative: Anna Buhle
Staff Senate Representative: Serena Young
Administrative and Professional Faculty Representative: Holli Drewry
Faculty Senate Representative: Robert Weiss

ADMINISTRATIVE STAFF:

Dr. Timothy D. Sands: President
Dr. Cyril R. Clarke: Executive Vice President and Provost
Dr. Chris Kiwus: Interim Senior Vice President and Chief Business Officer

Ms. Lynsay Belshe: Vice President for Enterprise Administrative and Business Services
Dr. Lance Collins: Vice President and Executive Director for the Innovation Campus
Dr. Michael J. Friedlander: Vice President for Health Sciences and Technology
Mr. Bryan Garey: Vice President for Human Resources
Dr. Guru Ghosh: Vice President for Outreach and International Affairs
Dr. Frances B. Keene: Interim Vice President for Student Affairs
Dr. Chris Kiwus: Vice President for Campus Planning, Infrastructure, and Facilities
Dr. Steven H. McKnight: Vice President for Strategic Alliances
Dr. Scott F. Midkiff: Vice President for Information Technology & Chief Information Officer
Mr. Ken Miller: Vice President for Finance
Ms. Kim O’Rourke: Vice President for Policy and Governance & Secretary to the Board
Mr. Charles D. Phlegar: Vice President for Advancement
Dr. Menah Pratt-Clarke: Vice President for Diversity, Inclusion, and Strategic Affairs
Dr. Daniel Sui: Senior Vice President for Research and Innovation
Dr. Lisa J. Wilkes: Vice President for Strategic Initiatives and Special Assistant to the President
Mr. Christopher Yianilos: Vice President for Government and Community Relations

Ms. Kay K. Heidbreder: University Legal Counsel
Ms. Sharon M. Kurek: Executive Director of Audit, Risk, and Compliance
Committee Assignments for 2022-23

Academic, Research, and Student Affairs Committee
Melissa Nelson, Committee Chair
Carrie Chenery
Sandy Davis

Buildings and Grounds Committee
Shelley Barlow, Committee Chair
Greta Harris
C. T. Hill
Chris Petersen

Compliance, Audit, and Risk Committee
Sharon Martin, Committee Chair
Dave Calhoun
Jeff Veatch

Finance and Resource Management Committee
Ed Baine, Vice Rector, Committee Chair
Brad Hobbs
Anna James

Governance and Administration Committee
Chris Petersen, Committee Chair
Shelley Barlow
Greta Harris
C. T. Hill

Executive Committee (6 members)
Tish Long, Rector
Melissa Nelson, Academic, Research, and Student Affairs Committee Chair
Shelley Barlow, Buildings & Grounds Committee Chair
Sharon Martin, Compliance, Audit, and Risk Committee Chair
Ed Baine, Vice Rector, Finance and Resource Management Committee Chair
Chris Petersen, Governance and Administration Committee Chair

The Rector is an ex officio member of all standing committees.

The constituent representatives will sit in on the committee meetings of their choice:
Faculty Senate President – Robert Weiss
Administrative and Professional Faculty Senate President – Holly Drewry
Staff Senate President – Serena Young
Graduate/Professional Student Representative – Anna Buhle
Undergraduate Student Representative – Jamal Ross
Virgina Tech Board of Visitors Meeting

Retreat Agenda

Sunday, August 21, 2022
9:30 a.m. – 5:30 p.m.

Hampton Roads Agricultural Research and Extension Center
(1444 Diamond Springs Road, Virginia Beach, VA 23455)

Orientation

Session I – Freedom of Speech/Academic Freedom
Presentation/Tour of the Hampton Roads Agricultural Research and Extension Center

Session II – Access and Affordability

Session III – The Landscape for Intercollegiate Athletics and Implications for Virginia Tech
Virginia Tech Board of Visitors Meeting

Information Session

Tuesday, August 23, 2022
9:15 a.m.

Maroon & Orange Room
Virginia Tech Newport News Center

Retreat Follow-Up Discussion
- Ms. Tish Long, Rector
- Ms. Carrie Chenery, Retreat Planning Committee
- Ms. Sharon Martin, Retreat Planning Committee

# Research: Competitive Growth
- Dr. Dan Sui, Senior Vice President for Research and Innovation

+ Foundation Partnership
- Justice Elizabeth McClanahan, Chief Executive Officer of Virginia Tech Foundation

# IT Transformation Dashboard
- Dr. Scott Midkiff, Vice President for Information Technology & Chief Information Officer
- Mr. Zo Qazi, IT Transformation Program Director

Constituent Reports
- Mr. Jamal Ross, Undergraduate Student Representative to the Board
- Ms. Anna Buhle, Graduate Student Representative to the Board
- Ms. Serena Young, Staff Representative to the Board
- Ms. Holli Drewry, Administrative and Professional Faculty Representative to the Board
- Dr. Robert Weiss, Faculty Representative to the Board

+ EDA Grant Discussion (Possible topic)
- Dr. John Provo, Director, Center for Economic and Community Engagement
Board Members

MR. DAVID CALHOUN is president and chief executive officer of The Boeing Company, a leading global aerospace company and provider of commercial airplanes; defense, space and security systems; and global services. Calhoun was appointed Boeing president and chief executive in January 2020. He has served as a member of Boeing’s Board of Directors since 2009 and served as board chairman from October to December 2019. Calhoun has extensive expertise in a wide array of strategic, business, safety, and regulatory matters across several industries as a result of his executive, management and operational experience. Previously, he served as senior managing director and head of portfolio operations at The Blackstone Group, as executive chairman of the board for Nielsen Holdings, and as vice chairman of General Electric Company (GE) and president and chief executive officer of GE Infrastructure. Calhoun is a member of the board of directors of Caterpillar Inc. and a member of the Business Roundtable, an association of chief executive officers of leading U.S. companies. He also is a member of Virginia Tech’s Pamplin Advisory Council and is coauthor of the book “How Companies Win.”

MS. SANDY CUPP DAVIS is a native Virginian and resides in Blacksburg. She recently retired from ownership of BCR Property Management after almost forty years of operation in Radford and Blacksburg. Ms. Davis is an active supporter of Virginia Tech, including providing the Indoor Practice Field, which is named in memory of her late husband, Patrick D. Cupp. Also among her contributions to Virginia Tech is the Street Davis Performance Hall in the Moss Arts Center. Ms. Davis was awarded membership as an Honorary Alumna of Virginia Tech and received the William H. Ruffner Award from Virginia Tech. She is also a member of the university’s Ut Prosim Society and Legacy Society. Ms. Davis served as chair of the Virginia Tech Foundation Board of Directors as well as the Virginia Tech Athletic Fund Board of Directors.

MR. BRAD HOBBS For over 25 years, Brad Hobbs has served as the President and CEO of Hobbs & Associates, a family-owned, independent commercial heating, ventilation, and air conditioning (HVAC) business founded in 1984. Hobbs & Associates works with its business partners to create enduring community infrastructure such as schools and colleges, hospitals, military and municipal structures, entertainment venues, hotels, and multi-family housing. Brad led the company to become one of the nation’s largest engineered product distribution companies with ten offices serving Virginia, Tennessee, Maryland, and Washington DC employing over 170 employees. In addition to managing Hobbs & Associates, Brad has launched several other successful businesses in the Southeast. As a prolific fundraiser and generous donor, Brad continues to invest in the communities where Hobbs’ families and customers live and work. He supports numerous philanthropic organizations through Board service and leadership including the American Heart Association - Hampton Roads, Neptune Festival Board of Directors, Norfolk Christian Schools, Salvation Army, Virginia Beach United Methodist Church, and the Virginia Tech Athletic Foundation. He is also very active in the HVAC industry serving on Boards with key HVAC manufacturing partners. Brad was honored to
serve on Governor Glenn Youngkin’s transition team and delighted to be appointed to the Virginia Tech Board of Visitors. He graduated from Virginia Tech in 1990 with a degree in Finance. Brad is committed to his faith, family, business, and community and enjoys attending family events with his wife Molly in support of their five children as well as playing tennis and golf.

**Board Constituents**

**Mr. Jamal Ross**  
Undergraduate Student Representative

Jamal D. Ross is a current 4th-year student at Virginia Polytechnic Institute and State University pursuing a dual degree in Political Science with a legal studies option and Philosophy, Politics, and Economics, which is housed within the College of Liberal Arts and Human Sciences.

Jamal reigns from Amelia Courthouse, Virginia—a small rural town located in central Virginia and about a 3-hour drive from the town of Blacksburg. As an undergraduate student, Jamal finds joy in working within different organizations on and off campus and with campus partners that promote inclusivity, engagement, and Ut Prosim. He is a member of Phi Alpha Delta (Pre-law Fraternity), Pi Sigma Alpha, Student Alumni Association, College of Liberal Arts and Human Sciences Ambassador, PPE Ambassador, Undergraduate Student Senate, Hokie Ambassadors, Weeks of Welcome Leader, and a Ut Prosim Fellow in addition to serving as the 2022-23 Board of Visitors Undergraduate Representative. He also serves as the Director of Arts and Culture for the Black Student Alliance and Philanthropy/Fundraising Chair for Black Organizations Council (BOC). His motivation for involvement and leadership thrives from working to make not only an impact but a positive impact with great intention. His main focus and leadership approach is centered around the four pillars of representation, exemplification, implementation, and diversification.

**Ms. Anna Buhle**  
Graduate Student Representative

Anna Buhle is a fourth year medical student at Virginia Tech Carilion School of Medicine. She completed her undergraduate education at Virginia Tech, majoring in both biochemistry and microbiology. She has served as the co-Vice President of the Group on Women in Medicine and Science, the President of the VTCSOM Honor Board, co-President of VTCSOM chapter of Alpha Omega Alpha Medical Honor Society, and served on several task forces focused on improving graduate and professional student education and learning environment. Following medical school, she will be starting her residency in Obstetrics and Gynecology. She looks forward to representing and advocating for VT graduate and professional students on all campuses. Please reach her at banna95@vt.edu.
MINUTES

June 7, 2022

The Board of Visitors of Virginia Polytechnic Institute and State University met on Tuesday, June 7, 2022, at 1:15 p.m. in Torgersen Hall Boardroom (Room 2100), Virginia Tech Campus, Blacksburg, Virginia.

Present
Edward H. Baine (Vice Rector)
Shelley Butler Barlow
Carrie H. Chenery
C. T. Hill
Anna L. James
Letitia A. Long (Rector)
Sharon Brickhouse Martin
Melissa Byrne Nelson
L. Chris Petersen
Mehul Sanghani
Horacio A. Valeiras
Jeff Veatch
Preston M. White

Absent
Greta J. Harris

Constituent Representatives:
Holli Drewry, Administrative and Professional Faculty Representative
Paolo Fermin, Undergraduate Student Representative
Phil Miskovic, Graduate/Professional Student Representative
Robert Weiss, Faculty Representative
Serena Young, Staff Representative

Also present were the following: President Timothy Sands, Kim O’Rourke (Secretary to the Board), Janice Austin, Callan Bartel, Lynsay Belshe, Lori Buchanan, Anna Buhle, Al Cooper, Corey Earles, Juan Espinoza, Kari Evans, Ron Fricker, Bryan Garey, Cathy Grimes, Rebekah Gunn, Tony Haga, Ryan Hamilton, Trish Hammer, Kay Heidbreder, Frances Keene, Elizabeth McClanahan, Nancy Meacham, Scott Midkiff, Ken Miller, Bernadette Mondy, Mike Mulhare, April Myers, Mark Owczarski, James Perkins, Charlie Phlegar, Ellen Plummer, Robin Queen, Jamal Ross, Julia Ross, Rick Sparks, Aimee Surprenant, Jon Clark Teglas, Rob Viers, Tracy Vosburgh, and Lisa Wilkes.

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There was no public comment period.

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Rector Long convened the meeting and welcomed everyone. She introduced Al Cooper, Executive Director of Business and Management Systems, and Rob Viers, Classroom Building AV Manager, to review the technical upgrades that have been done in the Torgersen Boardroom to meet new legislative requirements to livestream board meetings beginning July 1, 2022.

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**APPROVAL/ACCEPTANCE OF THE CONSENT AGENDA OPEN ITEMS**
*(Refer to Attachments A through X)*

[*Note: Items on the consent agenda are matters of importance that have been reviewed carefully by members of the board in preparation for the meeting but have been determined not to require discussion by the board or its committees.]*

Rector Long asked for a motion to approve/accept the consent agenda open session items as listed. The motion was made by Dr. Nelson, seconded by Ms. Martin, and approved unanimously.

- Minutes from April 4, 2022, BOV Meeting
- Minutes from June 6, 2022, Executive Committee Meeting - Attachment A
- Report of May 4, 2022, Ad Hoc Committee Meeting - Attachment B
- Report of Information Session on June 6, 2022 - Attachment C
- Academic, Research, and Student Affairs Committee General Report (6/7/22) - Attachment D
- Buildings and Grounds Committee General Report (6/7/22) - Attachment E
- Compliance, Audit, and Risk Committee General Report (6/6/22) - Attachment F
- Finance and Resource Management Committee General Report (6/7/22) - Attachment G
- Governance and Administration Committee General Report (6/6/22) - Attachment H

*From the Academic, Research, and Student Affairs Committee Consent Agenda:*

- *Resolution to Approve 2022-23 Pratt Fund Budgets* - Attachment I
- Resolution to Approve 2022-2023 Student Code of Conduct - Attachment J
• Resolution to Approve Department of Real Estate in the Pamplin College of Business - Attachment K

• Resolution to Approve Revisions to Policy 13010: Individual Conflicts of Interest and Commitment - Attachment L

• Resolution to Approve a Policy for the Award of Posthumous Degrees - Attachment M

• Resolution to Revise Faculty Handbook Section 2.17.12 Related to Change of Duty Station and Special Leave - Attachment N

• Resolution to Clarify Language in the Faculty Handbook Regarding Extending the Tenure and Continued Appointment Clock - Attachment O

• Resolution to Revise Faculty Handbook Language Regarding Appeal of Probationary Non-Reappointment - Attachment P

From the Buildings and Grounds Committee Consent Agenda:

• Resolution to Approve a Public Utility Easement to the Town of Blacksburg – Fiber at the Virginia Tech Corporate Research Center - Attachment Q

• Resolution to Approve a Public Utility Easement to the Town of Blacksburg – Squires Parking Lot - Attachment R

• Resolution to Approve a Joint Appointment to the New River Valley Regional Water Authority - Attachment S

From the Finance and Resource Management Committee Consent Agenda:

• Resolution to Approve 2022-23 Hotel Roanoke Conference Center Commission Budget - Attachment T

• Resolution to Appoint University Commissioner to the Hotel Roanoke Conference Center Commission - Attachment U

Consent agenda information item; no Board of Visitors action required:

• Notification of Provisions of the Appropriation Act Relating to Indebtedness of State Agencies - Attachment V

• Atlantic Coast Conference Governing Board Certification - Attachment W

• Report of Research and Development Disclosures - Attachment X
Rector Long announced that the Board of Visitors had received a resolution from the Hotel Roanoke Conference Center Commission commending Dr. Guru Ghosh for his service on the commission upon the conclusion of his service.

RESOLUTION TO DELEGATE AUTHORITY TO THE EXECUTIVE COMMITTEE

Rector Long noted that at the board’s information session on June 6, presentations on the proposed 2022-23 tuition and fees and the proposed 2022-23 operating and capital budgets were given to the board in preparation for the board’s Executive Committee meeting on June 14. Approval of the following resolution was moved by Mr. White, seconded by Ms. James, and passed unanimously.

Resolution to Delegate Authority to the Executive Committee

That the resolution delegating authority to establish tuition and fee rates for the 2022-23 academic year and to approve the university’s FY 2022-23 operating and capital budgets to the Executive Committee of the Board of Visitors without the need for subsequent ratification by the full Board of Visitors be approved. (Copy filed with the permanent minutes and marked Attachment Y.)

REPORT OF THE ACADEMIC, RESEARCH, AND STUDENT AFFAIRS COMMITTEE

Rector Long called on Dr. Nelson for the report of the Academic, Research, and Student Affairs Committee.

At the conclusion of her report, on behalf of the board, Dr. Nelson thanked Dr. Frank Shushok, Vice President for Student Affairs, and Dr. Byron Hughes, Dean of Students, for their exemplary service to Virginia Tech as they prepare to depart from the university.

REPORT OF THE BUILDINGS AND GROUNDS COMMITTEE

Rector Long called on Ms. Barlow for the report of the Buildings and Grounds Committee.
REPORT OF THE COMPLIANCE, AUDIT, AND RISK COMMITTEE

Rector Long called on Ms. Martin for the report of the Compliance, Audit, and Risk Committee.

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REPORT OF THE FINANCE AND RESOURCE MANAGEMENT COMMITTEE

Rector Long called on Mr. Baine for the report of the Finance and Resource Management Committee.

As part of the Finance and Resource Management Committee report by Mr. Baine and with the endorsement of the Buildings and Grounds Committee, approval of the following resolution was moved by Mr. Baine, seconded by Ms. Barlow, and passed unanimously.

Resolution to Supplement the Student Wellness Improvements Authorization

That the resolution authorizing Virginia Tech to complete the Student Wellness Improvements project be approved. (Copy filed with the permanent minutes and marked Attachment Z.)

* * * * *

As part of the Finance and Resource Management Committee report, approval of the following resolution was moved by Mr. Baine, seconded by Mr. Valeiras, and passed unanimously.

Approval of 2022-23 Faculty Compensation Plan

That the proposed 2022-23 Faculty Compensation Plan be approved. (Copy filed with the permanent minutes and marked Attachment AA.)

* * * * *

As part of the Finance and Resource Management Committee report, approval of the following resolution was moved by Mr. Baine, seconded by Mr. Valeiras, and passed unanimously.
Approval of Year-to-Date Financial Performance Report  
(July 1, 2021 – March 31, 2022)

That the report of income and expenditures for the University Division and the Cooperative Extension/Agricultural Experiment Station Division for the period of July 1, 2021, through March 31, 2022, and the Capital Outlay Report be approved. (Copy filed with the permanent minutes and marked Attachment BB.)

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REPORT OF THE GOVERNANCE AND ADMINISTRATION COMMITTEE

Rector Long called on Mr. Petersen for the report of the Governance and Administration Committee.

As part of the Governance and Administration Committee report, approval of the following resolution was moved by Mr. Petersen, seconded by Ms. James, and passed unanimously.

Resolution to Approve the Revised System of Shared Governance at Virginia Tech and the New University Council Constitution and Bylaws

That the Resolution to Revise the System of Shared Governance at Virginia Tech and Approve the New University Council Constitution and Bylaws be approved. (Copy filed with the permanent minutes and marked Attachment CC.)

A request was made that the Commission on Equal Opportunity and Diversity (CEOD) adopt a practice to designate one of its four positions on University Council to be held by the Black Caucus representative on CEOD.

* * * * *

As part of the Governance and Administration Committee report, approval of the following resolution was moved by Mr. Petersen, seconded by Ms. Martin, and passed unanimously.

Resolution to Revise the Faculty Senate Constitution and Bylaws

That the Resolution to Revise the Faculty Senate Constitution and Bylaws be approved. (Copy filed with the permanent minutes and marked Attachment DD.)

* * * * *
As part of the Governance and Administration Committee report, approval of the following resolution was moved by Mr. Petersen, seconded by Mr. Valeiras, and passed unanimously.

Resolution for Approval of the Undergraduate Student Senate Governing Documents

That the Resolution for Approval of the Undergraduate Student Senate Governing Documents be approved. (Copy filed with the permanent minutes and marked Attachment EE.)

* * * * *

As part of the Governance and Administration Committee report, approval of the following resolution was moved by Mr. Petersen, seconded by Ms. Martin, and passed unanimously.

Resolution to Amend the Bylaws of the Virginia Tech Board of Visitors, Effective July 1, 2022

That the Bylaws of the Virginia Tech Board of Visitors be amended as proposed in the attached document, effective July 1, 2022. (Copy filed with the permanent minutes and marked Attachment FF.)

* * * * *

As part of the Governance and Administration Committee report, approval of the following resolution was moved by Mr. Petersen, seconded by Ms. Martin, and passed unanimously.

Resolution to Amend the Bylaws of the Virginia Tech Board of Visitors, Effective September 1, 2022

That the Bylaws of the Virginia Tech Board of Visitors be amended as proposed, effective September 1, 2022. (Copy filed with the permanent minutes and marked Attachment GG.)

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REPORT OF THE AD HOC COMMITTEE ON COMMITTEES

Rector Long called on Mr. Petersen for the report of the Ad Hoc Committee, which conducted a review of the current board and committee structure and meeting format. (Refer to Attachment B.)
PRESIDENT'S REPORT

A copy of President Sands' remarks to the Board of Visitors is filed with the permanent minutes and marked Attachment HH.

CONSTITUENT REPORTS (no action required)

- Undergraduate Student Representative - Paolo Fermin
- Graduate and Professional Student Representative - Phil Miskovic
- Staff Representative - Serena Young
- Administrative and Professional Faculty Representative - Holli Drewry
- Faculty Representative - Robert Weiss

(Copies filed with the permanent minutes and marked Attachment II.)

Following on the staff report, Rector Long requested that a plan be developed to accelerate expansion of the minimum hourly wage rate of $15 to include all employees. Dr. Kiwus replied that work was already under way and stated that an update would be provided to the board.

Motion to Begin Closed Session

Mr. Baine moved that the Board convene in a closed meeting, pursuant to § 2.2-3711, Code of Virginia, as amended, for the purposes of discussing:

1. Appointment of faculty to emeritus status, the consideration of individual salaries of faculty, consideration of endowed professors, review of departments where specific individuals’ performance will be discussed, and consideration of personnel changes including appointments, resignations, tenure, and salary adjustments of specific employees and faculty leave approvals.

2. The status of current litigation and briefing on actual or probable litigation.

3. Fundraising activities.

4. Special awards.

all pursuant to the following subparts of 2.2-3711 (A), Code of Virginia, as amended, .1, .7, .9, and .11.
The motion was seconded by Ms. James and passed unanimously.

* * * * *

CLOSED SESSION REPORTS
(No Board action required)

1. Litigation report – Ms. Kay Heidbreder
2. Fundraising report – Mr. Charlie Phldegar

* * * * *

Motion to Return to Open Session

Following the closed session, members of the public were invited to return to the meeting. Rector Long asked Mr. Baine to make the motion to return to open session. Mr. Baine made the following motion:

WHEREAS, the Board of Visitors of Virginia Polytechnic Institute and State University has convened a closed meeting on this date pursuant to an affirmative recorded vote and in accordance with the provision of The Virginia Freedom of Information Act; and

WHEREAS, Section 2.2-3712 of the Code of Virginia requires a certification by the Board of Visitors that such closed meeting was conducted in conformity with Virginia law;

NOW, THEREFORE, BE IT RESOLVED that the Board of Visitors of Virginia Polytechnic Institute and State University hereby certifies that to the best of each member's knowledge: (i) only public business matters lawfully exempted from open meeting requirements by Virginia law were discussed in the closed meeting to which this certification resolution applies, and (ii) only such public business matters as were identified in the motion convening the closed meeting were heard, discussed, or considered by the Board of Visitors.

The motion was seconded by Mr. Valeiras and passed unanimously.

* * * * * * * * * *

Upon motion by Dr. Nelson and second by Mr. Valeiras, approval was given to the resolutions for Facility Namings (6) as considered in closed session. Mr. Sanghani and Mr. Veatch recused themselves from the discussion and abstained from voting. (Copies filed with the permanent minutes and marked Attachment JJ.)

* * * * * * *
Upon motion by Mr. Sanghani and second by Mr. Baine, approval was given to the following group of resolutions as considered in closed session. Items marked with an asterisk were considered by the Academic, Research, and Student Affairs Committee and the Finance and Resource Management Committee.

- Resolution to Approve Appointments to Emeritus/a Status (3) - Attachment KK
- Resolutions to Approve Appointments to Endowed Chairs, Professorships, or Fellowships (6) - Attachment LL
- Resolutions to Approve Reappointments to Alumni Distinguished Professor (2) - Attachment MM
- Resolution to Approve Appointments with Tenure (6) - Attachment NN
- *Resolution to Approve 2021-22 Promotion, Tenure, and Continued Appointment Program - Attachment OO
- *Resolution to Ratify 2022-23 Faculty Salary Program as amended effective July 10, 2022, contingent upon approval of the state budget - Attachment PP
- *Resolution to Ratify Personnel Changes Report - Attachment QQ

(Copies are filed with the permanent minutes and marked as noted above.)

Rector Long, along with President Sands, thanked Mr. Valeiras and Mr. Sanghani for their service on the board as their second terms come to an end. Additionally, she thanked Mr. Baine and Mr. White for their service as their first terms come to an end. She announced that Ms. Barlow was re-elected as President of the Board of the Virginia Department of Agriculture and Consumer Services and thus would serve another year on the Board of Visitors.

Rector Long presented certificates of appreciation to the two constituent representatives whose terms are ending: Paolo Fermin and Phil Miskovic. She then welcomed Jamal Ross and Anna Buhle as the incoming Undergraduate and Graduate/Professional Student Representatives, respectively. Rector Long announced that Serena Young, Holli Drewry, and Robert Weiss would continue in their representative roles for another year.

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**Election of Officers for 2022-2023**

Rector Long called on Mr. Valeiras for a report of the Nominating Committee for officers of the board. On behalf of the Nominating Committee, which Mr. Valeiras chaired, and which included Ms. Harris and Mr. Hill, Mr. Valeiras presented the following nominees:

**Rector:** Tish Long  
**Vice Rector:** Ed Baine
Rector Long asked if there were any other nominations from the floor. There being no additional nominations, Mr. Valeiras made a motion for approval of the nominees presented, contingent upon Mr. Baine’s reappointment to a second term on the board by Governor Youngkin. The motion was seconded by Dr. Nelson and passed. Both Ms. Long and Mr. Baine abstained from voting. Ms. Kim O’Rourke, as Vice President for Policy and Governance, will remain Secretary to the Board, in accordance with the board’s bylaws.

***********

Rector Long thanked Ms. Martin and Ms. Chenery for their work planning the board’s upcoming retreat, which will be held on August 21.

***********

The meeting was adjourned at 3:59 p.m.

The dates of the next regular meeting are August 22-23, 2022, in Newport News, VA.

_______________________
Letitia A. Long, Rector

________________________
Kim O’Rourke, Secretary
MINUTES

June 14, 2022

The Executive Committee of the Board of Visitors of Virginia Polytechnic Institute and State University met on Tuesday, June 14, 2022, at 9:12 a.m. in Virginia Tech’s Richmond Office located at 11 South 12th Street, Richmond, Virginia.

Present
Edward H. Baine (Vice Rector)
Shelley Butler Barlow
Letitia A. Long (Rector)*
Sharon Brickhouse Martin
Melissa Byrne Nelson
L. Chris Petersen

Absent

*In accordance with the Board of Visitors Bylaws and §2.2-3708.2 (A)(1)(b) of the Code of Virginia, as amended, Ms. Long participated electronically due to a personal matter. Ms. Long was attending the multi-day board meeting of another organization and participated from a hotel in Bellevue, Washington.

Constituent Representative Present:
Phil Miskovic, Graduate/Professional Student Representative

Also present were the following: President Timothy Sands, Kim O'Rourke (Secretary to the Board), Cyril Clarke, Al Cooper, Corey Earles, Kari Evans, Kay Heidbreder, Tim Hodge, Elizabeth Hooper, Chris Kiwus, Ken Miller, Mark Owczarski, and Eric Kolenich (reporter).

Rector Long called the meeting to order and asked President Sands to present the tuition and fee proposal for 2022-23.

**********

President Sands summarized the proposal, which includes a 3 percent increase in tuition and fees for all students. However, recognizing that the sudden high rate of inflation has not yet been matched by wage increases, additionally a one-time tuition mitigation scholarship is proposed for all in-state undergraduates for the 2022-23 academic year, resulting in a net zero tuition increase for those students in AY2022-23.

Mr. Hodge then shared with the committee a revised version of the tuition and fee presentation they were given at the board’s information session on June 6, 2022, calling attention to the changes that had been made, specifically the impact on base and one-time funding for high-priority initiatives in FY2022-23 and Virginia Tech’s tuition and fee increase compared with other Virginia institutions.
The following motion was made by Mr. Petersen, seconded by Dr. Nelson, and approved unanimously.

**Approval of Tuition and Fees for 2022-23**

That the proposed tuition and fee rates be approved, effective Fall Semester 2022, and that a one-time tuition mitigation scholarship be provided that results in a net zero tuition increase for in-state undergraduates. (Copy of the presentation and resolution filed with the permanent minutes and marked Attachment A.)

Rector Long commended the administration for finding a good way to help in-state undergraduate students and their families during this difficult time.

Rector Long also requested that the task force studying graduate student compensation also consider whether any mitigation measures could be taken for graduate students. Mr. Hodge, who is a member of that task force, stated that the task force would do so, but added that graduate students who are on assistantships, which includes the majority of graduate students, also receive a tuition remission, meaning that they do not pay tuition and thus are not impacted by the tuition increase.

**********

Mr. Hodge then shared with the committee a revised version of the presentation on the proposed FY 2022-23 operating and capital budgets that they were given at the board’s information session on June 6, 2022, calling attention to the changes that had been made resulting from the impact of the approved 2022-23 tuition and fee rates and tuition mitigation scholarship. Tuition revenue is reduced by $7.1 million, and financial aid is increased by $7.1, resulting in no net change to the overall budget. It was noted that this $7.1 million for financial aid will be funded with one-time (i.e. non-base) money through internal reallocations and is in addition to the funding for financial aid that was included in the June 6 presentation.

Approval of the following resolution was moved by Dr. Nelson, seconded by Ms. Martin, and approved unanimously.

**Approval of 2022-23 University Operating and Capital Budgets**

That the proposed fiscal year 2022-23 operating and capital budgets, as displayed on Schedules 1, 2, and 3, be approved. (Copy of the presentation and resolution filed with the permanent minutes and marked Attachment B.)
Note: A resolution passed by the Board of Visitors on June 7, 2022, delegated authority to the Executive Committee of the board to establish 2022-23 tuition and fee rates and approve the university's FY 2022-23 operating and capital budgets without the need for subsequent ratification by the full Board of Visitors.

There was no public comment period.

The meeting was adjourned at 9:30 a.m.

Letitia A. Long, Rector

Kim O'Rourke, Secretary
Minutes from August 22, 2022
Executive Committee Meeting
Minutes from August 23, 2022
Committee Chairs Meeting
Minutes of Retreat
Sunday, August 21, 2022
RESOLUTION ON APPOINTMENT TO THE NEW RIVER VALLEY EMERGENCY COMMUNICATIONS REGIONAL AUTHORITY

The university is requesting approval for appointing one joint member to the New River Valley Emergency Communications Regional Authority.
RESOLUTION ON APPOINTMENT TO THE NEW RIVER VALLEY EMERGENCY COMMUNICATIONS REGIONAL AUTHORITY

The university is requesting approval for an appointment to the at-large seat to the New River Valley Emergency Communications Regional Authority.

WHEREAS, the New River Valley Emergency Communications Regional Authority (the Authority) consists of five directors who are responsible for the management and operation of the Authority; and,

WHEREAS, one director is appointed by each of the four political subdivisions, and the other director is appointed jointly by all governing bodies; and,

WHEREAS, Lynsay Belshe, the Vice President for Enterprise Administrative and Business Services, currently serves as the university’s representative;

WHEREAS, Alan Fabian was named as a joint representative and member on the New River Valley Emergency Communications Regional Authority for a term beginning April 1, 2019, and expiring March 31, 2023; and Alan Fabian has stepped down as the joint representative; and,

WHEREAS, the local political subdivisions and Virginia Tech desire to appoint Kevin Foust, as the joint representative for the remainder of the unexpired term;

NOW, THEREFORE, BE IT RESOLVED that the Virginia Tech Board of Visitors recommends that Kevin Foust be named as a joint representative and member on the New River Valley Emergency Communications Regional Authority for the unexpired term ending on March 31, 2023.

RECOMMENDATION:

That the resolution recommending that Kevin Foust be appointed as joint representative to the New River Valley Emergency Communications Regional Authority Board of Directors through March 31, 2023, be approved.

August 23, 2022
RESOLUTION TO AMEND POLICY 1026 AND STUDENT CODE OF CONDUCT TO ALIGN WITH REAUTHORIZED VIOLENCE AGAINST WOMEN ACT

WHEREAS, University Policy 1026: Title IX Sexual Harassment and Responsible Employee Reporting was created in 2020 pursuant to Title IX of the Education Amendments of 1972 and applies to all levels and areas of university operations and programs, to undergraduate and graduate students, professional students, administrators, faculty, staff, volunteers, vendors and contractors; and

WHEREAS, Title IX regulations require that the university define domestic violence in its Title IX policies consistent with the Violence Against Women Act; and

WHEREAS, the Violence Against Women Act Reauthorization Act of 2022 signed into law in March 2022 includes a revised definition of domestic violence that will become effective October 1, 2022; and

WHEREAS, to be consistent with the VAWA Reauthorization Act of 2022, University Policy 1026 and the Student Code of Conduct must be amended to include the revised definition of domestic violence;

NOW, THEREFORE, BE IT RESOLVED that effective October 1, 2022, Policy 1026: Title IX Sexual Harassment and Responsible Employee Reporting and the Student Code of Conduct be revised as follows to reflect the revised definition of domestic violence contained in the Violence Against Women Act Reauthorization Act of 2022:

Domestic Violence means felony or misdemeanor crimes of violence committed by: (a) a current or former spouse or intimate partner of the victim; (b) a person with whom the victim shares a child in common; (c) a person who is cohabitating with or has cohabitated with the victim as a spouse or intimate partner; (d) a person similarly situated to a spouse of the victim under the domestic or family violence laws of Virginia; or (e) any other person against an adult or youth victim who is protected from that person’s acts under the domestic or family violence laws of Virginia.

RECOMMENDATION:
That the above resolution to amend University Policy 1026 and the Student Code of Conduct be approved by the Virginia Tech Board of Visitors effective October 1, 2022.

August 23, 2022
Academic, Research, and Student Affairs
General Report
of August 22, 2022
will be presented at
Tuesday’s meeting of the Board
Buildings and Grounds Committee

General Report

of August 22, 2022

will be presented at

Tuesday’s meeting of the Board
Compliance, Audit, and Risk Committee
General Report
of August 23, 2022
will be presented at
Tuesday’s meeting of the Board
Finance and Resource Management Committee
General Report of August 22, 2022 will be presented at Tuesday’s meeting of the Board
RESOLUTION TO APPROVE APPOINTMENT OF INTERIM EXECUTIVE DIRECTOR
OF THE VIRGINIA CENTER FOR COAL AND ENERGY RESEARCH

WHEREAS, the Virginia Center for Coal and Energy Research was established in 1977
by the Code of Virginia (§23.1 Article 3), and the legislation requires that the Virginia Tech
Board of Visitors appoint an executive director for the Virginia Center for Coal and Energy
Research.

WHEREAS, Interim Director, Kramer Luxbacher left Virginia Tech in July 2022; and

WHEREAS, Erik Westman is proposed for appointment as Interim Executive Director; and

WHEREAS, Erik Westman is professor and interim department head in Mining and
Minerals Engineering; and

NOW, THEREFORE, BE IT RESOLVED, that Erik Westman be appointed as interim
executive director of the Virginia Center for Coal and Energy Research beginning August
23, 2022, until such time as a permanent executive director is identified.

RECOMMENDATION:

That the Board of Visitors approve this resolution appointing Dr. Erik Westman as
Interim Executive Director of the Virginia Center for Coal and Energy Research.

August 22, 2022
Date: 7/15/2022

To: Board of Visitors

Subject: Report of open contracts entered into subject to the Code of Virginia “State and Local Government Conflict of Interests Act” (“the Act”) § 2.2-3106 C. 8.

There were no contracts entered into at the time of this report (from 4/1/2022 – 6/30/2022) subject to the Act’s exception for prohibited contracts involving research and development or commercialization of intellectual property. Details as per the Act § 2.2-3106 E. are included below.

<table>
<thead>
<tr>
<th>Contract</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open contract number</td>
<td>N/A</td>
</tr>
<tr>
<td>Names of parties</td>
<td>N/A</td>
</tr>
<tr>
<td>Date contract executed</td>
<td>N/A</td>
</tr>
<tr>
<td>Contract term</td>
<td>N/A</td>
</tr>
<tr>
<td>Subject of contract</td>
<td>N/A</td>
</tr>
<tr>
<td>Nature of COI</td>
<td>N/A</td>
</tr>
<tr>
<td>Institution employee responsible for administering contract</td>
<td>N/A</td>
</tr>
<tr>
<td>The institution’s commitment of resources or finances for the contract</td>
<td>N/A</td>
</tr>
<tr>
<td>Details of how revenues are to be dispersed</td>
<td>N/A</td>
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</tbody>
</table>
## Closed Session Agenda

**ACADEMIC, RESEARCH, AND STUDENT AFFAIRS COMMITTEE**

Virginia Tech Newport News Center  
Maroon and Orange Room  
Monday, August 22, 2022  
1:30 – 2:00 p.m.

<table>
<thead>
<tr>
<th>Agenda Item</th>
<th>Reporting Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Motion to Begin Closed Session</td>
<td>M. Nelson</td>
</tr>
<tr>
<td>2. Resolutions to Approve Appointments to Emeritus/a Status (9)</td>
<td>C. Clarke</td>
</tr>
<tr>
<td>3. Resolution to Approve Appointments Endowed Chairs, Professorships, or Fellowships (4)</td>
<td>C. Clarke</td>
</tr>
<tr>
<td>4. Resolution to Approve Appointments with Tenure (3)</td>
<td>C. Clarke</td>
</tr>
<tr>
<td>5. Resolution to Approve Faculty Research Leave (1)</td>
<td>C. Clarke</td>
</tr>
<tr>
<td>6. Resolutions to Approve Exceptions to the Virginia Conflict of Interests Act (4)</td>
<td>C. Clarke</td>
</tr>
</tbody>
</table>
| 7. Ratification of Personnel Changes Report  
* (shared with Finance and Resource Management Committee) | C. Clarke |
| 8. Motion to End Closed Session | M. Nelson |

*Requires Full Board Approval*
Closed Session Briefing Report  
ACADEMIC, RESEARCH, AND STUDENT AFFAIRS COMMITTEE  
August 22, 2022

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<td>1. Motion to Begin Closed Session</td>
<td>M. Nelson</td>
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</table>

*Melissa Nelson, chair of the Academic, Research and Student Affairs committee, will welcome committee members and request that a member of the committee make a motion to take the committee into closed session.

* 2. Resolutions to Approve Appointments to Emeritus/a Status (9) | C. Clarke |

*The committee will consider nine resolutions for appointments to emeritus or emerita status.

* 3. Resolution to Approve Appointments to Endowed Chairs, Professorships, or Fellowships (4) | C. Clarke |

*The committee will consider four resolutions for appointments to endowed chairs, professorships, or fellowships.

* 4. Resolution to Approve Appointments with Tenure (3) | C. Clarke |

*The committee will consider a resolution to approve the tenured appointments of three faculty members.

* 5. Resolution to Approve Faculty Research Leave (1) | C. Clarke |

*The committee will consider a resolution to approve one request for faculty research leave.

* 6. Resolution to Approve Exceptions to Virginia Conflict of Interests Act (4) | C. Clarke |

*The committee will consider approval of four exceptions to the Virginia Conflict of Interests Act. The board approves alternative supervision, evaluation, and personnel decision processes for circumstances where the spouse or partner of a faculty member serves in a supervisory capacity within the faculty member’s unit.

* 7. Ratification of Personnel Changes Report | C. Clarke

*Requires Full Board Approval
The Faculty Personnel Changes Report is considered at each board meeting by the Academic, Research, and Student Affairs Committee and the Finance and Resource Management Committee. The report includes new faculty appointments and adjustments in salaries for faculty from the previous quarter based on payroll period dates.

8. **Motion to End Closed Session**

   M. Nelson

   *M. Nelson will request that a member of the committee make a motion to end the committee’s closed session.*

9. **Report of Closed Session Action Items**

   M. Nelson

   *The committee will report on those actions that were voted on during closed session.*
# Open Session Agenda

**ACADEMIC, RESEARCH AND STUDENT AFFAIRS COMMITTEE**
Virginia Tech Newport News Center
Maroon and Orange Room
August 22, 2022
2:00 – 3:00 p.m.

<table>
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<tbody>
<tr>
<td><strong>1. Welcome</strong></td>
<td>M. Nelson</td>
</tr>
<tr>
<td><strong>2. Review and Approve Open Session Agenda</strong></td>
<td>M. Nelson</td>
</tr>
<tr>
<td><strong>3. Consent Agenda</strong></td>
<td>M. Nelson</td>
</tr>
<tr>
<td>A. Approval of June 7, 2022 Meeting Minutes</td>
<td></td>
</tr>
<tr>
<td>B. Report of Reappointments to Endowed Chairs, Professorships, and Fellowship</td>
<td></td>
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<tr>
<td>*C. Resolution to Approve Appointment of Interim Executive Director of the Virginia Center for Coal and Energy Research</td>
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<tr>
<td># 4. Panel Discussion: Student Well-being and Mental Health Initiatives</td>
<td>F. Keene</td>
</tr>
<tr>
<td>5. Provost’s Update and Discussion</td>
<td>C. Clarke</td>
</tr>
<tr>
<td>6. Agenda Items for November 2022 Committee Meeting</td>
<td>M. Nelson</td>
</tr>
<tr>
<td>7. Adjourn Committee Meeting</td>
<td>M. Nelson</td>
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</tbody>
</table>

* Requires Full Board Approval
# Discusses Enterprise Risk Management topic(s)
## Academic, Research and Student Affairs Committee

**August 22, 2022**

<table>
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<tbody>
<tr>
<td>1. <strong>Welcome</strong></td>
<td>M. Nelson</td>
</tr>
<tr>
<td>Melissa Nelson, chair of the committee, will welcome committee members and others to the committee open session.</td>
<td></td>
</tr>
<tr>
<td>2. <strong>Review and Approve Open Session Agenda</strong></td>
<td>M. Nelson</td>
</tr>
<tr>
<td>M. Nelson will ask members to review and vote on acceptance of the meeting agenda, including a vote on the Consent Agenda items.</td>
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</tr>
<tr>
<td>3. <strong>Consent Agenda</strong></td>
<td>M. Nelson</td>
</tr>
<tr>
<td>The committee will consider approval of items on the consent agenda including: June 7, 2022 minutes, a report on reappointments to endowed chairs, professorships, or fellowships, and a resolution to approve the appointment of an Interim Executive Director to The Virginia Center for Coal and Energy Research.</td>
<td></td>
</tr>
<tr>
<td># 4. <strong>Provost’s Update and Discussion</strong></td>
<td>C. Clarke</td>
</tr>
<tr>
<td>Cyril Clarke will update the committee on the university’s academic initiatives.</td>
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<tr>
<td>5. <strong>Panel Discussion: Student Well-being and Mental Health Initiatives</strong></td>
<td>F. Keene</td>
</tr>
<tr>
<td>Frances Keene, interim vice president for student affairs will provide an overview of student well-being mental health initiatives, and will be joined by Saad Kaan, mental health initiatives coordinator for Hokie Wellness, and Natalie Cook, assistant professor of public health in the Virginia-Maryland College of Veterinary Medicine and faculty principal, Honors Residential Commons for a panel discussion of these initiatives.</td>
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</tr>
<tr>
<td>6. <strong>Agenda Items for November 2022 Committee Meeting</strong></td>
<td>M. Nelson</td>
</tr>
<tr>
<td>M. Nelson will request that committee members consider topics for upcoming meetings of the committee.</td>
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</tr>
<tr>
<td>7. <strong>Adjourn Committee Meeting</strong></td>
<td>M. Nelson</td>
</tr>
</tbody>
</table>
Open Session Agenda

BUILDINGS AND GROUNDS COMMITTEE

Monday, August 22, 2022

Open session meeting begins at 1:30 p.m. in the Hokie Stone Room of the Tech Center Research Park.

<table>
<thead>
<tr>
<th>Agenda Item</th>
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<tbody>
<tr>
<td>1. Welcome</td>
<td>Committee Chair</td>
</tr>
<tr>
<td>2. Approval of the Minutes from the June 2022 Meeting</td>
<td>Committee Chair</td>
</tr>
<tr>
<td># + 3. Overview of the Capital Construction Program</td>
<td>Bob Broyden</td>
</tr>
<tr>
<td># + 4. Acceptance of the Capital Project Status Report</td>
<td>Dwyn Taylor</td>
</tr>
<tr>
<td>+ 5. Update on Agricultural Facilities</td>
<td>Alan Grant</td>
</tr>
<tr>
<td>Compliance Project</td>
<td></td>
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<tr>
<td># + 7. Overview of the Campus Master Plan</td>
<td>Liza Morris</td>
</tr>
<tr>
<td>* + 8. Resolution to Adopt the 2022 Student Life Village Master Plan</td>
<td>Bob Broyden</td>
</tr>
<tr>
<td></td>
<td>Frances Keene</td>
</tr>
<tr>
<td></td>
<td>Liza Morris</td>
</tr>
<tr>
<td>9. Future Agenda Items and Closing Remarks</td>
<td>Committee Chair</td>
</tr>
</tbody>
</table>

* Requires Full Board Approval
# Discusses Enterprise Risk Management Topic(s)
+ Discusses Strategic Investment Priorities Topic(s)
Open Session Briefing Report

BUILDINGS AND GROUNDS COMMITTEE

Monday, August 22, 2022

Open session meeting begins at 1:30 p.m.
in the Hokie Stone Room of the Tech Center Research Park.

Open Session Meeting

1. **Welcome:** The Committee Chair will convene the meeting and provide welcoming remarks.

2. **Approval of the Minutes from the June 2022 Meeting:** The Committee will review for approval the minutes from the June 2022 meeting.

# 3. **Overview of the Capital Construction Program:** The Committee will receive an overview of the university’s capital construction program from Bob Broyden, Associate Vice President for Campus Planning and Capital Financing. The Capital Construction team provides leadership in the administration and management of all major capital outlay projects, which are defined as projects with a total project cost of $3 million or more inclusive of all expenditures necessary to complete the project, and/or projects involving the construction of 5,000 square feet or more. Project managers work closely with sponsoring colleges and departments, future building users, and other project stakeholders to achieve project goals. Following project authorization by the Board of Visitors, project managers coordinate all phases of a project from initiation through completion and close-out.

# 4. **Acceptance of the Capital Project Status Report:** The Committee will review for acceptance the quarterly capital project status report from Dwyn Taylor, Assistant Vice President for Capital Construction.

5. **Update on Agricultural Facilities:** The Committee will receive an update from Alan Grant, Dean of the College of Agriculture and Life Sciences, on agricultural facilities planning and construction.

# 6. **Design Review for the Life, Health, Safety, Accessibility, and Code Compliance Project:** The Committee will review for approval a Design Review for the Life, Health, Safety, Accessibility, and Code Compliance project. 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. This project is the first priority of three high priority accessibility initiatives identified by the university in the Life, Health, Safety, Accessibility, and Code Compliance category of the 2018-2024 Capital Outlay Plan. The project is scoped to create a new accessible route on an existing primary pedestrian corridor which will support equal access to key Education and General funded facilities in the North Academic District. The project is in the working drawings phase with construction anticipated to begin November of 2022 and to attain substantial completion November of 2023. The university received total

* Requires Full Board Approval
# Discusses Enterprise Risk Management Topic(s)
+ Discusses Strategic Investment Priorities Topic(s)
project funding of $10.4 million in Life, Health, Safety, Accessibility, and Code Compliance funds from the state for 3 projects, $4.97 million of which will be applied to the first priority project.

# + 7. **Overview of the Campus Master Plan:** The Committee will receive an overview of Beyond Boundaries 2047: The Campus Plan from Liza Morris, Assistant Vice President for Planning and University Architect. The current plan — approved by the Board of Visitors in November 2018 — guides current and future campus leaders as they imagine and develop the Blacksburg campus and the university’s agricultural research and extension centers through 2047. The plan, a key initiative connecting across all core values of the university’s strategic plan prepares the university for the next generation of higher education. The plan builds upon the Beyond Boundaries vision to ensure appropriate capacity in facilities and infrastructure, as seen in the plan’s vision for living-learning communities anchored by flexible learning spaces. Since its completion, the plan has received two national achievement awards. In 2019 the Society for College and University Planning awarded the university the Excellence in Planning for an Existing Campus Merit Award for its innovative, collaborative, multidisciplinary, and integrated approaches to planning and design. In 2021, the university received the Excellence in Landscape for Open Space Planning Award (also awarded by the Society for College and University Planning) for universal design features within the plan set to boost campus accessibility and mobility.

* + 8. **Resolution to Adopt the 2022 Student Life Village Master Plan:** The Committee will review for approval a resolution to adopt the 2022 Student Life Village Master Plan. The university has prepared the Student Life Village master plan to guide the physical development of a new residential district in supplement to the 2018 Campus Master Plan, Beyond Boundaries 2047: The Campus Plan. The plan for the Student Life Village sets forth a long-range vision that builds off the goals, objectives, and aspirations of the master plan and the university’s strategic plan, The Virginia Tech Difference: Advancing Beyond Boundaries. The planning process for the Student Life Village included engagement with campus executive leadership, a broad range of constituents including students, and was shaped by the technical expertise of campus stakeholders. The plan incorporates analysis of residential program needs, land use, landscape, building massing, scale, and siting. Additionally, the plan evaluated and incorporated layers of infrastructure including mobility and accessibility, utilities and stormwater, technology, and safety. The resolution seeks adoption of the plan as a supplement to the previously adopted 2018 Campus Master Plan.

9. **Future Agenda Items and Closing Remarks:** The Committee will discuss potential topics for inclusion on future meeting agendas.
Open Joint Session Agenda
FINANCE AND RESOURCE MANAGEMENT COMMITTEE
AND BUILDINGS AND GROUNDS COMMITTEE
3:45 p.m.

Hokie Stone Room, Newport News Center / Tech Center Research Park

August 22, 2022

Agenda Item Reporting Responsibility

* 1. Approval of Resolution for a Capital Project for Building Envelope Improvements

Ken Miller
Chris Kiwus
Bob Broyden

* Requires full Board approval
# Discusses Enterprise Risk Management topic(s)
+ Discusses Strategic Investment Priorities topic(s)
Joint Open Session

1. Approval of Resolution for a Capital Project for Building Envelope Improvements: The Committees will review a resolution for a capital project for building envelope improvements for approval. This resolution is for a $47.2 million authorization to complete building envelope improvements.
Virginia Tech has a series of buildings with envelope systems that require improvements. The university has established an in-house crew of stonemasons that will make improvements to some of the buildings. There are four buildings that exceed the capabilities of the in-house crew and require a third-party vendor due to construction complexity and/or the height of the structure. Those four buildings are the West Sideline of Lane Stadium, Hahn Hall, Torgersen Hall, and the Inn at Virginia Tech. These buildings require a capital project authorization because the costs of their improvements exceed $3 million and/or exceed the Maintenance Reserve program limitations.

This capital project request is for a $47.2 million authorization to complete improvements to the West Sideline of Lane Stadium, Hahn Hall, Torgersen Hall, and the Inn at Virginia Tech. The university has developed a financing plan to support the project. This funding plan calls for a combination of $17.2 million of one-time nongeneral fund cash resources and $30 million of debt financing that will be serviced by nongeneral fund revenues.

Under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the Board of Visitors has the authority to approve the budget, size, scope, debt issuance, and overall funding of nongeneral fund capital outlay projects. This request is for a $47.2 million authorization to complete necessary improvements to the West Sideline of Lane Stadium, Hahn Hall, Torgersen Hall, and the Inn at Virginia Tech. If approved, the university would move forward with implementing the improvements as soon as practicable.
WHEREAS, the building envelope systems of the West Sideline of Lane Stadium, Hahn Hall, Torgersen Hall, and the Inn at Virginia Tech require improvement; and,

WHEREAS, the university has determined the nature and costs of the improvements require a capital project authorization; and,

WHEREAS, the total project costs to complete improvements to the four buildings are $47.2 million, and the university has developed an entirely nongeneral fund financing plan sufficient to support the costs; and,

WHEREAS, the university would move forward with implementing the improvements as soon as practicable upon approval of this resolution; and,

WHEREAS, under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the university has the authority to issue bonds, notes or other obligations that do not constitute State tax supported debt; and,

WHEREAS, the Finance and Resource Management Committee will further review and approve a financing resolution prior to securing permanent financing for the debt component of the project plus amounts needed to fund issuance costs, reserve funds, and other financing expenses; and,

WHEREAS, under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the Board of Visitors has authority to approve the budget, size, scope, debt issuance, and overall funding of nongeneral funded capital outlay projects.

NOW, THEREFORE, BE IT RESOLVED, that the university be authorized to complete the Building Envelope Improvements project and to secure temporary short-term financing through any borrowing mechanism that, prior to such borrowing, has been approved by the Board, as applicable, in an aggregate principal amount not to exceed the $47.2 million authorized for the total project budget, plus related issuance costs and financing expenses.

RECOMMENDATION:

That the resolution authorizing Virginia Tech to proceed with the Building Envelope Improvements project be approved.

August 23, 2022
RESOLUTION TO ADOPT THE 2022 STUDENT LIFE VILLAGE MASTER PLAN

The university has prepared the Student Life Village master plan to guide the physical development of a new residential district in supplement to the 2018 Campus Master Plan, Beyond Boundaries 2047: The Campus Plan. The plan for the Student Life Village sets forth a long-range vision that builds off the goals, objectives, and aspirations of the master plan and the university’s strategic plan, The Virginia Tech Difference: Advancing Beyond Boundaries.

The planning process for the Student Life Village included engagement with campus executive leadership, a broad range of constituents including students, and was shaped by the technical expertise of campus stakeholders.

The plan incorporates analysis of residential program needs, land use, landscape, building massing, scale, and siting. Additionally, the plan evaluated and incorporated layers of infrastructure including mobility and accessibility, utilities and stormwater, technology, and safety.

The resolution seeks adoption of the plan as a supplement to the previously adopted 2018 Campus Master Plan.
RESOLUTION TO ADOPT THE 2022 STUDENT LIFE VILLAGE MASTER PLAN

WHEREAS, the 2018 Campus Master Plan is an important tool to serve as a guide to the effective development of Virginia Tech’s physical footprint to support the logical development of facilities and infrastructure necessary to move forward the strategic vision of the university, as well as to preserve and enhance the unique character of the campus; and,

WHEREAS, the 2018 Campus Master Plan did not contemplate this Student Life Village concept during its study of campus; and,

WHEREAS, the university, together with its independent consultants, engaged in intensive study of the needs required to expand the residential systems inclusive of support facilities; and,

WHEREAS, the planning team held 100 engagements with campus partners, students, and Town of Blacksburg to share the developing vision for the Blacksburg campus and to receive feedback on the plans; and,

WHEREAS, the analysis included program requirements, land use, landscape, building massing, scale and siting, and infrastructure including mobility and accessibility, utilities and stormwater, technology, and safety – which support the university’s long-range and strategic plans; and,

WHEREAS, the Executive Vice President and Provost, Senior Vice President and Chief Business Officer, Interim Senior Vice President and Chief Business Officer, Vice President of Student Affairs, Vice President for Finance, and Vice President of Campus Planning, Infrastructure and Facilities, served as the Executive Master Plan Committee to provide strategic direction; and,

WHEREAS, the members of the Board of Visitors previously reviewed and discussed the Student Life Village master plan at the start of the planning process in August 2021 and at the conclusion of the final master plan report in April 2022;

NOW, THEREFORE, BE IT RESOLVED that the Virginia Tech Board of Visitors adopt the 2022 Student Life Village Master Plan as a supplement to the Campus Master Plan.

RECOMMENDATION:

That the above resolution adopting the 2022 Student Life Village Master Plan as a supplement to the Campus Master Plan be approved.

August 22, 2022
### Closed Session Agenda

**COMPLIANCE, AUDIT, AND RISK COMMITTEE**

**Newport News Marriott at City Center, Pearl Ballroom Salon I**
August 23, 2022
7:30 am

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<td>1. Motion for Closed Session</td>
<td>Committee Member</td>
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<td>2. Internal Audit Reports</td>
<td></td>
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<tr>
<td>a. Export and Secure Research Compliance</td>
<td>Justin Noble</td>
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<tr>
<td>3. Update on Fraud, Waste, and Abuse Cases</td>
<td>Sharon Kurek</td>
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<tr>
<td>4. Discussion with the Executive Director of Audit, Risk, and Compliance</td>
<td>Sharon Kurek</td>
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</table>
Compliance, Audit, and Risk Closed Session

1. **Motion for Closed Session:** Motion to begin closed session.

2. **Internal Audit Reports:** The following confidential internal audit report was issued by the Office of Audit, Risk, and Compliance (OARC) since the June board meeting. Where applicable, management developed action plans to effectively address the issues in the report with a reasonable implementation timeframe. OARC conducts follow-up on management’s implementation of agreed upon improvements for previously issued audit recommendations.

   a. **Export and Secure Research Compliance:** The audit received a rating of improvements are recommended. An observation was noted regarding processes for monitoring adherence to System Security Plans. A low priority observation was noted related to monitoring restricted research funds.

3. **Update on Fraud, Waste, and Abuse Cases:** The Committee will receive an update on outstanding fraud, waste, and abuse cases.

4. **Discussion with the Executive Director of Audit, Risk, and Compliance:** The Executive Director will discuss audits of specific departments and units where individual employees were identified.
### Agenda Item | Reporting Responsibility
--- | ---
1. Motion to Reconvene in Open Session | Committee Member
2. Welcome and Introductory Remarks | Committee Chair
3. Consent Agenda
   a. Minutes from the June 6, 2022 Meeting | Committee Chair
   b. Update of Responses to Open Internal Audit Comments
   c. Audit Plan Status Report
   d. Internal Audit Reports
      i. Agricultural Research and Extension Centers
      ii. Biological Sciences
   e. Status Update on the Audit of the University’s Financial Statements
5. OARC Annual Report | Sharon Kurek
6. Review and Approval of Charters
   a. Compliance, Audit, and Risk Committee Charter
   b. Charter for the Office of Audit, Risk, and Compliance | Sharon Kurek
7. Discussion of Future Topics | Committee Chair
Compliance, Audit, and Risk Open Session

1. **Motion to Reconvene in Open Session**: Motion to begin open session.

2. **Welcome and Introductory Remarks**: The chair of the Compliance, Audit, and Risk Committee will provide opening remarks.

3. **Consent Agenda**: The Committee will consider for approval and acceptance the items listed on the Consent Agenda.
   
   a. **Minutes from the June 6, 2022 Meeting**: The Committee will review and approve the minutes of the June 6, 2022 meeting.

   b. **Update of Responses to Open Internal Audit Comments**: The Committee will review the university’s update of responses to all previously issued internal audit reports. As of March 31, 2022, the university had 15 open recommendations. Seventeen audit comments were issued during the fourth quarter of the fiscal year. As of June 30, 2022, the university had addressed 7 comments, leaving 25 open recommendations in progress.

   c. **Audit Plan Status Report**: The committee will review the Audit Plan Status Report. The Office of Audit, Risk, and Compliance (OARC) has completed 86 percent of its audit plan, and 100 percent is underway, in accordance with the fiscal year 2021-22 annual audit plan.

   d. **Internal Audit Reports**: The following internal audit reports were issued by OARC since the June board meeting. Where applicable, management developed action plans to effectively address the issues in the report with a reasonable implementation timeframe. OARC conducts follow-up on management’s implementation of agreed upon improvements for previously issued audit recommendations.

      i. **Agricultural Research and Extension Centers**: The audit received a rating of improvements are recommended. One observation was
noted regarding completion of required safety training. In addition, three low-priority recommendations of a less significant nature were noted for management.

ii. Biological Sciences: The audit received a rating of improvements are recommended. Observations were noted regarding cost transfers and effort reporting.

e. **Status Update on the Audit of the University’s Financial Statements:**
   This report provides the current status of the audit of the university’s financial statements for fiscal year 2021-22.

4. **Discussion on Internal Audit Report: Foreign Gifts and Contracts Reporting:**
   The Committee will discuss the Foreign Gifts and Contracts Reporting audit report that it received during the June meeting. The audit received a rating of significant improvements are needed. Audit recommendations were issued to management where opportunities for improvements were noted related to Section 117 governance and reporting.

5. **OARC Annual Report:** The Committee will review the Annual Report for OARC. OARC received its external quality assessment review of the internal audit, enterprise risk management, and institutional compliance programs. Results indicated that the internal audit function “generally conforms” with the professional standards, which is the highest rating. The review provided opportunities to continue to evolve OARC as a valued advisor to management through an integrated, comprehensive assurance approach that leverages audit, risk, and compliance functions as a single, effective office to drive risk understanding, discussion, and mitigation efforts university-wide.

Thirty-two audit projects, or 86 percent of the audits on the fiscal year 2021-22 amended audit plan, have been completed. Four audit projects were underway on June 30th and carried forward into fiscal year 2022-23. In addition to conducting scheduled audits, policy compliance reviews, and advisory services, the department participated in annual audit activities, fraud investigations, and professional development activities. Acceptance of this report documents the Committee’s review of the effectiveness of the internal audit function, including staffing resources, financial budget, training, objectivity, and reporting relationships as required by the Committee’s Charter.

OARC continued implementation of the Enterprise Risk Management (ERM) program and Institutional Compliance Program (ICP). OARC deployed an updated
risk landscape with a comprehensive evaluation of the “top ten risks” and increased the visibility of ERM across the CAR Committee and other Board of Visitors committees. A university-wide compliance matrix, including the identification of distributed compliance owners and a mechanism to capture associated risk assessments, was developed as part of the ICP, as well as managing the anonymous hotline.

6. **Review and Approval of Charters:** The Committee will review the Compliance, Audit, and Risk Committee Charter and the Charter for the Office of Audit, Risk, and Compliance in accordance with professional standards. After conducting a thorough review, OARC will recommend modifications to the charters to add clarity for the areas under the Committee's oversight, including delineating the roles and responsibilities for the internal audit, enterprise risk management, and institutional compliance programs.

7. **Discussion of Future Topics:** The Committee will discuss topics to be covered in future committee meetings.
Closed Session Agenda
FINANCE AND RESOURCE MANAGEMENT COMMITTEE
1:30 p.m.
Conference Room, Newport News Center / Tech Center Research Park
August 22, 2022

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<td>Anna James</td>
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<td>2. Ratification of Personnel Changes Report</td>
<td>Ken Miller</td>
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* Requires full Board approval
# Discusses Enterprise Risk Management topic(s)
+ Discusses Strategic Investment Priorities topic(s)
Briefing Report

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

August 22, 2022

Closed Session

1. **Motion for Closed Session:** Motion to begin closed session.

* 2. **Ratification of Personnel Changes Report:** The Committee will review and ratify the quarterly Personnel Changes Report.

  * Requires full Board approval
  # Discusses Enterprise Risk Management topic(s)
  + Discusses Strategic Investment Priorities topic(s)
**Agenda Item**  

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<td>Brad Hobbs</td>
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<td>2. Welcome and Opening Remarks</td>
<td>Ed Baine</td>
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<td>3. Consent Agenda</td>
<td>Ed Baine</td>
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<td>a. Approval of Items Discussed in Closed Session</td>
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<td>b. Approval of Minutes of the June 7, 2022 Meeting</td>
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<td># 4. Report on Administrative Efficiencies – Procurement</td>
<td>Ken Miller, Mary Helmick</td>
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<td>* 5. Approval of Year-to-Date Financial Performance Report (July 1, 2021 – June 30, 2022)</td>
<td>Tim Hodge, Bob Broyden</td>
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<td>* 6. Approval of 9(c) and 9(d) Financing Resolutions</td>
<td>Ken Miller, John Cusimano</td>
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<tr>
<td>a. 9(c) Financing Resolutions</td>
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<td>b. 9(d) Financing Resolutions</td>
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<td>7. Related Corporations Performance – Update on Virginia Tech India Research and Education Forum</td>
<td>Ken Miller, Guru Ghosh</td>
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<td>#+ 8. Comprehensive Update on Advancement</td>
<td>Charlie Phlegar</td>
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<tr>
<td>9. Discussion of Future Agenda Topics and Closing Remarks</td>
<td>Ed Baine</td>
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* Requires full Board approval  
# Discusses Enterprise Risk Management topic(s)  
+ Discusses Strategic Investment Priorities topic(s)
Briefing Report

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

August 22, 2022

Open Session

1. Motion to Reconvene in Open Session

2. Welcome and Opening Remarks

3. Consent Agenda: The Committee will consider for approval and acceptance the items listed on the Consent Agenda.
   
   a. Approval of Items Discussed in Closed Session: The Committee will review and approve the items discussed in closed session.

   b. Approval of Minutes of the June 7, 2022 Meeting: The Committee will review and approve the minutes of the June 7, 2022 meeting.


      This report provides information on the 17 finance and administrative measures and the university’s performance for each of those measures. The report will also provide information on SCHEV’s assessment of the six academic measures. The university is in full compliance with all 17 finance and administrative measures and six academic measures reported.

# 4. Report on Administrative Efficiencies – Procurement: The Committee will receive a report on administrative efficiencies. This report provides an analysis of the university’s cost structure as compared to peer institutions across several established cost benchmarks and highlights recent university efficiency initiatives, including an overview of Procurement’s administrative efficiencies.

* Requires full Board approval
# Discusses Enterprise Risk Management topic(s)
+ Discusses Strategic Investment Priorities topic(s)
5. **Approval of Year-to-Date Financial Performance Report (July 1, 2021 – June 30, 2022):** The Committee will review for approval the Year-to-Date Financial Performance Report for July 1, 2021 to June 30, 2022. The university successfully closed its fiscal year in accordance with guidance and requirements of the commonwealth. The Educational and General budgets were balanced at year-end, with no operating deficit incurred.

For year-ended June 30, 2022, $180.8 million was expended for Educational and General capital projects, and $42.6 million was expended on Auxiliary Enterprises capital projects. Cumulative capital outlay expenditures for the quarter ending June 30, 2022 totaled $223.4 million against a budget of $200.7 million. All projects remained within their overall budget, but expenditures occurred sooner than expected.

6. **Approval of 9(c) and 9(d) Financing Resolutions:** The Committee will review for approval debt financing resolutions through the state’s 9(c) bond program and the Virginia College Building Authority’s 9(d) debt financing program.

   a. **9(c) Financing Resolutions:** This includes financing for Hitt Hall (dining), Innovation Campus Academic Building (parking), and New Upper Quad Residence Hall totaling $101.877 million.

   b. **9(d) Financing Resolutions:** This includes financing for Corps Leadership and Military Science, Data and Decision Science Building, Hitt Hall, Innovation Campus Academic Building, and Student Wellness Services totaling $207.304 million.

7. **Related Corporations Performance – Update on Virginia Tech India Research and Education Forum:** The Committee will receive an update on the performance of Virginia Tech India Research and Education Forum (VTIREF), a Virginia Tech Related Corporation. This report provides an overview of VTIREF’s regional centers including program details and key projects.

8. **Comprehensive Update on Advancement:** The Committee will receive a comprehensive presentation from University Advancement providing an update on the fiscal year 2022 giving results and giving trends since the launch of the Advancement Model. This report also includes an update on the philanthropic participation rate and a summary of near-term focus areas for fundraising priorities, athletics, and participation goals.

9. **Discussion of Future Agenda Topics and Closing Remarks:** The Committee will discuss possible topics for future meetings and other topics as needed.
Open Joint Session Agenda

FINANCE AND RESOURCE MANAGEMENT COMMITTEE
AND BUILDINGS AND GROUNDS COMMITTEE

3:45 p.m.

Hokie Stone Room, Newport News Center / Tech Center Research Park

August 22, 2022

Agenda Item Reporting

* 1. Approval of Resolution for a Capital Project for Building Envelope Improvements

Ken Miller
Chris Kiwus
Bob Broyden

* Requires full Board approval
# Discusses Enterprise Risk Management topic(s)
+ Discusses Strategic Investment Priorities topic(s)
Joint Open Session

1. Approval of Resolution for a Capital Project for Building Envelope Improvements: The Committees will review a resolution for a capital project for building envelope improvements for approval. This resolution is for a $47.2 million authorization to complete building envelope improvements.
Capital Project for Building Envelope Improvements

JOINT FINANCE AND RESOURCE MANAGEMENT COMMITTEE
AND BUILDINGS AND GROUNDS COMMITTEE

July 20, 2022

Virginia Tech has a series of buildings with envelope systems that require improvements. The university has established an in-house crew of stonemasons that will make improvements to some of the buildings. There are four buildings that exceed the capabilities of the in-house crew and require a third-party vendor due to construction complexity and/or the height of the structure. Those four buildings are the West Sideline of Lane Stadium, Hahn Hall, Torgersen Hall, and the Inn at Virginia Tech. These buildings require a capital project authorization because the costs of their improvements exceed $3 million and/or exceed the Maintenance Reserve program limitations.

This capital project request is for a $47.2 million authorization to complete improvements to the West Sideline of Lane Stadium, Hahn Hall, Torgersen Hall, and the Inn at Virginia Tech. The university has developed a financing plan to support the project. This funding plan calls for a combination of $17.2 million of one-time nongeneral fund cash resources and $30 million of debt financing that will be serviced by nongeneral fund revenues.

Under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the Board of Visitors has the authority to approve the budget, size, scope, debt issuance, and overall funding of nongeneral fund capital outlay projects. This request is for a $47.2 million authorization to complete necessary improvements to the West Sideline of Lane Stadium, Hahn Hall, Torgersen Hall, and the Inn at Virginia Tech. If approved, the university would move forward with implementing the improvements as soon as practicable.
RESOLUTION FOR A CAPITAL PROJECT FOR BUILDING ENVELOPE IMPROVEMENTS

WHEREAS, the building envelope systems of the West Sideline of Lane Stadium, Hahn Hall, Torgersen Hall, and the Inn at Virginia Tech require improvement; and,

WHEREAS, the university has determined the nature and costs of the improvements require a capital project authorization; and,

WHEREAS, the total project costs to complete improvements to the four buildings are $47.2 million, and the university has developed an entirely nongeneral fund financing plan sufficient to support the costs; and,

WHEREAS, the university would move forward with implementing the improvements as soon as practicable upon approval of this resolution; and,

WHEREAS, under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the university has the authority to issue bonds, notes or other obligations that do not constitute State tax supported debt; and,

WHEREAS, the Finance and Resource Management Committee will further review and approve a financing resolution prior to securing permanent financing for the debt component of the project plus amounts needed to fund issuance costs, reserve funds, and other financing expenses; and,

WHEREAS, under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the Board of Visitors has authority to approve the budget, size, scope, debt issuance, and overall funding of nongeneral funded capital outlay projects.

NOW, THEREFORE, BE IT RESOLVED, that the university be authorized to complete the Building Envelope Improvements project and to secure temporary short-term financing through any borrowing mechanism that, prior to such borrowing, has been approved by the Board, as applicable, in an aggregate principal amount not to exceed the $47.2 million authorized for the total project budget, plus related issuance costs and financing expenses.

RECOMMENDATION:

That the resolution authorizing Virginia Tech to proceed with the Building Envelope Improvements project be approved.

August 23, 2022
Approval of 9(c) and 9(d) Financing Resolutions

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

August 5, 2022

The university seeks approval by the Board of Visitors (BOV) to issue two types of long-term debt to complete the financing plans for eight capital projects under construction and previously authorized by the BOV. Debt financing plans for these projects were included in the University Debt Ratio and Debt Capacity report accepted by the Finance and Resource Management Committee on November 8, 2021.

9(c) Debt Financing

Debt issued under Section 9(c) of Article X of the Constitution of Virginia is issued by the Treasury Board on behalf of the university and is a general obligation revenue bond backed by the full faith and credit of the commonwealth. 9(c) financing is generally approved for auxiliary revenue-producing projects such as parking facilities, residence halls, and dining facilities. Three projects have been authorized by the state to be financed through the 9(c) pooled bond program as listed below with the total authorized amount of $101.877 million.

(\textit{in millions})

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Hitt Hall (Dining facility)</td>
<td>$41.741</td>
</tr>
<tr>
<td>Innovation Campus Academic Bldg. (Parking)</td>
<td>$27.136</td>
</tr>
<tr>
<td>New Upper Quad Residence Hall</td>
<td>$33.000</td>
</tr>
</tbody>
</table>

9(d) Debt Financing

Debt issued under section 9(d) of Article X of the Constitution of Virginia can be issued by the university or a conduit issuer like the Virginia College Building Authority (VCBA) and is backed by a pledge of general revenues. Five projects have been authorized by the state to be financed through VCBA’s 9(d) pooled bond program as listed below with the total authorized amount of $207.304 million.

(\textit{in millions})

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corps Leadership and Military Service</td>
<td>$31.350</td>
</tr>
<tr>
<td>Data and Decision Science Building</td>
<td>$10.000</td>
</tr>
<tr>
<td>Hitt Hall</td>
<td>$12.000</td>
</tr>
<tr>
<td>Innovation Campus Academic Building</td>
<td>$107.000</td>
</tr>
<tr>
<td>Student Wellness Services</td>
<td>$46.954</td>
</tr>
</tbody>
</table>

RECOMMENDATION:

1. That the attached resolutions authorizing the issuance of 9(c) bonds totaling $101.877 million for the Hitt Hall (dining facility), Innovation Campus Academic Building (parking facility), and Upper Quad Residence Hall projects be approved; and

2. That the attached resolutions authorizing the issuance of 9(d) bonds through the VCBA totaling $207.304 million for the Corps Leadership and Military Science, Data and Decision Science Building, Hitt Hall, Innovation Campus Academic Building, and Student Wellness Services projects be approved.

August 23, 2022
Approval of Hitt Hall 9(c) Debt Financing

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

The Hitt Hall project (Capital Outlay Project Number 18605) has been authorized by the state to be financed pursuant to Article X, Section 9(c) of the Constitution of Virginia for up to $45.629 million plus amounts needed to fund issuance costs, reserve funds, and other financing expenses. However, further financial analysis identified alternative funding sources such that the university will only issue $41.741 million of 9(d) debt.

The project provides an expansion of Myers-Lawson School of Construction, a new dining center, and other academic spaces. The approximately 100,900 gross square foot building will be located on the north side of campus. The total $83.6 million project cost for Hitt Hall includes $4.859 million cash from dining programs, $25 million of private gifts, $41.741 million of 9(c) debt, and $12 million of 9(d) debt. Debt service will be paid from gift receipts, dining service revenue, and an internal lease for academic program space utilized by E&G programs. The university may use commercial paper as short-term financing and plans to reimburse itself from the 9(c) bond proceeds.

The proposed resolution requests the issuance of 9(c) bonds through the Treasury Board of the Commonwealth of Virginia on behalf of the university and pledges dining services system fees to pay the debt service. The resolution identifies (1) the Vice President for Finance, (2) the University Treasurer, and (3) the Assistant Vice President for Finance and Associate Treasurer in consultation with the Chief Business Officer, as being authorized to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the bonds.
RESOLUTION ON HITT HALL 9(c) FINANCING

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

WHEREAS, there have been passed by the General Assembly of Virginia and signed by the Governor various acts entitled Commonwealth of Virginia Higher Educational Institutions Bond Acts of 2007 through 2022 (collectively, the “Acts”); and

WHEREAS, pursuant to the Acts, the Treasury Board of the Commonwealth of Virginia (the “Treasury Board”) is authorized, by and with the consent of the Governor, to sell and issue bonds or bond anticipation notes of the Commonwealth of Virginia (the “Commonwealth”) for the purpose of providing funds, together with other available funds, for financing and refinancing certain revenue-producing capital projects at certain institutions of higher learning of the Commonwealth and for paying issuance costs, reserve funds, construction period interest and other financing expenses (the “Financing Expenses”), all in accordance with the provisions of Section 9(c) of Article X of the Constitution of Virginia; and

WHEREAS, for Virginia Polytechnic Institute and State University (the “Institution”), such revenue-producing capital projects include the Hitt Hall Project (Capital Outlay Project Number 18605) (each individually, a “Project” and, collectively, the “Projects”); and

WHEREAS, the Treasury Board is proposing to sell and issue bonds or bond anticipation notes pursuant to the Acts for such revenue-producing capital projects, in one or more series.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF VISITORS OF VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY:

Section 1. The Board of Visitors of the Institution (the “Board”) requests the Treasury Board to sell and issue bonds or bond anticipation notes (the “Bonds”) in an aggregate principal amount not to exceed $41.741 million to finance all or a portion of the costs of each Project plus Financing Expenses (for each individual Project, the “Individual Project Borrowing” and for all Projects collectively, the “Project Borrowings”). The Individual Project Borrowings will be identified by amount by the State Treasurer upon issuance of any Bonds.

Section 2. With respect to each Project, the Board (a) covenants to fix, revise, charge and collect dining services system fees and other rates, fees and charges, for or in connection with the use, occupation and services of such Project, and (b) pledges such rates, fees and charges remaining after payment of (i) the expenses of operating such Project and (ii) the expenses related to all other activities funded by the dining services system fees (“Individual Project Net Revenues”) to the payment of the principal of, premium, if any, and interest on the Individual Project Borrowing relating thereto. The Board further covenants that it will fix, revise, charge and collect such rates, fees and charges in such amounts so that Individual Project Net Revenues will at all times be sufficient to pay, when due, the principal of, premium, if any, and interest on the related Individual Project Borrowing and on any other
obligations secured by such Individual Project Net Revenues (such payments collectively the “Required Payments”). Each Individual Project Borrowing shall be secured on a parity with other obligations secured by the Individual Project Net Revenues relating to such Individual Project Borrowing (other than any obligations secured by a prior right in Individual Project Net Revenues). Any Individual Project Net Revenues pledged herein in excess of the Required Payments for an Individual Project Borrowing may be used by the Institution for any other lawful purpose.

Section 3. It is hereby found, determined and declared that, based upon responsible engineering and economic estimates and advice of appropriate officials of the Institution, as shown on the Financial Feasibility Study provided to the Department of the Treasury, with respect to each Project, the anticipated Individual Project Net Revenues pledged herein will be sufficient to pay the Required Payments for such Project so long as the aggregate amount of net debt service on the Individual Project Borrowing for such Project actually payable in any bond year does not exceed the amounts assumed in the Financial Feasibility Study relating thereto.

Section 4. The Board covenants that the Institution will furnish the Treasury Board its general purpose financial statements, within 30 days of their issuance and receipt, audited by a firm of certified public accountants or the Auditor of Public Accounts which shall include a schedule of revenues and expenditures for auxiliary enterprise systems. If Individual Project Net Revenues for any Project are insufficient to pay Required Payments for such Project during such period, the Institution shall provide evidence of a plan to generate Individual Project Net Revenues for such Project sufficient to make such Required Payments in the future.

Section 5. The Board covenants that so long as any of the Project Borrowings are outstanding, the Institution will pay to the State Treasurer, not less than 30 days before each interest or principal payment date, the amount certified by the State Treasurer to be due and payable on such date as principal of, premium, if any, and interest on the Project Borrowings.

Section 6. The Board covenants that the Institution will pay from time to time its proportionate share of all expenses incurred in connection with the sale and issuance of any series of Bonds that includes Project Borrowings, including without limitation any expenses incurred by the Virginia Department of Treasury in preparation for such financings, and all expenses thereafter incurred in connection with the Bonds, including without limitation the expense of calculating any rebate to the United States of the earnings derived from the investment of gross proceeds of the Bonds, all as certified by the State Treasurer to the Institution.

Section 7. The Board covenants that the Institution will not take or omit to take any action the taking or omission of which will cause the Bonds to be “arbitrage bonds” within the meaning of Section 148 of the Internal Revenue Code of 1986, as amended, including regulations issued pursuant thereto (the “Code”), or otherwise cause interest on the Bonds to be includable in the gross income of the owners thereof for federal income tax purposes under existing laws. Without limiting the generality of the foregoing, the Institution will pay
from time to time its proportional share of any rebate to the United States of the earnings derived from the investment of the gross proceeds of the Bonds.

Section 8. The Board covenants that the Institution will proceed with due diligence to undertake and complete the Projects and that the Institution will spend all of the available proceeds derived from the Project Borrowings for costs associated with the Projects and appropriated for the Projects by the General Assembly.

Section 9. The Board covenants that the Institution will not permit the proceeds of each Individual Project Borrowing to be used in any manner that would result in (a) 5% or more of such proceeds being used in a trade or business carried on by any person other than a governmental unit, as provided in Section 141(b) of the Code, (b) 5% or more of such proceeds being used with respect to any output facility within the meaning of Section 141(b)(4) of the Code, or (c) 5% or more of such proceeds being used directly or indirectly to make or finance loans to any persons other than a governmental unit, as provided in Section 141(c) of the Code. The Institution need not comply with such covenants if the Institution obtains the written approval of the State Treasurer and an opinion of nationally recognized bond counsel acceptable to the Treasury Board that such covenants need not be complied with to prevent the interest on the Bonds from being includable in the gross income of the owners thereof for federal income tax purposes.

Section 10. The Board covenants that for so long as any of the Bonds are outstanding the Institution will not enter into any operating lease, management contract or similar agreement with any person or entity, other than a state or local governmental unit, for all or any portion of any of the Projects without first obtaining the written approval of the State Treasurer and an opinion of nationally recognized bond counsel acceptable to the Treasury Board that entering into such agreement will not cause the interest on the Bonds to be included in the gross income of the owners thereof for federal income tax purposes.

Section 11. The Board covenants that for so long as any of the Bonds are outstanding, the Institution will not sell or dispose of all or any part of any of the Projects without first obtaining the written approval of the State Treasurer and an opinion of nationally recognized bond counsel acceptable to the Treasury Board that such sale or disposition will not cause interest on the Bonds to be included in the gross income of the owners thereof for federal income tax purposes.

Section 12. The Treasury Board is authorized, by and with the consent of the Governor, pursuant to Section 2.2-2419 of the Code of Virginia of 1950, as amended, and the Commonwealth of Virginia Article X, Section 9(c) Refunding Bond Act of 1992 (Chapters 265 and 408, Acts of Assembly of 1992) (collectively, the “Refunding Bond Acts”), to issue and sell refunding bonds of the Commonwealth to refund any and all of the Commonwealth’s outstanding bonds issued pursuant to Article X, Section 9(c) of the Constitution. In accordance with applicable law, including but not limited to the Refunding Bond Acts, the Board acknowledges that the covenants made in this resolution will continue with respect to any refunding or restructuring bonds issued by the Treasury Board without the need for any further action by the Board or the Institution.
Section 13. The officers of the Institution, defined as the Vice President for Finance, the University Treasurer, and the Assistant Vice President for Finance and Associate Treasurer in consultation with the Chief Business Officer, are authorized and directed to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the Bonds.

Section 14. The Board acknowledges that the Treasury Board will rely on the representations and covenants set forth herein in issuing the Bonds, that such covenants are critical to the security for the Bonds and the exclusion of the interest on the Bonds from the gross income of the owners thereof for federal income tax purposes, that the Board will not repeal, revoke, rescind or amend any of such covenants without first obtaining the written approval of the Treasury Board, and that such covenants will be binding upon the Board so long as any of the Bonds are outstanding.

Section 15. This resolution shall take effect immediately upon its adoption.

RECOMMENDATION:

That the above resolution authorizing the issuance of 9(c) bonds for the Hitt Hall Capital Outlay Project Number 18605 be approved.

August 23, 2022
Approval of Innovation Campus – Academic Building 9(c) Debt Financing

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

The Innovation Campus – Academic Building project (Capital Outlay Project Number 18412) has been authorized by the state to be financed pursuant to Article X, Section 9(c) of the Constitution of Virginia for up to $27.136 million, plus amounts needed to fund issuance costs, reserve funds, and other financing expenses.

The project will construct a 300,000 gross square foot building located in Alexandria, Virginia. The Innovation Campus-Academic Building will support graduate-degree programs and research opportunities in computational sciences and engineering; data science and analytics; and technology and policy. The project includes construction of a two-level below grade parking structure that contains 178 spaces and a surface lot that contains 104 spaces for the Innovation Campus. The total $302.136 million project will be funded with $107 million of 9(d) bond proceeds, $27.136 million of 9(c) bond proceeds, and $168 million of 21st Century VCBA bond proceeds. Debt service for the 9(c) parking component of this project will be paid with revenue from parking permit sales. The university may use commercial paper as short-term financing and would reimburse itself from the 9(c) bond proceeds. The university may use commercial paper as short-term financing and plans to reimburse itself from the 9(d) bond proceeds.

The proposed resolution requests the issuance of 9(c) bonds through the Treasury Board of the Commonwealth of Virginia on behalf of the university and pledges parking system fees to pay the debt service. The resolution identifies (1) the Vice President for Finance, (2) the University Treasurer, and (3) the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer, as being authorized to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the bonds.
RESOLUTION ON INNOVATION CAMPUS ACADEMIC BUILDING 9(c) FINANCING

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

WHEREAS, there have been passed by the General Assembly of Virginia and signed by the Governor various acts entitled Commonwealth of Virginia Higher Educational Institutions Bond Acts of 2007 through 2022 (collectively, the “Acts”); and

WHEREAS, pursuant to the Acts, the Treasury Board of the Commonwealth of Virginia (the “Treasury Board”) is authorized, by and with the consent of the Governor, to sell and issue bonds or bond anticipation notes of the Commonwealth of Virginia (the “Commonwealth”) for the purpose of providing funds, together with other available funds, for financing and refinancing certain revenue-producing capital projects at certain institutions of higher learning of the Commonwealth and for paying issuance costs, reserve funds, construction period interest and other financing expenses (the “Financing Expenses”), all in accordance with the provisions of Section 9(c) of Article X of the Constitution of Virginia; and

WHEREAS, for Virginia Polytechnic Institute and State University (the “Institution”), such revenue-producing capital projects include the Innovation Campus – Academic Building Project (Capital Outlay Project Number 18412) (each individually, a “Project” and, collectively, the “Projects”); and

WHEREAS, the Treasury Board is proposing to sell and issue bonds or bond anticipation notes pursuant to the Acts for such revenue-producing capital projects, in one or more series.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF VISITORS OF VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY:

Section 1. The Board of Visitors of the Institution (the “Board”) requests the Treasury Board to sell and issue bonds or bond anticipation notes (the “Bonds”) in an aggregate principal amount not to exceed $27,136 million to finance all or a portion of the costs of each Project plus Financing Expenses (for each individual Project, the “Individual Project Borrowing” and for all Projects collectively, the “Project Borrowings”). The Individual Project Borrowings will be identified by amount by the State Treasurer upon issuance of any Bonds.

Section 2. With respect to each Project, the Board (a) covenants to fix, revise, charge and collect parking system fees and other rates, fees and charges, for or in connection with the use, occupation and services of such Project, and (b) pledges such rates, fees and charges remaining after payment of (i) the expenses of operating such Project and (ii) the expenses related to all other activities funded by the parking system fees (“Individual Project Net Revenues”) to the payment of the principal of, premium, if any, and interest on the Individual Project Borrowing relating thereto. The Board further covenants that it will fix, revise, charge and collect such rates, fees and charges in such amounts so that Individual Project Net Revenues will at all times be sufficient to pay, when due, the principal of, premium, if any,
and interest on the related Individual Project Borrowing and on any other obligations secured by such Individual Project Net Revenues (such payments collectively the “Required Payments”). Each Individual Project Borrowing shall be secured on a parity with other obligations secured by the Individual Project Net Revenues relating to such Individual Project Borrowing (other than any obligations secured by a prior right in Individual Project Net Revenues). Any Individual Project Net Revenues pledged herein in excess of the Required Payments for an Individual Project Borrowing may be used by the Institution for any other lawful purpose.

**Section 3.** It is hereby found, determined and declared that, based upon responsible engineering and economic estimates and advice of appropriate officials of the Institution, as shown on the Financial Feasibility Study provided to the Department of the Treasury, with respect to each Project, the anticipated Individual Project Net Revenues pledged herein will be sufficient to pay the Required Payments for such Project so long as the aggregate amount of net debt service on the Individual Project Borrowing for such Project actually payable in any bond year does not exceed the amounts assumed in the Financial Feasibility Study relating thereto.

**Section 4.** The Board covenants that the Institution will furnish the Treasury Board its general purpose financial statements, within 30 days of their issuance and receipt, audited by a firm of certified public accountants or the Auditor of Public Accounts which shall include a schedule of revenues and expenditures for auxiliary enterprise systems. If Individual Project Net Revenues for any Project are insufficient to pay Required Payments for such Project during such period, the Institution shall provide evidence of a plan to generate Individual Project Net Revenues for such Project sufficient to make such Required Payments in the future.

**Section 5.** The Board covenants that so long as any of the Project Borrowings are outstanding, the Institution will pay to the State Treasurer, not less than 30 days before each interest or principal payment date, the amount certified by the State Treasurer to be due and payable on such date as principal of, premium, if any, and interest on the Project Borrowings.

**Section 6.** The Board covenants that the Institution will pay from time to time its proportionate share of all expenses incurred in connection with the sale and issuance of any series of Bonds that includes Project Borrowings, including without limitation any expenses incurred by the Virginia Department of Treasury in preparation for such financings, and all expenses thereafter incurred in connection with the Bonds, including without limitation the expense of calculating any rebate to the United States of the earnings derived from the investment of gross proceeds of the Bonds, all as certified by the State Treasurer to the Institution.

**Section 7.** The Board covenants that the Institution will not take or omit to take any action the taking or omission of which will cause the Bonds to be “arbitrage bonds” within the meaning of Section 148 of the Internal Revenue Code of 1986, as amended, including regulations issued pursuant thereto (the “Code”), or otherwise cause interest on the Bonds to be includable in the gross income of the owners thereof for federal income tax purposes.
under existing laws. Without limiting the generality of the foregoing, the Institution will pay from time to time its proportional share of any rebate to the United States of the earnings derived from the investment of the gross proceeds of the Bonds.

Section 8. The Board covenants that the Institution will proceed with due diligence to undertake and complete the Projects and that the Institution will spend all of the available proceeds derived from the Project Borrowings for costs associated with the Projects and appropriated for the Projects by the General Assembly.

Section 9. The Board covenants that the Institution will not permit the proceeds of each Individual Project Borrowing to be used in any manner that would result in (a) 5% or more of such proceeds being used in a trade or business carried on by any person other than a governmental unit, as provided in Section 141(b) of the Code, (b) 5% or more of such proceeds being used with respect to any output facility within the meaning of Section 141(b)(4) of the Code, or (c) 5% or more of such proceeds being used directly or indirectly to make or finance loans to any persons other than a governmental unit, as provided in Section 141(c) of the Code. The Institution need not comply with such covenants if the Institution obtains the written approval of the State Treasurer and an opinion of nationally recognized bond counsel acceptable to the Treasury Board that such covenants need not be complied with to prevent the interest on the Bonds from being includable in the gross income of the owners thereof for federal income tax purposes.

Section 10. The Board covenants that for so long as any of the Bonds are outstanding the Institution will not enter into any operating lease, management contract or similar agreement with any person or entity, other than a state or local governmental unit, for all or any portion of any of the Projects without first obtaining the written approval of the State Treasurer and an opinion of nationally recognized bond counsel acceptable to the Treasury Board that entering into such agreement will not cause the interest on the Bonds to be included in the gross income of the owners thereof for federal income tax purposes.

Section 11. The Board covenants that for so long as any of the Bonds are outstanding, the Institution will not sell or dispose of all or any part of any of the Projects without first obtaining the written approval of the State Treasurer and an opinion of nationally recognized bond counsel acceptable to the Treasury Board that such sale or disposition will not cause interest on the Bonds to be included in the gross income of the owners thereof for federal income tax purposes.

Section 12. The Treasury Board is authorized, by and with the consent of the Governor, pursuant to Section 2.2-2419 of the Code of Virginia of 1950, as amended, and the Commonwealth of Virginia Article X, Section 9(c) Refunding Bond Act of 1992 (Chapters 265 and 408, Acts of Assembly of 1992) (collectively, the “Refunding Bond Acts”), to issue and sell refunding bonds of the Commonwealth to refund any and all of the Commonwealth’s outstanding bonds issued pursuant to Article X, Section 9(c) of the Constitution. In accordance with applicable law, including but not limited to the Refunding Bond Acts, the Board acknowledges that the covenants made in this resolution will continue with respect to any refunding or restructuring bonds issued by the Treasury Board without the need
for any further action by the Board or the Institution.

Section 13. The officers of the Institution, defined as the Vice President for Finance, the University Treasurer, and the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer, are authorized and directed to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the Bonds.

Section 14. The Board acknowledges that the Treasury Board will rely on the representations and covenants set forth herein in issuing the Bonds, that such covenants are critical to the security for the Bonds and the exclusion of the interest on the Bonds from the gross income of the owners thereof for federal income tax purposes, that the Board will not repeal, revoke, rescind or amend any of such covenants without first obtaining the written approval of the Treasury Board, and that such covenants will be binding upon the Board so long as any of the Bonds are outstanding.

Section 15. This resolution shall take effect immediately upon its adoption.

**RECOMMENDATION:**

That the above resolution authorizing the issuance of 9(c) bonds for the Innovation Campus – Academic Building Capital Outlay Project Number 18412 be approved.

August 23, 2022
The New Upper Quad Residence Hall (Capital Outlay Project Number 18459) has been authorized by the state to be financed pursuant to Article X, Section 9(c) of the Constitution of Virginia for up to $40 million plus amounts needed to fund issuance costs, reserve funds, and other financing expenses. However, further financial analysis identified alternative funding sources such that the university will only issue $33 million of 9(c) debt.

The project will construct an approximately 68,000 gross square foot residence hall in the Upper Quad area of campus, which is the heart of the Corps of Cadets program. The residence hall will provide the Corps of Cadets with an additional 300 beds while simultaneously replacing Femoyer Hall, an underutilized and deteriorating asset. The total $42 million project will be funded by $33 million of 9(c) debt and $9 million of auxiliary revenue from Residential Programs. Debt service will be paid from Residential Programs auxiliary revenue. The university has used commercial paper as short-term financing to date and plans to reimburse itself from the 9(c) bond proceeds.

The proposed resolution requests the issuance of 9(c) bonds through the Treasury Board of the Commonwealth of Virginia on behalf of the university and pledges residential system fees to pay the debt service. The resolution identifies (1) the Vice President for Finance, (2) the University Treasurer, and (3) the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer, as being authorized to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the bonds.
RESOLUTION ON NEW UPPER QUAD RESIDENCE HALL 9(c) FINANCING

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

WHEREAS, there have been passed by the General Assembly of Virginia and signed by the Governor various acts entitled Commonwealth of Virginia Higher Educational Institutions Bond Acts of 2007 through 2022 (collectively, the “Acts”); and

WHEREAS, pursuant to the Acts, the Treasury Board of the Commonwealth of Virginia (the “Treasury Board”) is authorized, by and with the consent of the Governor, to sell and issue bonds or bond anticipation notes of the Commonwealth of Virginia (the “Commonwealth”) for the purpose of providing funds, together with other available funds, for financing and refinancing certain revenue-producing capital projects at certain institutions of higher learning of the Commonwealth and for paying issuance costs, reserve funds, construction period interest and other financing expenses (the “Financing Expenses”), all in accordance with the provisions of Section 9(c) of Article X of the Constitution of Virginia; and

WHEREAS, for Virginia Polytechnic Institute and State University (the “Institution”), such revenue-producing capital projects include the New Upper Quad Residence Hall Project (Capital Outlay Project Number 18459) (each individually, a “Project” and, collectively, the “Projects”); and

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF VISITORS OF VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY:

Section 1. The Board of Visitors of the Institution (the “Board”) requests the Treasury Board to sell and issue bonds or bond anticipation notes (the “Bonds”) in an aggregate principal amount not to exceed $33 million to finance all or a portion of the costs of each Project plus Financing Expenses (for each individual Project, the “Individual Project Borrowing” and for all Projects collectively, the “Project Borrowings”). The Individual Project Borrowings will be identified by amount by the State Treasurer upon issuance of any Bonds.

Section 2. With respect to each Project, the Board (a) covenants to fix, revise, charge and collect residential system fees and other rates, fees and charges, for or in connection with the use, occupation and services of such Project, and (b) pledges such rates, fees and charges remaining after payment of (i) the expenses of operating such Project and (ii) the expenses related to all other activities funded by the residential fees (“Individual Project Net Revenues”) to the payment of the principal of, premium, if any, and interest on the Individual Project Borrowing relating thereto. The Board further covenants that it will fix, revise, charge and collect such rates, fees and charges in such amounts so that Individual Project Net Revenues will at all times be sufficient to pay, when due, the principal of, premium, if any,
and interest on the related Individual Project Borrowing and on any other obligations secured by such Individual Project Net Revenues (such payments collectively the “Required Payments”). Each Individual Project Borrowing shall be secured on a parity with other obligations secured by the Individual Project Net Revenues relating to such Individual Project Borrowing (other than any obligations secured by a prior right in Individual Project Net Revenues). Any Individual Project Net Revenues pledged herein in excess of the Required Payments for an Individual Project Borrowing may be used by the Institution for any other lawful purpose.

Section 3. It is hereby found, determined and declared that, based upon responsible engineering and economic estimates and advice of appropriate officials of the Institution, as shown on the Financial Feasibility Study provided to the Department of the Treasury, with respect to each Project, the anticipated Individual Project Net Revenues pledged herein will be sufficient to pay the Required Payments for such Project so long as the aggregate amount of net debt service on the Individual Project Borrowing for such Project actually payable in any bond year does not exceed the amounts assumed in the Financial Feasibility Study relating thereto.

Section 4. The Board covenants that the Institution will furnish the Treasury Board its general purpose financial statements, within 30 days of their issuance and receipt, audited by a firm of certified public accountants or the Auditor of Public Accounts which shall include a schedule of revenues and expenditures for auxiliary enterprise systems. If Individual Project Net Revenues for any Project are insufficient to pay Required Payments for such Project during such period, the Institution shall provide evidence of a plan to generate Individual Project Net Revenues for such Project sufficient to make such Required Payments in the future.

Section 5. The Board covenants that so long as any of the Project Borrowings are outstanding, the Institution will pay to the State Treasurer, not less than 30 days before each interest or principal payment date, the amount certified by the State Treasurer to be due and payable on such date as principal of, premium, if any, and interest on the Project Borrowings.

Section 6. The Board covenants that the Institution will pay from time to time its proportionate share of all expenses incurred in connection with the sale and issuance of any series of Bonds that includes Project Borrowings, including without limitation any expenses incurred by the Virginia Department of Treasury in preparation for such financings, and all expenses thereafter incurred in connection with the Bonds, including without limitation the expense of calculating any rebate to the United States of the earnings derived from the investment of gross proceeds of the Bonds, all as certified by the State Treasurer to the Institution.

Section 7. The Board covenants that the Institution will not take or omit to take any action the taking or omission of which will cause the Bonds to be “arbitrage bonds” within the meaning of Section 148 of the Internal Revenue Code of 1986, as amended, including regulations issued pursuant thereto (the “Code”), or otherwise cause interest on the Bonds to be includable in the gross income of the owners thereof for federal income tax purposes.
under existing laws. Without limiting the generality of the foregoing, the Institution will pay from time to time its proportional share of any rebate to the United States of the earnings derived from the investment of the gross proceeds of the Bonds.

Section 8. The Board covenants that the Institution will proceed with due diligence to undertake and complete the Projects and that the Institution will spend all of the available proceeds derived from the Project Borrowings for costs associated with the Projects and appropriated for the Projects by the General Assembly.

Section 9. The Board covenants that the Institution will not permit the proceeds of each Individual Project Borrowing to be used in any manner that would result in (a) 5% or more of such proceeds being used in a trade or business carried on by any person other than a governmental unit, as provided in Section 141(b) of the Code, (b) 5% or more of such proceeds being used with respect to any output facility within the meaning of Section 141(b)(4) of the Code, or (c) 5% or more of such proceeds being used directly or indirectly to make or finance loans to any persons other than a governmental unit, as provided in Section 141(c) of the Code. The Institution need not comply with such covenants if the Institution obtains the written approval of the State Treasurer and an opinion of nationally recognized bond counsel acceptable to the Treasury Board that such covenants need not be complied with to prevent the interest on the Bonds from being includable in the gross income of the owners thereof for federal income tax purposes.

Section 10. The Board covenants that for so long as any of the Bonds are outstanding the Institution will not enter into any operating lease, management contract or similar agreement with any person or entity, other than a state or local governmental unit, for all or any portion of any of the Projects without first obtaining the written approval of the State Treasurer and an opinion of nationally recognized bond counsel acceptable to the Treasury Board that entering into such agreement will not cause the interest on the Bonds to be included in the gross income of the owners thereof for federal income tax purposes.

Section 11. The Board covenants that for so long as any of the Bonds are outstanding, the Institution will not sell or dispose of all or any part of any of the Projects without first obtaining the written approval of the State Treasurer and an opinion of nationally recognized bond counsel acceptable to the Treasury Board that such sale or disposition will not cause interest on the Bonds to be included in the gross income of the owners thereof for federal income tax purposes.

Section 12. The Treasury Board is authorized, by and with the consent of the Governor, pursuant to Section 2.2-2419 of the Code of Virginia of 1950, as amended, and the Commonwealth of Virginia Article X, Section 9(c) Refunding Bond Act of 1992 (Chapters 265 and 408, Acts of Assembly of 1992) (collectively, the “Refunding Bond Acts”), to issue and sell refunding bonds of the Commonwealth to refund any and all of the Commonwealth’s outstanding bonds issued pursuant to Article X, Section 9(c) of the Constitution. In accordance with applicable law, including but not limited to the Refunding Bond Acts, the Board acknowledges that the covenants made in this resolution will continue with respect to any refunding or restructuring bonds issued by the Treasury Board without the need
for any further action by the Board or the Institution.

Section 13. The officers of the Institution, defined as the Vice President for Finance, the University Treasurer, and the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer, are authorized and directed to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the Bonds.

Section 14. The Board acknowledges that the Treasury Board will rely on the representations and covenants set forth herein in issuing the Bonds, that such covenants are critical to the security for the Bonds and the exclusion of the interest on the Bonds from the gross income of the owners thereof for federal income tax purposes, that the Board will not repeal, revoke, rescind or amend any of such covenants without first obtaining the written approval of the Treasury Board, and that such covenants will be binding upon the Board so long as any of the Bonds are outstanding.

Section 15. This resolution shall take effect immediately upon its adoption.

RECOMMENDATION:

That the above resolution authorizing the issuance of 9(c) bonds for the New Upper Quad Residence Hall Capital Outlay Project Number 18459 be approved.

August 23, 2022
Approval of Corps Leadership and Military Science 9(d) Debt Financing

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

The Corps Leadership and Military Science project (Capital Outlay Project #18460) has been authorized by the state to be financed pursuant to Article X, Section 9(d) of the Constitution of Virginia for up to $31.35 million plus amounts needed to fund issuance costs, reserve funds, and other financing expenses.

The project will construct an approximately 75,500 gross square foot building on the existing site of the Art and Design Learning Center which will be demolished as part of the project. The existing central boiler plant equipment underneath the Art and Design Learning Center will remain in service. The project will consolidate the Corps of Cadets and ROTC programs in the northern portion of the Upper Quad. The facility will include modern classroom, administrative, program, and academic office space including academic classroom space required for the cyber security initiative. The total $52 million project will be funded by $31.35 million of 9(d) debt, $17 million of private gifts, and $3.65 million of auxiliary revenue. Debt service for the project will be paid from a combination of private gift receipts and a cadet facility fee. The university has used commercial paper as short-term financing to date and will reimburse itself from the 9(d) bond proceeds.

The bonds will be issued through the Virginia College Building Authority (the “Authority”), and the university will enter into a loan agreement and promissory note with the Authority. The loan agreement and note are subject to the following parameters: (a) the principal amount shall not be greater than the amount authorized by the General Assembly of Virginia; (b) the aggregate principal amount shall not exceed $31.35 million plus amounts needed to fund issuance costs and other financing expenses; (c) the interest rate payable shall not exceed a true interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities; (d) the weighted average maturity of the principal payments shall not be in excess of 20 years; (e) the last principal payment date shall not extend beyond the expected economic life of the project; and (f) the actual amount, interest rates, principal maturities, and date of the note shall be approved by an Authorized Officer.

The resolution identifies (1) the Vice President for Finance, (2) the University Treasurer, and (3) the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer, as being authorized to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the bonds.
RESOLUTION ON CORPS LEADERSHIP AND MILITARY SCIENCE
9(d) FINANCING

WHEREAS, pursuant to and in furtherance of Chapter 12, Title 23.1 of the Code of Virginia of 1950, as amended (the “Act”), the Virginia College Building Authority (the “Authority”) developed a program (the “Program”) to purchase debt instruments issued by public institutions of higher education in the Commonwealth of Virginia (“Participating Institutions” and each a “Participating Institution”) to finance or refinance projects of capital improvement (“Capital Projects” and each a “Capital Project”) included in a bill passed by a majority of each house of the General Assembly of Virginia (the “General Assembly”);

WHEREAS, under the Program, the Authority from time to time issues its Educational Facilities Revenue Bonds (Public Higher Education Financing Program) (“Pooled Bonds”) to finance the purchase or refunding of debt instruments issued by Participating Institutions to finance or refinance Capital Projects;

WHEREAS, if a Participating Institution desires to finance or refinance a Capital Project through the Program, it must enter into a loan agreement with the Authority, under which: (i) the Participating Institution will issue its promissory note pursuant to the Act to evidence a loan to it by the Authority; (ii) the Authority will agree to issue Pooled Bonds and use proceeds thereof to purchase the promissory note; (iii) the Participating Institution will agree to use proceeds of Pooled Bonds, loaned to it and received in exchange for its promissory note, to finance or refinance the Capital Project and to not take actions that may jeopardize any federal tax-exempt status of interest on Pooled Bonds allocable to financing or refinancing the Capital Project; and (iv) the Participating Institution will agree to make payments under the promissory note in sums sufficient to pay, together with certain administrative and arbitrage rebate payments, the principal of, premium, if any, and interest due on such Pooled Bonds;

WHEREAS, the Board of Visitors (the “Board”) of Virginia Polytechnic Institute and State University (the “Institution”) from time to time desires to finance or refinance Capital Projects for the Institution as a Participating Institution under the Program, and now proposes that the Institution issue its promissory note or notes (collectively, the “Note”) to be sold to the Authority in accordance with a loan agreement or loan agreements between the Institution and the Authority (collectively, the “Loan Agreement”), under which proceeds of Pooled Bonds will be loaned to and received by the Institution in exchange for the Note, to finance or refinance costs of the following Capital Project authorized for bond financing by the General Assembly: Corps Leadership and Military Science – Capital Outlay Project Number 18460 (the “Project”); and

WHEREAS, the Board desires to designate certain Institution officers: (i) delegated the authority to approve the forms of and to execute and deliver the Loan Agreement, the Note, and any amendments thereto, and any other documents necessary or desirable in connection with financing or refinancing costs of the Project through and participation in the Program; and (ii) responsible for monitoring post-issuance compliance with covenants
of the Institution related to maintaining any federal tax-exempt status of interest on Pooled Bonds.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF VISITORS OF VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY:

Section 1. The Project is hereby designated to be undertaken and financed or refinanced by the Authority and, accordingly, the Vice President for Finance, the University Treasurer, and the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer (the “Authorized Officers”) are each hereby delegated and invested with full power and authority to approve the forms of the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), and any pledge to the payment of the Note and any amendment thereto of total gross university sponsored overhead, unrestricted endowment income, tuition and fees, indirect cost recoveries, auxiliary enterprise revenues, general and nongeneral fund appropriations, and other revenues not required by law or previous binding contract to be devoted to some other purpose, restricted by a gift instrument for another purpose or excluded from such pledge as provided in the Loan Agreement, subject to the provisions of Section 3 hereof.

Section 2. Subject to the provisions of Section 3 hereof, the Authorized Officers are each hereby delegated and invested with full power and authority to execute, deliver, and issue, on behalf of the Institution, (a) the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), with approval of such documents in accordance with Section 1 hereof evidenced conclusively by the execution and delivery of the respective document, and (b) any other documents, instruments, or certificates as may be deemed necessary or desirable to finance or refinance costs of the Project through and participate in the Program, and to further carry out the purposes and intent of this resolution. The Authorized Officers are authorized and directed to take such steps and deliver such certificates in connection with delivery of the Note, and any amendment thereto, as may be required under any existing obligations, including bond resolutions relating to any outstanding general revenue pledge bonds, and to notify Virginia Department of Treasury representatives serving as Authority staff at least 60 days in advance of a pledge of any amounts pledged to the payment of the Note in accordance with Section 1 hereof to, or as security for, the payment of any other Institution obligations issued or entered into after the date hereof for so long as the Note and any amendments thereto remain outstanding.

Section 3. The authorizations given above as to the approval, execution, delivery, and issuance of the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise) are subject to the following parameters: (a) the principal amount to be paid under the Note allocable to any component of the Project, together with the principal amount of any other indebtedness with respect to such component, shall not be greater than the amount authorized for such component by the General Assembly plus amounts needed to fund issuance costs, original issue discount, other financing (including, without limitation, refunding) expenses, and any other increase permitted by law; (b) the aggregate principal amount of the Note shall in no event exceed $31.35 million as the same may be so increased; (c) the aggregate interest rate payable under the Note shall not exceed a “true”
or “Canadian” interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities, as reported by Thomson Municipal Market Data (MMD) or another comparable service or index, as of the date that the interest rates on the Authority’s Pooled Bonds are determined, taking into account any original issue discount or premium; (d) the weighted average maturity of the principal payments due under the Note shall not exceed 20 years after the original issue date of the Note; (e) the last principal payment date under the Note shall not extend beyond the reasonably expected economic life of the Project; and (f) subject to the foregoing, the actual amount, interest rates, principal maturities, and date of the Note shall be approved by an Authorized Officer, as evidenced by the execution thereof.

Section 4. The Board acknowledges that if there is a failure to make, as and when due, any payment of the principal of, premium, if any, and interest on any promissory note issued by the Institution as a Participating Institution to the Authority under the Program, including without limitation the Note and any amendments thereto, the State Comptroller is authorized under the Program and Section 23.1-1211 of the Code of Virginia of 1950, as amended, to charge against appropriations available to the Institution all future payments of principal of, premium, if any, and interest on such promissory note when due and payable and to make such payments to the Authority or its designee, so as to ensure that no future default will occur on such promissory note.

Section 5. The Board agrees that if the Authority determines the Institution as a Participating Institution shall be subject to continuing disclosure obligations under Rule 15c2-12 of the federal Securities and Exchange Commission with respect to any Pooled Bonds, (a) an Authorized Officer shall, and is hereby authorized and directed to, enter into a continuing disclosure undertaking in form and substance reasonably satisfactory to the Authority, and (b) the Institution will comply with the provisions and disclosure obligations contained therein.

Section 6. The Board designates the University Treasurer and the Assistant Vice President and Associate Treasurer to be responsible for implementing procedures to monitor post-issuance compliance with covenants in any loan agreement between the Institution as a Participating Institution and the Authority, including the Loan Agreement and any amendments thereto, related to maintaining tax-exempt status for federal income tax purposes of interest on any Pooled Bonds, including, without limitation, monitoring the use of any portion of all Capital Projects for the Institution financed or refinanced with such Pooled Bonds and compliance with any applicable federal income tax remedial action requirements in connection with certain changes in such use. Such officer shall review such post-issuance compliance at least annually for so long as such Pooled Bonds remain outstanding.

RECOMMENDATION:

That the above resolution authorizing the issuance of 9(d) bonds for the Corps Leadership and Military Science Capital Outlay Project Number 18460 be approved.

August 23, 2022
Approval of Data and Decision Science Building 9(d) Debt Financing

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

The Data and Decision Science Building (Capital Outlay Project #18427) has been authorized by the state to be financed pursuant to Article X, Section 9(d) of the Constitution of Virginia for up to $10 million plus amounts needed to fund issuance costs, reserve funds, and other financing expenses.

The project will construct a 120,000 gross square foot building located in the northwest corner of campus. The building brings together academic programs in engineering, computer science, statistics, mathematics, and international affairs to prepare students for careers focused on technology-based industries and cyber security. The total $79 million project will be funded with $10 million of 9(d) debt and $69 million of 21st Century VCBA bond proceeds. Debt service for this project will be paid from self-generated revenues generated from the research program. The university may use commercial paper as short-term financing and would reimburse itself from the 9(d) bond proceeds.

The bonds will be issued through the Virginia College Building Authority (the “Authority”), and the university will enter into a loan agreement and promissory note with the Authority. The loan agreement and note are subject to the following parameters: (a) the principal amount shall not be greater than the amount authorized by the General Assembly of Virginia; (b) the aggregate principal amount shall not exceed $10 million plus amounts needed to fund issuance costs and other financing expenses; (c) the interest rate payable shall not exceed a true interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities; (d) the weighted average maturity of the principal payments shall not be in excess of 20 years; (e) the last principal payment date shall not extend beyond the expected economic life of the project; and (f) the actual amount, interest rates, principal maturities, and date of the note shall be approved by an Authorized Officer.

The resolution identifies (1) the Vice President for Finance, (2) the University Treasurer, and (3) the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer, as being authorized to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the bonds.
RESOLUTION ON DATA AND DECISION SCIENCE BUILDING  
9(d) FINANCING

WHEREAS, pursuant to and in furtherance of Chapter 12, Title 23.1 of the Code of Virginia of 1950, as amended (the “Act”), the Virginia College Building Authority (the “Authority”) developed a program (the “Program”) to purchase debt instruments issued by public institutions of higher education in the Commonwealth of Virginia (“Participating Institutions” and each a “Participating Institution”) to finance or refinance projects of capital improvement (“Capital Projects” and each a “Capital Project”) included in a bill passed by a majority of each house of the General Assembly of Virginia (the “General Assembly”);

WHEREAS, under the Program, the Authority from time to time issues its Educational Facilities Revenue Bonds (Public Higher Education Financing Program) (“Pooled Bonds”) to finance the purchase or refunding of debt instruments issued by Participating Institutions to finance or refinance Capital Projects;

WHEREAS, if a Participating Institution desires to finance or refinance a Capital Project through the Program, it must enter into a loan agreement with the Authority, under which: (i) the Participating Institution will issue its promissory note pursuant to the Act to evidence a loan to it by the Authority; (ii) the Authority will agree to issue Pooled Bonds and use proceeds thereof to purchase the promissory note; (iii) the Participating Institution will agree to use proceeds of Pooled Bonds, loaned to it and received in exchange for its promissory note, to finance or refinance the Capital Project and to not take actions that may jeopardize any federal tax-exempt status of interest on Pooled Bonds allocable to financing or refinancing the Capital Project; and (iv) the Participating Institution will agree to make payments under the promissory note in sums sufficient to pay, together with certain administrative and arbitrage rebate payments, the principal of, premium, if any, and interest due on such Pooled Bonds;

WHEREAS, the Board of Visitors (the “Board”) of Virginia Polytechnic Institute and State University (the “Institution”) from time to time desires to finance or refinance Capital Projects for the Institution as a Participating Institution under the Program, and now proposes that the Institution issue its promissory note or notes (collectively, the “Note”) to be sold to the Authority in accordance with a loan agreement or loan agreements between the Institution and the Authority (collectively, the “Loan Agreement”), under which proceeds of Pooled Bonds will be loaned to and received by the Institution in exchange for the Note, to finance or refinance costs of the following Capital Project authorized for bond financing by the General Assembly: Data and Decision Science Building – Capital Outlay Project Number 18427 (the “Project”); and

WHEREAS, the Board desires to designate certain Institution officers: (i) delegated the authority to approve the forms of and to execute and deliver the Loan Agreement, the Note, and any amendments thereto, and any other documents necessary or desirable in
connection with financing or refinancing costs of the Project through and participation in
the Program; and (ii) responsible for monitoring post-issuance compliance with covenants
of the Institution related to maintaining any federal tax-exempt status of interest on Pooled
Bonds.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF VISITORS OF VIRGINIA
POLYTECHNIC INSTITUTE AND STATE UNIVERSITY:

Section 1. The Project is hereby designated to be undertaken and financed or
refinanced by the Authority and, accordingly, the Vice President for Finance, the
University Treasurer, and the Assistant Vice President and Associate Treasurer in
consultation with the Chief Business Officer (the “Authorized Officers”) are each hereby
delegated and invested with full power and authority to approve the forms of the Loan
Agreement, the Note, and any amendments thereto (in connection with any refunding of
Pooled Bonds financing or refinancing the Project or otherwise), and any pledge to the
payment of the Note and any amendment thereto of total gross university sponsored
overhead, unrestricted endowment income, tuition and fees, indirect cost recoveries,
auxiliary enterprise revenues, general and nongeneral fund appropriations, and other
revenues not required by law or previous binding contract to be devoted to some other
purpose, restricted by a gift instrument for another purpose or excluded from such pledge
as provided in the Loan Agreement, subject to the provisions of Section 3 hereof.

Section 2. Subject to the provisions of Section 3 hereof, the Authorized Officers are
each hereby delegated and invested with full power and authority to execute, deliver, and
issue, on behalf of the Institution, (a) the Loan Agreement, the Note, and any amendments
thereto (in connection with any refunding of Pooled Bonds financing or refinancing the
Project or otherwise), with approval of such documents in accordance with Section 1
hereof evidenced conclusively by the execution and delivery of the respective document,
and (b) any other documents, instruments, or certificates as may be deemed necessary
or desirable to finance or refinance costs of the Project through and participate in the
Program, and to further carry out the purposes and intent of this resolution. The
Authorized Officers are authorized and directed to take such steps and deliver such
certificates in connection with delivery of the Note, and any amendment thereto, as may
be required under any existing obligations, including bond resolutions relating to any
outstanding general revenue pledge bonds, and to notify Virginia Department of Treasury
representatives serving as Authority staff at least 60 days in advance of a pledge of any
amounts pledged to the payment of the Note in accordance with Section 1 hereof to, or
as security for, the payment of any other Institution obligations issued or entered into after
the date hereof for so long as the Note and any amendments thereto remain outstanding.

Section 3. The authorizations given above as to the approval, execution, delivery, and
issuance of the Loan Agreement, the Note, and any amendments thereto (in connection
with any refunding of Pooled Bonds financing or refinancing the Project or otherwise) are
subject to the following parameters: (a) the principal amount to be paid under the Note
allocable to any component of the Project, together with the principal amount of any other
indebtedness with respect to such component, shall not be greater than the amount
authorized for such component by the General Assembly plus amounts needed to fund
issuance costs, original issue discount, other financing (including, without limitation,
refunding) expenses, and any other increase permitted by law; (b) the aggregate principal
amount of the Note shall in no event exceed $10 million as the same may be so increased; (c) the aggregate interest rate payable under the Note shall not exceed a “true” or “Canadian” interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities, as reported by Thomson Municipal Market Data (MMD) or another comparable service or index, as of the date that the interest rates on the Authority’s Pooled Bonds are determined, taking into account any original issue discount or premium; (d) the weighted average maturity of the principal payments due under the Note shall not exceed 20 years after the original issue date of the Note; (e) the last principal payment date under the Note shall not extend beyond the reasonably expected economic life of the Project; and (f) subject to the foregoing, the actual amount, interest rates, principal maturities, and date of the Note shall be approved by an Authorized Officer, as evidenced by the execution thereof.

Section 4. The Board acknowledges that if there is a failure to make, as and when due, any payment of the principal of, premium, if any, and interest on any promissory note issued by the Institution as a Participating Institution to the Authority under the Program, including without limitation the Note and any amendments thereto, the State Comptroller is authorized under the Program and Section 23.1-1211 of the Code of Virginia of 1950, as amended, to charge against appropriations available to the Institution all future payments of principal of, premium, if any, and interest on such promissory note when due and payable and to make such payments to the Authority or its designee, so as to ensure that no future default will occur on such promissory note.

Section 5. The Board agrees that if the Authority determines the Institution as a Participating Institution shall be subject to continuing disclosure obligations under Rule 15c2-12 of the federal Securities and Exchange Commission with respect to any Pooled Bonds, (a) an Authorized Officer shall, and is hereby authorized and directed to, enter into a continuing disclosure undertaking in form and substance reasonably satisfactory to the Authority, and (b) the Institution will comply with the provisions and disclosure obligations contained therein.

Section 6. The Board designates the University Treasurer and the Assistant Vice President and Associate Treasurer to be responsible for implementing procedures to monitor post-issuance compliance with covenants in any loan agreement between the Institution as a Participating Institution and the Authority, including the Loan Agreement and any amendments thereto, related to maintaining tax-exempt status for federal income tax purposes of interest on any Pooled Bonds, including, without limitation, monitoring the use of any portion of all Capital Projects for the Institution financed or refinanced with such Pooled Bonds and compliance with any applicable federal income tax remedial action requirements in connection with certain changes in such use. Such officer shall review such post-issuance compliance at least annually for so long as such Pooled Bonds remain outstanding.

RECOMMENDATION:
That the above resolution authorizing the issuance of 9(d) bonds for the Data and
Decision Science Capital Outlay Project Number 18427 be approved.

August 23, 2022
Approval of Hitt Hall 9(d) Debt Financing

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

The Hitt Hall project (Capital Outlay Project #18605) has been authorized by the state to be financed pursuant to Article X, Section 9(d) of the Constitution of Virginia for up to $25.887 million plus amounts needed to fund issuance costs, reserve funds, and other financing expenses. However, further financial analysis identified alternative funding sources such that the university will only issue $12 million of 9(d) debt.

The project provides an expansion of Myers-Lawson School of Construction, a new dining center, and other academic spaces. The approximately 100,900 gross square foot building will be located on the north side of campus. The total $83.6 million project cost for Hitt Hall includes $4.859 million cash from dining programs, $25 million of private gifts, $41.741 million of 9(c) debt, and $12 million of 9(d) debt. Debt service will be paid from gift receipts, auxiliary revenue, and an internal lease for academic program space utilized by E&G programs. The university may use commercial paper as short-term financing and would reimburse itself from the 9(d) bond proceeds.

The bonds will be issued through the Virginia College Building Authority (the “Authority”), and the university will enter into a loan agreement and promissory note with the Authority. The loan agreement and note are subject to the following parameters: (a) the principal amount shall not be greater than the amount authorized by the General Assembly of Virginia; (b) the aggregate principal amount shall not exceed $12 million plus amounts needed to fund issuance costs and other financing expenses; (c) the interest rate payable shall not exceed a true interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities; (d) the weighted average maturity of the principal payments shall not be in excess of 20 years; (e) the last principal payment date shall not extend beyond the expected economic life of the project; and (f) the actual amount, interest rates, principal maturities, and date of the note shall be approved by an Authorized Officer.

The resolution identifies (1) the Vice President for Finance, (2) the University Treasurer, and (3) the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer, as being authorized to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the bonds.
RESOLUTION ON HITT HALL

WHEREAS, pursuant to and in furtherance of Chapter 12, Title 23.1 of the Code of Virginia of 1950, as amended (the “Act”), the Virginia College Building Authority (the “Authority”) developed a program (the “Program”) to purchase debt instruments issued by public institutions of higher education in the Commonwealth of Virginia (“Participating Institutions” and each a “Participating Institution”) to finance or refinance projects of capital improvement (“Capital Projects” and each a “Capital Project”) included in a bill passed by a majority of each house of the General Assembly of Virginia (the “General Assembly”);

WHEREAS, under the Program, the Authority from time to time issues its Educational Facilities Revenue Bonds (Public Higher Education Financing Program) (“Pooled Bonds”) to finance the purchase or refunding of debt instruments issued by Participating Institutions to finance or refinance Capital Projects;

WHEREAS, if a Participating Institution desires to finance or refinance a Capital Project through the Program, it must enter into a loan agreement with the Authority, under which:
(i) the Participating Institution will issue its promissory note pursuant to the Act to evidence a loan to it by the Authority;
(ii) the Authority will agree to issue Pooled Bonds and use proceeds thereof to purchase the promissory note;
(iii) the Participating Institution will agree to use proceeds of Pooled Bonds, loaned to it and received in exchange for its promissory note, to finance or refinance the Capital Project and to not take actions that may jeopardize any federal tax-exempt status of interest on Pooled Bonds allocable to financing or refinancing the Capital Project; and
(iv) the Participating Institution will agree to make payments under the promissory note in sums sufficient to pay, together with certain administrative and arbitrage rebate payments, the principal of, premium, if any, and interest due on such Pooled Bonds;

WHEREAS, the Board of Visitors (the “Board”) of Virginia Polytechnic Institute and State University (the “Institution”) from time to time desires to finance or refinance Capital Projects for the Institution as a Participating Institution under the Program, and now proposes that the Institution issue its promissory note or notes (collectively, the “Note”) to be sold to the Authority in accordance with a loan agreement or loan agreements between the Institution and the Authority (collectively, the “Loan Agreement”), under which proceeds of Pooled Bonds will be loaned to and received by the Institution in exchange for the Note, to finance or refinance costs of the following Capital Project authorized for bond financing by the General Assembly: Hitt Hall – Capital Outlay Project Number 18605 (the “Project”); and

WHEREAS, the Board desires to designate certain Institution officers: (i) delegated the authority to approve the forms of and to execute and deliver the Loan Agreement, the Note, and any amendments thereto, and any other documents necessary or desirable in connection with financing or refinancing costs of the Project through and participation in the Program; and (ii) responsible for monitoring post-issuance compliance with covenants of the Institution related to maintaining any federal tax-exempt status of interest on Pooled Bonds.
NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF VISITORS OF VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY:

Section 1. The Project is hereby designated to be undertaken and financed or refinanced by the Authority and, accordingly, the Vice President for Finance, the University Treasurer, and the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer (the “Authorized Officers”) are each hereby delegated and invested with full power and authority to approve the forms of the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), and any pledge to the payment of the Note and any amendment thereto of total gross university sponsored overhead, unrestricted endowment income, tuition and fees, indirect cost recoveries, auxiliary enterprise revenues, general and nongeneral fund appropriations, and other revenues not required by law or previous binding contract to be devoted to some other purpose, restricted by a gift instrument for another purpose or excluded from such pledge as provided in the Loan Agreement, subject to the provisions of Section 3 hereof.

Section 2. Subject to the provisions of Section 3 hereof, the Authorized Officers are each hereby delegated and invested with full power and authority to execute, deliver, and issue, on behalf of the Institution, (a) the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), with approval of such documents in accordance with Section 1 hereof evidenced conclusively by the execution and delivery of the respective document, and (b) any other documents, instruments, or certificates as may be deemed necessary or desirable to finance or refinance the Project through and participate in the Program, and to further carry out the purposes and intent of this resolution. The Authorized Officers are authorized and directed to take such steps and deliver such certificates in connection with delivery of the Note, and any amendment thereto, as may be required under any existing obligations, including bond resolutions relating to any outstanding general revenue pledge bonds, and to notify Virginia Department of Treasury representatives serving as Authority staff at least 60 days in advance of a pledge of any amounts pledged to the payment of the Note in accordance with Section 1 hereof to, or as security for, the payment of any other Institution obligations issued or entered into after the date hereof for so long as the Note and any amendments thereto remain outstanding.

Section 3. The authorizations given above as to the approval, execution, delivery, and issuance of the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise) are subject to the following parameters: (a) the principal amount to be paid under the Note allocable to any component of the Project, together with the principal amount of any other indebtedness with respect to such component, shall not be greater than the amount authorized for such component by the General Assembly plus amounts needed to fund issuance costs, original issue discount, other financing (including, without limitation, refunding) expenses, and any other increase permitted by law; (b) the aggregate principal amount of the Note shall in no event exceed $12 million as the same may be so increased; (c) the aggregate interest rate payable under the Note shall not exceed a “true”
or “Canadian” interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities, as reported by Thomson Municipal Market Data (MMD) or another comparable service or index, as of the date that the interest rates on the Authority’s Pooled Bonds are determined, taking into account any original issue discount or premium; (d) the weighted average maturity of the principal payments due under the Note shall not exceed 20 years after the original issue date of the Note; (e) the last principal payment date under the Note shall not extend beyond the reasonably expected economic life of the Project; and (f) subject to the foregoing, the actual amount, interest rates, principal maturities, and date of the Note shall be approved by an Authorized Officer, as evidenced by the execution thereof.

Section 4. The Board acknowledges that if there is a failure to make, as and when due, any payment of the principal of, premium, if any, and interest on any promissory note issued by the Institution as a Participating Institution to the Authority under the Program, including without limitation the Note and any amendments thereto, the State Comptroller is authorized under the Program and Section 23.1-1211 of the Code of Virginia of 1950, as amended, to charge against appropriations available to the Institution all future payments of principal of, premium, if any, and interest on such promissory note when due and payable and to make such payments to the Authority or its designee, so as to ensure that no future default will occur on such promissory note.

Section 5. The Board agrees that if the Authority determines the Institution as a Participating Institution shall be subject to continuing disclosure obligations under Rule 15c2-12 of the federal Securities and Exchange Commission with respect to any Pooled Bonds, (a) an Authorized Officer shall, and is hereby authorized and directed to, enter into a continuing disclosure undertaking in form and substance reasonably satisfactory to the Authority, and (b) the Institution will comply with the provisions and disclosure obligations contained therein.

Section 6. The Board designates the University Treasurer and the Assistant Vice President and Associate Treasurer to be responsible for implementing procedures to monitor post-issuance compliance with covenants in any loan agreement between the Institution as a Participating Institution and the Authority, including the Loan Agreement and any amendments thereto, related to maintaining tax-exempt status for federal income tax purposes of interest on any Pooled Bonds, including, without limitation, monitoring the use of any portion of all Capital Projects for the Institution financed or refinanced with such Pooled Bonds and compliance with any applicable federal income tax remedial action requirements in connection with certain changes in such use. Such officer shall review such post-issuance compliance at least annually for so long as such Pooled Bonds remain outstanding.

RECOMMENDATION:

That the above resolution authorizing the issuance of 9(d) bonds for the Hitt Hall Capital Outlay Project Number 18605 be approved.

August 23, 2022
The Innovation Campus-Academic Building project (Capital Outlay Project #18412) has been authorized by the state to be financed pursuant to Article X, Section 9(d) of the Constitution of Virginia for up to $107 million plus amounts needed to fund issuance costs, reserve funds, and other financing expenses.

The project will construct a 300,000 gross square foot building located in Alexandria Virginia. The Innovation Campus-Academic Building will support graduate-degree programs and research opportunities in computational sciences and engineering; data science and analytics; and technology and policy. The project includes construction of a two-level below grade parking structure that contains 178 spaces and a surface lot that contains 104 spaces for the Innovation Campus. The total $302.136 million project will be funded with $107 million of 9(d) bond proceeds, $27.136 million of 9(c) bond proceeds, and $168 million of 21st Century VCBA bond proceeds. Debt service for the 9(d) building component of this project will be paid from private gift and other receipts. The university may use commercial paper as short-term financing and plans to reimburse itself from the 9(d) bond proceeds.

The bonds will be issued through the Virginia College Building Authority (the “Authority”), and the university will enter into a loan agreement and promissory note with the Authority. The loan agreement and note are subject to the following parameters: (a) the principal amount shall not be greater than the amount authorized by the General Assembly of Virginia; (b) the aggregate principal amount shall not exceed $107 million plus amounts needed to fund issuance costs and other financing expenses; (c) the interest rate payable shall not exceed a true interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities; (d) the weighted average maturity of the principal payments shall not be in excess of 30 years; (e) the last principal payment date shall not extend beyond the expected economic life of the project; and (f) the actual amount, interest rates, principal maturities, and date of the note shall be approved by an Authorized Officer.

The resolution identifies (1) the Vice President for Finance, (2) the University Treasurer, and (3) the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer, as being authorized to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the bonds.
RESOLUTION ON INNOVATION CAMPUS – ACADEMIC BUILDING
9(d) FINANCING

WHEREAS, pursuant to and in furtherance of Chapter 12, Title 23.1 of the Code of Virginia of 1950, as amended (the “Act”), the Virginia College Building Authority (the “Authority”) developed a program (the “Program”) to purchase debt instruments issued by public institutions of higher education in the Commonwealth of Virginia (“Participating Institutions” and each a “Participating Institution”) to finance or refinance projects of capital improvement (“Capital Projects” and each a “Capital Project”) included in a bill passed by a majority of each house of the General Assembly of Virginia (the “General Assembly”);

WHEREAS, under the Program, the Authority from time to time issues its Educational Facilities Revenue Bonds (Public Higher Education Financing Program) (“Pooled Bonds”) to finance the purchase or refunding of debt instruments issued by Participating Institutions to finance or refinance Capital Projects;

WHEREAS, if a Participating Institution desires to finance or refinance a Capital Project through the Program, it must enter into a loan agreement with the Authority, under which: (i) the Participating Institution will issue its promissory note pursuant to the Act to evidence a loan to it by the Authority; (ii) the Authority will agree to issue Pooled Bonds and use proceeds thereof to purchase the promissory note; (iii) the Participating Institution will agree to use proceeds of Pooled Bonds, loaned to it and received in exchange for its promissory note, to finance or refinance the Capital Project and to not take actions that may jeopardize any federal tax-exempt status of interest on Pooled Bonds allocable to financing or refinancing the Capital Project; and (iv) the Participating Institution will agree to make payments under the promissory note in sums sufficient to pay, together with certain administrative and arbitrage rebate payments, the principal of, premium, if any, and interest due on such Pooled Bonds;

WHEREAS, the Board of Visitors (the “Board”) of Virginia Polytechnic Institute and State University (the “Institution”) from time to time desires to finance or refinance Capital Projects for the Institution as a Participating Institution under the Program, and now proposes that the Institution issue its promissory note or notes (collectively, the “Note”) to be sold to the Authority in accordance with a loan agreement or loan agreements between the Institution and the Authority (collectively, the “Loan Agreement”), under which proceeds of Pooled Bonds will be loaned to and received by the Institution in exchange for the Note, to finance or refinance costs of the following Capital Project authorized for bond financing by the General Assembly: Innovation Campus - Academic Building – Capital Outlay Project Number 18412 (the “Project”); and

WHEREAS, the Board desires to designate certain Institution officers: (i) delegated the authority to approve the forms of and to execute and deliver the Loan Agreement, the Note, and any amendments thereto, and any other documents necessary or desirable in connection with financing or refinancing costs of the Project through and participation in the Program; and (ii) responsible for monitoring post-issuance compliance with covenants of the Institution related to maintaining any federal tax-exempt status of interest on Pooled Bonds.
NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF VISITORS OF VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY:

Section 1. The Project is hereby designated to be undertaken and financed or refinanced by the Authority and, accordingly, the Vice President for Finance, the University Treasurer, and the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer (the “Authorized Officers”) are each hereby delegated and invested with full power and authority to approve the forms of the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), and any pledge to the payment of the Note and any amendment thereto of total gross university sponsored overhead, unrestricted endowment income, tuition and fees, indirect cost recoveries, auxiliary enterprise revenues, general and nongeneral fund appropriations, and other revenues not required by law or previous binding contract to be devoted to some other purpose, restricted by a gift instrument for another purpose or excluded from such pledge as provided in the Loan Agreement, subject to the provisions of Section 3 hereof.

Section 2. Subject to the provisions of Section 3 hereof, the Authorized Officers are each hereby delegated and invested with full power and authority to execute, deliver, and issue, on behalf of the Institution, (a) the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), with approval of such documents in accordance with Section 1 hereof evidenced conclusively by the execution and delivery of the respective document, and (b) any other documents, instruments, or certificates as may be deemed necessary or desirable to finance or refinance costs of the Project through and participate in the Program, and to further carry out the purposes and intent of this resolution. The Authorized Officers are authorized and directed to take such steps and deliver such certificates in connection with delivery of the Note, and any amendment thereto, as may be required under any existing obligations, including bond resolutions relating to any outstanding general revenue pledge bonds, and to notify Virginia Department of Treasury representatives serving as Authority staff at least 60 days in advance of a pledge of any amounts pledged to the payment of the Note in accordance with Section 1 hereof to, or as security for, the payment of any other Institution obligations issued or entered into after the date hereof for so long as the Note and any amendments thereto remain outstanding.

Section 3. The authorizations given above as to the approval, execution, delivery, and issuance of the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise) are subject to the following parameters: (a) the principal amount to be paid under the Note allocable to any component of the Project, together with the principal amount of any other indebtedness with respect to such component, shall not be greater than the amount authorized for such component by the General Assembly plus amounts needed to fund issuance costs, original issue discount, other financing (including, without limitation, refunding) expenses, and any other increase permitted by law; (b) the aggregate principal amount of the Note shall in no event exceed $107 million as the same may be so increased; (c) the aggregate interest rate payable under the Note shall not exceed a “true”
or “Canadian” interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities, as reported by Thomson Municipal Market Data (MMD) or another comparable service or index, as of the date that the interest rates on the Authority’s Pooled Bonds are determined, taking into account any original issue discount or premium; (d) the weighted average maturity of the principal payments due under the Note shall not exceed 30 years after the original issue date of the Note; (e) the last principal payment date under the Note shall not extend beyond the reasonably expected economic life of the Project; and (f) subject to the foregoing, the actual amount, interest rates, principal maturities, and date of the Note shall be approved by an Authorized Officer, as evidenced by the execution thereof.

Section 4. The Board acknowledges that if there is a failure to make, as and when due, any payment of the principal of, premium, if any, and interest on any promissory note issued by the Institution as a Participating Institution to the Authority under the Program, including without limitation the Note and any amendments thereto, the State Comptroller is authorized under the Program and Section 23.1-1211 of the Code of Virginia of 1950, as amended, to charge against appropriations available to the Institution all future payments of principal of, premium, if any, and interest on such promissory note when due and payable and to make such payments to the Authority or its designee, so as to ensure that no future default will occur on such promissory note.

Section 5. The Board agrees that if the Authority determines the Institution as a Participating Institution shall be subject to continuing disclosure obligations under Rule 15c2-12 of the federal Securities and Exchange Commission with respect to any Pooled Bonds, (a) an Authorized Officer shall, and is hereby authorized and directed to, enter into a continuing disclosure undertaking in form and substance reasonably satisfactory to the Authority, and (b) the Institution will comply with the provisions and disclosure obligations contained therein.

Section 6. The Board designates the University Treasurer and the Assistant Vice President and Associate Treasurer to be responsible for implementing procedures to monitor post-issuance compliance with covenants in any loan agreement between the Institution as a Participating Institution and the Authority, including the Loan Agreement and any amendments thereto, related to maintaining tax-exempt status for federal income tax purposes of interest on any Pooled Bonds, including, without limitation, monitoring the use of any portion of all Capital Projects for the Institution financed or refinanced with such Pooled Bonds and compliance with any applicable federal income tax remedial action requirements in connection with certain changes in such use. Such officer shall review such post-issuance compliance at least annually for so long as such Pooled Bonds remain outstanding.

RECOMMENDATION:

That the above resolution authorizing the issuance of 9(d) bonds for the Innovation Campus - Academic Building Capital Outlay Project Number 18412 be approved.

August 23, 2022
Approval of Student Wellness Improvements 9(d) Debt Financing

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

The Student Wellness Services project (Capital Outlay Project #18357) has been authorized by the state to be financed pursuant to Article X, Section 9(d) of the Constitution of Virginia for up to $59.190 million plus amounts needed to fund issuance costs, reserve funds, and other financing expenses. However, further financial analysis identified alternative funding sources such that the university will only issue $46.954 million of 9(d) debt.

The project will renovate approximately 197,000 gross square feet of War Memorial Hall. The improvements will provide space for Hokie Wellness, Recreational Sports, Human Nutrition, Foods, and Exercise, and the School of Education. The project will address deferred maintenance, code requirements, and install air conditioning to the building. The total $70 million project cost will be funded with approximately $46.954 million of 9(d) debt and $23.046 million of cash from Student Health and Recreational Sports. Debt service for this project will be paid from self-generated funds derived from Student Health and Recreational Sports auxiliary revenues. The E&G program cost share for the School of Education will to be covered by an internal lease. The university may use commercial paper as short-term financing and would reimburse itself from the 9(d) bond proceeds.

The bonds will be issued through the Virginia College Building Authority (the “Authority”), and the university will enter into a loan agreement and promissory note with the Authority. The loan agreement and note are subject to the following parameters: (a) the principal amount shall not be greater than the amount authorized by the General Assembly of Virginia; (b) the aggregate principal amount shall not exceed $46,954,000 plus amounts needed to fund issuance costs and other financing expenses; (c) the interest rate payable shall not exceed a true interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities; (d) the weighted average maturity of the principal payments shall not be in excess of 30 years; (e) the last principal payment date shall not extend beyond the expected economic life of the project; and (f) the actual amount, interest rates, principal maturities, and date of the note shall be approved by an Authorized Officer.

The resolution identifies (1) the Vice President for Finance, (2) the University Treasurer, and (3) the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer, as being authorized to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the bonds.
RESOLUTION ON STUDENT WELLNESS IMPROVEMENTS
9(d) FINANCING

WHEREAS, pursuant to and in furtherance of Chapter 12, Title 23.1 of the Code of Virginia of 1950, as amended (the “Act”), the Virginia College Building Authority (the “Authority”) developed a program (the “Program”) to purchase debt instruments issued by public institutions of higher education in the Commonwealth of Virginia (“Participating Institutions” and each a “Participating Institution”) to finance or refinance projects of capital improvement (“Capital Projects” and each a “Capital Project”) included in a bill passed by a majority of each house of the General Assembly of Virginia (the “General Assembly”);

WHEREAS, under the Program, the Authority from time to time issues its Educational Facilities Revenue Bonds (Public Higher Education Financing Program) (“Pooled Bonds”) to finance the purchase or refunding of debt instruments issued by Participating Institutions to finance or refinance Capital Projects;

WHEREAS, if a Participating Institution desires to finance or refinance a Capital Project through the Program, it must enter into a loan agreement with the Authority, under which: (i) the Participating Institution will issue its promissory note pursuant to the Act to evidence a loan to it by the Authority; (ii) the Authority will agree to issue Pooled Bonds and use proceeds thereof to purchase the promissory note; (iii) the Participating Institution will agree to use proceeds of Pooled Bonds, loaned to it and received in exchange for its promissory note, to finance or refinance the Capital Project and to not take actions that may jeopardize any federal tax-exempt status of interest on Pooled Bonds allocable to financing or refinancing the Capital Project; and (iv) the Participating Institution will agree to make payments under the promissory note in sums sufficient to pay, together with certain administrative and arbitrage rebate payments, the principal of, premium, if any, and interest due on such Pooled Bonds;

WHEREAS, the Board of Visitors (the “Board”) of Virginia Polytechnic Institute and State University (the “Institution”) from time to time desires to finance or refinance Capital Projects for the Institution as a Participating Institution under the Program, and now proposes that the Institution issue its promissory note or notes (collectively, the “Note”) to be sold to the Authority in accordance with a loan agreement or loan agreements between the Institution and the Authority (collectively, the “Loan Agreement”), under which proceeds of Pooled Bonds will be loaned to and received by the Institution in exchange for the Note, to finance or refinance costs of the following Capital Project authorized for bond financing by the General Assembly: Student Wellness Improvements – Capital Outlay Project Number 18357 (the “Project”); and

WHEREAS, the Board desires to designate certain Institution officers: (i) delegated the authority to approve the forms of and to execute and deliver the Loan Agreement, the Note, and any amendments thereto, and any other documents necessary or desirable in connection with financing or refinancing costs of the Project through and participation in the Program; and (ii) responsible for monitoring post-issuance compliance with covenants of the Institution related to maintaining any federal tax-exempt status of interest on Pooled Bonds.
NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF VISITORS OF VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY:

Section 1. The Project is hereby designated to be undertaken and financed or refinanced by the Authority and, accordingly, the Vice President for Finance, the University Treasurer, and the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer (the “Authorized Officers”) are each hereby delegated and invested with full power and authority to approve the forms of the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), and any pledge to the payment of the Note and any amendment thereto of total gross university sponsored overhead, unrestricted endowment income, tuition and fees, indirect cost recoveries, auxiliary enterprise revenues, general and nongeneral fund appropriations, and other revenues not required by law or previous binding contract to be devoted to some other purpose, restricted by a gift instrument for another purpose or excluded from such pledge as provided in the Loan Agreement, subject to the provisions of Section 3 hereof.

Section 2. Subject to the provisions of Section 3 hereof, the Authorized Officers are each hereby delegated and invested with full power and authority to execute, deliver, and issue, on behalf of the Institution, (a) the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), with approval of such documents in accordance with Section 1 hereof evidenced conclusively by the execution and delivery of the respective document, and (b) any other documents, instruments, or certificates as may be deemed necessary or desirable to finance or refinance costs of the Project through and participate in the Program, and to further carry out the purposes and intent of this resolution. The Authorized Officers are authorized and directed to take such steps and deliver such certificates in connection with delivery of the Note, and any amendment thereto, as may be required under any existing obligations, including bond resolutions relating to any outstanding general revenue pledge bonds, and to notify Virginia Department of Treasury representatives serving as Authority staff at least 60 days in advance of a pledge of any amounts pledged to the payment of the Note in accordance with Section 1 hereof to, or as security for, the payment of any other Institution obligations issued or entered into after the date hereof for so long as the Note and any amendments thereto remain outstanding.

Section 3. The authorizations given above as to the approval, execution, delivery, and issuance of the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise) are subject to the following parameters: (a) the principal amount to be paid under the Note allocable to any component of the Project, together with the principal amount of any other indebtedness with respect to such component, shall not be greater than the amount authorized for such component by the General Assembly plus amounts needed to fund issuance costs, original issue discount, other financing (including, without limitation, refunding) expenses, and any other increase permitted by law; (b) the aggregate principal amount of the Note shall in no event exceed $46.954 million as the same may be so increased; (c) the aggregate interest rate payable under the Note shall not exceed a “true”
or “Canadian” interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities, as reported by Thomson Municipal Market Data (MMD) or another comparable service or index, as of the date that the interest rates on the Authority’s Pooled Bonds are determined, taking into account any original issue discount or premium; (d) the weighted average maturity of the principal payments due under the Note shall not exceed 30 years after the original issue date of the Note; (e) the last principal payment date under the Note shall not extend beyond the reasonably expected economic life of the Project; and (f) subject to the foregoing, the actual amount, interest rates, principal maturities, and date of the Note shall be approved by an Authorized Officer, as evidenced by the execution thereof.

Section 4. The Board acknowledges that if there is a failure to make, as and when due, any payment of the principal of, premium, if any, and interest on any promissory note issued by the Institution as a Participating Institution to the Authority under the Program, including without limitation the Note and any amendments thereto, the State Comptroller is authorized under the Program and Section 23.1-1211 of the Code of Virginia of 1950, as amended, to charge against appropriations available to the Institution all future payments of principal of, premium, if any, and interest on such promissory note when due and payable and to make such payments to the Authority or its designee, so as to ensure that no future default will occur on such promissory note.

Section 5. The Board agrees that if the Authority determines the Institution as a Participating Institution shall be subject to continuing disclosure obligations under Rule 15c2-12 of the federal Securities and Exchange Commission with respect to any Pooled Bonds, (a) an Authorized Officer shall, and is hereby authorized and directed to, enter into a continuing disclosure undertaking in form and substance reasonably satisfactory to the Authority, and (b) the Institution will comply with the provisions and disclosure obligations contained therein.

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RECOMMENDATION:

That the above resolution authorizing the issuance of 9(d) bonds for the Student Wellness Improvements Capital Outlay Project Number 18357 be approved.

August 23, 2023
The Financial Performance Report of income and expenditures is prepared from two sources: actual accounting data as recorded at Virginia Tech and the annual budgets which are also recorded in the university accounting system. The actual accounting data reflect the modified accrual basis of accounting, which recognizes revenues when received rather than when earned and commitments to buy goods and services as encumbrances when obligated and as an expenditure when paid. The Original Budget was approved by the Board of Visitors at the June meeting. The Adjusted Budget reflects adjustments to incorporate actual experience or changes made during the fiscal year. These changes are presented for review and approval by the Finance and Resource Management Committee and the Board of Visitors through this report. Where adjustments impact appropriations at the state level, the university coordinates with the Department of Planning and Budget to ensure appropriations are reflected accurately.

The July to June 2021-22 budget (year-to-date) is prepared from historical data which reflects trends in expenditures from previous years as well as known changes in timing. Differences between the actual income and expenditures and the year-to-date budget may occur for a variety of reasons, such as an accelerated or delayed flow of documents through the accounting system, a change in spending patterns at the college level, or increases in revenues for a particular area.

 Quarterly budget estimates are prepared to provide an intermediate measure of income and expenditures. Actual revenues and expenditures may vary from the budget estimates. The projected year-end budgets are, however, the final measure of budgetary performance.

Capital program performance is measured against the Total Project Budget. The Total Project Budget amounts reflect appropriations and authorizations established by the State or Board of Visitors for each capital project. These amounts are recorded in the accounting system in grant funds with revenue and expenditure budgets upon the effective date of each project, which normally occurs on July 1 or regularly scheduled meetings of the Board of Visitors. Under restructuring authorities, university administration may make minor changes to a Total Project Budget, within ten percent, and the revised Total Project Budget is shown on the subsequent quarterly report. The Cumulative Expenditures reflect lifetime-to-date activity until a project is complete, and a project’s life spans multiple fiscal years. The Annual Budgets are estimates of expected activity for a 12-month portion of the life of a project, and these budgets are approved by the Board of Visitors at the June meeting. Spending pace for a project may periodically slow or accelerate during a year for a variety of reasons including shifts in construction start dates, contractor performance or billing cycles, and supply chain disruptions. The Annual Budgets are revised accordingly and shown on the subsequent quarterly report.

**RECOMMENDATION:**

That the report of income and expenditures for the University Division and the Cooperative Extension/Agricultural Experiment Station Division for the period of July 1, 2021 through June 30, 2022 and the Capital Outlay report be approved.

August 23, 2022
## OPERATING BUDGET
### 2021-22

**Dollars in Thousands**

### Annual Budget for 2021-22

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<th>July 1, 2021 to June 30, 2022</th>
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<td>$95,613</td>
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<td>-43,308</td>
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<td><strong>Student Financial Assistance</strong></td>
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<td>$37,988</td>
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<td>$37,988</td>
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<td><strong>All Other Programs</strong></td>
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<td>Revenue</td>
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<td>$23,552</td>
<td>-$367</td>
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<td>Federal Pandemic Relief</td>
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<td><strong>Total University</strong></td>
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<tr>
<td>Revenues</td>
<td>$1,854,545</td>
<td>$1,842,552</td>
<td>$11,993</td>
<td>$1,737,932</td>
<td>$1,842,552</td>
<td>$104,620</td>
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<td>116,447</td>
<td>-1,732,785</td>
<td>-1,865,872</td>
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<tr>
<td>Reserve Drawdown/(Deposit)</td>
<td>-105,629</td>
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<td>-5,147</td>
<td>11,320</td>
<td>16,467</td>
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</tbody>
</table>

* All Other Programs include federal work study, surplus property, local funds, and unique military activities.

**Presentation Date: August 22, 2022**
OPERATING BUDGET

1. General Fund Revenues are lower than budgeted due to lower than projected nongeneral fund interest earnings and credit rebates returned to the institution by the Commonwealth.

2. University Division all other income revenues are lower than projected due to timing of revenue collections occurring in early 2022-23 that were originally planned for late 2021-22.

3. The budget for federal revenue is established to match projected allotments from the federal government that are expected to be drawn down during the state fiscal year. All expenses in federal programs are covered by drawdowns of federal revenue up to allotted amounts. Federal revenue in the Cooperative Extension and Agriculture Experiment Station Division is lower than projected due to the timing of federal drawdown.

4. Cooperative Extension and Agriculture Experiment Station Division revenues for All Other Income are higher than projected due to milk sales and self-generated revenues.

5. Quarterly and projected annual variances are explained in the Auxiliary Enterprises section of this report.

6. Historical patterns have been used to develop a measure of the revenue and expenditure activity for Sponsored Programs. Actual revenues and expenses may vary from the budget estimates because projects are initiated and concluded on an individual basis without regard to fiscal year. Total sponsored research expenditures are higher than projected. The sponsored research expenditures are 12.2% higher than June 30, 2021.

7. Expenses for All Other Programs were lower than projected due to timing of expenditures of $25 million for targeted federal pandemic relief to restore units to a neutral financial position and lower than projected Surplus Property activity.

8. The annual budget for the University Division General Fund was decreased $0.4 million for the state share of salary and fringe benefit rate changes.

9. In June, the budget for Tuition and Fees was increased $0.8 million for planned Fall 2021 Graduate enrollment and scholarships. The budget was increased $9.0 million for higher than projected graduate and professional on-campus revenue, undergraduate residency mixture, and higher than projected program fees. The tuition and fee budget was increased $2.4 million for higher than projected summer enrollments. The corresponding expenditure budgets have been adjusted accordingly.

10. The University Division All Other Income revenue budget was increased $0.8 million for self-generated earmarked revenues. The corresponding expenditure budgets have been adjusted accordingly.

11. The University Division had a cash balance of $8.5 million at the end of the fiscal year 2020-21. The university authorized a one-time expenditure budget increase of $8.5 million to accomplish work which was previously delayed by the pandemic.

12. The Cooperative Extension/Agriculture Experiment State Division General Fund revenue budget was increased $0.4 million for the state share of salary and fringe benefit rate changes. The corresponding expenditure budgets have been adjusted accordingly.

13. The federal revenue budget in the Cooperative Extension/Agriculture Experiment Station Division has been increased by $1.2 million for the carryover of unexpended federal funds in fiscal year 2020-21. The corresponding expenditure budgets have been adjusted accordingly.
14. The Cooperative Extension and Agriculture Experiment Station division had a state E&G cash balance of $2.9 million at the end of fiscal year 2020-21. The university authorized a one-time expenditure budget increase of $2.9 million to accomplish work which was previously delayed by the pandemic.

15. Virginia Tech received $36.3 million funding through The Higher Education Emergency Relief Fund II and III (HEERF II & III) programs for the Student Financial Aid award expenditures. In addition, other miscellaneous CARES allocations received by the institution, not recorded in the Auxiliary or E&G programs, are recorded as Sponsored Programs activity. The Sponsored Programs budget was increased by $36.3 million to accommodate the federal pandemic relief funds.

16. The Student Financial Assistance revenue and expenditure budgets were decreased $0.7 million for the finalization of the scholarship budget and technical accounting changes and increased $0.3 million for the SCHEV GEAR Up scholarship program.

17. The projected annual budgets for All Other Programs were increased $0.2 million for increased Surplus Property business volume and $25 million for pandemic relief clearing. The projected annual revenue budgets were increased $5.6 million for federal revenue earmarked for Kentland Farm capital lease and $3.8 million for technical alignment of university initiatives. The projected annual expense budgets were increased $0.9 million for outstanding 2020-21 commitments that were initiated but not completed before June 30, 2021 and $0.4 million for technical alignments of university initiatives.
### AUXILIARY ENTERPRISES

Dollars in Thousands

#### Residence and Dining Halls *

<table>
<thead>
<tr>
<th></th>
<th>Actual</th>
<th>Budget</th>
<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td>$139,337</td>
<td>$138,552</td>
<td>$785</td>
<td>$132,387</td>
<td>$138,552</td>
<td>$6,165 (9)</td>
</tr>
<tr>
<td><strong>Expenses</strong></td>
<td>-132,632</td>
<td>-139,294</td>
<td>6,662 (1)</td>
<td>-128,747</td>
<td>-139,294</td>
<td>-10,547 (11,12)</td>
</tr>
<tr>
<td>Reserve Drawdown/Deposit</td>
<td>-6,705</td>
<td>742</td>
<td>-7,447 (1)</td>
<td>-3,640</td>
<td>742</td>
<td>4,382 (9,10,11)</td>
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<tr>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
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</table>

#### Parking and Transportation

<table>
<thead>
<tr>
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<th>Budget</th>
<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td>$20,846</td>
<td>$20,045</td>
<td>$801</td>
<td>$15,722</td>
<td>$20,045</td>
<td>$4,323 (13)</td>
</tr>
<tr>
<td><strong>Expenses</strong></td>
<td>-16,613</td>
<td>-21,256</td>
<td>4,643 (2)</td>
<td>-16,912</td>
<td>-21,256</td>
<td>-4,344 (11,13)</td>
</tr>
<tr>
<td>Reserve Drawdown/Deposit</td>
<td>-4,233</td>
<td>1,211</td>
<td>-5,444 (2)</td>
<td>1,190</td>
<td>1,211</td>
<td>21 (11,13)</td>
</tr>
<tr>
<td><strong>Net</strong></td>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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#### Telecommunications Services

<table>
<thead>
<tr>
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<th>Actual</th>
<th>Budget</th>
<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td>$22,036</td>
<td>$21,671</td>
<td>$365</td>
<td>$21,594</td>
<td>$21,671</td>
<td>$77 (10)</td>
</tr>
<tr>
<td><strong>Expenses</strong></td>
<td>-19,817</td>
<td>-27,276</td>
<td>7,459 (3)</td>
<td>-21,856</td>
<td>-27,276</td>
<td>-5,420 (10,11,14)</td>
</tr>
<tr>
<td>Reserve Drawdown/Deposit</td>
<td>-2,219</td>
<td>5,605</td>
<td>-7,824 (3)</td>
<td>262</td>
<td>5,605</td>
<td>5,343 (11,14)</td>
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<tr>
<td><strong>Net</strong></td>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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#### University Services * **

<table>
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<tr>
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<th>Budget</th>
<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td>$56,536</td>
<td>$55,952</td>
<td>$584</td>
<td>$55,967</td>
<td>$55,952</td>
<td>$-15 (10)</td>
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<tr>
<td><strong>Expenses</strong></td>
<td>-46,629</td>
<td>-58,364</td>
<td>11,735 (4)</td>
<td>-55,493</td>
<td>-58,364</td>
<td>-2,871 (10,11,12,15)</td>
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<tr>
<td>Reserve Drawdown/Deposit</td>
<td>-9,907</td>
<td>2,412</td>
<td>-12,319 (4)</td>
<td>-47</td>
<td>2,412</td>
<td>2,886 (10,11,12,15)</td>
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<td><strong>Net</strong></td>
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<td>$0</td>
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#### Intercollegiate Athletics *

<table>
<thead>
<tr>
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<th>Budget</th>
<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td>$92,463</td>
<td>$84,446</td>
<td>$8,017 (5)</td>
<td>$78,327</td>
<td>$84,446</td>
<td>$6,119 (16)</td>
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<tr>
<td><strong>Expenses</strong></td>
<td>-93,590</td>
<td>-96,652</td>
<td>3,062 (5)</td>
<td>-77,596</td>
<td>-96,652</td>
<td>-19,056 (11,16)</td>
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<tr>
<td>Reserve Drawdown/Deposit</td>
<td>1,127</td>
<td>12,206</td>
<td>-11,079 (5)</td>
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<td>12,206</td>
<td>12,937 (11,16)</td>
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<td>$0</td>
<td>$0</td>
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#### Electric Service *

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<th>Original</th>
<th>Adjusted</th>
<th>Change</th>
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<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td>$32,042</td>
<td>$31,396</td>
<td>$646</td>
<td>$34,775</td>
<td>$31,396</td>
<td>$-3,379 (10,17)</td>
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<tr>
<td><strong>Expenses</strong></td>
<td>-31,754</td>
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<td>3,539 (6)</td>
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<td>-35,293</td>
<td>-1,096 (10,11,17)</td>
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<tr>
<td>Reserve Drawdown/Deposit</td>
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<td>-4,185 (6)</td>
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<td>3,897</td>
<td>4,475 (11,17)</td>
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#### Inn at VT/Skelton Conf. Center

<table>
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<th>Change</th>
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<tr>
<td><strong>Revenues</strong></td>
<td>$9,500</td>
<td>$10,313</td>
<td>-$813 (7)</td>
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<td>$10,313</td>
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<td><strong>Expenses</strong></td>
<td>-8,109</td>
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<td>2,354 (7)</td>
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<td>-10,463</td>
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<tr>
<td>Reserve Drawdown/Deposit</td>
<td>-1,391</td>
<td>150</td>
<td>-1,541 (7)</td>
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<td>150</td>
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<td>$0</td>
<td>$0</td>
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#### Other Enterprise Functions ***

<table>
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<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
<th>Change</th>
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</thead>
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<tr>
<td><strong>Revenues</strong></td>
<td>$15,746</td>
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<td>$1,485 (8)</td>
<td>$8,090</td>
<td>$14,261</td>
<td>$6,171 (10,19)</td>
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<tr>
<td><strong>Expenses</strong></td>
<td>-3,366</td>
<td>-7,528</td>
<td>4,162 (8)</td>
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<td>-7,528</td>
<td>-1,912 (10,11,19)</td>
</tr>
<tr>
<td>Reserve Drawdown/Deposit</td>
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<td>-5,647 (8)</td>
<td>-2,474</td>
<td>-6,733</td>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
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#### TOTAL AUXILIARIES

<table>
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<th>Budget</th>
<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
<th>Change</th>
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</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td>$388,506</td>
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<td>$11,870</td>
<td>$355,918</td>
<td>$376,636</td>
<td>$20,718</td>
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<td><strong>Expenses</strong></td>
<td>-352,510</td>
<td>-396,126</td>
<td>43,616 (8)</td>
<td>-350,771</td>
<td>-396,126</td>
<td>-45,355</td>
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<td>Reserve Drawdown/Deposit</td>
<td>-35,996</td>
<td>19,490</td>
<td>-55,486</td>
<td>-5,147</td>
<td>19,490</td>
<td>24,637</td>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
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* University Systems include Dormitory and Dining Hall System, University Services System, Intercollegiate Athletics System, and Electric Service System. The Systems were created to provide assurance to bond holders that system revenues are pledged for the payment of debt service and to allow for dedicated repair and replacement that are not subject to liens of any creditor of the university.

** University Services System includes Career & Professional Development, Center for the Arts, Health Services, Recreational Sports, Student Engagement & Campus Life, Cultural and Community Centers, Student Organizations, and the VT Rescue Squad.

*** Other Enterprise Functions include Golf Course, Hokie Passport, Library Café, Library Photocopy, Licensing & Trademark, Little Hokie Hangout, New Student and Family Programs, Pouring Rights, Printing Services, Software Sales, Tailor Shop and Clearing Accounts.

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Presentation Date: August 22, 2022
1. Expenses in Residence and Dining Halls are lower than projected due to timing of operating expenses, one-time facility improvement projects, and replacement of furniture and equipment normally scheduled during the summer months.

2. Expenses in Parking and Transportation Services are lower than projected due to timing of operating expenses, Fleet Services vehicle replacement purchases, and transit equipment purchases.

3. Expenses in Telecommunications Services are lower than projected due to timing of network telecommunication projects and supply chain disruptions impacting delivery of telecommunication network equipment.

4. Expenses for the University Services System are lower than projected due to timing of operating expenses, health services renovation projects, Squires flooring replacement, and facility projects scheduled for summer months.

5. Revenues for Intercollegiate Athletics are higher than projected due to higher than budgeted ACC revenue, multimedia contract revenues, and post-season ticket sales. Expenses are lower than projected due to timing of expenses and one-time projects including baseball pitching lab.

6. Expenses for the Electric Service auxiliary are lower than projected due to timing of the operational data warehouse project and items ordered but not yet received thus not paid at fiscal year-end.

7. Revenues and expenses for the Inn at Virginia Tech are lower than projected due to timing of business transactions.

8. Revenues for Other Enterprise Functions are higher than projected due to increased business volume in New Student Programs, Licensing and Trademark, and Software Sales. Expenses are lower than projected due to timing of operating and COVID-19 testing expenses.

9. The annual revenue for Residence and Dining Halls were decreased $3.2 million in 2nd quarter for lower than anticipated residence hall occupancy, increased $2.1 million in 3rd quarter for residential quarantine space agreements, higher residential spring occupancy, and summer conference revenues, increased $4.4 million in the 3rd quarter for higher than budgeted dining meal plan sales and self-generated revenues, and increased $2.2 million in the 4th quarter for higher dining business volume and $0.7 million for targeted pandemic relief to restore residential to a neutral financial position. Expenses were increased $2.5 million in the 2nd quarter for a one-time equipment purchase of microwave-refrigerators for residence rooms and decreased $5.8 million in the 3rd quarter for Dining expense savings, decreased $2.0 million for targeted pandemic relief to restore residential to a neutral financial position and increased $7.0 million in the 4th quarter for higher dining business volume and projects delayed by the pandemic.

10. In June 2021, the annual revenue, expense, and reserve budgets for Auxiliary Enterprises were adjusted for technical alignments and finalization of fixed cost estimates.

11. The annual expense budget for Auxiliary Enterprises was increased $12.6 million for outstanding 2020-21 commitments and projects that were initiated but not completed before June 30, 2021.

<table>
<thead>
<tr>
<th>Auxiliary Enterprise</th>
<th>Outstanding Commitments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residence and Dining Halls</td>
<td>$3,449,416</td>
</tr>
<tr>
<td>Parking and Transportation</td>
<td>732,928</td>
</tr>
<tr>
<td>Telecommunication Services</td>
<td>1,213,341</td>
</tr>
<tr>
<td>University Services System</td>
<td>2,308,486</td>
</tr>
<tr>
<td>Intercollegiate Athletics</td>
<td>1,857,700</td>
</tr>
<tr>
<td>Electric Service</td>
<td>2,299,715</td>
</tr>
<tr>
<td>Inn at Virginia Tech</td>
<td>149,749</td>
</tr>
<tr>
<td>Other Enterprise Functions</td>
<td>614,948</td>
</tr>
<tr>
<td>Total</td>
<td>$12,626,283</td>
</tr>
</tbody>
</table>
12. In the Fall of 2021, the annual expense budgets for Residence and Dining Halls were increased $5.4 million and University Services System increased $0.2 million to increase entry level compensation to respond to the market.

13. The annual revenue, expense, and reserve budgets for Parking Services were increased $2.9 million for parking permit sales, multi-modal transit project activity, and building maintenance; the Fleet Services budget was increased $1.1 million for targeted pandemic relief to restore unit to a neutral financial position.

14. The annual expense and reserve budgets for Telecommunications Services were increased $4.1 million for the residential network refresh project.

15. The annual expense and reserve budgets for University Services System was increased $0.4 million for Virginia Tech Rescue Squad dispatch system replacement and Marching Virginians uniform replacement.

16. The annual revenue, expense, and reserve budgets for Intercollegiate Athletics were increased to accommodate additional revenue of $1.7 million for the football team’s participation in the Pinstripe Bowl, $0.7 million in private funds for the repayment of the football lounge advance, $1.5 million bowl expenses (total bowl expense is $2.5 million), and $12.0 million for the football coaching transition loan. The annual revenue budget was increased $1.1 million for football revenues, $1.4 million in private funds for the baseball pitching lab, $1.0 million in private funds for additional football transition salary needs not covered by coaching transition loan, and $0.2 million in private funds for the president’s box renovations, partially offset by a decrease $0.1 million for lower than budgeted basketball ticket sales. The annual expense budget was increased $1.5 million for football transition salary needs not covered by coaching transition loan, $0.6 million for coaching contracts and faculty leave payouts, $0.5 million for post-season and GPA bonuses, $2 million to fully fund annual budgets for sports medicine, outdoor facilities, and external relations, $0.2 million for stadium wifi, $1.7 million for baseball pitching lab, $0.2 million for president’s box renovations, and $2.3 million for indoor practice facility capital project, partially offset by a decrease of $5.4 million for alignment of scholarship expenses to private fundraising.

17. The annual revenue budget for the Electric Service auxiliary was decreased $2.8 million due to lower than projected electric consumption. The annual expense budget was decreased $2.0 million for lower electric consumption and increased $2.0 million for higher than budgeted cost of wholesale electricity.

18. The annual revenue, expense, and reserve budgets for the Inn at Virginia Tech were decreased for lower than projected business volume and hotel management transition. The annual revenue budget was increased $2.2 million to provide targeted pandemic relief to restore the unit to a neutral financial position.

19. The annual revenue, expense, and reserve budgets for Other Enterprise Functions were increased for sustainability projects, the cost of winding down operations in Printing Services, technical accounting alignments, and scholarship expenses in Licensing and Trademark.
### EDUCATIONAL AND GENERAL PROJECTS

#### Design Phase

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Initiated</th>
<th>Annual Budget</th>
<th>YTD Budget</th>
<th>State Support Fund</th>
<th>Nongeneral Revenues</th>
<th>Total Bond Budget</th>
<th>Total Cumulative Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning: Mitchell Hall (Replace Randolph Hall)</td>
<td>Jul 2020</td>
<td>$2,500</td>
<td>$2,489</td>
<td>-</td>
<td>$11,000</td>
<td>$11,000</td>
<td>$2,523 (1)</td>
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<tr>
<td>Life, Health, Safety, Accessibility, &amp; Code Compliance</td>
<td>Jul 2020</td>
<td>155</td>
<td>180</td>
<td>3,100</td>
<td>-</td>
<td>3,100</td>
<td>235 (2)</td>
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<tr>
<td>Planning: New Business Building</td>
<td>Apr 2022</td>
<td>-</td>
<td>-</td>
<td>8,000</td>
<td>-</td>
<td>8,000</td>
<td>(3)</td>
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</table>

#### Construction Phase

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Initiated</th>
<th>Annual Budget</th>
<th>YTD Budget</th>
<th>State Support Fund</th>
<th>Nongeneral Revenues</th>
<th>Total Bond Budget</th>
<th>Total Cumulative Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance Reserve</td>
<td>On-going</td>
<td>14,300</td>
<td>16,086</td>
<td>29,824</td>
<td>-</td>
<td>29,824</td>
<td>26,558 (4)</td>
</tr>
<tr>
<td>Corps Leadership and Military Science Building</td>
<td>Jun 2019</td>
<td>16,000</td>
<td>19,155</td>
<td>-</td>
<td>20,650</td>
<td>31,350</td>
<td>52,000 (6)</td>
</tr>
<tr>
<td>Data and Decision Science Building</td>
<td>Jul 2019</td>
<td>35,000</td>
<td>38,700</td>
<td>69,000</td>
<td>-</td>
<td>10,000</td>
<td>79,000 (7)</td>
</tr>
<tr>
<td>Innovation Campus - Academic Building</td>
<td>Jul 2019</td>
<td>30,000</td>
<td>41,385</td>
<td>168,000</td>
<td>-</td>
<td>134,136</td>
<td>302,136 (8)</td>
</tr>
<tr>
<td>Hitt Hall</td>
<td>Apr 2017</td>
<td>6,800</td>
<td>8,118</td>
<td>31,259</td>
<td>53,741</td>
<td>85,000</td>
<td>13,015 (9)</td>
</tr>
<tr>
<td>Undergraduate Science Laboratory Building</td>
<td>Jul 2017</td>
<td>2,000</td>
<td>3,266</td>
<td>90,412</td>
<td>-</td>
<td>90,412</td>
<td>7,931 (10)</td>
</tr>
</tbody>
</table>

#### Equipment and Special Initiatives

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Initiated</th>
<th>Annual Budget</th>
<th>YTD Budget</th>
<th>State Support Fund</th>
<th>Nongeneral Revenues</th>
<th>Total Bond Budget</th>
<th>Total Cumulative Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commonwealth Cyber Initiative</td>
<td>May 2019</td>
<td>70</td>
<td>225</td>
<td>1,500</td>
<td>-</td>
<td>1,500</td>
<td>1,496 (11)</td>
</tr>
<tr>
<td>Fralin Biomedical Research Institute Equipment</td>
<td>Jul 2020</td>
<td>2,500</td>
<td>2,045</td>
<td>18,133</td>
<td>-</td>
<td>18,133</td>
<td>9,584 (12)</td>
</tr>
<tr>
<td>Equipment for Workforce Development</td>
<td>May 2021</td>
<td>1,000</td>
<td>200</td>
<td>15,778</td>
<td>-</td>
<td>15,778</td>
<td>5,400 (13)</td>
</tr>
</tbody>
</table>

#### Close-Out

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Initiated</th>
<th>Annual Budget</th>
<th>YTD Budget</th>
<th>State Support Fund</th>
<th>Nongeneral Revenues</th>
<th>Total Bond Budget</th>
<th>Total Cumulative Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve Kentland Facilities</td>
<td>Sep 2013</td>
<td>363</td>
<td>419</td>
<td>12,463</td>
<td>-</td>
<td>12,463</td>
<td>12,330 (14)</td>
</tr>
<tr>
<td>Gas-Fired Boiler at the Central Steam Plant</td>
<td>Apr 2017</td>
<td>400</td>
<td>501</td>
<td>-</td>
<td>8,200</td>
<td>8,200</td>
<td>8,038 (15)</td>
</tr>
<tr>
<td>Acquisition: Falls Church Property</td>
<td>Apr 2019</td>
<td>2,850</td>
<td>-</td>
<td>-</td>
<td>2,850</td>
<td>2,850</td>
<td>(16)</td>
</tr>
<tr>
<td>Chiller Plant Phase II</td>
<td>Oct 2016</td>
<td>5,000</td>
<td>5,729</td>
<td>32,655</td>
<td>10,312</td>
<td>42,968</td>
<td>39,887 (17)</td>
</tr>
<tr>
<td>Holden Hall Renovation</td>
<td>Oct 2016</td>
<td>25,000</td>
<td>25,818</td>
<td>57,215</td>
<td>8,962</td>
<td>74,927</td>
<td>67,826 (18)</td>
</tr>
<tr>
<td>Construct Virginia Seafood AREC</td>
<td>Jul 2018</td>
<td>1,224</td>
<td>1,224</td>
<td>2,500</td>
<td>-</td>
<td>2,500</td>
<td>2,500 (19)</td>
</tr>
</tbody>
</table>

**TOTAL EDUCATIONAL AND GENERAL PROJECTS**

- **$158,662**
- **$180,784**
- **$525,855**
- **$87,383**
- **$251,827**
- **$865,065**
- **$346,720**
1. **Planning: Mitchell Hall (Replace Randolph Hall):** This state authorized planning project will design the replacement of Randolph Hall with an approximately 284,000 gross square foot building to accommodate engineering instruction and research. In accordance with the state capital budget program, the university will temporarily fund the planning costs and be reimbursed through a request for construction funding. The state authorized construction effective July 1, 2022. Preliminary design is initiated.

2. **Life, Health, Safety, Accessibility, & Code Compliance:** This project improves pedestrian connectors to ensure accessible service in the North Academic District. The state authorized a $7.3 million General Fund supplement effective July 1, 2022. Working drawings are complete with market pricing expected October 2022. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

3. **Planning: New Business Building:** This planning project will design a 104,000 gross square foot building for the Pamplin College of Business. A/E and CMAR procurements are underway.

4. **Maintenance Reserve:** The total project budget reflects $2.73 million of carryforward from fiscal year 2020, and the State’s fiscal year 2021 and fiscal year 2022 appropriations totaling $29.824 million. The annual budget amount reflects the pace necessary to meet the state’s 85 percent spending performance requirement by June 30, 2022. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

5. **Livestock & Poultry Research Facilities, Phase I:** This project is the first of two phases to renew existing facilities for the livestock and poultry programs. Construction is underway for the swine, poultry, beef, and equine packages. Packages for three hay barns and demolition are under development. Construction funding for those packages will be requested though a supplement pool established during the 2022 General Assembly session. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

6. **Corps Leadership and Military Science Building:** The project consolidates the Corps of Cadets and ROTC programs in the northern portion of the Upper Quad project. Construction is underway with substantial completion expected July 2023. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

7. **Data and Decision Sciences Building:** Construction of the new 120,000 gross square foot building is underway with substantial completion expected April 2023. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

8. **Innovation Campus – Academic Building:** This project will construct a new 300,000 gross square foot academic building with below grade parking as part of the Innovation Campus in Alexandria, Virginia. Construction is underway with substantial completion expected April 2024. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

9. **Hitt Hall:** This project houses an expansion of Myers-Lawson School of Construction, a new dining center, and other academic spaces. Sitework is underway. Construction is underway and substantial completion expected March 2024. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

10. **Undergraduate Science Laboratory Building:** This project will construct a 102,000 gross square foot science instruction laboratory building. The project received a General Fund administrative supplement on March 8, 2022 to cover a minor market price adjustment necessary to award the construction contract. Construction is underway with substantial completion April 2024. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

11. **Commonwealth Cyber Initiative:** This project makes improvements to support the Commonwealth Cyber Initiative Hub renovations, space enhancements, and equipment. The Virginia Innovation Partnership Authority (VIPA) approves spending requests which are then allocated to Virginia Tech for procurement. The maximum appropriation from the Commonwealth is $3.5 million. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

12. **Fralin Biomedical Research Institute Equipment:** This funding supports the procurement and installation of specialized research equipment for the Fralin Biomedical Research Institute.

13. **Equipment for Workforce Development:** This project supports space and equipment purchases for the instructional programs associated with the Tech Talent Investment Program. The annual budget was adjusted to account for extended lead times for equipment orders.

14. **Improve Kentland Facilities:** The project is substantially complete and the total cost is expected to be $12.46 million. The project will be closed and financial accounts terminated when final invoices are received and paid. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

15. **Gas-Fired Boiler at the Central Steam Plant:** This project is substantially complete and the total cost is expected to be $8.2 million. The project will be closed and financial accounts terminated when final invoices are received and paid. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

16. **Acquisition: Falls Church Property:** This project was established to acquire the fee simple title to the 5.33 acres currently leased from and owned by the City of Falls Church for a net cost of $2.85 million. The university is working on a sale transaction for the property with the City of Falls Church.
### AUXILIARY ENTERPRISE PROJECTS

#### Design Phase
- **Student Wellness Improvements**: Jun 2016
  - Annual Budget: $2,500
  - YTD Expenditures: $583
  - Cumulative Expenditures: $23,046
  - Cumulative Budget: $70,000

#### Construction Phase
- **Maintenance Reserve**: On-going
  - Annual Budget: $8,000
  - YTD Expenditures: $11,543
  - Cumulative Expenditures: $8,000

- **New Upper Quad Residence Hall**: Jun 2019
  - Annual Budget: $13,000
  - YTD Expenditures: $13,927
  - Cumulative Expenditures: $2,000

- **Dietrick Renovation**: Sept 2017
  - Annual Budget: $1,200
  - YTD Expenditures: $1,469
  - Cumulative Expenditures: $9,131

#### Close-Out
- **Student-Athlete Performance Center**: Mar 2018
  - Annual Budget: $18
  - YTD Expenditures: $18
  - Cumulative Expenditures: $20,417

- **Creativity & Innovation District LLC**: Oct 2016
  - Annual Budget: $17,176
  - YTD Expenditures: $14,941
  - Cumulative Expenditures: $15,880

- **Planning: Tennis Center Improvements**: Aug 2016
  - Annual Budget: $107
  - YTD Expenditures: $164
  - Cumulative Expenditures: $809

- **Global Business & Analytics Complex Residence Halls**: Jun 2019
  - Annual Budget: $-1
  - YTD Expenditures: $-1
  - Cumulative Expenditures: $84,000

#### TOTAL AUXILIARY ENTERPRISE PROJECTS
- **Annual Budget**: $42,001
- **YTD Expenditures**: $42,644
- **Cumulative Expenditures**: $79,282
- **Cumulative Budget**: $339,856
- **Cumulative Expenditures**: $160,442

#### GRAND TOTAL
- **Annual Budget**: $200,663
- **YTD Expenditures**: $223,427
- **Cumulative Expenditures**: $525,855
- **Cumulative Budget**: $1,204,921
- **Cumulative Expenditures**: $507,162

Presentation Date: August 22, 2022
17. **Chiller Plant Phase II**: This project is substantially complete and the total cost is expected to be $42,968 million. The project will be closed and financial accounts terminated when final invoices are received and paid. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

18. **Holden Hall Renovation**: This project is substantially complete and the total cost is expected to be $74,927 million. The project will be closed and financial accounts terminated when final invoices are received and paid. The annual budget was increased to account for the pace of the contractor’s work. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

19. **Construct Virginia Seafood AREC**: This project was implemented through the Foundation. The General Fund authorization of $2.5 million was fully expensed and the project is closed.

### Auxiliary Enterprise Projects

1. **Student Wellness Improvements**: A supplement increasing the project budget to $70 million was approved at the June Board of Visitors meeting, and the project construction is out for market pricing.

2. **Maintenance Reserve**: The auxiliary maintenance reserve program covers 106 assets with a total replacement value of $1.4 billion. Projects are scheduled and funded by the auxiliary enterprises. The units prepare five-year plans that outline their highest priority deferred maintenance needs. The annual budget and total project budget reflect the spending plans of the auxiliary units on maintenance reserve work scheduled for fiscal year 2022. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

3. **New Upper Quad Residence Hall**: The project constructs a 300-bed residence hall in the upper quad section of campus. The project is under construction with substantial completion expected August 2023. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

4. **Dietrick Renovation**: This project includes refurbishing the first floor of Dietrick Hall, inserting a modern food service venue, and enclosing a portion of the exterior overhang. Improvements to the outdoor plaza will be implemented concurrently as a non-capital activity supported with private gifts. The project is under construction with substantial completion expected March 2023. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

5. **Student-Athlete Performance Center**: The project is closed with a total cost of $19,726 million.

6. **Creativity & Innovation District Living Learning Community (LLC)**: The project is substantially complete and the total cost is expected to be $105.5 million. The project will be closed and financial accounts terminated when final invoices are received and paid.

7. **Planning: Tennis Center Improvements**: The planning project is closed with a total cost of $548 thousand.

8. **Global Business & Analytics Complex Residence Halls**: The university is exploring alternatives for additional residential beds in the northwest area of campus. The project was closed at the end of the fiscal year.
President Sands will provide an update to the Board on Tuesday, August 23, 2022.
RESOLUTION OF APPRECIATION HONORING MEHUL P. SANGHANI

WHEREAS, Mr. Mehul P. Sanghani, an alumnus of the Class of 1998, having earned a bachelor’s degree in both Industrial Systems Engineering and Psychology, was appointed by Governor Terry McAuliffe to the Board of Visitors of Virginia Polytechnic Institute and State University in 2014, and was reappointed by Governor Ralph Northam in 2018; and

WHEREAS, during his tenure on the Board, Mehul served as a member of the former Research Committee, the Executive Committee, and the Buildings and Grounds Committee, as well as both member and Chair of the former Student Affairs and Athletics Committee and the Governance and Administration Committee. He was also a member of the task force that worked on the restructuring of the Board committees in 2017; and

WHEREAS, along with his dedication to the Board of Visitors, Mehul has provided service to the university as a member of the NCR Leadership Council, the Pamplin School of Business Advisory Board, the Pamplin Finance Advisory Board, and the Virginia Tech Science and Engineering Regional Growth Enterprise (VT-SERGE). Additionally, he has spoken at the Northern Virginia and the College of Engineering commencement ceremonies, and recently served as a panelist at a Sesquicentennial event in Washington, DC, on “Solving the Skills Gap in Tech: The Next 150 Years”; and

WHEREAS, Mehul and his wife, Hema, an alumna of the class of 1999, have been staunch and generous supporters of Virginia Tech throughout the years, their most recent gift being a $10 million donation to support the opening of the Sanghani Center for Artificial Intelligence and Data Analytics, the first academic building of the Innovation Campus, as well as the Market at Virginia Tech, a local food pantry to help combat food insecurity in the Blacksburg Community, and the football players’ lounge; and

WHEREAS, the members of the Board have thoroughly enjoyed getting to know Mehul and Hema and have enjoyed their company at Board meetings, football games, and other university events.

NOW, THEREFORE, BE IT RESOLVED that the members of the Board of Visitors of Virginia Polytechnic Institute and State University hereby extend their sincere appreciation to Mr. Mehul P. Sanghani for his outstanding loyalty and devoted service, and for his faithful dedication to the university and its missions.

RECOMMENDATION:
That the resolution recognizing Mehul P. Sanghani for his service as a member of the Board of Visitors be approved.

August 23, 2022
RESOLUTION OF APPRECIATION HONORING HORACIO A. VALEIRAS

WHEREAS, Mr. Horacio A. Valeiras, an alumnus of the Class of 1980, having earned a bachelor’s degree in Chemical Engineering, was appointed by Governor Terry McAuliffe to the Board of Visitors of Virginia Polytechnic Institute and State University in 2014, and reappointed by Governor Ralph Northam in 2018; and

WHEREAS, early in his tenure, Horacio served as a member of the former Finance and Audit Committee and the former Research Committee, and after the restructuring served on the Compliance, Audit, and Risk Committee, the Buildings and Grounds Committee, the Governance and Administration Committee, and the Executive committee. He also served as chair of the Finance and Resource Management Committee in 2018; and

WHEREAS, the driving force behind the first major restructuring of the Board committees in over thirty years in 2017, Horacio was elected Vice Rector of the Board in 2018, and went on to serve as Rector from 2019 to 2021; and

WHEREAS, distance has never been an obstacle to his involvement and willingness to participate, as Horacio has traveled from his home in California to attend Board meetings, special meetings, and university events, and fulfill other obligations as a Board member and Rector over the past eight years; and

WHEREAS, in addition to his service on the Board of Visitors, Horacio is a benefactor of the university and former chair of the Virginia Tech Foundation Board, as well as one of the tri-chairs of Boundless Impact: Campaign for Virginia Tech launched in 2019; and

WHEREAS, the members of the Board have thoroughly enjoyed getting to know Horacio and his wife, Amy, and have enjoyed their company at Board meetings, football games, and other university events;

NOW, THEREFORE, BE IT RESOLVED that the members of the Board of Visitors of Virginia Polytechnic Institute and State University hereby extend their sincere appreciation to Mr. Horacio A. Valeiras for his outstanding loyalty and devoted service, and for his faithful dedication to the university and its missions.

RECOMMENDATION:

That the resolution recognizing Horacio A. Valeiras for his service as a member of the Board of Visitors be approved.

August 23, 2022
RESOLUTION OF APPRECIATION HONORING PRESTON M. WHITE

WHEREAS, Mr. Preston M. White, an alumnus of the Class of 1962, having earned a bachelor’s degree in Building Construction, was appointed by Governor Ralph Northam to the Board of Visitors of Virginia Polytechnic Institute and State University in 2018; and

WHEREAS, during his four years on the Board, he served as a member of the Buildings and Grounds Committee and the Finance and Resource Management Committee; and

WHEREAS, Preston was already actively engaged at his alma mater long before his appointment to the Board of Visitors, having given very generously of his time and resources as a member of Virginia Tech’s Ut Prosim Society and the Executive Council of the Myers-Lawson School of Construction; and

WHEREAS, Preston and his wife, Catharine, established the Preston and Catharine White Endowed Faculty Fellowship for the Myers-Lawson School of Construction in 2008, and assisted in the establishment of the Yvan Beliveau Endowed Fund for Excellence, which supported the creation of the Bishop-Favrao Build Lab that opened in 2013; and

WHEREAS, outside of the university, he has personified Ut Prosim by supporting his local community and the Commonwealth of Virginia as a member of the Virginia Business Higher Education Council, the Chesapeake Bay Foundation HR Leadership Council, and the Board of Trustees for the New E3 School in Norfolk, Virginia. Additionally, Preston was also a member of the Board of Visitors of Christopher Newport University, were he served as rector for three years; and

WHEREAS, the members of the Board have thoroughly enjoyed getting to know Preston and Catharine, and have enjoyed their company at Board meetings, football and basketball games, and other university events.

NOW, THEREFORE BE IT RESOLVED that the members of the Board of Visitors of Virginia Polytechnic Institute and State University hereby extend their sincere appreciation to Mr. Preston M. White for his outstanding loyalty and devoted service, and for his faithful dedication to the university and its missions.

RECOMMENDATION: That the resolution recognizing Preston M. White for his service as a member of the Board of Visitors be approved.

August 23, 2022
Constituent Report by Undergraduate Student Representative to the Board, Jamal Ross, will be presented at Tuesday’s Information Session
Constituent Report by Graduate Student Representative to the Board, Anna Buhle, will be presented at Tuesday’s Information Session.
Constituent Report by President of Staff Senate, Serena Young, will be presented at Tuesday’s Information Session.
Constituent Report by President of Administrative and Professional Faculty Senate, Holli Gardner Drewry, will be presented at Tuesday’s Information Session.
Constituent Report by President of Faculty Senate, Robert Weiss, will be presented at Tuesday’s Information Session
MOTION TO BEGIN CLOSED MEETING

August 23, 2022

I move that the Board convene in a closed meeting, pursuant to § 2.2-3711, Code of Virginia, as amended, for the purposes of discussing:

1. Appointment of faculty to Emeritus status, the consideration of individual salaries of faculty, consideration of Endowed Professors, review of departments where specific individuals’ performance will be discussed, and consideration of personnel changes including appointments, resignations, tenure, and salary adjustments of specific employees and faculty leave approvals.

2. The status of current litigation and briefing on actual or probable litigation.

3. Fundraising activities.

all pursuant to the following subparts of 2.2-3711 (A), Code of Virginia, as amended, .1, .7, and .9.
MOTION TO RETURN TO OPEN SESSION

August 23, 2022

WHEREAS, the Board of Visitors of Virginia Polytechnic Institute and State University has convened a closed meeting on this date pursuant to an affirmative recorded vote and in accordance with the provision of The Virginia Freedom of Information Act; and

WHEREAS, Section 2.2-3712 of the Code of Virginia requires a certification by the Board of Visitors that such closed meeting was conducted in conformity with Virginia law;

NOW, THEREFORE, BE IT RESOLVED that the Board of Visitors of Virginia Polytechnic Institute and State University hereby certifies that, to the best of each member’s knowledge, (i) only public business matters lawfully exempted from open meeting requirements by Virginia law were discussed in the closed meeting to which this certification resolution applies, and (ii) only such public business matters as were identified in the motion convening the closed meeting were heard, discussed or considered by the Board of Visitors.
# Open Session Agenda

**ACADEMIC, RESEARCH AND STUDENT AFFAIRS COMMITTEE**  
Virginia Tech Newport News Center  
Maroon and Orange Room  
August 22, 2022  
2:00 – 3:00 p.m.

<table>
<thead>
<tr>
<th>Agenda Item</th>
<th>Reporting Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Welcome</td>
<td>M. Nelson</td>
</tr>
<tr>
<td>2. Review and Approve Open Session Agenda</td>
<td>M. Nelson</td>
</tr>
<tr>
<td>3. Consent Agenda</td>
<td>M. Nelson</td>
</tr>
<tr>
<td>A. Approval of June 7, 2022 Meeting Minutes</td>
<td>M. Nelson</td>
</tr>
<tr>
<td>B. Report of Reappointments to Endowed Chairs, Professorships, and Fellowships</td>
<td>M. Nelson</td>
</tr>
<tr>
<td>*C. Resolution to Approve Appointment of Interim Executive Director of the Virginia Center for Coal and Energy Research</td>
<td>M. Nelson</td>
</tr>
<tr>
<td># 4. Panel Discussion: Student Well-being and Mental Health Initiatives</td>
<td>F. Keene</td>
</tr>
<tr>
<td>5. Provost’s Update and Discussion</td>
<td>C. Clarke</td>
</tr>
<tr>
<td>6. Agenda Items for November 2022 Committee Meeting</td>
<td>M. Nelson</td>
</tr>
<tr>
<td>7. Adjourn Committee Meeting</td>
<td>M. Nelson</td>
</tr>
</tbody>
</table>

* Requires Full Board Approval  
# Discusses Enterprise Risk Management topic(s)
Open Session Briefing Report

ACADEMIC, RESEARCH AND STUDENT AFFAIRS COMMITTEE

August 22, 2022

<table>
<thead>
<tr>
<th>Agenda Item</th>
<th>Reporting Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Welcome</td>
<td>M. Nelson</td>
</tr>
<tr>
<td>Melissa Nelson, chair of the committee, will welcome committee members and others to the committee open session.</td>
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</tr>
<tr>
<td>2. Review and Approve Open Session Agenda</td>
<td>M. Nelson</td>
</tr>
<tr>
<td>M. Nelson will ask members to review and vote on acceptance of the meeting agenda, including a vote on the Consent Agenda items.</td>
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<tr>
<td>3. Consent Agenda</td>
<td>M. Nelson</td>
</tr>
<tr>
<td>The committee will consider approval of items on the consent agenda including: June 7, 2022 minutes, a report on reappointments to endowed chairs, professorships, or fellowships, and a resolution to approve the appointment of an Interim Executive Director to The Virginia Center for Coal and Energy Research.</td>
<td></td>
</tr>
<tr>
<td># 4. Provost’s Update and Discussion</td>
<td>C. Clarke</td>
</tr>
<tr>
<td>Cyril Clarke will update the committee on the university’s academic initiatives.</td>
<td></td>
</tr>
<tr>
<td>5. Panel Discussion: Student Well-being and Mental Health Initiatives</td>
<td>F. Keene</td>
</tr>
<tr>
<td>Frances Keene, interim vice president for student affairs will provide an overview of student well-being mental health initiatives, and will be joined by Saad Kaan, mental health initiatives coordinator for Hokie Wellness, and Natalie Cook, assistant professor of public health in the Virginia-Maryland College of Veterinary Medicine and faculty principal, Honors Residential Commons for a panel discussion of these initiatives.</td>
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<tr>
<td>6. Agenda Items for November 2022 Committee Meeting</td>
<td>M. Nelson</td>
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<tr>
<td>M. Nelson will request that committee members consider topics for upcoming meetings of the committee.</td>
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<tr>
<td>7. Adjourn Committee Meeting</td>
<td>M. Nelson</td>
</tr>
</tbody>
</table>

* Requires Full Board Approval
# Discusses Enterprise Risk Management topic(s)
Welcome

ACADEMIC, RESEARCH, AND STUDENT AFFAIRS COMMITTEE

The chair of the committee will welcome committee members and others to the committee open session.
Acceptance of Agenda

ACADEMIC, RESEARCH, AND STUDENT AFFAIRS COMMITTEE

The chair of the committee will review and ask for acceptance of the Open Session Agenda and items as listed on the Open Session Consent Agenda.
A. Approval of June 7, 2022 Meeting Minutes
B. Report of Reappointments to Endowed Chairs, Professorships, and Fellowships
*C. Resolution to Approve Appointment of Interim Executive Director of the Virginia Center for Coal and Energy Research
Committee Minutes

ACADEMIC, RESEARCH, AND STUDENT AFFAIRS COMMITTEE
New Classroom Building 230
June 7, 2022
8:30 a.m. – 11:30 a.m.

Committee Members Present: Melissa Nelson (chair), Carrie Chenery, Anna James, Jeff Veatch.

Board Members Present: Rector Tish Long, Ed Baine, Holli Drewry (A/P representative), Paolo Fermin (undergraduate student representative), Phil Miskovic (graduate and professional student representative), Robert Weiss (faculty representative), Serena Young (staff representative).


OPEN SESSION

1. Welcome. M. Nelson, chair of the committee welcomed board and committee members. Members of the committee had an informal breakfast with graduate and professional students.

2. Review and Approval of Open Session Agenda. M. Nelson asked the committee review and approve the committee’s agenda including the consent agenda.

3. Consent Agenda Items. Approval of April 4, 2022 Meeting Minutes, Report of Reappointments to Endowed Chairs, Professorships, and Fellowships, Report of the 2021-22 Faculty Compensation Plan (shared for information purposes by Finance and Resource Management Committee), Approval of 2021-22 Pratt Fund Budgets (shared with Finance and Resource Management Committee), Resolution to Approve 2022-2023 Student Code of Conduct, Resolution to Approve Department of Real Estate in the Pamplin College of Business, Resolution to Approve Revisions to Faculty Senate Constitution and Bylaws (shared with Governance and Administration Committee), Resolution to Approve Revisions to Policy 13010 Individual Conflicts of Interest, Resolution to Create a Policy for the Award of Posthumous Degrees, Resolution to Revise Faculty Handbook Related to Change of Duty Station and Special Leave, Resolution to Clarify Language in Faculty Handbook Regarding Extending the Tenure and Continued Appointment Clock, Resolution to Revise Faculty Handbook Language Regarding Appeal of Non-Reappointment.
The committee unanimously approved the Open Session Agenda including the Consent Agenda Items.

4. Update on Continuation of Test-optional Admissions. Juan Espinoza, associate vice provost for enrollment management, and Rick Sparks, university registrar, updated the committee on the university’s continuation of test-optional undergraduate admissions. All public institutions in Virginia are currently implementing test-optional undergraduate admissions. In addition, 1800 American colleges do not require SAT or ACT scores for admission. Virginia Tech will continue to assess the impact of test-optional admissions on enrollments including student success and completion through the spring of 2025. Committee members expressed their support of continuing test optional undergraduate admissions.

5. Math Education Update. Ron Fricker, interim dean of the college of science and Trish Hammer, associate dean of the college of science provided the committee with an update on undergraduate math education. Improvements to math education include completing the implementation of a student-choice class model by spring 2023, moving the emporium onto the main Blacksburg campus, and providing faculty members with ongoing training on new teaching methods. Committee members support the improvements planned for math education and looks forward to updates.

6. Provost’s Update. Cyril Clarke, executive vice president and provost, updated the committee on several initiatives. Several senior level searches are completed and underway. Kevin Pitts, dean of the College of Science begins his appointment on June 13, 2022; Ron Fricker begins his appointment as vice provost for faculty affairs, Provost Clarke thanked Dr. Fricker for his service as interim dean of the College of Science. The search for dean of the Pamplin College of Business continues on schedule, finalists have been invited to campus, and additional conversations are underway. The search for a dean of the College of Architecture and Urban Studies is underway along with steps to recruit and appoint directors within the college. Provost Clarke thanked Frank Shushok for his service as vice president of student affairs and the board wishes him well as he assumes his position of president of Roanoke College. Frances Keene is serving as interim vice president of student affairs and a search for a permanent vice president will occur at a later date. Byron Hughes has taken a position at the University of Tennessee and Provost Clarke thanked him for his service as dean of students. Martha Glass is serving as interim dean of students.

The university has appointed a Task Force on Freedom of Expression and Inquiry. The task force is sponsored by Provost Clarke and Robert Weiss, president of the Faculty Senate. The task force has 20 members and includes representation from faculty, staff, students, members of the Board of Visitors, deans, communications and topic experts. The task force is charged to draft a statement affirming Virginia Tech’s commitment to academic freedom and the constitutional right of free speech. The statement will place these commitments in the context of the university’s academic mission. In addition, the task force will develop recommendations for exercising and demonstrating these commitments in a manner that exemplifies Virginia Tech’s Principles of Community. A report will be submitted January 1, 2023 to President Sands containing the statement and recommendations.
7. Graduate Education and Research Discussion. Dan Sui, senior vice president for research and innovation, and Aimeé Surprenant, associate vice president and dean of the graduate school led a discussion regarding graduate education. Panelists included graduate students Kayla Alward from dairy science, Steph Cooke from marriage and family therapy, Leonard Ohenhen from geosciences, and Aidan Bradley from biomedical engineering and mechanics. Central to the university’s research mission, 6,846 graduate and professional students study, research, teach and make significant contributions to the university’s mission. Virginia Tech offers 170 graduate degrees at the doctoral (45.4%) and master's (54.6%) levels.

Students chose to attend Virginia Tech to study and work with specific faculty members, to pursue particular research interests, and to develop their teaching. Students appreciate the support they receive for teaching, collecting and publishing data, and advancing their careers. Students shared challenges with unpredictable and inconsistent funding, especially over the summer. Work-life balance is difficult when stipends do not cover housing and family care. Expectations for workload are inconsistent and students are frequently expected to work hours beyond the 20 hours a week. There are times when graduate students find it hard to make ends meet, avoid burnout, and finish their degree without interruption. The committee acknowledged the significant contributions of graduate and professional students and encouraged them to communicate with their graduate representative to the board.

8. Agenda Items for Committee Meeting. Committee members will submit to the chair agenda items for future meetings.

9. Adjournment. The committee adjourned at 10:40 a.m.
REPORT

Reappointments to Endowed Chairs, Professorships, or Fellowships (1)

August 22, 2022

The president and executive vice president and provost have confirmed the reappointment of the following faculty to an endowed chair, professorship, or fellowship with a salary and/or operating supplement provided by the endowment and, if available, with funds from the eminent scholars match program.

College of Engineering (1)

Nina Stark  Anthony and Catherine Moraco Endowed Faculty Fellowship
RESOLUTION TO APPROVE APPOINTMENT OF INTERIM EXECUTIVE DIRECTOR OF THE VIRGINIA CENTER FOR COAL AND ENERGY RESEARCH

WHEREAS, the Virginia Center for Coal and Energy Research was established in 1977 by the Code of Virginia (§23.1 Article 3), and the legislation requires that the Virginia Tech Board of Visitors appoint an executive director for the Virginia Center for Coal and Energy Research.

WHEREAS, Interim Director, Kramer Luxbacher left Virginia Tech in July 2022; and

WHEREAS, Erik Westman is proposed for appointment as Interim Executive Director; and

WHEREAS, Erik Westman is professor and interim department head in Mining and Minerals Engineering; and

NOW, THEREFORE, BE IT RESOLVED, that Erik Westman be appointed as interim executive director of the Virginia Center for Coal and Energy Research beginning August 23, 2022, until such time as a permanent executive director is identified.

RECOMMENDATION:

That the Board of Visitors approve this resolution appointing Dr. Erik Westman as Interim Executive Director of the Virginia Center for Coal and Energy Research.

August 22, 2022
Provo’s Update  
ACADEMIC, RESEARCH, AND STUDENT AFFAIRS COMMITTEE  
August 22, 2022  

Cyril Clarke, executive vice president and provost, will provide an update.
An Overview of Student Well-being and Mental Health Initiatives
Academic, Research, and Student Affairs Committee
Board of Visitors
August 22, 2022
By The Numbers

Looking at our most visible metrics and rankings, Virginia Tech is on solid ground.

- 92% of our first-year students are retained
- 86% of our undergraduate students graduate in 6 years
- 66% of our undergraduates are employed upon graduation (including military), with a $64,000 median starting salary (NACE, 2021)
- 39% of our students are from underrepresented minority or underserved populations as the result of a sustained institutional commitment to diversity and inclusion
Diversity Champion
and recipient of the 2021 Higher Education Excellence in Diversity (HEED) Award from *INSIGHT Into Diversity* magazine.

#13 Learning Communities
according to the 2021 rankings from *U.S. News & World Report*.

#1 Counseling
according to the 2021 edition of the Princeton Review’s Best 386 Colleges.
Persistent & Increased Student Well-Being Concerns

• 52% of our students report feelings related to loneliness as measured by the UCLA Loneliness Scale. (ACHA, 2021)

• Our students from vulnerable populations show an increased risk of mental-health problems, including Black, Hispanic, Asian, LGBTQ+, and financially insecure students. (Virginia Tech Healthy Minds Study)

• Our students also face some tough realities in our world that contribute to an eroding sense of overall mental health and well-being.
55% of our students report they are not flourishing (i.e., self-perceived success in relationships, self-esteem, purpose, and optimism) *national sample average 54%

23% of our students have elevated levels of generalized anxiety disorder *national sample average 28%

21% of our students have elevated levels of depression *national sample average 24%

7% of our students experienced have suicidal ideation *national sample average 13%
Current Mental Health Initiatives

- Ongoing implementation of the 2019 Mental Health Task Force Report
- Counselors embedded in each college
- Counseling partnership with Athletics and Cultural and Community Centers
- Peer-led mental health programs
  - Peer Assistants for Learning
  - FEELS Peer Support Circle
- Animal Assisted Therapy Program
Current Mental Health Initiatives, continued

- #VT Better Together campaign
- Train the trainer programs:
  - Mental Health First Aid training
  - QPR (question, persuade, respond) suicide prevention training
- Resiliency workshops
- Koru and Campus Mindfulness practice
- Launch of wellbeing.vt.edu site
Overview of New Student Well-being and Mental Health Initiatives
New Mental Health Initiatives for Fall 2022

- TimelyCare – new telehealth program live for all students
- New embedded Counselors in the Residential Well-being Model
- Residential Well-being Launch
We’ve recentered our structures and functions around students and designed teams to support them and our core priorities.

Our New Model: Residential Well-being
Residential Well-being District Teams

Managing Director for Residential Well-Being and Inclusion
Coordinator for Case Management and Administration
Coordinator for ExperienceVT
Coordinator for Well-Being
Embedded Counselor
Faculty/Staff Coach

Student Leader for Belonging and Inclusion
Student Leader for ExperienceVT
Student Leader for Well-Being
Panel Discussion

Dr. Frances Keene  
*Interim Vice President  
Student Affairs*

Mr. Saad Khan  
*Mental Health Initiatives Coordinator  
Hokie Wellness  
Virginia Tech, Class of 2021*

Dr. Natalie Cook  
*Assistant Professor of Public Health, Department of Population Health Sciences  
Virginia-Maryland College of Veterinary Medicine  
Faculty Principal, Honors Residential Commons*
An Overview of Student Well-being and Mental Health Initiatives
Extended Presentation with Additional Information
Board of Visitors Meeting
August 22, 2022
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# Student Data from Cook Counseling Showing Increased Distress at Initial Appointment

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<tbody>
<tr>
<td>Depression</td>
<td>1.6</td>
<td>1.67</td>
<td>1.61</td>
<td>1.73</td>
<td>1.72</td>
<td>1.78</td>
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<tr>
<td>Generalized Anxiety</td>
<td>1.62</td>
<td>1.69</td>
<td>1.67</td>
<td>1.78</td>
<td>1.79</td>
<td>1.86</td>
</tr>
<tr>
<td>Social Anxiety</td>
<td>1.9</td>
<td>1.94</td>
<td>1.92</td>
<td>1.95</td>
<td>2.04</td>
<td>2.05</td>
</tr>
<tr>
<td>Academic Distress</td>
<td>1.91</td>
<td>1.95</td>
<td>1.86</td>
<td>2.1</td>
<td>2.05</td>
<td>1.92</td>
</tr>
<tr>
<td>Eating Concerns</td>
<td>0.92</td>
<td>0.94</td>
<td>0.93</td>
<td>1.04</td>
<td>1.05</td>
<td>1.07</td>
</tr>
<tr>
<td>Frustration/Anger</td>
<td>0.8</td>
<td>0.82</td>
<td>0.76</td>
<td>0.84</td>
<td>0.84</td>
<td>0.96</td>
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<tr>
<td>Family Distress</td>
<td>1.15</td>
<td>1.17</td>
<td>1.17</td>
<td>1.3</td>
<td>1.31</td>
<td>1.37</td>
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<tr>
<td>Substance Use</td>
<td>0.65</td>
<td>0.66</td>
<td>0.64</td>
<td>0.59</td>
<td>0.63</td>
<td>0.65</td>
</tr>
<tr>
<td>Distress Index</td>
<td>1.63</td>
<td>1.68</td>
<td>1.62</td>
<td>1.76</td>
<td>1.76</td>
<td>1.63</td>
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Current Mental Health Initiatives

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New Mental Health Initiatives for Fall 2022

- TimelyCare – new telehealth program live for all students
- New embedded Counselors in the Residential Well-being Model
- Residential Well-being Launch
Core beliefs:

- A culture of well-being must prioritize people, rather than policies and practices.
- Wellbeing must be integrated, holistic, and multi-level (i.e., community, relationships, and individuals).
- The small group is the unit of transformation and the container for the experience of belonging (Block, 2016).
- Equity and inclusion are inherently connected to well-being, and a focus on the well-being of students from vulnerable populations improves the well-being of the community.
- Well-being must be built and sustained through relationships.
- Experiences and curriculum must be delivered by peers.
- A culture of well-being must include systemic and organizational changes to students’ living, learning, and social environments in addition to encouraging changes to individuals’ habits and behaviors.
- We must do whatever it takes to support the individual success, learning, and well-being of every student.
Our New Model: Residential Well-being

Refocuses on people.

Makes engagement and access to resources inescapable (opt-out instead of opt-in) and creates a web of relationships and support for students.

- Specializes professional roles, integrating expertise of other areas and making residential well-being the work of everyone in Student Affairs.
- Reimagines peer leadership by moving away from a traditional RA role to specialized student-leader positions that prioritize students’ well-being, engagement, and success.
- Brings resources and programs into the residential environment, as well as opportunities for students to attend outside events with their community.
- Adds live-in, embedded counselors.
- Adds ongoing mentoring and support from a faculty/staff coach.
Where and when are the greatest opportunities to impact students’ well-being?

• **Time of entry**—from orientation to move in.

• **The residential environment**—almost every undergraduate student at Virginia Tech begins their experience in a residence hall, and the habits, patterns, and relationships formed that first year can significantly influence the trajectory of a student’s success.
“Indeed, too much about higher education is defined in transactional terms, from the credit hours that lead to degree completion to the amount of effort students need to exert in a class to earn a particular grade. **It is thus a radical shift to instead think about higher education from a relational perspective**, that is, designing students’ pathways through college with the belief that what graduates will value most about college in the end are the significant relationships they formed during those years, rather than whether they earned a B+ or A- in US history.”
What experiences foster students’ well-being and provide a pathway to a life of flourishing?

- Meaningful relationships with peers and mentors who exhibit authentic care, and a sense of belonging and a belief that they matter.
- Engagement in activities and communities that interest them and provide meaning.
- A sense of purpose and hope (goals, pathways, agency).
- Knowing and developing their strengths, and knowledge and agency to take an active role in their day-to-day well-being.
- Opportunities to engage with people from different backgrounds, identities, experiences, and views and to feel heard and respected.
What have we fundamentally shifted in this transformation?

• Separated facilities management from people and community.
• Shifted the student and staff roles to one of community building, care, and connection.
• Student leaders roles are specialized in most districts to match three priority areas: inclusion & belonging, ExperienceVT, and holistic well-being
• Focus on a porous relationship with campus partners & resources; programs and skills are designed to move students into campus engagement.
• Creates smaller communities of students within the residential environment to foster engagement and belonging.
• Policies and processes are revised through a well-being lens, rather than one of compliance or enforcement.
• Professional roles are focused content areas, with expert supervision from across Student Affairs.
We’ve recentered our structures and functions around students and designed teams to support them and our core priorities.
Residential Well-being District Teams

- Managing Director for Residential Well-Being and Inclusion
- Coordinator for Case Management and Administration
- Coordinator for ExperienceVT
- Coordinator for Well-Being
- Embedded Counselor
- Faculty/Staff Coach

x2,000

- Student Leader for Belonging and Inclusion
- Student Leader for ExperienceVT
- Student Leader for Well-Being

x150
Web of relationships and support for students where engagement and access to resources is inescapable (opt-out instead of opt-in).
Example: Residential Well-being is a Matrix Organization

DISTRICT TEAM
- Managing Director
- Coordinator for Case Management
- Coordinator for Well-being
- Coordinator for Experience VT
- Embedded Counselor
- Graduate Assistant

CONTENT AREA TEAM

STUDENT LEADER TEAMS
Works Cited


Panel Discussion

Dr. Frances Keene
Interim Vice President
Student Affairs

Mr. Saad Khan
Mental Health Initiatives Coordinator
Hokie Wellness
Virginia Tech, Class of 2021

Dr. Natalie Cook
Assistant Professor of Public Health, Department of Population Health Sciences
Virginia-Maryland College of Veterinary Medicine
Faculty Principal, Honors Residential Commons
The Chair of the Academic, Research, and Student Affairs Committee will discuss possible agenda items for future meetings.
The Chair of the Academic, Research, and Student Affairs Committee will adjourn the committee meeting.
# Open Session Agenda

**BUILDINGS AND GROUNDS COMMITTEE**

**Monday, August 22, 2022**

*Open session meeting begins at 1:30 p.m. in the Hokie Stone Room of the Tech Center Research Park.*

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<td>Committee Chair</td>
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<tr>
<td>2. Approval of the Minutes from the June 2022 Meeting</td>
<td>Committee Chair</td>
</tr>
<tr>
<td># + 3. Overview of the Capital Construction Program</td>
<td>Bob Broyden</td>
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<tr>
<td># + 4. Acceptance of the Capital Project Status Report</td>
<td>Dwyn Taylor</td>
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<tr>
<td>+ 5. Update on Agricultural Facilities</td>
<td>Alan Grant</td>
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<tr>
<td># + 7. Overview of the Campus Master Plan</td>
<td>Liza Morris</td>
</tr>
<tr>
<td>* + 8. Resolution to Adopt the 2022 Student Life Village Master Plan</td>
<td>Bob Broyden, Frances Keene, Liza Morris</td>
</tr>
<tr>
<td>9. Future Agenda Items and Closing Remarks</td>
<td>Committee Chair</td>
</tr>
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</table>

* Requires Full Board Approval
# Discusses Enterprise Risk Management Topic(s)
+ Discusses Strategic Investment Priorities Topic(s)
Open Session Briefing Report

BUILDINGS AND GROUNDS COMMITTEE

Monday, August 22, 2022

Open session meeting begins at 1:30 p.m.
in the Hokie Stone Room of the Tech Center Research Park.

Open Session Meeting

1. Welcome: The Committee Chair will convene the meeting and provide welcoming remarks.

2. Approval of the Minutes from the June 2022 Meeting: The Committee will review for approval the minutes from the June 2022 meeting.

# + 3. Overview of the Capital Construction Program: The Committee will receive an overview of the university’s capital construction program from Bob Broyden, Associate Vice President for Campus Planning and Capital Financing. The Capital Construction team provides leadership in the administration and management of all major capital outlay projects, which are defined as projects with a total project cost of $3 million or more inclusive of all expenditures necessary to complete the project, and/or projects involving the construction of 5,000 square feet or more. Project managers work closely with sponsoring colleges and departments, future building users, and other project stakeholders to achieve project goals. Following project authorization by the Board of Visitors, project managers coordinate all phases of a project from initiation through completion and close-out.

# + 4. Acceptance of the Capital Project Status Report: The Committee will review for acceptance the quarterly capital project status report from Dwyn Taylor, Assistant Vice President for Capital Construction.

+ 5. Update on Agricultural Facilities: The Committee will receive an update from Alan Grant, Dean of the College of Agriculture and Life Sciences, on agricultural facilities planning and construction.

# + 6. Design Review for the Life, Health, Safety, Accessibility, and Code Compliance Project: The Committee will review for approval a Design Review for the Life, Health, Safety, Accessibility, and Code Compliance project. 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. This project is the first priority of three high priority accessibility initiatives identified by the university in the Life, Health, Safety, Accessibility, and Code Compliance category of the 2018-2024 Capital Outlay Plan. The project is scoped to create a new accessible route on an existing primary pedestrian corridor which will support equal access to key Education and General funded facilities in the North Academic District. The project is in the working drawings phase with construction anticipated to begin November of 2022 and to attain substantial completion November of 2023. The university received total

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+ Discusses Strategic Investment Priorities Topic(s)
project funding of $10.4 million in Life, Health, Safety, Accessibility, and Code Compliance funds from the state for 3 projects, $4.97 million of which will be applied to the first priority project.

7. **Overview of the Campus Master Plan:** The Committee will receive an overview of Beyond Boundaries 2047: The Campus Plan from Liza Morris, Assistant Vice President for Planning and University Architect. The current plan — approved by the Board of Visitors in November 2018 — guides current and future campus leaders as they imagine and develop the Blacksburg campus and the university’s agricultural research and extension centers through 2047. The plan, a key initiative connecting across all core values of the university’s strategic plan prepares the university for the next generation of higher education. The plan builds upon the Beyond Boundaries vision to ensure appropriate capacity in facilities and infrastructure, as seen in the plan’s vision for living-learning communities anchored by flexible learning spaces. Since its completion, the plan has received two national achievement awards. In 2019 the Society for College and University Planning awarded the university the Excellence in Planning for an Existing Campus Merit Award for its innovative, collaborative, multidisciplinary, and integrated approaches to planning and design. In 2021, the university received the Excellence in Landscape for Open Space Planning Award (also awarded by the Society for College and University Planning) for universal design features within the plan set to boost campus accessibility and mobility.

8. **Resolution to Adopt the 2022 Student Life Village Master Plan:** The Committee will review for approval a resolution to adopt the 2022 Student Life Village Master Plan. The university has prepared the Student Life Village master plan to guide the physical development of a new residential district in supplement to the 2018 Campus Master Plan, Beyond Boundaries 2047: The Campus Plan. The plan for the Student Life Village sets forth a long-range vision that builds off the goals, objectives, and aspirations of the master plan and the university’s strategic plan, The Virginia Tech Difference: Advancing Beyond Boundaries. The planning process for the Student Life Village included engagement with campus executive leadership, a broad range of constituents including students, and was shaped by the technical expertise of campus stakeholders. The plan incorporates analysis of residential program needs, land use, landscape, building massing, scale, and siting. Additionally, the plan evaluated and incorporated layers of infrastructure including mobility and accessibility, utilities and stormwater, technology, and safety. The resolution seeks adoption of the plan as a supplement to the previously adopted 2018 Campus Master Plan.

9. **Future Agenda Items and Closing Remarks:** The Committee will discuss potential topics for inclusion on future meeting agendas.
Welcome

BUILDINGS AND GROUNDS COMMITTEE

August 22, 2022

The Buildings and Grounds Committee Chair will open with welcoming remarks.
BOARD OF VISITORS BUILDINGS AND GROUNDS COMMITTEE 
MINUTES

Tuesday, June 7, 2022

Open Session Tour
The Buildings and Grounds Committee of the Board of Visitors of Virginia Polytechnic Institute and State University met on Tuesday, June 7, 2022 at 8:00 a.m. for an urban forestry and campus landscape tour. The tour originated at the Lobby of the Inn at Virginia Tech and Skelton Conference Center (901 Prices Fork Road, Blacksburg) and concluded at the New Classroom Building (1455 Perry Street, Blacksburg). A quorum of the Buildings and Grounds Committee was present.

<table>
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<tr>
<th>Board of Visitors Members</th>
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<tbody>
<tr>
<td>Present:</td>
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<tr>
<td>Shelly Butler Barlow (Committee Chair)</td>
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<td>Sharon Brickhouse Martin</td>
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<td>C.T. Hill</td>
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<tr>
<td>Chris Petersen</td>
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<td>Mehul Sanghani</td>
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<td>Horacio Valeiras</td>
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<td>Preston White</td>
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<td>Absent:</td>
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<td>Tish Long (Rector)</td>
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<td>Ed Baine</td>
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<td>Carrie Chenery</td>
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<td>Greta Harris</td>
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<td>Anna James</td>
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<td>Jeff Veatch</td>
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Constituent Representative(s) Present:
Paolo Fermin (Undergraduate Student Representative)

Also present were the following Virginia Tech staff members:
Lynsay Belshe, Bob Broyden, Wendy Halsey, Jamie King, Chris Kiwus, Jack Leff, Megan Marsh, Jon Clark Teglas, Paul Winistorfer

1. Urban Forestry and Campus Landscape Tour: The Committee assembled in the lobby of the Inn for an urban forestry and campus landscape tour. The Division of Campus Planning, Infrastructure, and Facilities is responsible for coordinating efforts to assure that our buildings and grounds constantly express the sense of place and quality that is intrinsic to Virginia Tech. Interwoven into the Blacksburg campus landscape, among the daily activities of students and employees and the memories of proud alumni, are more than 10,000 trees. Like Hokie Stone-clad buildings, trees are enduring symbols of pride for the university community — steadfast, scenic, and integral to sustainability. The Committee was briefed by University Arborist, Jamie King – an alumnus of Virginia Tech – who has been at the center of deepening campus efforts around tree preservation and sustainability since his hire in 2019. In support of the Virginia Tech 2020 Climate Action Commitment, the university has invested in and actively leverages the grounds system as a living laboratory. Having earned Tree Campus USA designation for 14 years in a row, this recognition directly highlights the university’s commitment to tree preservation, community engagement, and experiential learning.

♦ Discusses Enterprise Risk Management topic(s).
* Requires full Board approval.
opportunities. The Committee also met several members of the university’s grounds crew. These team members maintain the functional, access, and aesthetic standards for 850 intensively managed acres on campus, 20 miles of roadway, 20 miles of sidewalks, 70 parking lots, and the 4-acre Duck Pond.

The tour concluded at 9:40 a.m.

Joint Open Session with the Finance and Resource Management Committee
The Buildings and Grounds Committee and the Finance and Resource Management Committee of the Board of Visitors of Virginia Polytechnic Institute and State University reconvened on Tuesday, June 7, 2022 at 10:00 a.m. in joint open session in Room 260 of the New Classroom Building (1455 Perry Street, Blacksburg). A quorum of the joint Committee was present.

Board of Visitors Members
Present:
Tish Long (Rector)
Shelly Butler Barlow (Committee Chair)
Ed Baine (Committee Chair)
Sharon Brickhouse Martin
C.T. Hill
Chris Petersen
Mehul Sanghani
Horacio Valeiras
Preston White

Absent:
Carrie Chenery
Anna James
Melissa Nelson
Jeff Veatch
Greta Harris

Constituent Representative(s) Present:
Paolo Fermin (Undergraduate Student Representative)

Also present were the following Virginia Tech staff members:
President Tim Sands, Callan Bartel, Lynsay Belshe, Eric Brooks, Bob Broyden, Brock Burroughs, Caroline Buscaglia, Al Cooper, Alisha Ebert, Kari Evans, David Gerrard, Alan Grant, Tony Haga, Wendy Halsey, Jim Hillman, Frances Keene, Chris Kiel, Chris Kiwus, Kayla Lambert, Jamie Lau, Jack Leff, Rob Mann, Megan Marsh, Elizabeth McClanahan, Nancy Meacham, Ken Miller, Liza Morris, Mike Mulhare, Heidi Myers, Kim O’Rourke, James Perkins, Charlie Phlegar, Dwyn Taylor, Jon Clark Teglas, Chris Wise

* 1. Approval of Resolution to Supplement the Student Wellness Improvements Authorization: The Committees reviewed for approval a resolution to supplement the student wellness improvements authorization. This request was for a $12 million supplement to adjust the total authorization for the Student Wellness Improvements project to $70 million to complete a renovation of War Memorial Hall.

♦ Discusses Enterprise Risk Management topic(s).
* Requires full Board approval.
The Committees recommended the Resolution to Supplement the Student Wellness Improvements Authorization to the full Board for approval.

There being no further business, the joint meeting adjourned at 10:08 a.m.

*******************************************************

Open Session Meeting

The Buildings and Grounds Committee of the Board of Visitors of Virginia Polytechnic Institute and State University reconvened on Tuesday, June 7, 2022 at 10:30 a.m. in open session in Room 260 of the New Classroom Building (1455 Perry Street, Blacksburg). A quorum of the Buildings and Grounds Committee was present.

Board of Visitors Members
Present: Tish Long (Rector)  
Shelly Butler Barlow (Committee Chair)  
C.T. Hill  
Chris Petersen  
Mehul Sanghani  
Horacio Valeiras

Absent: Ed Baine  
Sharon Brickhouse Martin  
Carrie Chenery  
Greta Harris  
Anna James  
Melissa Nelson  
Jeff Veatch  
Preston White

Constituent Representative(s) Present:
Paolo Fermin (Undergraduate Student Representative)

Also present were the following Virginia Tech staff members:
President Tim Sands, Lynsay Belshe, Eric Brooks, Caroline Buscaglia, Van Coble, Al Cooper, Jeff Earley, Alisha Ebert, Kari Evans, David Gerrard, Alan Grant, Tony Haga, Wendy Halsey, Jim Hillman, Patrick Hilt, Elizabeth Hooper, Frances Keene, Chris Kiel, Chris Kiwus, Kayla Lambert, Jamie Lau, Jack Leff, Joy Manning, Megan Marsh, Ross Mecham, Bernadette Mondy, Liza Morris, Mike Mulhare, Heidi Myers, Kim O'Rourke, James Perkins, Charlie Phlegar, Dan Sui, Dwyn Taylor, Jon Clark Teglas, Lisa Wilkes

2. Welcome: The Committee Chair convened the meeting and provided welcoming remarks.

3. Consent Agenda: The Committee approved the items listed on the Consent Agenda.

   a. Approval of the Minutes from the April 4, 2022 Meeting: The Committee reviewed for approval the minutes from the April 4, 2022 meeting.

* Discusses Enterprise Risk Management topic(s).
* Requires full Board approval.
* b. **Resolution to Approve a Public Utility Easement to the Town of Blacksburg – Fiber at the Virginia Tech Corporate Research Center:** The Committee reviewed for approval a resolution authorizing the Interim Senior Vice President and Chief Business Officer to execute an amendment to the existing easement, or a new easement as may be appropriate, to the Town of Blacksburg. The Shenandoah Telecommunications Company (Shentel) has requested the university grant the easement to the town in the area of Research Center Drive between Forecast Drive and Pratt Drive on the Blacksburg campus in support of the town’s internet expansion project.

The Committee recommended the resolution to the full Board for approval.

* c. **Resolution to Approve a Public Utility Easement to the Town of Blacksburg – Squires Parking Lot:** The Committee reviewed for approval a resolution authorizing the Interim Senior Vice President and Chief Business Officer to execute an easement to the Town of Blacksburg. The Town of Blacksburg has requested the university grant an easement for the installation and upgrade of a sanitary sewer line in the area of Squires Student Center, in support of the Blacksburg campus’ sanitary sewer capacity.

The Committee recommended the resolution to the full Board for approval.

* d. **Resolution to Approve a Joint Appointment to the New River Valley Regional Water Authority:** The Committee reviewed for approval a resolution authorizing the re-appointment of Dr. William R. Knocke as the at-large member to the New River Valley Regional Water Authority for a new four-year term.

The Committee recommended the resolution to the full Board for approval.

e. **Acceptance of the Capital Project Status Report:** The Committee accepted the quarterly capital project status report.

4. **Update on Agricultural Facilities:** The Committee received an update on agricultural facilities planning and construction from Alan Grant, Dean of the College of Agriculture and Life Sciences, and David Gerrard, Head of the Department of Animal and Poultry Sciences. The progress of several capital and non-capital investments that will have significantly positive programmatic impact were highlighted.

5. **Annual Report of the University Building Official:** The Committee received the annual report from the University Building Official, Chris Kiel. The University Building Official has primary responsibility for the proper management for, and enforcement of, the Virginia Uniform Statewide Building Code (VUSBC) to ensure that construction projects conducted on property owned by the university are

♦ Discusses Enterprise Risk Management topic(s).
* Requires full Board approval.
completed in compliance with the code, related laws, and regulations. The office serves as primary liaison with outside regulatory agencies on code issues that affect the design, construction, and approval to occupy new university facilities or maintain existing facilities. The office also serves as an integral partner in ensuring physical accessibility on campus. The office was established in July 2010 after the Restructured Higher Education Financial and Administrative Operations Act of 2005 and the Management Agreement with the Commonwealth of Virginia granted the university the authority to designate its own building official. Organizationally, the University Building Official reports directly and exclusively to the Board of Visitors through the Buildings and Grounds Committee.

6. **Overview of the Facilities Renovations Program:** The Committee received an overview of the university’s renovations program from Assistant Vice President for Facilities Operations, Wendy Halsey, and Director of Renovations, Joy Manning. Facility improvements with a total project cost below $3 million or involve less than 5,000 gross square feet of new space are managed via the renovations program. Hundreds of renovations projects completed each year provide significant and direct impact to the university’s students, faculty, and staff.

7. **Future Agenda Items and Closing Remarks:** The Committee discussed potential topics for inclusion on future meeting agendas. Given that a new Committee will convene at the next meeting, in-depth overviews of both the capital construction program and the campus master plan are planned for the August meeting. It was noted that the timing of these overviews, paired with the substantial progress on the Student Life Village master plan – which the Committee received in-depth briefings during Board meetings in November 2021 and April 2022 – presents an opportunity to consider adding the Student Life Village study as a supplemental appendix to the aggregate campus master plan.

There being no further business, the meeting adjourned at 11:15 a.m.

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Open Joint Session Agenda

FINANCE AND RESOURCE MANAGEMENT COMMITTEE
AND BUILDINGS AND GROUNDS COMMITTEE

Room 260, New Classroom Building

10:00 a.m.

June 7, 2022

**Agenda Item**

* 1. Approval of Resolution to Supplement the Student Wellness Improvements Authorization

* Requires full Board approval.

◇ Discusses Enterprise Risk Management topic(s).

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<tr>
<th>Reporting Responsibility</th>
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<tbody>
<tr>
<td>Ken Miller</td>
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<tr>
<td>Chris Kiwus</td>
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<td>Bob Broyden</td>
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</table>
Open Session Agenda

BUILDINGS AND GROUNDS COMMITTEE

Tuesday, June 7, 2022

*Bus departs for tour at 8:00 a.m. from the Lobby of the Inn at Virginia Tech and Skelton Conference Center.*

*Open session meeting begins at 10:30 a.m. in Room 260 of the New Classroom Building.*

<table>
<thead>
<tr>
<th>Agenda Item</th>
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<tr>
<td>1. Urban Forestry and Campus Landscape Tour</td>
<td>Chris Kiwus</td>
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<tr>
<td>2. Welcome</td>
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<td>*d. Resolution to Approve a Joint Appointment to the New River Valley Regional Water Authority</td>
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<td>e. Acceptance of the Capital Project Status Report</td>
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<td>4. Update on Agricultural Facilities</td>
<td>Alan Grant</td>
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<td>David Gerrard</td>
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<tr>
<td>5. Annual Report of the University Building Official</td>
<td>Chris Kiel</td>
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<tr>
<td>6. Overview of the Facilities Renovations Program</td>
<td>Wendy Halsey</td>
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<td></td>
<td>Joy Manning</td>
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<tr>
<td>7. Future Agenda Items and Closing Remarks</td>
<td>Shelley Butler Barlow, Chair</td>
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♦ Discusses Enterprise Risk Management topic(s).
* Requires full Board approval.
OVERVIEW OF THE CAPITAL CONSTRUCTION PROGRAM

BOB BROYDEN
ASSOCIATE VICE PRESIDENT FOR CAMPUS PLANNING AND CAPITAL FINANCING
AUGUST 22, 2022
Program

Current portfolio:

- 18 authorized projects -- active and complete (within 1-year warranty phase)
- Total value of ~$1.2B
- Adds ~1.6M gross square feet (GSF) of new construction
- Renovates nearly 300K GSF of existing space
Overall Process

Pre-Authorization

- 6-Year Capital Plan
- Budget Request
- Project Approval

Post-Authorization

- Schematic Design
- Preliminary Design
- Working Drawings
- Construction

Post-Authorization
- 1 year Warranty Phase

- Buildings and Grounds review & approval

~ 2 years

~ 2 years

1 year

Occupancy
Our Project Managers are the “Hub”
Ensuring Design Excellence

Control Measures at each Phase of Design

Broad Stakeholder Input

Emphasize Partnership

Schematic Design - Preliminary Design - Working Drawings - Market Analysis - Construction Contract Awarded
Ensuring Construction Excellence

Competitive Sealed Bids “Design-Bid-Build”

Construction Manager at Risk

Design - Build
New Upper Quad Residence Hall

Status:
- Project on track (50% complete)

Next Actions:
- Anticipated completion in August 2023

Legend:
- SD = Schematic Design
- PD = Preliminary Design
- WD = Working Drawings

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<tr>
<th>Project Title</th>
<th>Total Project Budget (S&amp;M)</th>
<th>Construction Budget (S&amp;M)</th>
<th>New Goot (GSP)</th>
<th>Renovation (GSP)</th>
<th>CY 2022</th>
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<td>New Upper Quad Residence Hall</td>
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<td>532.00</td>
<td>16,150</td>
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<td>Q4</td>
<td>Q3</td>
<td>Q2</td>
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Designer: Clark - Nexsen
Builder: Vannoy
Discussion
The High Cost of Building a Better University

by Donald J. Guckert and Jeri Ripley King

Higher education design and construction project managers perform their work on the forward-edge of an ever-changing world. We face increasingly complex facilities, shortening timelines, proliferating code and regulatory requirements, emerging technologies, and growing concerns for indoor air quality and environmental sustainability. As we strive to keep abreast of these changes, we continue to hear one question from governing boards, administrators, and customers: “Why does it cost so much?”

We cannot deny that educational facilities cost more to build than many other types of construction. Even in the realm of education, there is a hierarchy ranging from sophisticated research facilities to parking structures. Yet, all our facilities seem to come at a premium cost. Lower cost alternatives are always available, but our institutions choose, instead, to build to a quality level that is above the baseline. These choices flow from the institution’s vision and strategic plan. The facilities we construct reflect the values and aspirations of our institutions.

A Sense of Place

Many universities are vying for national and international recognition. To do this, they compete for students, faculty, and research funding. More than ever before, university building designs are viewed as enhancing and preserving our institutional heritage, while creating an attractive environment in which to learn, discover, and live. We do not just build or renovate structures; we create a “sense of place.”

Clearly, this “sense of place” plays an important role in marketing the institution. In a 2001 study of college-bound high school seniors by Noel-Levitz, a market-research firm, the most notable experiences seniors encountered on their best college visit had to do with the appearance of the campus and its facilities. This study confirmed the report by the Carnegie Foundation for the Advancement of Teaching in 1986 that found 62 percent of prospective students thought that “appearance of the grounds and buildings was the most influential factor during a campus visit.”

The attractive appearance of the grounds and buildings comes at a cost. In constructing a new building for a campus environment, we seek elaborate designs that convey emotions and reactions that range from stimulating debates over architecture to communicating notions of continuity and timelessness. Often the little extras add a lot to the quality of the built campus environment: prominent building entrances, buried utilities in tunnels and chases, hidden downspouts in interior walls, screened waste receptacles, underground cooling towers, discrete access for service vehicles, and extensive landscaping and courtyards.

Land must be used carefully, with attention to gathering places and circulation. The need for green space must balance the need for building space. This drives us to optimize building footprints, by building skyward and below grade to conserve precious campus real estate. Multiple stories require more costly foundations and structures designed to withstand seismic and wind loading standards. Stair towers and elevators consume project resources and decrease the percentage of assignable space. All these factors lead to a higher cost per square foot.

Codes, Regulations, and Standards

The type of occupancy determines the applicable building code requirements. The large assemblies, found in most university facilities, dictate the highest level of life safety design. These code requirements have a tremendous impact on cost by requiring stair towers, fire rated corridors, fireproofing on structural members, fire alarm systems, sprinklers, and

Don Guckert is associate vice president and director of the facilities services group at the University of Iowa, Cedar Falls, Iowa. He serves as dean of planning, design, and construction for APPA’s Institute for Facilities Management, and he can be reached at don-guckert@uiowa.edu. Jeri King is senior management analyst for planning, design, and construction at the University of Missouri-Columbia. She can be reached at kingj@missouri.edu.
An often-overlooked impact on cost is the expectation that construction activities will be conducted with minimal disruption to campus life.

smoke evacuation systems. Even the grade of carpeting in a university facility is selected to minimize concerns about flame spread.

In addition to codes, building design and construction must meet a myriad of legislative mandates and regulations. The list reads like alphabet soup: ADA, EPA, OSHA, and more. These laws and agencies govern building accessibility, removal of hazardous waste, asbestos, light ballasts, lead paint, storm water runoff, construction dust control, noise control, and more. Then, there are the state permits, local permits, contracts, agreements, and requirements by donors and funding agencies that must be managed.

The type of facility and occupancy also drives ventilation requirements. Labs require more ventilation than classrooms; classrooms require more ventilation than offices. Increased ventilation leads to upsizing HVAC systems, because outside air must be heated or cooled before it is delivered to the finished space. In a trend toward thwarting indoor air-quality problems, building mechanical codes have increased ventilation requirements far beyond the infrastructure capacities in many buildings built before the 1990s. The impact is profound on renovation projects where HVAC costs alone can consume the majority of the project budget.

**Institutional and Statutory Requirements**

Institutional and statutory requirements can drive up costs, too. Contractors must provide the highest industry coverage for insurance and bonding and construct in accordance with the highest industry standards. Architects may be required to furnish professional liability insurance. Public owners must follow state procurement statutes, which increase design and bidding costs and constrain the use of more cost-effective delivery approaches. Many institutions require contractors to pay prevailing wages to their workers, equating to union-scale.

An often-overlooked impact on cost is the expectation that construction activities will be conducted with minimal disruption to campus life. The campus is a protected environment that accommodates learning, social interaction, discovery, living, dining, recreation, and public service. As invited guests into this haven, contractors are required to conduct their activities in a manner that minimizes the impact on the institution’s primary missions. This is not a typical construction site. Project costs go up dramatically when universities restrict access to building sites; limit space for staging; require off-campus parking; enforce jobsite cleanliness; add fencing and protection; route construction vehicles around, rather than through the campus; limit noise and hours of operation; and impose complex phasing schemes to accommodate academic calendars.

**Time is Money**

Demanding schedules are an inherent part of higher education design and construction efforts. In general, shortening the timeline will drive up costs, lengthening the schedule will drive them down. An aggressive three-month renovation will be unaffordable if we only allow six weeks for completion of the work. Conversely, easing the schedule to six months will yield savings.

Contractors, when bidding a shortened schedule, will increase their bids to reflect overtime payments to workers, incentive payments to vendors, reduced worker productivity, and contingencies to cover the risks of falling behind schedule or completing late. On the other hand, extra time in the schedule reduces the contractor’s risk, facilitates effective coordination among subcontractors, provides sufficient time for fabrication and delivery of materials and equipment, and other accommodations that result in a more cost-effective project delivery.

More often than not, we aggressively work toward inflexible milestones, such as semester starts and athletic event schedules. In research environments, the need to be up-and-running is paramount. When the higher education environment demands design and construction projects delivered on increasingly shorter timelines, this drives up the cost of university projects.

**Complexity**

The facilities we build are among the most challenging in the building construction industry. We build state-of-the-art research facilities, high occupancy performance and athletic venues, heavily trafficked and technological learning environments, and living and social environments that must appeal to a new generation. In short, we are constructing complex communities.

Program activities often dictate the need for a combination of classrooms, laboratories, meeting rooms, and offices. While grouping one type of activity in a facility would reduce costs, our buildings rarely house only one type of activity. In addi—

*Continued on page 21*
We are resolved not to repeat the shortsighted mistakes that were made by a previous generation of campus administrators and facilities managers.

Continued from page 19

tion, they must meet the functional requirements of the campus environment.

For example, classrooms and auditoriums are usually on the lower levels of a building and demand larger, column-free spans. The lower levels may then have to support upper floors designed to accommodate floor loadings for bookshelves and lab equipment. Inverting these spaces, by placing the column-free classrooms on the upper floors and the heavy load-bearing spaces on the lower floors, would be more cost effective, but less functional in a campus setting.

Our facilities must accommodate a mix of functions and heavy traffic. To manage this, we install complex building systems. Mechanical systems are designed for extreme conditions: hottest and coldest temperatures, humidity extremes, strictest climate control, and highest occupancy. We recognize that the design of a mechanical system represents the greatest opportunity for energy conservation in the future. Investments in energy efficient mechanical systems will yield a lower stream of future utility costs.

Maintainability, Sustainability, and Longevity

Good stewardship involves constructing buildings that will last, buildings that can be easily maintained, and buildings that can be converted to other programmatic or technologic uses in the future.

With many people using university facilities in frequent cycles throughout the course of a day, not only do the structures need to be able to handle this, but also the components of these facilities must be of a quality to withstand constant heavy use and abuse. Because of the campus building boom in the 1960s, we know all too well the consequences of cheaper designed and constructed facilities that were not built to survive the test of time. Our requirement for durability raises the price of doors, door hardware, carpeting, entrance mats, floor tile, and restroom fixtures, but it lowers the future costs of maintaining and replacing the lower quality products. We are resolved not to repeat the shortsighted mistakes that were made by a previous generation of campus administrators and facilities managers.

The way we use our facilities demands that we construct utility systems within the building to high reliability standards. This often results in paying for system redundancies, generators, uninterruptible power supply systems, harmonics reduction, and central utility systems. In addition, telecommunication/computer wiring and pathways are often over-built to enable user flexibility, and save the expense of rewiring and reconstructing walls or ceilings in the near future. We have learned that planning for tomorrow can cut down on the costs of retrofitting existing buildings.

Environmental sustainability is another factor having an increasing impact on construction costs within higher education. An emerging trend on campuses, facilities are being constructed with recyclable materials, materials are certified as manufactured from renewable sources, and building and system designs are using progressive methods and technolo-
gies to conserve energy and reduce the waste stream. Pursuing Leadership in Energy and Environmental Design, or LEED certification, developed by the U.S. Green Building Council, brings the prestige and positive publicity sought by many institutions seeking a progressive and environmentally sensitive image. However, this comes at a higher cost.

Making these long-term, sound, investment choices is what separates higher education from the vast array of other building environments. Higher education, more than any other built community and commercial environment, constructs buildings to last beyond our lifetimes. Every institution with an active building program envisions itself in existence into perpetuity. We make the choice to invest in higher quality construction of our campus, in part, because we have so many years ahead of us to reap the benefits on these initial investments.

Why Does it Cost so Much?

It is said that excellence is in the details. Thousands of details go into the construction of a university building. Rarely can we point to one item as driving the high project cost. The high cost of university construction is caused by the accumulation of investments in all of the details that go into building a quality facility. If we are to compete with the best institutions, we must meet the demands for higher quality facilities.

Construction costs mirror the values and aspirations of the institution. Our universities choose to provide stimulating, enriching environments that will serve our students, faculty, and researchers well into the future. We are building a better university, one that is built on the traditions of the past and constructed to compete for faculty and students into the next century.
CAPITAL PROJECTS UPDATE

PREPARED FOR THE BUILDINGS AND GROUNDS COMMITTEE OF THE BOARD OF VISITORS

DWYN TAYLOR
ASSISTANT VICE PRESIDENT FOR CAPITAL CONSTRUCTION
AUGUST 22, 2022
Project Portfolio

• 18 authorized projects -- active and complete (w/in 1-year warranty phase)
• Total value of ~$1.2B
• Adds ~1.6M gross square feet (GSF) of new construction
• Renovates nearly 300K GSF of existing space
### Capital Construction Executive Summary (Progressive)

**Date Prepared: 15 JUL 2022**

**LEGEND:**  
- SD = Schematic Design  
- PD = Preliminary Design  
- WD = Working Drawings

<table>
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<tbody>
<tr>
<td>Improve Kentland Facilities (Phase II) – Various Locations</td>
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<tr>
<td>Creativity &amp; Innovation District Living Learning Community</td>
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<td>Gas-Fired Boiler at Central Steam Plant</td>
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<td>Holden Hall Renovation</td>
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<td>Chiller Plant Phase II</td>
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<tr>
<td>Data &amp; Decision Sciences Building (D&amp;D5)</td>
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<tr>
<td>Livestock &amp; Poultry Research Facilities (Ph I) -- Various Locations</td>
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<tr>
<td>Multi-Modal Transit Facility</td>
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<td>Corps Leadership &amp; Military Science Building</td>
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<td>New Upper Quad Residence Hall</td>
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<td>Innovation Campus - Academic Building (Note 2)</td>
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<td>HITT Hall (Note 2)</td>
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<td>Dietrick Renovation</td>
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<td>Undergraduate Science Laboratory Building</td>
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<td>Life, Health, Safety, Accessibility and Code Compliance (Note 3)</td>
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<td>Student Wellness Improvements</td>
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<td>Mitchell Hall (Replace Randolph Hall)</td>
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<td>Planning: New Business Building -- Design Only</td>
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<td>Global Business &amp; Analytics Complex Residence Halls</td>
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<th>Renovation (GSF)</th>
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<th>CY 2023</th>
<th>CY 2024</th>
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<tbody>
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<td>Improve Kentland Facilities (Phase II) – Various Locations</td>
<td>$12.5</td>
<td>$10.1</td>
<td>28,403</td>
<td></td>
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<tr>
<td>Creativity &amp; Innovation District Living Learning Community</td>
<td>$105.5</td>
<td>$85.3</td>
<td>232,000</td>
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<tr>
<td>Gas-Fired Boiler at Central Steam Plant</td>
<td>$8.2</td>
<td>$3.8</td>
<td>N/A</td>
<td></td>
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<tr>
<td>Holden Hall Renovation</td>
<td>$74.9</td>
<td>$58.5</td>
<td>82,905</td>
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<tr>
<td>Chiller Plant Phase II</td>
<td>$42.9</td>
<td>$32.7</td>
<td>N/A</td>
<td></td>
<td></td>
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<tr>
<td>Data &amp; Decision Sciences Building (D&amp;D5)</td>
<td>$79.0</td>
<td>$58.9</td>
<td>120,000</td>
<td></td>
<td></td>
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<tr>
<td>Livestock &amp; Poultry Research Facilities (Ph I) -- Various Locations</td>
<td>$25.3</td>
<td>$18.2</td>
<td>129,100</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Multi-Modal Transit Facility</td>
<td>N/A</td>
<td>N/A</td>
<td>13,606</td>
<td></td>
<td></td>
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<tr>
<td>Corps Leadership &amp; Military Science Building</td>
<td>$52.0</td>
<td>$37.9</td>
<td>65,428</td>
<td></td>
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<tr>
<td>New Upper Quad Residence Hall</td>
<td>$42.0</td>
<td>$32.0</td>
<td>56,650</td>
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<td>Innovation Campus - Academic Building (Note 2)</td>
<td>$302.1</td>
<td>$226.3</td>
<td>299,733</td>
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<tr>
<td>HITT Hall (Note 2)</td>
<td>$85.0</td>
<td>$65.5</td>
<td>101,000</td>
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<tr>
<td>Dietrick Renovation</td>
<td>$9.1</td>
<td>$6.8</td>
<td>6,298</td>
<td></td>
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<tr>
<td>Undergraduate Science Laboratory Building</td>
<td>$90.4</td>
<td>$69.5</td>
<td>102,746</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Life, Health, Safety, Accessibility and Code Compliance (Note 3)</td>
<td>$10.4</td>
<td>$3.7</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Wellness Improvements</td>
<td>$70.0</td>
<td>$54.6</td>
<td>217,708</td>
<td></td>
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<tr>
<td>Mitchell Hall (Replace Randolph Hall)</td>
<td>$248.0</td>
<td>$185.0</td>
<td>284,000</td>
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<td></td>
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<tr>
<td>Planning: New Business Building -- Design Only</td>
<td>$8.0</td>
<td>$60.6M</td>
<td>104,000</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Global Business &amp; Analytics Complex Residence Halls</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:**
- Note 1: Non-VT project
- Note 2: Multiple GMPs results in design/construction overlap (fast track)
- Note 3: Project will be executed in prioritized sub-projects; first priority sub-project has a construction budget of $3.7M

**TOTALS:** $1,265.3, 1,625,869, 258,357
Capital Project Portfolio

Legend

- = In Design
- = Under Construction
- = Warranty/Complete
* = Design only

Virginia Tech Campus

Innovation Campus
Kentland Farm
In Design
Projects In Design

GBAC LLCs
(On Hold)

New College of Business*
*A/E Procurement underway for design

Mitchell Hall

Life, Health, Safety, Accessibility

Student Wellness Improvements*
*Pricing underway for construction

New College of Business*

*A/E Procurement underway for design

Student Wellness Improvements*
*Pricing underway for construction
Mitchell Hall
(Replace Randolph Hall)

Status:
- Project fully authorized for construction by General Assembly
- Schematic Design Phase complete
- Preliminary Design initiated
- CMaR pre-construction services contract is underway

Next Actions:
- BOV Preview (targeted for November 2022 session)

CMaR
State Authorized

Design: Perkins & Will
Builder: Skanska
Planning: New Business Building

Status:
- A/E procurement underway

Next Actions:
- Finalize A/E selection/contracting process and initiate design
- Targeting BOV Construction Authorization in summer 2023

Designer: TBD
Builder: TBD
Life, Health, Safety, Accessibility & Code Compliance

Status:
• Supplemental funding request approved by General Assembly for full scope of this project which also addresses other accessibility priorities on campus
• Working Drawings complete and under review by VT

Next Actions:
• Issue Invitation for Bids for construction contract

Design: Quinn Evans
Builder: TBD
**Student Wellness Improvements**

**Status:**
- Design complete
- CMaR finalizing Guaranteed Maximum Price (GMP)

**Next Actions:**
- Complete negotiations for construction and award contract

**CM at Risk**
**BOV Authorized**

**Designer:** Cannon Design  
**Builder:** Whiting-Turner
Global Business & Analytics Complex Residence Halls

Status:
- Program originally conceived for this project is now envisioned to be included in Phase 1 of the Student Life Village

Next Actions:
- This project may be closed and its budget redirected to support the program within the Student Life Village

Design-Bid-Build
BOV Authorized

LEGEND:  Design  Construction  SD = Schematic Design  PD = Preliminary Design  WD = Working Drawings

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget ($M)</th>
<th>Construction Budget ($M) (Construction contract value)</th>
<th>New Const (GSP)</th>
<th>Renovation (GSP)</th>
<th>CY 2022</th>
<th>CY 2023</th>
<th>CY 2024</th>
<th>CY 2025</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>JAN-MAR</td>
<td>APR-JUN</td>
<td>JUL-SEP</td>
<td>OCT-DEC</td>
</tr>
<tr>
<td>Global Business &amp; Analytics Complex Residence Halls</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Q3</td>
<td>Q4</td>
<td>Q1</td>
<td>Q2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
</tbody>
</table>

ON HOLD

Designer: TBD  Builder: TBD
Under Construction
Active Construction Projects

- Multi-Modal Transit Facility (ToB project)
- Data & Decisions Science Building
- Undergraduate Science Laboratory Building
- HITT Hall
- Corps Leadership & Military Science Building
- New Upper Quad Residence Hall
- Dietrick Renovation
- Innovation Campus Academic Building (Alexandria, VA)
- Livestock & Poultry Research Facilities (Various locations)
Status:
• Project on track (20% complete)
• Underground parking structure nearing completion
• Vertical construction underway

Next Actions:
• Anticipated completion in April 2024
**Undergraduate Science Laboratory Building**

**Status:**
- Project on track (3% complete)

**Next Actions:**
- Anticipated completion in April 2024

**CMAR State Authorized**

**Designer:** ZGF  
**Builder:** Skanska
Dietrick Renovation
(& Quillen Family Spirit Plaza)

Status:
• Project on track (45% complete)

Next Actions:
• Anticipated completion in March 2023

Design-Bid-Build BOV Authorized

Designer: Hanbury
Builder: Branch Builds
Hitt Hall

Status:
• Project on track (18% complete)

Next Actions:
• Anticipated completion in March 2024

CM at Risk
BOV Authorized

Designer: Cooper Cary
Builder: W M Jordan
New Upper Quad Residence Hall

Status:
• Project on track (50% complete)

Next Actions:
• Anticipated completion in August 2023

Designer: Clark - Nexsen
Builder: Vannoy
**Corps Leadership & Military Science Building**

**Status:**
- Project on track (54% complete)

**Next Actions:**
- Anticipated completion in July 2023

**Designer:** Clark - Nexsen

**Builder:** Vannoy

**CM at Risk**

**BOV Authorized**
Livestock & Poultry Research Facilities (Phase I)

Status:
• Construction underway on 4 of 6 bid packages:
  - Poultry: 99% complete
  - Swine: 80% complete
  - Equine: 99% complete
  - Beef: 95% complete

Next Actions:
• Supplemental funding request for 3 hay barns and demolition submitted to DEB for allocation

Designer: Spectrum Design
Builder: (Various)
Data & Decisions Sciences Building

Status:
• Project on track (80% complete)

Next Actions:
• Anticipated completion in April 2023

CM at Risk
State Authorized

Legend:
- SD = Schematic Design
- PD = Preliminary Design
- WD = Working Drawings

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget (SM)</th>
<th>Construction Budget ($M) (Construction contract value)</th>
<th>New Const (GSF)</th>
<th>Renovation (GSH)</th>
<th>CY 2022</th>
<th>CY 2023</th>
<th>CY 2024</th>
<th>CY 2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data &amp; Decision Sciences Building</td>
<td>$79.0</td>
<td>$58.9</td>
<td>120,000</td>
<td></td>
<td>FY22 Q3</td>
<td>FY23 Q1</td>
<td>FY24 Q1</td>
<td>FY25 Q2</td>
</tr>
</tbody>
</table>

Designer: Moseley
Builder: Kjellstrom & Lee
**Chiller Plant (Phase II)**

**Status:**
- Project complete

**Next Actions:**
- Contract finalization and close-out underway

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget ($M)</th>
<th>Construction Budget ($M) (Construction contract value)</th>
<th>New Const (GFS)</th>
<th>Renovation (GFS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chiller Plant Phase II</td>
<td>$42.9</td>
<td>$32.7</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

*Designer: AEI*

*Builder: Faulconer*
Gas-Fired Boiler at Central Steam Plant

Status:
• Project complete

Next Actions:
• Waiting DEQ issuance of final boiler permit for alternative fuel source (fuel oil)

DESIGN - BID - BUILD
BOV Authorized

Designer: AEI
Builder: Southern Air

LEGEND: Design Construction

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Total Project Budget ($)</th>
<th>Construction Budget (SM) (Construction contract value)</th>
<th>New Cost (cSF)</th>
<th>Renovation (cSF)</th>
<th>CY 2022</th>
<th>CY 2023</th>
<th>CY 2024</th>
<th>CY 2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas-Fired Boiler at Central Steam Plant</td>
<td>$8.2</td>
<td>$3.8</td>
<td>N/A</td>
<td></td>
<td>FY22 Q3 Q4 Q1</td>
<td>Q2 FY23</td>
<td>FY24 Q3 Q4</td>
<td>Q1 Q2 FY25</td>
</tr>
</tbody>
</table>
Holden Hall Renovation

Status:
- Project complete

Next Actions:
- Address punch list and close out contract

Designer: Moseley
Builder: WM Jordan
Creativity & Innovation District LLC

Status:
• Project complete

Next Actions:
• Close out contract

Designer: Hanbury
Builder: WM Jordan
Improve Kentland Facilities (Phase II)

**Status:**
- APR Building construction complete
- BETR Building construction complete
- MRL Building construction complete

**Next Actions:**
- APR Building: None -- warranty period complete)
- BETR Building: None -- warranty period complete)
- MRL Building: Resolve manure treatment issue (design/warranty issue)

**Designer:** Spectrum Design

**Builder(s):** APR = Snyder; MRL & BETR = CPPI
Multi-Modal Transit Facility

Status:
• Construction underway (approx 50% complete)

Next Actions:
• Anticipated completion in April 2023

Site Plan

Design-Bid-Build
Town of Blacksburg (ToB) Project

Designer: Wendel (ToB contract)
Builder: WM Schlosser (ToB contract)
Definitions

- **State Authorized:** Authorized and funded (whole or in part) by the Virginia General Assembly

- **BOV Authorized:** Authorized and funded by the Virginia Tech Board of Visitors

- **Schematic Design Phase** = 0% to approx 20% design complete

- **Preliminary Design Phase** = Approx 20% to approx 50% design complete

- **Working Drawing Phase** = Approx 50% to 100% design complete

- **GMP** = Guaranteed Maximum Price
Construction Methods

**Design-Bid-Build (DBB):**
- A/E completes full design
- Invitation For Bid (IFB) issued...contract awarded to lowest bidder

**Construction Manager at Risk (CMaR):**
- A/E completes full design
- CMaR’s compete for project during early stage of design
- CMaR hired during schematic design phase
- When final designs are complete, CMaR develops Guaranteed Maximum Price (GMP)

**Design-Build (D/B):**
- A/E completes partial design (“criteria docs”)
- D/B teams (builder + A/E) compete for project and propose full price for project delivery
- Selection based upon “best value”
- D/B team completes design and executes construction
CAPITAL PROJECTS UPDATE

PREPARED FOR THE BUILDINGS AND GROUNDS COMMITTEE OF THE BOARD OF VISITORS

D W Y N  T A Y L O R
ASSISTANT VICE PRESIDENT FOR CAPITAL CONSTRUCTION
AUGUST 22, 2022
Mitchell Hall
(Replace Randolph Hall)

Status:
• Project fully authorized for construction by General Assembly
• Schematic Design Phase complete
• Preliminary Design initiated
• CMaR pre-construction services contract is underway

Next Actions:
• BOV Preview (targeted for November 2022 session)

Designer: Perkins & Will
Builder: Skanska
**Planning: New Business Building**

**Status:**
- A/E procurement underway

**Next Actions:**
- Finalize A/E selection/contracting process and initiate design
- Targeting BOV Construction Authorization in summer 2023

---

**LEGEND:**
- **Design**
- **Construction**
- **SD = Schematic Design**
- **PD = Preliminary Design**
- **WD = Working Drawings**

**Designer:** TBD  
**Builder:** TBD
Status:
- Project on track (20% complete)
- Underground parking garage nearing completion
- Steel structure construction underway

Next Actions:
- Anticipated completion in April 2024
Hitt Hall

Status:
• Project on track (18% complete)

Next Actions:
• Anticipated completion in March 2024

Designer: Cooper Cary

Builder: W M Jordan
Data & Decisions Sciences Building

Status:
• Project on track (80% complete)

Next Actions:
• Anticipated completion in April 2023

Designer: Moseley
Builder: Kjellstrom & Lee
QUESTIONS?
UPDATE ON AGRICULTURAL FACILITIES

Alan L. Grant, Ph.D.
Dean of the College of Agriculture and Life Sciences

August 22, 2022
WHERE ARE VIRGINIA TECH’S AGRICULTURAL FACILITIES?

11 ARECs
- 227 active ag buildings
- 570,258 GSF
- 4,626 acres

Montgomery County
- 140 active ag buildings
- 648,559 GSF
- 3,379 acres

TOTAL AG FACILITIES
- 367 active buildings
- 1,218,817 GSF
- 8,005 acres

Agricultural Research And Extension Centers (ARECs)
Virginia Agricultural Experiment Station

Shenandoah Valley AREC
Steilens Tavern
- Cattle
- Forestry

Alson H. Smith Jr. AREC
Winchester
- Viticulture
- Peats
- Horticulture

Middleburg AREC
Middleburg
- Horses
- Cattle
- Forestry

Eastern Virginia AREC
Wassaw
- Agriculture
- Disease

Eastern Shore AREC
Painboro
- Agriculture
- Disease

Virginia Seaboard AREC
Hampton
- Aquaculture
- Microbiology
- Training
- Engineering

Southwest Virginia AREC
Blacksburg
- Agriculture
- Disease
- Environment

Reynolds Homestead Forest Resources Research Center
Citz
- Forestry

Southern Piedmont AREC
Richmond
- Cattle
- Agriculture
- Disease
- Environment
- Horticulture

Tidewater AREC
Suffolk
- Agriculture
- Savine
- Forestry

Hampton Roads AREC
Virginia Beach
- Environment
- Horticulture
AG FACILITIES IMPROVEMENTS 3-YEAR UPDATE

- Since the AREC Bus Tour in February 2019...

Non-Capital Projects Completed: 57

- Maintenance Reserve Projects: 16
- CALS Minor Projects: 34
- CALS Major Projects: 7

Non-Capital Project Investment: $3,741,000

Graph showing the investment from March 2020 to June 2022.
AG FACILITIES IMPROVEMENTS 3-YEAR UPDATE

Capital project development over the last 3 years:

<table>
<thead>
<tr>
<th>Phase</th>
<th>No. of New Buildings or Major Renovation</th>
<th>Gross Square Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Planning</td>
<td>41</td>
<td>137,916</td>
</tr>
<tr>
<td>Capital Budget Request</td>
<td>13</td>
<td>50,660</td>
</tr>
<tr>
<td>Design</td>
<td>3</td>
<td>27,860</td>
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<tr>
<td>Under Construction</td>
<td>7</td>
<td>99,091</td>
</tr>
<tr>
<td>Completed</td>
<td>4</td>
<td>48,340</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>68</strong></td>
<td><strong>363,867</strong></td>
</tr>
</tbody>
</table>

✔ AREC Strategic Facility Plan completed
✔ 3 Federal earmark requests submitted for new facilities
✔ 27 acres of land acquired, 47 additional acres leased
✔ Exterior signage upgraded at 9 ARECs, 2 in progress.
PROGRESS SINCE LAST MEETING

• Electrical upgrades in cattle barn, sheep barn, two tobacco barns and workshop/equipment shed at SWAREC
• New public water system connection at TAREC
• Began planning renovation to Campbell Arena
• Developed wayfinding signage plan for Kentland Farm and Plantation Road area
• Began installation of new emergency generator for Entomology Quarantine Lab at Price’s Fork Research Center
• Installation underway for new LED lighting in four buildings at the Kentland Dairy Center and two buildings at the Urban Horticulture Center
Hampton Roads AREC Relocation Study

- General Assembly requested VAES to evaluate a plan for possible relocation of the Hampton Roads AREC (HB30 Chapter 2, Item C-25.10)
- Provided $500,000 to fund the study
- Report to include timeline, suitable location requirements, building costs, and moving costs.
- Kickoff meeting held July 22, 2022
- Term Contract planning consultant hired
- Study components:
  1. Current assets and program definition
  2. 1:1 replacement strategy
  3. Alternatives considered
- Report is due to General Assembly by December 15, 2022
TECHNOLOGY AND CONNECTIVITY
Technology and Connectivity

- Continue to await delivery of hardware for the following:
  - Routers and switches at all ARECs designated for 1 Gbps service
  - Additional wireless access points for both interior and exterior expansion of wifi service
  - 4G/5G radios for field-level wireless service at Eastern Va. AREC

- Final service pricing confirmed for 10 Gbps at Kentland Farm. Deployment of service expected in 6 weeks.
## CAPITAL PROJECTS

**PROJECTS IN CONSTRUCTION**

<table>
<thead>
<tr>
<th>PROJECT NAME</th>
<th>PROJECT DESCRIPTION</th>
<th>ESTIMATED TOTAL PROJECT COST</th>
<th>FUND SOURCE</th>
<th>PROJECT TEAM</th>
<th>CONTRACT COMPLETION DATE</th>
<th>PROJECT STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve Kentland Facilities, Phase II</td>
<td>Applied Reproduction Facility (ARF): 4.10 SF barn at Van Meter Breeding and Breeding Improvement. 5,500 SF classroom building and 5,000 SF demonstration area at livestock center on Plantation Road. Metabolic Research Laboratory (MBL): 1.130 SF animal behavior laboratory at the Dairy Center at Kentland farm.</td>
<td>$52,143,000</td>
<td>Capital Outlay</td>
<td>Spectrum</td>
<td>Fall 2022</td>
<td>All projects have reached substantial completion and have certificate of occupancy. Minor corrective work is ongoing and owner furnished equipment installation is in progress.</td>
</tr>
<tr>
<td>New Virginia Seafood AREC Building</td>
<td>36,000 SF, 2-story building to replace existing aging and structurally unsatisfactory facility in Hampton, Virginia with state-of-the-art aquaculture research and extension facilities. Facility owned and developed by Virginia Tech Foundation.</td>
<td>$9,260,000</td>
<td>Capital Outlay</td>
<td>Various</td>
<td>April 2022</td>
<td>Certificate of Occupancy has been received. Remaining punch list items are being addressed and change order work is completed. Move-in is complete. Equipment from old building has been salvaged.</td>
</tr>
</tbody>
</table>
| Livestock and Poultry Research Facilities, Phase I | **Pkg 1:** New Swine Center at Kentland Farm  
**Pkg 2:** New Beef Nutrition Facility & Hay Shed at Kentland Farm  
**Pkg 3:** New Steer/ESU Dairy/Grow-out Facilities at the Turkey Research Center (Glade Rd.)  
**Pkg 4:** New Equitation Barn & Equipment Storage Building at Livestock Center (Plantation Rd.)  
**Pkg 5:** New Hay Shed at 5-Smithfield Horse Center, Fields west of US 460, and Heth Farm  
**Pkg 6:** Final Demolition of remaining facilities | $21,074,000                  | Capital Outlay | Spectrum      | Packages 1-4: Summer and Fall 2022 | Packages 1-4 are under construction and progressing toward late summer / early fall completions. Packages 5-6: Design on hold pending funding appeal |

## PROJECTS IN DESIGN / PLANNING STAGE

<table>
<thead>
<tr>
<th>PROJECT NAME</th>
<th>PROJECT DESCRIPTION</th>
<th>DATE</th>
<th>FUND SOURCE</th>
<th>PROJECT TEAM</th>
<th>PROJECT STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>System-Wide AREC Improvements, Phase I</td>
<td>Review and expand 33,460 SF of aging and deteriorating AREC facilities - 12,160 SF of renovations and 21,300 SF of new construction, greenhouse, housing, research and outreach facilities - to update condition and expand capacity. 15 projects identified at 10 ARECs.</td>
<td>TBD</td>
<td>Capital Outlay</td>
<td>TBD</td>
<td>TBD Capital budget request submitted to state for consideration in 2023 budget.</td>
</tr>
<tr>
<td>Relocation of Hampton Roads AREC</td>
<td>Study requested by the General Assembly to evaluate possible relocation of the Hampton Roads AREC to a new site. Report to assess existing asset inventory, programmatic needs, new site requirements and possible alternatives.</td>
<td>TBD</td>
<td>Capital Outlay</td>
<td>AECOM</td>
<td>TBD Project has been initiated with term contract planning consultant. Evaluation is underway.</td>
</tr>
<tr>
<td>Human and Agricultural Biosciences Building II</td>
<td>Construct new research lab facility for the School of Plant and Environmental Sciences to co-locate numerous research teams in one location with modernized facilities to focus on studying climate change.</td>
<td>TBD</td>
<td>Capital Outlay</td>
<td>EYP</td>
<td>TBD Re-programming effort underway for a $51.5 M construction target. Draft Feasibility report is under review.</td>
</tr>
</tbody>
</table>

## NON-CAPITAL PROJECTS

**PROJECTS COMPLETED SINCE LAST REPORT**

<table>
<thead>
<tr>
<th>PROJECT NAME</th>
<th>PROJECT DESCRIPTION</th>
<th>DATE</th>
<th>FUND SOURCE</th>
<th>PROJECT STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Projects (&lt;$21,000 each)</td>
<td></td>
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</tr>
</tbody>
</table>
- Air Smith in AREC New Horsehouse  
- AH Smith in AREC Greenhouse Controls Upgrade  
- Virginia Tobacco Barn #3 Connection  
- EVAREC LED Lighting Upgrade  
- Southwest AREC Smart Water Power Connection  
- CONSTRUCTION to 12,160 SF Barn at Van Meter Breeding and Breeding Improvement  
- Replacement aging control system  
- General infrastructure that has demonstrated beyond repair  
- New lighting to LED in Main Office and Lab Building  
- Scott Farm Shop Building  
- Power connections for new smart feeding equipment in Cattle Barn  | Ongoing | Multiple | TBD Complete |
| Repairing roof drains                 |  
- Alphin Stuart Anne Road Drain repair | Spring 2022 | NV Roofing, Varney | Complete |
### Projects in Design

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Project Description</th>
<th>Estimated Total Project Cost</th>
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<th>Project Teams</th>
<th>Contract Completion Date</th>
<th>Project Status</th>
</tr>
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<tbody>
<tr>
<td>Minor Projects (&lt;$25,000 each)</td>
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<tr>
<td>Tidewater AREC Peanut Storage Shed</td>
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<td>Eastern Virginia AREC RTK Tower Installation</td>
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<tr>
<td>Southwest Virginia AREC - Packhouse Restroom Repairs</td>
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</tbody>
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### Projects in Construction

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<th>Contract Completion Date</th>
<th>Project Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Projects (&lt;$25,000 each)</td>
<td>Site prep and electrical hookup for installation of new horse exercising research equipment. Repair deteriorating awning and trim on main AREC building. Installation of new working pens and open shed. Receive and dryer connections for two buildings.</td>
<td>$34,000</td>
<td>CALS / VAES</td>
<td>Multiple</td>
<td>Ongoing</td>
<td>In Progress</td>
</tr>
<tr>
<td>AREC Exterior Signage Upgrades</td>
<td>Installation of 2 new exterior signs at each AREC with a refreshed design to match current branding.</td>
<td>$80,000</td>
<td>CALS / VAES</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Beef Barn Repairs</td>
<td>Exterior and interior demolition followed by the installation of new roofing, hay loft flooring, doors, windows and lighting. This work was originally included in SRE Phase I, but removed due to scope concerns.</td>
<td>$1,064,000</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Eastern Virginia AREC - Experiment Building Renovation</td>
<td>Renovation and upgrade of existing under-utilized office, workshop and meeting space. Building HVAC system has failed and is not working. Electrical and plumbing are outdated. Building is not ADA accessible. General condition is deteriorating.</td>
<td>$105,000</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Eastern Shore AREC - Exterior Building Repairs</td>
<td>Multiple buildings are in need of exterior repairs. Head house (1216) and Shop Building (1210) is in need of structural repairs to walls and reporting. Implements shed (1216), Sweater Potato Storage (1217), Produce Grading (1218), and Insectary (1220) need exterior waterproofing, door repair, pointing repairs and gutters.</td>
<td>$596,000</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Tidewater AREC - Water system repair</td>
<td>Water line from well to main office complex is failing in multiple locations and requires frequent repairs, creating water quality concerns. Project is to connect to public water system with 1.5-inch water line.</td>
<td>$40,000</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Urban Horticulture Center LED Lighting Retrofit</td>
<td>Replace failing fixtures to restore operational effectiveness and realize energy savings (2 buildings)</td>
<td>TBD</td>
<td>Energy Management</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Kentland Farm Dairy Complex LED Lighting Retrofit</td>
<td>Replace failing fixtures to restore operational effectiveness and realize energy savings (5 buildings)</td>
<td>TBD</td>
<td>Energy Management / CALS</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Pikes Fork Quarantine Lab Emergency Generator</td>
<td>Installation of new backup generator for operational reliability at Entomology Quarantine Facility at Pikes Fork Research Center.</td>
<td>$66,000</td>
<td>Gibson Engineering</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Southwest Virginia AREC Electrical Repairs</td>
<td>Replace aging electrical infrastructure (panels, wiring, lighting, receptacles) in 5 buildings</td>
<td>$50,000</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Minor Projects (&lt;$25,000 each)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Tidewater AREC Peanut Storage Shed</td>
<td>960 square foot prefabricated structure for field storage of harvested peanuts.</td>
<td>$27,000</td>
<td>CALS / VAES</td>
<td>Multiple</td>
<td>Ongoing</td>
<td>In Progress</td>
</tr>
</tbody>
</table>

### Projects Summary

- **BUILDINGS AND GROUNDS COMMITTEE**
- **August 22, 2022**
- **College of Agriculture Life Sciences (CALS) Projects Status Report**

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**PROJECTS IN DESIGN**

- **Tidewater AREC Peanut Storage Shed**
  - 960 square foot prefabricated structure for field storage of harvested peanuts.
  - Power and data connections for new GPS and Wi-Fi tower.
  - TBD

- **Western Virginia AREC RTK Tower Installation**
  - Power and data connections for new GPS and Wi-Fi tower.
  - TBD

- **Southern Piedmont AREC - Packhouse Restroom Repairs**
  - TBD

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**PROJECTS IN CONSTRUCTION**

- **Minor Projects (<$25,000 each)**
  - TBD
  - TBD
  - TBD
  - TBD
  - TBD
  - TBD
  - TBD

- **AREC Exterior Signage Upgrades**
  - TBD
  - TBD
  - TBD
  - TBD
  - TBD
  - TBD

- **Beef Barn Repairs**
  - TBD
  - TBD
  - TBD
  - TBD
  - TBD
  - TBD

- **Eastern Virginia AREC - Experiment Building Renovation**
  - TBD
  - TBD
  - TBD
  - TBD
  - TBD
  - TBD

- **Eastern Shore AREC - Exterior Building Repairs**
  - TBD
  - TBD
  - TBD
  - TBD
  - TBD

- **Tidewater AREC - Water system repair**
  - TBD
  - TBD
  - TBD

- **Urban Horticulture Center LED Lighting Retrofit**
  - TBD
  - TBD
  - TBD

- **Kentland Farm Dairy Complex LED Lighting Retrofit**
  - TBD
  - TBD
  - TBD

- **Pikes Fork Quarantine Lab Emergency Generator**
  - TBD
  - TBD
  - TBD

- **Southwest Virginia AREC Electrical Repairs**
  - TBD
  - TBD
  - TBD
### PROJECT DESCRIPTION

**Heth Farm Shed and Silo Demolition**
Dismantle two structures that are currently unsafe and operationally unnecessary. The estimated project cost is $140,000, with funding from_CALS_.

**Tidewater AREC Main Office and Lab Roof Replacement**
Minor Modifications to improve workflow and safety within Entomology Quarantine Facility at Tidewater Research Center. The estimated project cost is $160,000, with funding from_CALS_.

**Southern Piedmont AREC - Pavement repairs**
Existing main parking lots (3) and primary internal roadways are deteriorating and in need of repair. Approximately 1,400 square feet of milling and 4,000 square feet of 2-inch asphalt overlay are required. The estimated project cost is $54,000, with funding from_CALS_.

**Judging Pavilion Repairs**
Exterior and interior demolition followed by installation of new flooring, doors, windows, HVAC system, lighting, a covered walkway and exterior paint. This work was originally included in UPRF Phase 1, but removed due to scope concerns. The estimated project cost is $360,000, with funding from_Maintenance Reserve_.

**Campbell Arena Repairs**
New enclosure of the existing open-air steel structure constructed of metal panel siding over steel girts and posts. This work was originally included in UPRF Phase 1, but removed due to scope concerns. Existing equitation barn to be repurposed for small animal research and extension activities. The estimated project cost is $90,000, with funding from_Maintenance Reserve, CALS_.

### PROJECT INITIATION / PLANNING STAGE

**Alson H. Smith Chilled Water System repairs**
Existing chillers are leaking and utilize a refrigerant that is no longer readily available. System condition is deteriorating and in need of major repair and replacement. The estimated project cost is $130,000, with funding from_Maintenance Reserve_.

**Middleburg AREC Stable exterior repairs**
Existing roof and windows are leaking. Several stables are unusable due to leaks. Several windows are rotten. The estimated project cost is $100,000, with funding from_Maintenance Reserve_.

**Middleburg AREC Clinic/Admin Building HVAC repairs**
Two existing heat pump systems have failed during critical and ongoing research projects. The estimated project cost is $40,000, with funding from_Maintenance Reserve_.

**Tidewater AREC Main Office and Lab Roof Replacement**
Existing roof is leaking causing damage to main lobby interior walls and classroom area. The estimated project cost is $78,000, with funding from_Maintenance Reserve_.

**Compost Facility (to support main campus & surrounding farms)**
CALS is experiencing significant and growing land pressure to meet nutrient management plan requirements, which would be greatly eased by the proposed compost facility. This initiative also has an extremely high level of student support as well as potential partnerships with Dining Services, Athletics and facilities. Project is included in CALS/VAES Capital Budget Request, but is a high priority for separate, earlier funding, if possible, due to regulatory risk exposure from limited manure storage during winter months. The estimated project cost is $1,023,000, with funding from_Coker Composting & Consulting_.

**Turkey Farm Processing Building Repair**
Interior Demolition followed by the installation of new cold-formed steel stud interior partitions, new doors and a window, fiberglass reinforced plastic paneling and epoxy painted floors. The work was originally included in UPRF Phase 1, but removed due to scope concerns. The estimated project cost is $140,000, with funding from_Maintenance Reserve_.

**Moore Farm Barn DSGI Repairs**
This highly visible and prominent barn is in for many purposes such as a landing of sheep, loading facility, hay storage, emergency storage for wet and affected crops, and equipment and parts storage. The condition of the roof and siding is poor, failing to provide the necessary weather protection. Without mitigation cost, the condition will deteriorate to the point of loss. The estimated project cost is $10,000, with funding from_Maintenance Reserve_.

**Moore Farm Shed DSGI Repairs**
This hay shed was built in the 1920's and received heavy use for that purpose. Over the years its condition has continued to worsen and recent wind and ice storms have accelerated the deterioration. In order to execute research projects utilizing recently renovated fields, the Beef Cattle unit now needs to utilize this shed as a working facility for cattle. This would involve pouring a concrete floor and moving in cattle working equipment. However, the structural condition of this facility is poor and should be addressed prior to additional use. It may be more cost effective to rebuild than to repair this structure. The estimated project cost is $10,000, with funding from_Maintenance Reserve_.

### PROJECT STATUS

- **TBD**: To be determined.
- **Funding request has been submitted.**
- **Funding options being evaluated.**
- **Contractor quote received.**
- **Lead and asbestos study complete. Obtaining quotes and permits for demolition.**
- **Demolition and asbestos study complete.**
- **Design issues have been resolved. Updated pricing is in progress.**
- **Scope review with University Building Official (UBO) is necessary to resolve code requirements and funding eligibility. Project deferred to 2023.**
- **Scope and building code issues being evaluated.**
- **Capital and operational costs for project under review internally.**
- **Funding request has been submitted.**
- **Funding request has been submitted.**
- **Funding request has been submitted.**
- **Funding request has been submitted.**
- **Capital and operational costs for project under review internally.**
- **Funding request has been submitted.**
- **Funding request has been submitted.**
- **Scope and budget development.**
- **Scope and budget development.**
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- **Scope and budget development.**
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<tbody>
<tr>
<td>Shenandoah Valley AREC - Renovate Carriage House</td>
<td>Renovate Carriage House to add two single user public restrooms and welcome center area for visitors to the McCormick Farm.</td>
<td>TBD</td>
<td>CALS / VAES</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Shenandoah Valley AREC - Repair/Replace Sheep Barn</td>
<td>Sheep Barn (0864) has rotten posts at ground level and leaking roof. The building should be evaluated for repair or replacement.</td>
<td>TBD</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Alsea H. Smith AREC - Repair Paving and parking</td>
<td>Existing asphalt parking lot and drives are deteriorating and in need of repaving.</td>
<td>$56,000</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Middletown AREC - Exterior Repairs</td>
<td>Siding on several buildings is in need of repair/replacement due to advanced age: Annex (0844), Annex Barn (0847), Straw Barn (0848), Corner Barn (0849), and Elevator Barn (0850). Corn House and Machinery Shed (0861) is in need of structural repairs. Corn House and Machinery Shed (0861) roads and rainwater drainage corrections.</td>
<td>TBD</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Southern Piedmont AREC - Building Repairs</td>
<td>Siding on several buildings is in need of repair/replacement due to advanced age: Annex (0812), Frame Beef Barn (0807), Milking Barn (0808), Milk House (0809), Location Barn (0810), Clinic/Buildings (0821), Stable (0822), 3 turn out sheds (0799) are deteriorating and in need of repair or replacement. Corn House and Machinery Shed (0861) is in need of structural repairs. pavement of Annex (0844) roads and rainwater drainage corrections. 8 run-in sheds (0799) are deteriorating and in need of repair or replacement.</td>
<td>$136,000</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Smithfield Equine Complex</td>
<td>Siding on several buildings is in need of repair/replacement due to advanced age: Annex (0812), Frame Beef Barn (0807), Milking Barn (0808), Milk House (0809), Location Barn (0810), Clinic/Buildings (0821), Stable (0822), 3 turn out sheds (0799) are deteriorating and in need of repair or replacement. Corn House and Machinery Shed (0861) is in need of structural repairs. pavement of Annex (0844) roads and rainwater drainage corrections. 8 run-in sheds (0799) are deteriorating and in need of repair or replacement.</td>
<td>TBD</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>Smithfield Equine Classroom Renovations, Phase 2</td>
<td>Completion of building envelope repairs, restroom repairs, accessibility improvements.</td>
<td>$105,000</td>
<td>Maintenance Reserve</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>

INFORMATION TECHNOLOGY (IT) EVALUATION & PROJECTS

Updates through July 31, 2022. New information is in bold.

PROJECTS COMPLETED

<table>
<thead>
<tr>
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<th>ESTIMATED TOTAL PROJECT COST</th>
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<tr>
<td>AREC A/V Upgrades, Phase 1</td>
<td>Installation of new audio and video equipment for ARECs to provide enhanced conferencing capability in meeting rooms. Phase 1 includes Alsea H. Smith, Eastern Shore, Hampton Roads, Southern Piedmont and Tidewater ARECs.</td>
<td>$34,000</td>
<td>CALS / VAES</td>
<td>CALS IT</td>
<td>Fall 2019</td>
<td>Phase 1 (five ARECs) is complete. Scope and schedule for Phase 2 project (remaining ARECs) to be evaluated upon completion of Phase 1.</td>
</tr>
<tr>
<td>AREC A/V Upgrades, Phase 2</td>
<td>Installation of new audio and video equipment for ARECs to provide enhanced conferencing capability in larger conference rooms. Phase 2 includes Alsea H. Smith, Hampton Roads, Southern Piedmont and Tidewater ARECs.</td>
<td>$238,000</td>
<td>CALS / VAES</td>
<td>CALS IT</td>
<td>Spring 2022</td>
<td>These 4 installations are complete.</td>
</tr>
</tbody>
</table>
## PROJECTS IN PROGRESS

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<tr>
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</thead>
<tbody>
<tr>
<td>Bandwidth and Internet Connectivity</td>
<td>CALS / VAES</td>
<td>$245,000 Annually</td>
<td>CALS / VAES</td>
<td>CALL IT</td>
<td>Ongoing</td>
<td>Alternative service providers are being sought for turfgrass center and local tenant houses. Reviewing service levels and needs at livestock facilities on Pamplin Road. Ordered and partially installed fiber to extend internet service to employee housing at Eastern Shore, Hampton Roads, Shenandoah Valley and Middleburg. Service to the Turfgrass Center is now tentatively scheduled for mid-September.</td>
</tr>
<tr>
<td>Campus Farm locations: Kentland Farm has adequate 200 Mbps service. Mason Farm and University Research Center share a 50 Mbps cable service which is currently adequate. The CESRS Research Farm (Agrotourism Farm) also has a 50 Mbps cable connection. Prince Farm Research Center has a 50 Mbps fiber connection. Turkey Farm cable service is being upgraded from 50 Mbps to 200 Mbps during UPRF phase 1, no additional cost. Upgrades are needed to provide sufficient bandwidth for existing video-based research and future initiatives after UPRF phase 1 construction. Turfgrass center is currently using a cellular hotspot for internet service. Providing standard service requires excessive installation cost. Alternative service providers are being sought. No complaints have been received about service to facilities in the Livestock Center along Plantation Road, but service levels and coverage is being reviewed. A dark fiber connection to campus is being considered that would both lower the current monthly cost and increase the Kentland bandwidth to nearly 35 Gbps is being explored.</td>
<td>$1,140,000</td>
<td>CALS / VAES</td>
<td>Various</td>
<td>Ongoing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AREC Vision-Over Internet Protocol (VOSP) Conversion</td>
<td>Conversion of legacy voice telephone system at all ARECs to unified VOSP system matching voice service on campus.</td>
<td>$75,000</td>
<td>CALS / VAES</td>
<td>CALL IT</td>
<td>Ongoing</td>
<td>VOSP conversion projects have been completed at 7 of the 11 ARECs. Remaining locations include Hampton Roads, Reynolds Homestead, and Southwest Virginia ARECs where the existing telephone service has been adequate. The Virginia Seafood AREC has been converted to VOP.</td>
</tr>
<tr>
<td>Network Equipment Upgrades and Expansion</td>
<td>A project to upgrade routers and switches as well as expand in-building wireless and some external wireless has been started. This project will replace Linkgea as well as enhance wireless connectivity within AREC buildings and expand wi-fi and the AREC network to additional buildings and some exterior spaces.</td>
<td>$1,194,000</td>
<td>CALS / VAES</td>
<td>CALL IT</td>
<td>TBD</td>
<td>Orders for equipment have been placed. Still awaiting delivery of most components.</td>
</tr>
<tr>
<td>Real Time Kinematic (RTK)</td>
<td>A project to install RTK systems at select ARECs has been started. RTK enables the ARECs to implement precision agriculture research practices. RTK increases the accuracy over and above standard GPS from an accuracy of 2-4 meters to ~1 centimeter installation is planned for Spring 2022.</td>
<td>$213,000</td>
<td>CALS / VAES</td>
<td>CALL IT John Deere Trimble</td>
<td>Summer 2022</td>
<td>RTK tower and equipment has been installed at Tidewater AREC. Mobile units for Middleburg AREC and Shenandoah Valley AREC have been received. Tower installations for Eastern Shore, Eastern Va., and Southern Piedmont are expected by end of August 2022.</td>
</tr>
<tr>
<td>Eastern Virginia AREC Fieldwork Wireless (a SmartFarm Project)</td>
<td>Installation of new technology, similar to Wi-Fi but with better exterior coverage and security management, in fields at Eastern Virginia AREC. To study the effectiveness of this equipment for supporting data-intensive agricultural, plant-based research as well as providing ready access to the internet and data networks.</td>
<td>$90,000</td>
<td>CALS / VAES</td>
<td>CALL IT Joji Marron Wireless John Deere</td>
<td>Summer 2022</td>
<td>Funding has been authorized. Installation expected to coincide with RTK installation sometime in late August.</td>
</tr>
<tr>
<td>SmartFarm Projects</td>
<td>A project has been initiated by faculty in the Department of Animal and Poultry Sciences, in partnership with CALS IT and the Division of IT, to potentially install new technology, similar to Wi-Fi but with better exterior coverage and security management, in fields at Shenandoah Valley and Middleburg ARECs. The proposal is to study the effectiveness of this equipment for supporting data-intensive agricultural, animal-based research. Project has expanded to include faculty from the School of Plant and Environmental Sciences, and now includes work at Kentland Farm. An additional project in cooperation with DAV, CALS, and CCR would create a 5G/CBRS testbed at Kentland Farm.</td>
<td>TBD</td>
<td>CALS IT DAV MAAP VTEQV</td>
<td>TBD</td>
<td>TBD</td>
<td>Funding needs and sources are being resolved.</td>
</tr>
</tbody>
</table>
Life, Health, Safety, Accessibility & Code Compliance

Board of Visitors Design Review

Liza L.C. Morris, NCARB
Assistant Vice President for Planning and University Architect

August 22, 2022
PROJECT INFORMATION

Scope: Two Elevator Towers
Delivery method: Design Bid Build
Total project budget: $4,970,000* for Priority 1
Design phase: Working Drawings
Estimated construction start: November 2022
Estimated construction completion: November 2023

*LIFE, HEALTH, SAFETY, ACCESSIBILITY & CODE COMPLIANCE

* Total project budget of $10.4M includes priority 1, 2, and 3 accessibility projects
EXTERIOR RENDERING

Metal panel system
Aluminum curtain wall system
Glazed railing system
Heraldry Opportunities
Cowgill Hall
Johnston Student Center

Levels 2 + 3
View to the east

// LIFE, HEALTH, SAFETY, ACCESSIBILITY & CODE COMPLIANCE
EXTERIOR RENDERING

Johnston Student Center

Derring Hall

Levels 2 + 3 elevators and breezeways

Levels 1 + 2 elevators and breezeways

View to the southwest

// LIFE, HEALTH, SAFETY, ACCESSIBILITY & CODE COMPLIANCE
That the Design Review graphics be approved, and authorization be provided to continue with the project design consistent with the drawings shown.
DESIGN REVIEW FOR LIFE, HEALTH, SAFETY, ACCESSIBILITY & CODE COMPLIANCE

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. This project is the first priority of three high priority accessibility initiatives identified by the university in the Life, Health, Safety, Accessibility & Code Compliance category of the 2018-2024 Capital Outlay Plan. The project is scoped to create a new accessible route on an existing primary pedestrian corridor which will support equal access to key Education and General funded facilities in the North Academic District.

The project is in the working drawings phase with construction anticipated to begin November of 2022 and to attain substantial completion November of 2023. The university received total project funding of $10.4 million in Life, Health, Safety, Accessibility & Compliance funds from the state for three projects, $4.97 million of which will be applied to the first priority project.

BUILDINGS AND GROUNDS COMMITTEE

August 22, 2022

Title of Project:
Life, Health, Safety, Accessibility & Code Compliance

Location:
The project is sited within the North Academic District, on an existing primary pedestrian route that connects the core of the academic enterprise with a transportation intensive portion of the district. This route runs between Derring Hall, Bishop-Favaro Hall, Cowgill Hall and Johnston Student Center, and is currently not an accessible route. Alternative accessible routes through this area of campus are circuitous, lengthy and difficult to locate and navigate.

Current Project Status and Schedule:
The project will be delivered under design-bid-build procurement and is currently in the working drawings phase. Construction is anticipated to begin November of 2022 with substantial completion anticipated November of 2023.

Project Description:
The project is approximately 1,524 gross square feet and is comprised of two separate standalone structures. The lower level of the two structures provides two, two-stop elevators from the Perry Street elevation (level 1) to the intermediate level between Derring Hall and Cowgill Hall (level 2). The upper level structure provides two, two-stop elevators from level 2 to the Tech Plaza level (level 3).

A new accessible route will be created by the completion of these structures which will provide a more direct accessible route to key academic facilities in the district and beyond.

Brief Program Description:
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. This project is the first priority of three high priority accessibility initiatives identified by the university in the Life, Health, Safety, Accessibility & Code Compliance category of the 2018-2024 Capital Outlay Plan. The project is scoped to create a new accessible route on an existing primary pedestrian corridor which will support equal access to key Education and General funded facilities in the North Academic District. The project is a crucial component toward resolving the lack of accessible routes in this area of campus.
Contextual Issues and Design Intent:
The Northern Academic District straddles vertical topography created by two branches of Stroubles Creek. The land use pattern to address the steep slopes resulted in the creation of multiple levels in the campus environment. Many of these levels are currently not directly accessible via the primary pedestrian routes.

Alternative accessible routes through this area of campus are circuitous, lengthy and difficult to locate and navigate. This project is the first - of three high priority accessibility initiatives identified by the university to address these issues in this area of campus.

Due to elevation changes exceeding thirty feet in the project area, with compressed spaces outside of existing building footprints, and extensive underground utilities, an accessible solution involving two structures, with each providing two, two-stop elevators, is the best method to create an accessible route in this area.

The proposed architecture is consistent with the Campus Design Principles, yet is also sensitive to the context of several adjacent brutalist-era buildings. Each proposed structure is designed as a wayfinding ‘lantern’. The base of each is rendered in precast concrete and responds to the context of bold brutalist framework while retaining a proportional relationship to the university’s collegiate gothic aesthetic. The top of each structure is designed with clear and semi-opaque glazing and will be lit from within. Vertical emphasis is achieved through the use of extruded aluminum fins. Integrated planters will be clad in Hokie Stone at the lower level.

Funding:
This project was first proposed under the 2018-2024 Capital Outlay Plan and received a portion of the initial request, $3.1 million in Life, Health, Safety, Accessibility & Compliance funding by the 2020 General Assembly. In the 2022-2028 Capital Outlay Plan, $7.3 million of supplemental General Fund support was requested and received. The total appropriation authorized by the General Assembly for this project is $10.4 million, $4.97 million of which will be applied to the first priority project.

Architect/Engineer:
Quinn Evans

Contractor:
TBD
OVERVIEW OF THE CAMPUS MASTER PLAN

LIZA MORRIS, ASSISTANT VICE PRESIDENT FOR PLANNING AND UNIVERSITY ARCHITECT

AUGUST 22, 2022
VT-Shaped Discovery

- VT SHAPED STUDENTS
- INTERDISCIPLINARY TEAMS
- PURPOSE-DRIVEN AND PERSON-CENTERED CURRICULUM

The VT student of 2047 learns by doing, creating, and engaging, service to humanity, and does so not in isolation or as an academic exercise but rather with the support of a community.
The Master Plan
Beyond Boundaries: The Campus Plan

Blackburn Campus Plan

Technical Appendix
Accessibility Assessment
Space Utilization Study
Campus Life Report
IIHCC Partnerships Study
ARECs Online Atlas Documentation
VTC Roanoke Academic Health Center Plan

Drillfield Master Plan
Gateway Study Plan
Parking & Transportation Master Plan
Campus Wayfinding Master Plan
Energy & Utilities Master Plan
Related Planning Efforts

National Capital Region (NCR) Plan
PLAN DRIVERS

01 The VT Experience
02 Sense of Place
03 Connections
04 Growth
05 Access for All
06 Sustainability
CAMPUS VISION

01: The Central Spine
02: The Agricultural Belt
03: The Campus Districts
04: Tech + Town
05: The Infinite Loop
06: The Green Links
FRAMEWORKS

01 Academic & Research Framework
ENHANCING LEARNING AND RESEARCH ENVIRONMENTS

02 Strategic Partnerships Framework
EXPANDING STRATEGIC PARTNERSHIPS

03 Campus Life Framework
FOSTERING AN INCLUSIVE CAMPUS LIFE EXPERIENCE

04 Landscape Framework
PROTECTING THE LAND GRANT LEGACY

05 Mobility Framework
PROMOTING ACCESS AND MOBILITY
DISTRICTS

01 North Academic District
02 Northeast & Upper Quad District
03 Creativity & Innovation District
04 Student Life District
05 Life Sciences & Technology District
06 21st Century Living-Learning District
07 Intelligent Infrastructure Corridor
08 Peripheral Districts
   Athletics and Recreation
   Glade Road
   Oak Lane
DISCUSSION
RESOLUTION TO ADOPT THE 2022 STUDENT LIFE VILLAGE MASTER PLAN

The university has prepared the Student Life Village master plan to guide the physical development of a new residential district in supplement to the 2018 Campus Master Plan, *Beyond Boundaries 2047: The Campus Plan*. The plan for the Student Life Village sets forth a long-range vision that builds off the goals, objectives, and aspirations of the master plan and the university’s strategic plan, *The Virginia Tech Difference: Advancing Beyond Boundaries*.

The planning process for the Student Life Village included engagement with campus executive leadership, a broad range of constituents including students, and was shaped by the technical expertise of campus stakeholders.

The plan incorporates analysis of residential program needs, land use, landscape, building massing, scale, and siting. Additionally, the plan evaluated and incorporated layers of infrastructure including mobility and accessibility, utilities and stormwater, technology, and safety.

The resolution seeks adoption of the plan as a supplement to the previously adopted 2018 Campus Master Plan.
RESOLUTION TO ADOPT THE 2022 STUDENT LIFE VILLAGE MASTER PLAN

WHEREAS, the 2018 Campus Master Plan is an important tool to serve as a guide to the effective development of Virginia Tech’s physical footprint to support the logical development of facilities and infrastructure necessary to move forward the strategic vision of the university, as well as to preserve and enhance the unique character of the campus; and,

WHEREAS, the 2018 Campus Master Plan did not contemplate this Student Life Village concept during its study of campus; and,

WHEREAS, the university, together with its independent consultants, engaged in intensive study of the needs required to expand the residential systems inclusive of support facilities; and,

WHEREAS, the planning team held 100 engagements with campus partners, students, and Town of Blacksburg to share the developing vision for the Blacksburg campus and to receive feedback on the plans; and,

WHEREAS, the analysis included program requirements, land use, landscape, building massing, scale and siting, and infrastructure including mobility and accessibility, utilities and stormwater, technology, and safety – which support the university’s long-range and strategic plans; and,

WHEREAS, the Executive Vice President and Provost, Senior Vice President and Chief Business Officer, Interim Senior Vice President and Chief Business Officer, Vice President of Student Affairs, Vice President for Finance, and Vice President of Campus Planning, Infrastructure and Facilities, served as the Executive Master Plan Committee to provide strategic direction; and,

WHEREAS, the members of the Board of Visitors previously reviewed and discussed the Student Life Village master plan at the start of the planning process in August 2021 and at the conclusion of the final master plan report in April 2022;

NOW, THEREFORE, BE IT RESOLVED that the Virginia Tech Board of Visitors adopt the 2022 Student Life Village Master Plan as a supplement to the Campus Master Plan.

RECOMMENDATION:

That the above resolution adopting the 2022 Student Life Village Master Plan as a supplement to the Campus Master Plan be approved.

August 22, 2022
Introduction
The Student Life Village is a 5000-bed residential district conceived of as an affordable solution to enable Virginia Tech to advance broader institutional goals.

**Strategic Framing**

The Student Life Village (Village) Master Plan ensures Virginia Tech is positioned with a long-term strategy to expand and enhance on-campus residential living to be competitive and prosper well into the 21st century. The Village will create new housing inventory and meet growing demands for affordable on-campus living-learning programs as well as offer the flexibility to refurbish and modernize existing on-campus residential facilities.

**Thriving**

The Student Life Village (Village) Master Plan ensures Virginia Tech is positioned with a long-term strategy to expand and enhance on-campus residential living to be competitive and prosper well into the 21st century. The Village will create new housing inventory and meet growing demands for affordable on-campus living-learning programs as well as offer the flexibility to refurbish and modernize existing on-campus residential facilities.

**Keeping it on campus**

On-campus housing is a critical part of the VT experience. Living on campus catalyzes the formation of a thriving student community, especially in the first-year, but opportunities to stay on-campus should be available to students at any point in their educational career. On-campus housing allows the university to integrate residential life with other academic and social missions in “living-learning communities.” It enables students to thrive by giving students close proximity to campus amenities, social life and support resources.

**Staging**

The Student Life Village will be implemented in phases to ensure residential operations may grow at a pace to appropriately support the new infrastructure. A phased approach will ensure the university’s financial resource may be invested strategically while building revenue to stimulate future development. As the campus’ total housing inventory increases, space will be freed up to pursue renovations on legacy housing stock.
INTRODUCTION

Affordability

The Student Life Village must be a cost-effective initiative for the university, and it must be a cost-effective choice for students. Affordability is a key principle and core consideration in every planning decision and explains many of the strategies adopted by the Village plan. The location is intentional to allow for design and construction methods that focus on 40-year life products with flexibility and optionality to replace and renew economically in the future.

Design

Virginia Tech has a long-standing tradition of pairing locally quarried dolomitic limestone, affectionately known as “Hokie Stone”, with collegiate Gothic architecture. This pairing has been codified in the Campus Design Principles, and applies to all buildings in the core of campus. However, this cladding, and its structural armature, are large, long-term investments, not in keeping with the vision of the Student Life Village as an affordable and 40-year lifespan, consumable residential product. To meet the challenge of affordability, the Student Life Village will adopt simple architectural forms that can be constructed using low-cost construction techniques like stick-built framing.

Distinctiveness

The land bank formed by the Virginia Tech Golf Course and the Special Purpose Housing at Oak Lane, a small residential district reaching the end of its useful life-cycle, was selected for striking a balance between proximity to the core campus and visual distinctiveness from it. This land bank is large enough to sustainably and comfortably accommodate 5000 beds of residential development. Site development and mobility infrastructure decisions all occurred in the context of the core tension between needing the Student Life Village to be close to core campus for connectivity and integration goals, but being unable to construct Hokie Stone collegiate Gothic buildings as an affordable and consumable residential product. This meant the Student Life Village would have to fall outside of a “demarcation line”, a boundary that separates the Gothic core from other districts of the campus that have complementary, yet distinct architectural character.
INTRODUCTION

THE STUDENT LIFE VILLAGE PLANNING REPORT

Principles
While affordability and distinctiveness pose challenges for the planning of the Student Life Village, they create unique opportunities. The planning of the Student Life Village follows 8 principles which are discussed in detail in chapter 2:

Advancing Student Life
The Student Life Village is a strategic initiative that enables a number of other student life goals to be realized within a broader campus context. It will become part of a complete community that includes existing on-campus housing and amenities.

Enrichment and Amenities
The Student Life Village will augment Virginia Tech’s high-quality student life offerings with a well-being themed residential district that provides amenities, public spaces and living-learning programs to attract and enrich both on and off-campus students.

Student Retention
The Student Life Village will create better connectivity to the curricular, extracurricular and social activities of the campus beyond the first year by providing affordable on-campus housing options appropriate to the needs of upper division students.
The Student Life Village Planning Report is a vision for a new model of on-campus housing at Virginia Tech’s Blacksburg campus. It provides an actionable guide intended to be used by Virginia Tech stakeholders, consultants and contractors as they advance the design and implementation of this development project. This report documents the decisions, ideas and opportunities identified during an eight-month-long planning process that engaged Virginia Tech’s staff, faculty and student communities.

This report is both descriptive, informing the reader of knowledge gathered and decisions made during the planning process, as well as aspirational, identifying opportunities for future study. It is not a construction document, but a guide to coordinate future design, engineering, construction and implementation activities.

PLANNING GOAL

To collaboratively produce an actionable plan that campus stakeholders can use to imagine and implement the development of a new on-campus student community.
The Student Life Village planning process was divided into three phases. Each phase included work sessions with three different Virginia Tech advisory groups consisting of interdisciplinary leaders from across the university.

**PHASE 1: DISCOVERY**

During the discovery phase, the planning team analyzed the existing conditions of the study area, including topography, infrastructure, ecology and climate and collaborated with the advisory groups to identify critical aspirations for the project.

**PHASE 2: CONCEPT ALTERNATIVES**

During the concept alternatives phase, the planning team prepared several concepts to stimulate a conversation around the spatial and land-use planning issues of the site. From these conversations, priorities were identified, conflicts resolved and pros and cons weighed to arrive at an advanced concept.

**PHASE 3: DEVELOPMENT & DOCUMENTATION**

During the development and documentation phase, the planning team produced this planning report and presented it to the advisory groups for iterative feedback and refinement before final submission and presentation.

**WORK SESSIONS**

- **KICKOFF**
  - The consultant team met with each advisory group to identify key project goals and constraints.

- **FINDINGS**
  - The consultant team presented analyses on the planning site, creating a guide and set of strategies to inform the planning process.

- **THE CHARRETTE**
  - The consultant team met with the advisory groups in a two-day charrette to review four concept alternatives. The conversations surrounding the concept alternatives informed the development of an advanced concept.

- **ADVANCED CONCEPT**
  - The advanced concept defined the land-use and spatial plan for the Village with considerations about program, buildings, landscape design and operations. The advanced concept was presented to the advisory groups before the documentation phase.

- **FEEDBACK**
  - The consultant team met with the advisory groups to solicit feedback on the draft planning report.

- **FINAL PRESENTATION**
  - The consultant team presented the final planning report to the advisory groups and other members of the Virginia Tech community before final submission.

**ADVISORY GROUPS**

- **EXECUTIVE LEADERSHIP GROUP**
  - Consisting of institution-wide leadership, the Executive Leadership Group connected broader strategic goals of the institution with the goals and vision for the Student Life Village project.

- **LEADERSHIP GROUP**
  - Consisting of department leaders, all members of the Leadership Group were also coordinators of Technical Advisory Groups. The Leadership Group consulted on strategies to enable the Village to meet the goals of the institution within parameters of budget, site, institutional resources and infrastructure.

- **TECHNICAL ADVISORY GROUPS**
  - Consisting of a broad cross-section of Virginia Tech staff with interdisciplinary expertise and first-hand experience of the technical and operational components of VT’s on-campus student housing and infrastructural systems, the Technical Advisory Groups consulted on how to actualize the strategies set forth by the Leadership Groups. The Technical Advisory Group was further subdivided into 6 disciplinary groups:
    - **BUSINESS AND FINANCE**
      - Consulted on issues of financing and phasing the project.
    - **PROGRAMMING AND STUDENT LIFE**
      - Consulted on the specific activities, facilities and features of housing and student life amenities.
    - **BLUE-GREEN INFRASTRUCTURE**
      - Consulted on green spaces, stormwater and recreation.
    - **ENERGY**
      - Consulted on thermal energy delivery and electrical systems.
    - **MOBILITY AND ACCESSIBILITY**
      - Consulted on pedestrian and vehicular mobility and accessibility of grounds and facilities.
    - **CONSTRUCTION AND TECHNOLOGY**
      - Consulted on construction techniques, implementation strategies and information infrastructure.
INTRODUCTION

THE STUDENT LIFE VILLAGE CHARRETTE

The Student Life Village Charrette was a two-day event held on October 28-29, 2021 that engaged all advisory groups as well as other Virginia Tech students, faculty and staff in a collaborative and interdisciplinary discussion surrounding four concept alternatives for the future Student Life Village.

DAY ONE: CONCEPT ALTERNATIVES

On day one, the advisory groups gathered to review the four concept alternatives prepared by the consultant team. The concept alternatives each demonstrated a different set of priorities and variables. The participants were mixed into four interdisciplinary and interdepartmental groups and rotated between each of the four concepts in stations. The discussion at each station helped the participants identify, prioritize and visualize trade-offs between different Village goals and pre-existing constraints.

MORNING OF DAY TWO: SYNTHESIS

On the morning of day two, the consultant team synthesized the feedback and priorities identified in day one and distilled a single concept that addressed five key principles:

1. Keeping the Village connected to the academic core via an accessible route that is as expedient as possible within site constraints.
2. Creating a centralized hub of amenity functions that is easily accessible to non-Village residents.
3. Creating a centralized green space that preserves existing landscape character, heritage trees and views for enjoyment by the entire Village.
4. Locating dining facilities such that they function both as a destination for non-Village residents and are positioned on the accessible route to and from core campus.
5. Phasing the Village such that each phase is buffered from the next by green space and that at least 3000 beds are constructed before any existing Oak Lane residences are demolished.

CONCEPT ONE: “THE LAKE”  
CONCEPT TWO: “THE HUB”  
CONCEPT THREE: “THE GREENWAY”  
CONCEPT FOUR: “CENTRAL GREEN”

 AFTERNOON OF DAY TWO: SYNTHESIZED CONCEPT

On the afternoon of day two, the consultant team presented the synthesized concept to the advisory groups. Each of the six disciplinary Technical Advisory Groups met to review the synthesized concept. The comments made on the synthesized concept were used to refine the plan over the following month.
INTEGRATION WITH “BEYOND BOUNDARIES 2047”
This planning document integrates with, and in some cases supersedes, plans outlined in the 2018 Campus Plan entitled “Beyond Boundaries 2047.” This was Virginia Tech’s most current campus plan at the time of publication and reflects a number of strategies which are adopted or modified in the Student Life Village Plan.

THE WESTERN PERIMETER ROAD
The Western Perimeter Road was proposed in the 2018 Campus Plan to better connect traffic exiting highway 460 on Prices Fork Road and Southgate Drive to the commuter parking lots on the west edge of campus and divert traffic from West Campus Drive and Duck Pond Drive. The Student Life Village plans for an alternative traffic configuration.

21ST CENTURY LIVING-LEARNING DISTRICT
The 21st century living-learning district was a proposed residential district in close proximity to the core of campus, following established campus design principles. The Student Life Village Plan tables this proposal and addresses many similar goals for living-learning and well-being in on-campus residential life.

LIVING-LEARNING FOR THE GLOBAL BUSINESS AND ANALYTICS COMPLEX (GBAC)
Housing previously proposed for the living-learning component of GBAC will now be directly integrated into phase I of Village construction alongside other living-learning programs and enrichment amenities.

THE INFINITE LOOP
The Student Life Village will benefit from increased connectivity, accessibility, and recreational amenities introduced by the Infinite Loop project. While not directly on the loop itself, the Village plan includes paths which will connect to the loop.

MULTI-MODAL TRANSIT FACILITY (MMTF)
The Student Life Village’s residents will introduce a large demand for public transit to and from core campus. The completion of a proposed Multi-modal Transit Facility (MMTF) in the north academic district will be critical for handling the increased volume of transit.

THE PERRY STREET EXTENSION
The Student Life Village plan relies on the completion of the Perry Street extension, a spur road linking the north academic district’s Perry Street with Duck Pond Drive and Oak Lane in a way that bypasses flood hazard areas. Existing roadways will be insufficient to support the bus traffic from the Village to the Multi-modal Transit Facility (MMTF) on North Campus, a critical component of the Village’s mobility goals.

THE AGRICULTURAL BELT
In the 2018 Campus Plan, an agricultural belt was identified, in concert with the Western Perimeter Road, as a westward development boundary for the core campus to preserve the agricultural legacy and rural character of the VT campus. The Student Life Village maintains the Agricultural Belt to the south of the project site, but does utilize the portion of agricultural land identified to the northwest of existing Oak Lane.

THE CENTRAL SPINE
The 2018 Campus Plan identified the Stroubles Creek corridor as a high priority for conservation while recognizing the need for connectivity to future research districts west of Highway 460. Likewise, the meadows west of The Inn at Virginia Tech were slated for conservation as a drainage corridor and unique landscape on campus while providing a northward connection across Prices Fork to the future Glade Road District. Both initiatives remain possible within the land-use framework of the Student Life Village and will benefit its strategic goals.
INTRODUCTION

THE STUDENT LIFE VILLAGE PLANNING REPORT

PLANNING STUDY AREA

The planning study area includes Virginia Tech’s existing 600-bed Oak Lane community and the 9-hole Virginia Tech Golf Course.

SITE SELECTION

The planning study area was selected in response to four core criteria for development:

CAPACITY

The area is large enough to support the facilities and infrastructure necessary for a 5000-bed community at a scale consistent with its surroundings.

PROXIMITY

The area is near the north academic core of campus and maintains additional proximity to the life sciences and technology district and south campus student life district.

POTENTIAL

The site’s current residential offerings are approaching the end of their useful life cycle, providing an opportunity to increase the development potential of this site. The golf course has long been identified as a land bank for campus development, including in the 2018 Campus Plan.

DEVELOPABILITY

The land is lightly developed with no large obstructions to development. No major topographical, hydrological or geotechnical problems are currently known. Existing housing will be reaching the end of its lifespan in sync with new construction proposed in this plan.
PLAN SUMMARY

The Virginia Tech Student Life Village Planning Report establishes a vision for a vibrant and diverse residential district. Envisioned as a new model for living and learning, the Student Life Village features the amenities and services necessary to support a population of 5000 students including dining, enrichment and well-being facilities (indoor and outdoor) that act as a destination for the entire Virginia Tech community.

The plan is the result of an interdisciplinary process that balanced a variety of needs. Dominant in shaping the plan was a commitment to accessible pathways and respect for existing topography and iconic landscapes. The development is at a scale similar to the core campus with quads and other gathering spaces which organize social life and community structure. The plan takes cues from the local landscape that result in a unique and organic layout. Maintaining existing drainage patterns, high-value heritage trees and areas of rugged topography free from development begins to carve out the shape of development.

The Student Life Village is conceived of as an integral part of the Virginia Tech campus, augmenting its student life and enrichment programs. Within the campus it will be a distinct district with new opportunities to innovate in well-being, living-learning experiences, building technology, and sustainability. Ultimately this report outlines a new model for residential life that remains true to the Hokie Spirit.
The Student Life Village requires significant capital investment that cannot be completed in a single phase of work. Implementation of the Village, therefore, is proposed to fall in three phases. Each phase builds a revenue source for investing in future phases. Phase boundaries should be revisited to respond to the availability of resources in the design and implementation process.

**PHASE I**
- 1752 BEDS IN 4 RESIDENTIAL QUADS
- PHASE I DINING
- WELL-BEING AND ENRICHMENT WING
- VOLLEYBALL ARENA
- INTERFAITH CHAPEL
- TRANSIT PLAZA
- VILLAGE TRAIL
- ECOLOGICAL BUFFER REFORESTATION

**PHASE II**
- 1384 BEDS IN 3 RESIDENTIAL QUADS
- STUDENT LIFE COMMONS
- REC COURTS AND FIELDS
- CENTRAL GREEN
- OPERATIONS CENTER

**PHASE III**
- 1864 BEDS IN 4 RESIDENTIAL QUADS
- PHASE III DINING
- TRANSIT PLAZA
- ECOLOGICAL BUFFER RESTORATION

To minimize infrastructure burden, phase I uses the existing Oak Lane loop and a new connection to Prices Fork Road to provide two means of ingress. Critical pedestrian connectivity is established with the construction of the Village Trail. Dining, well-being and enrichment programs are introduced with Phase I Dining found north of the Transit Plaza which will act as a hub for transit connections. The dining facility will also benefit existing Oak Lane residents. The plan recommends constructing above-ground stormwater infrastructure, in full, as part of phase I.
Phase II adds an additional 1384 beds in 2 quads. The Gateway to the Village, a well-being, recreation and enrichment building south of the Transit Plaza. In this phase the central green is completed adding the southern portion to the Village Trail at this location.

Phase III adds an additional 1864 beds in 4 quads by redeveloping the existing Oak Lane Community for a net increase of approximately 3200 beds. A smaller satellite dining facility and plaza anchor this final phase. Additional ecological buffer restoration should occur following demolition of parking and housing in the buffer zone.
Planning Principles
The Student Life Village will represent a unique take on the Virginia Tech identity, embedding Hokie Spirit in its planning and design.

Landscape Experience
The Hokie landscape experience is characterized by a nested hierarchy of open spaces, each of which connects to a different scale of campus life. The Student Life Village is likewise structured as a carefully orchestrated series of walkable, accessible open space experiences, from a central green, corollary to the core campus’ Drillfield; to vibrant neighborhood greens, crossroads of daily residential life; and intimate quadrangles nestled between buildings. Like the core campus, the Student Life Village creates an experience of bucolic landscapes, near and far, which reaffirm Virginia Tech’s identity as a land-grant university embedded in agricultural and rural heritage. Whether catching glimpses of the distant hills framed by gabled roofs, or meandering through groves of trees up to three-centuries old, the Village will have a rich sense of place empowered by its respect for the landscape.
Hokie Stone

Hokie Stone is a material not only symbolic of Virginia Tech's architectural identity, but its connection to the local mountain landscape, the literal bedrock upon which this community is built. Driven by an imperative for an affordable and short-term housing investment, the Student Life Village's buildings will not use Hokie Stone as a cladding, but will continue to evoke this material's connection to the landscape through strategic use in site walls and furnishings emerging from the rolling hills. The selective use of Hokie Stone in the landscape will ensure this venerable character-defining material provides a visual connection to campus, and reflects the importance of the land.

Place-Making

The Village will include design features and elements that reflect the character and image of the Virginia Tech campus, beginning with its human scaled, 4-story buildings organized into quadrangles. With gabled-roofs and subtle shifts of elevation that follow the natural topography, these buildings will have a familiar residential form and intimate scale that still enables a pedestrian-friendly and accessible district. Responding to the native topography, buildings take on an organic layout that creates nooks and nodes of complexity out of simple forms. Even with different materiality, this scale and massing of the Village will feel very much like that of the core campus. That connection will be augmented by use of Virginia Tech standards like banners, signage and wayfinding, light fixtures, street furnishings and plant selections, while leaving open opportunities for the student community to create and express their own identities.
Virginia Tech is committed to ensuring all students have access to the spaces and infrastructure they need to thrive in their academic career, regardless of gender identity, orientation, ethnicity, race, age, physical abilities, socioeconomic background or national origin. Further, the Student Life Village embraces the principle of inclusivity, meaning spaces support a diversity of identities without stigmatizing or disadvantaging individuals or groups. In the spatial planning of the Village, Diversity, Access and Inclusion means:

- Primary routes of pedestrian circulation occur at grades less than 5% so that everyone can access the Village’s buildings and amenities via the same pathways.
- Primary building entrances are located along accessible routes so that everyone can participate in the same shared entry experience.
- A high proportion of housing units are single-occupancy, providing opportunities to accommodate diverse medical and mobility needs without stigma as well as encourage upper-division student retention and multi-generational living-learning programs.
- Flexible spaces are provided in each residential building for identity and affinity groups to create, collaborate and express themselves as they see fit.
- A diversity of unit types is provided within shared quads and neighborhoods to suit a wide spectrum of housing needs and price-points.
- Housing blocks and bathrooms are gender inclusive.
- Shared public spaces and the single “Gateway” to the Village spatially reinforce a sense of belonging to the same community. These spaces are designed to promote spontaneous encounters between students.
- An interfaith chapel provides a technology-free space for diverse spiritual, meaning-making and religious expressions.
Virginia Tech’s Well-Being Initiatives are based on the five-dimensions of well-being: career, social, financial, physical and community. They emphasize a holistic approach that includes mental health, physical fitness, spiritual and identity expression, physical health, nutrition, financial stability, social support and emotional wellness.

Indoor and outdoor spaces are designed to diversify Virginia Tech’s well-being facilities. Outdoor spaces support a spectrum of activities from team sports to personal reflection. Indoor well-being spaces are intended to maximize flexibility and accommodate a range of well-being practices like group fitness, meditation, art therapy or new practices as they emerge.

The technology free zone at the Interfaith chapel and surrounding landscape provides students an opportunity to unplug and practice mindfulness on a daily basis.

Well-Being is embraced by the spatial design of the Village through measures like:

- Ecological buffer spaces to reduce traffic noise, promote better sleep and improve air quality.
- An emphasis on walking, cycling and personal mobility infrastructure encourages healthy mobility choices and reduces noise, air and light pollution from single occupancy vehicles.
- An engaging pedestrian network including parks, amenity buildings and a number of “stepping stone” landmarks that make active mobility journeys pleasant and more mindful.
- Hubs and gateways which funnel Village residents together in shared gathering spaces and allow neighbors to support each other.
- Buffers between phases of work that mitigate exposure to pollution from future construction activities.

Village residents need to be well connected to academic and amenity destinations outside the Village. Additionally, non-residents will need connectivity into the Village to join the Village residents in the use of new dining, well-being and recreational amenities and programs. The Student Life Village will be located outside the historic core of the Virginia Tech campus. This will create a high number of trips between the Village and core campus destinations every day. Virginia Tech’s commitment to a safe, healthy and climate-conscious transportation system means a reduction in reliance on single occupancy vehicles for daily mobility needs.

To prioritize personal mobility choices like cycling, walking, and e-mobility, while maximizing connectivity to the core campus, is necessary to make paths as expedient as possible and structure the Village in a way that prevents students from making redundant trips or “back-tracking” during their daily routine. The Gateway to the Village which contains dining, well-being and enrichment spaces is strategically located to be on-the-way for students going to or returning from the core campus. Breaking the pedestrian mobility journey up with a series of destinations like these also reduces the perception of distance. The paths of travel will be as flat and straight as possible within existing site constraints. Transit mobility will be promoted with express bus routes planned directly from the Village to the Multi-Modal Transit Facility (MMTF) in the North Academic District. Transit stops are also strategically located to correspond with dining and well-being destinations that attract non-residents.

As the use of virtual learning technology expands, connectivity also means digital connectivity. The Village will provide indoor and outdoor Wi-Fi access and flexible use learning spaces to enable learning to happen anywhere and anytime.
A Destination

The Student Life Village will be an entirely new residential district for the Virginia Tech campus with dining, well-being, recreation, event and learning spaces open to the entire Virginia Tech community. As a destination, the Village will encourage diverse encounters between on-campus and off-campus students, faculty and staff allowing the Village to feel like part of the broader campus community.

The design of the Village will need to successfully leverage those features that make it a unique destination on campus, while maintaining the Hokie Spirit. Its landscape will become the context of new recreational opportunities that take advantage of heritage trees, complex topography and bucolic views. Programming of student life facilities will augment the offerings of the campus with flexible indoor and outdoor event spaces.

Flexibility

Change is inevitable, so the Student Life Village Plan is created to maximize Virginia Tech’s ability to adapt to an unknown future. This plan provides a framework to make sure development is well coordinated without restricting future evolution.

- The decoupling of phases using open spaces allows the possibility for each subsequent phase to be developed without overly impacting the completed phases.
- Phased implementation allows development to be calibrated to financial resources and changing demographic needs. Phased implementation means a phased end-of-life which allows the institution to better manage the transition of housing to future solutions.
- MEP Infrastructure is laid out so that it forms a complete system at the end of each phase. Completed phases will not need to wait for future phases to achieve full functionality. The system changes to absorb new phases.
- Multi-purpose well-being and enrichment spaces are intended to adapt to a variety of programs. Purpose-built spaces are limited as much as possible.
- A mix of housing units and types ensures near infinite configurations of residential communities that can nimbly adapt to changes in participation in living-learning, fraternity and sorority life and other residential programs as well as different ratios of class years.

The Student Life Village will be an entirely new residential district for the Virginia Tech campus with dining, well-being, recreation, event and learning spaces open to the entire Virginia Tech community. As a destination, the Village will encourage diverse encounters between on-campus and off-campus students, faculty and staff allowing the Village to feel like part of the broader campus community.

The design of the Village will need to successfully leverage those features that make it a unique destination on campus, while maintaining the Hokie Spirit. Its landscape will become the context of new recreational opportunities that take advantage of heritage trees, complex topography and bucolic views. Programming of student life facilities will augment the offerings of the campus with flexible indoor and outdoor event spaces.
Affordability

A commitment to inclusivity also means a commitment to affordability in the housing that Virginia Tech offers its students. Conscientious of limited resources, the Student Life Village plan takes a number of measures to reduce investment costs without compromising well-being and safety. Affordability is not about cutting corners, but making sure that limited resources are creatively focused on the things that affirm Virginia Tech’s values.

- Working with the topography, not against it, the Village plan limits the amount of investment that will be required for regrading, cutting and filling.
- An emphasis on active mobility and transit reduces the investment and land dedicated to parking and road infrastructure.
- Structuring the Village around a single dominant hub improves economies of scale for both construction and operation.
- Re-utilizing existing roads, parking and infrastructure, wherever possible, limits the initial infrastructure burden of the project.
- Conceiving of building massing at 4 stories or less ensures that future contractors can use the most cost-effective structural framing systems available at the time of construction.
- Adopting a simple massing strategy, and focusing architectural interest at gateways and main entrances, ensures that investment in materials and detailing can be focused on those places where they will be most communally visible.
- Taking advantage of the site’s native topography, heritage trees and existing landscapes reduces the cost burden of landscaping.
- Laying out buildings in quadrants of 400-500 students reduces the number of infrastructural connections and improves economies of scale for both construction and operation.
- Tactical investments in high energy performance, alternative energy and divestments from fossil fuels will create long-term reductions in operating costs when balanced against the 40-year life-cycle of the consumable housing product.

Sustainability

Coming on the heels of Virginia Tech’s bold 2020 Climate Action Commitment, the Student Life Village will be a perfect opportunity to demonstrate the University’s continued focus on sustainable built environments. At a planning scale, the structure of the Student Village seeks to:

- Actively encourage use of alternative mobility and public transit choices to replace single occupancy vehicles.
- Conserve high value trees and landscapes to improve thermal comfort, reduce wind exposure and allow the plant-soil system to continue sequestering carbon.
- Maintain existing landscape hydrology and use vegetation enhanced stormwater infrastructure to address drainage needs in a way that adds ecological and aesthetic value.
- Distribute infrastructure efficiently and work with native topography to minimize the energy expended on site development.

At a building scale, the Village plan provides opportunities for future designers to integrate sustainable building technologies and energy systems. These technologies will change over time, but some principles remain:

- Maximizing east-west orientation of buildings to control solar gains and improve natural lighting.
- Maximizing solar generation potential on south facing roofs.
- Utilizing recycled and rapidly renewable materials and structural systems with low embodied carbon.
- Introducing high performance envelope systems.

Operationally this plan recommends working with the student community to:

- Actively encourage use of alternative mobility and public transit choices to replace single occupancy vehicles.
- Use low carbon food production and preparation methods.

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Virginia Tech believes learning does not stop at the classroom door and views all its facilities, indoors and out, as opportunities to advance educational and research missions. As a residential district, the Student Life Village adopts the principles of a “Living-learning Community” where co-curricular and extracurricular enrichment happen side by side with residential life. The Student Life Village plan:

- Allocates “enrichment” space in every residential block, as well as the amenity buildings where living-learning programs, flexible-use learning, collaborative study and co-creation can occur.
- Provides a flexible housing structure which can accommodate diverse and ever-changing living-learning communities.

The Student Life Village Plan also views the design and construction of new facilities as opportunities to showcase technological and social innovations and transform buildings and landscapes into teaching tools. Some potential opportunities include:

- Integrating autonomous vehicle technology into the transit system.
- Using smart infrastructure that allows Village residents to view real-time sustainability metrics like energy use, water consumption and waste.
- Providing public spaces and shared facilities that emphasize Virginia Tech’s principles of community and social responsibility.
- Utilizing novel energy generation and delivery systems and providing opportunities for students to “go behind the scenes” and view these systems at work.
The diagrams that follow describe how the land use plan emerged from an interdisciplinary and collaborative process that considered topography, accessibility, connectivity, viewsheds, hydrology, existing infrastructure and ecological conservation as drivers.

THE STUDY AREA
The area analyzed for land use planning includes the present-day Virginia Tech Golf Course and Oak Lane residential community. This area is far greater than what is necessary to develop 5000 beds of housing so the land use planning process focused on eliminating land that is unsuitable for development.

EXISTING LAND COVER
The existing land cover of the vicinity is characterized by the agricultural belt to the south, golf course landscaping on the north and east, and the lawns and ornamental plantings of the Oak Lane community. Existing trees on the highway buffer and between golf course fairways are mature, offering ample canopy coverage in some areas. Riparian landscapes line the Stroubles Creek corridor and around Duck Pond and are identified as a buffer for resilience and ecological health.
AGRICULTURAL HERITAGE

As a land grant university in a semi-rural setting, Virginia Tech's agricultural landscapes are a keystone of its identity and heritage. This land use plan reaffirms an "agricultural belt" at the edge of campus and respects existing agricultural lands. This preserves scenic views from the highway toward campus while embedding the Village in a living agricultural landscape that is important to establishing a sense of place for the community.

ECOLOGICAL BUFFER

The existing buffer between the Oak Lane community and adjacent high speed, high traffic roads is at places narrow. The land use plan calls for widening and enhancing the buffer in order to attenuate noise, protect the Village from cold northwestern winter winds, visually hide unattractive highway infrastructure and reduce particulate pollution and fumes entering the Village. The buffer will have additional benefits as a wildlife corridor and recreational amenity for the Village.
Land use planning for the Student Life Village was shaped by a tension between keeping the Village well connected to core campus yet physically and visually distinct so that alternative construction and operating models can be pursued without detriment to the core campus’s architectural consistency. View shadow analysis was used to identify the level of visibility of potential built development from various vantage points on the core campus. Proposed development areas are overlaid on the analysis. This analysis was aggregated to arrive at a demarcation line that separated the highest visibility areas from low visibility areas.

**VIEW SHADOWS**

The view shadow analysis informed the location of a proposed demarcation line which designates an approximate line beyond which any new construction will be highly visible from campus locations like the Duck Pond, the future Infinite Loop and West Campus Drive. To maintain the visual consistency of the core campus, Village development is planned west of this line where a new, yet complementary, architectural character will be less visible from the core campus.
HYDROLOGY AND FLOOD RESILIENCE

Flood events are increasing in severity and frequency and the future Village will be developed to limit the exposure of Village residents and built assets to flood risk. Areas in the floodplain and natural drainage corridors are unsuitable for development. Preserving the existing drainage patterns of the site as much as possible will increase the efficiency of stormwater management without expensive infrastructure. The use of intermediate green spaces will reduce the volume and velocity of stormwater leaving the development sites. Flood data is as of October 2020 and should be reviewed for updates at the time of design and construction.

ACCESSIBILITY AND SLOPE

Ensuring that pathway connections to and from the core campus are accessible was an early priority of the land-use planning process, requiring a detailed understanding of existing topography. To that end, a primary “Village Trail” of connectivity was threaded between areas of rugged topography in order to create a route that is naturally accessible or that can be easily regraded to create accessible slopes with a minimum of cost and disruption to the native landscape. Areas of dramatic slope were avoided for development as much as possible.
Conservation areas are set aside by combining the most topographically challenging land with areas dense in high value trees. These conservation areas are incorporated into the design of the Village’s open space network.

Parts of the study area have been undisturbed since Virginia Tech’s founding and have trees 200 years of age and older. On the western edge of the golf course, towering oaks, walnuts, and hickory remain well preserved. Other mature trees are associated with wind breaks and dividers between the golf course fairways and Prices Fork road to the north. Conserving some of these trees will add aesthetic and ecosystem values and save money on future landscaping.
The result of the land-use planning process was to establish the acceptable limits of Village development based on parameters of ecology, topography, heritage and views. This section reviews additional layers in the Village that begin to define circulation experience, community formation and the sequencing of phased development.

**VILLAGE STRUCTURE**

The Village Trail is the main link connecting pedestrians to and from campus and thus will become a core part of the daily Village experience. To make this journey more engaging and reduce the perception of travel distance, the Village structure places key landmarks along the spine in a “stepping stone” pattern.
NEIGHBORHOODS
From the central green, Village residents will have access to the three neighborhoods, each of which is defined by its own "neighborhood green". These green spaces will create opportunities to define the unique identities of each neighborhood and act as local gathering spots.

THE GATEWAY
The Gateway is the symbolic entry to the Village, framed by two amenity buildings which will be highly visible when approaching the Village from campus. This Gateway leads to the heart of the Village, a large central green space. This central green space will be the iconic feature of the Village and will organize the open space structure and development pattern in a way similar to the Drillfield on core campus.
The Village structure has been strategically laid out to ensure that each phase of work is decoupled from the others by an ample buffer. This will allow construction activities in each subsequent phase to proceed with minimum disruption to completed facilities.

Each neighborhood is further subdivided into a series of quadrangles (quads) each with about 400-500 residents. These quads are centered around a green space that provides outdoor enrichment and opportunities for residents to define their individual identities within the larger neighborhood.
The Student Life Village land use plan carefully balances the eight planning principles with existing conditions of the site. It makes best use of the site’s existing assets and unique character. It achieves a logical, hierarchal structure in its neighborhoods and quads, while remaining organic and responsive to the native topography. It achieves accessibility and high standards of ecological stewardship, while limiting capital outlay for infrastructure and landscape.
Infrastructure
04
The Student Life Village will be built on land that is lightly developed, lacking in the infrastructure necessary to support 5000 residents. Preparation of the land for development requires a well-coordinated strategy for investment in infrastructure. The Student Life Village adopts a multi-purpose infrastructure strategy, limiting infrastructure burden by combining different systems into shared corridors. With affordability in mind, existing infrastructure is integrated with new systems and/or used for interim solutions in the phasing plan.

<table>
<thead>
<tr>
<th>Mobility</th>
<th>Water</th>
<th>Information</th>
<th>Phasing</th>
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<tr>
<td>Accessibility</td>
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Mobility

To be a destination, well-integrated with the academic and social activities of the university and accessible to all users, the Student Life Village requires a robust and well-considered mobility system.

An accessible, engaging and pedestrian-focused circulation experience that encourages Village residents to adopt active mobility and transit choices.
ACCESSIBLE MOBILITY

The Village’s accessibility strategy adopts a universal design approach which seeks to make the mobility experience of all Village residents the same, regardless of mobility needs.

RECOMMENDATIONS

WINTER MAINTENANCE

Accessible pathways should be prioritized for winter maintenance. Snow should be cleared to form paths at or greater than minimum width. Care should be taken that plowing of roads and sidewalks does not unintentionally obstruct accessible curb-cuts and paths.

TRANSLIT PLAZA

All transit stops, including the transit plazas, will comply with the ADA and be designed with all users in mind.

ACCESSIBLE PATHWAY NETWORK

The accessible pathway network encompasses most of the pedestrian paths in the Village core, meaning the primary circulation experience of all Village users will be the same regardless of physical ability. The accessible pathway network has been graded to less than 5% for its entire length to meet wheelchair accessibility requirements. This is intended to reduce physical effort and make journeys more expedient for all users of the network.

ACCESSIBLE ENTRANCES

The main entrances to all buildings are located along the accessible pathway network. Accessible entrances are the same entrances used by all Village residents so there is no stigmatization created by separate building entrances for different ability groups.

ACCESSIBLE PARKING

Accessible parking is provided within 250 feet of all accessible entrances along the accessible pathway network. In addition to formally marked and permitted ADA spaces, accessible parking will also provide parking for those with temporary health and life situations requiring special mobility considerations.

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Wayfinding
Provide clear, high-quality pedestrian wayfinding to ensure an easy pedestrian experience. Wayfinding should leverage the identities of Village neighborhoods and quads.

Crossings
The plan minimizes roadway crossings to enhance the pedestrian experience. Where crossings are required, they should be situated for maximum visibility and minimum crossing distance with traffic calming features like speed tables.

E-Mobility
Transportation technology is rapidly changing with the broad advent of e-scooters, e-bikes, and related technologies. The plan is technology-agnostic, recognizing that personal mobility will evolve and should be accommodated in building and site designs.

Winter Maintenance
Winter maintenance of sidewalks and key paths is essential. Nature trails may be unmaintained.

Illumination
Illumination of the spine and paths will be important, with higher lighting levels provided along the spine. Nature trails are assumed to have no or minimal illuminations.

Recommendations
Coordinate connections and improvements to pedestrian pathways along Prices Fork Road, external to this project.

Wayfinding
Provide clear, high-quality pedestrian wayfinding to ensure an easy pedestrian experience. Wayfinding should leverage the identities of Village neighborhoods and quads.

Neighborhood Path
Pathways connecting the spines to the residential quads.

Nature Trail
Low-volume trails for recreational experiences in conservation areas. Paving choices should reflect landscape design goals.

Winter Maintenance
Winter maintenance of sidewalks and key paths is essential. Nature trails may be unmaintained.

Illumination
Illumination of the spine and paths will be important, with higher lighting levels provided along the spine. Nature trails are assumed to have no or minimal illuminations.
BIKEWAYS
Biking will offer many Village residents an expedient means to reach on and off-campus destinations. The Village provides a through connection for cyclists traveling north and south on the street and a direct connection to the North Academic District via the Village Trail. Additional bikeways facilitate movement between residential and amenity buildings through a hierarchy of dedicated and shared lanes.

RECOMMENDATIONS

WAYFINDING
Provide clear, high-quality bike wayfinding that keeps bikes from entering pedestrian-only areas. Clearly demarcate bike and pedestrian modal splits with signage and changes in paving material or color.

WINTER MAINTENANCE
Do not use bikeways as a snow storage facility. Prow and device bikeways as with other pedestrian facilities.

ADAPTIVE CYCLING
Bikeways should be accessible to users of adaptive bicycles, bicycles that meet the individual needs of the cyclist, including handcycles, recumbent bikes, trikes and more.

DEDICATED LANE
Cyclists have a dedicated lane either on a path or road.

Where provided on the street the bike lanes should be separated from traffic, or parking by a buffer marked with striping or flexible reflective delineators.

SHARED PATH
Cyclists use the same path as pedestrians and other devices.

SHARED LANES
Shared lanes allow cyclists to share the same lane as vehicular traffic. This is only proposed in the low traffic areas of Oak Lane where existing roadways are being reused and other bike facilities will be built near or adjacent to the roads.

The Village bikeway network should connect to planned bikeways in the Infinite Loop project.

Along the central street, bikes may either use the on-street bike lane for express traffic through the village or the adjacent shared “neighborhood path” for local or more leisurely biking.
ISOCHRONES
Isochrones provide an understanding of the travel times between the Village and the North Academic District. Travel times are shown from Tech Square (Burchard Plaza).

By bike, a typical cyclist can reach the Village Gateway from Tech Square (Burchard Plaza) in under 5 minutes. All residences can be reached in 8 minutes or less.

At an average walking rate, the Village Gateway can be reached from Tech Square (Burchard Plaza) in under 10 minutes. All residences can be reached in 20 minutes or less.

Graduate student housing will be placed in the 18-20-minute zone. Graduate students will have the option of adjacent long-term parking.

The amenities found at the Gateway are easily reached by students attending classes in the north academic district. This will help increase mid-day utilization.

From Tech Square (Burchard Plaza) > 75
INFRASTRUCTURE 74
INFRASTRUCTURE THE STUDENT LIFE VILLAGE PLANNING REPORT
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From Tech Square (Burchard Plaza) >
TRANSPORT MOBILITY

Integrating the Village into the existing transit network will be critical to connecting Village residents to daily academic and student life activities and, in turn, allow the Village to be a destination for the entire Virginia Tech community.

USER EXPERIENCE

Virginia Tech will continue to work with Blacksburg Transit to ensure that students are able to conveniently use public transit with intuitive tools, signage and service design.

STOPS

These should be one focal stop which will be served at all hours. Additional stops may be used during evenings and weekends.

SCHEDULES

Service will need to be frequent in the peaks of class schedules to accommodate student demand. Service should include late-night service.

SMART INFRASTRUCTURE

The transit plazas should offer maps with real-time arrivals, in addition to links to Blacksburg Transit’s tracker and other information sources.

ACCESSIBILITY

All stops will comply with accessibility requirements, ensuring easy use by all.

RECOMMENDATIONS

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ACCESSIBILITY

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LOCAL ROUTES

These routes provide additional access to individual neighborhoods. These will primarily operate at night and on weekends. These routes are especially important to accessing amenities, shopping off-campus and remote long-term parking facilities.

AUTONOMOUS PODS

Virginia Tech is an innovator in transportation technologies and the Student Life Village will be a prime opportunity to field test low-speed autonomous vehicles that transport small numbers of passengers along the Village Trail and secondary spine. It is recommended that autonomous vehicles be used only as supplemental transit serving low-frequency, in-demand and localized routes as current autonomous pod technology would be overwhelmed by the Village’s full transit demands. Autonomous vehicles could be used to create additional intra-village transit connections between transit plazas and the Village neighborhoods.

EXPRESS ROUTES

These are high-frequency, limited-stop routes, likely going directly from the Transit Plaza to the MMTF in the North Academic District. These will operate mostly in the daytime and schedules should be tailored to class schedules.

TRANSIT PLAZAS

These provide a key nexus for transit at the Village and will include access to real-time information and sheltered waiting areas, integrated into adjacent facilities. The primary Transit Plaza will be at the Village “Gateway”, a complex consisting of Phase I Dining and the Student Life Commons. A smaller transit plaza will be constructed as part of Phase III, integrated with Phase II Dining.

Ensure transit connectivity to the existing long-term parking lots to the southeast of the Village.

ACCESSIBILITY

All stops will comply with accessibility requirements, ensuring easy use by all.
TRANSIT PHASING & FLEXIBILITY

In phase I, transit service will be both essential for its success and challenged by the in-process road network. The phase I proposal seeks to give transit providers maximum flexibility to design appropriate routes.

PHASE I TRANSIT PROPOSAL

The plan envisions transit service could be routed through the Inn parking area to avoid congestion associated with Prices Fork Road. Coordination with Blacksburg Transit should determine which route is more expedient. Alternatively, current Oak Lane service, aka, “Hokie Express” could be extended to the Transit Plaza and back track along Oak Lane and the Perry Street Extension.

TRANSIT PLAZAS

Transit plazas provide a key nexus for buses to reliably wait, load/unload passengers and change directions with minimal conflict with other vehicular traffic. They are designed to make the transit experience enjoyable for Village residents and functional for bus operators.

Branches are integrated into the amenity building design as sheltered outdoor waiting areas and extensions of indoor dining/student life programming.
VEHICULAR MOBILITY

The Village is envisioned to have public vehicle access at the periphery only, limiting vehicle-pedestrian interaction and discouraging unnecessary driving to and within the Village.

DESIGN SPEED FOR ALL ROADS: 15 MPH

**STREET WITH PARKING**
Mid-speed road with dedicated bike and pedestrian facilities and one side of parallel parking. Bike lanes should divert around parking with a buffer to prevent dooring.

**STREET**
Mid-speed road with dedicated bike and pedestrian facilities. There should be separation between bicycle lanes and sidewalks.

**LOOP ROAD**
Low-speed road with on-street bicycle lanes.

**ROAD**
Roads that do not have dedicated pedestrian or bike facilities because they are adjacent to other facilities.

**EXISTING ROAD**
Existing roads or roadways that will be reused in the Village plan. Refurbish the roads as required to integrate into the new network. Add shared lanes ("sharrows") to accommodate bike traffic.

To maintain affordability, the existing signaled intersection at Prices Fork Road will not be modified. The new street should be into the existing road slightly south of the intersection.

The Perry Street Extension must be completed to enable work on the Duck Pond segment of the Infinite Loop.
PHASING OF THE ROAD NETWORK

In order to minimize infrastructure investment in phase I, the Village will maximize use of existing roads. With phase II, the road network will be expanded to allow full access to the Village.

RECOMMENDATIONS

SPEED
Facilities should be low speed to discourage speeding and cut-through traffic. Design of streets should emphasize that the Village is a pedestrian-oriented zone.

BICYCLES
Bicycles should be accommodated in dedicated facilities wherever possible. Share-the-road signage should be included wherever dedicated bike lanes are not provided.

ILLUMINATION
Lighting is appropriate for streets where bicycle facilities are provided as well as adjacent pedestrian facilities. Lighting along the Loop Road may be minimal to reduce glare and promote a transition to the ecological buffer. Crossings should be well illuminated.

BRIDGES AND CULVERTS
Bridges and culverts are proposed on roads and pathways in the Village which pass over stormwater corridors or Strubbles Creek. These features will require additional investment but can add interest to the landscape and act as landmarks in the daily circulation experience. Culverts are earthwork features over the stormwater stream channel, designed to permit ample stormwater flow. They can be naturalized and protected from erosion through use of vegetation and rocks.

WINTER MAINTENANCE
Maintenance of the bike lanes will be essential to enabling bike mobility choices. Snow storage for roadway and bicycle facilities must be provided without relying on pedestrian pathways as a snow storage location.

BUILD THE BRIDGE WITH THE FLEXIBILITY TO ACCOMMODATE FUTURE EXPANSION OF THE VILLAGE TRAIL. IN THE INTERIM THE ADDITIONAL SPACE CAN FUNCTION AS A VIEWING PLATFORM FOR ENJOYMENT OF THE LANDSCAPE.

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SERVICE ROUTES

Service routes will be important to delivering goods and removing waste from the Village. The strategy of service routes is to keep heavy traffic from entering the center of the Village.

RECOMMENDATIONS

SCHEDULE
Coordinate waste collection at hours when students are unlikely to be home to minimize disturbances. Coordinate major deliveries at times when pedestrian traffic in the Village will be low, generally early morning.

PARKING
A small number of parking spaces will be dedicated to service vehicles.

PRIMARY SERVICING
Large trucks serving the dining and Student Life Commons facilities through dedicated loading docks designed into the buildings. To reduce noise and conflicts with other traffic, these loading areas are located on the perimeter of the Village.

WASTE COLLECTION AND SECONDARY SERVICING
Waste collection trucks gathering garbage and recycling from waste collection points.

WASTE COLLECTION POINTS
Waste and recycling bins located in accessible yet discrete locations, usually in conjunction with parking lots. Consider the use of landscape features to conceal bins from view of residential buildings and outdoor gathering areas. One waste collection point has been identified for every two quads. Waste collection for amenity buildings would happen via the dedicated loading bays designed into each building.

UTILITY CARTS AND CARGO BIKES ONLY
Additional maintenance of the Village’s core facilities and landscapes should occur via small utility carts or cargo bikes that can safely ride on the Village’s wider pedestrian paths.
EMERGENCY VEHICLE ACCESS

The creation of a pedestrian-first Village that respects existing topography and landscape means that emergency vehicles will need to be able to utilize pedestrian routes to access facilities. This should not come at the expense of landscape character and pedestrian comfort.

RECOMMENDATIONS

WINTER MAINTENANCE
Emergency access design solutions like reinforced turf require special winter maintenance considerations. Emergency vehicle routes must always be cleared of snow shortly after a winter storm. The fire marshal may require the use of snow stakes to mark the edge of access routes and any obstructions.

WAYFINDING
In the event of an emergency, first responders need to be able to clearly identify different buildings and routes. The use of directional signage and visible building names and numbers will be required.

BARRIERS
Some emergency access routes cross over pedestrian-first landscapes. General vehicular drivers in the Village should not mistake emergency access routes for roads. To discourage illegal use of emergency access routes, consider using removable and/or automatic barriers, especially at the Transit Plaza. Changes in paving material, street furnishings, vegetation, mountable curbs and signage can also help drivers clearly distinguish between vehicular and non-vehicular routes.

EMERGENCY VEHICLE ACCESS VIA ROADWAY INFRASTRUCTURE
All roadway infrastructure is sized appropriately to accommodate emergency apparatus.

EMERGENCY VEHICLE ACCESS VIA PEDESTRIAN ROUTES
To limit the amount of roadways in the Village, additional emergency vehicle access is proposed via pedestrian routes. These routes are sometimes not of sufficient width to accommodate emergency apparatus. Features like permeable paving, grass pavers, reinforced turf or other solutions can be used to add width without major changes to the character of the landscape. Path intersections should be designed to account for apparatus turning radii. Dead end conditions will require turn-arounds. These have been integrated into seating terraces or plazas in the design.

EMERGENCY VEHICLE ACCESS COVERAGE AREA
150' from access routes
PARKING
To encourage active and transit mobility choices the Village is designed as an accessible, walkable community. Parking will be limited to the perimeter of the Village to avoid disrupting the pedestrianized core. Most spaces are allocated for accessibility and staff working in the Village. Some additional parking at the Phase I Dining, Student Life Commons and Interfaith Chapel lots can be used for visitors and events. The Student Life Village Plan does not provide any long-term parking for undergraduate residents. Long-term student parking will need to be made available off site in a location accessible by pathways and transit.

**LONG-TERM** = 212 SPACES
overnight parking for access and medical needs, car-share programs, low-in-staff and graduate students.

**DAY PERMITS** = 287 SPACES
for staff, visitors and service providers staying in the Village generally no longer than a work shift.

**SHORT-TERM** = 51 SPACES
for pick-ups, drop-offs and grab-and-go users lasting 15 minutes or less.

**FLEXIBLE LONG-TERM PERMITS**:
- ADA ACCESS
- Medical
- Car-share programs
- Family needs
- Graduate students

**TOTAL PROPOSED INVENTORY**: 550 SPACES
315 EXISTING + 235 NEW

**VISITOR ADA**

**GRAB AND GO**

**DAY VISITORS**

**SERVICE AND 20-MINUTE LOADING/UNLOADING**

**LIVE-IN STAFF**

**DAY STAFF AND FACULTY VISITORS**

**OAK LANE LOOP**
the oak lane loop primarily for long-term resident parking.

**NORTH STREAM LOT**
the north stream lot provides ADA and service access to the north-west quads.

**NORTH SERVICE LOT**
the north service lot provides low-in-staff and service access to the northern quads.

**NORTH OAK LANE POCKET**
the ninth oak lane pocket provides a short parking node on the north side of phase II.

**SOUTH OAK LANE POCKET**
the oak lane pocket is entirely for long-term resident parking.

**SOUTH STREAM LOT**
the stream lot provides ADA and service access to the central green and Phase III Dining.

**NORTH STREAM LOT**
the north stream lot provides ADA and service access to the north-west quads.

**NORTH GATEWAY LOT**
the north gateway lot is dedicated for car-share and enrichment staff and visitors.

**CHAPEL LOT**
the chapel lot is reserved for chapel visitors.

**DINING STREET**
street parking for dining staff and pick-ups/drops-offs only.

**SLC STREET**
street parking for food-deliveries only.

**GATEHOUSE LOT**
The gatehouse lot provides Phase III Dining and general Village operations and overflow staff parking as well as visitor spaces for loading.

**PHASE II PLAZA**
The phase II plaza is to be used only for ADA and service access to the phase II quads.

To widen the ecological buffer, the outer ring of Oak Lane parking will be demolished but the inner ring will be reused.

**TOTAL PROJECTED INVENTORY**: 550 SPACES
315 EXISTING + 235 NEW
PARKING RECOMMENDATIONS

SMART PARKING

Increased use of technology could assist visitors to find a space and enhance enforcement as well as be an opportunity for testing technology with VTTI and other researchers. Parking space occupancy sensors would notify enforcement when a space was occupied and allow for automatic notifications when a time-limit is exceeded. Where visitor parking is allowed, the campus parking app can allow for easy session extensions up to the allowable time limit.

FEES AND GATES

Parking fees will need to be commensurate with the rest of campus to align expectations. Gates may be required for the standalone lots to limit illegal parking. The majority of the parking, as it will be on-street, will not be gated and require active enforcement. Some parking meters may be required but enforcement should be technology-focused to limit the burden on enforcement staff.

PERMIT POLICIES

Given the limited number of parking spaces in the Village, parking permits for the area should only be issued to staff whose primary place of work is within the Village. Resident parking permits should be issued to any faculty or staff residing within the Village as well as to students who qualify for an ADA permit. If sufficient parking is available, graduate students should be offered the opportunity to purchase parking in the Village. All other residents are expected to use remote resident parking zones.

ENFORCEMENT

Regular enforcement will be required, particularly at the beginning of the academic year, to establish behavioral norms. With the limited amount of parking, there is the potential for abuse of both short-term parking at dining and the Student Life Commons and resident-adjacent parking. Parking Services will need to work closely with the residents to determine if weekend enforcement is required or appropriate.

SHORT-TERM PARKING

Short-term parking will need effective enforcement to establish good behavior and discourage abuse. There will need to be different tiers of short-term parking with slightly longer parking, up to 20 minutes, allowed near the residences to allow unloading of groceries or other items, and shorter parking, up to 5 minutes, for app-based pick-ups.

RESIDENT LOADING/UNLOADING - 20 MIN MAX

Village residents who do not have parking on-premises will still need spaces where they can load/ unload personal items, groceries, etc. A 20-minute time limit is recommended for these spaces.

GRAB-AND-GO DINING - 15 MIN MAX

To support increased demand for grab and go offerings, several spaces will be offered street side to allow off-campus students and professional delivery drivers to pick-up food quickly.

RIDESHARE, TAXI AND APP-BASED PICK UPS - 5 MIN MAX

Accommodation of these services throughout the Village will be important. The plan identifies pick up zones and VT may need to work with individual companies to enforce these zones so that only the acceptable locations show up as options on apps.
**MOVE-IN DAY**

Virginia Tech has an orchestrated move-in day process that seeks to minimize traffic problems by assigning residents time windows in which to unload their possessions. The Village plan provides for parking near, but not directly at, each residential quad for unloading personal items. The Village plan strongly advises against driving on pedestrian routes and quads during move-in day to avoid establishing bad habits and damaging landscapes/paving at a time when they will be seen by the greatest number of people.

**RECOMMENDATIONS**

**LOT PARKING**

On move-in day, most if not all lot parking spaces should be dedicated to move-in. On this day, most staff will need to park off-site.

**STREET PARKING**

Use traffic cones to designate the one-way traffic street parking pattern on the Village loop road.

**CART PATHS**

Designate cart paths to each residence with colored signage. When designing the pedestrian network, consider this use-case and avoid bumpy paving, curbs and pavement notches which could obstruct cart movement.

**WAYFINDING**

Clear temporary signage, color-coding systems and path markers will be essential to a smooth parking and unloading process for residents.

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**VEHICULAR ACCESS**

**CART PATHS TO RESIDENTIAL ENTRANCES**

Residents will not be allowed to drive straight up to building entrances. Carts should be used to move items between vehicles and building entrances along pedestrian pathways. The university may consider employing student helpers to expedite the process.

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**MOVE-IN DAY PARKING CAPACITY**

**640 SPACES**

phase I: 207 spaces for 1752 beds - move-in 9 time slots  
phase II: 188 spaces for 1384 beds - move-in 8 time slots  
phase III: 245 spaces for 1864 beds - move-in 8 time slots

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**ONE-WAY TRAFFIC PATTERN ON VILLAGE LOOP ROAD**

The use of a one-way traffic pattern on the Village loop road during move-in days will add to the total number of available parking spaces on move-in day and thus reduce the number of time-blocks needed to move-in the full Village population.
PERSONAL MOBILITY PARKING
To encourage Village residents to choose healthy, sustainable and low-impact mobility modes like bikes, e-scooters and e-bikes means giving them secure and weather protected locations to lock their vehicles.

RECOMMENDATIONS

E-SHARE AND BIKE SHARE PROGRAMS
Work with app-based e-device sharing programs and VT’s own bike share program to designate device “round-ups” near building entrances, but out of the way of pedestrian and vehicular traffic.

INDOOR PARKING
Provide ample indoor long-term/overnight bike, scooter and stroller parking at residences in the form of ground-level rooms accessed from both the exterior and interior of the building via the resident’s RFID.

OUTDOOR PARKING
Provide outdoor racks capable of accommodating diverse lock types and two points of contact. Prioritize the public plazas and terraces for outdoor, short-term bike parking. Locate racks under awnings or free-standing shelters where feasible.

WINTER MAINTENANCE
Keep outdoor racks and the entrances of indoor parking rooms free from snow during winter maintenance. Avoid locating racks in common snow dumping areas like swales.

DIY BIKE REPAIR
Maintain both indoor and outdoor locations for DIY bike repair that include a bike pump (preferably electric) and tools tethered to a chain for theft prevention.

RECOMMENDED SPACE ALLOCATION

2500 SPACES

INDOOR RESIDENTIAL BIKE STORAGE = 1,250

OUTDOOR RESIDENTIAL BIKE PARKING = 630

AMENITY BIKE PARKING = 500

INDOOR STAFF BIKE PARKING = 120

This quantity is equal to the number of staff car parking spaces. In addition to providing secure indoor bike spaces, providing staff with showers and lockers can make alternative mobility choices easier.

Parts of the Transit Plaza arcades not adjacent to entrances can be used as sheltered bike parking.

Allocating bike parking along the street’s bike path will be logical for visitors from outside the Village.
Water

A resilient water system is essential to resident health and well-being. Robust stormwater management, adopting current best practices, will help protect Stroubles Creek and improve resilience to flood hazards.

Water delivery and stormwater management will work with the existing landscape for affordability and ecological stewardship.
DOMESTIC WATER
A sufficient and reliable supply of water will be required to accommodate the 5000 residents on this site.

RECOMMENDATIONS

MAINTENANCE ACCESS
Use roads and pathways to run pipes for ease of maintenance and to prevent redundant trenching.

DUAL-FEED
At least two points of connection to each quad should be used to reduce potential for water service gaps due to fault, repairs or emergencies.

PHASING

EXISTING
Based on public data, the existing domestic water main is located at Prices Fork Road. The capacity of this main to accommodate the increased load of the Village has not been verified in this planning process.

PROPOSED
Water supply piping should be laid out efficiently along roads and paths.

SCALABILITY
A challenge of the water system design is maintaining the right amount of pressure in early phases, while sizing the system large enough to accommodate increased loads in the future. Connecting to the main at two points provides the maximum control over pressure in the early phases.

REduNDANCY
Connecting into the water main at two points also ensures redundancy which will allow continuity of water service during future construction activities as well as provide resilience to disasters and faults. While “completing the loop” in this way adds cost, it is recommended for long term reliability of the water system.

PHASE I WATER SUPPLY
In order to complete a loop in phase 1, consider an interim tie-in to the existing Oak Lane water line until the full system is constructed.

DUAL-FEED
At least two points of connection to each quad should be used to reduce potential for water service gaps due to fault, repairs or emergencies.
SANITARY SEWER
Sanitary sewers should follow roadways for ease of maintenance access while working with the natural topography.

RECOMMENDATIONS

EXISTING MAIN
Based on public data, the existing sanitary sewer water main is located along the Stroubles Creek corridor. The capacity of this main to accommodate the increased load of the Village has not been verified in this planning process.

PROPOSED SANITARY LINES
New sanitary lines should follow topography as close as possible from building to existing mains while remaining in open and accessible locations.

SEWAGE WASTE HEAT EXCHANGER
A viable thermal energy strategy for the Village may include a sewage waste heat exchanger (SWHE). These devices use the ambient energy found in sewer mains to heat or cool buildings via a heat pump as part of an ambient low-energy loop. Positioning this device below the connection of the Village line to the existing main will allow the capture of waste heat from the entire Virginia Tech campus.

PHASING

PHASE I SANITARY SEWER
The existing route of the sanitary trunk line along Oak Lane should be reused for the Village. Engineers should verify if the existing pipe can support the loads of phase I and/or II in order to avoid disruption to the existing Oak Lane sanitary system during construction. If required, the line should be replaced in its existing location with the capacity to accept the full future design load of the Village. This replacement should happen in conjunction with refurbishments and improvements to Oak Lane and adjacent pedestrian facilities.
STORMWATER MANAGEMENT

The stormwater management strategy adopts a regional approach that directs most stormwater loads to a single retention facility. The regional approach minimizes capital outlay, reduces maintenance and allows ease of monitoring and control.

RECOMMENDATIONS

LANDSCAPE DRAINAGE

Large open spaces should direct stormwater away from buildings and pathways and via storm pipe or dry swales as appropriate for design and programming goals. Smaller enclosed open spaces like quads and terraces should utilize yard inlets connected to storm pipes. To assist drainage, avoid the creation of landscapes that are too flat.

STORM PIPE

In areas of high pedestrian traffic, storm pipe keeps drainage off of paths and lawns completely by conveying stormwater loads underground until they reach the stream channel. Storm pipe will also be used to direct roof drainage to the stream channel.

DRY SWALES

Relying on low impact development guidelines, grass swales along roads convey water short distances to storm pipe while allowing some level of infiltration and quality improvement.

STREAM ZONE

An above-ground conveyance channel that utilizes the native drainage pattern of the site as much as possible to reduce cost. Enhanced by vegetation, the stream channel mimics the look and stability of a natural stream while reducing flow velocity and improving water quality. The stream zone may not always have water and will be designed to fluctuate with changes in precipitation.

ROOF DRAINS

The lowest maintenance solution for draining building roofs will be to channel loads directly to storm pipes. This further reduces the risk of ice and water on paths of travel and other landscape features.

PHASING

It is recommended to complete the wet pond and stream channels in their entirety in phase I. Future phases can then easily "plug in" to this existing infrastructure.

ACADEMIC/RESEARCH INTEGRATION

Virginia Tech has many research programs and public initiatives geared at studying, improving and raising awareness for water quality and flood resilience. Consider ways to engage research and stewardship efforts like the VT Stream Team, Stroubles Creek Coalition, Learning Enhanced Watershed Assessment System (LEWAS) Lab, and the Stream Research Education and Management (SIREM) Lab.

SPILLWAYS

Should retention infrastructure overflow, spillways provide a means of directing excess water towards the Stroubles Creek corridor.

The existing rip-rap channel should be refurbished as part of this project’s scope.
Conveying and retaining stormwater in above-ground facilities not only offers quality and quantity credits, but can add character to the design of landscapes, attract wildlife and provide ecosystem services.

**BLUE INFRASTRUCTURE**

Conveying and retaining stormwater in above-ground facilities not only offers quality and quantity credits, but can add character to the design of landscapes, attract wildlife and provide ecosystem services.

**RECOMMENDATIONS**

**VEGETATION**

Vegetation and natural plantings along bio-retention and conveyance infrastructure is aesthetically pleasing but adds maintenance. Vegetation should be deployed strategically in high-visibility, high-use areas. In other areas, sod is preferred for ease of maintenance. Species should be selected to align with maintenance capacities and resilience to stresses.

**MAINTENANCE**

Blue infrastructure is a gathering place for debris and sediments. Dredging will likely be required to maintain blue infrastructure but proper erosion control can reduce the frequency of dredging. Trash accumulation can be reduced through education of the Village residents as well as stewardship programs which encourage residents to clean up litter and increase their sense of responsibility for the well-being of the landscape.

**DRY SWALES**

Dry swales are slight depressions in the landscape, usually along roads and parking lots, that enable the infiltration of small loads while conveying overflow to storm pipe inlets.

**STREAM ZONE - GRASS SWALE**

Where the stream moves through developed and high traffic areas with limited room for naturalization, it takes on the form of a wet grass swale.

**STREAM ZONE - NATURALIZED**

Wherever feasible, the stream can be naturalized with a meandering ripple and pool structure and vegetation enhancements that will reduce water velocity while improving quality.

**STREAM ZONE - STEP POOLS**

Where the stream falls down steep topography, step pools should be used to slow water down and prevent erosion. Step pools are created with a series of rock check dams which trap sediments and reduce water velocity. Step pool spacing is based on slope steepness.

**WET POND**

A wet pond is a permanently wet retention facility that is designed to safely accommodate fluctuations in water level. Wet ponds can be designed to mimic natural water bodies. The slopes of the edge of the wet pond will periodically fill with water and may take on the character of a wetland.

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CIVIL PHASING

The design of the Village's civil infrastructure permits phased implementation where in each phase is both a fully functional unit on its own, as well as a segment that will integrate into a future complete system.

RECOMMENDATIONS

DESIGN COORDINATION
In order to achieve a phased infrastructural system that works as a complete whole, design needs to be coordinated early on with designers considering the entire development site, not just the active phase of work.

ROAD REFURBISHMENT
Refurbishment of existing roads should be coordinated with the installation of new sanitary and water pipes to avoid redundant road resurfacing.

EXISTING INFRASTRUCTURE
Existing Oak Lane civil infrastructure needs to remain operational until commencement of phase III. If possible, phase I and II systems will connect to Oak Lane systems. This may require that some pipes are replaced in-kind with new pipes capable of handling increased loads.

BUILDING AHEAD
With the exception of stormwater facilities, the plan has been laid out to avoid the infrastructure burden of having to “build-ahead” in order to achieve fully functioning phases. The phase I site remains untouched by infrastructure serving phase II. Maintaining this in principle means working closely with the topography so that outflowing stormwater and sanitary pipes can reach their respective destinations without crossing the phase II area of work.

PHASE I
New road construction provides a path of ingress for domestic water from the north. Sanitary on the site’s east slope flows towards the existing main running north-south. On the west slope it flows towards the existing Oak Lane trunk line. Storm pipe follows a similar pattern with distinction between eastward flows to the eastern stream channel and westward flows to the western stream channel. Above ground stormwater facilities must be constructed in full during phase I. Electrical and telecom conduit banks should be laid in Phase I by following new pathway and road construction routes for site ingress.
Phase II connects to phase I’s domestic water infrastructure with an independent loop that returns to the existing main at Price’s Fork Road. Crossing of the stormwater channel with new pipe needs to be carefully coordinated. Stormwater and sanitary follow roughly the same paths allowing for combined duct banks.

Phase III sees the removal of existing Oak Lane infrastructure and replacement with a water supply loop that builds off the phase II loop.
With more and more education and research happening outside the classroom, robust information infrastructure is critical to the Village’s integration and connectivity goals.

Information technology will provide additional connectivity and integrate Village and academic life.
Telecommunications infrastructure includes Wi-Fi, Internet cable, cellular signals, voice over Internet phone and emergency communications networks.

RECOMMENDATIONS

**SHARED CONDUIT BANKS**
Telecommunications cabling can share trenches with other systems but must be ensconced in their own protected conduit.

**OUTDOOR WI-FI**
Indoor Wi-Fi may have the capacity to extend to adjacent outdoors spaces, but in most cases, wireless access points should be installed on building facades and light poles in order to extend the service reach.

**CELLULAR SERVICE**
To improve the reach of cellular communications, traditional, 4G and 5G cell sites may be located on buildings, light poles and other landscape structures in coordination with cellular service providers.

**VIRTUAL LEARNING**
Consider needs for specialized virtual learning technology to serve flexible learning spaces proposed in the amenity buildings.

**HARD WIRING**
At the time of building design, the university should consider whether hard-wired Ethernet connections and co-ax cable are still needed in student rooms or if investment should be focused on robust Wi-Fi speed and coverage area. Hardwiring will still be appropriate for devices like emergency phones and virtual learning, teleconferencing and VOIP systems.

**SWITCH AND CABLE CENTER**
A switch and cabling center for the Village would be most logically located in the Phase I Dining facility to receive cables directly from core campus before fanout.

**WI-FI COVERAGE PRIORITY**
The highest priority for Wi-Fi coverage will be residential buildings and immediate adjacent outdoor spaces, especially transit plazas and residential quads.

**WI-FI COVERAGE PREFERENCE**
With remote learning and research ever-increasing, using the outdoor landscape as an extension of the classroom can contribute to well-being and give Village residents more options for places to study. Wi-Fi coverage for the entire Village landscape should be pursued if in alignment with affordability goals.

**TECHNOLOGY-FREE ZONE**
The interfaith chapel and its immediate landscape are designated as a technology-free zone to encourage mindfulness and respect for its role as a spiritual sanctuary. Emergency call boxes, security cameras, access control devices and staff telecommunications should still be installed at the interfaith chapel.

**REDUNDANCY**
Consider the use of dual fiber feeds to each quad to reduce or eliminate service downtime in the event that one feed experiences faults or repairs.

**FLEXIBILITY**
Given the rapid change in telecommunication technologies, infrastructure should be planned with the capacity to be changed to newer systems in the future. At the time of design and construction, use of the most up-to-date standards can increase the longevity of the system.

**TELECOMMUNICATIONS**
Telecommunications cabling can share trenches with other systems but must be ensconced in their own protected conduit.
SAFETY & SECURITY

Virginia Tech currently employs a number of safety and security information systems on the core campus. This plan assumes those systems would also be extended to cover the Village community.

HOKIE PASSPORTS

Virginia Tech uses personal Mag-stripe/RFID cards (Hokie Passports) to control access to facility entrances and distinguish between staff and student entrances. At the time of building design, the university should consider whether Hokie Passports are a viable substitute for brass keys to access individual residential units.

OUTDOOR EMERGENCY PHONES (BLUE LIGHTS)

Blue lights are outdoor phone pylons that remain illuminated at all times and have direct voice connection to an emergency dispatcher. Work with campus safety to ensure appropriate blue-light coverage in the Village and along pathways connecting to the Village.

INDOOR EMERGENCY PHONES (BLUE BOXES)

Blue boxes are push-to-talk two-way speakers with direct voice connection to emergency dispatchers. At least one blue box is recommended in a central location of each building. Public buildings should have at least one blue box in common areas and another in staff areas.

SECURITY CAMERAS

Security cameras should be located at critical public areas and in close consultation with law enforcement. Monitoring protocols should be transparent and shared with students and staff prior to move-in.

SIRENS AND LOUDSPEAKERS

The core campus’ existing emergency notification sirens and voice annunciators may not be audible from the Village. If so, additional sirens and loudspeakers should be placed in the Village.

SMART INFRASTRUCTURE

Smart infrastructure is a general term describing infrastructure that integrates information technology and software to improve performance. Smart infrastructure is increasingly becoming the norm in the specifications of many infrastructure systems, but can also be an opportunity for Virginia Tech to test and demonstrate innovations in the field. Successful implementation requires coordinating with IT and network teams early in the design process.

SMART INFRASTRUCTURE

- Consumption monitoring and reduction targets
- Smart leak / pressure drop identification
- Remote real-time water quality and flow rate monitoring

Water

- Inventory monitoring and automated procurement
- App-based service requests
- Building faults monitoring

Operations

- Real-time transit schedules
- Demand responsive transit
- Automated and app-based fare collection
- Smart Parking

Transit & Vehicular Mobility

- Collaboration with app-based e-scooter/e-bike providers.
- Interactive walking and tour guides

- Demand responsive pick-ups
- Waste monitoring and reporting of waste reduction targets

Waste Management

- Consumption monitoring and reduction targets
- Peak-shaving
- Occupancy based demand response
- Distinct demand allocation
- Automated envelopes
- Sensor operated lighting

Energy

- District energy allocation
- District demand allocation

Personal Mobility

- Peak-shaving
- Occupancy based demand response

Security

- District energy allocation
- District demand allocation

- Demand responsive transit
- Automated and app-based fare collection
- Smart Parking
- Automated parking enforcement
- Transit signal priority
- Demand responsive pick-ups
- Waste monitoring and reporting of waste reduction targets
Landscape
The landscape framework for the Student Life Village is responsive to the topography of the site and the heritage trees that define the existing fairways of the golf course. Where possible, existing trees are maintained and incorporated into the proposed open space structure. A network of accessible pathways further structures the land use plan and landscape framework for the Student Life Village.
“FOUND” LANDSCAPE
The existing golf course is a beautiful, undulating terrain with centuries-old trees framed by pasture land and Stroubles Creek. These existing landscape values should not be lost in the design and construction of the Village landscape.

RECOMMENDATIONS

CONSERVATION
Maintain the fairways and heritage trees where possible as character-defining features. Tree conservation protocols need to be written into construction documents so that site development, material storage and the movement of machinery does not permanently damage trees identified for conservation.

GRADING
Minimize grading to preserve the existing character and features of the site.

HIGH POINT
Leave the high point at the center clear as a platform for sweeping views of the campus landscape.

Gentle slopes are framed by mature trees.

The existing high point of the landscape provides a vantage point from which to appreciate the surroundings and views back toward central campus. The golf course outbuildings should be removed.
The overall structure of the landscape in the Student Life Village is defined by the following areas, each of which is laid out in response to the topography and existing heritage trees of the site.

**THE CENTRAL GREEN**
The central green is the signature open space of the Student Life Village. Located at the highpoint of the site, the central green is analogous to the Drillfield as an overall organizing open space. Unlike the Drillfield, however, the central green occupies a highpoint, not a low point, in its surroundings.

**NEIGHBORHOOD GREENS**
Each phase of construction forms a neighborhood that centers around a green space. The neighborhood greens incorporate existing trees and topography in the areas between the residential quads. These areas will each have a unique character based on their native topography which begins to define the individuality of each neighborhood.

**QUADS**
A series of quads is proposed as the formal expression of residential development. The quad landscapes are envisioned as areas for passive recreation and outdoor gathering for the surrounding residential communities. Each includes open lawn areas, stormwater management zones, and patios located adjacent to the major lobbies of the residential buildings.

**PLAZAS**
Each phase of construction has a plaza to facilitate gathering and to provide locations for events and activities. In both phase I and III, the plaza is also a transit hub associated with the major public buildings and dining halls. These plazas can flexibly adapt to accommodate both transit and special events.
The central green includes informal gathering lawns which adapt existing golf course fairways. The high point of the site is left clear as a gathering area and overlook from which to view the surrounding landscape. A central grove of mature hardwoods is formed from existing heritage trees and creates a quiet path for contemplation and passive recreation. The low-lying area of the site contains the Village’s central stormwater stream which provides opportunities for nature study and contemplation by the water’s edge.

Each neighborhood, corresponding with each phase of development will have its own green space that defines the identity of the neighborhood. Phase 1’s neighborhood green is characterized by its grove of existing mature hardwood trees hugging a sloped landscape. Small picnic terraces for grilling, relaxing and social events are tucked into this grove. Paths meander through the green, hugging the contours.
THE STUDENT LIFE VILLAGE PLANNING REPORT

NEIGHBORHOOD GREEN - PHASE II

Phase II’s neighborhood green is located along a slope that leads down to the phase II plaza. Switchbacks navigate the slope with accessible paths. An existing grove of golf course trees is preserved in the center of the site. The green meets the stormwater stream at the bottom of the site with a wooded buffer. The three main entrances to the three quads are all facing into this green, creating a space that will be active and dense with activity. Hardscaping will connect all three entrances with public gathering areas.

NEIGHBORHOOD GREEN - PHASE III

Phase III’s neighborhood green incorporates the existing bowl at the center of the Oak Lane community and is relatively flat compared to the other neighborhood greens. This allows for more active recreation programming to supplement that provided at the Village Gateway. An open lawn faces onto Phase III Dining’s outdoor dining terrace and can function as event space.
QUADRANGLE

The landscape of each quadrangle is a place for residents to express their own identity. To that end, the goal is to maximize flexibility and accommodate public activities surrounding the “Living-Learning Porches”, a multi-purpose space at the main entrance of each building which connects through to the quad. Where possible, quads should conserve existing trees. Roof drains should lead directly to storm pipes, but a local yard inlet and rain-garden is recommended for collecting stormwater falling on the quad landscape itself.

TRANSIT PLAZA & THE GATEWAY

The Transit Plaza provides a space where buses can wait for passengers and change direction of travel. Adjacent amenity buildings are lined with colonnades that act as bus shelters. The Plaza is a critical component of the transit system and will be a vibrant stop on students’ daily routines. It doubles as a flexible event space for the entire Virginia Tech campus. When in “event mode”, other uses can extend over the full width of the Plaza. The rise of the landscape to the west provides a natural outdoor theater from which to observe the Plaza’s events.
A well-designed landscape is one that can accommodate many different uses with the same spaces. These suggested outdoor programming ideas are only some of the possible uses to which the Village’s dynamic landscape could be devoted in the future.

**PASSIVE**
- Flexible Event Space
- Informal Gathering
- Landscape Theater
- Grilling/Picnicking
- Outdoor Dining

**CONTEMPLATIVE**
- Nature Study
- Hiking
- Meditation and Spiritual Practices

**ACTIVE**
- Beach Volleyball
- Multi-Purpose Courts
- Basketball
- Field Sports
- Grill/Picnic
- Outdoor Dining
Section A
WEST CAMPUS DRIVE TO HIGHWAY 460

The Student Life Village is laid out in response to the topographic conditions of the existing golf course and Oak Lane residential area. In the east-west direction, an accessible multi-modal pathway connects the Village to the North Academic District crossing West Campus Drive at the Perry Street intersection. The accessible pathway moves through the proposed Transit Plaza of the Village and continues around the central green which occupies the highpoint of the site. The central green transitions from the highpoint downhill toward the west where an existing drainage swale is integrated as a site feature. As the Green continues to the west, it transitions up to the elevation of the existing Oak Lane area and beyond to the ecological buffer.
Section B
PRICE FORK ROAD TO THE POND

In the north–south direction, the topography in the area of the Student Life Village transitions from the elevation of Prices Fork Road up and over an existing hillock, at the base of which the proposed loop road is located. From there, the northernmost residential quads slope upward toward the highpoint of the site where the central green is positioned. From the central green, the topography transitions downhill toward the southernmost residential quads and beyond to the proposed stormwater management pond and Stroubles Creek.
The phased nature of the Student Life Village’s development means there will be periods of time between phases when land is not utilized. Interim strategies for recreational, operational and educational uses of the landscapes should be explored.

**PHASE I**

In order to construct phase I, the existing Virginia Tech golf course will be taken off line. Only two fairways will remain unaffected by the development; they should not remain in use out of respect for the comfort and safety of the Village residents. Instead, the land could be dedicated as a nursery for growing trees at a low cost so that they are mature and ready to be transplanted into future phases of development.

This land could also be made available for short-term vegetation, land and water quality research.

Reforestation and enhancement of the ecological buffer should occur in or before phase I in order to ensure that a mature tree line has formed to protect future development.

Above-ground stormwater infrastructure needs to be constructed in phase I but finish landscaping can wait until Phase II.

**PHASE II**

To minimize capital outlay in phase I, the central green will not be completed until phase II.

This space should be prioritized for landscape investments as it will become the Village’s iconic green space feature. Trees that have been cultivated in phase I can be moved to this landscape so that it has the appearance of mature age even shortly after completion.
SUSTAINABLE LANDSCAPES

THE STUDENT LIFE VILLAGE PLANNING REPORT

The way landscapes are constructed and maintained are part of the site’s overall greenhouse gas emissions portfolio as well as a crucial part of the health of the local ecosystem.

EMISSIONS AVOIDED THROUGH CONSERVATION

The conservation of heritage trees for reuse in the Village’s new green spaces will reduce the embodied carbon footprint associated with growing, transporting and planting new trees on the site. The possible use of undeveloped land in the period between phase I and II as a tree nursery will also reduce the transportation emissions associated with sourcing new trees for the landscape.

SUSTAINABLE STORMWATER MANAGEMENT

The Village’s stormwater strategy directs stormwater to a regionalized infrastructure of a vegetation enhanced stream channel and centralized wet-pond. Most water from roofs and pavements is sent directly to storm pipes which daylight in the vegetation enhanced stream channel. This limits pollution and erosion impacts on the landscape areas of the central green, neighborhood green and quads, protecting soils.

SOIL HEALTH

Healthy soils are a critical carbon sink. Erosion, fertility loss, compaction and pollution all reduce soil health and thus the ability of the soil to sequester carbon. Protecting soil health is a holistic effort that has two main components: protection during construction and life-cycle maintenance:

- During construction heavy machinery has the potential to permanently damage soil health requiring that new soil be introduced at additional expense and extra use. Confine traffic to designated routes to limit impact to soil. The Village site work requires a small amount of cut and fill. Cut soil should be stockpiled, keeping it dry prevents nutrient leaching and compaction.
- Throughout its lifetime, the residents and operators of the Village will have a responsibility to safeguard soil health. Education and engagement early on is critical to creating a culture of stewardship. Keeping soils vegetated year-round prevents erosion and nutrient loss. Damaged planting areas should quickly be replaced or protected.

DEAD AND DECAYING MATERIAL

Wherever possible, leaving dead and decaying material in place contributes to the long-term fertility of the soil and sends some carbon back into the site’s soil biomass rather than the atmosphere.

THE WET POND

The wet pond, when properly maintained, has the potential to act as a carbon sink and wildlife asset for the Village. The most important measures are to control erosion to limit sediment deposit and turbidity of the pond and maintain proper dissolved oxygen levels to prevent the emission of methane. Features like cascade and riffles can contribute to aeration of the water while maintaining a natural appearance.

MAINTENANCE

Lawnmowers are sources of greenhouse-gas emissions. Where programming of the landscape allows, designing low-mow lawns and meadows reduces the use of lawnmowers. Selecting plants well adapted to local climates and pests can limit the need for chemical fertilizers or pesticides. Consider the use of manual or electric landscape tools instead of gasoline engines.

THE ECOLOGICAL BUFFER

The proposed ecological buffer will protect both human and nonhuman residents of the Village from deleterious noise, light and particulate pollution from the adjacent highway 460 as well as function as a wildlife corridor and area where native vegetation should be allowed to grow more thickly. It is recommended to leave dead and decaying wood in the ecological buffer to help restore soil health and build up a robust forest ecosystem that is resilient against invasive species and human disturbance. Early in the ecological buffer’s restoration and reforestation, active control of invasive species will be required.

THE WILDLIFE CORRIDORS

The structure of the Village landscape creates a series of continuous wildlife corridors through which local fauna can move. This is critical to seed dispersal, maintaining trophic balance on the site (prey-predator balance) and keeping wildlife off roads.

LANDSCAPING WASTES

Depending on how it is processed, landscape wastes can have large or minimal climate impacts. Aerobic decay of landscape wastes releases carbon which is preferable to anaerobic decay which releases the more potent greenhouse gas, methane. Landscape waste can be conventionally composted to recycle nutrients back into the soil or sent to bio-gas digesters where it is converted to a carbon-neutral fuel.
**GRADING STRATEGY**

The Student Life Village Plan works with the native topography as much as possible to maintain accessible routes and acceptable road grades with a minimum of cut and fill.

**NATURALIZED REGRADING**

Where possible, naturalized regrading is the preferred design strategy. Regraded slopes should be gentle and incorporate variations that mimic natural micro-topography.

**SEAT WALLS**

If required, retaining walls should be low and subtle stone walls with caps that can double in function as seating. A portion of any seat walls, as with all site amenities, should be made accessible.

**DISPOSAL**

In phases where there is more cut than fill and soil disposal is required, limit the distance soil needs to be hauled for disposal by coordinating with other projects. If appropriate within the landscape design, consider the use of extra soils to construct earthen berms at strategic locations.

**TREE PROTECTION**

The roots of trees to be conserved should be protected during regrading. Soil around roots should not be excavated nor buried with additional soil. Cut and fill should not encroach on critical root zones whenever possible.

A preliminary analysis shows that the site will require excavation in phase I in order to construct the Transit Plaza, Phase I Dining and adjacent parking and roads. Additional excavation will be needed for the pathways to climb the edges of the central green at an accessible slope. A large amount of fill will be required to construct the embankment to retain the wet pond to the south. In detail design, the engineering and design team should work to balance cut and fill and optimize for the least possible regrading.
Program

The Student Life Village will be more than a place to sleep. It will be a complete community, a home and place to extend the educational and social missions of Virginia Tech into students’ daily life. To create a Village that is both a complete home for its residents and a destination for the rest of the Virginia Tech community, requires a mix of programmed space for connecting, creating, collaborating and caring.

Program Overview

- Student Beds: 1,458,394 GSF
- Residential Units: 5000
- Indoor Dining Seats: 1250
- GSF per bed: 3312
- Enrichment: 282,300 GSF
- Residential: 1,458,394 GSF
- Total: 1,927,344 GSF
Residential Program

As a residential district, the residential program is core to the Student Life Village’s goals. With affordability and flexibility as key principles, the program seeks to establish a framework in which many different residential communities can form and change overtime. Affordability will mean finding a balance between resident privacy and space efficiency. Benchmark data from recent student housing projects in Virginia and the Carolinas were used to set a target for the residential space efficiency of the Student Life Village.

**BENCHMARKS**

Space efficiency of recent student housing projects in Virginia and the Carolinas

<table>
<thead>
<tr>
<th>Project</th>
<th>GSF/Bed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberty</td>
<td>396</td>
</tr>
<tr>
<td>Duke</td>
<td>404</td>
</tr>
<tr>
<td>Clemson</td>
<td>369</td>
</tr>
<tr>
<td>NC State</td>
<td>372</td>
</tr>
<tr>
<td>UNC Chapel Hill</td>
<td>369</td>
</tr>
<tr>
<td>U of SC</td>
<td>372</td>
</tr>
<tr>
<td>Converse</td>
<td>369</td>
</tr>
<tr>
<td>UNC Charlotte</td>
<td>396</td>
</tr>
<tr>
<td>Wake Forest</td>
<td>396</td>
</tr>
<tr>
<td>Virginia Commonwealth</td>
<td>396</td>
</tr>
</tbody>
</table>

mean 369

target 300

**STRATEGY**

guarantee inclusive and diverse housing options for a student’s full educational career through a balanced and efficient mix of unit types
RESIDENTIAL TARGETS

These demographic targets for the residential community are provided to help guide the design and programming of buildings with the understanding that demographics change and the Village should be flexible enough to adapt to changes in program affiliation and student cohort distributions year to year.

TOTAL BED TARGET

The total bed count for the Village was proposed by Virginia Tech as a high target to ensure the University is positioned with options and flexibility to increase and modernize its on-campus housing. This will maximize the flexibility to accommodate current demand for living-learning programs and compensate for future loss of housing inventory on campus as existing stock is renovated.

TARGETS BY ACADEMIC YEAR

The targets by academic year are goals that will never be perfectly met year to year. These targets emphasize the strategy of the Village residential program to retain students as they enter upper division years through living-learning programs and age appropriate housing choices.

FRATERNITIES AND SORORITIES

The existing housing community at Oak Lane is composed mostly of fraternity and sorority residents and these residents need to be rehoused within phase II of the Village project in order to prepare Oak Lane for phase III development. The Student Life Village will provide flexible housing for fraternities and sororities in the same kind of spaces used by Living-Learning Programs (LLPs), such that, as fraternities and sororities ebb and flow, residential units can easily be redeployed to other programs.

TARGETS BY RESIDENTIAL PROGRAM AFFILIATION

Residential programs are communities of residents engaged in common missions, co-curricular and extracurricular activities and who work together to form a unique identity within the Village. The Student Life Village will take the bold step of having all students affiliated in a residential program of some kind to encourage community formation and long-term retention.

GRAD LIFE

Graduate students will be the only group with purpose-built housing in the Village geared specifically towards the needs and community structure of older students.
UNIT TYPES

These unit types were developed to cover a diversity of living styles and needs for the Village. Architectural configurations are for demonstration only and variations within these types can be further explored through architectural design.

COMMUNITY DOUBLE
A community double is a double occupancy room without a private bathroom or kitchenette, most appropriate for students new to the Virginia Tech community, whose roommate will be a catalyst in the development of their social network. Bathrooms are located in shared clusters within the resident’s corridor.

COMMUNITY SINGLE
A community single is a single occupancy room without a private bathroom or kitchenette, most appropriate for upper division students and students who have medical needs. Singles will have two different sizes to provide a range of price points for students: standard and pod. Bathrooms are located in shared clusters within the resident’s corridor.

SUITE
A suite is composed of multiple single occupancy rooms connected to a shared corridor and bathroom(s). A suite is most appropriate for groups of friends who want to live together and who value the privacy of a bathroom shared between fewer students.

MICRO
A micro is a single occupancy unit with a space-saver bed, small kitchenette and private bathroom, suitable for graduate students and upper division students transitioning to independent lifestyles.

APARTMENTS (2 AND 3 BEDROOM)
Apartments have multiple large single occupancy rooms connected to a full kitchen and living space and private bathrooms. Apartments are most suitable for graduate students and adult staff. They are not envisioned for use by undergraduates in the Village.
UNIT MIX

The unit mix strategy provides mostly community style single and double occupancy units in order to maintain affordability and increase the amount that can be invested in attractive amenities and enrichment programs. This mix of units should continue to be refined to represent a balance of the needs of space efficiency and affordability with a desire to provide privacy and age appropriate living situations that will retain upper division students.

UNIT MIX BY PHASE

Phase I and II of work will concentrate on providing undergraduate housing to meet growing demand and free up space for core-campus renovations. Phase III will add graduate housing to the mix.

UNIT MIX AT FULL CONSTRUCTION

5000 beds
BATHROOM STRATEGY

For unit types that do not have a proprietary bathroom, a “Cluster” bathroom strategy is proposed. Cluster bathrooms will include single-occupancy toilet and shower rooms along common wet-walls. This will save money on plumbing and reduce the total number of fixtures needed by improving the utilization rate of each fixture. These preliminary bed-to-fixture ratios are proposed as a starting point but can vary from building to building and as the Village evolves.

STAFFING STRATEGY

Virginia Tech’s housing staff system is currently undergoing changes to increase flexibility in community structure while advancing well-being goals. There are three kinds of residential staff:

STUDENT LEADERS
Student leaders are enrolled students who receive a stipend and free housing in exchange for supporting the residential community. They live in the community in student housing units.

PROFESSIONAL COORDINATORS
Professional coordinators are full-time adult staff who support student well-being and support daily life. Some professional coordinators need to live in the Village.

LLP STAFF
Living-learning Programs require various staff roles depending on the nature of the program and can include program directors and faculty principals. Faculty principals live in the community.

PRELIMINARY STAFFING RATIOS (STAFF PER RESIDENT)

RESIDENTIAL SPACE NEEDS

A large portion of residential space needs falls under circulation, utilities and support. This graphic provides a visualization of how the number of units translates to disproportional space needs based on their comparative efficiency. 1,458,394 GSF
292 GSF/BED

COMMUNITY DOUBLES
2504 BEDS IN 1252 UNITS
338,040 GSF

COMMUNITY SINGLES
1628 BEDS IN 1628 UNITS
282,472 GSF

CIRCULATION, UTILITIES & SUPPORT
396,250 GSF

SHARED BATHROOMS FOR COMMUNITY UNITS
157,200 GSF

SUITES
528 BEDS IN 176 UNITS
155,760 GSF

MICROS
196 BEDS IN 196 UNITS
51,352 GSF

APARTMENTS
144 BEDS IN 60 UNITS
67,320 GSF

Well-Being Leader 1:150
Managing Directors for Well-being and Inclusion 1:2000
Coordinators for case management and administration 1:2000
Faculty Principals as needed
Program Coordinators as needed

Experience VT Leader 1:150
Coordinators for Well-being 1:1200
Embedded Counselors 1:1200

Diversity and Inclusion Leader 1:150
Coordinator for Experience VT 1:1200

Experience
VT
Leaders
Coordinators
for
Case
Management
and Administration
Managing Directors
for
Well-Being
and Inclusion
Coordinators
for
Well-Being
Faculty
Principals
Embedded Counselors
Program Coordinators
Coordinator for Experience VT

Coordinators for Well-Being and Inclusion

2504 Bed Community Doubles

338,040 GSF

396,250 GSF

157,200 GSF

155,760 GSF

51,352 GSF

67,320 GSF

1,458,394 GSF

292 GSF/BED

Well-Being
Leader
Managing Directors
for Well-Being
and Inclusion
Coordinators
for Case
Management
and Administration
Faculty
Principals
Embedded Counselors
Program Coordinators
Coordinator for Experience VT
Dining at The Student Life Village builds on the successful model of existing “destination concept” dining facilities on the Virginia Tech campus. These facilities mix commercial franchises and unique serving venues to give students a diversity of options within a single marketplace setting.

**STRATEGY**

Leverage the power of food to provide a sense of community and belonging to a diverse student population, continuing the expected standard of excellence in the Virginia Tech dining system.

**BENCHMARKS**

Space use and transaction efficiency of existing Virginia Tech “Destination Concept” dining facilities

- **WEST END MARKET**
  - Weekly Transactions Per Seat: 86.09
  - GSF of Space Per Seat, including all back of house, support, kitchen and servery space: 69.62

- **TURNER PLACE**
  - Weekly Transactions Per Seat: 64.94
  - GSF of Space Per Seat, including all back of house, support, kitchen and servery space: 53.61

- **OWENS**
  - Weekly Transactions Per Seat: 91.35
  - GSF of Space Per Seat, including all back of house, support, kitchen and servery space: 81.71

- **AVERAGE**
  - Weekly Transactions Per Seat: 80.79
  - GSF of Space Per Seat, including all back of house, support, kitchen and servery space: 68.31

September 2017 transaction data provided by Virginia Tech dining services.
SEAT NUMBERS AND SPACE NEEDS

Seat and space needs were calculated using Dining Services data from September 2017. This provides a rough, order-of-magnitude understanding of the space needs for dining in the Student Life Village, but additional demand analysis should be performed during architectural design phases.

Calculation:

**Weekly Transactions**

- **Per Student**: 15.4 transactions
- **Per Seat**: 80.79 transactions

**Space per Seat**

- **68.31 GSF**

**Calculated Space**

- **77,000 Weekly Transactions**
- **953 Seats**
- **65,099 GSF**

Minimum dining space recommended to support the Student Life Village.

**Dining Space Needs by Phase**

Phasing dining spaces is difficult because of the large amount of fixed equipment. To accommodate the growth of the Village, while still having sufficient dining space at all phases, the Student Life Village will be equipped with a large dining facility in phase I and a smaller satellite facility in phase II. The surplus of dining room space needs experienced between the completion of phase I and II can become additional enrichment space and/or attract customers from outside the Village.

**Phase I Dining**

- **48,450 GSF**
- **600 seats in the marketplace hall**
- **300 seats in the community room**

**Phase III Dining**

- **28,100 GSF**
- **350 seats in the marketplace hall**

**Total Dining Space**

- **76,550 GSF**

In addition to the seats required to support routine transactions, the Student Life Village should have a community room, a flexible use space for private events associated with dining. Seats in the community room will be in addition to those supplied in the marketplace halls so they can be closed off during normal operations.
Well-Being Program

Well-Being is about more than fitness. A holistic approach to well-being includes emotional, social, physical and mental components. The Student Life Village emphasizes flexibility in its well-being spaces in order to allow residents to practice well-being in the way that makes sense for them. A focus on shared spaces, gatherings and spontaneous interactions also helps foster a sense of community which is critical to all aspects of human well-being.

### Benchmarks

**GSF of indoor recreation space per student at Virginia Tech and peer institutions.**

<table>
<thead>
<tr>
<th>Institution</th>
<th>GSF/student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old Dominion</td>
<td>5.3</td>
</tr>
<tr>
<td>Texas A&amp;M</td>
<td>6.8</td>
</tr>
<tr>
<td>Virginia Tech</td>
<td>7.4</td>
</tr>
<tr>
<td>Clemson</td>
<td>7.7</td>
</tr>
<tr>
<td>George Mason</td>
<td>8.0</td>
</tr>
<tr>
<td>Michigan</td>
<td>9.3</td>
</tr>
<tr>
<td>UT Austin</td>
<td>9.8</td>
</tr>
<tr>
<td>NC State</td>
<td>10.6</td>
</tr>
<tr>
<td>Georgia Tech</td>
<td>12.0</td>
</tr>
</tbody>
</table>

Existing needs: 1.56 gsf x 30,500 = 47,800 gsf
Village growth: 8.96 gsf x 3,770 = 33,779 gsf

47,800 gsf + 33,779 gsf = 81,579 gsf

### Recommendation

Virginia Tech currently provides 7.4 GSF of indoor recreation space for every enrolled student. To meet or exceed the NIRSA recommendation of 8.96 GSF/student while accommodating the increased population represented by the Village (net gain of ~3770 beds) would require building no less than 81,579 GSF of indoor recreation space.

**NIRSA recommended GSF/student**

8.96

**Existing needs**

1.56 gsf x 30,500 = 47,800 gsf

**Village growth**

8.96 gsf x 3,770 = 33,779 gsf

47,800 gsf + 33,779 gsf = 81,579 gsf

**Recommendation** = 81,579 gsf

Provide the variety of spaces needed to practice holistic well-being with the flexibility to adjust to ever-changing preferences.
**INDOOR WELL-BEING SPACES**

While most recreation spaces should be as flexible as possible, some purpose-built spaces were identified during the planning process. Additional space is allocated for support functions like staff and locker rooms.

- **INDOOR MULTI-PURPOSE FIELD**
  - 18,000 GSF

- **GATHERING & SPECTATOR SPACES, CIRCULATION AND RETAIL**
  - 12,300 GSF

- **MULTI-PURPOSE ROOMS**
  - 19,500 GSF

- **WEIGHT AND CARDIO ROOM**
  - 7,000 GSF
  - at a NIRSA recommended 14 GSF/student

- **MULTI-PURPOSE COURT**
  - 8,500 GSF

- **GAME ROOM**
  - 6,000 GSF

- **E-SPORTS ARENA**
  - 3,050 GSF

- **WELL-BEING OFFICES**
  - 2,000 GSF

- **Support**
  - 6,000 GSF

- **OUTDOOR WELL-BEING SPACES**

The entire Student Village landscape provides a diversity of outdoor spaces for well-being practices, from the meditative, technology-free zone at the interfaith chapel, to active basketball, volleyball and sports fields. Connections between indoor well-being programs and outdoor recreation facilities are important. The volleyball arena is located near Phase I Dining to utilize the outdoor dining terrace as spectator area. Rec fields abut the Student Life Commons so that its indoor training and locker-room spaces can be used in conjunction with sports. See chapter 5 for more on outdoor recreational spaces.

**PHASING STRATEGY**

Well-being spaces will be needed to serve residents in all phases. A small amount is proposed in phase I to correspond with the construction of Phase I Dining, while the remainder will be constructed in phase II as part of the Student Life Commons. This will balance the level of amenity provided with the need to minimize phase I capital outlay. Well-being spaces which do not require access to specialized recreation staff or access to a locker room should be included in Phase I. This would include multi-purpose rooms, game rooms and the e-sports arena.
Enrichment Program

Enrichment includes any space that integrates the university’s educational, social and developmental missions into residential life and helps accomplish the planning principle of Integration. Enrichment programs are what make the Village a “Living-learning Community.” Enrichment space is divided into two types: 1) Residential enrichment is located within residential buildings themselves and supports student socialization and Living-learning Programs within the residence; and 2) Shared enrichment space is located in amenity buildings and can be used for enrichment activities open to the entire Virginia Tech community as well as the Village’s own living-learning communities and other groups.

<table>
<thead>
<tr>
<th>BENCHMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSF of Enrichment Space per bed in different types of student life projects</td>
</tr>
</tbody>
</table>

- Typical upper division housing
- Typical first year housing
- Honors college at UConn
- Creativity and Innovation District at Virginia Tech
- Lassonde Institute at University of Utah

**MINIMUM = 50 GSF / BED**

**= 250,000 GSF**

A minimum of 50 GSF/student of enrichment space was identified during the planning process. If the plan goes below this number, it compromises the mission of the Village project.

**STRATEGY**

provide flexible spaces that can be routinely transformed to meet the needs of changing living-learning communities
PURPOSE-BUILT SPACES

Some living-learning programs and enrichment activities will require purpose-built spaces. Things like maker spaces, workshops, music rooms, performance space, and technology labs require certain fixed infrastructure that is difficult to change throughout the day and needs a dedicated space.

CATEGORIES OF ENRICHMENT SPACE

SHARED ENRICHMENT 31,250 GSF

Shared enrichment will be located in public amenity buildings where it is open to the entire Virginia Tech community while still supporting the programs of the Village’s living-learning communities. Shared enrichment will be distributed through each phase as a small component of each amenity building that will benefit from adjacency to dining and well-living programs.

FLEXIBLE LEARNING SPACES

Flexible learning spaces are spaces like classrooms and study lounges that can be adapted to move between formal curricular instruction, co-curricular collaboration, group study and informal gathering based on the time of day.

PURPOSE-BUILT SPACES

Some living-learning programs and enrichment activities will require purpose-built spaces. Things like maker spaces, workshops, music rooms, performance space, and technology labs require certain fixed infrastructure that is difficult to change throughout the day and needs a dedicated space.

AFFINITY SPACES

Affinity spaces are proprietary to the Village’s living-learning programs and would always be located within residential buildings. Affinity spaces should be flexible enough that they can be furnished to meet the needs of a wide range of living-learning programs that change from year to year. These spaces should provide opportunities for individual expression and branding associated with residential programs.

AFFINITY SPACES

Affinity spaces are proprietary to the Village’s living-learning programs and would always be located within residential buildings. Affinity spaces should be flexible enough that they can be furnished to meet the needs of a wide range of living-learning programs that change from year to year. These spaces should provide opportunities for individual expression and branding associated with residential programs.

RESIDENTIAL ENRICHMENT 251,050 GSF

Enrichment spaces located within residential buildings. These spaces are important to realizing the goals of living-learning communities and creating individual identities for each building. Because there are many buildings in the Student Life Village, Residential Enrichment has a far greater space need than shared enrichment.

GATHERING SPACES

Building gathering spaces include living-learning porches and multi-purpose rooms located at building entrances. These are not specifically dedicated to a single residential program but available to anyone in the building and their guests.

Multi-purpose rooms can serve both living-learning and fraternity/sorority program functions and should be associated with a communal kitchen.

Living-learning porches provide a space for casual gathering and exhibiting the activities of the LLPs.

Living-learning porches provide a space for casual gathering and exhibiting the activities of the LLPs.
OTHER SPACE NEEDS

MAIL & RESIDENT SUPPORT = 7,000 GSF

Mail services should be located at dining facilities for both student convenience and proximity to loading docks. Mail is proposed to be included in both Phase I and Phase III Dining facilities so no residence is too far from a mail center. Mail centers may also be used as a support desk for students to address other housing and operational needs. The use of package lockers should be considered to handle large volumes of online shopping deliveries while minimizing labor costs to the university.

OPERATIONS CENTER = 14,550 GSF

Operations spaces support the maintenance of both facilities and grounds at a Village scale and are in addition to custodial space already included in the gross square foot calculations of the other programs. The Operations Center includes garages, repair workshops, warehousing, and offices/touch down space for operations staff.

THE INTERFAITH CHAPEL = 6,950 GSF

The interfaith chapel is a special purpose program to support all student spiritual, meaning-making and meditative practices. It should include general purpose assembly and sanctuary space.
Buildings 07
Buildings

This chapter describes the basic building typologies required to create the student Village. It describes characteristics, including: building distribution, entry locations, general massing, and strategies for accommodating a range of student life programs. These typologies and characteristics are critical to the success of the Village, while still allowing for flexibility as the individual phases, projects, and specific programs are refined and scheduled.

GOALS

01 AFFORDABLE
The buildings must be constructed to achieve the highest value for the available resources. Materials and construction technology will be selected to meet this goal. This criterion supports the mandate of providing financially accessible housing for all Village residents.

02 HOKIE SPIRIT
The spirit of Virginia Tech must be manifest in the Village such that the community is an integral part of the larger campus environment. This spirit includes organizational principles, such as human scaled residential quadrangles as well as supporting iconography such as use of Hokie Stone in the landscape, campus standard elements and opportunities for seasonal and celebratory signage.

03 SITE RESPONSIVE
The existing site is a tremendous resource to help define the character of the future Village. The buildings will be arranged to respond to existing topography, heritage trees, views and accessible pathways. This responsiveness will tie the Village to the unique sense of place that is characteristic of the region.

04 HUMAN SCALED
It is important that this community of 5000 students is defined by human scale. All buildings must be responsive to human scale in terms of massing, fenestration and their role in shaping the size and character of open spaces including quadrangles, open spaces, pathways and roads. Residential forms should communicate a sense of home.
BUILDING TYPES
Three basic building types are proposed to support program objectives of the Student Life Village and to physically define the new student life environment.

RESIDENTIAL
The majority of the proposed buildings are student residences. These are distributed across the site and will provide the overall fabric of the Village and shape student communities.

AMENITY
Amenity buildings support non-residential student life programs, including dining and recreation. These buildings are generally larger than the residential building stock, fewer in number, and have a privileged location at mobility nodes. Each phase of development will be anchored by an amenity building so that amenity space grows in tandem with the growth of the Village population.

UTILITY
Utility buildings are positioned to maximize operational efficiency while remaining in the background of open space definition. These buildings will be practical while maintaining appropriately detailed public-facing facades.
RESIDENTIAL BUILDINGS
The following parameters should be met when designing the residential buildings. These are intended as an inclusive set and when addressed together will reflect the desired scale and character of these buildings within the Village.

PARAMETERS

SHORT SPANS
Reflecting the unit types, creating thin footprints, ample access to daylight, and allowing for a range of construction technologies including stick built.

FOUR STORIES
Maintains human scale and allows most floors to be easily accessible by stairs.

FLOOR-TO-FLOOR
Prioritize common areas for high ceiling heights will limiting floor-to-floor dimensions in residential areas for efficiency.

ROOF SCAPE
Utilize gabled roof profiles to provide a residential character and human scale. Where appropriate with programming goals and budgetary constraints, traditional and shed dormers can add additional interest to the roof-scape and conceal MEP equipment.

SPACE USE FOR EXAMPLE RESIDENTIAL QUAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Square Feet</th>
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<tbody>
<tr>
<td>Dwarbles</td>
<td>224 beds</td>
</tr>
<tr>
<td>Singles</td>
<td>116 beds</td>
</tr>
<tr>
<td>Suites</td>
<td>28 beds</td>
</tr>
<tr>
<td>Pod Singles</td>
<td>28 beds</td>
</tr>
<tr>
<td>Micros</td>
<td>12 beds</td>
</tr>
<tr>
<td>Staff apartment</td>
<td>2 beds</td>
</tr>
</tbody>
</table>

Total: 151,203 GSF

RESIDENTIAL UNITS
8370 GSF

*The attics of each building (found within the gable roof) are envisioned as tempered space for horizontal utility runs and concealing mechanical equipment. This space is not reflected in this calculation.

PROJECTED NUMBER OF BEDS IN EACH QUAD

<table>
<thead>
<tr>
<th>Bed Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doubles</td>
<td>224</td>
</tr>
<tr>
<td>Singles</td>
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<td>Pod Singles</td>
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<tr>
<td>Suites</td>
<td>72</td>
</tr>
<tr>
<td>Micros</td>
<td>12</td>
</tr>
<tr>
<td>Staff</td>
<td>2</td>
</tr>
</tbody>
</table>

452 beds + 1 staff apartment

Doubles: 224 beds
Singles: 116 beds
Pod Singles: 28 beds
Suites: 72 beds
Micros: 12 beds
Staff apartment: 2 beds
UNIT TYPES
The residential buildings will include a range of unit types designed in response to the range of communities represented, financial needs, and student development goals. These unit types include:

**COMMUNITY DOUBLES, SINGLES AND PODS**
These bedrooms, located off a common hallway, share lounge spaces, community bathrooms with privacy gradients, and are most suitable for first- or second-year students. Pods offer an option for students desiring private space on a tight budget.

**SUITES**
These units include bathrooms dedicated to their specific occupants. These are most suitable for second- and third-year students, but are also able to accommodate first years.

**MICROS**
A micro is a single occupancy unit with a space-saver bed, small kitchenette and private bathroom, suitable for graduate students and upper division students.

**APARTMENTS (2 AND 3 BEDROOM)**
Apartments have multiple large single occupancy rooms connected to a full kitchen and living space and private bathrooms. They are envisioned for use by graduate students in the Village.

**BLOCK TYPES**
Blocks are conceived of as standard modules of four floors. Each floor is identical for maximum framing and plumbing efficiency. Bathroom clusters for community units are shown in light blue.

**SHARED BATHROOMS : A, B & B-2**
- **TYPE A = 68 BEDS**
  - 40 beds in 20 doubles
  - 28 beds in 28 standard singles
- **TYPE B = 104 BEDS**
  - 64 beds in 32 doubles
  - 40 beds in 40 standard singles
- **TYPE B-2 = 128 BEDS**
  - 80 beds in 40 doubles
  - 48 beds in 48 standard singles

**PRIVATE BATHROOMS: C, D & E**
- **TYPE C = 56 BEDS**
  - 48 beds in 16 suites
  - 8 beds in 4 micros
- **TYPE D = 48 BEDS**
  - 48 beds in 48 micros
- **TYPE E = 68 BEDS**
  - 20 beds in 20 micros
  - 24 beds in 12 two-bedroom apartments
  - 24 beds in 8 three-bedroom apartments

**MIXED BATHROOMS: F**
Type F blocks are unique in that they mix units with and without private bathrooms. From a plumbing perspective this introduces inefficiencies, as Type F blocks are deployed sparingly to diversify unit type offerings within quads.
- **TYPE F = 96 BEDS**
  - 40 beds in 20 doubles
  - 28 beds in 28 post singles
  - 24 beds in 8 suites
  - 4 beds in 4 micros
**DISTRIBUTION CONCEPT**

Blocks are organized into quads to match the target distribution of unit types for each phase and ensure that no quad or neighborhood is dominated by a single type of unit. The proposed distribution of blocks and units by phase is as follows:

<table>
<thead>
<tr>
<th>Block Type</th>
<th>Block QTY</th>
<th>Singles</th>
<th>Pod Singles</th>
<th>Doubles</th>
<th>Suites</th>
<th>Micros</th>
<th>2 bed</th>
<th>3 bed</th>
<th>PHASE TOTALS</th>
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</tbody>
</table>

**PROJECTED NUMBER OF BEDS IN EACH QUAD**
BUILDINGS

THE STUDENT LIFE VILLAGE PLANNING REPORT

MASSING STRATEGY

Building forms should be simple rectangular shapes and respond to the local topography of each specific site, stepping in parallel to the change in the elevation of the ground plane. Overall richness, scale, character and connection to the local environment will be established by this stepped massing. Subtle shifts in placement accommodate site conditions rather than through highly articulated volumes or complex shapes.

RESIDENTIAL ENRICHMENT AND IDENTITY

The identity of the residential communities will be established by their unique position and orientation within the overall Village district as well as in the enrichment spaces where Living-learning Programs (LLPs) will furnish and co-create spaces to suit their missions. The local character of the landscape, building orientation, entry placement and transparency to interior common spaces will be perceived by students walking among the neighborhoods and provide an enriched environment, community identity and individual orientation.

LIVING-LEARNING PORCHES

Enrichment activities center on a main entrance, called the living-learning porch, which contains the building’s primary vertical circulation and creates a space of interaction between the building’s living learning programs (LLPs) and the public. Aptly named a “porch”, these spaces are moments of interface between the indoors and outdoors, between the building and the Village. These spaces will be constantly shaped and reshaped by the LLPs as they exhibit their work and establish identity.

CONNECTORS

To maintain human scaled development, a dynamic rooftcape and the granular texture of a Village, each residential block should appear as its own building. However, for ease of operations, economy of scale and to limit the number of vertical circulation and utility cores, several blocks will be linked together as a residential quad. Connectors are spaces between the blocks that allow the quad to read as individual units while functioning as a single building. These are also important spaces for carving out proprietary affinity spaces, chapter rooms and lounges specific to the activities of the living learning programs.

Section

This section demonstrates how the use of individual housing blocks joined by flexible “connector” spaces allows built form to navigate changes in grade with a minimum of cut and fill.
FLOOR PLANS

Block types should be assembled into floor plans forming residential quadrangles or quads. While all four floors of a block should be identical for framing and plumbing efficiency, different blocks can be mixed within each quad to provide a diversity of unit types. Common spaces should be placed at the intersection of the residential block types providing central social spaces and formal opportunities for resolution of differing site-driven geometries. Building entries should be located at these intersections and be closely coordinated with the accessible pathway network. Careful attention should be given to maintaining the proper bed to plumbing fixture ratio across the blocks. These blocks primarily indicate student units and bathrooms; however, they need to be coordinated with the overall building floor plans to ensure proper distribution and inclusion of mechanical support areas.

GROUND FLOOR

The accessible entrance to the building, the Living-learning Porch, acts as the vertical circulation core connecting the different levels of the quad’s east and west wings.

TYPICAL FLOOR

On a typical floor, connectors allow movement between different blocks and become a place for informal gathering and affinity spaces.
SUSTAINABILITY OPPORTUNITIES

The architectural design process should explore a number of opportunities to meet Virginia Tech’s climate action commitments and sustainability goals. Overall buildings should be climate responsive, taking advantage of ‘free’ energy available from the sun and wind.

**ORIENTATION**
To the degree possible with the topographical constraints of the site, residential rooms are oriented with windows facing north or south to optimize solar control.

**DAYLIGHTING**
Most spaces, especially the connector and enrichment spaces, will have ample daylighting, reducing demand on electric lighting and adding to winter solar gains.

**PASSIVE VENTILATION**
The public spaces and vertical circulation cores can be passively ventilated via heat stack effects and operable/automated fenestration for cross ventilation.

**SOLAR PV**
Roof-top solar PV panels take advantage of sloped roof structures to generate clean, cost-effective electricity.

**SPACING**
Buildings should be spaced far enough apart to permit direct winter solar gains and natural daylighting.

**OUTDOOR THERMAL COMFORT**
Quads will be well protected from wind and full of vegetation to keep the air cool. Variations in shady and sunny sides of the quads will allow users to adapt to seasonal change.

**STORMWATER MANAGEMENT**
Water falling directly on the quad should drain to a yard inlet set back from building surfaces. A "rain garden" can be planted around this inlet to mitigate loads on stormwater infrastructure and maintain cool evapotranspiration.

**INDOOR AIR QUALITY**
Building design should select for low VOC and allergen-aware materials and achieve high rates of ventilation and filtration, to promote indoor air quality and resident well-being.

**ORIENTATION**
To the degree possible with the topographical constraints of the site, residential rooms are oriented with windows facing north or south to optimize solar control.

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The public spaces and vertical circulation cores can be passively ventilated via heat stack effects and operable/automated fenestration for cross ventilation.

**SOLAR PV**
Roof-top solar PV panels take advantage of sloped roof structures to generate clean, cost-effective electricity.

**INTEGRATED DESIGN**
A smartly designed and cost-effective envelope will have R values in excess of code minimums and double glazed fenestration. Resident areas should have a window to wall ratio of no greater than 30%.

**EMBODIED CARBON**
Embodied carbon is a measure of the amount of greenhouse gas emissions involved in the production, distribution and installation of building materials. High embodied carbon materials like concrete should be kept to a minimum in residential buildings. These buildings are not envisioned to have basements, minimizing the amount of concrete required in foundations. The 4-story design can be built with dimensional lumber framing, with low embodied carbon.
AMENITY BUILDINGS

The following parameters should be met when designing the amenity buildings. These are intended as an inclusive set and when addressed together will reflect the desired scale and character of these buildings within the Village.

PARAMETERS

- **PERMEABLE FACADES**
  
  Indoor-Outdoor relationships - To provide connection and encourage engagement with interior programs

- **GLAZING AND NATURAL LIGHT**
  
  Ample glass facades and clerestories to deliver daylight to the center of deep footprints and enhance general well-being

- **SCALE**
  
  Utilize strategies to reduce the perceived size of the buildings into smaller components

- **ROOF SCAPE**
  
  Utilize roof profiles to articulate building zones and provide scale, see above

- **STREETSCAPE AND PUBLIC REALM**
  
  Design building facades as components of an articulated public realm and associated streetscape including utilizing arcades, porches, and trellises to support outdoor informal and programmed activities.

- **CLEAR FRONT AND BACK**
  
  Service and loading areas should be removed from public facing building frontage, while still providing space for ease of operation.
THE GATEWAY

Together the Phase I Dining, Student Life Commons and Transit Plaza form a gateway to the Village providing a common point of entry and exit for all residents that allows them to conveniently access amenities on their way to and from home and promotes spontaneous encounters between neighbors. The concept for the Gateway negotiates a change in topography from the north to the south of the site. Design of transit, landscape and both buildings should be approached as a comprehensive whole, even if components of the Gateway are constructed in separate phases.

Parking at the Student Life Commons is tiered to negotiate grade changes with a maximum of cut and fill.

The Field House is envisioned to meet the campus’s current unmet demand for an all-season sports field. It is sized for indoor soccer but can be used for general athletics and large events.

A staple of any fitness center, the Cardio and Weight rooms are envisioned as a central core of the Student Life Commons.

The “Living Room” is an informal lounge that could be connected to retail spaces and act as a bridge between the athletics/recreation and enrichment uses of the Student Life Commons.

Ground floor spaces facing the Transit Plaza would create an “indoor street” of cafes and grab-and-go retail.

The main dining room would have multiple serving venues, punctuating a light-filled double-height seating space with mezzanines facing the volleyball arena and dining terrace to the west.

The “Event Mode” would enable the Transit Plaza to host large events.

The community room should be designed to flexibly transition from general dining to private events.

The Kitchen and other back of house spaces bridge the service entrance and the dining room where food will be served.

The E-sports arena is envisioned to fill an existing gap in Virginia Tech’s recreational offerings with a flexible gaming space including room for spectators.

The service entrance is tucked into the side of the building with 3-4 bays for food deliveries and waste pick-up.
THE GATEWAY
The Gateway reinforces the experience of a shared journey to and from campus by funneling visitors into a common gathering space. The Gateway has a highly visible facade that forms a streetscape looking toward campus. The design and landscape of this facade should receive special attention.

THE GATEWAY - SPACE USE
The Gateway buildings create a blend of dining, well-being and enrichment spaces that should function together as a whole in which each use provides positive adjacency to the next.

PHASE I DINING = 88,750 GSF
The Phase I Dining building would be used mostly as a dining space but also includes a wing for general purpose well-being and enrichment spaces that supports phase I until the Student Life Commons is complete in phase II.

PHASE II: STUDENT LIFE COMMONS = 76,550 GSF
The Student Life Commons is dedicated to well-being and enrichment spaces for use by the entire Virginia Tech community. The Commons supplements existing on-campus recreational spaces and provides opportunities for holistic well-being programming with support offices, social spaces, multi-purpose rooms, indoor courts and an indoor field.

*Attic and basement utility spaces are not included in this calculation.
Phase III Dining will supplement the main, Phase I Dining with a smaller “marketplace” hall concept that offers a food option closer to the residents of phase II and III. It is critical to allowing food service capacity to grow in tandem with the Village’s growth. It will also act as a transit hub and anchor for events in adjacent outdoor spaces.

**UTILITY BUILDINGS**

The following parameters should be met when designing the utility buildings. These are intended as an inclusive set and when addressed together will reflect the desired scale and character of these buildings within the Village.

**PARAMETERS**

- **SIMPLE CONSTRUCTION**
  - Utilize simple, economical construction that easily addresses specific program needs

- **FLEXIBLE USE**
  - Able to accommodate changes in program without significant renovations

- **CONTRIBUTION TO THE PUBLIC REALM**
  - Be discrete and unobtrusive, but still be designed to acknowledge their public presence and contribution to the community

**THE OPERATIONS CENTER**

The Operations Center will be a flexible, warehouse-like space with garage bays for service vehicles/utility carts, repair workshops, carpentry shops, storage and operations staff offices and touch down space. This facility will likely need to adapt to changing needs overtime. A public plaza on the operations center’s street facade can be used for pedestrian/bike access and opportunities outdoor seating and amenities for the Village staff.
PASSIVE VENTILATION
Clerestory windows, skylights and large curtain walls can be automated for passive ventilation and night flushing of the double and triple height spaces.

DAYLIGHTING
With deep floor plates proper daylighting of the amenity buildings will require use of large glazed surfaces and skylights and/or clerestories.

OVERHANGS & LOUVERS
Extensive curtain walls like those on the amenity buildings should have south facing overhangs to block the high-altitude mid-summer sun and east and west vertical louvers to control glare at dawn and dusk.

SUSTAINABILITY OPPORTUNITIES
Amenity buildings will have large spaces with high occupant loads. Tactical investments in sustainable technologies will have high returns for these buildings and they should be considered for certification programs like LEED or WELL.

INDOOR AIR QUALITY
Proper ventilation of kitchens is extremely important to maintaining indoor air quality. Indoor air quality will also be substantially improved with an all-electric set of kitchen appliances.

CURTAIN WALL
The large curtain walls needed to light the amenity buildings should have high performance specifications. Consider the use of a double skin, low-e glass and fritting.

HEAT EXCHANGE
Dining spaces have a large number of occupants and appliances producing heat. Thus they are cooling dominated spaces, even in winter. Waste heat from these spaces can be used for heating-dominated residential buildings (see thermal energy).

ALL-ELECTRIC KITCHENS
Culinary grade electric kitchen appliances have advanced to the level where almost all of a dining hall’s menu items can be produced without the use of fossil fuels. Adopting these appliances will reduce the carbon footprint of the university food system.

FOOD WASTE RECOVERY
Food waste should be sent to bio-gas or composting facilities rather than conventional landfill.

REFRIGERATION HEAT RECOVERY
Waste heat from large refrigeration systems can be used to heat water for taps or exchanged via a heat pump loop (see thermal energy).

NOISE POLLUTION
Utility spaces and student spaces should be separated by assemblies with high acoustic ratings. The design should incorporate acoustic paneling, sound clouds and sound absorbing materials to improve acoustic comfort in large public spaces.

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Clerestory windows, skylights and large curtain walls can be automated for passive ventilation and night flushing of the double and triple height spaces.

DAYLIGHTING
With deep floor plates proper daylighting of the amenity buildings will require use of large glazed surfaces and skylights and/or clerestories.

OVERHANGS & LOUVERS
Extensive curtain walls like those on the amenity buildings should have south facing overhangs to block the high-altitude mid-summer sun and east and west vertical louvers to control glare at dawn and dusk.

SUSTAINABILITY OPPORTUNITIES
Amenity buildings will have large spaces with high occupant loads. Tactical investments in sustainable technologies will have high returns for these buildings and they should be considered for certification programs like LEED or WELL.

PASSIVE VENTILATION
Clerestory windows, skylights and large curtain walls can be automated for passive ventilation and night flushing of the double and triple height spaces.

DAYLIGHTING
With deep floor plates proper daylighting of the amenity buildings will require use of large glazed surfaces and skylights and/or clerestories.

OVERHANGS & LOUVERS
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DAYLIGHTING
With deep floor plates proper daylighting of the amenity buildings will require use of large glazed surfaces and skylights and/or clerestories.

OVERHANGS & LOUVERS
Extensive curtain walls like those on the amenity buildings should have south facing overhangs to block the high-altitude mid-summer sun and east and west vertical louvers to control glare at dawn and dusk.
In overall texture and massing, the buildings of the Student Life Village should remain simple and contextually appropriate, a frame that accentuates the landscape and draws attention to student life and place-making activities.
Resolution to Adopt the Student Life Village Master Plan as a Supplement to the Campus Master Plan

Frances Keene
Interim Vice President for Student Affairs

Bob Broyden
Associate Vice President Campus Planning and Capital Financing

Liza Morris
Assistant Vice President for Planning and University Architect

August 22, 2022
STRATEGIC GOAL & QUESTIONS

Goal
Expand the capacity for on-campus residential living.

Questions
• Can we identify an area of sufficient size to accommodate ~5,000 beds plus support facilities to provide a full-service community?
• Can the community be implemented in phases over time?
• Can the location support alternative design and construction methods to control costs for the university and students?
• Can we address these questions with results that are appealing to students?
That the above resolution adopting the 2022 Student Life Village Master Plan as a supplement to the Campus Master Plan be approved.
The Committee Chair will discuss future agenda items and make closing remarks.
## Agenda Item

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<thead>
<tr>
<th>Agenda Item</th>
<th>Reporting Responsibility</th>
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<td>Committee Member</td>
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<td>2. Welcome and Introductory Remarks</td>
<td>Committee Chair</td>
</tr>
<tr>
<td>3. Consent Agenda</td>
<td>Committee Chair</td>
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<tr>
<td>a. Minutes from the June 6, 2022 Meeting</td>
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<tr>
<td>b. Update of Responses to Open Internal Audit Comments</td>
<td></td>
</tr>
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<td>c. Audit Plan Status Report</td>
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<td>d. Internal Audit Reports</td>
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<tr>
<td>i. Agricultural Research and Extension Centers</td>
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<td>ii. Biological Sciences</td>
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<td>e. Status Update on the Audit of the University’s Financial Statements</td>
<td></td>
</tr>
<tr>
<td>5. OARC Annual Report</td>
<td>Sharon Kurek</td>
</tr>
<tr>
<td>6. Review and Approval of Charters</td>
<td>Sharon Kurek</td>
</tr>
<tr>
<td>a. Compliance, Audit, and Risk Committee Charter</td>
<td></td>
</tr>
<tr>
<td>b. Charter for the Office of Audit, Risk, and Compliance</td>
<td></td>
</tr>
<tr>
<td>7. Discussion of Future Topics</td>
<td>Committee Chair</td>
</tr>
</tbody>
</table>
Compliance, Audit, and Risk Open Session

1. **Motion to Reconvene in Open Session:** Motion to begin open session.

2. **Welcome and Introductory Remarks:** The chair of the Compliance, Audit, and Risk Committee will provide opening remarks.

3. **Consent Agenda:** The Committee will consider for approval and acceptance the items listed on the Consent Agenda.

   a. **Minutes from the June 6, 2022 Meeting:** The Committee will review and approve the minutes of the June 6, 2022 meeting.

   b. **Update of Responses to Open Internal Audit Comments:** The Committee will review the university’s update of responses to all previously issued internal audit reports. As of March 31, 2022, the university had 15 open recommendations. Seventeen audit comments were issued during the fourth quarter of the fiscal year. As of June 30, 2022, the university had addressed 7 comments, leaving 25 open recommendations in progress.

   c. **Audit Plan Status Report:** The committee will review the Audit Plan Status Report. The Office of Audit, Risk, and Compliance (OARC) has completed 86 percent of its audit plan, and 100 percent is underway, in accordance with the fiscal year 2021-22 annual audit plan.

   d. **Internal Audit Reports:** The following internal audit reports were issued by OARC since the June board meeting. Where applicable, management developed action plans to effectively address the issues in the report with a reasonable implementation timeframe. OARC conducts follow-up on management’s implementation of agreed upon improvements for previously issued audit recommendations.

      i. **Agricultural Research and Extension Centers:** The audit received a rating of improvements are recommended. One observation was
noted regarding completion of required safety training. In addition, three low-priority recommendations of a less significant nature were noted for management.

ii. Biological Sciences: The audit received a rating of improvements are recommended. Observations were noted regarding cost transfers and effort reporting.

e. Status Update on the Audit of the University’s Financial Statements: This report provides the current status of the audit of the university’s financial statements for fiscal year 2021-22.

4. Discussion on Internal Audit Report: Foreign Gifts and Contracts Reporting: The Committee will discuss the Foreign Gifts and Contracts Reporting audit report that it received during the June meeting. The audit received a rating of significant improvements are needed. Audit recommendations were issued to management where opportunities for improvements were noted related to Section 117 governance and reporting.

5. OARC Annual Report: The Committee will review the Annual Report for OARC. OARC received its external quality assessment review of the internal audit, enterprise risk management, and institutional compliance programs. Results indicated that the internal audit function "generally conforms" with the professional standards, which is the highest rating. The review provided opportunities to continue to evolve OARC as a valued advisor to management through an integrated, comprehensive assurance approach that leverages audit, risk, and compliance functions as a single, effective office to drive risk understanding, discussion, and mitigation efforts university-wide.

Thirty-two audit projects, or 86 percent of the audits on the fiscal year 2021-22 amended audit plan, have been completed. Four audit projects were underway on June 30th and carried forward into fiscal year 2022-23. In addition to conducting scheduled audits, policy compliance reviews, and advisory services, the department participated in annual audit activities, fraud investigations, and professional development activities. Acceptance of this report documents the Committee’s review of the effectiveness of the internal audit function, including staffing resources, financial budget, training, objectivity, and reporting relationships as required by the Committee's Charter.

OARC continued implementation of the Enterprise Risk Management (ERM) program and Institutional Compliance Program (ICP). OARC deployed an updated
risk landscape with a comprehensive evaluation of the “top ten risks” and increased the visibility of ERM across the CAR Committee and other Board of Visitors committees. A university-wide compliance matrix, including the identification of distributed compliance owners and a mechanism to capture associated risk assessments, was developed as part of the ICP, as well as managing the anonymous hotline.

6. **Review and Approval of Charters:** The Committee will review the Compliance, Audit, and Risk Committee Charter and the Charter for the Office of Audit, Risk, and Compliance in accordance with professional standards. After conducting a thorough review, OARC will recommend modifications to the charters to add clarity for the areas under the Committee's oversight, including delineating the roles and responsibilities for the internal audit, enterprise risk management, and institutional compliance programs.

7. **Discussion of Future Topics:** The Committee will discuss topics to be covered in future committee meetings.
Motion to Reconvene in Open Session

COMPLIANCE, AUDIT, AND RISK COMMITTEE

August 23, 2022

WHEREAS, the Compliance, Audit, and Risk Committee of the Board of Visitors of Virginia Polytechnic Institute and State University has convened a closed meeting on this date pursuant to an affirmative recorded vote and in accordance with the provisions of the Virginia Freedom of Information Act; and

WHEREAS, §2.2-3711 of the Code of Virginia requires a certification by the Compliance, Audit, and Risk Committee that such closed meeting was conducted in conformity with Virginia Law;

NOW, THEREFORE, BE IT RESOLVED, that the Compliance, Audit, and Risk Committee of the Board of Visitors of Virginia Polytechnic Institute and State University hereby certifies that, to the best of each member’s knowledge, (i) only public business matters lawfully exempted from open meeting requirements by Virginia Law were discussed in the closed meeting to which this certification resolution applies, and (ii) only such public business matters as were identified in the motion convening the closed meeting were heard, discussed, or considered by the Compliance, Audit, and Risk Committee.
Welcome and Introductory Remarks

COMPLIANCE, AUDIT, AND RISK COMMITTEE

August 23, 2022

The Chair of the Compliance, Audit, and Risk Committee will offer welcoming remarks and ask for approval of the agenda.
The Committee will consider for approval and acceptance the items listed on the Consent Agenda.

a. Approval of Minutes of the June 6, 2022 Meeting
b. Update of Responses to Open Internal Audit Comments
c. Audit Plan Status Report
d. Internal Audit Reports
   i. Agricultural Research and Extension Centers
   ii. Biological Sciences
e. Status Update of the Audit of the University’s Financial Statements
Committee Minutes

COMPLIANCE, AUDIT, AND RISK COMMITTEE
June 6, 2022

The Compliance, Audit, and Risk Committee of the Board of Visitors of Virginia Polytechnic Institute and State University met in Closed Session on Monday, June 6, 2022 at 9:30 a.m. on the Blacksburg campus at New Classroom Building in Room 260.

Committee Members Present
Sharon Brickhouse Martin (Chair)
Anna James
Jeff Veatch

Board Members Present
Letitia Long (Rector)
Edward Baine
Shelley Barlow
Carrie Chenery
Charles C. T. Hill
Melissa Nelson
Chris Petersen
Mehul Sanghani
Horatio Valeiras
Preston White

The following Virginia Tech staff members were present: Cyril Clarke, Ryan Hamilton, Kay Heidbreder, Chris Kiwus, Sharon Kurek, Ken Miller, Justin Noble, Kim O’Rourke, Timothy Sands, Lisa Wilkes

Closed Session

Chair Martin convened the meeting and welcomed everyone to the Compliance, Audit, and Risk Committee meeting.

*********

Motion to Begin Closed Session

Ms. James moved that the Compliance, Audit, and Risk Committee of the Board of Visitors convene in Closed Session, pursuant to §2.2-3711, Code of Virginia, as amended, to consider the following:

1) Reviews of departments where specific individuals’ performance will be discussed.

2) Discussion of an audit that reveals threats to cybersecurity all pursuant to the following subpart of §2.2-3711(A)(1) and (19), Code of Virginia, as amended.
The meeting concluded at 11:30 a.m.

*********************************************************

The Compliance, Audit, and Risk Committee of the Board of Visitors of Virginia Polytechnic Institute and State University reconvened in Open Session on Monday, June 6, 2022, at 11:35 a.m. on the Blacksburg campus at New Classroom Building in Room 260.

Committee Members Present
Sharon Brickhouse Martin (Chair)
Anna James
Jeff Veatch

Board Members Present
Letitia Long (Rector)
Edward Baine
Shelley Barlow
Carrie Chenery
Charles C. T. Hill
Melissa Nelson
Chris Petersen
Mehul Sanghani
Horatio Valeiras
Preston White

Representatives to the Board
Anna Buhle
Holli Drewry
Paolo Fremin
Phil Miskovic
Jamal Ross
Serena Young

Guests
Kevin Savoy (APA)
Jonathan South (APA)

Virginia Tech Staff
Lynsay Belshe
Eric Brooks
Brock Burroughs
Mauro Castro Silva

Virginia Tech Staff cont.
Cyril Clarke
Al Cooper
Corey Earles
Kari Evans
Ron Fricker
Rebekah Gunn
Lindsey Haugh
Kay Heidbreder
Randy Heflin
Cristen Jandreau
Francis Keene
Chris Kiwus
Sharon Kurek
Lisa Lee
Connie Marshall
Scott Midkiff
Ken Miller
Laurel Miner
Justin Noble
Kim O’Rourke
Mark Owczarski
Ben Peets
James Perkins
Paul Richter
Trudy Riley
Timothy Sands
Barbara Starling
Dan Sui
Ester Talamazzi
Jon Clark Teglas
John Talerico
R.S. Viers
Tracy Vosburgh
Lisa Wilkes
Open Session

1. **Motion to Reconvene in Open Session:** Following the Closed Session, the doors were opened and Chair Martin called on Mr. Veatch to make the motion to return to Open Session. Mr. Veatch made the following motion to return to open session:

   **WHEREAS**, the Compliance, Audit, and Risk Committee of the Board of Visitors of Virginia Polytechnic Institute and State University has convened a closed meeting on this date pursuant to an affirmative recorded vote and in accordance with the provision of The Virginia Freedom of Information Act; and

   **WHEREAS**, Section 2.2-3712 of the Code of Virginia requires a certification by the Compliance, Audit, and Risk Committee of the Board of Visitors that such closed meeting was conducted in conformity with Virginia law;

   **NOW, THEREFORE, BE IT RESOLVED** that the Compliance, Audit, and Risk Committee of the Board of Visitors of Virginia Polytechnic Institute and State University hereby certifies that, to the best of each member’s knowledge, (i) only public business matters lawfully exempted from open meeting requirements by Virginia law were discussed in the closed meeting to which this certification resolution applies, and (ii) only such public business matters as were identified in the motion convening the closed meeting were heard, discussed or considered by the Compliance, Audit, and Risk Committee.

   The motion was seconded by Ms. James and passed unanimously.

2. **Welcome and Introductory Remarks:** Chair Martin convened the meeting and welcomed everyone to the Compliance, Audit, and Risk Committee meeting.

3. **Consent Agenda:** The Committee considered for approval and acceptance the items listed on the Consent Agenda.

   a. **Minutes from the April 4, 2022 Meeting:** The Committee reviewed and approved the minutes of the April 4, 2022 meeting.

   b. **Audit Plan Status Report:** The Committee reviewed the Audit Plan Status Report. The Office of Audit, Risk, and Compliance (OARC) has completed 75% percent of its audit plan, and 100% percent is underway, in accordance with the fiscal year 2021-22 annual audit plan.
c. Internal Audit Reports: The following internal audit reports were issued by OARC since the April 4, 2022 board meeting. Where applicable, management developed action plans to effectively address the issues in the report with a reasonable implementation timeframe. OARC conducts follow-up on management’s implementation of agreed upon improvements for previously issued audit recommendations.

i. Athletics: The audit received a rating of effective. The review indicated that management has designed and implemented controls that are effective at reducing Athletics’ exposure to the Name, Image, and Likeness compliance risks it is facing.

ii. Dining Services: The audit received a rating of improvements are recommended. Audit recommendations were issued to management where opportunities for further improvements were noted in the areas of monitoring employee training, management of vehicle usage forms, and Family Educational Rights and Privacy Act (FERPA) communications.

iii. School of Architecture + Design: The audit received a rating of improvements are recommended. Observations were noted to improve administration of lab safety training data and reporting of external activities and potential conflicts of interest.

iv. Service Centers: The audit received a rating of effective. A low-priority recommendation of a less significant nature was noted regarding alignment of university policies with current practices.

v. Vendor Contract Administration: The audit received a rating of improvements are recommended. Audit recommendations were issued to management where opportunities for further improvements were noted regarding contract management and monitoring.

vi. Vice President for Campus Planning, Infrastructure, and Facilities Policy Compliance Review: The audit received a rating of improvements are recommended. An audit recommendation was issued to management where opportunities for further improvement were noted in the area of fiscal responsibility.

d. Report on Audit of Student Financial Assistance Programs Cluster: The audit report issued on February 4, 2022 found that the institutions managing the federal
Student Financial Assistance Programs Cluster properly stated, in all material respects, the amounts recorded and reported in each institution's accounting and financial reporting system and applicable federal student financial assistance systems. In addition, the report included an internal control and compliance finding for the university which is that it needs to improve compliance over enrollment reporting.

4. Annual External Audit Scope Discussion with the Auditor of Public Accounts: The Committee met with the APA for a discussion of the scope of the audit of the 2021-22 financial statements and the APA’s plans for conducting and completing the audit.

5. Report on Audits of University-Related Corporations: The Committee received an update on required audits of university-related corporations including Virginia Tech Applied Research Corporation; Virginia Tech Foundation, Inc.; Virginia Tech Intellectual Properties, Inc.; Virginia Tech Services, Inc.; Virginia Tech Innovations Corporation; and Virginia Tech India Research and Education Forum. Consistent with the Board of Visitors’ resolution establishing university-related corporations, each corporation is annually required to provide audited annual financial statements, management letters from external auditors, and management’s responses to the university’s president. For fiscal year 2021, the Virginia Tech Innovations Corporation has been unable to complete its audit due to complications in closing out a foreign research grant.

6. Research Risk and Compliance Discussion: The Committee received an update on certain research risks and compliance topics. Management led a discussion on the following research enterprise risks: faculty and staff recruitment and retention; facilities and infrastructure; conflicts of interest; research compliance; and global engagement. Due to time constraints, the Committee suggested that further discussion of research risks and compliance be scheduled for a future Committee meeting.

7. Report on Open Internal Audit Comments: The Committee received an update on the status of open internal audit comments. As of December 31, 2021, the university had 22 open recommendations. Four audit comments were issued during the third quarter of the fiscal year. As of March 31, 2022, the university had addressed 11 comments, leaving 15 open recommendations in progress.

8. Internal Audit Reports: The following internal audit reports were issued by OARC since the April 4, 2022 board meeting. Where applicable, management developed
action plans to effectively address the issues in the report with a reasonable implementation timeframe. As noted above, OARC conducts follow-up on management’s implementation of agreed upon improvements for previously issued audit recommendations.

a. Research: Foreign Gifts and Contracts Reporting: The audit received a rating of significant improvements are needed. Audit recommendations were issued to management where opportunities for improvements were noted related to Section 117 governance and reporting. Due to time constraints, the Committee agreed to have further discussion of this topic at a future Committee meeting.

b. Vice President for Outreach and International Affairs Policy Compliance Review: The audit received a rating of significant improvements are needed. Audit recommendations were issued to management where opportunities for further improvement were noted in the areas of fiscal responsibility, wage payroll, leave reporting, P14 appointments, fixed asset management, and state vehicle management.

9. Audit Plan for Fiscal Year 2022-23: OARC presented the Audit Plan for Fiscal Year 2022-23 for review and approval. An annual risk assessment was conducted to identify the entities that should receive audit attention in fiscal year 2022-23 and a core audit plan was developed in coordination with the university’s ERM initiative. For fiscal year 2022-23, 31 audit projects and seven management advisory services are proposed, with approximately 75 percent of OARC’s available resources committed to the completion of planned projects. A description of each project is provided within the audit plan. OARC’s goal will be to complete 85 percent of the audit plan. The internal audit plan may be modified based on the external audit environment or changes in regulations, management, or resources. The Committee approved the Audit Plan for Fiscal Year 2022-23.

10. Discussion of Future Topics: The Committee discussed topics to be covered in future Committee meetings.

The meeting concluded at 12:30 pm.
As part of the internal audit process, university management participates in the opening and closing conferences and receives copies of all final audit reports. The audited units are responsible for implementing action plans by the agreed upon implementation dates, and management is responsible for ongoing oversight and monitoring of progress to ensure solutions are implemented without unnecessary delays. Management supports units as necessary when assistance is needed to complete an action plan. As units progress toward completion of an action plan, the Office of Audit, Risk, and Compliance (OARC) performs a follow-up visit within two weeks after the target implementation date. OARC is responsible for conducting independent follow up testing to verify mitigation of the risks identified in the recommendation and formally close the recommendation. As part of management’s oversight and monitoring responsibility, this report is provided to update the Compliance, Audit, and Risk Committee on the status of outstanding recommendations. Management reviews and assesses recommendations with university-wide implications and shares the recommendations with responsible administrative departments for process improvements, additions or clarification of university policy, and inclusion in training programs and campus communications. Management continues to emphasize the prompt completion of action plans.

The report includes outstanding recommendations from compliance reviews and audit reports. Consistent with the report presented at the June Board meeting, the report of open recommendations includes three attachments:

- Attachment A summarizes each audit in order of final report date with extended and on-schedule open recommendations.
- Attachment B details all open medium and high priority recommendations for each audit in order of the original target completion date, and with an explanation for those having revised target dates or revised priority levels.
- Attachment C charts performance in implementing recommendations on schedule over the last seven years. The 76 percent on-schedule rate for fiscal year 2022 reflects closing 19 of 25 recommendations by the original target date.

The report presented at the June 6, 2022 meeting covered audit reports reviewed and accepted through March 31, 2022 and included 15 open medium and high priority recommendations. Activity for the quarter ending June 30, 2022 resulted in the following:

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
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</thead>
<tbody>
<tr>
<td>Open recommendations as of March 31, 2022</td>
<td>15</td>
</tr>
<tr>
<td>Add: medium and high priority recommendations accepted June 6, 2022</td>
<td>17</td>
</tr>
<tr>
<td>Subtract: recommendations addressed since March 31, 2022</td>
<td>7</td>
</tr>
<tr>
<td>Remaining open recommendations as of June 30, 2022</td>
<td>25</td>
</tr>
</tbody>
</table>

While this report is prepared as of the end of the quarter, management continues to receive updates from OARC regarding auditee progress on action plans. Through August 5, 2022, OARC has closed one and is reviewing supporting documentation to close a second of the 25 remaining open medium and high priority recommendations. All remaining open recommendations are progressing as expected and are on track to meet their respective target dates. Management continues to work conjointly with all units and provides assistance as needed to help with timely completion of action plans.
### ATTACHMENT A

**Open Recommendations by Priority Level**

**COMPLIANCE, AUDIT, AND RISK COMMITTEE**

**June 30, 2022**

<table>
<thead>
<tr>
<th>Report Date</th>
<th>Audit Name</th>
<th>Audit Number</th>
<th>Total Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<tr>
<td>May 11, 2020</td>
<td>College of Science</td>
<td>20-1491</td>
<td>3 2 1 1</td>
</tr>
<tr>
<td>Jun 30, 2021</td>
<td>Veterinary Teaching Hospital</td>
<td>21-1540a</td>
<td>1 1</td>
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<tr>
<td>Sep 27, 2021</td>
<td>Fralin Life Sciences Institute</td>
<td>21-1526</td>
<td>2 1 1 1</td>
</tr>
<tr>
<td>Oct 22, 2021</td>
<td>Student Athlete Academic Success</td>
<td>21-1538</td>
<td>1 1 1</td>
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<tr>
<td>Oct 22, 2021</td>
<td>University Libraries</td>
<td>22-1595</td>
<td>4 3 1 1</td>
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<td>Mar 17, 2022</td>
<td>Fralin Biomedical Research Institute</td>
<td>22-1580</td>
<td>1 1 1</td>
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<td>Mar 18, 2022</td>
<td>Mechanical Engineering</td>
<td>22-1586</td>
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<td>Apr 20, 2022</td>
<td>Dining Services</td>
<td>22-1578</td>
<td>3 3 3</td>
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<tr>
<td>May 19, 2022</td>
<td>School of Architecture and Design</td>
<td>22-1589</td>
<td>2 2 2</td>
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<tr>
<td>May 19, 2022</td>
<td>Vice President for Outreach and International Affairs</td>
<td>22-1598</td>
<td>2 2</td>
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<td>May 20, 2022</td>
<td>IT: Network Security</td>
<td>22-1584</td>
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<td>May 20, 2022</td>
<td>Foreign Gifts and Contracts Reporting</td>
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<td>May 20, 2022</td>
<td>Vendor Contract Administration</td>
<td>22-1593</td>
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<td></td>
<td></td>
<td>32 7 0 2 4 19 25</td>
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</tbody>
</table>

**Presentation Date:** August 23, 2022
## ATTACHMENT B

### Open Audit Recommendations

**COMPLIANCE, AUDIT, AND RISK COMMITTEE**

**June 30, 2022**

<table>
<thead>
<tr>
<th>Report Date</th>
<th>Item</th>
<th>Audit Number</th>
<th>Audit Name</th>
<th>Recommendation Name</th>
<th>Priority</th>
<th>Target Date Original</th>
<th>Revised</th>
<th>Status of Recommendations with Revised Priority / Target Dates</th>
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</thead>
<tbody>
<tr>
<td>May 11, 2020</td>
<td>1</td>
<td>20-1491</td>
<td>College of Science</td>
<td>Information Technology</td>
<td>Medium</td>
<td>Dec 01, 2021</td>
<td>Oct 01, 2022</td>
<td>1 Missed the original target date.</td>
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<td>Jun 30, 2021</td>
<td>2</td>
<td>21-1540a</td>
<td>Veterinary Teaching Hospital</td>
<td>Supplies Inventory</td>
<td>Medium</td>
<td>Jan 31, 2022</td>
<td>Aug 31, 2022</td>
<td>1 Missed the original target date.</td>
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<tr>
<td>Oct 22, 2021</td>
<td>3</td>
<td>21-1538</td>
<td>Student Athlete Academic Success</td>
<td>Information Technology</td>
<td>Medium</td>
<td>Jul 01, 2022</td>
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<td>Mar 17, 2022</td>
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<td>22-1580</td>
<td>Fralin Biomedical Research Institute</td>
<td>System Account Removal</td>
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<td>Aug 01, 2022</td>
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<td>Sep 27, 2021</td>
<td>5</td>
<td>21-1526</td>
<td>Fralin Life Sciences Institute</td>
<td>Oversight of Distributed Funds</td>
<td>Medium</td>
<td>Aug 31, 2022</td>
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<td>May 19, 2022</td>
<td>6</td>
<td>22-1589</td>
<td>School of Architecture and Design</td>
<td>Conflicts of Interest Disclosure</td>
<td>Medium</td>
<td>Aug 31, 2022</td>
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<td>22-1578</td>
<td>Dining Services</td>
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## ATTACHMENT B

### Open Audit Recommendations

**COMPLIANCE, AUDIT, AND RISK COMMITTEE**

**June 30, 2022**

<table>
<thead>
<tr>
<th>Report Date</th>
<th>Item</th>
<th>Audit Number</th>
<th>Audit Name</th>
<th>Recommendation Name</th>
<th>Priority Original</th>
<th>Revised Priority</th>
<th>Target Date Original</th>
<th>Revised Target Date</th>
<th>Follow Up Status</th>
<th>Status of Recommendations with Revised Priority / Target Dates</th>
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<tr>
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<td>22-1598</td>
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### ATTACHMENT B

**Open Audit Recommendations**

**COMPLIANCE, AUDIT, AND RISK COMMITTEE**

**June 30, 2022**

<table>
<thead>
<tr>
<th>Report Date</th>
<th>Item</th>
<th>Audit Number</th>
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<th>Recommendation Name</th>
<th>Priority Original</th>
<th>Revised</th>
<th>Target Date Original</th>
<th>Revised</th>
<th>Follow Up Status</th>
<th>Status of Recommendations with Revised Priority / Target Dates</th>
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<tr>
<td>May 20, 2022</td>
<td>21</td>
<td>22-1588</td>
<td>Foreign Gifts and Contracts Reporting</td>
<td>Formal Policy and Procedures</td>
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<td>Foreign Gifts and Contracts Reporting</td>
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<td>Foreign Gifts and Contracts Reporting</td>
<td>Determination of Source</td>
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<td></td>
<td>Jul 01, 2023</td>
<td></td>
<td>3</td>
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</tr>
</tbody>
</table>

**Follow Up Status**

1. Management confirmed during follow up discussions with the Office of Audit, Risk, and Compliance (OARC) that the auditee has missed their implementation date.

2. Management confirmed during follow up discussions with the Office of Audit, Risk, and Compliance (OARC) that actions are occurring and the target date has been or will be met. OARC will conduct testing after the due date to confirm that the Management Action Plan is implemented in accordance with the recommendations.

3. Target date is beyond current calendar quarter. Management has follow-up discussions with the auditor to monitor progress, to assist with actions that may be needed to meet target dates, and to assess the feasibility of the target date.

For Open Detail Report: “current calendar quarter” is used to refer to the current working quarter instead of the quarter being reported on.
ATTACHMENT C

Management Performance and Trends Regarding Office of Audit, Risk, and Compliance Recommendations

COMPLIANCE, AUDIT, AND RISK COMMITTEE

June 30, 2022

Seven Year Trend of Recommendations Closed - On Schedule


100% 100% 100% 100% 100% 5% 76%

Presentation Date: August 23, 2022
Audit Plan Status Report

COMPLIANCE, AUDIT, AND RISK COMMITTEE

August 23, 2022

Audit Plan Update

Audits were performed in accordance with the fiscal year 2021-22 annual audit plan at a level consistent with the resources of the Office of Audit, Risk, and Compliance (OARC). Since the June board meeting five planned projects have been completed, including three risk-based audits and two advisory engagements. The two advisory engagements were related to Data Analytics in Research Compliance and IT Endpoint Management.

The following four projects are underway and will be shown as carry forwards into the fiscal year 2022-23 audit plan: Data Analytics: Administrative Operations, Police, University Scholarships and Financial Aid, and the Graduate Assistant Workload advisory engagement that was added to the supplemental plan.

At the end of fiscal year 2021-22, OARC had completed 86 percent of its audit plan as depicted in Exhibit 1.

Exhibit 1
FY 2021-22 Completion of Audit Plan

<table>
<thead>
<tr>
<th>Audits</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Total # of Audits Planned</td>
<td>31</td>
</tr>
<tr>
<td>Total # of Supplemental Audits</td>
<td>2</td>
</tr>
<tr>
<td>Total # of Carry Forwards</td>
<td>9</td>
</tr>
<tr>
<td>Total # of Planned Audits Canceled or Deferred</td>
<td>5</td>
</tr>
<tr>
<td>Total Audits in Plan as Amended</td>
<td>37</td>
</tr>
<tr>
<td>Total Audits Completed</td>
<td>32</td>
</tr>
<tr>
<td>Audits - Percentage Complete</td>
<td>86%</td>
</tr>
<tr>
<td>Audits - Percentage Complete or Underway</td>
<td>100%</td>
</tr>
</tbody>
</table>

Note: Includes Policy Compliance Reviews and Advisory Services
Background

This report provides a summary of audit ratings issued this period and the full rating system definitions. The following reviews have been completed during this reporting period. The Office of Audit, Risk, and Compliance has made a concerted effort to ensure progress on the annual audit plan.

<table>
<thead>
<tr>
<th>Consent Agenda Reports</th>
<th>Rating</th>
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</thead>
<tbody>
<tr>
<td>Agricultural Research and Extension Centers</td>
<td>Improvements are Recommended</td>
</tr>
<tr>
<td>Biological Sciences</td>
<td>Improvements are Recommended</td>
</tr>
</tbody>
</table>

Summary of Audit Ratings

The Office of Audit, Risk, and Compliance’s rating system has four tiers from which to assess the controls designed by management to reduce exposures to risk in the area being audited. The auditor can use professional judgment in constructing the exact wording of the assessment in order to capture varying degrees of deficiency or significance.

Definitions of each assessment option

Effective – The audit identified opportunities for improvement in the internal control structure, but business risks are adequately controlled in most cases.

Improvements are Recommended – The audit identified occasional or isolated business risks that were not adequately or consistently controlled.

Significant or Immediate Improvements are Needed – The audit identified several control weaknesses that have caused, or are likely to cause, material errors, omissions, or irregularities to go undetected. The weaknesses are of such magnitude that senior
management should undertake immediate corrective actions to mitigate the associated business risk and possible damages to the organization.

**Unreliable** – The audit identified numerous significant business risks for which management has not designed or consistently applied controls prior to the audit. Persistent and pervasive control weaknesses have caused or could cause significant errors, omissions, or irregularities to go undetected. The weaknesses are of such magnitude that senior management must undertake immediate corrective actions to bring the situation under control and avoid (additional) damages to the organization.

**RECOMMENDATION:**

That the internal audit reports listed above be accepted by the Compliance, Audit, and Risk Committee.

August 23, 2022
Status Update of the Audit of the University’s Financial Statements

COMPLIANCE, AUDIT, AND RISK COMMITTEE

August 23, 2022

The Auditor of Public Accounts (APA) began the audit of the university’s financial statements for fiscal year 2021-22 with the entrance conference on May 23, 2022. The APA is currently in the initial stage of the audit where they review transactions and test internal controls over the university’s financial processes. Through early August 2022, the audit is progressing as planned, and the APA has not provided any audit comments or recommendations for improvements. At this time, we are not aware of any issues that would prevent the successful completion of the fiscal year 2021-22 audit by the targeted deadline of October 31, 2022.
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Executive Summary

Assessment
Our audit indicated significant risks related to the reporting of foreign gifts and contracts to the Department of Education for which the university has not implemented effective controls. **Significant improvements are needed** to achieve an adequate system of internal controls and to ensure compliance with Section 117 of the Higher Education Act of 1965 (Section 117). Audit recommendations were issued to management where opportunities for improvements were noted related to Section 117 governance and reporting.

Summary of Issues and Action Plans
The following observations were noted during our review, and recommendations were issued to address the related risks:

- Formal procedures for the required reporting of foreign gifts and contracts to the Department of Education have not been established and documented. In addition, there is a lack of university-wide guidance regarding Section 117. The review identified two university areas involved with foreign gifts and contracts that were unaware of the reporting requirement. **Management will establish a taskforce and a cross-functional steering committee to review current practices and to ensure ongoing governance and oversight of the reporting process.**

- The university’s process for reporting contracts with foreign entities is not in compliance with Section 117. Two university areas that provide information about foreign contracts do so based on payments received and not contract value, resulting in underreporting of $600,000 to the Department of Education for calendar year 2021. **Management will ensure adequate guidance is created and distributed to ensure clarity on process and reporting requirements.**

- The university’s process for determining whether gifts and contracts originate from a foreign source is inadequate. Two university areas that provide information about foreign gifts and contracts utilize a source’s address as the sole factor in identifying a foreign entity. There is no due diligence being performed to assess the source of funding received. **Management will enhance processes surrounding foreign source identification.**

- Section 117 reporting for calendar year 2021 was incomplete as gifts and contracts from foreign sources in the first half of the year were not always considered when reporting for the second half of the year. Two university areas failed to aggregate data for gifts and contracts from foreign sources
that exceeded $250,000 for the calendar year, resulting in underreporting of $397,000 to the Department of Education for calendar year 2021. Management will ensure data aggregation is enhanced to ensure prior period payments are considered in subsequent reporting. Additionally, management will work with University Legal Counsel to determine if retroactive reviews and corrections are necessary.

Uniquely identifying a single foreign source across all areas of the university may be difficult as multiple systems are used to capture data. As a result, the unique identifiers and other information about a foreign source may not be consistent across systems, increasing the risk that aggregation of gifts and contracts for a single foreign source and, therefore, reporting to the Department of Education is incomplete. Management will determine the feasibility of using a single identifier across systems to facilitate easier aggregation. If not feasible, processes will include steps towards ensuring foreign sources are appropriately identified and properly aggregated.

Management has developed action plans that effectively address the issues in the report, and the proposed timeline of implementing all action plans by July 1, 2023 is reasonable.
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A Year of Review and Progress

In the fall of 2021, the Office of Audit, Risk, and Compliance (OARC) engaged in an independent Quality Assessment Review (QAR) of the internal audit, enterprise risk management, and institutional compliance programs that was conducted by an external firm and peers from two prestigious universities. The QAR assessed opportunities to continue to evolve OARC as a valued advisor to management through an integrated, comprehensive assurance approach that leverages audit, risk, and compliance functions as a single, effective office to drive risk understanding, discussion, and mitigation efforts university-wide. The results, summarized in a report to executive management and the Board of Visitors in January 2022, provided a meaningful opportunity to engage stakeholders from across the institution to map out the future of the institution’s comprehensive and connected risk management program.

For Internal Audit, the peer review team determined the function “Generally Conforms” with the required standards, which is the top rating the team could assess. Opportunities identified included a continuing evolution on project management and scoping, as well as the purposeful identification of the director as the audit leader. In Enterprise Risk Management, the team identified the strong leadership by the Executive Director, engagement across the campus, and opportunities for broader ERM linkage to strategic priorities with cross-cutting identification and mitigation plans. Finally, the Institutional Compliance Program was noted as having built a strong foundation of the essential elements of a compliance function with opportunities residing in the ability to better define the program at both the university and unit level, provide connections to the institution’s ethical values, and continuing to mature the overall program.

In considering the QAR recommendations, the university executives, Board, and OARC leadership have been engaged in a comprehensive process to evaluate the future of the office and its charge. With the onboarding of the first University Compliance Officer forthcoming in September 2022, this year was marked with dedication to strategic discussions to lay the groundwork for OARC’s continued success. Discussion regarding the resources needed (time, personnel, and financial), along with updating the governing charters that will be used to ensure future success, will launch OARC into fiscal year 2022-23 on an upward trajectory, continuing to help Virginia Tech effectively manage and mitigate its extensive risk profile.
Mission Statement

The Office of Audit, Risk, and Compliance (OARC) performs comprehensive assurance services through independent internal audits, advisory activities, the university risk management process, and the institutional compliance program. OARC helps the university accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes. OARC’s mission is to enhance and protect organizational value by providing risk-based and objective assurance, advice, and insight as follows:

1. **Audit**: Provide independent, objective assurance and advisory activity designed to add value and improve university operations.

2. **Enterprise Risk Management**: Provide oversight of the enterprise risk management (ERM) program by identifying, assessing, and managing risk by working with risk owners within the ERM process.

3. **Compliance**: Provide oversight of the institutional compliance program and the distributed processes that support compliance across the university by working with subject matter experts and compliance risk owners.

**Protected & Connected**

OARC protects the university by independently and objectively identifying business risks and connects with key leaders and stakeholders to evaluate risk-mitigation strategies.
State of Control Environment

The university’s internal audit function within OARC continues to be a significant element of the university’s overall control structure and a positive influence on the control environment. During fiscal year 2021-22, OARC examined and tested the operations and systems of internal control within a number of university departments to assist management and the Board of Visitors in the discharge of their fiduciary responsibilities.

As a result of the audit, advisory, and investigative work performed, no deficiencies representing significant control weaknesses were identified; however, a number of other areas requiring improvement were noted. The scope of audit work was not limited in any way by management or others, nor were there any instances where OARC considered its independence or objectivity to have been impaired. Management and others were found to be conscientious, cognizant, and accepting of their responsibility for internal control as well as open, cooperative, and supportive of audit efforts.

Management has generally accepted audit issues and responded by developing action plans to address the concerns noted. These statements are made with the understanding that no system of internal control provides absolute assurance that controls are functioning effectively. These statements are also not meant to imply that fraud and other irregularities do not exist or, if they do exist, are certain to be detected. Decisions as to the level of risk that is tolerable and should be accepted by the university are the responsibility of management. That said, based on the audit, advisory, and investigative work performed, OARC did not identify any areas where management decided to accept a level of risk that we believed to be unacceptable.
FY 2021-22 Highlights

Internal Audit
- 86% of audit plan completed
- 32 completed engagements
- 15 fraud, waste, or abuse cases initiated
- 4.4 out of 5 (88%) on client satisfaction surveys
- 70 management action plans closed

Enterprise Risk Management (ERM)
- Updated university’s enterprise risk landscape and heat map
- Refreshed “top ten” focus areas
- Engaged all Board of Visitor committees on ERM topics

Institutional Compliance Program (ICP)
- Recruited inaugural university compliance officer
- Continued engagement with the campus-wide compliance risk owners
- Ongoing management of anonymous compliance concern reporting hotline
Internal Audit

Internal Audit continued its role as the assurance and advisory arm within the university. Value-added engagements through traditional audits, a limited number of advisory activities, and providing insight through formal and informal means were hallmarks throughout the year. As depicted below, fiscal year 2021-22 began with 31 proposed engagements. A combination of changing risks, including the continued effects of COVID-19, led to the cancelation or deferment of five audits. Coupled with one supplemental advisory review and nine carry forward engagements, OARC ended the year with 37 planned audits, of which the team completed 32 as of this report. This results in an 86 percent completion rate for fiscal year 2021-22. Appendix A shows the status of each audit in the fiscal year 2021-22 audit plan.

<table>
<thead>
<tr>
<th>Audits</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total # of Audits Planned</td>
<td>31</td>
</tr>
<tr>
<td>Total # of Supplemental Audits</td>
<td>2</td>
</tr>
<tr>
<td>Total # of Carry Forwards</td>
<td>9</td>
</tr>
<tr>
<td>Total # of Planned Audits Deferred and/or Canceled</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total Audits in Plan as Amended</strong></td>
<td><strong>37</strong></td>
</tr>
</tbody>
</table>

| Total Audits Completed                     | 32    |
| Audits – Percentage Complete               | 86%   |
| Audits – Percentage Complete or Underway   | 100%  |

Note: Includes Policy Compliance Reviews and Advisory Services
Of the 25,400 hours logged by OARC last year, 64% was charged directly to executing our core mission. The remaining 36% was spent on office administration, computer support, training, and compensated absences.

This chart depicts how 16,465 of core-mission hours were spent.
- 71% on Risk, Advisory, and Compliance engagements
- 11% of Fraud, Waste, and Abuse investigations
- 3% on ERM and compliance
- 15% on audit support (annual audit planning, supervision)

### Follow-Up Activities and Management Corrective Actions

OARC conducts follow-up on management’s implementation of agreed upon improvements for previously issued audit recommendations. Each audit recommendation is given a rating of high, medium, or low priority. This judgment is made in a local context, and items identified as high do not necessarily convey material deficiencies or risks beyond the operating environment in which they were found. A primary objective of this classification is to drive a greater sense of urgency in completing the corrective action and completion of audit follow-up. The Compliance, Audit, and Risk (CAR) Committee receives the higher priority recommendations and associated management corrective actions. However, OARC and management closely monitor all outstanding recommendations to ensure they are adequately addressed by the responsible parties.

Of the 77 management corrective actions generated during fiscal year 2021-22, OARC categorized eight as high priority (10%). High-priority management corrective actions would include those that are systemic or have a broad impact; have contributed to a significant investigation finding; are reportable conditions under professional literature; create health or safety concerns; involve senior officials; create exposures to fines, penalties, or refunds; or are otherwise judged as significant control issues. Open management corrective action plans at fiscal year-end have been outstanding an average of 244 days. Audits for fiscal year 2021-22 resulted in recommendations with ratings of high, medium, or low management corrective actions as follows:
Results of Surveys for Evaluating OARC Services

After the completion of each engagement, the primary contacts within the area under review are provided a survey requesting their evaluation of the quality of the services provided. Feedback from the surveys is used to enhance the overall quality of the engagements and to ensure OARC is meeting its customer service focus. The survey responses are grouped into three categories:

**Audit Team**
- Demonstrated technical proficiency, approached audit in an objective and professional manner, and effectiveness of conclusions and opinions.

**Audit Performance**
- Discussed preliminary audit objectives, scope, and timing of audit, solicited and considered management concerns and suggestions in audit, and minimized disruption of auditee’s daily activities as much as possible.

**Audit Report**
- Written clearly, contained adequate explanations for observations, and recommendations improved or added value to auditee’s departmental operation.

### FY 2021-22 Survey Results

<table>
<thead>
<tr>
<th>Category</th>
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<th>2021</th>
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</thead>
<tbody>
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<tr>
<td>Audit Performance</td>
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<td>4.6</td>
</tr>
<tr>
<td>Audit Report</td>
<td>4.4</td>
<td>4.6</td>
</tr>
</tbody>
</table>

**Beginning # of management corrective actions**
- 48

**Management corrective actions added**
- 77

**Management corrective actions closed**
- 70

**Current # of open management corrective actions**
- 55
Overall, customer ratings were highly favorable as results ranged from good to excellent. Attaining a cumulative average score of 4.4 on a 5-point scale exceeded OARC’s goal of a 4.0 rating on survey feedback, and resulted in 88% client satisfaction.

“The audit team was courteous and professional, and it was a pleasure working with them.”

- Unit Senior Management

Quality Assurance and Improvement Program

In accordance with requirements set forth by the Institute of Internal Auditors’ International Standards for the Professional Practice of Internal Auditing, Internal Audit maintains a comprehensive Quality Assurance and Improvement Program. This program includes ongoing monitoring, periodic self-assessments, and an independent external assessment that should be conducted at a minimum of every five years.

The on-going monitoring program consists of four elements: the supervisory review of project working papers, quality assurance reviews of individual audits, the pre-issuance review of reports, and periodic assessments of the quality control system.

An external assessment of OARC was completed by Baker Tilly during this fiscal year, when the internal audit function received the highest rating possible of “generally conforms.” Further details about the review is shared in the section titled “A Year of Review and Progress” of this report on page 3. The next independent external assessment will occur in five years.
Fraud, Waste, and Abuse

OARC conducts reviews of all state hotline and internal complaints alleging fraud, waste, and abuse at the institution. During fiscal year 2021-22, OARC:

- Investigated 15 cases, including 12 internal and three state hotline complaints.
- Closed four cases from prior fiscal years and eight from fiscal year 2021-22.

Of the 12 cases completed:

- One of three (33%) state hotline cases was substantiated.
- Six of nine (67%) internally reported cases were substantiated.

Since 2012-13, approximately 57 percent of internally reported allegations have been substantiated, and 19 percent of state hotline cases have historically been substantiated, for a combined weighted average of 41 percent.

OARC maintains a fraud, waste, and abuse hotline service (“Hokie Hotline”) that offers an easy, safe, secure, and anonymous platform to accept tips and complaints from all sources about potential fraud, waste, abuse, and noncompliance at the university. Two of the 12 internally investigated complaints mentioned above were received via the Hokie Hotline.

Since fiscal year 2012-13, approximately 72 percent of the allegations investigated by OARC have fallen within five general categories: improper use of university resources; abuse of authority; leave or time abuse; misfeasance and waste; and conflict of interest.

### Historical Case Volume by Fiscal Year

![Graph showing historical case volume by fiscal year](image_url)

- **Average 41% substantiation since 2013**
- **# of Internal Cases**
- **# of Hotline Cases**
- **# of Cases Substantiated**
- **# of Cases with Recs**

Seven active cases as of June 30, 2022
Enterprise Risk Management Program

OARC has coordinated Virginia Tech’s ERM Program since its inception at the request of the Board of Visitors CAR Committee in 2017. The ERM process, a key tool in setting strategic goals across the enterprise, is designed to identify potential events that may affect the university, manage those risks within the university’s risk tolerance, and support the achievement of Virginia Tech’s mission and objectives. The ERM program strengthens the university’s ability to achieve its mission and strategic objectives through effective management of key risks and opportunities related to the achievement of strategic objectives. In this context, risk encompasses both negative events (“downside risk”) and opportunities (“upside risk”).

ERM-related activities that took place in fiscal year 2021-22, both planned and ad hoc, included:

- Deploying an updated risk landscape and heat map.
- Refreshing the ‘top ten risks’.
- Engaging all Board of Visitor committees on ERM topics.

OARC is pleased to see continued engagement with the identified enterprise risks across the Board of Visitors committees and the executive leadership team. On multiple occasions during the past year, executive and senior leadership mentioned how the issues facing the institution were contemplated through the ERM process. Additionally, OARC is encouraged by the continued broadening of coverage in presentations to the Board of Visitors on ERM risks. Since the formation of the formal ERM program and introduction of the university’s Enterprise Risk

22 of 25 enterprise risks discussed with the board
Landscape, 56 presentations and discussions highlighting ERM risk areas took place across the Board of Visitors’ committees. The 25 enterprise risks are depicted in the following graphic with the size corresponding to number of discussions.
Institutional Compliance Program

Virginia Tech is committed to integrity, a culture of compliance, and promoting the highest ethical standards for all employees. Since 2017, OARC has led the university’s Institutional Compliance Program (ICP) in promoting and supporting a working environment reflecting its commitment to compliance with all relevant legal and regulatory requirements. The ICP is a resource that supports the Virginia Tech community in proactively meeting its compliance obligations and managing compliance risks.

“Virginia Tech is committed to integrity, a culture of compliance, and the promotion of the highest ethical standards for all employees.”

- President Tim Sands

In fiscal year 2021-22 ICP activities included:

- Recruiting the inaugural university compliance officer.
- Continued engagement with the campus-wide compliance risk owners.
- Managing an anonymous reporting hotline for compliance-related concerns.

In order to scale the compliance program to fully support ever-growing complex regulatory frameworks, a University Compliance Officer position was funded after the fiscal year to focus on monitoring compliance efforts university-wide, facilitate discussion among compliance owners, and stay current on emerging trends in higher education compliance. Once personnel is onboarded, OARC will begin developing compliance-related tools, such as a dedicated web-based site with training resources, compliance owner connectivity, and reporting functions.

8 ELEMENTS OF AN EFFECTIVE COMPLIANCE PROGRAM

- High-level personnel exercising oversight
- Written policies and procedures
- Training and Education
- Lines of Communication
- Well-publicized disciplinary guidelines
- Internal compliance monitoring
- Response to detected offenses
- Perform periodic compliance risk assessments
Staffing and Resources

Staffing continues to be a strategic focus. During the fiscal year, we successfully onboarded two new staff auditors, a new project and operations manager, a graduate assistant, and an undergraduate student wage employee. The office will soon begin recruiting to fill one vacant audit manager/principal auditor, one staff auditor, and will be onboarding the inaugural university compliance officer this fall.

OARC Organizational Chart
Professional Service
OARC continues its longstanding tradition of professional engagement and service. Activities this year included:

- Association of College and University Auditors (ACUA)
  - Sharon M. Kurek served as mentor for a newly promoted Chief Audit Executive colleague at Indiana University, remained part of the ACUA Faculty Program, and was a speaker at ACUA AuditCon.
  - Justin T. Noble served on the Nominating Committee, and was a speaker at ACUA Audit Interactive and AuditCon.
  - Trevor D. Hughes was a speaker at AuditCon.
- Institute for Internal Auditors Southwest Virginia Chapter
  - Sharon M. Kurek, Thomas J. Demmer, and Mauro Castro Silva served on the Audit Committee.
  - Justin T. Noble was elected to the chapter Board of Governors.
- Sharon M. Kurek was invited to speak at venues related to ERM and institutional compliance. Specifically, Sharon was a panelist at Audit + Beyond, AuditBoard’s annual conference, on “Building a Successful ERM Program” and was a general session speaker for the Society of Corporate Compliance Ethics’ Higher Education Compliance Conference on “Compliance in the Era of Distributed Workforces.”

Professional Qualifications
OARC is proud of its staff and the depth of experience in the team. OARC staff has more than 180 years of combined professional experience, including 172 years of combined experience in audit, risk, and compliance profession. Additionally, staff has over 55 years of service to Virginia Tech. The staff maintains an extensive background with expertise in such areas as:

- Information Technology
- Fraud and Forensics
- Athletics
- Healthcare
- Data Analytics
- Internal Controls
- Research
- Enterprise Risk Management
- Ethics
- Quality Assessment Reviews
- General financial, compliance, and operational auditing
- Effective compliance and ethics programs

172 years of professional audit, risk, and compliance experience
Certification and Advanced Degrees

<table>
<thead>
<tr>
<th>Professional Certifications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Certified Public Accountants (CPA)</td>
<td>4</td>
</tr>
<tr>
<td>Certified Fraud Examiners (CFE)</td>
<td>3</td>
</tr>
<tr>
<td>Certified Internal Auditor (CIA)</td>
<td>3</td>
</tr>
<tr>
<td>Certified Information Systems Auditor (CISA)</td>
<td>1</td>
</tr>
<tr>
<td>Certified Compliance and Ethics Professional (CCEP)</td>
<td>1</td>
</tr>
<tr>
<td>Certified Government Auditing Professional (CGAP)</td>
<td>1</td>
</tr>
<tr>
<td>Project Management Professional (PMP)</td>
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</table>

<table>
<thead>
<tr>
<th>Advanced Degrees</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Master of Business Administration (MBA)</td>
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</tr>
<tr>
<td>Master of Architecture (March)</td>
<td>1</td>
</tr>
<tr>
<td>Master of Policy Leadership (MPL)</td>
<td>1</td>
</tr>
<tr>
<td>Master of Public Administration (MPA)</td>
<td>2</td>
</tr>
<tr>
<td>Master of Science or Arts (Business Analytics, International Affairs, Political Science)</td>
<td>5</td>
</tr>
</tbody>
</table>

Resourcing
The table below compares OARC’s expenditures from fiscal year 2021-22 to fiscal year 2020-21. While over 86 percent of OARC expenditures supported salaries and benefits, these costs decreased due to vacancies among staff members, which were intentionally held open due to the pandemic-related hiring freeze. As pandemic-related travel restrictions lifted, training expenses resumed to their pre-COVID level. Due to the QAR of the internal audit, enterprise risk management, and institutional compliance programs, OARC incurred the external firm engagement expense this fiscal year. Costs increased for software necessary to carry out OARC responsibilities in an effective and efficient manner, with the shift to the new AuditBoard system which provides an integrated software solution for audit, risk and compliance, in addition to data analysis tools and the Hokie Hotline. Overall, the fiscal year 2021-22 expenditures have returned to within 1 percent of pre-pandemic fiscal year 2019-20 spending.

Analysis of Expenditures

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<thead>
<tr>
<th></th>
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<td><strong>Total</strong></td>
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<td><strong>$1,961,005</strong></td>
</tr>
</tbody>
</table>
# Appendix A: FY 2021-22 Audit Plan Status

The chart below outlines the status of the fiscal year 2021-22 audit plan, as amended.

## FY 2021-22 Audit Plan Status

<table>
<thead>
<tr>
<th>Audit Project</th>
<th>Risk Ranking</th>
<th>BOV Mtg</th>
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</thead>
<tbody>
<tr>
<td><strong>Risk-Based Audit</strong></td>
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</tr>
<tr>
<td>Agricultural Research and Extension Centers</td>
<td>Medium</td>
<td>Aug 2022</td>
</tr>
<tr>
<td>Athletics*</td>
<td>High</td>
<td>Jun 2022</td>
</tr>
<tr>
<td>Biological Sciences</td>
<td>High</td>
<td>Aug 2022</td>
</tr>
<tr>
<td>Continuing and Professional Education</td>
<td>Medium</td>
<td>Apr 2022</td>
</tr>
<tr>
<td>Data Analytics: Administrative Operations</td>
<td>Medium</td>
<td>Deferred</td>
</tr>
<tr>
<td>Data Analytics: Possible Fraudulent Transactions</td>
<td>Medium</td>
<td>Deferred</td>
</tr>
<tr>
<td>Dining Services</td>
<td>High</td>
<td>Jun 2022</td>
</tr>
<tr>
<td>Export and Secure Research Compliance</td>
<td>High</td>
<td>Aug 2022</td>
</tr>
<tr>
<td>Fralin Biomedical Research Institute at VTC</td>
<td>High</td>
<td>Apr 2022</td>
</tr>
<tr>
<td>HR: Compensation and Classification*</td>
<td>High</td>
<td>Apr 2022</td>
</tr>
<tr>
<td>IT: Data Privacy</td>
<td>High</td>
<td>Nov 2021</td>
</tr>
<tr>
<td>IT: Network Security</td>
<td>High</td>
<td>Jun 2022</td>
</tr>
<tr>
<td>IT: Risk Assessment and Classification</td>
<td>High</td>
<td>Canceled</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>High</td>
<td>Apr 2022</td>
</tr>
<tr>
<td>Police Department</td>
<td>High</td>
<td>Carry-Forward</td>
</tr>
<tr>
<td>Foreign Gifts and Contracts Reporting*</td>
<td>High</td>
<td>Jun 2022</td>
</tr>
<tr>
<td>School of Architecture + Design</td>
<td>High</td>
<td>Jun 2022</td>
</tr>
<tr>
<td>Service Centers</td>
<td>High</td>
<td>Jun 2022</td>
</tr>
<tr>
<td>Title IX Compliance</td>
<td>High</td>
<td>Apr 2022</td>
</tr>
<tr>
<td>University Scholarships and Financial Aid*</td>
<td>High</td>
<td>Carry-Forward</td>
</tr>
<tr>
<td>Vendor Contract Administration</td>
<td>High</td>
<td>Jun 2022</td>
</tr>
</tbody>
</table>

## Policy Compliance Reviews

<table>
<thead>
<tr>
<th>Reviewer</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Vice President &amp; Chief Business Officer</td>
<td>Apr 2022</td>
</tr>
<tr>
<td>University Libraries</td>
<td>Nov 2021</td>
</tr>
<tr>
<td>Vice President for Campus Planning, Infrastructure, and Facilities</td>
<td>Jun 2022</td>
</tr>
<tr>
<td>Vice President for Finance</td>
<td>Apr 2022</td>
</tr>
<tr>
<td>Vice President for Outreach and International Affairs</td>
<td>Jun 2022</td>
</tr>
</tbody>
</table>

* Annual Audit on Different Components
Additionally, OARC responded to management’s request for advisory service and consultative guidance in the following area:

- **Endpoint Management** – Endpoint management is a process that involves managing endpoints connecting to the university’s networked resources to ensure that the endpoint and any university data it can access are appropriately secured. The objectives of this review were to determine whether capacity exists to implement additional endpoint management controls, including endpoint data loss prevention and endpoint, detect, and respond solutions; determine the level of maturity that exists in endpoint management processes; and identify areas of university policy and standards that need to be addressed to enable implementation of additional endpoint management controls.

- **Data Analytics: Research Compliance** – This review focused on assessing the analytical resources used to ensure contractual and regulatory compliance and improve OARC’s capacity to use and understanding university-wide data for research compliance testing. OARC used data to conduct cross-cutting analysis that looked at critical risk concentrations and common sponsored research audit issues identified in recent National Science Foundation publications. This work laid the groundwork for future deeper dives into university-wide research compliance testing.
Appendix B: IIA Standards Disclosures

Per Charter:
The internal audit function will conduct its activities in accordance with the Institute of Internal Auditors’ International Professional Practices Framework including the Core Principles for the Professional Practice of Internal Auditing, Definition of Internal Auditing, Code of Ethics, and International Standards for the Professional Practice of Internal Auditing.

<table>
<thead>
<tr>
<th>Core Principles</th>
<th>MANDATORY GUIDANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Demonstrates integrity.</td>
</tr>
<tr>
<td></td>
<td>Demonstrates competence and due professional care.</td>
</tr>
<tr>
<td></td>
<td>Is objective and free from undue influence (independent).</td>
</tr>
<tr>
<td></td>
<td>Aligns with the strategies, objectives, and risks of the organization.</td>
</tr>
<tr>
<td></td>
<td>Is appropriately positioned and adequately resourced.</td>
</tr>
<tr>
<td></td>
<td>Demonstrates quality and continuous improvement.</td>
</tr>
<tr>
<td></td>
<td>Communicates effectively.</td>
</tr>
<tr>
<td></td>
<td>Provides risk-based assurance.</td>
</tr>
<tr>
<td></td>
<td>Is insightful, proactive, and future-focused.</td>
</tr>
<tr>
<td></td>
<td>Promotes organizational improvement.</td>
</tr>
</tbody>
</table>

**Definition of Internal Auditing**
Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization’s operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

**Code of Ethics**
Internal auditors are expected to apply and uphold the following principles:
- **Integrity** – The integrity of internal auditors establishes trust and thus provides the basis for reliance on their judgment.
- **Objectivity** – Internal auditors exhibit the highest level of professional objectivity in gathering, evaluating, and communicating information about the activity or process being examined. Internal auditors make a balanced assessment of all the relevant circumstances and are not unduly influenced by their own interests or by others in forming judgments.
- **Confidentiality** – Internal auditors respect the value and ownership of information they receive and do not disclose information without appropriate authority unless there is a legal or professional obligation to do so.
- **Competency** – Internal auditors apply the knowledge, skills, and experience needed in the performance of internal audit services.

**International Standards for the Professional Practice of Internal Auditing**

<table>
<thead>
<tr>
<th>Attribute Standards (1000 through 1300)</th>
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</thead>
<tbody>
<tr>
<td>1000 Purpose, Authority, and Responsibility</td>
</tr>
<tr>
<td>1100 Independence and Objectivity</td>
</tr>
<tr>
<td>1200 Proficiency and Due Professional Care</td>
</tr>
<tr>
<td>1300 Quality Assurance and Improvement Program</td>
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</table>

<table>
<thead>
<tr>
<th>Performance Standards (2000 through 2600)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000 Managing the Internal Audit Activity</td>
</tr>
<tr>
<td>2100 Nature of Work</td>
</tr>
<tr>
<td>2200 Engagement Planning</td>
</tr>
<tr>
<td>2300 Performing the Engagement</td>
</tr>
<tr>
<td>2400 Communicating Results</td>
</tr>
<tr>
<td>2500 Monitoring Progress</td>
</tr>
<tr>
<td>2600 Communicating the Acceptance of Risks</td>
</tr>
</tbody>
</table>
ANNUAL REPORT

Sharon M. Kurek, CPA, CCEP, CFE, MBA
Executive Director of Audit, Risk, and Compliance

August 23, 2022
The chief audit executive’s reporting and communication to senior management and the board must include information about:

- The audit charter, including internal audit activity’s purpose, authority, and responsibility
- Independence of the internal audit activity
- The audit plan and progress against the plan
- Resource requirements
- Results of audit activities
- Conformance with the Code of Ethics and the Standards, and action plans to address any significant conformance issues (Quality Assurance & Improvement Program)
- Management’s response to risk that, in the chief audit executive’s judgment, may be unacceptable to the organization
• External Quality Assessment Review (QAR)
• Strategic and comprehensive institutional process to evaluate OARC and its charge
The Office of Audit, Risk, and Compliance (OARC) performs comprehensive assurance services through independent internal audits, advisory activities, the university risk management process, and the institutional compliance program. OARC helps the university accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes. OARC’s mission is to enhance and protect organizational value by providing risk-based and objective assurance, advice, and insight as follows:

- **Audit**: Provide independent, objective assurance and advisory activity designed to add value and improve university operations.

- **Enterprise Risk Management**: Provide oversight of the enterprise risk management program by identifying, assessing, and managing risk by working with risk owners within the ERM process.

- **Compliance**: Provide oversight of the institutional compliance program and the distributed processes that support compliance across the university by working with subject matter experts and compliance risk owners.
OARC did not identify any areas where management decided to accept a level of risk that we believed to be unacceptable.

No deficiencies representing significant control weaknesses were identified; however, a number of other areas requiring improvement were noted.

Overall, management:

- Accepts their responsibility for internal control and is supportive of audit efforts
- Generally accepts audit recommendations and responds by developing action plans to address concerns
- Did not limit the work performed and independence/objectivity was not impaired
FY 2021-22 HIGHLIGHTS

Enterprise Risk Management
- Updated university’s enterprise risk landscape and heat map
- Refreshed the "top ten" focus areas
- Engaged all Board of Visitor committees on ERM topics

Institutional Compliance Program:
- Recruited the inaugural university compliance officer
- Continued engagement with the campus-wide compliance risk owners
- Ongoing management of the anonymous compliance concern reporting hotline

Internal Audit:
- 86% of audit plan completed
- 32 completed engagements
- 15 fraud, waste, or abuse cases initiated
- 4.4 out of 5 (88%) on client satisfaction surveys
- 70 management action plans closed

88% client satisfaction

ERM “top ten” updated

Inaugural university compliance officer recruited
FY 2021-22 Audit Plan Metrics

Audit Plan Status

<table>
<thead>
<tr>
<th>Audits</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total # of Audits Planned</td>
<td>31</td>
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<tr>
<td>Total # of Supplemental Audits</td>
<td>2</td>
</tr>
<tr>
<td>Total # of Carry Forwards</td>
<td>9</td>
</tr>
<tr>
<td>Total # of Planned Audits Deferred and/or Canceled</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total Audits In Plan as Amended</strong></td>
<td><strong>37</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Audits Completed</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Audits – Percentage Complete</td>
<td>86%</td>
</tr>
<tr>
<td>Audits – Percentage Complete or Underway</td>
<td>100%</td>
</tr>
</tbody>
</table>

Note: Includes Policy Compliance Reviews and Advisory Services

Distribution of Direct Audit Hours

- Risk: 56%
- Audit Support: 15%
- Fraud, Waste, and Abuse: 11%
- Compliance: 11%
- Advisory Services: 4%
- ERM & ICP: 3%

Client Satisfaction Survey Results

- Audit Team: 4.4 in 2022, 4.7 in 2021
- Audit Performance: 4.4 in 2022, 4.6 in 2021
- Audit Report: 4.4 in 2022, 4.6 in 2021

Management Corrective Action Summary

- Beginning # of management corrective actions: 48
- Management corrective actions added: 77
- Management corrective actions closed: 70
- Current # of open management corrective actions: 55
FRAUD, WASTE, AND ABUSE

Average 41% substantiation since 2013

- # of Internal Cases
- # of Hotline Cases
- # of Cases Substantiated
- # of Cases with Recs

Seven active cases as of June 30, 2022
Updated risk landscape including evaluation of the 'top ten risks'
INSTITUTIONAL COMPLIANCE PROGRAM

Highlights include:

- Recruiting the inaugural university compliance officer.
- Continued engagement with the campus-wide compliance risk owners.
- Managing an anonymous reporting hotline for compliance-related concerns.

“Virginia Tech is committed to integrity, a culture of compliance, and the promotion of the highest ethical standards for all employees.”

- President Tim Sands

8 ELEMENTS OF AN EFFECTIVE COMPLIANCE PROGRAM

- High-level personnel exercising oversight
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- Perform periodic compliance risk assessments
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>55 years of Virginia Tech experience

172 years of professional audit, risk, and compliance experience
## RESOURCING

### Analysis of Expenditures

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QUESTIONS?
The Office of Audit, Risk, and Compliance (OARC) presents the Compliance, Audit, and Risk Committee Charter and the Charter for the Office of Audit, Risk, and Compliance for review and approval in accordance with professional standards. After conducting a thorough review, OARC recommends modifications to the charters to add clarity for the areas under the Committee’s oversight, including delineating the roles and responsibilities for the internal audit, enterprise risk management, and institutional compliance programs.

**RECOMMENDATION:**

That the Compliance, Audit, and Risk Committee Charter and the Charter for the Office of Audit, Risk, and Compliance be approved by the Compliance, Audit, and Risk Committee.
I. PURPOSE

The primary purpose of the Compliance, Audit, and Risk (CAR) Committee is to assist the Board of Visitors in fulfilling its fiduciary responsibilities related to oversight of:

- The university’s enterprise risk management program, as an essential part of a strong control environment, to ensure that risk appetite aligns with management’s decisions and strategy;
- Adherence to this charter, including reviewing audits conducted by the Office of Audit, Risk, and Compliance and external bodies and providing guidance on auditing concerns to the full Board;
- The institutional compliance processes that monitor compliance with all federal, state, and local laws and executive orders and policies promulgated by academic and athletic accrediting bodies, regulatory agencies, funding agencies, and the State Council of Higher Education for Virginia;
- The maintenance of effective systems of internal control, including the integrity of the university’s financial accounting and reporting practices; and
- The performance of the university’s internal and independent audit functions.

The function of the Committee is oversight. University management is responsible for (i) preparation, presentation, and integrity of the university’s financial statements, (ii) maintenance and implementation of effective policies, procedures, and controls designed to assure compliance with generally accepted accounting principles and applicable laws and regulations; and (iii) identification, assessment, monitoring, and management of significant enterprise-level risks to the university. The Office of Audit, Risk, and Compliance examines and evaluates the adequacy and effectiveness of the university’s internal control systems. The university’s external auditor, the state Auditor of Public Accounts, is responsible for planning and conducting the financial statement examination in accordance with generally accepted government auditing standards.

This document and the related meeting planner are intended to identify and document the Committee’s oversight responsibilities in order that such sound practices will continue despite the turnover of Committee members. It also outlines the regularly scheduled review activities that will ensure that the university continues to have an independent and objective internal audit function and obtains the greatest possible benefit from its external audits.

II. MEETINGS

By statute, the Board of Visitors, including the CAR Committee, must meet once a year, but traditionally holds four meetings a year. Additional meetings may occur more frequently as circumstances warrant. The Committee Chair should meet with the Associate Vice
III. RESPONSIBILITIES

In performing its oversight responsibilities, the CAR Committee shall:

A. General

1. Adopt a formal written charter that specifies the Committee’s responsibilities and practices. The charter should be reviewed annually and updated as necessary.
2. Approve the charter for the Office of Audit, Risk, and Compliance. The charter should be reviewed annually and updated as necessary.
3. Maintain minutes of meetings.
4. Authorize audits within the Committee’s scope of responsibilities.
5. Report Committee actions to the Board of Visitors with such recommendations as the Committee may deem appropriate.
6. Meet in closed session, consistent with state law, (without members of senior management present, when appropriate) with the internal or external auditors to discuss matters that the Committee or the auditors believe should be discussed privately.
7. Confer privately with the Associate Vice President and Chief Risk Officer at each of its committee meetings.

B. Enterprise Risk Management and Internal Control

1. Review the university’s enterprise risk management (ERM) efforts including the program structure and the processes for assessing significant risk exposures and the steps management has taken to monitor and control such exposures, as well as the university’s risk assessment and risk management policies.
2. Consider the effectiveness of the university’s internal control systems, including those over information technology and financial reporting.
3. Understand the scope of internal and external audit reviews of internal control, and obtain reports on significant potential issues and recommendations, together with management’s responses.
4. Review management’s written responses to significant potential issues and recommendations of the auditors, including the timetable to correct the identified weaknesses in the internal control system.
5. Advise management that they are expected to provide a timely analysis of significant reporting issues and practices.

C. External Auditors

1. Make inquiries of management and the independent auditors regarding the scope of the external audit for the current year.
2. As necessary, discuss with the external auditors their processes for identifying and responding to key audit and internal control risks.
3. Review the coordination of internal and external audit procedures to promote an effective use of resources and ensure complete and efficient coverage of the university’s risks.
4. Meet with external auditors at the completion of the financial statements audit to receive and discuss the audit report(s), and determine whether external auditors are satisfied with the disclosure and content of the financial statements, including the nature and extent of any significant changes in accounting principles.
5. Review the results and organizational response stemming from significant reviews by regulatory agencies or other external entities (non-financial statement audits).

D. **Internal Auditors**

1. Review and approve the annual audit plan and any significant changes to the plan.
2. Review the effectiveness of the internal audit function, including staffing resources, financial budget, training, objectivity and reporting relationships.
3. Review completed audit reports and progress reports on executing the approved annual audit plan.
4. Review the results of the Office of Audit, Risk, and Compliance’s Quality Assurance and Improvement Program (QAIP), including results of internal assessments (both ongoing and periodic) and external assessments conducted at least once every five years by a qualified, independent assessor or assessment team from outside the university.
5. Inquire of the Chief Audit Executive regarding any difficulties encountered in the course of the audits, including any restrictions on the scope of work or access to required information.
6. Review and concur in the appointment, replacement, reassignment, or dismissal of the Chief Audit Executive.
7. Evaluate the Chief Audit Executive’s annual performance and make decisions regarding compensation in consultation with the Associate Vice President and Chief Risk Officer.

E. **Institutional Compliance, Ethics, and Business Conduct**

1. Support leadership by promoting and supporting a university-wide culture of ethical and lawful conduct.
2. Require management to periodically report on procedures that provide assurance that the university’s mission, values, and codes of conduct are properly communicated to all employees.
3. Review the programs and policies of the university designed by management to assure compliance with applicable laws and regulations and monitor the results of the compliance efforts.
4. Monitor the university’s conflict of interest policies and related procedures.
The “CAR Agenda Meeting Planner” is an integral part of this document. If the Board of Visitors meets less frequently than anticipated, the Planner will be adjusted accordingly.

**Virginia Polytechnic Institute and State University**  
**Compliance, Audit, and Risk Committee of the Board of Visitors**  
**CAR Agenda Meeting Planner**

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4. Meet with external auditors at the completion of the financial statements audit to receive and discuss the audit report(s)  

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5. Review results of other significant reviews from regulatory agencies or other external entities

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D. Internal Auditors

1. Approve the annual audit plan

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2. Review the effectiveness of the internal audit function, including staffing resources, financial budget, training, objectivity, and reporting relationships

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3. Review the results of the QAIP, including internal and external assessments

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4. Review completed audit reports and progress reports on executing the approved annual audit plan

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5. Inquire of the Chief Audit Executive regarding any difficulties encountered in the course of the audits, including any restrictions on the scope of work or access to required information

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6. Review and concur in the appointment, replacement, reassignment, or dismissal of the Chief Audit Executive

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7. Evaluate the Chief Audit Executive’s annual performance and make decisions regarding compensation in consultation with the Associate Vice President and Chief Risk Officer

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E. Compliance, Ethics, and Business Conduct

1. Convey commitment to ethical conduct through periodic receipt of management reports on how the university’s mission, values, and codes of conduct are properly communicated to all employees

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2. Review the programs and policies of the university designed to assure and monitor compliance

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3. Monitor the university’s conflict of interest policies and related procedures

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I. PURPOSE

The primary purpose of the Compliance, Audit, and Risk (CAR) Committee is to assist the Board of Visitors in fulfilling its fiduciary responsibilities related to oversight of:

- The university’s enterprise risk management program, as an essential part of a strong control environment, to ensure that risk appetite aligns with management’s decisions and strategy;
- Adherence to this charter, including reviewing audits conducted by the Office of Audit, Risk, and Compliance and external bodies and providing guidance on auditing concerns to the full Board;
- The university’s institutional compliance processes that monitor compliance with all federal, state, and local laws and executive orders and policies promulgated by academic and athletic accrediting bodies, regulatory agencies, funding agencies, and the State Council of Higher Education for Virginia;
- The maintenance of effective systems of internal control, including the integrity of the university’s financial accounting and reporting practices; and
- The performance of the university’s internal and independent audit functions.

The function of the Committee is oversight. University management is responsible for the (i) preparation, presentation, and integrity of the university’s financial statements, fiscal plans, and other financial reporting. University management is also responsible for (ii) maintenance and implementation of effective policies, procedures, and controls designed to assure compliance with generally accepted accounting principles and applicable laws and regulations; and (iii) identification, assessment, monitoring, and management of significant enterprise-level risks to the university. The Office of Audit, Risk, and Compliance examines and evaluates the adequacy and effectiveness of the university’s internal control systems. The university’s external auditor, the state Auditor of Public Accounts, is responsible for planning and conducting the financial statement examination in accordance with generally accepted government auditing standards.

This document and the related meeting planner are intended to identify and document the Committee’s oversight responsibilities in order that such sound practices will continue despite the turnover of Committee members. It also outlines the regularly scheduled review activities that will ensure that the university continues to have an independent and objective internal audit function and obtains the greatest possible benefit from its external audits.

II. MEETINGS

By statute, the Board of Visitors, including the CAR Committee, must meet once a year, but traditionally holds four meetings a year. Additional meetings may occur more frequently.

Presentation Date: November 17, August 23, 2019

2019

2022
as circumstances warrant. The Committee Chair should meet with the Associate Vice President and Chief Risk Officer as necessary and at least discuss the agenda with the Executive Director of Audit, Risk, and Compliance prior to each Committee meeting to finalize the meeting agenda and review the items to be discussed.

III. RESPONSIBILITIES

In performing its audit oversight responsibilities, the CAR Committee shall:

A. General

1. Adopt a formal written charter that specifies the Committee’s responsibilities and practices. The charter should be reviewed annually and updated as necessary.
2. Approve the charter for the Office of Audit, Risk, and Compliance. The charter should be reviewed annually and updated as necessary.
3. Maintain minutes of meetings.
4. Authorize audits within the Committee’s scope of responsibilities.
5. Report Committee actions to the Board of Visitors with such recommendations as the Committee may deem appropriate.
6. Meet in closed session, consistent with state law, (without members of senior management present, when appropriate) with the internal or external auditors and/or the Executive Director of Audit, Risk, and Compliance to discuss matters that the Committee or the auditors believe should be discussed privately.
7. Confer privately with the Executive Director of Audit, Risk, and Compliance Associate Vice President and Chief Risk Officer shall have a regularly scheduled opportunity to meet privately with the Committee at each of its four annual committee meetings.

B. Enterprise Risk Management and Internal Control

1. Review the university’s enterprise risk management (ERM) efforts including the program structure and the processes for assessing significant risk exposures and the steps management has taken to monitor and control such exposures, as well as the university’s risk assessment and risk management policies.
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5. Advise management that they are expected to provide a timely analysis of significant reporting issues and practices.

C. External Auditors

1. Make inquiries of management and the independent auditors regarding the scope of the external audit for the current year.

Presentation Date: November 17, August 23, 2019-2022
2. As necessary, discuss with the external auditors their processes for identifying and responding to key audit and internal control risks.

3. Review the coordination of internal and external audit procedures to promote an effective use of resources and ensure complete and efficient coverage of the university’s risks.

4. Meet with external auditors at the completion of the financial statements audit to receive and discuss the audit report(s), and determine whether external auditors are satisfied with the disclosure and content of the financial statements, including the nature and extent of any significant changes in accounting principles.

5. Review the results and organizational response stemming from significant reviews by regulatory agencies or other external entities (non-financial statement audits).

D. Internal Auditors

1. Review and approve the annual audit plan and any significant changes to the plan.

2. Review the effectiveness of the internal audit function, including staffing resources, financial budget, training, objectivity and reporting relationships.

3. Review completed audit reports and progress reports on executing the approved annual audit plan.

4. Review the results of the Office of Audit, Risk, and Compliance’s Quality Assurance and Improvement Program (QAIP), including results of internal assessments (both ongoing and periodic) and external assessments conducted at least once every five years by a qualified, independent assessor or assessment team from outside the university.

5. Inquire of the Chief Audit Executive regarding any difficulties encountered in the course of the audits, including any restrictions on the scope of work or access to required information.

6. Review and concur in the appointment, replacement, reassignment, or dismissal of the Chief Audit Executive.

7. Evaluate the Chief Audit Executive’s annual performance and make decisions regarding compensation in consultation with the Associate Vice President and Chief Risk Officer.

E. Institutional Compliance, Ethics, and Business Conduct

1. Support leadership by promoting and supporting a university-wide culture of ethical and lawful conduct.

2. Require management to periodically report on procedures that provide assurance that the university’s mission, values, and codes of conduct are properly communicated to all employees.

3. Review the programs and policies of the university designed by management to assure compliance with applicable laws and regulations and monitor the results of the compliance efforts.

4. Monitor the university’s conflict of interest policies and related procedures.
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Virginia Polytechnic Institute and State University  
Compliance, Audit, and Risk Committee of the Board of Visitors  
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| 2. Review and approve the charter for the Office of Audit, Risk, and Compliance, if changes are needed | △ |  |  |  |  |
| 2-3. Approve and maintain minutes of previous meeting | X | X | X | X | X |
| 3-4. Authorize audits within the Committee’s scope of responsibilities | X |  |  |  |  |
| 4-5. Report Committee actions to the Board of Visitors with recommendations deemed appropriate | X | X | X | X | X |
| 5-6. Meet in closed session with the Associate Vice President and Executive Director of Audit, Risk, and Compliance, Chief Risk Officer, and with internal or external auditors, as needed | X | X | X | X | X |
| <strong>B. Risk Management and Internal Control</strong> |  |  |  |  |  |
| 1. Review the university’s ERM efforts including the program structure, processes, risk assessment, and risk management policies | X | X | X | X | X |
| 2. Consider the effectiveness of the university’s internal control systems | X |  |  |  |  |
| 3. Understand the scope of internal and external audit reviews of internal control, and obtain reports on significant potential issues and recommendations, together with management’s responses | X | X | X | X | X |
| 4. Review management’s written responses to significant potential issues and recommendations of the auditors, including the timetable to correct identified weaknesses in the internal control system | X | X | X | X | X |
| 5. Advise management that they are expected to provide a timely analysis of significant current reporting issues and practices | X |  |  |  |  |
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<td>16.7. Evaluate the Chief Audit Executive Executive Director of Audit, Risk, and Compliance’s annual performance and make decisions regarding compensation in consultation with the Associate Vice President and Chief Risk Officer</td>
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Charter for the Office of Audit, Risk, and Compliance

1.0 Purpose

This policy outlines the policies and procedures covering the Office of Audit, Risk, and Compliance (OARC) at Virginia Polytechnic Institute and State University and serves as a charter for the department.

2.0 Policy

It is the policy of the Compliance, Audit, and Risk (CAR) Committee of the Board of Visitors and the management of Virginia Polytechnic Institute and State University to support the maintenance of audit, risk, and compliance functions to assist in the effective discharge of their fiduciary responsibilities in assessing the effectiveness of the internal control environment.

The Office of Audit, Risk, and Compliance (OARC) performs comprehensive assurance services through independent internal audits, advisory activities, the university risk management process, and the institutional compliance program. OARC helps the university accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes. OARC’s mission is to enhance and protect organizational value by providing risk-based and objective assurance, advice, and insight as follows:

1. **Audit**: Provide independent, objective assurance and advisory activities designed to add value and improve university operations.
2. **Risk Management**: Provide oversight of the enterprise risk management (ERM) program by identifying, assessing, and managing risk by working with risk owners within the ERM process.
3. **Compliance**: Provide oversight of the institutional compliance program and the distributed processes that support compliance across the university by working with subject matter experts and compliance risk owners.

2.1 Scope of the Office of Audit, Risk, and Compliance

The scope of OARC’s work is to determine whether Virginia Tech’s network of risk management, internal controls, compliance activities, and governance processes, as designed and represented by management, are adequate and functioning in a manner to ensure:

- Programs, plans, and strategic objectives are achieved.
- Risks are appropriately identified, managed, and considered in institutional decision making.
- Processes for the collection and administration of significant financial, managerial, and operating information provide management with accurate, reliable, and timely data.
• Compliance with policies, procedures, standards, laws, regulations, contracts, or other requirements.
• Significant legislative or regulatory issues impacting the organization are recognized and addressed properly.
• Resources are acquired, managed, and protected in an economical, efficient, and effective manner.
• Integrity, quality, and continuous improvement are fostered in the university’s culture and control processes.

2.2 Accountability

The Associate Vice President and Chief Risk Officer (Chief Risk Officer) shall be accountable to senior leadership and the CAR Committee of the Board of Visitors to:

• Supervise the leaders responsible for internal audit and compliance.
• Provide assessments on the adequacy and effectiveness of the university’s processes for controlling its activities and managing its risks in the areas set forth under the mission and scope of work.
• Report significant issues related to the processes for controlling the activities of the university, including potential improvements to those processes, and provide information concerning such issues through resolution.
• Periodically provide information on the status and results of the annual audit plan, university compliance and risk management activities, and the sufficiency of department resources.
• Coordinate with, and provide oversight of, other compliance, control, and monitoring functions.

2.3 Independence, Objectivity, and Professionalism

To provide for the objectivity of risk management and compliance efforts and the independence of the internal audit efforts to ensure the highest ethics and integrity standards:

• The Chief Risk Officer reports to the President and the CAR Committee.
• The Chief Audit Executive reports functionally to the CAR Committee and administratively to the Chief Risk Officer.
• The University Compliance Officer reports to the Chief Risk Officer and is accountable to the CAR Committee.

OARC personnel will exhibit the highest level of professional objectivity and integrity in gathering, evaluating, and communicating information about the activity or process being examined. OARC assessments will consider all relevant facts and circumstances, and OARC staff will not be influenced by their own personal interests or by others interests in forming judgments.

The internal audit function conducts its activities in accordance with the Institute of Internal Auditors’ International Professional Practices Framework including the Core Principles for the Professional Practice of Internal Auditing, Code of Ethics, the International Standards for the Professional Practice of Internal Auditing, and the Definition of Internal Auditing.
2.4 Authority

OARC is authorized to:

- Have unrestricted access to all university departments, information, records, reports, activities, property, manual and automated systems, and personnel that they deem necessary to carry out their responsibilities. OARC will exercise discretion in their review to assure the necessary confidentiality of matters that come to its attention.
- Have direct and unrestricted access to the President and the CAR Committee of the Board of Visitors.
- Allocate resources, set frequencies, select subjects, determine scope of work, and apply the techniques required to accomplish OARC objectives.
- Obtain assistance for specialized services from within or outside the university in order to complete engagements.

As internal audit is an independent function, OARC staff assigned to internal audit responsibilities are not authorized to:

- Have direct operational responsibility or authority over any of the procedures, systems, or activities audited.
- Initiate or approve accounting transactions external to OARC.
- Direct the activities of any employee not employed by OARC, except to the extent such employees have been appropriately assigned to assist with OARC engagements or activities.

2.5 Responsibility

OARC has the responsibility to enhance and protect organizational value by:

**General:**

- Evaluating and assessing existing significant functions and new or changing services, processes, operations, and control processes coincident with their development, implementation and/or expansion of the university.
- Conducting investigations of suspected fraudulent and non-compliant activities and appropriately notifying relevant university management, the CAR Committee, and the appropriate authorities.
- Communicating directly with the CAR Committee on any matters considered to warrant its attention as appropriate, including trends and emerging issues that could impact the university.
- Maintaining a professional staff with sufficient knowledge, skills, experience, and professional certifications to meet the requirements of this charter.

**Risk Management:**

Risk Management, under the direction of the Chief Risk Officer, provides services including, but not limited to:

- Planning, facilitating, and overseeing the university’s efforts regarding enterprise risk management (ERM) on behalf of senior management and the CAR Committee.
- Executing the periodic university risk assessment process and advising risk owners in their identification and implementation of responses to monitor and manage such risks.
• Ensuring risk management plans are maintained and university risk assessment results are reported to the President and the CAR Committee.

**Internal Audit:**

Internal Audit, under the direction of the Chief Audit Executive, provides services including, but not limited to:

• Coordinating audit activities to provide a central source of information for management and the CAR Committee regarding all audit activities and to provide comprehensive, cost-effective audit coverage for the university.
• Developing, submitting for approval, and executing a comprehensive risk-based annual audit plan.
• Issuing periodic reports recommending improvements in controls designed to increase efficiency, safeguard university resources, and ensure compliance with government laws and regulations.
• Performing advisory services, beyond its auditing services, to assist management in meeting its objectives.
• Appraising the adequacy of actions taken by management to correct significant reported internal control weaknesses and deficient conditions, and reporting this information to the CAR Committee and responsible senior manager as appropriate.
• Establishing and maintaining a Quality Assurance and Improvement Program to evaluate the operations of the department, including periodic internal self-assessments and external peer reviews at least once every five years by qualified persons who are independent of the university, the results of which will be presented to senior management and the CAR Committee.

**Institutional Compliance:**

Institutional Compliance, under the direction of the University Compliance Officer, provides services including, but not limited to:

• Providing oversight of the institutional compliance program and the distributed processes that support compliance across the university by working with subject matter experts and compliance risk owners.
• Conducting periodic risk assessments to identify potential areas of compliance vulnerability and risk, and ensuring management ownership for monitoring and managing compliance risks.
• Advising institutional compliance risk owners and decentralized compliance risk management leadership.

**2.6 Coordination with External Auditing Agencies**

To ensure appropriate coordination and completeness of the CAR Committee reporting responsibilities, senior managers should promptly notify OARC of any external audits or reviews. OARC will coordinate its audit efforts with those of the Auditor of Public Accounts or other external auditing agencies by participating in the planning and definition of the scope of proposed audits so the work of all auditing groups is complementary, and their combined efforts provide comprehensive, cost-effective audit coverage for the university. The Chief Audit Executive will work with the appropriate members of management to determine the level of involvement of OARC, if any, in the performance of each external audit. Duplication of work will be avoided as much as possible.
3.0 Procedures
Principal guidance and direction on how OARC accomplishes its mission and responsibilities is provided to the staff through an office procedures manual. The manual promotes adherence to the professional standards.

4.0 Definitions

Abuse
The excessive or improper use of a thing or policy, or employment of something in a manner contrary to the natural or legal rules for its use. Abuse includes the destruction, diversion, manipulation, misapplication, mistreatment, or misuse of university resources, as well as the extravagant or excessive use of one’s position or authority. Abuse can occur in financial or nonfinancial settings.

Advisory Services
Advisory and related client service activities, the nature and scope of which are agreed with the client, are intended to add value and improve an organization’s governance, risk management, and control processes without the internal auditor assuming management responsibility.

Assurance
An objective examination of evidence for the purpose of providing an independent assessment on governance, risk management, and control processes for the organization. Examples may include financial, performance, compliance, system security, and due diligence engagements.

Charter
The charter is a formal document that defines OARC’s purpose, authority, and responsibility. The charter establishes the office’s position within the organization; authorizes access to records, personnel, and physical properties relevant to the performance of engagements; and defines the scope of internal audit activities.

Code of Ethics
The Code of Ethics of The Institute of Internal Auditors are principles relevant to the profession and practice of internal auditing, and rules of conduct that describe behavior expected of internal auditors. The purpose of the Code of Ethics is to promote an ethical culture in the global profession of internal auditing.

Compliance
Adherence to policies, plans, procedures, laws, regulations, contracts, or other requirements.

Conflict of Interest
Any relationship that is, or appears to be, not in the best interest of the organization. A conflict of interest could prejudice an individual’s ability to perform his or her duties and responsibilities objectively.

Control
Any action taken by management, the board, and other parties to manage risk and increase the likelihood that established objectives and goals will be achieved. Management plans, organizes, and directs the performance of sufficient actions to provide reasonable assurance that objectives and goals will be achieved.
Control Environment
The attitude and actions of the board and management regarding the importance of control within the organization. The control environment provides the discipline and structure for the achievement of the primary objectives of the system of internal control (e.g. integrity and ethical values; management’s philosophy and operating style; organizational structure; and the assignment of authority and responsibility).

Control Processes
The policies, procedures (both manual and automated), and activities that are part of a control framework, designed and operated to ensure that risks are contained within the level that an organization is willing to accept.

Engagement
A specific assignment, task, or review activity, such as an internal audit, control self-assessment review, fraud examination, or consultancy. An engagement may include multiple tasks or activities designed to accomplish a specific set of related objectives.

Enterprise Risk Management
A process applied in strategy-setting and across the enterprise that is designed to identify potential events that may affect the entity, manage risk to be within the entity’s risk tolerance, and support the achievement of entity objectives.

Fraud
The intentional misrepresentation or concealment of information in order to deceive, mislead, or acquires something of value. Fraud is an intentional deception perpetrated to secure an unfair advantage or personal benefit.

Governance
The combination of processes and structures implemented by the board to inform, direct, manage, and monitor the activities of the organization toward the achievement of its objectives. The governance process includes: promoting appropriate ethics and values within the organization; ensuring effective organizational performance management and accountability; communicating risk and control information to appropriate areas of the organization; and coordinating the activities of and communicating information among the board, external and internal auditors, and management.

Independence
The freedom from conditions that threaten the ability of a function to carry out its responsibilities in an unbiased manner.

International Professional Practices Framework
The conceptual framework that organizes the authoritative guidance promulgated by the Institute of Internal Auditors. Authoritative guidance is comprised of two categories including mandatory guidance (Core Principles, Definition of Internal Auditing, Code of Ethics, and International Standards for the Professional Practice of Internal Auditing) and strongly recommended guidance (implementation and supplemental guidance).

Objectivity
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Risk
The possibility of an event occurring that will have an impact on the achievement of objectives. Risk is measured in terms of impact, likelihood, and velocity.

Risk Management
A process to identify, assess, manage, and control potential events or situations to provide reasonable assurance regarding the achievement of the organization’s objectives.

Scope
A statement that specifies the focus, extent, and boundary of a particular engagement. The scope can be specified by defining the physical location, the organizational units that will be examined, the processes and activities that will be included, and/or the time period that will be covered.

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Waste
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The Institute of Internal Auditors' International Professional Practices Framework, including the Core Principles for the Professional Practice of Internal Auditing, the Code of Ethics, the International Standards for the Professional Practice of Internal Auditing (Standards), and the Definition of Internal Auditing, revised in 2016 and effective 2017.

6.0 Approval and Revisions

- Revision 0
  Approved February 9, 1989, by the Director of Internal Audit, David C. Goodyear.

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  Annual review. Section 2.8 - changed so that reports "approved" by the Finance and Audit Committee of the Board of Visitors shall be available to the public.
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- **Revision 5**
  April 1, 2008:
  Updates to position titles and/or responsibilities due to university reorganization.

- **Revision 6**
  - Policy title changed from “Internal Audit Department” to “Internal Audit Charter.”
  - Section 2.2 revised to reflect change in Director of Internal Audit reporting relationship.
  - Sections 2.5 and 2.7 revised to clarify the role of Internal Audit and the standards under which it conducts its activities.
  - Section 2.9 revised to clarify the process for senior management areas submitting corrective action plans.
  Approved November 7, 2011 by the university President, Charles W. Steger. Approved November 7, 2011 by the Finance and Audit Committee of the Board of Visitors.

- **Revision 7**
  - Full technical review correcting grammatical, punctuation, word usage, sentence structure, and minor content and/or format inconsistencies. The charter was also revised to incorporate the concept of objectivity, and to include applicable procedures and definitions.
  - Policy title changed from “Internal Audit Charter” to “Charter for the University’s Internal Audit Function.”
  Approved November 9, 2015 by the Finance and Audit Committee of the Board of Visitors and President, Timothy D. Sands.

- **Revision 8**
  Revised to address the reorganization of the Board of Visitors’ committee structure and additional responsibilities with regard to risk management and compliance. Additional revisions were made to reflect revised guidance from the Institute of Internal Auditors.
  Approved November 5, 2017 by the Compliance, Audit, and Risk Committee of the Board of Visitors and President, Timothy D. Sands.
• Revision 9
Revisions from technical review correcting grammatical, punctuation, word usage, sentence structure, and minor content and/or format inconsistencies.
Approved November 18, 2019 by the Compliance, Audit, and Risk Committee of the Board of Visitors and President, Timothy D. Sands.

• Revision 10
Revisions from technical review correcting grammatical, punctuation, and minor format inconsistencies. Additionally, section 2.9 was revised to clarify expectations on OARC’s responsibility for coordinating external audits and reviews.
Approved November 15, 2020 by the Compliance, Audit, and Risk Committee of the Board of Visitors and President, Timothy D. Sands.

• Revision 11
Revised to delineate the roles and responsibilities for internal audit, enterprise risk management, and the institutional compliance program. Additional revisions were made to streamline for consistency.
Approved August 23, 2022 by the Compliance, Audit, and Risk Committee of the Board of Visitors and President, Timothy D. Sands.
Charter for the Office of Audit, Risk, and Compliance

1.0 Purpose

This policy outlines the policies and procedures covering the Office of Audit, Risk, and Compliance (OARC) at Virginia Polytechnic Institute and State University and serves as a charter for the department.

2.0 Policy

It is the policy of the Compliance, Audit, and Risk (CAR) Committee of the Board of Visitors and the management of Virginia Polytechnic Institute and State University to support the maintenance of an internal audit, risk, and compliance functions to assist in the effective discharge of their fiduciary responsibilities in assessing the effectiveness of the internal control environment.

The Office of Audit, Risk, and Compliance (OARC) performs comprehensive assurance services through independent internal audits, advisory activities, plans and oversees the university risk management process, and oversees the institutional compliance program. OARC helps the university accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes. OARC’s mission is to enhance and protect organizational value by providing risk-based and objective assurance, advice, and insight as follows:

1. Audit: Provide independent, objective assurance and advisory activities designed to add value and improve university operations. It helps the university accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

2. Risk Management: Provide oversight of the enterprise risk management (ERM) program by creating and maintaining the framework to identifying, assessing, and managing risk by working with risk owners within the ERM process.

3. Compliance: Provide oversight of the institutional compliance program and the distributed processes that support compliance across the university by working with subject matter experts and compliance risk owners.

2.1 Scope of the Office of Audit, Risk, and Compliance

The scope of OARC’s work is to determine whether Virginia Tech’s network of risk management, internal controls, compliance activities, and governance processes, as designed and represented by management, are adequate and functioning in a manner to ensure:

- Programs, plans, and strategic objectives are achieved.
• Risks are appropriately identified, managed, and considered in institutional decision making.
  • Processes for the collection and administration of significant financial, managerial, and operating information provide management with accurate, reliable, and timely data.
• Compliance with policies, procedures, standards, laws, and regulations, contracts, or other requirements.
• Significant legislative or regulatory issues impacting the organization are recognized and addressed properly.
• Resources are acquired, managed, and protected in an economical, efficient, and effective manner.
• Integrity, quality, and measures are taken to foster continuous improvement are fostered in the university’s culture and control processes.
• Resources are acquired, managed, and protected in an economical, efficient, and effective manner.

2.2 Accountability

The Associate Vice President and Chief Risk Officer (Chief Risk Officer) shall be accountable to senior leadership and the CAR Committee of the Board of Visitors to:
  • Supervise the leaders responsible for internal audit and compliance.
  • Provide assessments on the adequacy and effectiveness of the university’s processes for controlling its activities and managing its risks in the areas set forth under the mission and scope of work.
  • Report significant issues related to the processes for controlling the activities of the university, including potential improvements to those processes, and provide information concerning such issues through resolution.
  • Periodically provide information on the status and results of the annual audit plan, university compliance and risk management activities, and the sufficiency of department resources.
  • Coordinate with, and provide oversight of, other compliance, control, and monitoring functions.

2.2.3 Independence, and Objectivity, and Professionalism

To provide for the objectivity of risk management and compliance efforts and the independence of the internal audit efforts to ensure the highest ethics and integrity standards:
  • The Chief Risk Officer reports to the President and the CAR Committee.
  • The Chief Audit Executive reports functionally to the CAR Committee and administratively to the Chief Risk Officer.
  • The University Compliance Officer reports to the Chief Risk Officer and is accountable to the CAR Committee.

Independence is essential to enable the internal audit function to accomplish its purpose. Accordingly, the Executive Director of Audit, Risk, and Compliance reports functionally to the CAR committee and also serves in a staff role to the committee. For day-to-day operations, the Executive Director of Audit, Risk, and Compliance reports administratively to the President. These reporting relationships allow for direct and unrestricted access to the President and the CAR Committee of the Board of Visitors.
OARC personnel will exhibit the highest level of professional objectivity and integrity in gathering, evaluating, and communicating information about the activity or process being examined. OARC assessments will consider all relevant facts and circumstances, and OARC staff will not be influenced by their own personal interests or by others' interests in forming judgments.

The internal audit function will conduct its activities in accordance with the Institute of Internal Auditors’ International Professional Practices Framework including the Core Principles for the Professional Practice of Internal Auditing, Code of Ethics, the International Standards for the Professional Practice of Internal Auditing, and the Definition of Internal Auditing.
All work will be conducted in an objective and independent manner. Staff will maintain an impartial attitude in selecting and evaluating evidence and in reporting results. Independence in fact and appearance enables unbiased judgments essential to the proper conduct of the department’s scope of work. OARC staff have the responsibility to maintain high standards of conduct, professionalism, independence, and character to carry out proper and meaningful internal auditing within the university.

Internal auditors will have no direct operational responsibility or authority over any of the activities audited. Accordingly, internal auditors will not implement internal controls, develop procedures, install systems, prepare records, or engage in any other activity that would normally be audited. Therefore, internal audit review and appraisal procedures do not in any way substitute for the responsibilities assigned to other persons in the organization.

2.3 Authority

OARC is authorized to:

- OARC has unrestricted access to all university departments, information, records, reports, activities, property, manual and automated systems, and personnel that they deem necessary to carry out their responsibilities. OARC will exercise discretion in their review to assure the necessary confidentiality of matters that come to its attention.

- These reporting relationships allow for direct and unrestricted access to the President and the CAR Committee of the Board of Visitors.

- OARC will allocate resources, set frequencies, select subjects, determine scopes of work, and apply the techniques required to accomplish audit OARC objectives, and issue reports.

- OARC will also obtain assistance for specialized services from within or outside the university in order to complete engagements.

As internal audit is an independent function, OARC staff assigned to internal audit responsibilities are not authorized to:

- Internal auditors will have no direct operational responsibility or authority over any of the procedures, systems, or activities audited. Accordingly, internal auditors will not implement internal controls, develop procedures, install systems, prepare records, or engage in any other activity that would normally be audited. Therefore, internal audit review and appraisal procedures do not in any way substitute for the responsibilities assigned to other persons in the organization.

- Initiate or approve accounting transactions external to OARC.

- Direct the activities of any employee not employed by OARC, except to the extent such employees have been appropriately assigned to assist with OARC engagements or activities.

2.4 Auditing Standards

The internal audit function will conduct its activities in accordance with the Institute of Internal Auditors’ International Professional Practices Framework including the Core Principles for the Professional Practice of Internal
2.5 Systems Planning and Development

Management will consult OARC during the planning, development, and modification of major financial or operating systems and procedures (manual and automated) to ensure that:

- Reasonable and adequate internal controls exist.
- Systems or procedural documentation is complete and appropriate.
- An adequate audit trail exists.

OARC’s participation will be designed to help ensure safeguarding of information assets and compliance with appropriate procedures and aid management efficiency by avoiding costly systems or procedural changes at later dates.

2.6.5 Responsibilities of the Executive Director of Audit, Risk, and Compliance

The Executive Director of Audit, Risk, and Compliance has primary responsibility for the proper maintenance and management of OARC to ensure that the work fulfills the purposes and responsibilities established in this policy statement. The Executive Director of Audit, Risk, and Compliance is specifically charged with the following.

### General:

- Evaluating and assessing existing significant functions and new or changing services, processes, operations, and control processes coincident with their development, implementation and/or expansion of the university.

- Conducting investigations of suspected fraudulent and non-compliant activities and appropriately notifying relevant authorities. Performing sufficient tests and examinations to determine and report to university management, the CAR Committee, and the appropriate authorities the extent of any fraud, waste, and abuse and to identify the weaknesses in control procedures that may have allowed the fraudulent activity to occur. The investigation of the specific event with the objective of recovery and/or prosecution is the responsibility of the appropriate law enforcement agency and Commonwealth’s Attorney, based on jurisdiction.

- Communicating directly with the CAR Committee on any matters considered to warrant its attention as appropriate, including trends and emerging issues that could impact the university.

- Maintaining a professional audit staff with sufficient knowledge, skills, experience, and professional certifications to meet the requirements of this charter, and provide information on the sufficiency of department resources.

### Risk Management:

Risk Management, under the direction of the Chief Risk Officer, provides services including, but not limited to:

- Planning, facilitating, and overseeing the university’s efforts regarding enterprise risk management (ERM) on behalf of senior management and the CAR Committee.
• Executing the periodic university risk assessment process and advising risk owners in their identification and implementation of responses to monitor and manage such risks.

• Ensuring risk management plans are maintained and university risk assessment results are reported to the President and the CAR Committee.

Internal Audit:

Internal Audit, under the direction of the Chief Audit Executive, provides services including, but not limited to:

• Coordinating all auditing activities to provide a central source of information for management and the CAR Committee regarding all audit activities and to provide comprehensive, cost-effective audit coverage for the university.

• Developing, submitting for approval, and executing a comprehensive risk-based annual audit plan to carry out departmental responsibilities.

• Issuing periodic reports recommending improvements in controls designed to increase efficiency, safeguard university resources, and ensure compliance with government laws and regulations.

• Performing advisory services, beyond its auditing services, to assist management in meeting its objectives.

• Appraising the adequacy of the actions taken by management to correct significant reported internal control weaknesses and deficient conditions, and reporting this information to the CAR Committee and responsible senior manager as appropriate.

• Establishing and maintaining a Quality Assurance and Improvement Program to evaluate the operations of the department, including periodic internal self-assessments and external peer reviews at least once every five years by qualified persons who are independent of the university, the results of which will be presented to senior management and the CAR Committee.

Institutional Compliance:

Institutional Compliance, under the direction of the University Compliance Officer, provides services including, but not limited to:

• Coordinating the university’s institutional compliance program to be a resource and serve as a catalyst for the achievement of university best practices in compliance-related subject matter areas. Providing oversight of the institutional compliance program and the distributed processes that support compliance across the university by working with subject matter experts and compliance risk owners.

• Conducting periodic risk assessments to identify potential areas of compliance vulnerability and risk, and ensuring management ownership for monitoring and managing compliance risks.

• Advising institutional compliance risk owners and decentralized compliance risk management leadership.

• Coordinating all auditing activities to provide a central source of information for management and the CAR Committee regarding all audit activities and to provide comprehensive, cost-effective audit coverage for the university.

• Facilitating the university’s efforts regarding enterprise risk management (ERM) on behalf of senior management and the CAR Committee.
Virginia Polytechnic Institute and State University

- Coordinating the university’s institutional compliance program to be a resource and serve as a catalyst for the achievement of university best practices in compliance-related subject matter areas.

- Establishing written policies and procedures for OARC and directing its technical and administrative functions.

- Developing, submitting for approval, and executing comprehensive risk-based annual audit plan to carry out departmental responsibilities.

- Maintaining a professional audit staff with sufficient knowledge, skills, experience, and professional certifications to meet the requirements of this charter, and provide information on the sufficiency of department resources.

- Recommending improvements in controls designed to increase efficiency, safeguard university resources, and ensure compliance with government laws and regulations.

- Issuing an annual summary report of activities to the CAR Committee.

- Appraising the adequacy of the action taken by management to correct significant reported internal control weaknesses and deficient conditions, and reporting this information to the CAR Committee and responsible senior manager as appropriate.

- Establishing and maintaining a Quality Assurance and Improvement Program to evaluate the operations of the department, including periodic internal self-assessments and external peer reviews at least once every five years by qualified persons who are independent of the university, the results of which will be presented to senior management and the CAR Committee.

- Communicating directly with the CAR Committee any matters considered to warrant its attention as appropriate, including trends and emerging issues that could impact the university.

- Performing sufficient tests and examinations to determine and report to management, the CAR Committee, and the appropriate authorities the extent of any fraud, waste, and abuse and to identify the weaknesses in control procedures that may have allowed the fraudulent activity to occur. The investigation of the specific event with the objective of recovery and/or prosecution is the responsibility of the appropriate law enforcement agency and Commonwealth’s Attorney, based on jurisdiction.

2.7 Audit Reports

OARC will issue audit reports and/or memoranda in all audit activities performed. The format and style of the report will be determined by the Executive Director of Audit, Risk, and Compliance, depending upon the nature and conditions surrounding the audit. Communications must include the engagement’s objectives and scope as well as applicable conclusions, recommendations, and action plans. The formulation of overall opinions requires consideration of the engagement results and their significance. All reports on engagements scheduled in the annual audit plan will be issued to the members of the CAR Committee; the President; appropriate senior management; and
other appropriate personnel as deemed necessary by the Executive Director of Audit, Risk, and Compliance. In addition, reports approved at open meetings of the committee shall be made available to the public in accordance with state statutes. In certain circumstances, the Executive Director of Audit, Risk, and Compliance may decide, with the approval of the Chair of the CAR Committee, to restrict the issuance of an audit report to certain members of management and/or the committee.

2.8 Responsibility for Corrective Action

Senior management to whom the audited department, activity, or agency reports organizationally is responsible for the issuance of a written response to recommendations made or deficient conditions reported. The responses should be submitted to the Executive Director of Audit, Risk, and Compliance for inclusion in the issued audit report. At each meeting, the CAR Committee will receive status updates of recommendations in the process of implementation.

2.9 Coordination with External Auditing Agencies

To ensure appropriate coordination and completeness of the CAR Committee reporting responsibilities, senior managers should promptly notify the Executive Director of Audit, Risk, and Compliance OARC of any external audits or reviews. OARC will coordinate its audit efforts with those of the Auditor of Public Accounts or other external auditing agencies by participating in the planning and definition of the scope of proposed audits so the work of all auditing groups is complementary, and their combined efforts provide comprehensive, cost-effective audit coverage for the university. The Executive Director of Audit, Risk, and Compliance Chief Audit Executive will work with the appropriate members of management to determine the level of involvement of OARC, if any, in the performance of each external audit. Duplication of work will be avoided as much as possible.
2.10 Special Projects

The Executive Director of Audit, Risk, and Compliance is empowered to conduct special audit projects, reviews, advisory services, or investigations at the request of the President, Vice Presidents or their designee, and the CAR Committee. Special projects assist management in meeting its objectives; promoting economy and efficiency in the administration of its programs and operations; or preventing and detecting fraud, waste, and abuse, examples of which may include facilitation of risk and control evaluation, training, and advisory services.

3.0 Procedures

Principal guidance and direction on how OARC accomplishes its mission and responsibilities is provided to the audit staff through an office procedures manual. The manual promotes adherence to the International Professional Practice Framework developed by the Institute of Internal Auditors professional standards.
4.0 Definitions

Abuse
The excessive or improper use of a thing or policy, or employment of something in a manner contrary to the natural or legal rules for its use. Abuse includes the destruction, diversion, manipulation, misapplication, mistreatment, or misuse of university resources, as well as the extravagant or excessive use of one’s position or authority. Abuse can occur in financial or nonfinancial settings.

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Control Processes
The policies, procedures (both manual and automated), and activities that are part of a control framework, designed and operated to ensure that risks are contained within the level that an organization is willing to accept.

Executive Director of Audit, Risk, and Compliance
The individual who serves as the chief audit executive and is responsible for effectively managing the internal audit activity in accordance with the internal audit charter and the Institute of Internal Auditors’ International Professional Practices Framework.

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  Approved November 3, 1995, by the Director of Internal Audit, David C. Goodyear.
  Annual review, November 5, 1998, by Office of the Executive Vice President. No revisions.

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  Approved November 7, 2011 by the Finance and Audit Committee of the Board of Visitors.

- Revision 7
  - Full technical review correcting grammatical, punctuation, word usage, sentence structure, and minor content and/or format inconsistencies. The charter was also revised to incorporate the concept of objectivity, and to include applicable procedures and definitions.
  - Policy title changed from “Internal Audit Charter” to “Charter for the University’s Internal Audit Function.”
  Approved November 9, 2015 by the Finance and Audit Committee of the Board of Visitors and President, Timothy D. Sands.

- Revision 8
Revised to address the reorganization of the Board of Visitors’ committee structure and additional responsibilities with regard to risk management and compliance. Additional revisions were made to reflect revised guidance from the Institute of Internal Auditors.

Approved November 5, 2017 by the Compliance, Audit, and Risk Committee of the Board of Visitors and President, Timothy D. Sands.
• Revision 9
  Revisions from technical review correcting grammatical, punctuation, word usage, sentence structure, and minor content and/or format inconsistencies.
  Approved November 18, 2019 by the Compliance, Audit, and Risk Committee of the Board of Visitors and President, Timothy D. Sands.

• Revision 10
  Revisions from technical review correcting grammatical, punctuation, and minor format inconsistencies. Additionally, section 2.9 was revised to clarify expectations on OARC’s responsibility for coordinating external audits and reviews.
  Approved November 15, 2020 by the Compliance, Audit, and Risk Committee of the Board of Visitors and President, Timothy D. Sands.

• Revision 11
  Revised to delineate the roles and responsibilities for internal audit, enterprise risk management, and the institutional compliance program. Additional revisions were made to streamline for consistency.
  Approved August 23, 2022 by the Compliance, Audit, and Risk Committee of the Board of Visitors and President, Timothy D. Sands.
The Chair of the Compliance, Audit, and Risk Committee will discuss agenda items for future meetings and adjourn the committee meeting.
Open Joint Session Agenda

FINANCE AND RESOURCE MANAGEMENT COMMITTEE
AND BUILDINGS AND GROUNDS COMMITTEE

3:45 p.m.

Hokie Stone Room, Newport News Center / Tech Center Research Park

August 22, 2022

Agenda Item

* 1. Approval of Resolution for a Capital Project for Building Envelope Improvements

Ken Miller
Chris Kiwus
Bob Broyden

* Requires full Board approval
# Discusses Enterprise Risk Management topic(s)
+ Discusses Strategic Investment Priorities topic(s)
Briefing Report

JOINT FINANCE AND RESOURCE MANAGEMENT COMMITTEE
AND BUILDINGS AND GROUNDS COMMITTEE

August 22, 2022

Joint Open Session

* 1. Approval of Resolution for a Capital Project for Building Envelope Improvements: The Committees will review a resolution for a capital project for building envelope improvements for approval. This resolution is for a $47.2 million authorization to complete building envelope improvements.
Virginia Tech has a series of buildings with envelope systems that require improvements. The university has established an in-house crew of stonemasons that will make improvements to some of the buildings. There are four buildings that exceed the capabilities of the in-house crew and require a third-party vendor due to construction complexity and/or the height of the structure. Those four buildings are the West Sideline of Lane Stadium, Hahn Hall, Torgersen Hall, and the Inn at Virginia Tech. These buildings require a capital project authorization because the costs of their improvements exceed $3 million and/or exceed the Maintenance Reserve program limitations.

This capital project request is for a $47.2 million authorization to complete improvements to the West Sideline of Lane Stadium, Hahn Hall, Torgersen Hall, and the Inn at Virginia Tech. The university has developed a financing plan to support the project. This funding plan calls for a combination of $17.2 million of one-time nongeneral fund cash resources and $30 million of debt financing that will be serviced by nongeneral fund revenues.

Under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the Board of Visitors has the authority to approve the budget, size, scope, debt issuance, and overall funding of nongeneral fund capital outlay projects. This request is for a $47.2 million authorization to complete necessary improvements to the West Sideline of Lane Stadium, Hahn Hall, Torgersen Hall, and the Inn at Virginia Tech. If approved, the university would move forward with implementing the improvements as soon as practicable.
RESOLUTION FOR A CAPITAL PROJECT FOR BUILDING ENVELOPE IMPROVEMENTS

WHEREAS, the building envelope systems of the West Sideline of Lane Stadium, Hahn Hall, Torgersen Hall, and the Inn at Virginia Tech require improvement; and,

WHEREAS, the university has determined the nature and costs of the improvements require a capital project authorization; and,

WHEREAS, the total project costs to complete improvements to the four buildings are $47.2 million, and the university has developed an entirely nongeneral fund financing plan sufficient to support the costs; and,

WHEREAS, the university would move forward with implementing the improvements as soon as practicable upon approval of this resolution; and,

WHEREAS, under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the university has the authority to issue bonds, notes or other obligations that do not constitute State tax supported debt; and,

WHEREAS, the Finance and Resource Management Committee will further review and approve a financing resolution prior to securing permanent financing for the debt component of the project plus amounts needed to fund issuance costs, reserve funds, and other financing expenses; and,

WHEREAS, under the 2006 Management Agreement between the Commonwealth of Virginia and the university, the Board of Visitors has authority to approve the budget, size, scope, debt issuance, and overall funding of nongeneral funded capital outlay projects.

NOW, THEREFORE, BE IT RESOLVED, that the university be authorized to complete the Building Envelope Improvements project and to secure temporary short-term financing through any borrowing mechanism that, prior to such borrowing, has been approved by the Board, as applicable, in an aggregate principal amount not to exceed the $47.2 million authorized for the total project budget, plus related issuance costs and financing expenses.

RECOMMENDATION:

That the resolution authorizing Virginia Tech to proceed with the Building Envelope Improvements project be approved.

August 23, 2022
RESOLUTION FOR A CAPITAL PROJECT FOR BUILDING ENVELOPE IMPROVEMENTS

BOB BROYDEN, ASSOCIATE VICE PRESIDENT FOR CAMPUS PLANNING AND CAPITAL FINANCING

August 22, 2022
Building Envelope Improvements

• This request is a follow up to previous briefings to the Board of Visitors

• A new envelope system methodology was used during the 2000s and later modified because it did not meet the needs of the university

• The modified methodology is proven to meet our requirements

• The Board provided guidance to refurbish the envelope systems introduced in the 2000s that do not meet our requirements

• The university has developed a plan to refurbish the envelope systems of all the effected buildings

• Most of the buildings will be refurbished by an in-house team of stonemasons

• This request is for a capital project authorization to make improvements to the four buildings that exceed the capabilities of the in-house team

• The university has developed an entirely nongeneral fund financing plan for the project; thus, the project may be authorized by the Board
RESOLUTION FOR A CAPITAL PROJECT FOR BUILDING ENVELOPE IMPROVEMENTS

NOW, THEREFORE, BE IT RESOLVED, that the university be authorized to complete the Building Envelope Improvements project and to secure temporary short-term financing through any borrowing mechanism that, prior to such borrowing, has been approved by the Board, as applicable, in an aggregate principal amount not to exceed the $47.2 million authorized for the total project budget, plus related issuance costs and financing expenses.

RECOMMENDATION

That the resolution authorizing Virginia Tech to proceed with the Building Envelope Improvement Package be approved.

August 23, 2022
Open Session Agenda
FINANCE AND RESOURCE MANAGEMENT COMMITTEE
1:45 p.m.
Conference Room, Newport News Center / Tech Center Research Park
August 22, 2022

Agenda Item                                          Reporting Responsibility
1. Motion to Reconvene in Open Session               Brad Hobbs
2. Welcome and Opening Remarks                      Ed Baine
3. Consent Agenda
   a. Approval of Items Discussed in Closed Session  Ed Baine
   b. Approval of Minutes of the June 7, 2022 Meeting

# 4. Report on Administrative Efficiencies – Procurement Ken Miller
   Mary Helmick

* 5. Approval of Year-to-Date Financial Performance Report (July 1, 2021 – June 30, 2022) Tim Hodge
   Bob Broyden

* 6. Approval of 9(c) and 9(d) Financing Resolutions Ken Miller
   a. 9(c) Financing Resolutions
   b. 9(d) Financing Resolutions

   John Cusimano

7. Related Corporations Performance – Update on Virginia Tech India Research and Education Forum Ken Miller
   Guru Ghosh

#+ 8. Comprehensive Update on Advancement               Charlie Phlegar

9. Discussion of Future Agenda Topics and Closing Remarks Ed Baine

* Requires full Board approval
# Discusses Enterprise Risk Management topic(s)
+ Discusses Strategic Investment Priorities topic(s)
Briefing Report

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

August 22, 2022

Open Session

1. Motion to Reconvene in Open Session

2. Welcome and Opening Remarks

3. Consent Agenda: The Committee will consider for approval and acceptance the items listed on the Consent Agenda.

   a. Approval of Items Discussed in Closed Session: The Committee will review and approve the items discussed in closed session.

   b. Approval of Minutes of the June 7, 2022 Meeting: The Committee will review and approve the minutes of the June 7, 2022 meeting.


This report provides information on the 17 finance and administrative measures and the university’s performance for each of those measures. The report will also provide information on SCHEV’s assessment of the six academic measures. The university is in full compliance with all 17 finance and administrative measures and six academic measures reported.

# 4. Report on Administrative Efficiencies – Procurement: The Committee will receive a report on administrative efficiencies. This report provides an analysis of the university’s cost structure as compared to peer institutions across several established cost benchmarks and highlights recent university efficiency initiatives, including an overview of Procurement's administrative efficiencies.

* Requires full Board approval
# Discusses Enterprise Risk Management topic(s)
+ Discusses Strategic Investment Priorities topic(s)
5. **Approval of Year-to-Date Financial Performance Report (July 1, 2021 – June 30, 2022):**

The Committee will review for approval the Year-to-Date Financial Performance Report for July 1, 2021 to June 30, 2022. The university successfully closed its fiscal year in accordance with guidance and requirements of the commonwealth. The Educational and General budgets were balanced at year-end, with no operating deficit incurred.

For year-ended June 30, 2022, $180.8 million was expended for Educational and General capital projects, and $42.6 million was expended on Auxiliary Enterprises capital projects. Cumulative capital outlay expenditures for the quarter ending June 30, 2022 totaled $223.4 million against a budget of $200.7 million. All projects remained within their overall budget, but expenditures occurred sooner than expected.

6. **Approval of 9(c) and 9(d) Financing Resolutions:**

The Committee will review for approval debt financing resolutions through the state’s 9(c) bond program and the Virginia College Building Authority’s 9(d) debt financing program.

   a. **9(c) Financing Resolutions:** This includes financing for Hitt Hall (dining), Innovation Campus Academic Building (parking), and New Upper Quad Residence Hall totaling $101.877 million.

   b. **9(d) Financing Resolutions:** This includes financing for Corps Leadership and Military Science, Data and Decision Science Building, Hitt Hall, Innovation Campus Academic Building, and Student Wellness Services totaling $207.304 million.

7. **Related Corporations Performance – Update on Virginia Tech India Research and Education Forum:**

The Committee will receive an update on the performance of Virginia Tech India Research and Education Forum (VTIREF), a Virginia Tech Related Corporation. This report provides an overview of VTIREF’s regional centers including program details and key projects.

8. **Comprehensive Update on Advancement:**

The Committee will receive a comprehensive presentation from University Advancement providing an update on the fiscal year 2022 giving results and giving trends since the launch of the Advancement Model. This report also includes an update on the philanthropic participation rate and a summary of near-term focus areas for fundraising priorities, athletics, and participation goals.

9. **Discussion of Future Agenda Topics and Closing Remarks:**

The Committee will discuss possible topics for future meetings and other topics as needed.

* Requires full Board approval
# Discusses Enterprise Risk Management topic(s)
+ Discusses Strategic Investment Priorities topic(s)
Motion to Reconvene in Open Session

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

August 22, 2022

WHEREAS, the Finance and Resource Management Committee of the Board of Visitors of Virginia Polytechnic Institute and State University has convened a closed meeting on this date pursuant to an affirmative recorded vote and in accordance with the provisions of the Virginia Freedom of Information Act; and

WHEREAS, §2.2-3711 of the Code of Virginia requires a certification by the Finance and Resource Management Committee that such closed meeting was conducted in conformity with Virginia Law;

NOW, THEREFORE, BE IT RESOLVED, that the Finance and Resource Management Committee of the Board of Visitors of Virginia Polytechnic Institute and State University hereby certifies that, to the best of each member’s knowledge, (i) only public business matters lawfully exempted from open meeting requirements by Virginia Law were discussed in the closed meeting to which this certification resolution applies, and (ii) only such public business matters as were identified in the motion convening the closed meeting were heard, discussed or considered by the Finance and Resource Management Committee.
WELCOME AND OPENING REMARKS

COMMITTEE CHAIR, FINANCE AND RESOURCE MANAGEMENT COMMITTEE
CONSENT AGENDA

a. Approval of Items Discussed in Closed Session
b. Approval of Minutes of the June 7, 2022 Meeting
Ratification of Personnel Changes Report

Recommendation: That the Committee ratifies the Personnel Changes Report as submitted.
Committee Minutes

FINANCE AND RESOURCE MANAGEMENT COMMITTEE
The Inn at Virginia Tech
June 7, 2022

Joint Open Session with the Buildings and Grounds Committee
June 7, 2022

Board Members Present: Ed Baine, Sharon Brickhouse Martin, Shelley Butler Barlow, Paolo Fermin – Undergraduate Student Representative, C. T. Hill, Tish Long, Chris Petersen, Mehul Sanghani, Horacio Valeiras, Preston White


* 1. Approval of Resolution to Supplement the Student Wellness Improvements Authorization: The Committees reviewed for approval a resolution to supplement the student wellness improvements authorization. This request was for a $12 million supplement to adjust the total authorization for the Student Wellness Improvements project to $70 million to complete a renovation of War Memorial Hall.

The Committees recommended the Resolution to Supplement the Student Wellness Improvements Authorization to the full Board for approval.

There being no further business, the meeting adjourned at 10:08 a.m.
Open Session
June 7, 2022

Board Members Present: Ed Baine, Sharon Brickhouse Martin, Carrie Chenery, Holli Drewry – Administrative/Professional Faculty Representative, Paolo Fermin – Undergraduate Student Representative, Anna James, Tish Long, Phil Miskovic – Graduate Student Representative, Melissa Nelson, Preston White

Virginia Tech Personnel: Janice Austin, Callan Bartel, Bob Broyden, Brock Burroughs, Cyril Clarke, John Cusimano, Corey Earles, Alisha Ebert, Debbie Greer, Trish Hammer, Kay Heidbreder, Jim Hillman, Tim Hodge, Chris Kiwus, Jack Leff, Rob Mann, Elizabeth McClanahan, Nancy Meacham, Scott Midkiff, Ken Miller, Kim O’Rourke, Charlie Phlegar, Dan Sui, Aimée Surprenant, Lisa Wilkes, Chris Wise

Guests: Anna Buhle – Graduate Student Representative for 2022-23, Jamal Ross – Undergraduate Student Representative for 2022-23

1. Motion to Reconvene in Open Session

2. Welcome and Opening Remarks: The Committee Chair welcomed the attendees and gave opening remarks.

3. Consent Agenda: The Committee considered for approval and acceptance the items listed on the Consent Agenda.

   a. Approval of Items Discussed in Closed Session

   b. Approval of Minutes of the April 3-4, 2022 Meeting

   c. Approval of 2022-23 Pratt Fund Budgets: The Committee reviewed for approval the 2022-23 Pratt Fund budgets. The Pratt Fund provides funding for programs in both the College of Engineering and Department of Animal Nutrition in the College of Agriculture and Life Sciences. For 2022-23, the College of Engineering proposes expenditures of $1,101,664 and the Department of Animal Nutrition propose expenditures of $981,801.

   d. Approval of 2022-23 Hotel Roanoke Conference Center Commission: The Committee reviewed for approval the 2022-23 Hotel Roanoke Conference Center Commission budget. The Hotel Roanoke Conference Center Commission was established by resolutions adopted by Virginia Tech and the City of Roanoke, under Commonwealth of Virginia enabling legislation. The enabling legislation provided that the Commission shall annually prepare and submit to both the City of Roanoke and Virginia Tech
a proposed operating budget showing its estimated revenues and expenses for the forthcoming fiscal year. If the estimated expenses exceed the estimated revenues, the portion of the unfunded balance is to be borne by each participating party for the operation of the conference center, if needed. Traditionally, the university has contributed $80,000 to support the operations, and this will continue for the fiscal year 2022-23 and will come from the Fralin endowment, which was established to assist this program. Also included was the full Commission budget with a projected deficit of $52,604, which will be covered by the Commission’s accumulated net assets or reserves, not by the participating parties.

*  

e. Approval of Resolution to Appoint University Commissioner to the Hotel Roanoke Conference Center Commission: The Committee reviewed for approval a resolution to appoint the Associate Vice President for Engagement as a representative of the university on the Hotel Roanoke Conference Center Commission.

f. Notification of Provisions of the Appropriation Act Relating to Indebtedness of State Agencies: The Committee reviewed the notification of provisions of the Appropriation Act relating to indebtedness of state agencies. This is the university’s annual notification to the Board of Visitors detailing the provisions of the Appropriation Act relating to indebtedness of state agencies, or unauthorized deficits.

The Committee approved the items on the Consent Agenda and recommended the 2022-23 Pratt Fund Budgets, the 2022-23 Hotel Roanoke Conference Center Commission budget, and the Resolution to Appoint University Commissioner to the Hotel Roanoke Conference Center Commission to the full Board for approval.

4. Update on the Revision of the 2022-28 Six-Year Plan: The Committee received an update on the revision of the 2022-28 Six-Year Plan. The Higher Education Opportunity Act of 2011 established goals and objectives for higher education in Virginia, and outlined an annual planning process. This process requires submission of six-year academic, financial, and enrollment plans for the future three biennia and revisions to these plans as needed. The university plans to submit the revised Six-Year Plan to the commonwealth on July 1, 2022, the beginning of an iterative review process that will culminate with feedback from the commonwealth by September 1 and a university response by October 1. However, the delay in the state budget process may cause corresponding delays in these deadlines. Adjustments to the Six-Year Plan will be presented for approval at the November 2022 Board of Visitors meeting.
* 5. **Approval of 2022-23 Faculty Compensation Plan:** The Committee reviewed for approval the 2022-23 Faculty Compensation Plan. The report defines the qualification criteria for teaching and research faculty and administrative and professional faculty, provides guidance on the authorized and actual salary averages for full-time teaching and research faculty positions, and requires board approval.

Based on the university’s understanding of the state budget, a five percent faculty salary increase, effective July 10, 2022, has been planned. The university traditionally implements such state increases differentially on the basis of merit. In anticipation of this program, merit recommendations were developed during the spring of 2022, consistent with the proposed 2022-23 Faculty Compensation Plan. Results of this process are being shared with the Board in a separate resolution. Implementation of this increase is subject to Board approval and finalization of the state budget.

To maintain and improve upon the university’s standing relative to the 50th percentile of the Top 20 Land Grant peers, the higher levels of competing offers offered to key faculty, and to minimize the high cost of turnover, the university will continue to explore opportunities to improve the competitiveness of Virginia Tech faculty compensation.

The Committee recommended the proposed 2022-23 Faculty Compensation Plan to the full Board for approval.

6. **Financial Actions for Staff Compensation:** The Committee received an overview of financial actions related to staff compensation. During the 2022 special session of the General Assembly, lawmakers proposed two biennial budget proposals, both of which included compensation actions impacting Classified and University Staff. Based on the university’s understanding of the budget, the university conducted a merit review process utilizing compensation program parameters including a 5.0 percent across-the-board increase for Classified Staff, and an average of 5.0 percent increase for University Staff, comprised of a 3.0 percent base increase and 2.0 percent variable merit-based increase. This compensation plan will be adjusted as needed to conform with the final state budget.

* 7. **Approval of Year-to-Date Financial Performance Report (July 1, 2021 – March 31, 2022):** The Committee reviewed for approval the Year-to-Date Financial Performance Report for July 1, 2021 to March 31, 2022. For the third quarter, budget adjustments were made to reflect revisions to projected revenues and expenditures. The operating budget was increased by $11.4 million in Sponsored Programs due to the receipt of federal pandemic relief funds and $5.6
million in All Other Programs due to federal revenue applied to the Kentland Farm capital lease. Adjustments to the auxiliary budget include an increase in Athletics expenses due to football coaching staff transitions; an increase in Residential and Dining revenues and expenses due and increase in business volume; an increase in Parking and Transportation revenues and expenses for higher business volume and the multi-modal transit project; an increase in Telecommunications expenses related to the residential network project; and a decrease in Electric revenue due to lower consumption. The university will continue to monitor energy consumption and prices, and Dining business volume and food inflation.

For the quarter ending March 31, 2022, $127 million was expended for Educational and General capital projects, and $31.3 million was expended on Auxiliary Enterprises capital projects. Cumulative capital outlay expenditures for the quarter ending March 31, 2022 totaled $158.3 million.

The Committee recommended the Year-to-Date Financial Performance Report to the full Board for approval.

8. Discussion of Future Agenda Topics and Closing Remarks: The Committee did not discuss any future agenda topics.

There being no further business, the meeting adjourned at 11:46 a.m.

* Requires full Board approval.
♦ Discusses Enterprise Risk Management topic(s).
Report on Higher Education Restructuring Institutional Performance Standards

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

August 1, 2022

Background

In 2005, the Virginia General Assembly passed the Restructured Higher Education Financial and Administrative Operations Act (Restructuring Act). This Act provided restructuring benefits and allowed all Virginia institutions of higher education to have more responsibility for their financial and operational activities.

For Virginia Tech, the Act also provided the opportunity to apply for additional “Level 3” authority and responsibilities. In 2005, Virginia Tech entered into a Management Agreement with the Commonwealth of Virginia under the Restructuring Act, offering increased management autonomy in exchange for high level accountability in several performance areas.

The Management Agreement became effective on July 1, 2006. It provides the university greater autonomy in the areas of capital outlay, leasing, procurement, information technology, finance, and human resources. This autonomy has enabled the institution to implement revised financial and administrative policies and business practices in specified areas to proactively address the needs of the institution. The Management Agreement was initially approved for a period of four years. Subsequently, legislation was approved granting the continuation of the Management Agreement. The 2014 General Assembly renewed the Level 3 restructured institutions’ Management Agreements for an indefinite period. Along with Virginia Tech, the University of Virginia and the College of William and Mary were also granted Level 3 restructured status. Since that time, Virginia Commonwealth University, James Madison University, and George Mason University have also been granted Level 3 restructured status.

Accountability is an important part of the Restructuring Act, and all institutions of higher education have a common set of performance measures to achieve. The Institutional Performance Standards (IPS) are the primary performance metrics evaluated under the Restructuring Act. Until fiscal year 2010, the State Council of Higher Education of Virginia (SCHEV) annually assessed the degree to which individual public institutions of higher education met the financial and administrative management and education-related performance benchmarks set forth in the Appropriation Act in effect. The university provided an annual report to the committee on the status of compliance with these measures.
The Higher Education Opportunity Act passed in 2011 suspended the assessment of IPS measures until the Higher Education Advisory Council (HEAC) completed its review of the IPS measures and recommended a new set of reporting measures. In May, 2011 SCHEV certified all institutions as meeting the IPS measures for the 2011-12 to 2013-14 period. The 2013 General Assembly incorporated the recommended changes to the IPS measures proposed by HEAC in the Appropriation Act. The number of measures were reduced, and the assessment period changed from an annual reporting period to a biennial reporting period. The revised IPS measures continue to focus on two primary areas:

- **Academic Measures:** There are six education-related measures with a focus on enrollment. SCHEV monitors institutional compliance with these measures and has broad authority to certify institutions as having met these standards. In addition, SCHEV may develop, adopt, and publish standards for granting exemptions and ongoing modifications to the certification process.

- **Finance and Administrative measures:** There are 17 finance and administrative measures. HEAC retained all the finance and administrative measures from the previous reporting cycle. The Secretary of Finance through the Department of Planning and Budget (DPB) is responsible for monitoring institutional compliance with these measures.

### Current Status of Performance Measures

- **Academic Measures:** SCHEV has performed the 2022 biennial assessment of the academic related measures. In April 2022, SCHEV reported that Virginia Tech has met all six academic standards. *Attachment A* details the six academic related measures and Virginia Tech’s performance for the 2022 Biennial Assessment Results as reported by SCHEV.

- **Finance and Administrative Measures:** In August 2022, the university provided a report on the performance of the finance and administrative measures to the Secretaries of Finance, Administration, and Education. *Attachment B* provides a summary of the results reported to the state. The university is in full compliance with all 17 measures. There was one measure that required additional explanation, which was provided as detailed below.

#### Financial Standards

The Financial standard, *audit deficiencies*, (Item 1.b. on *Attachment B*) requires no significant audit deficiencies attested to by the Auditor of Public Accounts. No such deficiencies were identified for FY21, resulting in Virginia
Tech’s full compliance with the standard. However, Virginia Tech did receive two written audit comments: one comment for improving the timeliness of enrollment data to the National Student Loan Data System, and the other comment for improving compliance over enrollment reporting. The university is in the process of implementing corrective action plans to address these audit comments.

The university anticipates that SCHEV will perform an institutional assessment of the IPS measures by October 2022, in accordance with past assessment timelines. The university believes it will be considered in compliance for these measures when the State Council makes its final determination of compliance by spring 2023.
**Academic Performance Standards**  
2022 Biennial Assessment Results*  
(Using 2019 Projections for PMs 1 - 4)

<table>
<thead>
<tr>
<th>Institution</th>
<th>PM 1</th>
<th>PM 2</th>
<th>PM 3</th>
<th>PM 4</th>
<th>PM 5</th>
<th>PM 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT</td>
<td>100</td>
<td>102.5</td>
<td>103</td>
<td>100.6</td>
<td>Biennium</td>
<td>Biennium</td>
</tr>
</tbody>
</table>

*As reported to Virginia Tech by SCHEV in April, 2022

Performance Measures:

**PM 1** - Institution meets at least 95 percent of its State Council-approved biennial projections for in-state undergraduate headcount enrollment.

*Projections compared to Fall Headcount file*

**PM 2** - Institution meets at least 95 percent of its State Council-approved biennial projections for the number of in-state associate and bachelor degree awards.

*Projections compared to Degrees Conferred file*

**PM 3** - Institution meets at least 95 percent of its State Council-approved biennial projections for the number of in-state STEM-H associate and bachelor degree awards.

*Projections compared to Degrees Conferred file*

**PM 4** - Institution meets at least 95 percent of its State Council-approved biennial projections for the number of in-state, upper level - sophomore level for two-year institutions and junior and senior level for four-year institutions - program-placed, full-time equivalent students.

*Projections compared to Course Enrollment file*

**PM 5** - Maintain or increase the number of in-state associate and bachelor degrees awarded to students from under-represented populations.

*Actuas derived from the 2019-20 and 2020-21 Degrees Conferred Files and the last five years of financial aid data files prior to degree award.  
Averages for the biennial period (2019-20 and 2020-21) under review were compared to averages of prior three-years (16-17, 17-18, and 18-19).*

**The score of 290 indicates that during this review period, VT increased the number of conferred degrees to students from under-represented populations by an average of 290 more than the threshold target of the prior three-year period’s averages.**

**PM 6** - Maintain or increase the number of in-state two-year transfers to four-year institutions.

*Actuas derived from the 2019-20 and 2020-21 Course Enrollment files (CE) and CE files from 5 yrs prior, Degree Conferred Files up to 10 yrs prior.  
Averages for the biennial period (2019-20 and 2020-21) under review were compared with base year (2010-11) figures.*

**The score of 185 indicates that during this review period, VT increased the number of transfer students by an average of 185 more than the threshold target of the 2010-11 academic year.**
**Virginia Tech**

**Higher Education Restructuring Institutional Performance Standards**

**2020-21**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Metric Definition</th>
<th>Performance Goal</th>
<th>FY 2021 Performance</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Financial</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>a. Audit of Financial Statements</td>
<td>An unqualified opinion from the Auditor of Public Accounts upon the audit of the public institution’s financial statements.</td>
<td>Full Compliance</td>
<td>Full Compliance</td>
<td>✔</td>
</tr>
<tr>
<td>b. Audit Deficiencies</td>
<td>No significant audit deficiencies attributed to by the Auditor of Public Accounts.</td>
<td>Full Compliance</td>
<td>Full Compliance (1)</td>
<td>✔</td>
</tr>
<tr>
<td>c. Financial Reporting Standards</td>
<td>Substantial compliance with all financial reporting standards approved by the State Comptroller.</td>
<td>Full Compliance</td>
<td>Full Compliance</td>
<td>✔</td>
</tr>
<tr>
<td>d. Accounts Receivable Standards</td>
<td>Substantial attainment of accounts receivable standards approved by the State Comptroller, including but not limited to, any standards for outstanding receivables and bad debts.</td>
<td>Full Compliance</td>
<td>Full Compliance</td>
<td>✔</td>
</tr>
<tr>
<td>e. Accounts Payable Standards</td>
<td>Substantial attainment of accounts payable standards approved by the State Comptroller including, but not limited to, any standards for accounts payable past due.</td>
<td>Full Compliance</td>
<td>Full Compliance</td>
<td>✔</td>
</tr>
<tr>
<td><strong>2. Debt Management</strong></td>
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<tr>
<td>a. Bond Rating</td>
<td>The institution shall maintain a bond rating of AA- or better</td>
<td>Aa3/AA-</td>
<td>Aa1 Rating - Moody's</td>
<td>✔</td>
</tr>
<tr>
<td>b. Investment Returns earned on operating cash balances over rolling three-year period</td>
<td>The institution achieves a three-year average rate of return at least equal to the imoney.net money market index fund.</td>
<td>1.06%</td>
<td>2.05%</td>
<td>✔</td>
</tr>
<tr>
<td>c. Debt burden ratio</td>
<td>The institution maintains a debt burden ratio equal to or less than the level approved by the Board of Visitors in its debt management policy.</td>
<td>≤7%</td>
<td>3.20%</td>
<td>✔</td>
</tr>
<tr>
<td><strong>3. Human Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Turnover percent as an indicator of classified staff stability and satisfaction</td>
<td>The institution’s voluntary turnover rate for classified plus university/college employees will meet the voluntary turnover rate for state classified employees within a variance of 15 percent.</td>
<td>8.60% (2)</td>
<td>7.34%</td>
<td>✔</td>
</tr>
<tr>
<td>b. Number of internal employee transfers and promotions as a percentage of total number of newly-hired, transferred and promoted</td>
<td>The institution achieves a rate of internal progression within a range of 40 to 60 percent of the total salaried staff hires for the fiscal year.</td>
<td>40%-60%</td>
<td>53.41%</td>
<td>✔</td>
</tr>
<tr>
<td><strong>4. Procurement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. SWAM Participation</td>
<td>The institution will substantially comply with its annual approved Small, Women and Minority (SWAM) procurement plan as submitted to the Department of Minority Business and Supplier Diversity; however, a variance of 15 percent from its SWAM purchase goal, as stated in the plan, will be acceptable</td>
<td>≥85%</td>
<td>107.9%</td>
<td>✔</td>
</tr>
<tr>
<td>b. Procurement orders process through the Commonwealth's enterprise-wide internet procurement system (eVA)</td>
<td>The institution will make no less than 80 percent of purchase transactions through the Commonwealth's enterprise-wide internet procurement system (eVA) with no less than 75 percent of dollars to vendor locations in eVA.</td>
<td>80% - Transactions 75% - Dollars</td>
<td>84.38% - Transactions 85.47% - Dollars</td>
<td>✔</td>
</tr>
<tr>
<td><strong>5. Capital Outlay</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Capital projects within budget (3)</td>
<td>The institution will complete capital projects (with an individual cost of over $1,000,000) within the budget originally approved by the institution’s governing board at the preliminary design state for projects initiated under delegated authority, or the budget set out in the Appropriation Act or other Acts of Assembly which provides construction funding for the project at the preliminary design state. If the institution exceeds the budget for any such project, the Secretaries of Administration and Finance shall review the circumstances causing the cost overrun and the manner in which the institution responded and determine whether the institution shall be considered in compliance with the measure despite the cost overrun.</td>
<td>100%</td>
<td>100%</td>
<td>✔</td>
</tr>
<tr>
<td>b. Owner requested change orders</td>
<td>The institution shall complete capital projects with the dollar amount of owner requested change orders not more than 2 percent of the guaranteed maximum price (GMP) or construction price.</td>
<td>≤2%</td>
<td>≤2%</td>
<td>✔</td>
</tr>
<tr>
<td>c. Competitive rates for leased office space</td>
<td>The institution shall pay competitive rates for leased office space - the average cost per square foot for office space leased by the institution is within 5 percent of the average commercial business district lease rate for similar quality space within reasonable proximity to the institution’s campus.</td>
<td>5%</td>
<td>14.82% below market</td>
<td>✔</td>
</tr>
<tr>
<td><strong>6. Information Technology</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Project Management</td>
<td>The institution will complete major information technology projects (with an individual cost of over $1,000,000) on time and on budget against their managed project baseline.</td>
<td>100%</td>
<td>N/A (1)</td>
<td>✔</td>
</tr>
<tr>
<td>b. Information Security</td>
<td>The institution will maintain compliance with institutional security standards as evaluated in internal and external audits. The institution will have no significant audit deficiencies unresolved beyond one year.</td>
<td>Full Compliance</td>
<td>Full Compliance</td>
<td>✔</td>
</tr>
</tbody>
</table>

**NOTE**

(1) The university received no significant audit deficiencies from the APA but received one written comment and continued work on one minor written comment from prior year. Additional information is provided in the Letter to the Secretary of Finance.

(2) As of June 2022, the Virginia Department of Human Resource Management (DHHR) has not yet published the voluntary turnover data from FY21. The 8.6% goal represents the most recent data point for this performance metric.

(3) The university capital project threshold was revised from $1 million to $2 million in 2011 and to $3 million in 2018. This change was pursuant to the State increasing its capital project threshold.

(4) There are no major information technology projects for the reporting period.
Update on University Cost Efficiencies

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

July 20, 2022

Virginia Tech strives to provide high-quality educational opportunities and fulfill its historic mission as a land-grant institution accessible to all. Affordability is a critical component of that promise. Virginia Tech has implemented a pro-active approach to manage and, to the extent possible, contain administrative and other support costs. This approach has led to below-market tuition pricing without sacrificing support for the university’s strategic objectives while operating in a fiscally constrained environment. The university’s rigorous budget process carefully contemplates new spending and seeks to focus limited resources on academic programs and strategic initiatives that enhance the university’s mission and quality. In addition, the university actively explores opportunities to streamline business processes, eliminate non-value-added functions, and invest in technologies that ensure the effective and scalable delivery of services to the campus community.

These budget decisions and process innovations are reflected by the university’s consistently low spending on institutional support, which has steadily comprised just five percent of total expenditures over the last decade, and a favorable ranking among various peer groups in nationally accepted measures of administrative efficiency. The following report reviews the university’s cost structure, with additional attention paid to Educational and General (E&G) funded expenditures. Comparisons to peer institutions are included to provide additional context on the university’s administrative efficiency. This report also highlights several administrative investments that demonstrate a balance between achieving cost efficiencies and progressing toward strategic objectives. Cost-consciousness is an overarching theme that guides the university’s pursuit of its strategic objectives.

Background

Higher education institutions classify and report expenses programmatically according to their primary function or purpose. The National Association of College and University Business Officers (NACUBO) recommends standards that national accounting boards and the Commonwealth of Virginia promulgate through accounting requirements. These accounting standards separately identify academic activities from support activities and allow for comparison between institutions. Academic support and institutional support are the two programmatic categories that primarily represent administrative spending.

Core Expenditures

**Instruction** includes all activities which are part of the institution’s instructional program. Expenditures for departmental research which are not separately budgeted or organized into an approved research center should be included in Instruction.

**Research** includes all activities specifically organized to produce research outcomes and commissioned by an agency either external to the institution or separately budgeted by an organization unit within the institution. This program does not contain sponsored research only, since internally supported research programs that are separately budgeted should also be included in this program. It includes expenditures specifically budgeted for research.

**Public Service** includes all activities that provide non-instructional services beneficial to individuals and groups external to the institution. Such activities can include seminars, projects, and various
organizational entities established to provide services to particular sectors of the community such as the Cooperative Extension and economic development activities of the university.

**Student Services** includes all activities whose primary purpose is to contribute to students’ emotional and physical well-being and to their intellectual, cultural, and social development outside the context of the formal instruction program.

**Student Financial Assistance** applies only to monies given in the form of outright grants and trainee stipends to individuals enrolled in the official courses, either for credit or not.

**Academic Support** includes activities that support instruction, research, and public service, including academic computing and academic administration (including deans’ offices). It is important to note that this category also includes the cost of operating the library and, for Virginia Tech, the veterinary hospital.

**Institutional Support** reflects an institution’s central administration. This expense category includes general administrative services, executive management, legal and fiscal operations, public relations and advancement (fundraising), sponsored programs administration, police and emergency response, finance, information technology, and other centralized services. While many of these costs are under the control of the institution, some costs in this category are due to unfunded mandates or compliance with laws and regulations that are required for basic operations of the university’s various academic and support programs.

**Depreciation, O&M, and Interest Expense on Capital Assets** includes all expenses related to the depreciation, repair and maintenance, and financing of the university’s physical plant.

**Cost Structure Overview**

**Expenditures by Function**

**University-wide**

An assessment of the university-wide expenditures by function provides one example of administrative efficiency. With only five percent of total expenditures attributed to institutional support expenditures and seven percent to academic support expenditures, the university spends eighty-eight percent of its limited resources on nonsupport activities. This efficiency measure is consistent with a 2017 analysis by Virginia’s Auditor of Public Accounts (APA), which found that Virginia Tech has low expenditures on both institutional support and academic support expenditures when compared to Virginia’s 15 four-year public higher education institutions.¹

The university’s cost structure remained fairly stable between FY2012 and FY2021, with the relative proportions of expenditures across the various functions changing slightly from year to year. Table 1 illustrates that relative changes in components have primarily been driven by increases in Instruction, Student Financial Assistance, Student Services, and Academic Support, demonstrating the university’s growing enrollment and increased resource commitment to the student experience and affordability. That increased resource commitment includes a purposeful investment in the

The university’s library, comprising $11 million, or 27 percent, of the total growth in Academic Support expenditures from FY2012 to FY2021. Significantly, Institutional Support expenditures have not grown in proportion to other functional expenditures over this period.

Table 1: 10-Year Trend in Financial Statement Expenditures by Function

<table>
<thead>
<tr>
<th>Function</th>
<th>2012 Dollars ($)</th>
<th>2013 Dollars ($)</th>
<th>2014 Dollars ($)</th>
<th>2015 Dollars ($)</th>
<th>2016 Dollars ($)</th>
<th>2017 Dollars ($)</th>
<th>2018 Dollars ($)</th>
<th>2019 Dollars ($)</th>
<th>2020 Dollars ($)</th>
<th>% Change Since 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Expenditures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instruction</td>
<td>260.1</td>
<td>283.5</td>
<td>298.8</td>
<td>318.7</td>
<td>335.8</td>
<td>357.9</td>
<td>377.5</td>
<td>398.9</td>
<td>426.0</td>
<td>-4%</td>
</tr>
<tr>
<td>Research</td>
<td>280.4</td>
<td>302.1</td>
<td>308.3</td>
<td>304.6</td>
<td>316.8</td>
<td>311.3</td>
<td>323.0</td>
<td>330.9</td>
<td>343.2</td>
<td>-4%</td>
</tr>
<tr>
<td>Public Service</td>
<td>85.8</td>
<td>97.3</td>
<td>102.7</td>
<td>101.4</td>
<td>100.3</td>
<td>97.7</td>
<td>98.0</td>
<td>92.8</td>
<td>98.5</td>
<td>-2%</td>
</tr>
<tr>
<td>Student Financial Assistance</td>
<td>13.1</td>
<td>12.3</td>
<td>12.3</td>
<td>13.5</td>
<td>14.4</td>
<td>16.5</td>
<td>18.3</td>
<td>20.6</td>
<td>30.6</td>
<td>1%</td>
</tr>
<tr>
<td>Student Services</td>
<td>13.3</td>
<td>14.2</td>
<td>14.9</td>
<td>16.2</td>
<td>16.6</td>
<td>20.8</td>
<td>24.5</td>
<td>26.0</td>
<td>25.6</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>652.7</td>
<td>709.4</td>
<td>737.0</td>
<td>752.8</td>
<td>783.5</td>
<td>802.0</td>
<td>837.6</td>
<td>867.7</td>
<td>924.3</td>
<td></td>
</tr>
<tr>
<td>Support Expenditures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic Support</td>
<td>65.0</td>
<td>68.5</td>
<td>79.4</td>
<td>80.9</td>
<td>81.7</td>
<td>87.4</td>
<td>91.2</td>
<td>98.9</td>
<td>106.4</td>
<td>7%</td>
</tr>
<tr>
<td>Institutional Support</td>
<td>52.5</td>
<td>50.7</td>
<td>58.2</td>
<td>56.9</td>
<td>63.1</td>
<td>70.3</td>
<td>75.9</td>
<td>73.4</td>
<td>81.7</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>117.5</td>
<td>119.2</td>
<td>137.6</td>
<td>137.8</td>
<td>144.8</td>
<td>157.7</td>
<td>167.1</td>
<td>172.3</td>
<td>188.1</td>
<td></td>
</tr>
<tr>
<td>Auxiliary</td>
<td>159.6</td>
<td>176.3</td>
<td>181.5</td>
<td>196.2</td>
<td>203.0</td>
<td>218.7</td>
<td>227.8</td>
<td>227.9</td>
<td>236.2</td>
<td>12%</td>
</tr>
<tr>
<td></td>
<td>219.1</td>
<td>14%</td>
<td>0%</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation, O&amp;M, and Interest Expense</td>
<td>164.2</td>
<td>172.1</td>
<td>193.3</td>
<td>192.1</td>
<td>207.2</td>
<td>203.7</td>
<td>207.3</td>
<td>216.3</td>
<td>217.8</td>
<td>14%</td>
</tr>
<tr>
<td>Total</td>
<td>1,094.0</td>
<td>1,177.0</td>
<td>1,249.4</td>
<td>1,278.9</td>
<td>1,338.9</td>
<td>1,382.1</td>
<td>1,439.8</td>
<td>1,484.2</td>
<td>1,566.4</td>
<td>100%</td>
</tr>
</tbody>
</table>

*FY21 Institutional Support and Auxiliary amounts adjusted for $12.8M of COVID relief provided to Auxiliary units under § 3-4.01 items 3 and 4 of Chapter 56 of the Virginia Acts of Assembly.

208 E&G

208 E&G expenditures represent outflows funded by the Commonwealth and the university’s students. Controlled growth in these expenditures significantly affects the university’s ability to maintain its competitive affordability metrics. As shown in Chart 1, Instruction and Academic Support are the two largest segments, with more than half of expenditures dedicated to instruction. Other Core Expenditures include Research, Public Service, and Student Services and make up 13.6 percent of 208 E&G expenditures. Institutional support expenditures of $64.9 million comprised 8.6 percent of 208 E&G expenditures compared with 5 percent ($80.1 million) of university-wide expenditures. However, 208 E&G institutional support expenditures support activities of the entire university, not just the 208 E&G division.

Chart 1: Composition of 208 E&G Expenditures by Function

Financial Statement Totals for 208 E&G Funds

*FY21 Institutional Support adjusted for $12.8M of COVID relief provided to Auxiliary units under § 3-4.01 items 3 and 4 of Chapter 56 of the Virginia Acts of Assembly.
Expenditures by Natural Classification

Because higher education is a personnel-intensive industry that employs a large share of highly-educated workers, the university’s costs are heavily concentrated in compensation and benefits (retirement, health care, and other employment-related benefits). While this is true for the entire enterprise, it is even more evident in the 208 E&G division where instruction takes place. As shown in Charts 2 and 3, compensation and benefits make up 66 percent of expenditures at the university-wide level and 81 percent in the 208 E&G division. Personnel-related costs have grown at a similar pace in both the academic and the support functions.

Chart 2: Composition of University-wide Expenditures
Financial Statement Totals by Natural Classification

Chart 3: Composition of 208 E&G Expenditures
Financial Statement Totals by Natural Classification
Comparisons to Peers

Administrative Efficiency

The following comparisons are a product of the university’s periodic review of administrative costs using three industry standard perspectives described below. Each uses data sourced from the Integrated Postsecondary Education Data System (IPEDS), which contains publicly available data reported to the federal government by the respective institutions. For each of these perspectives, the university’s performance is compared over time and with other comparative institutions. Due to its proprietary methodology, IPEDS amounts by function vary slightly from the financial statement amounts presented above. The numbers presented below are most relevant in making comparisons to peers versus comparing to the university’s financial statements. At the time of this report, the most recent data available from IPEDS is for fiscal year 2020.

1. **Administrative costs as a percentage of core expenditures:**
   This comparison, which arrays costs according to their primary purpose, comes from a traditional methodology long employed across institutions of higher education.

2. **Administrative costs per student (full-time equivalent, or FTE):**
   This methodology offers a student-centric approach and was based upon the Delta Project on Postsecondary Education Costs, Productivity and Accountability. The Delta Project was a well-regarded study of higher education spending, efficiency and ultimately productivity.

3. **Administrative Cost Ratio:**
   In 2017, the American Council of Trustees and Alumni (ACTA) published a report entitled *How Much is Too Much: Controlling Administrative Costs Through Effective Oversight.* Using IPEDS data, the ACTA methodology calculates a ratio of Institutional Support (administrative) spending compared to Instruction and Academic Support (instructional) spending.

While each individual metric has limitations, the various comparisons considered together indicate that administrative costs at Virginia Tech outperform industry averages for comparable institutions.

**Administrative Costs as a Percentage of Core Expenditures**

A long-standing method of reviewing administrative costs in higher education has been to examine the proportion of core expenditures that are utilized for administrative activities. IPEDS classifies core expenditures as those expenses essential to the educational activities of the institution, including instruction, research, public service, academic support, student services, institutional support, operation and maintenance of plant, depreciation, and student financial aid. These expenditures exclude the university’s auxiliary enterprises (e.g., dormitories, dining halls).

In fiscal year 2020, 16 percent of Virginia Tech’s core expenditures were attributable to administrative activities (i.e., academic and institutional support costs). As seen in Chart 5a, Virginia Tech’s allocation of resources to administrative costs is significantly below that of the average Virginia research institutions (23 percent), SCHEV peers (20 percent), public research institutions classified by the Carnegie Foundation as having “very high research activity” (20 percent), and the top 20 Land Grant institutions (19 percent). As a percentage of total expenditures, Virginia Tech’s administrative spending is within the lowest quartile among both our SCHEV and Top 20 Land Grant peers.
A longitudinal review of this metric indicates that Virginia Tech’s administrative costs have historically trended well below each of these comparison groups over time, as seen in Chart 5b.
Administrative Costs per Student FTE

The Delta Project on Postsecondary Education Costs, Productivity, and Accountability established a national best practice methodology for examining higher education costs through a student-centric lens. This methodology normalizes administrative expenses by the number of full-time equivalent students (student FTE).

In fiscal year 2020, Virginia Tech spent $5,551 per student FTE on administrative costs. As seen in Chart 6a below, Virginia Tech spends considerably less on administrative costs per student FTE, spending just 48 percent to 63 percent of the level of peer institutions. For comparison, Virginia Tech’s administrative spending deficit as compared to the Top 20 Land Grant institutions of ($4,000) per student FTE represents ($140.7) million less when applied to the total student FTE.

Chart 6a: Administrative Spending per Student FTE 2020

Virginia Tech has maintained this significant efficiency advantage over time, as seen in Chart 6b. From 2016 to 2020 (inflation adjusted to 2020), Virginia Tech reduced spending on administrative activities per student FTE by 3 percent.
Administrative Cost Ratio

In July 2017, the American Council of Trustees and Alumni (ACTA) published a report entitled, *How Much is Too Much: Controlling Administrative Costs through Effective Oversight*, which examined the role administrative expenditures play in an institution’s overall cost structure. Relying on publicly available IPEDS data, which includes expenditures by functional classification, the report develops a methodology to determine an institution’s ratio of spending on Institutional Support (administrative spending) relative to Instruction and Academic Support (instructional) spending. Updating this methodology with the latest available data (FY2020) finds that Virginia Tech’s ratio is 0.14, meaning the university spent $0.14 on Institutional Support for each $1.00 of spending on Instruction and Academic Support. This ratio is significantly lower than peer averages, as seen in Chart 7 below.
Affordability

Total Cost per Degree

Beyond purely administrative cost comparisons, the university also reviews the total cost of producing a Virginia Tech degree as compared to peers. With support from the Lumina Foundation’s Strategy Labs, SCHEV released its *Virginia Postsecondary Strategic Finance Plan* in October 2019. The authors developed a novel standardized cost measure of the operating expenditures required for institutions to graduate students within the Commonwealth’s postsecondary system.

Using IPEDS functional expense categories, the methodology calculates a ‘Cost Per Degree Year,’ based on a calculated “educational and related” set of expenses derived from the overall expenditure data provided to IPEDS. This study did not provide institutional figures, but the methodology can be replicated using IPEDS data to compare Virginia Tech’s cost per degree year to other peer groups.

The university’s comparison to the Top 20 Land Grants is shown in Chart 9. Highlights for fiscal year 2020, the latest data available, include:

- The average cost per degree year for the top 20 Land-Grants was $25,518, or $102,073 for a four-year bachelor’s degree.
- Among the top 20 Land Grant institutions in the nation, Virginia Tech’s cost per degree year ranked among the lowest at $19,019, or $76,076 for a four-year bachelor’s degree.

![Chart 9: Cost Per Degree Year – 2020 Top 20 Land-Grants](chart9.png)
Benchmarking Summary

Virginia Tech outperforms its comparison groups in terms of administrative cost efficiency across various measures; Virginia Tech spends considerably less on administrative support than the average comparison group in the presented measures. The university's strong cost metrics result from cost-consciousness and deliberate efforts to maximize student benefits while minimizing administrative overhead.

University Budget Process – Sustaining a Cost-Conscious Culture

The above expenditure data reflects the cost-conscious culture that Virginia Tech has cultivated. The university utilizes a rigorous budget process carefully contemplates new administrative spending and strives to direct resources towards programs and strategic initiatives that advance the university’s mission. As part of these efforts, the university’s annual budget process requires units to identify cost-savings strategies and goals that support their budget needs. Through this process, the university also seeks to identify opportunities to further leverage technology and automation, elevate effective and scalable service delivery, eliminate duplicative work efforts, and enhance strategic flexibility. These efficiency efforts promote and facilitate cost-containment actions before considering new resource allocations.

Administrative Cost Pressures and Efficiencies

The university’s administrative enterprise faces increasing operational and cost pressures. The university’s expansion into the DC-Metro region and the increased administrative support needed for the Innovation Campus, increasingly competitive compensation market, and ever-increasing employee benefit costs represent significant strategic and mandated pressures on costs within the university. Coming from outside the university, unfunded mandates ask more from the administrative enterprise without providing additional resources. Examples of such mandates include the multi-year phased implementation of the U.S. Department of Education’s Campus Cybersecurity Program advancing compliance with NIST800.171 Information Security Standards for Controlled Unclassified Information (CUI) to protect data used in the administration of federal student aid programs, the Commonwealth of Virginia’s multi-year phase-in of additional minimum wage increases, and other federal requirements. Additionally, the Commonwealth’s actions to reduce its net pension liability by requiring larger annual contributions from state agencies and the continuously increasing cost of employer-provided health insurance are adding significant cost pressures on the university administrative enterprise, as well as the university’s core programs.

Additionally, punctuated pressures such as the loss of state General Fund support or the acute impacts of the COVID-19 pandemic necessitate the implementation of widespread cost-reduction strategies that focus resources on the highest priority expenditures. In 2020, the university implemented five percent across-the-board budget reductions as part of the base 2020-21 budget in anticipation of significant revenue impacts resulting from the ongoing COVID-19 pandemic. That reduction was subsequently lowered to three percent for academic areas as actual enrollment and state support was better understood. The five percent reduction remained in administrative units and auxiliary budgets to fund critical initiatives and manage university cost increases. For administrative areas, two percent of the five percent reduction was reallocated to fund critical initiatives in administrative areas. These reductions required campus units to prioritize spending and curtail non-critical spending in operating and personnel (largely unfilled positions). Budget reductions are summarized in Chart 11.
The university continues to invest in personnel and systems to support a growing enterprise in pursuit of its Beyond Boundaries vision for the future. Recent growth in administrative operations has included an increase in advancement and support operations for the $1.872 billion Boundless Impact campaign launched in 2019, information technology investments to transform, the creation of a new Vice President for Health Sciences in 2016, investments into a reimagined Vice President for Human Resources organization, and administrative resources for the newly-integrated Virginia Tech Carilion School of Medicine, whose operations are now fully within Virginia Tech’s overall cost structure. In addition, the university has made important strategic investments in academic and administrative operations corresponding with the 20.0 percent growth in student FTE in the decade spanning 2009-10 to 2019-20, including initiatives such as integrated experiential learning, expansion of transdisciplinary research, and the creation of living-learning communities. These initiatives and others have been met with improved efficiency and increased capacity to scale administrative support systems like those used to process new student applications and classroom assignments.

Examples of recent improvements implemented by various units across the university to enhance efficiency and maximize effectiveness in a resource-constrained environment are detailed in Appendix 1. Though not unique in university operations, Appendix 2 is offered to exemplify an account of improved efficiency, increased capacity, and automation in Procurement operations. Administrative units and student service areas continue to implement products and services that leverage technology and automation, improve service delivery, eliminate duplicative work efforts, and support the university’s strategic plan.
Summary

A lean administrative structure means the university can direct a greater share of institutional resources to mission-driven activities such as instruction, research, and public service. The university’s cost structure compared with peer benchmark data and ongoing administrative investments demonstrate the university’s determination to create cost efficiencies while also pursuing the university’s stated objectives. Moving ahead, the university's cost-conscious budget process and management structure will continue to maximize limited resources and provide excellent administrative services, despite mounting cost pressures, to keep tuition affordable and achieve strategic goals.
Virginia Tech Efficiency Initiatives

Below are some examples of recent improvements implemented by various units across the university to enhance efficiency and maximize effectiveness in a resource-constrained environment:

- **Office of the University Bursar**
  - Implementation of Robotic Process Implementation led to a reduction in manual data entry. Example: Cashier Bot has processed 30,195 transactions (tendering items from bank statements) since its inception in June 2020; the Bursar estimates this efficiency offset the need to hire 1 additional position.

- **IT Transformation**
  - An ongoing initiative that is designed to improve the alignment of core IT organizations, processes, and services, streamline the software procurement process, enhance cost recovery administration through central funding, consolidate data storage and explore cloud capabilities, define data governance and warehousing, reduce cybersecurity risks, improve the user experience, and foster innovation and efficiency across the university;

- **Vice President for Finance**
  - Utilities and Central Invoicing transitioned from a monthly to annual process resulting in efficiencies in both invoicing and reconciliation; Invoiced items were consolidated from 5,580 to 465 via annual billing, saving 100 plus hours per year in the Controller’s office and additional time savings across campus departments.
  - Deployment of robotic process automation to streamline Fund Creation processes and vendor entity creation for nonvendor, nonstudent, and nonfaculty to facilitate university business accounts receivable operations.
  - Implementation of an electronic Effort Reporting System (ERS) to streamline the required reporting process of salary costs charged to individual sponsored projects to ensure such costs are consistent with employee effort for these projects. This eliminates paper-based processes and manual data entry.

- **Undergraduate Admissions**
  - Engaged CampusESP, a parent engagement platform, to assist with outreach and information sharing to students and families; Since implementation in July 2020, 46,000 family members have subscribed to this service.

- **Student Health Services**
  - Developed partnerships to enhance the delivery of student mental health services, including:
    - A psychiatry residency program with Lewis-Gale to save costs on psychiatrist hours needed;
    - Partnership with James Madison University and Virginia Commonwealth University to provide a range of care options from licensed mental health providers and counselors through TimelyMD, a virtual health care provider which specializes in higher education.

- **Enterprise Operations**
  - Implementation of Wrike project management software will improve efficiency through project prioritization, a singular front door for clients to submit new projects, improve communications, and the tracking of progress on projects through the quantification of average project turnaround time.

- **Campus Planning, Infrastructure, and Facilities (CPIF)**
o **Space Management Program** – continued improvements in space management program to re-engineer space request process, data modeling, and space standards for all university spaces.

o **Lease Approval Process** – collaboration between Controller’s office, Office of University Planning, and Real Estate Management in development of new lease approval policy and process to align with GASBS 87.

- **Business and Management Systems (BAMS)**
  o Microsoft Endpoint Protection – allows for automatic notifications of a malicious event on a computer for a more secure computing environment and streamlined reporting;
  o Migration to SharePoint Online – decommissioned a SharePoint framework of numerous servers to migrate to SharePoint Online and other Microsoft 365 technologies; will provide savings in license costs and reduced maintenance of physical servers;
  o Hybrid Workforce Space Reservation System – promote access to available space and improve management of vacant office space.

- **Human Resources**
  o Utilizes PageUp Performance Management (PfM) system to optimize experience for employee performance reviews and discussion; New system emphasizes continuous dialogue between supervisors and employees to improve retention.
  o New Hire Center – improves ease-of-use by new hires through consolidation of various links for state, federal and university compliance requirements into one location. Integrated with Banner HR and Banner Finance to eliminate data entry.
  o Implementation of an HR Ticketing System will create a single repository for all HR related emails will improve communications and accountability.

- **Virginia Tech Electric Systems (VTES)**
  o Implemented the Operational Data Warehouse and ESRI Geospatial Information System to enhance operational efficiency and resiliency, and the monitoring of assets using advanced analytics to improve response times and minimize impacts of critical events.

- **Parking Services**
  o Implemented additional automation through ParkMobile services, a customer focused contactless payment method.
Background: VT Procurement oversees the purchases of all goods, services, insurance and construction projects except for IT hardware and software purchases. The department has a dedicated staff of twenty-six (26) FTE's who are professional buyers, vendor onboarding specialists, systems and operations specialists, procurement help desk support and university purchasing card program administrators.

A separate and delegated unit of buyers (IT Purchasing and Licensing/ITPALS) reports up through the Division of Information Technology and oversees all procurements related to technology hardware and software.

This report will focus on procurement practices for non-IT operating expenditures and exclude capital construction contracting practices which are routinely discussed in the Buildings and Grounds and Finance and Resource Management committees of the Board of Visitors.

University departments are granted or delegated direct purchasing authority in several ways. Departments are authorized to purchase non-IT goods and services totaling $10,000 or less. In addition, departments can directly issue purchase orders against existing negotiated contracts for diverse commodities and not be limited by their delegation threshold limits.

Using these negotiated contracts enables efficiencies and cost savings in multiple ways. First, it enables departments to avoid comparison shopping for the best prices for common supplies or services because Procurement has negotiated deep discounts on the market-basket of most commonly ordered items from these vendors. Second, as part of the negotiations, Procurement requires that the vendors invoice the university electronically (whenever possible) and that they participate in the virtual or “ghost” card program for receiving payments electronically. These requirements support the ultimate efficiencies in a procurement-to-pay (P2P) process in that the entire process can be accomplished electronically. In the optimum P2P process, the university departments can order goods electronically, the vendor sends invoices electronically, the departments can verify receipt of goods or services electronically, the procurement system can verify or match the purchase order, the vendor invoice, and receiving report electronically, and finally that the university can pay the vendor electronically.

The virtual or “ghost” card system is payment via a one-time credit card transaction that occurs at the end of procurement process in lieu of a payment via check or electronic bank transfer. This process has two significant advantages over payment via credit card at the beginning of the procurement process. First, departments order the goods or services as normal with all the approval and authorizations obtained before the purchase order is created, in contrast to regular credit card purchases which do not obtain approvals until after the purchase has been completed. Second, the
university receives a rebate for qualifying transactions directly from the bank providing the virtual card program. Regular credit card rebates are sent to the Commonwealth of Virginia, and the university may or may not receive any portion of these rebates.

Departmental purchases are expedited through the university’s P2P e-procurement system, branded HokieMart. Electronic workflows within the system facilitates oversight, budget checking, and approvals of purchase requisitions entered. Following those electronic checks and balances, a purchase order is issued and can transfer electronically to suppliers for fulfillment in less than two minutes via direct cxml delivery of the purchase order.

The delegated purchasing authority for departments aligns with the small purchasing threshold for federally funded research grants and contracts. Aligning the university procurement thresholds to that of the federal government eliminates multiple rulesets for our researchers who procure goods and services to support federally funded research.

Total University purchases of operating goods and services were $394.15 million in FY22, of which $281.6 million were via departmental delegated purchasing authority. Purchases that don’t fall within a university department’s purchasing delegation must be processed by the professional buyers within VT Procurement or ITPALS. These centralized purchases are processed through formal and public procurement solicitations which seek the maximum competition available and include direct sourcing of small, woman owned and minority owned (SWaM) companies. Buyers utilize multiple protocols for selection and award but competitive negotiation is the preferred methodology to maximize cost savings and negotiate value added incentives for the university.
Cost Savings, Cost Avoidance, Financial Incentives and Revenue Share

Procurement buyers track the value of the competitive procurement process. These amounts are calculated in the year the contract is negotiated based on the estimated benefits to be obtained for the duration of the contract. For example, although the financial incentives shown above is $7.6 million, rebates received in fiscal year 2022 actually totaled $448,000. These rebates were received from strategic vendor contracts with vendors such as Fisher Scientific, Dell, Grainger and others. Additional financial incentives / rebates of $938,000 received from the ghost card program brought the total rebates actually received in fiscal year 2022 to $1.39 million.

Cost Savings - (a) The amount of savings resulting from negotiation efforts which reduce the price via direct or final negotiation efforts (b) A reduction from previous budgeted spend or a reduction in the projected/budgeted resources used historically because of the results of the VT procurement process for the same type of service or good in the future (c) Volume reductions; reducing the amount of a good or service used on projects that intentionally seek volume reductions through a direct action or a negotiated proposal by an awarded vendor (d) Enhanced operations that will reduce cost overall; a new or better way of doing business was achieved by awarding to a vendor or contractor who can do it better or different than it was done before resulting in savings.

Cost Avoidance – (a) The difference between the highest proposed cost and the lowest priced proposal awarded (b) The removal of cost to the university due to the follow examples including but
not limited to: negotiated trade in value, reduced or no cost maintenance included in final price, favorable freight terms and other cost avoidance incentives to the university over the life of the agreement.

Financial Incentives – (a) The amount of incentives received that lower the total cost to the university (b) refunds received that were negotiated and reported when actually received (c) rebates based on negotiated targets or spend levels and reported when rebates are received (d) signing bonuses (e) value added incentives offered besides the best and final price including but not limited to: scholarships, free equipment, free training, sponsorship of events, etc.

Wells One Corporate Ghost Card for University Vendor Payments – Through the contractual relationship with our commercial bank partner, Wells Fargo, the university implemented a corporate ghost card program for participating suppliers. Procurement supports this program by negotiating the requirement to accept university payments via the ghost card for services or goods provided under contract to the university.

Note: Shared revenue from Wells Fargo is based on the university’s utilization of this payment process. In calendar year 2021, the university’s revenue share for this program was $938,000. This amount was actually received in fiscal year 2022. For calendar year 2022, we are tracking ahead of 2021 for number of payment transactions issued through the Ghost Card program with revenue from this program expected to be higher for 2022.

Any of the savings and incentives received are used to support the university’s operating budgets and help to fund one-time initiatives or offset cost increases that enable the university to limit increases in tuition and fees.

University’s e-Procurement System:

Every university purchase, regardless of price or the source of funding is processed electronically through the university e-procurement system. That system, branded HokieMart, is a Jaggaer (Sciquest) webhosted P2P system implemented originally in 2008. Our implementation design of this system has allowed not only external procurements to be tracked and processed but also facilitates internal purchases transactions between departments of the university creating a “one stop shop” for all purchasing activity.

The university institutes system controls with the HokieMart system that ensure that purchases are (1) approved appropriately ahead of the purchase order being issued (2) budget checked for funds available (3) goods/services are confirmed as “received” by qualified personnel before payments are made and (4) quality assurance oversight through electronic workflows which route certain procurement requests to miscellaneous university units for their specific oversight to ensure the safety, security, and risk of the purchase complies with university standards.

HokieMart also is the electronic repository for tracking all awarded university term contracts and the value of purchases placed against those contracts. University term contracts are solicited publicly and most are awarded utilizing competitive negotiation or “best value” evaluation but always with an emphasis on cost. Occasionally, the university will award a term contract for a well-defined commodity as a low-bid award but the majority of term contracts are awarded through competitive negotiation. In FY22, $215.77 million in purchase orders issued by the university were issued against
university awarded term contracts or other cooperative contracts which facilitated expedient purchases that support the university’s operations efficiently.

**University Awarded Contracts Portfolio:** The portfolio of existing university awarded contracts include over 500 negotiated agreements available to the university for expedited purchases. Competitively awarded contracts establish the lowest cost or price, discount, warranty, return policy, risk avoidance, etc. University term contracts average three to five-year lifespans but are renewed and reviewed annually. Of these 500+ contracts, 38 of those would be considered strategic contracts and represent an awarded and negotiated agreement strategic to the university’s mission.

Strategic contractual agreements and the companies who received that award are marketed to the university departments to encourage first use of these companies for department delegated purchases. Our strategic partners are given top billing on the landing page of the HokieMart system for optimum exposure to buyers on campus along with quick-purchase catalogs for departments to quickly shop from and place orders with these companies. The concept of strategic contracts and their exposure within the university’s mandated e-procurement system has allowed the university to implement a flexible but efficient e-procurement methodology that streamlines the majority of purchases of certain high-volume commodities or services to the companies determined to offer the greatest value or savings to the university. The university uses similar practices to highlight and increase visibility and therefore encourage purchases from SWaM vendors.
Best Practices in Contract Administration: To ensure its portfolio of term contracts continue to maximize business performance, minimize risk and represent the greatest value, the university utilizes contract administration best practices including, but not limited to:

- Contract forms are standardized. Changes to general legal terms are only made twice a year under the guidance of university legal. All other forms utilized in contract administration are templated and standard in format.
- Vendor/supplier performance management is verified annually with the end user or campus experts that deal most closely with the supplier. Contract administrator (CA) training is provided which outlines responsibilities of the CA and specifically outline the protocols for dealing with performance issues. VT Procurement adds its expertise when vendor performance issues escalate utilizing a system of documentation, cure requests and follow-up action within a designated and firm timeframe.
- The university holds in-person annual performance reviews with our strategic contract partners and many other companies who receive a high volume of business from the university.
- The life span of a typical university contract may span three to five years but renewals are still reviewed and authorized annually. The renewal process confirms with the university contract administrator, the supplier and the contracting officer from VT Procurement that all parties wish to continue the relationship. During this renewal, supplier KPI's are reviewed, cost or pricing is reviewed, and adequate performance is confirmed.
- Price increases are defined within the contract with caps on increases to reduce exposure during market instability. Price changes, if applicable, are negotiated at renewals.
• Termination clauses are defined within the term of the contract.
• Contract documents and related forms and contract administration activity is tracked within the Jaggaer e-procurement system for the life of the contract plus five years. Spend tracking is based on issued purchase orders against the contract and are compared to annual estimated spend forecast for each contract.
• Contracts with an annual spend forecast of greater than $1 million are reviewed and executed by the Senior Vice President and Chief Business Officer. Contracts valued at under $1 million are reviewed and executed by the Assistant Vice President of Finance and Director of Procurement.

**Third Party Contract Audits:** Beyond the efforts VT takes to ensure the university’s term contracts are performing as negotiated, the university also utilizes third party contract compliance companies to analyze pricing compliance to negotiated pricing and discounting. In 2022, Dell Computing underwent a third party contract review on the VHEPC contract that Virginia Tech utilizes for desktop and laptop purchases. Final negotiations of the findings from that audit are underway. And an audit of the Guy Brown Office Supply contract has just launched and is expected to be completed by mid-October.

**Cooperative Contracting:** The Code of Virginia and the university’s restructuring management agreement with the Commonwealth allows Virginia Tech to utilize cooperative procurement for efficiencies. The concept of cooperative procurement allows one entity to “ride” or “piggyback” off a negotiated term contract of another public entity thus removing the need for multiple entities to repeat procurement processes or duplicate contract awards. In addition, offering a contract opportunity as “cooperative” during negotiations gives further leverage for greater savings and discounting to all entities who may utilize the contracts.

Cooperative Contracting allows the university to have access to an additional 2000+ negotiated statewide cooperative contracts. The restructured higher education institutions in Virginia including Virginia Tech benefit greatly from the efficiency of cooperative contracting. In addition, the university can take advantage of other GPO (Government Purchase Organization) cooperative contracts when determined to be the best value for the university.

The restructured publicly funded universities in Virginia (VASCUPP) makes publicly available a searchable website of cooperative contracts available (https://vascupp.org/contracts). You will find over 290 of Virginia Tech’s awarded cooperative term contracts on this site.

**Collaborative Contracting:** In 2014, Virginia Tech, University of Virginia and James Madison University worked with the Commonwealth’s Secretary of Education staff to assemble a higher education procurement consortium that could serve both public and private universities in the Commonwealth on collaborating on commonly purchased goods and services to maximize savings with combined spend volume. The difference between a collaborative procurement approach and the cooperative procurement concept is that all schools who intend to utilize the potential contract act as one lead entity. Spend from all institutions are accumulated to increase the opportunity for the contractors increasing leverage in negotiations and all institutions provide input in evaluating proposals and negotiations. Resulting contracts are executed by a lead institution but contract administration is conducted at the consortium level.
The Virginia Higher Education Procurement Consortium (VHEPC) was chartered in early 2015. Today, it provides opportunities and cost savings for fourteen higher education agencies of the Commonwealth. Its success continues to build upon itself year over year.
Examples of Cost and Efficiency Programs established through Strategic Contracting:

**America To Go:** In 2019, the university awarded America To Go (https://www.americatogo.com) a university term contract to provide catering concierge services to university departments statewide. Catering expenditures exceed $1.2M annually on the average and before this contract was established, individual catering expenditures typically fell under departmental delegation thresholds. Thus, the university was awarding hundreds of catered events per year with over 200 unique caterers. The university had no way to proactively ensure caterers being used for university events were licensed, insured or had adequate inspections for health and safety. Invoice and payment processing to caterers was handled manually through accounts payable for each event held. The services provided by America To Go include a full vetting of the caterers to ensure they hold a valid business license, maintain adequate insurance coverage and up to date health inspections. America To Go also pays the caterers directly after receiving confirmation from departments that services were successfully delivered. Virginia Tech receives electronic invoices from America To Go that are matched and processed through the HokieMart system, allowing accounts payable to manage catering expenses with electronic invoice processing and payment. Most caterers used at Virginia Tech are small and diverse businesses and America To Go assists these firms with their certifications through the state certification program for small, woman owned or minority owned (SWaM) companies. In addition, America To Go hosts on campus “tastings” for departments to become familiar with caterers available through the program. These event offers free marketing opportunities for the caterers to meet and engage with campus departments. America To Go is compensated via commissions paid by the caterers so this contract is at no additional direct cost to the University outside of the cost for the catering.

The America To Go catering concierge program went live at the University in October of 2019. Departments are instructed to use only caterers on the America To Go program. There are 100 caterers on the America To Go program for departments to choose from. Orders for catering services are placed through a punch out catalog within HokieMart that include menus and caterer information. Departments also can work directly with an approved America To Go caterer to develop a custom menu for an event and caterers can easily upload that order through the America To Go caterer’s portal.

In FY22, America To Go facilitated 3,420 catered events, meals or refreshment orders for the university.

**Vantage Point Logistics:** The University awarded Vantage Point Logistics a term contract in 2018 for managed inbound logistics. The services VPL provides manages the university’s deliveries of product where the cost of shipping has not been negotiated. Typically called prepaid and add freight, suppliers typically charge carrier list price for these deliveries and realize a significant profit by marking up the shipping charges. VPL works with the university’s suppliers to utilize the university’s high-volume FedEx or UPS accounts for shipping product direct to campus. All billing of freight is coordinated by Vantage Point Logistics and submitted through electronic invoices weekly to the university. Since implementation of the VPL program in 2018, the university has realized over $675K in savings in inbound shipping of purchased product to campus.
Low Cost/Low Risk Software Purchasing Expediting: Along with the Division of IT and its delegated IT purchasing unit (ITPALS), VT Procurement collaborated to develop an expedited pilot program for departments to purchase low cost/low risk software faster. This new purchasing approach is based on risk and cost and includes reduced steps for acquisition. As long as the software meets the university’s standard for low risk and is of low cost (<$10K) or a no cost acquisition, the department can proceed with the purchase under their department delegation without further input from ITPALS, VT Legal or VT IT Security Office. The pilot program will run through December 31 with analysis of the volume of orders processed under the pilot, estimated time savings for departments and general feedback from campus. If successful, the program may be adjusted to allow further expansion of the definition of software that could be purchased under the expedited departmental delegation process.

Recent Cost Efficiency Successes utilizing Collaborative Procurement:

Timely MD, 24/7 Tele-counseling Services for University Students. In the Fall of 2021, the need for supplemental tele-counseling services for the student population was being discussed at all levels of the university. Virginia Tech contacted its peer institutions to acquire if this service need was being prioritized at all levels of the university. The answer was a resounding yes and the need was quickly becoming the top priority. Under the umbrella of the Virginia Higher Education Procurement Consortium, Virginia Tech took the lead in issuing a public RFP for both tele-counseling and tele-health services. An evaluation committee was put together that comprised medical and mental health experts from Virginia Tech along with colleagues and counterparts from Virginia Commonwealth University, James Madison University, the Virginia Community College System and University of Virginia. The university received twenty proposals from firms who provide a tele-platform for mental health. Evaluation of the proposals and short listing of four firms deemed most highly qualified for a higher education environment was concluded in January. Final negotiations given the potential of servicing 300,000 students instead of 30,000 (VT only) resulted in savings per student cost, waiving of all up-front implementation costs for each institution and the ability to offer twelve scheduled services...
appointments per student while having a 24/7 “Talk Now” option. As of this report, over 300,000 students will be serviced this fall with the new 24/7 tele-counseling contract at five 4-year universities (VT, UVA, JMU, and VCU) and all campuses of the Commonwealth’s Community College System. Three more 4-year universities are now under consideration for offering tele-counseling services. The final negotiated cost is on a sliding scale with a retroactive cost reduction per student as the total number of students increase with more schools coming on.

Dell Computing

A data comparison amongst the VASCUPP higher education institutions determined that Dell was charging different pricing for same models and configurations of desktops and laptops to different universities even when those universities were ordering on the exact same day. To standardize pricing using the volume of the accumulated DELL spend from all thirteen restructured higher education universities, the decision was to commit to one common negotiated contract through the VHEPC. After months of negotiation, that contract was finalized with all schools committing to utilize the VHEPC contract for all of its Dell purchases. Since execution of the collaborative contract in late FY2020, Virginia Tech has seen an increase in our educational rebates from Dell rise to over $200K in FY21 and FY22. Previously, our rebates from DELL were less than $50K annually. Rebates return to the general fund of the university to support student activity and expense. In addition, annual audits are now required contractually to ensure all schools are receiving pricing in strict compliance with the contract. VHEPC staff are completing the first annual audit.

Supplier Opportunity Program: Increasing spend with Virginia Certified Small, Woman Owned and Minority Owned (SWaM) Companies:

The mission of the Virginia Tech supplier opportunity program is to foster inclusion in the university supply chain and accelerate economic growth in our local communities through the engagement and empowerment of high quality and cost competitive small, minority owned, woman owned (SWaM) and local suppliers. Each year, the University establishes utilization goals based on percentages of discrentional spend. Those goals are shared with campus departments and are also submitted to the Commonwealth as the university’s SWaM Plan goal toward meeting management standards required of a restructured higher education institution. Progress toward spend goals are monitored every quarter. SWaM vendor fairs, news articles, internal vendor training and directly sourcing procurement opportunities to SWaM vendors are all part of the strategic initiative to increase spend with SWaM companies.

When calculating the SWaM spend, the university includes both direct spend with Virginia SWaM certified vendors and also spend with second-tier Virginia SWaM certified subcontractors utilized by majority companies doing business with the university. Construction spend always plays a major factor in the percentage utilization due to the second-tier subcontractor spend with diverse companies who provide much of the trades related work on university construction projects.

In FY22, Virginia Tech recognized its largest spend with diverse vendors in the twenty-year history of keeping records regarding utilization of SwaM firms. In FY22, 39.9% of discrentional spending was with a Virginia SWaM certified vendor. This percentage equates to a total $164M in university spend with Virginia SWaM certified firms.
Update on University Cost Efficiencies

KEN MILLER, VICE PRESIDENT FOR FINANCE
MARY HELMICK, ASSISTANT VICE PRESIDENT FOR FINANCE AND DIRECTOR OF PROCUREMENT

AUGUST 22, 2022
Cost Efficiencies Overview

**Purpose:** to build awareness of the university’s administrative cost efficiency.

**Key Insights:**

- Proportion of expenditures by function (instruction, support, research, etc.) are consistent over the last ten years.
  - Support expenditures remain a small percentage of the university’s total expenditures.

- The university is personnel-intensive, particularly in its 208 E&G activities where compensation and benefits comprise 81% of all expenditures.

- The university consistently ranks favorably among its various peer groups in nationally accepted measures of administrative efficiency.

- The university continues to identify improvements in service delivery, leverage technology to automate and simplify processes, and implement cost-effective operating principles.

- Increasing efficiencies produces savings which can be used for mission-driven activities.
## Expenditures by Function

### 10-Year Trend Per Audited Financial Statements

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*FY21 Institutional Support and Auxiliary amounts adjusted for $12.8M of COVID relief provided to Auxiliary units under §3-4.01 items 3 and 4 of Chapter 56 of the Virginia Acts of Assembly.

**Increase in Academic Support reflects a purposeful investment in the university’s library, comprising $11M (27%) of the growth between FY2012 and FY2021.
Composition of 208 E&G Expenditures by Function
Financial Statement Totals for 208 E&G Funds

FY2021 Expenditures Totaling $768.5 Million

- Instruction: 54.6%
- Academic Support: 13.6%
- O&M: 9.8%
- Other Core: 13.6%
- VetMed Ancillary: 1.6%
- Libraries: 3.5%
- Other Academic Support Costs: 8.3%
- Institutional Support*: 8.6%

*FY21 Institutional Support adjusted for $12.8M of COVID relief provided to Auxiliary units under § 3-4.01 items 3 and 4 of Chapter 56 of the Virginia Acts of Assembly.

- Instruction, Academic Support, and Institutional Support costs comprised 77 percent of 208 E&G expenditures in FY2021.
Personnel Intensive Cost-Structure
Financial Statement Totals by Natural Classification

University-wide Expenditures
FY2021 - Expenditures Totaling $1,527.5 Million

- Compensation and Benefits: 66%
- Contractual Services: 8%
- Depreciation: 7%
- Supplies and Materials: 5%
- Other Operating Expenditures*: 14%

208 E&G Expenditures
FY2021 - Expenditures Totaling $768.5 Million

- Compensation and Benefits: 81%
- Contractual Services: 8%
- Supplies and Materials: 4%
- Other Operating Expenditures*: 7%

*Other Operating Expenditures include scholarships and fellowships, sponsored program subcontracts, and travel.
Peer Comparison

Administrative Spending Per FTE
Inflation adjusted to 2020 dollars

Virginia Research Average (n=4)  Public Research Average (n=81)  SCHEV Peer Average (n=25)
Top 20 Land Grants  Virginia Tech
Peer Comparison

Cost Per Degree Year* - 2020
Top 20 Land-Grants

Average - $25,518

*Based on methodology developed by SCHEV/Lumina Foundation Strategy Labs in Virginia Postsecondary Strategic Finance Plan (2019)
Sustaining a Cost-Conscious Culture

- The university's annual budget process requires units to identify cost-savings strategies and goals.
  - Cost-containment activities are considered prior to the allocation of new resources.

- Periodically, the university engages outside consultants to evaluate specific processes and identify opportunities for improvement by:
  - Eliminating barriers and duplications
  - Improving service delivery and reducing transaction times
  - Leveraging technology to automate and streamline processes.

- In response to COVID-19 uncertainty, the university implemented a five percent across-the-board reduction to base 2020-21 budget.
  - Reduction subsequently lowered to three percent for academic areas.
Central Procurement: Acquisition of all goods, services, insurance, and construction projects for the university.

IT Hardware and Software is delegated to purchasing unit in Division of Information Technology.

University Departmental Delegation Threshold = Purchases < $10K

Central Procurement oversees $215.77 million in competitively negotiated purchases and purchases against negotiated term contracts.
Cost Efficiency Spotlight - Procurement and Contracting

- Efficiency tools used for cost savings and executing best value procurements:
  - Negotiation of strategic contracts
  - Standardization of high-volume commodities
  - Cooperative Procurement - VASCUPP
  - Collaborative Procurement - Virginia Higher Ed Procurement Consortium

- Best Practices
  - Efficient Contract Administration
  - University e-Procurement (P2P) System - mandated for all purchases
Administrative Cost Pressures

- Investments in efficiency and security, such as technology, often appear as Institutional Support costs.
- Inflationary cost pressures, including accelerating competition in labor market.
- Costs related to supporting the achievement of strategic initiatives.
- State and Federal mandates.
DISCUSSION
<table>
<thead>
<tr>
<th>Initiative</th>
<th>Strategic Objective/Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>University Bursar</strong></td>
<td>Reduction in manual data entry - Cashier Bot has processed 30,195 transactions (tendering items from bank statements) since its inception in June 2020. Bursar estimates savings of 1 FTE.</td>
</tr>
<tr>
<td>Robotic Process Automation</td>
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<tr>
<td><strong>Human Resources</strong></td>
<td>Consolidation of onboarding tasks into one location to reduce data entry and multiple points of contact</td>
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<tr>
<td>New Hire System</td>
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</tr>
<tr>
<td><strong>IT Transformation</strong></td>
<td>Improve alignment of core IT processes, streamline software procurement, consolidate data storage, and reduce cybersecurity risks.</td>
</tr>
<tr>
<td><strong>Virginia Tech Electric Systems</strong></td>
<td>Enhance operational efficiency and resiliency, and the monitoring of assets using advanced analytics to improve response times and minimize impacts of critical events.</td>
</tr>
<tr>
<td>Operational Data Warehouse/ESRI Geospatial Information System</td>
<td></td>
</tr>
<tr>
<td><strong>Student Health Services</strong></td>
<td>Partnerships with Lewis-Gale Hospital, and other institutions of higher education to expand student mental health care options, including tele-counseling services.</td>
</tr>
<tr>
<td>Partnerships to deliver Mental Health Services</td>
<td></td>
</tr>
<tr>
<td><strong>Business and Management Systems</strong></td>
<td>Migration to SharePoint Online provides savings in license costs and reduced maintenance of physical servers.</td>
</tr>
<tr>
<td>SharePoint Online</td>
<td></td>
</tr>
<tr>
<td><strong>Controller's Office</strong></td>
<td>Utilize electronic workflows to streamline the required reporting process of salary costs charged to individual sponsored projects to ensure such costs are consistent with employee effort for these projects. This eliminates paper-based processes and manual data entry.</td>
</tr>
<tr>
<td>Effort Reporting System</td>
<td></td>
</tr>
</tbody>
</table>
The Financial Performance Report of income and expenditures is prepared from two sources: actual accounting data as recorded at Virginia Tech and the annual budgets which are also recorded in the university accounting system. The actual accounting data reflect the modified accrual basis of accounting, which recognizes revenues when received rather than when earned and commitments to buy goods and services as encumbrances when obligated and as an expenditure when paid. The Original Budget was approved by the Board of Visitors at the June meeting. The Adjusted Budget reflects adjustments to incorporate actual experience or changes made during the fiscal year. These changes are presented for review and approval by the Finance and Resource Management Committee and the Board of Visitors through this report. Where adjustments impact appropriations at the state level, the university coordinates with the Department of Planning and Budget to ensure appropriations are reflected accurately.

The July to June 2021-22 budget (year-to-date) is prepared from historical data which reflects trends in expenditures from previous years as well as known changes in timing. Differences between the actual income and expenditures and the year-to-date budget may occur for a variety of reasons, such as an accelerated or delayed flow of documents through the accounting system, a change in spending patterns at the college level, or increases in revenues for a particular area.

Quarterly budget estimates are prepared to provide an intermediate measure of income and expenditures. Actual revenues and expenditures may vary from the budget estimates. The projected year-end budgets are, however, the final measure of budgetary performance.

Capital program performance is measured against the Total Project Budget. The Total Project Budget amounts reflect appropriations and authorizations established by the State or Board of Visitors for each capital project. These amounts are recorded in the accounting system in grant funds with revenue and expenditure budgets upon the effective date of each project, which normally occurs on July 1 or regularly scheduled meetings of the Board of Visitors. Under restructuring authorities, university administration may make minor changes to a Total Project Budget, within ten percent, and the revised Total Project Budget is shown on the subsequent quarterly report. The Cumulative Expenditures reflect lifetime-to-date activity until a project is complete, and a project’s life spans multiple fiscal years. The Annual Budgets are estimates of expected activity for a 12-month portion of the life of a project, and these budgets are approved by the Board of Visitors at the June meeting. Spending pace for a project may periodically slow or accelerate during a year for a variety of reasons including shifts in construction start dates, contractor performance or billing cycles, and supply chain disruptions. The Annual Budgets are revised accordingly and shown on the subsequent quarterly report.

**RECOMMENDATION:**

That the report of income and expenditures for the University Division and the Cooperative Extension/Agricultural Experiment Station Division for the period of July 1, 2021 through June 30, 2022 and the Capital Outlay report be approved.

August 23, 2022
## Educational and General Programs

### University Division

<table>
<thead>
<tr>
<th></th>
<th>Actual</th>
<th>Budget</th>
<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
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<tr>
<td><strong>Revenues</strong></td>
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<td>All Other Income</td>
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<td>44,090</td>
<td>44,895</td>
<td>805</td>
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<td><strong>Total Revenues</strong></td>
<td>$887,256</td>
<td>$891,012</td>
<td>$-3,756</td>
<td>$878,432</td>
<td>$891,012</td>
<td>$12,580</td>
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<tr>
<td><strong>Expenses</strong></td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Academic Programs</td>
<td>$-553,596</td>
<td>$-557,409</td>
<td>3,813</td>
<td>$-559,541</td>
<td>$-557,409</td>
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<td>Support Programs</td>
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<td>1,962</td>
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<td>-342,188</td>
<td>-23,297</td>
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<td>Reserve Drawdown/(Depos)</td>
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<td>8,585</td>
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<td>0</td>
<td>8,585</td>
<td>8,585</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td>$-887,256</td>
<td>$-891,012</td>
<td>$3,756</td>
<td>$-878,432</td>
<td>$-891,012</td>
<td>$12,580</td>
</tr>
<tr>
<td><strong>NET</strong></td>
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### CE/AES Division

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<td><strong>Revenues</strong></td>
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<td>Federal Appropriation</td>
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<td>All Other Income</td>
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<td><strong>Total Revenues</strong></td>
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<td>$97,218</td>
<td>$-210</td>
<td>$95,613</td>
<td>$97,218</td>
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<td><strong>Expenses</strong></td>
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<tr>
<td>Academic Programs</td>
<td>$-88,018</td>
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<td>$-88,315</td>
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<td>Support Programs</td>
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<td>Reserve Drawdown/(Depos)</td>
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<td>2,905</td>
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<tr>
<td><strong>Total Expenses</strong></td>
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<td>$-97,218</td>
<td>$210</td>
<td>$-95,613</td>
<td>$-97,218</td>
<td>$1,605</td>
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### Auxiliary Enterprises

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<tr>
<td><strong>Revenues</strong></td>
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<td></td>
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<tr>
<td>$388,506</td>
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<td>$355,918</td>
<td>$376,636</td>
<td>$20,718</td>
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<tr>
<td>-352,510</td>
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<td>43,616</td>
<td>(5)</td>
<td>-350,771</td>
<td>-396,126</td>
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<td><strong>Reserve Drawdown/(Deposit)</strong></td>
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<td>19,490</td>
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### Sponsored Programs

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<tr>
<td><strong>Revenues</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>$360,908</td>
<td>$354,761</td>
<td>$6,147</td>
<td>(6)</td>
<td>$355,706</td>
<td>$354,761</td>
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<tr>
<td>-353,932</td>
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<td><strong>Reserve Drawdown/(Deposit)</strong></td>
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### Student Financial Assistance

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<th>Budget</th>
<th>Change</th>
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<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>$36,297</td>
<td>$37,988</td>
<td>$-1,691</td>
<td>(1)</td>
<td>$38,340</td>
<td>$37,988</td>
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<td><strong>Expenses</strong></td>
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<tr>
<td>-36,295</td>
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<td>1,693</td>
<td>(1)</td>
<td>-38,340</td>
<td>-37,988</td>
<td>352</td>
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<td><strong>Reserve Drawdown/(Deposit)</strong></td>
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### All Other Programs *

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<td><strong>Revenue</strong></td>
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<td>$23,552</td>
<td>$-367</td>
<td>$13,923</td>
<td>$23,552</td>
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<td><strong>Federal Pandemic Relief</strong></td>
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<tr>
<td><strong>Expenses</strong></td>
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<tr>
<td>-12,361</td>
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<td>28,074</td>
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<td>-13,923</td>
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### Total University

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<th>Budget</th>
<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
<th>Change</th>
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</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td>$1,854,545</td>
<td>$1,842,552</td>
<td>$11,993</td>
<td>$1,737,932</td>
<td>$1,842,552</td>
<td>$104,620</td>
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<tr>
<td><strong>Expenses</strong></td>
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<td></td>
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</tr>
<tr>
<td>-1,748,916</td>
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<td>(10)</td>
<td>-1,732,785</td>
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<tr>
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<td>11,320</td>
<td>16,467</td>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

* All Other Programs include federal work study, surplus property, local funds, and unique military activities.
OPERATING BUDGET

1. General Fund Revenues are lower than budgeted due to lower than projected nongeneral fund interest earnings and credit rebates returned to the institution by the Commonwealth.

2. University Division all other income revenues are lower than projected due to timing of revenue collections occurring in early 2022-23 that were originally planned for late 2021-22.

3. The budget for federal revenue is established to match projected allotments from the federal government that are expected to be drawn down during the state fiscal year. All expenses in federal programs are covered by drawdowns of federal revenue up to allotted amounts. Federal revenue in the Cooperative Extension and Agriculture Experiment Station Division is lower than projected due to the timing of federal drawdown.

4. Cooperative Extension and Agriculture Experiment Station Division revenues for All Other Income are higher than projected due to milk sales and self-generated revenues.

5. Quarterly and projected annual variances are explained in the Auxiliary Enterprises section of this report.

6. Historical patterns have been used to develop a measure of the revenue and expenditure activity for Sponsored Programs. Actual revenues and expenses may vary from the budget estimates because projects are initiated and concluded on an individual basis without regard to fiscal year. Total sponsored research expenditures are higher than projected. The sponsored research expenditures are 12.2% higher than June 30, 2021.

7. Expenses for All Other Programs were lower than projected due to timing of expenditures of $25 million for targeted federal pandemic relief to restore units to a neutral financial position and lower than projected Surplus Property activity.

8. The annual budget for the University Division General Fund was decreased $0.4 million for the state share of salary and fringe benefit rate changes.

9. In June, the budget for Tuition and Fees was increased $0.8 million for planned Fall 2021 Graduate enrollment and scholarships. The budget was increased $9.0 million for higher than projected graduate and professional on-campus revenue, undergraduate residency mixture, and higher than projected program fees. The tuition and fee budget was increased $2.4 million for higher than projected summer enrollments. The corresponding expenditure budgets have been adjusted accordingly.

10. The University Division All Other Income revenue budget was increased $0.8 million for self-generated earmarked revenues. The corresponding expenditure budgets have been adjusted accordingly.

11. The University Division had a cash balance of $8.5 million at the end of the fiscal year 2020-21. The university authorized a one-time expenditure budget increase of $8.5 million to accomplish work which was previously delayed by the pandemic.

12. The Cooperative Extension/Agriculture Experiment State Division General Fund revenue budget was increased $0.4 million for the state share of salary and fringe benefit rate changes. The corresponding expenditure budgets have been adjusted accordingly.

13. The federal revenue budget in the Cooperative Extension/Agriculture Experiment Station Division has been increased by $1.2 million for the carryover of unexpended federal funds in fiscal year 2020-21. The corresponding expenditure budgets have been adjusted accordingly.
14. The Cooperative Extension and Agriculture Experiment Station division had a state E&G cash balance of $2.9 million at the end of fiscal year 2020-21. The university authorized a one-time expenditure budget increase of $2.9 million to accomplish work which was previously delayed by the pandemic.

15. Virginia Tech received $36.3 million funding through The Higher Education Emergency Relief Fund II and III (HEERF II & III) programs for the Student Financial Aid award expenditures. In addition, other miscellaneous CARES allocations received by the institution, not recorded in the Auxiliary or E&G programs, are recorded as Sponsored Programs activity. The Sponsored Programs budget was increased by $36.3 million to accommodate the federal pandemic relief funds.

16. The Student Financial Assistance revenue and expenditure budgets were decreased $0.7 million for the finalization of the scholarship budget and technical accounting changes and increased $0.3 million for the SCHEV GEAR Up scholarship program.

17. The projected annual budgets for All Other Programs were increased $0.2 million for increased Surplus Property business volume and $25 million for pandemic relief clearing. The projected annual revenue budgets were increased $5.6 million for federal revenue earmarked for Kentland Farm capital lease and $3.8 million for technical alignment of university initiatives. The projected annual expense budgets were increased $0.9 million for outstanding 2020-21 commitments that were initiated but not completed before June 30, 2021 and $0.4 million for technical alignments of university initiatives.
### Residence and Dining Halls *

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<th>Budget</th>
<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
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<tbody>
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<td>$139,337</td>
<td>$138,552</td>
<td>$785</td>
<td>$132,387</td>
<td>$138,552</td>
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<td><strong>Expenses</strong></td>
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<td>-139,294</td>
<td>6,662</td>
<td>-128,747</td>
<td>-139,294</td>
<td>-10,547</td>
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<tr>
<td>Reserve Drawdown/(Deposit)</td>
<td>-6,705</td>
<td>742</td>
<td>-7,447</td>
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### Parking and Transportation

<table>
<thead>
<tr>
<th></th>
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<th>Budget</th>
<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
<th>Change</th>
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</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td>$20,846</td>
<td>$20,045</td>
<td>$801</td>
<td>$15,722</td>
<td>$20,045</td>
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<tr>
<td><strong>Expenses</strong></td>
<td>-16,613</td>
<td>-21,256</td>
<td>4,643</td>
<td>-16,912</td>
<td>-21,256</td>
<td>-4,344</td>
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<td>Reserve Drawdown/(Deposit)</td>
<td>-4,233</td>
<td>1,211</td>
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<td>1,190</td>
<td>1,211</td>
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### Telecommunications Services

<table>
<thead>
<tr>
<th></th>
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<th>Budget</th>
<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td>$22,036</td>
<td>$21,671</td>
<td>$365</td>
<td>$21,594</td>
<td>$21,671</td>
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<td><strong>Expenses</strong></td>
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<td>-21,856</td>
<td>-27,276</td>
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<td>Reserve Drawdown/(Deposit)</td>
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### University Services * **

<table>
<thead>
<tr>
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<th>Original</th>
<th>Adjusted</th>
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<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td>$56,536</td>
<td>$55,952</td>
<td>$584</td>
<td>$55,967</td>
<td>$55,952</td>
<td>$-15</td>
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<td><strong>Expenses</strong></td>
<td>-46,629</td>
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<td>11,735</td>
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<td>-58,364</td>
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<td>Reserve Drawdown/(Deposit)</td>
<td>-9,907</td>
<td>2,412</td>
<td>-12,319</td>
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<td>2,412</td>
<td>2,886</td>
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<td>$0</td>
<td>$0</td>
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### Intercollegiate Athletics *

<table>
<thead>
<tr>
<th></th>
<th>Actual</th>
<th>Budget</th>
<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td>$92,463</td>
<td>$84,446</td>
<td>$8,017</td>
<td>$78,327</td>
<td>$84,446</td>
<td>$6,119</td>
</tr>
<tr>
<td><strong>Expenses</strong></td>
<td>-93,590</td>
<td>-96,652</td>
<td>3,062</td>
<td>-77,596</td>
<td>-96,652</td>
<td>-19,056</td>
</tr>
<tr>
<td>Reserve Drawdown/(Deposit)</td>
<td>1,127</td>
<td>12,206</td>
<td>-11,079</td>
<td>-731</td>
<td>12,206</td>
<td>12,937</td>
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<tr>
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### Electric Service *

<table>
<thead>
<tr>
<th></th>
<th>Actual</th>
<th>Budget</th>
<th>Change</th>
<th>Original</th>
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<th>Change</th>
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</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
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<td>$31,396</td>
<td>$646</td>
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<td>Reserve Drawdown/(Deposit)</td>
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<td>$0</td>
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### Inn at VT/Skelton Conf. Center

<table>
<thead>
<tr>
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<th>Budget</th>
<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
<th>Change</th>
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<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td>$9,500</td>
<td>$10,313</td>
<td>$-813</td>
<td>$9,056</td>
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<td><strong>Expenses</strong></td>
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<td>-10,463</td>
<td>-109</td>
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<tr>
<td>Reserve Drawdown/(Deposit)</td>
<td>-1,391</td>
<td>150</td>
<td>-1,541</td>
<td>150</td>
<td>150</td>
<td>-1,148</td>
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<td>$0</td>
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### Other Enterprise Functions ***

<table>
<thead>
<tr>
<th></th>
<th>Actual</th>
<th>Budget</th>
<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td>$15,746</td>
<td>$14,261</td>
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<td>$8,090</td>
<td>$14,261</td>
<td>$6,171</td>
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<tr>
<td><strong>Expenses</strong></td>
<td>-3,366</td>
<td>-7,528</td>
<td>4,162</td>
<td>-5,616</td>
<td>-7,528</td>
<td>-1,912</td>
</tr>
<tr>
<td>Reserve Drawdown/(Deposit)</td>
<td>-12,380</td>
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<td>-5,647</td>
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### TOTAL AUXILIARIES

<table>
<thead>
<tr>
<th></th>
<th>Actual</th>
<th>Budget</th>
<th>Change</th>
<th>Original</th>
<th>Adjusted</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td>$388,506</td>
<td>$376,636</td>
<td>$11,870</td>
<td>$355,918</td>
<td>$376,636</td>
<td>$20,718</td>
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<tr>
<td>Reserve Drawdown/(Deposit)</td>
<td>-35,996</td>
<td>19,490</td>
<td>-55,486</td>
<td>-5,147</td>
<td>19,490</td>
<td>24,637</td>
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<tr>
<td><strong>Net</strong></td>
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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

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* University Systems include Dormitory and Dining Hall System, University Services System, Intercollegiate Athletics System, and Electric Service System. The Systems were created to provide assurance to bond holders that system revenues are pledged for the payment of debt service and to allow for dedicated repair and replacement that are not subject to liens of any creditor of the university.

** University Services System includes Career & Professional Development, Center for the Arts, Health Services, Recreational Sports, Student Engagement & Campus Life, Cultural and Community Centers, Student Organizations, and the VT Rescue Squad.

*** Other Enterprise Functions include Golf Course, Hokie Passport, Library Café, Library Photocopy, Licensing & Trademark, Little Hokie Hangout, New Student and Family Programs, Pouring Rights, Printing Services, Software Sales, Tailor Shop and Clearing Accounts.

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Presentation Date: August 22, 2022
1. Expenses in Residence and Dining Halls are lower than projected due to timing of operating expenses, one-time facility improvement projects, and replacement of furniture and equipment normally scheduled during the summer months.

2. Expenses in Parking and Transportation Services are lower than projected due to timing of operating expenses, Fleet Services vehicle replacement purchases, and transit equipment purchases.

3. Expenses in Telecommunications Services are lower than projected due to timing of network telecommunication projects and supply chain disruptions impacting delivery of telecommunication network equipment.

4. Expenses for the University Services System are lower than projected due to timing of operating expenses, health services renovation projects, Squires flooring replacement, and facility projects scheduled for summer months.

5. Revenues for Intercollegiate Athletics are higher than projected due to higher than budgeted ACC revenue, multimedia contract revenues, and post-season ticket sales. Expenses are lower than projected due to timing of expenses and one-time projects including baseball pitching lab.

6. Expenses for the Electric Service auxiliary are lower than projected due to timing of the operational data warehouse project and items ordered but not yet received thus not paid at fiscal year-end.

7. Revenues and expenses for the Inn at Virginia Tech are lower than projected due to timing of business transactions.

8. Revenues for Other Enterprise Functions are higher than projected due to increased business volume in New Student Programs, Licensing and Trademark, and Software Sales. Expenses are lower than projected due to timing of operating and COVID-19 testing expenses.

9. The annual revenue for Residence and Dining Halls were decreased $3.2 million in 2nd quarter for lower than anticipated residence hall occupancy, increased $2.1 million in 3rd quarter for residential quarantine space agreements, higher residential spring occupancy, and summer conference revenues, increased $4.4 million in the 3rd quarter for higher than budgeted dining meal plan sales and self-generated revenues, and increased $2.2 million in the 4th quarter for higher dining business volume and $0.7 million for targeted pandemic relief to restore residential to a neutral financial position. Expenses were increased $2.5 million in the 2nd quarter for a one-time equipment purchase of microwave-refrigerators for residence rooms and decreased $5.8 million in the 3rd quarter for Dining expense savings, decreased $2.0 million for targeted pandemic relief to restore residential to a neutral financial position and increased $7.0 million in the 4th quarter for higher dining business volume and projects delayed by the pandemic.

10. In June 2021, the annual revenue, expense, and reserve budgets for Auxiliary Enterprises were adjusted for technical alignments and finalization of fixed cost estimates.

11. The annual expense budget for Auxiliary Enterprises was increased $12.6 million for outstanding 2020-21 commitments and projects that were initiated but not completed before June 30, 2021.

<table>
<thead>
<tr>
<th>Auxiliary Enterprise</th>
<th>Outstanding Commitments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residence and Dining Halls</td>
<td>$3,449,416</td>
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<tr>
<td>Parking and Transportation</td>
<td>732,928</td>
</tr>
<tr>
<td>Telecommunication Services</td>
<td>1,213,341</td>
</tr>
<tr>
<td>University Services System</td>
<td>2,308,486</td>
</tr>
<tr>
<td>Intercollegiate Athletics</td>
<td>1,857,700</td>
</tr>
<tr>
<td>Electric Service</td>
<td>2,299,715</td>
</tr>
<tr>
<td>Inn at Virginia Tech</td>
<td>149,749</td>
</tr>
<tr>
<td>Other Enterprise Functions</td>
<td>614,948</td>
</tr>
<tr>
<td>Total</td>
<td>$12,626,283</td>
</tr>
</tbody>
</table>
12. In the Fall of 2021, the annual expense budgets for Residence and Dining Halls were increased $5.4 million and University Services System increased $0.2 million to increase entry level compensation to respond to the market.

13. The annual revenue, expense, and reserve budgets for Parking Services were increased $2.9 million for parking permit sales, multi-modal transit project activity, and building maintenance; the Fleet Services budget was increased $1.1 million for targeted pandemic relief to restore unit to a neutral financial position.

14. The annual expense and reserve budgets for Telecommunications Services were increased $4.1 million for the residential network refresh project.

15. The annual expense and reserve budgets for University Services System was increased $0.4 million for Virginia Tech Rescue Squad dispatch system replacement and Marching Virginians uniform replacement.

16. The annual revenue, expense, and reserve budgets for Intercollegiate Athletics were increased to accommodate additional revenue of $1.7 million for the football team’s participation in the Pinstripe Bowl, $0.7 million in private funds for the repayment of the football lounge advance, $1.5 million bowl expenses (total bowl expense is $2.5 million), and $12.0 million for the football coaching transition loan. The annual revenue budget was increased $1.1 million for football revenues, $1.4 million in private funds for the baseball pitching lab, $1.0 million in private funds for additional football transition salary needs not covered by coaching transition loan, and $0.2 million in private funds for the president’s box renovations, partially offset by a decrease $0.1 million for lower than budgeted basketball ticket sales. The annual expense budget was increased $1.5 million for football transition salary needs not covered by coaching transition loan, $0.6 million for coaching contracts and faculty leave payouts, $0.5 million for post-season and GPA bonuses, $2 million to fully fund annual budgets for sports medicine, outdoor facilities, and external relations, $0.2 million for stadium wifi, $1.7 million for baseball pitching lab, $0.2 million for president’s box renovations, and $2.3 million for indoor practice facility capital project, partially offset by a decrease of $5.4 million for alignment of scholarship expenses to private fundraising.

17. The annual revenue budget for the Electric Service auxiliary was decreased $2.8 million due to lower than projected electric consumption. The annual expense budget was decreased $2.0 million for lower electric consumption and increased $2.0 million for higher than budgeted cost of wholesale electricity.

18. The annual revenue, expense, and reserve budgets for the Inn at Virginia Tech were decreased for lower than projected business volume and hotel management transition. The annual revenue budget was increased $2.2 million to provide targeted pandemic relief to restore the unit to a neutral financial position.

19. The annual revenue, expense, and reserve budgets for Other Enterprise Functions were increased for sustainability projects, the cost of winding down operations in Printing Services, technical accounting alignments, and scholarship expenses in Licensing and Trademark.
## CAPITAL OUTLAY PROJECTS
### AUTHORIZED AS OF JUNE 30, 2022

**Dollars in Thousands**

<table>
<thead>
<tr>
<th>PROJECT INITIATED</th>
<th>FISCAL YEAR ACTIVITY</th>
<th>TOTAL PROJECT BUDGET</th>
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<tbody>
<tr>
<td></td>
<td>ANNUAL</td>
<td>YTD</td>
</tr>
<tr>
<td><strong>EDUCATIONAL AND GENERAL PROJECTS</strong></td>
<td></td>
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<tr>
<td><strong>Design Phase</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning: Mitchell Hall (Replace Randolph Hall)</td>
<td>Jul 2020</td>
<td>$2,500</td>
</tr>
<tr>
<td>Life, Health, Safety, Accessibility, &amp; Code Compliance</td>
<td>Jul 2020</td>
<td>155</td>
</tr>
<tr>
<td>Planning: New Business Building</td>
<td>Apr 2022</td>
<td>-</td>
</tr>
<tr>
<td><strong>Construction Phase</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance Reserve</td>
<td>On-going</td>
<td>14,300</td>
</tr>
<tr>
<td>Corps Leadership and Military Science Building</td>
<td>Jun 2019</td>
<td>16,000</td>
</tr>
<tr>
<td>Data and Decision Science Building</td>
<td>Jul 2019</td>
<td>35,000</td>
</tr>
<tr>
<td>Innovation Campus - Academic Building</td>
<td>Jul 2019</td>
<td>30,000</td>
</tr>
<tr>
<td>Hitt Hall</td>
<td>Apr 2017</td>
<td>6,800</td>
</tr>
<tr>
<td>Undergraduate Science Laboratory Building</td>
<td>Jul 2017</td>
<td>2,000</td>
</tr>
<tr>
<td><strong>Equipment and Special Initiatives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commonwealth Cyber Initiative</td>
<td>May 2019</td>
<td>70</td>
</tr>
<tr>
<td>Fralin Biomedical Research Institute Equipment</td>
<td>Jul 2020</td>
<td>2,500</td>
</tr>
<tr>
<td>Equipment for Workforce Development</td>
<td>May 2021</td>
<td>1,000</td>
</tr>
<tr>
<td><strong>Close-Out</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve Kentland Facilities</td>
<td>Sep 2013</td>
<td>363</td>
</tr>
<tr>
<td>Gas-Fired Boiler at the Central Steam Plant</td>
<td>Apr 2017</td>
<td>400</td>
</tr>
<tr>
<td>Acquisition: Falls Church Property</td>
<td>Apr 2019</td>
<td>2,850</td>
</tr>
<tr>
<td>Chiller Plant Phase II</td>
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</tr>
<tr>
<td>Holden Hall Renovation</td>
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<tr>
<td>Construct Virginia Seafood AREC</td>
<td>Jul 2018</td>
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</tr>
<tr>
<td><strong>TOTAL EDUCATIONAL AND GENERAL PROJECTS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$158,662</td>
<td>$180,784</td>
</tr>
</tbody>
</table>
Education and General Projects

1. **Planning: Mitchell Hall (Replace Randolph Hall):** This state authorized planning project will design the replacement of Randolph Hall with an approximately 284,000 gross square foot building to accommodate engineering instruction and research. In accordance with the state capital budget program, the university will temporarily fund the planning costs and be reimbursed through a request for construction funding. The state authorized construction effective July 1, 2022. Preliminary design is initiated.

2. **Life, Health, Safety, Accessibility, & Code Compliance:** This project improves pedestrian connectors to ensure accessible service in the North Academic District. The state authorized a $7.3 million General Fund supplement effective July 1, 2022. Working drawings are complete with market pricing expected October 2022. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

3. **Planning: New Business Building:** This planning project will design a 104,000 gross square foot building for the Pamplin College of Business. A/E and CMAR procurements are underway.

4. **Maintenance Reserve:** The total project budget reflects $2.73 million of carryforward from fiscal year 2020, and the State’s fiscal year 2021 and fiscal year 2022 appropriations totaling $29,824 million. The annual budget amount reflects the pace necessary to meet the state’s 85 percent spending performance requirement by June 30, 2022. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

5. **Livestock & Poultry Research Facilities, Phase I:** This project is the first of two phases to renew existing facilities for the livestock and poultry programs. Construction is underway for the swine, poultry, beef, and equine packages. Packages for three hay barns and demolition are under development. Construction funding for those packages will be requested through a supplement pool established during the 2022 General Assembly session. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

6. **Corps Leadership and Military Science Building:** The project consolidates the Corps of Cadets and ROTC programs in the northern portion of the Upper Quad project. Construction is underway with substantial completion expected July 2023. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

7. **Data and Decision Sciences Building:** Construction of the new 120,000 gross square foot building is underway with substantial completion expected April 2023. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

8. **Innovation Campus – Academic Building:** This project will construct a new 300,000 gross square foot academic building with below grade parking as part of the Innovation Campus in Alexandria Virginia. Construction is underway with substantial completion expected April 2024. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

9. **Hitt Hall:** This project houses an expansion of Myers-Lawson School of Construction, a new dining center, and other academic spaces. Sitework is underway. Construction is underway and substantial completion expected March 2024. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

10. **Undergraduate Science Laboratory Building:** This project will construct a 102,000 gross square foot science instruction laboratory building. The project received a General Fund administrative supplement on March 8, 2022 to cover a minor market price adjustment necessary to award the construction contract. Construction is underway with substantial completion April 2024. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

11. **Commonwealth Cyber Initiative:** This project makes improvements to support the Commonwealth Cyber Initiative Hub renovations, space enhancements, and equipment. The Virginia Innovation Partnership Authority (VIpa) approves spending requests which are then allocated to Virginia Tech for procurement. The maximum appropriation from the Commonwealth is $3.5 million. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

12. **Fralin Biomedical Research Institute Equipment:** This funding supports the procurement and installation of specialized research equipment for the Fralin Biomedical Research Institute.

13. **Equipment for Workforce Development:** This project supports space and equipment purchases for the instructional programs associated with the Tech Talent Investment Program. The annual budget was adjusted to account for extended lead times for equipment orders.

14. **Improve Kentland Facilities:** The project is substantially complete and the total cost is expected to be $12.46 million. The project will be closed and financial accounts terminated when final invoices are received and paid. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

15. **Gas-Fired Boiler at the Central Steam Plant:** This project is substantially complete and the total cost is expected to be $8.2 million. The project will be closed and financial accounts terminated when final invoices are received and paid. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

16. **Acquisition: Falls Church Property:** This project was established to acquire the fee simple title to the 5.33 acres currently leased from and owned by the City of Falls Church for a net cost of $2.85 million. The university is working on a sale transaction for the property with the City of Falls Church.
### Auxiliary Enterprise Projects

#### Design Phase
- **Student Wellness Improvements**
  - Initiated: Jun 2016
  - Annual Budget: $2,500
  - YTD Expenditures: $583
  - Revenue Support: $23,046
  - Nongeneral Fund Expenditures: $46,954
  - Total Revenue Support: $70,000
  - Cumulative Expenditures: $5,648
- **Construction Phase**
  - **Maintenance Reserve**
    - On-going
    - Annual Budget: $8,000
    - YTD Expenditures: $11,543
    - Nongeneral Fund Expenditures: $8,000
    - Total Nongeneral Fund Expenditures: $11,543
  - **New Upper Quad Residence Hall**
    - Initiated: Jun 2019
    - Annual Budget: $13,000
    - YTD Expenditures: $13,927
    - Nongeneral Fund Expenditures: $2,000
    - Total Nongeneral Fund Expenditures: $42,000
    - Cumulative Expenditures: $2,417
- **Dietrick Renovation**
  - Initiated: Sept 2017
  - Annual Budget: $1,200
  - YTD Expenditures: $1,469
  - Nongeneral Fund Expenditures: $9,131
  - Total Nongeneral Fund Expenditures: $2,417

#### Close-Out
- **Student-Athlete Performance Center**
  - Initiated: Mar 2018
  - Annual Budget: $18
  - YTD Expenditures: $18
  - Nongeneral Fund Expenditures: $20,417
  - Total Nongeneral Fund Expenditures: $19,726
- **Creativity & Innovation District LLC**
  - Initiated: Oct 2016
  - Annual Budget: $17,176
  - YTD Expenditures: $14,941
  - Nongeneral Fund Expenditures: $15,880
  - Total Nongeneral Fund Expenditures: $102,877
- **Planning: Tennis Center Improvements**
  - Initiated: Aug 2016
  - Annual Budget: $107
  - YTD Expenditures: $164
  - Nongeneral Fund Expenditures: $809
  - Total Nongeneral Fund Expenditures: $548
- **Global Business & Analytics Complex Residence Halls**
  - Initiated: Jun 2019
  - Annual Budget: $18
  - YTD Expenditures: $18
  - Nongeneral Fund Expenditures: $84,000
  - Total Nongeneral Fund Expenditures: $1,269

**Total Auxiliary Enterprise Projects**
- Annual Budget: $42,001
- YTD Expenditures: $42,644
- Nongeneral Fund Expenditures: $79,282
- Total Nongeneral Fund Expenditures: $339,856
- Cumulative Expenditures: $160,442

**Grand Total**
- Annual Budget: $200,663
- YTD Expenditures: $223,427
- Nongeneral Fund Expenditures: $525,855
- Total Nongeneral Fund Expenditures: $1,204,921
- Cumulative Expenditures: $507,162
17. **Chiller Plant Phase II**: This project is substantially complete and the total cost is expected to be $42.968 million. The project will be closed and financial accounts terminated when final invoices are received and paid. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

18. **Holden Hall Renovation**: This project is substantially complete and the total cost is expected to be $74.927 million. The project will be closed and financial accounts terminated when final invoices are received and paid. The annual budget was increased to account for the pace of the contractor’s work. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

19. **Construct Virginia Seafood AREC**: This project was implemented through the Foundation. The General Fund authorization of $2.5 million was fully expensed and the project is closed.

**Auxiliary Enterprise Projects**

1. **Student Wellness Improvements**: A supplement increasing the project budget to $70 million was approved at the June Board of Visitors meeting, and the project construction is out for market pricing.

2. **Maintenance Reserve**: The auxiliary maintenance reserve program covers 106 assets with a total replacement value of $1.4 billion. Projects are scheduled and funded by the auxiliary enterprises. The units prepare five-year plans that outline their highest priority deferred maintenance needs. The annual budget and total project budget reflect the spending plans of the auxiliary units on maintenance reserve work scheduled for fiscal year 2023. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

3. **New Upper Quad Residence Hall**: The project constructs a 300-bed residence hall in the upper quad section of campus. The project is under construction with substantial completion expected August 2023. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

4. **Dietrick Renovation**: This project includes refurbishing the first floor of Dietrick Hall, inserting a modern food service venue, and enclosing a portion of the exterior overhang. Improvements to the outdoor plaza will be implemented concurrently as a non-capital activity supported with private gifts. The project is under construction with substantial completion expected March 2023. Resources are available and sufficient to cover the accelerated cash flows, and the project remains within the authorized total budget.

5. **Student-Athlete Performance Center**: The project is closed with a total cost of $19.726 million.

6. **Creativity & Innovation District Living Learning Community (LLC)**: The project is substantially complete and the total cost is expected to be $105.5 million. The project will be closed and financial accounts terminated when final invoices are received and paid.

7. **Planning: Tennis Center Improvements**: The planning project is closed with a total cost of $548 thousand.

8. **Global Business & Analytics Complex Residence Halls**: The university is exploring alternatives for additional residential beds in the northwest area of campus. The project was closed at the end of the fiscal year.
FINANCIAL PERFORMANCE REPORT
July 1, 2021 - June 30, 2022

TIM HODGE, ASSOCIATE VICE PRESIDENT FOR BUDGET AND FINANCIAL PLANNING
BOB BROYDEN, ASSOCIATE VICE PRESIDENT FOR CAMPUS PLANNING AND CAPITAL FINANCING
AUGUST 22, 2022
Federal student and institutional support for pandemic relief recognized in budget during in Q2 and Q3
4TH QUARTER 2021-22

Annual Budget Changes

Educational and General, Sponsored Programs, and Student Financial Aid
- Minor budget adjustments

Auxiliary Enterprises
- Residential & Dining: $2.2 million revenue and $7.1 million expense increase for business volume and projects delayed due to pandemic.
- Targeted pandemic relief of $6.0 million to restore units to neutral financial position

Financial Performance

Educational and General
- Successfully closed fiscal year in both Agencies.
- In accordance with State rules, E&G funds were fully utilized without deficit.

Auxiliary Enterprise
- Athletics: higher than projected revenues $8 million due to higher than budgeted revenues from ACC network, IMG multimedia contract, and post-season income
- Auxiliary loan repayments (underwritten by reserves)
- Expenses lower than projected due to pandemic impacts on product availability, long lead times and staffing challenges
- Auxiliary temporary year end savings due to timing of incomplete projects (carryover): estimated $20 million
CAPITAL PROGRAM
KEY PROGRAM UPDATES

**Mitchell Hall**
- State authorized construction

**Accessible Pedestrian Pathways**
- State authorized supplement to complete construction of enclosed elevators and to extend North Academic District Accessible pathway system

**Hampton Roads AREC Study**
- Study the requirements and impacts to relocate an Agriculture Research and Extension Center (AREC) in Virginia Beach
- Study due the General Assembly in mid-December

**Maintenance Reserve Program**
- Achieved the state 85% expenditure requirement
# Capital Outlay Total Program

<table>
<thead>
<tr>
<th></th>
<th>1st Quarter Ended</th>
<th>2nd Quarter Ended</th>
<th>3rd Quarter Ended</th>
<th>4th Quarter</th>
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<tbody>
<tr>
<td>Design</td>
<td>7</td>
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<td>Construction</td>
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<td>Equipment</td>
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<tr>
<td>Closeout</td>
<td>6</td>
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<tr>
<td><strong>Total Projects</strong></td>
<td><strong>26</strong></td>
<td><strong>26</strong></td>
<td><strong>27</strong></td>
<td><strong>27</strong></td>
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<tr>
<td><strong>Total Budget ($ in Thousands)</strong></td>
<td><strong>$1,180,056</strong></td>
<td><strong>$1,180,275</strong></td>
<td><strong>$1,192,921</strong></td>
<td><strong>$1,204,921</strong></td>
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<tr>
<td><strong>Total Expenditures ($ in Thousands)</strong></td>
<td><strong>$328,691</strong></td>
<td><strong>$387,543</strong></td>
<td><strong>$442,063</strong></td>
<td><strong>$507,162</strong></td>
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</table>
TIMING FOR CONSTRUCTION PRICING

Student Wellness Improvements

Life, Health, Safety, Accessibility & Code Compliance

Mitchell Hall

New Business Building

$58,250,000

Spending on Projects in design phase through June 30, 2022- $8,405,000
PROJECTS COMING ONLINE

2022
- JAN: Holden Hall Renovation
- MAY: Construct Seafood AREC
- AUG: Livestock & Poultry Research Facilities, Phase I

2023
- MAR: Dietrick Renovation
- APRIL: Data & Decision Sciences Building
- JULY: Corps Leadership & Military Sciences Building
- AUG: New Upper Quad Residence Hall

2024
- MAR: Hitt Hall
- APRIL: Innovation Campus-Academic Building
- APRIL: Undergraduate Science Lab

Spending on projects in construction phase through June 30, 2022 - $227,274,000
RECOMMENDATION

That the report of income and expenditures for the University Division and the Cooperative Extension/Agricultural Experiment Station Division for the period of July 1, 2021 through June 30, 2022 and the Capital Outlay report be approved.

August 22, 2022
The university seeks approval by the Board of Visitors (BOV) to issue two types of long-term debt to complete the financing plans for eight capital projects under construction and previously authorized by the BOV. Debt financing plans for these projects were included in the University Debt Ratio and Debt Capacity report accepted by the Finance and Resource Management Committee on November 8, 2021.

9(c) Debt Financing

Debt issued under Section 9(c) of Article X of the Constitution of Virginia is issued by the Treasury Board on behalf of the university and is a general obligation revenue bond backed by the full faith and credit of the commonwealth. 9(c) financing is generally approved for auxiliary revenue-producing projects such as parking facilities, residence halls, and dining facilities. Three projects have been authorized by the state to be financed through the 9(c) pooled bond program as listed below with the total authorized amount of $101.877 million.

<table>
<thead>
<tr>
<th>Project</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hitt Hall (Dining facility)</td>
<td>$41.741</td>
</tr>
<tr>
<td>Innovation Campus Academic Bldg. (Parking)</td>
<td>$27.136</td>
</tr>
<tr>
<td>New Upper Quad Residence Hall</td>
<td>$33.000</td>
</tr>
</tbody>
</table>

9(d) Debt Financing

Debt issued under section 9(d) of Article X of the Constitution of Virginia can be issued by the university or a conduit issuer like the Virginia College Building Authority (VCBA) and is backed by a pledge of general revenues. Five projects have been authorized by the state to be financed through VCBA’s 9(d) pooled bond program as listed below with the total authorized amount of $207.304 million.

<table>
<thead>
<tr>
<th>Project</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corps Leadership and Military Service</td>
<td>$31.350</td>
</tr>
<tr>
<td>Data and Decision Science Building</td>
<td>$10.000</td>
</tr>
<tr>
<td>Hitt Hall</td>
<td>$12.000</td>
</tr>
<tr>
<td>Innovation Campus Academic Building</td>
<td>$107.000</td>
</tr>
<tr>
<td>Student Wellness Services</td>
<td>$46.954</td>
</tr>
</tbody>
</table>

RECOMMENDATION:

1. That the attached resolutions authorizing the issuance of 9(c) bonds totaling $101.877 million for the Hitt Hall (dining facility), Innovation Campus Academic Building (parking facility), and Upper Quad Residence Hall projects be approved; and

2. That the attached resolutions authorizing the issuance of 9(d) bonds through the VCBA totaling $207.304 million for the Corps Leadership and Military Science, Data and Decision Science Building, Hitt Hall, Innovation Campus Academic Building, and Student Wellness Services projects be approved.

August 23, 2022
Approval of Hitt Hall 9(c) Debt Financing

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

The Hitt Hall project (Capital Outlay Project Number 18605) has been authorized by the state to be financed pursuant to Article X, Section 9(c) of the Constitution of Virginia for up to $45.629 million plus amounts needed to fund issuance costs, reserve funds, and other financing expenses. However, further financial analysis identified alternative funding sources such that the university will only issue $41.741 million of 9(d) debt.

The project provides an expansion of Myers-Lawson School of Construction, a new dining center, and other academic spaces. The approximately 100,900 gross square foot building will be located on the north side of campus. The total $83.6 million project cost for Hitt Hall includes $4.859 million cash from dining programs, $25 million of private gifts, $41.741 million of 9(c) debt, and $12 million of 9(d) debt. Debt service will be paid from gift receipts, dining service revenue, and an internal lease for academic program space utilized by E&G programs. The university may use commercial paper as short-term financing and plans to reimburse itself from the 9(c) bond proceeds.

The proposed resolution requests the issuance of 9(c) bonds through the Treasury Board of the Commonwealth of Virginia on behalf of the university and pledges dining services system fees to pay the debt service. The resolution identifies (1) the Vice President for Finance, (2) the University Treasurer, and (3) the Assistant Vice President for Finance and Associate Treasurer in consultation with the Chief Business Officer, as being authorized to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the bonds.
RESOLUTION ON HITT HALL 9(c) FINANCING

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

WHEREAS, there have been passed by the General Assembly of Virginia and signed by the Governor various acts entitled Commonwealth of Virginia Higher Educational Institutions Bond Acts of 2007 through 2022 (collectively, the “Acts”); and

WHEREAS, pursuant to the Acts, the Treasury Board of the Commonwealth of Virginia (the “Treasury Board”) is authorized, by and with the consent of the Governor, to sell and issue bonds or bond anticipation notes of the Commonwealth of Virginia (the “Commonwealth”) for the purpose of providing funds, together with other available funds, for financing and refinancing certain revenue-producing capital projects at certain institutions of higher learning of the Commonwealth and for paying issuance costs, reserve funds, construction period interest and other financing expenses (the “Financing Expenses”), all in accordance with the provisions of Section 9(c) of Article X of the Constitution of Virginia; and

WHEREAS, for Virginia Polytechnic Institute and State University (the “Institution”), such revenue-producing capital projects include the Hitt Hall Project (Capital Outlay Project Number 18605) (each individually, a “Project” and, collectively, the “Projects”); and

WHEREAS, the Treasury Board is proposing to sell and issue bonds or bond anticipation notes pursuant to the Acts for such revenue-producing capital projects, in one or more series.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF VISITORS OF VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY:

Section 1. The Board of Visitors of the Institution (the “Board”) requests the Treasury Board to sell and issue bonds or bond anticipation notes (the “Bonds”) in an aggregate principal amount not to exceed $41,741 million to finance all or a portion of the costs of each Project plus Financing Expenses (for each individual Project, the “Individual Project Borrowing” and for all Projects collectively, the “Project Borrowings”). The Individual Project Borrowings will be identified by amount by the State Treasurer upon issuance of any Bonds.

Section 2. With respect to each Project, the Board (a) covenants to fix, revise, charge and collect dining services system fees and other rates, fees and charges, for or in connection with the use, occupation and services of such Project, and (b) pledges such rates, fees and charges remaining after payment of (i) the expenses of operating such Project and (ii) the expenses related to all other activities funded by the dining services system fees (“Individual Project Net Revenues”) to the payment of the principal of, premium, if any, and interest on the Individual Project Borrowing relating thereto. The Board further covenants that it will fix, revise, charge and collect such rates, fees and charges in such amounts so that Individual Project Net Revenues will at all times be sufficient to pay, when due, the principal of, premium, if any, and interest on the related Individual Project Borrowing and on any other
obligations secured by such Individual Project Net Revenues (such payments collectively the “Required Payments”). Each Individual Project Borrowing shall be secured on a parity with other obligations secured by the Individual Project Net Revenues relating to such Individual Project Borrowing (other than any obligations secured by a prior right in Individual Project Net Revenues). Any Individual Project Net Revenues pledged herein in excess of the Required Payments for an Individual Project Borrowing may be used by the Institution for any other lawful purpose.

Section 3. It is hereby found, determined and declared that, based upon responsible engineering and economic estimates and advice of appropriate officials of the Institution, as shown on the Financial Feasibility Study provided to the Department of the Treasury, with respect to each Project, the anticipated Individual Project Net Revenues pledged herein will be sufficient to pay the Required Payments for such Project so long as the aggregate amount of net debt service on the Individual Project Borrowing for such Project actually payable in any bond year does not exceed the amounts assumed in the Financial Feasibility Study relating thereto.

Section 4. The Board covenants that the Institution will furnish the Treasury Board its general purpose financial statements, within 30 days of their issuance and receipt, audited by a firm of certified public accountants or the Auditor of Public Accounts which shall include a schedule of revenues and expenditures for auxiliary enterprise systems. If Individual Project Net Revenues for any Project are insufficient to pay Required Payments for such Project during such period, the Institution shall provide evidence of a plan to generate Individual Project Net Revenues for such Project sufficient to make such Required Payments in the future.

Section 5. The Board covenants that so long as any of the Project Borrowings are outstanding, the Institution will pay to the State Treasurer, not less than 30 days before each interest or principal payment date, the amount certified by the State Treasurer to be due and payable on such date as principal of, premium, if any, and interest on the Project Borrowings.

Section 6. The Board covenants that the Institution will pay from time to time its proportionate share of all expenses incurred in connection with the sale and issuance of any series of Bonds that includes Project Borrowings, including without limitation any expenses incurred by the Virginia Department of Treasury in preparation for such financings, and all expenses thereafter incurred in connection with the Bonds, including without limitation the expense of calculating any rebate to the United States of the earnings derived from the investment of gross proceeds of the Bonds, all as certified by the State Treasurer to the Institution.

Section 7. The Board covenants that the Institution will not take or omit to take any action the taking or omission of which will cause the Bonds to be “arbitrage bonds” within the meaning of Section 148 of the Internal Revenue Code of 1986, as amended, including regulations issued pursuant thereto (the “Code”), or otherwise cause interest on the Bonds to be includable in the gross income of the owners thereof for federal income tax purposes under existing laws. Without limiting the generality of the foregoing, the Institution will pay
from time to time its proportional share of any rebate to the United States of the earnings derived from the investment of the gross proceeds of the Bonds.

Section 8. The Board covenants that the Institution will proceed with due diligence to undertake and complete the Projects and that the Institution will spend all of the available proceeds derived from the Project Borrowings for costs associated with the Projects and appropriated for the Projects by the General Assembly.

Section 9. The Board covenants that the Institution will not permit the proceeds of each Individual Project Borrowing to be used in any manner that would result in (a) 5% or more of such proceeds being used in a trade or business carried on by any person other than a governmental unit, as provided in Section 141(b) of the Code, (b) 5% or more of such proceeds being used with respect to any output facility within the meaning of Section 141(b)(4) of the Code, or (c) 5% or more of such proceeds being used directly or indirectly to make or finance loans to any persons other than a governmental unit, as provided in Section 141(c) of the Code. The Institution need not comply with such covenants if the Institution obtains the written approval of the State Treasurer and an opinion of nationally recognized bond counsel acceptable to the Treasury Board that such covenants need not be complied with to prevent the interest on the Bonds from being includable in the gross income of the owners thereof for federal income tax purposes.

Section 10. The Board covenants that for so long as any of the Bonds are outstanding the Institution will not enter into any operating lease, management contract or similar agreement with any person or entity, other than a state or local governmental unit, for all or any portion of any of the Projects without first obtaining the written approval of the State Treasurer and an opinion of nationally recognized bond counsel acceptable to the Treasury Board that entering into such agreement will not cause the interest on the Bonds to be included in the gross income of the owners thereof for federal income tax purposes.

Section 11. The Board covenants that for so long as any of the Bonds are outstanding, the Institution will not sell or dispose of all or any part of any of the Projects without first obtaining the written approval of the State Treasurer and an opinion of nationally recognized bond counsel acceptable to the Treasury Board that such sale or disposition will not cause interest on the Bonds to be included in the gross income of the owners thereof for federal income tax purposes.

Section 12. The Treasury Board is authorized, by and with the consent of the Governor, pursuant to Section 2.2-2419 of the Code of Virginia of 1950, as amended, and the Commonwealth of Virginia Article X, Section 9(c) Refunding Bond Act of 1992 (Chapters 265 and 408, Acts of Assembly of 1992) (collectively, the “Refunding Bond Acts”), to issue and sell refunding bonds of the Commonwealth to refund any and all of the Commonwealth’s outstanding bonds issued pursuant to Article X, Section 9(c) of the Constitution. In accordance with applicable law, including but not limited to the Refunding Bond Acts, the Board acknowledges that the covenants made in this resolution will continue with respect to any refunding or restructuring bonds issued by the Treasury Board without the need for any further action by the Board or the Institution.
Section 13. The officers of the Institution, defined as the Vice President for Finance, the University Treasurer, and the Assistant Vice President for Finance and Associate Treasurer in consultation with the Chief Business Officer, are authorized and directed to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the Bonds.

Section 14. The Board acknowledges that the Treasury Board will rely on the representations and covenants set forth herein in issuing the Bonds, that such covenants are critical to the security for the Bonds and the exclusion of the interest on the Bonds from the gross income of the owners thereof for federal income tax purposes, that the Board will not repeal, revoke, rescind or amend any of such covenants without first obtaining the written approval of the Treasury Board, and that such covenants will be binding upon the Board so long as any of the Bonds are outstanding.

Section 15. This resolution shall take effect immediately upon its adoption.

RECOMMENDATION:

That the above resolution authorizing the issuance of 9(c) bonds for the Hitt Hall Capital Outlay Project Number 18605 be approved.

August 23, 2022
Approval of Innovation Campus – Academic Building 9(c) Debt Financing

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

The Innovation Campus – Academic Building project (Capital Outlay Project Number 18412) has been authorized by the state to be financed pursuant to Article X, Section 9(c) of the Constitution of Virginia for up to $27.136 million, plus amounts needed to fund issuance costs, reserve funds, and other financing expenses.

The project will construct a 300,000 gross square foot building located in Alexandria, Virginia. The Innovation Campus-Academic Building will support graduate-degree programs and research opportunities in computational sciences and engineering; data science and analytics; and technology and policy. The project includes construction of a two-level below grade parking structure that contains 178 spaces and a surface lot that contains 104 spaces for the Innovation Campus. The total $302.136 million project will be funded with $107 million of 9(d) bond proceeds, $27.136 million of 9(c) bond proceeds, and $168 million of 21st Century VCBA bond proceeds. Debt service for the 9(c) parking component of this project will be paid with revenue from parking permit sales. The university may use commercial paper as short-term financing and would reimburse itself from the 9(c) bond proceeds. The university may use commercial paper as short-term financing and plans to reimburse itself from the 9(d) bond proceeds.

The proposed resolution requests the issuance of 9(c) bonds through the Treasury Board of the Commonwealth of Virginia on behalf of the university and pledges parking system fees to pay the debt service. The resolution identifies (1) the Vice President for Finance, (2) the University Treasurer, and (3) the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer, as being authorized to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the bonds.
RESOLUTION ON INNOVATION CAMPUS ACADEMIC BUILDING 9(c) FINANCING

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

WHEREAS, there have been passed by the General Assembly of Virginia and signed by the Governor various acts entitled Commonwealth of Virginia Higher Educational Institutions Bond Acts of 2007 through 2022 (collectively, the “Acts”); and

WHEREAS, pursuant to the Acts, the Treasury Board of the Commonwealth of Virginia (the “Treasury Board”) is authorized, by and with the consent of the Governor, to sell and issue bonds or bond anticipation notes of the Commonwealth of Virginia (the “Commonwealth”) for the purpose of providing funds, together with other available funds, for financing and refinancing certain revenue-producing capital projects at certain institutions of higher learning of the Commonwealth and for paying issuance costs, reserve funds, construction period interest and other financing expenses (the “Financing Expenses”), all in accordance with the provisions of Section 9(c) of Article X of the Constitution of Virginia; and

WHEREAS, for Virginia Polytechnic Institute and State University (the “Institution”), such revenue-producing capital projects include the Innovation Campus – Academic Building Project (Capital Outlay Project Number 18412) (each individually, a “Project” and, collectively, the “Projects”); and

WHEREAS, the Treasury Board is proposing to sell and issue bonds or bond anticipation notes pursuant to the Acts for such revenue-producing capital projects, in one or more series.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF VISITORS OF VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY:

Section 1. The Board of Visitors of the Institution (the “Board”) requests the Treasury Board to sell and issue bonds or bond anticipation notes (the “Bonds”) in an aggregate principal amount not to exceed $27,136 million to finance all or a portion of the costs of each Project plus Financing Expenses (for each individual Project, the “Individual Project Borrowing” and for all Projects collectively, the “Project Borrowings”). The Individual Project Borrowings will be identified by amount by the State Treasurer upon issuance of any Bonds.

Section 2. With respect to each Project, the Board (a) covenants to fix, revise, charge and collect parking system fees and other rates, fees and charges, for or in connection with the use, occupation and services of such Project, and (b) pledges such rates, fees and charges remaining after payment of (i) the expenses of operating such Project and (ii) the expenses related to all other activities funded by the parking system fees (“Individual Project Net Revenues”) to the payment of the principal of, premium, if any, and interest on the Individual Project Borrowing relating thereto. The Board further covenants that it will fix, revise, charge and collect such rates, fees and charges in such amounts so that Individual Project Net Revenues will at all times be sufficient to pay, when due, the principal of, premium, if any,
and interest on the related Individual Project Borrowing and on any other obligations secured by such Individual Project Net Revenues (such payments collectively the “Required Payments”). Each Individual Project Borrowing shall be secured on a parity with other obligations secured by the Individual Project Net Revenues relating to such Individual Project Borrowing (other than any obligations secured by a prior right in Individual Project Net Revenues). Any Individual Project Net Revenues pledged herein in excess of the Required Payments for an Individual Project Borrowing may be used by the Institution for any other lawful purpose.

Section 3. It is hereby found, determined and declared that, based upon responsible engineering and economic estimates and advice of appropriate officials of the Institution, as shown on the Financial Feasibility Study provided to the Department of the Treasury, with respect to each Project, the anticipated Individual Project Net Revenues pledged herein will be sufficient to pay the Required Payments for such Project so long as the aggregate amount of net debt service on the Individual Project Borrowing for such Project actually payable in any bond year does not exceed the amounts assumed in the Financial Feasibility Study relating thereto.

Section 4. The Board covenants that the Institution will furnish the Treasury Board its general purpose financial statements, within 30 days of their issuance and receipt, audited by a firm of certified public accountants or the Auditor of Public Accounts which shall include a schedule of revenues and expenditures for auxiliary enterprise systems. If Individual Project Net Revenues for any Project are insufficient to pay Required Payments for such Project during such period, the Institution shall provide evidence of a plan to generate Individual Project Net Revenues for such Project sufficient to make such Required Payments in the future.

Section 5. The Board covenants that so long as any of the Project Borrowings are outstanding, the Institution will pay to the State Treasurer, not less than 30 days before each interest or principal payment date, the amount certified by the State Treasurer to be due and payable on such date as principal of, premium, if any, and interest on the Project Borrowings.

Section 6. The Board covenants that the Institution will pay from time to time its proportionate share of all expenses incurred in connection with the sale and issuance of any series of Bonds that includes Project Borrowings, including without limitation any expenses incurred by the Virginia Department of Treasury in preparation for such financings, and all expenses thereafter incurred in connection with the Bonds, including without limitation the expense of calculating any rebate to the United States of the earnings derived from the investment of gross proceeds of the Bonds, all as certified by the State Treasurer to the Institution.

Section 7. The Board covenants that the Institution will not take or omit to take any action the taking or omission of which will cause the Bonds to be “arbitrage bonds” within the meaning of Section 148 of the Internal Revenue Code of 1986, as amended, including regulations issued pursuant thereto (the “Code”), or otherwise cause interest on the Bonds to be includable in the gross income of the owners thereof for federal income tax purposes.
under existing laws. Without limiting the generality of the foregoing, the Institution will pay from time to time its proportional share of any rebate to the United States of the earnings derived from the investment of the gross proceeds of the Bonds.

Section 8. The Board covenants that the Institution will proceed with due diligence to undertake and complete the Projects and that the Institution will spend all of the available proceeds derived from the Project Borrowings for costs associated with the Projects and appropriated for the Projects by the General Assembly.

Section 9. The Board covenants that the Institution will not permit the proceeds of each Individual Project Borrowing to be used in any manner that would result in (a) 5% or more of such proceeds being used in a trade or business carried on by any person other than a governmental unit, as provided in Section 141(b) of the Code, (b) 5% or more of such proceeds being used with respect to any output facility within the meaning of Section 141(b)(4) of the Code, or (c) 5% or more of such proceeds being used directly or indirectly to make or finance loans to any persons other than a governmental unit, as provided in Section 141(c) of the Code. The Institution need not comply with such covenants if the Institution obtains the written approval of the State Treasurer and an opinion of nationally recognized bond counsel acceptable to the Treasury Board that such covenants need not be complied with to prevent the interest on the Bonds from being includable in the gross income of the owners thereof for federal income tax purposes.

Section 10. The Board covenants that for so long as any of the Bonds are outstanding the Institution will not enter into any operating lease, management contract or similar agreement with any person or entity, other than a state or local governmental unit, for all or any portion of any of the Projects without first obtaining the written approval of the State Treasurer and an opinion of nationally recognized bond counsel acceptable to the Treasury Board that entering into such agreement will not cause the interest on the Bonds to be included in the gross income of the owners thereof for federal income tax purposes.

Section 11. The Board covenants that for so long as any of the Bonds are outstanding, the Institution will not sell or dispose of all or any part of any of the Projects without first obtaining the written approval of the State Treasurer and an opinion of nationally recognized bond counsel acceptable to the Treasury Board that such sale or disposition will not cause interest on the Bonds to be included in the gross income of the owners thereof for federal income tax purposes.

Section 12. The Treasury Board is authorized, by and with the consent of the Governor, pursuant to Section 2.2-2419 of the Code of Virginia of 1950, as amended, and the Commonwealth of Virginia Article X, Section 9(c) Refunding Bond Act of 1992 (Chapters 265 and 408, Acts of Assembly of 1992) (collectively, the “Refunding Bond Acts”), to issue and sell refunding bonds of the Commonwealth to refund any and all of the Commonwealth’s outstanding bonds issued pursuant to Article X, Section 9(c) of the Constitution. In accordance with applicable law, including but not limited to the Refunding Bond Acts, the Board acknowledges that the covenants made in this resolution will continue with respect to any refunding or restructuring bonds issued by the Treasury Board without the need
for any further action by the Board or the Institution.

Section 13. The officers of the Institution, defined as the Vice President for Finance, the University Treasurer, and the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer, are authorized and directed to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the Bonds.

Section 14. The Board acknowledges that the Treasury Board will rely on the representations and covenants set forth herein in issuing the Bonds, that such covenants are critical to the security for the Bonds and the exclusion of the interest on the Bonds from the gross income of the owners thereof for federal income tax purposes, that the Board will not repeal, revoke, rescind or amend any of such covenants without first obtaining the written approval of the Treasury Board, and that such covenants will be binding upon the Board so long as any of the Bonds are outstanding.

Section 15. This resolution shall take effect immediately upon its adoption.

RECOMMENDATION:

That the above resolution authorizing the issuance of 9(c) bonds for the Innovation Campus – Academic Building Capital Outlay Project Number 18412 be approved.

August 23, 2022
Approval of New Upper Quad Residence Hall 9(c) Debt Financing

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

The New Upper Quad Residence Hall (Capital Outlay Project Number 18459) has been authorized by the state to be financed pursuant to Article X, Section 9(c) of the Constitution of Virginia for up to $40 million plus amounts needed to fund issuance costs, reserve funds, and other financing expenses. However, further financial analysis identified alternative funding sources such that the university will only issue $33 million of 9(c) debt.

The project will construct an approximately 68,000 gross square foot residence hall in the Upper Quad area of campus, which is the heart of the Corps of Cadets program. The residence hall will provide the Corps of Cadets with an additional 300 beds while simultaneously replacing Femoyer Hall, an underutilized and deteriorating asset. The total $42 million project will be funded by $33 million of 9(c) debt and $9 million of auxiliary revenue from Residential Programs. Debt service will be paid from Residential Programs auxiliary revenue. The university has used commercial paper as short-term financing to date and plans to reimburse itself from the 9(c) bond proceeds.

The proposed resolution requests the issuance of 9(c) bonds through the Treasury Board of the Commonwealth of Virginia on behalf of the university and pledges residential system fees to pay the debt service. The resolution identifies (1) the Vice President for Finance, (2) the University Treasurer, and (3) the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer, as being authorized to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the bonds.
RESOLUTION ON NEW UPPER QUAD RESIDENCE HALL 9(c) FINANCING

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

WHEREAS, there have been passed by the General Assembly of Virginia and signed by the Governor various acts entitled Commonwealth of Virginia Higher Educational Institutions Bond Acts of 2007 through 2022 (collectively, the “Acts”); and

WHEREAS, pursuant to the Acts, the Treasury Board of the Commonwealth of Virginia (the “Treasury Board”) is authorized, by and with the consent of the Governor, to sell and issue bonds or bond anticipation notes of the Commonwealth of Virginia (the “Commonwealth”) for the purpose of providing funds, together with other available funds, for financing and refinancing certain revenue-producing capital projects at certain institutions of higher learning of the Commonwealth and for paying issuance costs, reserve funds, construction period interest and other financing expenses (the “Financing Expenses”), all in accordance with the provisions of Section 9(c) of Article X of the Constitution of Virginia; and

WHEREAS, for Virginia Polytechnic Institute and State University (the “Institution”), such revenue-producing capital projects include the New Upper Quad Residence Hall Project (Capital Outlay Project Number 18459) (each individually, a “Project” and, collectively, the “Projects”); and

WHEREAS, the Treasury Board is proposing to sell and issue bonds or bond anticipation notes pursuant to the Acts for such revenue-producing capital projects, in one or more series.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF VISITORS OF VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY:

Section 1. The Board of Visitors of the Institution (the “Board”) requests the Treasury Board to sell and issue bonds or bond anticipation notes (the “Bonds”) in an aggregate principal amount not to exceed $33 million to finance all or a portion of the costs of each Project plus Financing Expenses (for each individual Project, the “Individual Project Borrowing” and for all Projects collectively, the “Project Borrowings”). The Individual Project Borrowings will be identified by amount by the State Treasurer upon issuance of any Bonds.

Section 2. With respect to each Project, the Board (a) covenants to fix, revise, charge and collect residential system fees and other rates, fees and charges, for or in connection with the use, occupation and services of such Project, and (b) pledges such rates, fees and charges remaining after payment of (i) the expenses of operating such Project and (ii) the expenses related to all other activities funded by the residential fees (“Individual Project Net Revenues”) to the payment of the principal of, premium, if any, and interest on the Individual Project Borrowing relating thereto. The Board further covenants that it will fix, revise, charge and collect such rates, fees and charges in such amounts so that Individual Project Net Revenues will at all times be sufficient to pay, when due, the principal of, premium, if any,
and interest on the related Individual Project Borrowing and on any other obligations secured by such Individual Project Net Revenues (such payments collectively the “Required Payments”). Each Individual Project Borrowing shall be secured on a parity with other obligations secured by the Individual Project Net Revenues relating to such Individual Project Borrowing (other than any obligations secured by a prior right in Individual Project Net Revenues). Any Individual Project Net Revenues pledged herein in excess of the Required Payments for an Individual Project Borrowing may be used by the Institution for any other lawful purpose.

Section 3. It is hereby found, determined and declared that, based upon responsible engineering and economic estimates and advice of appropriate officials of the Institution, as shown on the Financial Feasibility Study provided to the Department of the Treasury, with respect to each Project, the anticipated Individual Project Net Revenues pledged herein will be sufficient to pay the Required Payments for such Project so long as the aggregate amount of net debt service on the Individual Project Borrowing for such Project actually payable in any bond year does not exceed the amounts assumed in the Financial Feasibility Study relating thereto.

Section 4. The Board covenants that the Institution will furnish the Treasury Board its general purpose financial statements, within 30 days of their issuance and receipt, audited by a firm of certified public accountants or the Auditor of Public Accounts which shall include a schedule of revenues and expenditures for auxiliary enterprise systems. If Individual Project Net Revenues for any Project are insufficient to pay Required Payments for such Project during such period, the Institution shall provide evidence of a plan to generate Individual Project Net Revenues for such Project sufficient to make such Required Payments in the future.

Section 5. The Board covenants that so long as any of the Project Borrowings are outstanding, the Institution will pay to the State Treasurer, not less than 30 days before each interest or principal payment date, the amount certified by the State Treasurer to be due and payable on such date as principal of, premium, if any, and interest on the Project Borrowings.

Section 6. The Board covenants that the Institution will pay from time to time its proportionate share of all expenses incurred in connection with the sale and issuance of any series of Bonds that includes Project Borrowings, including without limitation any expenses incurred by the Virginia Department of Treasury in preparation for such financings, and all expenses thereafter incurred in connection with the Bonds, including without limitation the expense of calculating any rebate to the United States of the earnings derived from the investment of gross proceeds of the Bonds, all as certified by the State Treasurer to the Institution.

Section 7. The Board covenants that the Institution will not take or omit to take any action the taking or omission of which will cause the Bonds to be “arbitrage bonds” within the meaning of Section 148 of the Internal Revenue Code of 1986, as amended, including regulations issued pursuant thereto (the “Code”), or otherwise cause interest on the Bonds to be includable in the gross income of the owners thereof for federal income tax purposes.
under existing laws. Without limiting the generality of the foregoing, the Institution will pay from time to time its proportional share of any rebate to the United States of the earnings derived from the investment of the gross proceeds of the Bonds.

Section 8. The Board covenants that the Institution will proceed with due diligence to undertake and complete the Projects and that the Institution will spend all of the available proceeds derived from the Project Borrowings for costs associated with the Projects and appropriated for the Projects by the General Assembly.

Section 9. The Board covenants that the Institution will not permit the proceeds of each Individual Project Borrowing to be used in any manner that would result in (a) 5% or more of such proceeds being used in a trade or business carried on by any person other than a governmental unit, as provided in Section 141(b) of the Code, (b) 5% or more of such proceeds being used with respect to any output facility within the meaning of Section 141(b)(4) of the Code, or (c) 5% or more of such proceeds being used directly or indirectly to make or finance loans to any persons other than a governmental unit, as provided in Section 141(c) of the Code. The Institution need not comply with such covenants if the Institution obtains the written approval of the State Treasurer and an opinion of nationally recognized bond counsel acceptable to the Treasury Board that such covenants need not be complied with to prevent the interest on the Bonds from being includable in the gross income of the owners thereof for federal income tax purposes.

Section 10. The Board covenants that for so long as any of the Bonds are outstanding the Institution will not enter into any operating lease, management contract or similar agreement with any person or entity, other than a state or local governmental unit, for all or any portion of any of the Projects without first obtaining the written approval of the State Treasurer and an opinion of nationally recognized bond counsel acceptable to the Treasury Board that entering into such agreement will not cause the interest on the Bonds to be included in the gross income of the owners thereof for federal income tax purposes.

Section 11. The Board covenants that for so long as any of the Bonds are outstanding, the Institution will not sell or dispose of all or any part of any of the Projects without first obtaining the written approval of the State Treasurer and an opinion of nationally recognized bond counsel acceptable to the Treasury Board that such sale or disposition will not cause interest on the Bonds to be included in the gross income of the owners thereof for federal income tax purposes.

Section 12. The Treasury Board is authorized, by and with the consent of the Governor, pursuant to Section 2.2-2419 of the Code of Virginia of 1950, as amended, and the Commonwealth of Virginia Article X, Section 9(c) Refunding Bond Act of 1992 (Chapters 265 and 408, Acts of Assembly of 1992) (collectively, the “Refunding Bond Acts”), to issue and sell refunding bonds of the Commonwealth to refund any and all of the Commonwealth’s outstanding bonds issued pursuant to Article X, Section 9(c) of the Constitution. In accordance with applicable law, including but not limited to the Refunding Bond Acts, the Board acknowledges that the covenants made in this resolution will continue with respect to any refunding or restructuring bonds issued by the Treasury Board without the need
Section 13. The officers of the Institution, defined as the Vice President for Finance, the University Treasurer, and the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer, are authorized and directed to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the Bonds.

Section 14. The Board acknowledges that the Treasury Board will rely on the representations and covenants set forth herein in issuing the Bonds, that such covenants are critical to the security for the Bonds and the exclusion of the interest on the Bonds from the gross income of the owners thereof for federal income tax purposes, that the Board will not repeal, revoke, rescind or amend any of such covenants without first obtaining the written approval of the Treasury Board, and that such covenants will be binding upon the Board so long as any of the Bonds are outstanding.

Section 15. This resolution shall take effect immediately upon its adoption.

RECOMMENDATION:

That the above resolution authorizing the issuance of 9(c) bonds for the New Upper Quad Residence Hall Capital Outlay Project Number 18459 be approved.

August 23, 2022
Approval of Corps Leadership and Military Science 9(d) Debt Financing

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

The Corps Leadership and Military Science project (Capital Outlay Project #18460) has been authorized by the state to be financed pursuant to Article X, Section 9(d) of the Constitution of Virginia for up to $31.35 million plus amounts needed to fund issuance costs, reserve funds, and other financing expenses.

The project will construct an approximately 75,500 gross square foot building on the existing site of the Art and Design Learning Center which will be demolished as part of the project. The existing central boiler plant equipment underneath the Art and Design Learning Center will remain in service. The project will consolidate the Corps of Cadets and ROTC programs in the northern portion of the Upper Quad. The facility will include modern classroom, administrative, program, and academic office space including academic classroom space required for the cyber security initiative. The total $52 million project will be funded by $31.35 million of 9(d) debt, $17 million of private gifts, and $3.65 million of auxiliary revenue. Debt service for the project will be paid from a combination of private gift receipts and a cadet facility fee. The university has used commercial paper as short-term financing to date and will reimburse itself from the 9(d) bond proceeds.

The bonds will be issued through the Virginia College Building Authority (the “Authority”), and the university will enter into a loan agreement and promissory note with the Authority. The loan agreement and note are subject to the following parameters: (a) the principal amount shall not be greater than the amount authorized by the General Assembly of Virginia; (b) the aggregate principal amount shall not exceed $31.35 million plus amounts needed to fund issuance costs and other financing expenses; (c) the interest rate payable shall not exceed a true interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities; (d) the weighted average maturity of the principal payments shall not be in excess of 20 years; (e) the last principal payment date shall not extend beyond the expected economic life of the project; and (f) the actual amount, interest rates, principal maturities, and date of the note shall be approved by an Authorized Officer.

The resolution identifies (1) the Vice President for Finance, (2) the University Treasurer, and (3) the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer, as being authorized to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the bonds.
RESOLUTION ON CORPS LEADERSHIP AND MILITARY SCIENCE  
9(d) FINANCING

WHEREAS, pursuant to and in furtherance of Chapter 12, Title 23.1 of the Code of Virginia of 1950, as amended (the “Act”), the Virginia College Building Authority (the “Authority”) developed a program (the “Program”) to purchase debt instruments issued by public institutions of higher education in the Commonwealth of Virginia (“Participating Institutions” and each a “Participating Institution”) to finance or refinance projects of capital improvement (“Capital Projects” and each a “Capital Project”) included in a bill passed by a majority of each house of the General Assembly of Virginia (the “General Assembly”);

WHEREAS, under the Program, the Authority from time to time issues its Educational Facilities Revenue Bonds (Public Higher Education Financing Program) (“Pooled Bonds”) to finance the purchase or refunding of debt instruments issued by Participating Institutions to finance or refinance Capital Projects;

WHEREAS, if a Participating Institution desires to finance or refinance a Capital Project through the Program, it must enter into a loan agreement with the Authority, under which: (i) the Participating Institution will issue its promissory note pursuant to the Act to evidence a loan to it by the Authority; (ii) the Authority will agree to issue Pooled Bonds and use proceeds thereof to purchase the promissory note; (iii) the Participating Institution will agree to use proceeds of Pooled Bonds, loaned to it and received in exchange for its promissory note, to finance or refinance the Capital Project and to not take actions that may jeopardize any federal tax-exempt status of interest on Pooled Bonds allocable to financing or refinancing the Capital Project; and (iv) the Participating Institution will agree to make payments under the promissory note in sums sufficient to pay, together with certain administrative and arbitrage rebate payments, the principal of, premium, if any, and interest due on such Pooled Bonds;

WHEREAS, the Board of Visitors (the “Board”) of Virginia Polytechnic Institute and State University (the “Institution”) from time to time desires to finance or refinance Capital Projects for the Institution as a Participating Institution under the Program, and now proposes that the Institution issue its promissory note or notes (collectively, the “Note”) to be sold to the Authority in accordance with a loan agreement or loan agreements between the Institution and the Authority (collectively, the “Loan Agreement”), under which proceeds of Pooled Bonds will be loaned to and received by the Institution in exchange for the Note, to finance or refinance costs of the following Capital Project authorized for bond financing by the General Assembly: Corps Leadership and Military Science – Capital Outlay Project Number 18460 (the “Project”); and

WHEREAS, the Board desires to designate certain Institution officers: (i) delegated the authority to approve the forms of and to execute and deliver the Loan Agreement, the Note, and any amendments thereto, and any other documents necessary or desirable in connection with financing or refinancing costs of the Project through and participation in the Program; and (ii) responsible for monitoring post-issuance compliance with covenants
of the Institution related to maintaining any federal tax-exempt status of interest on Pooled Bonds.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF VISITORS OF VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY:

Section 1. The Project is hereby designated to be undertaken and financed or refinanced by the Authority and, accordingly, the Vice President for Finance, the University Treasurer, and the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer (the “Authorized Officers”) are each hereby delegated and invested with full power and authority to approve the forms of the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), and any pledge to the payment of the Note and any amendment thereto of total gross university sponsored overhead, unrestricted endowment income, tuition and fees, indirect cost recoveries, auxiliary enterprise revenues, general and nongeneral fund appropriations, and other revenues not required by law or previous binding contract to be devoted to some other purpose, restricted by a gift instrument for another purpose or excluded from such pledge as provided in the Loan Agreement, subject to the provisions of Section 3 hereof.

Section 2. Subject to the provisions of Section 3 hereof, the Authorized Officers are each hereby delegated and invested with full power and authority to execute, deliver, and issue, on behalf of the Institution, (a) the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), with approval of such documents in accordance with Section 1 hereof evidenced conclusively by the execution and delivery of the respective document, and (b) any other documents, instruments, or certificates as may be deemed necessary or desirable to finance or refinance costs of the Project through and participate in the Program, and to further carry out the purposes and intent of this resolution. The Authorized Officers are authorized and directed to take such steps and deliver such certificates in connection with delivery of the Note, and any amendment thereto, as may be required under any existing obligations, including bond resolutions relating to any outstanding general revenue pledge bonds, and to notify Virginia Department of Treasury representatives serving as Authority staff at least 60 days in advance of a pledge of any amounts pledged to the payment of the Note in accordance with Section 1 hereof to, or as security for, the payment of any other Institution obligations issued or entered into after the date hereof for so long as the Note and any amendments thereto remain outstanding.

Section 3. The authorizations given above as to the approval, execution, delivery, and issuance of the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise) are subject to the following parameters: (a) the principal amount to be paid under the Note allocable to any component of the Project, together with the principal amount of any other indebtedness with respect to such component, shall not be greater than the amount authorized for such component by the General Assembly plus amounts needed to fund issuance costs, original issue discount, other financing (including, without limitation, refunding) expenses, and any other increase permitted by law; (b) the aggregate principal amount of the Note shall in no event exceed $31.35 million as the same may be so increased; (c) the aggregate interest rate payable under the Note shall not exceed a “true”
or "Canadian" interest cost more than 50 basis points higher than the interest rate for "AA" rated securities with comparable maturities, as reported by Thomson Municipal Market Data (MMD) or another comparable service or index, as of the date that the interest rates on the Authority’s Pooled Bonds are determined, taking into account any original issue discount or premium; (d) the weighted average maturity of the principal payments due under the Note shall not exceed 20 years after the original issue date of the Note; (e) the last principal payment date under the Note shall not extend beyond the reasonably expected economic life of the Project; and (f) subject to the foregoing, the actual amount, interest rates, principal maturities, and date of the Note shall be approved by an Authorized Officer, as evidenced by the execution thereof.

Section 4. The Board acknowledges that if there is a failure to make, as and when due, any payment of the principal of, premium, if any, and interest on any promissory note issued by the Institution as a Participating Institution to the Authority under the Program, including without limitation the Note and any amendments thereto, the State Comptroller is authorized under the Program and Section 23.1-1211 of the Code of Virginia of 1950, as amended, to charge against appropriations available to the Institution all future payments of principal of, premium, if any, and interest on such promissory note when due and payable and to make such payments to the Authority or its designee, so as to ensure that no future default will occur on such promissory note.

Section 5. The Board agrees that if the Authority determines the Institution as a Participating Institution shall be subject to continuing disclosure obligations under Rule 15c2-12 of the federal Securities and Exchange Commission with respect to any Pooled Bonds, (a) an Authorized Officer shall, and is hereby authorized and directed to, enter into a continuing disclosure undertaking in form and substance reasonably satisfactory to the Authority, and (b) the Institution will comply with the provisions and disclosure obligations contained therein.

Section 6. The Board designates the University Treasurer and the Assistant Vice President and Associate Treasurer to be responsible for implementing procedures to monitor post-issuance compliance with covenants in any loan agreement between the Institution as a Participating Institution and the Authority, including the Loan Agreement and any amendments thereto, related to maintaining tax-exempt status for federal income tax purposes of interest on any Pooled Bonds, including, without limitation, monitoring the use of any portion of all Capital Projects for the Institution financed or refinanced with such Pooled Bonds and compliance with any applicable federal income tax remedial action requirements in connection with certain changes in such use. Such officer shall review such post-issuance compliance at least annually for so long as such Pooled Bonds remain outstanding.

RECOMMENDATION:

That the above resolution authorizing the issuance of 9(d) bonds for the Corps Leadership and Military Science Capital Outlay Project Number 18460 be approved.

August 23, 2022
Approval of Data and Decision Science Building 9(d) Debt Financing

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

The Data and Decision Science Building (Capital Outlay Project #18427) has been authorized by the state to be financed pursuant to Article X, Section 9(d) of the Constitution of Virginia for up to $10 million plus amounts needed to fund issuance costs, reserve funds, and other financing expenses.

The project will construct a 120,000 gross square foot building located in the northwest corner of campus. The building brings together academic programs in engineering, computer science, statistics, mathematics, and international affairs to prepare students for careers focused on technology-based industries and cyber security. The total $79 million project will be funded with $10 million of 9(d) debt and $69 million of 21st Century VCBA bond proceeds. Debt service for this project will be paid from self-generated revenues generated from the research program. The university may use commercial paper as short-term financing and would reimburse itself from the 9(d) bond proceeds.

The bonds will be issued through the Virginia College Building Authority (the “Authority”), and the university will enter into a loan agreement and promissory note with the Authority. The loan agreement and note are subject to the following parameters: (a) the principal amount shall not be greater than the amount authorized by the General Assembly of Virginia; (b) the aggregate principal amount shall not exceed $10 million plus amounts needed to fund issuance costs and other financing expenses; (c) the interest rate payable shall not exceed a true interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities; (d) the weighted average maturity of the principal payments shall not be in excess of 20 years; (e) the last principal payment date shall not extend beyond the expected economic life of the project; and (f) the actual amount, interest rates, principal maturities, and date of the note shall be approved by an Authorized Officer.

The resolution identifies (1) the Vice President for Finance, (2) the University Treasurer, and (3) the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer, as being authorized to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the bonds.
RESOLUTION ON DATA AND DECISION SCIENCE BUILDING  
9(d) FINANCING

WHEREAS, pursuant to and in furtherance of Chapter 12, Title 23.1 of the Code of Virginia of 1950, as amended (the “Act”), the Virginia College Building Authority (the “Authority”) developed a program (the “Program”) to purchase debt instruments issued by public institutions of higher education in the Commonwealth of Virginia (“Participating Institutions” and each a “Participating Institution”) to finance or refinance projects of capital improvement (“Capital Projects” and each a “Capital Project”) included in a bill passed by a majority of each house of the General Assembly of Virginia (the “General Assembly”);

WHEREAS, under the Program, the Authority from time to time issues its Educational Facilities Revenue Bonds (Public Higher Education Financing Program) (“Pooled Bonds”) to finance the purchase or refunding of debt instruments issued by Participating Institutions to finance or refinance Capital Projects;

WHEREAS, if a Participating Institution desires to finance or refinance a Capital Project through the Program, it must enter into a loan agreement with the Authority, under which: (i) the Participating Institution will issue its promissory note pursuant to the Act to evidence a loan to it by the Authority; (ii) the Authority will agree to issue Pooled Bonds and use proceeds thereof to purchase the promissory note; (iii) the Participating Institution will agree to use proceeds of Pooled Bonds, loaned to it and received in exchange for its promissory note, to finance or refinance the Capital Project and to not take actions that may jeopardize any federal tax-exempt status of interest on Pooled Bonds allocable to financing or refinancing the Capital Project; and (iv) the Participating Institution will agree to make payments under the promissory note in sums sufficient to pay, together with certain administrative and arbitrage rebate payments, the principal of, premium, if any, and interest due on such Pooled Bonds;

WHEREAS, the Board of Visitors (the “Board”) of Virginia Polytechnic Institute and State University (the “Institution”) from time to time desires to finance or refinance Capital Projects for the Institution as a Participating Institution under the Program, and now proposes that the Institution issue its promissory note or notes (collectively, the “Note”) to be sold to the Authority in accordance with a loan agreement or loan agreements between the Institution and the Authority (collectively, the “Loan Agreement”), under which proceeds of Pooled Bonds will be loaned to and received by the Institution in exchange for the Note, to finance or refinance costs of the following Capital Project authorized for bond financing by the General Assembly: Data and Decision Science Building – Capital Outlay Project Number 18427 (the “Project”); and

WHEREAS, the Board desires to designate certain Institution officers: (i) delegated the authority to approve the forms of and to execute and deliver the Loan Agreement, the Note, and any amendments thereto, and any other documents necessary or desirable in
connection with financing or refinancing costs of the Project through and participation in the Program; and (ii) responsible for monitoring post-issuance compliance with covenants of the Institution related to maintaining any federal tax-exempt status of interest on Pooled Bonds.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF VISITORS OF VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY:

Section 1. The Project is hereby designated to be undertaken and financed or refinanced by the Authority and, accordingly, the Vice President for Finance, the University Treasurer, and the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer (the “Authorized Officers”) are each hereby delegated and invested with full power and authority to approve the forms of the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), and any pledge to the payment of the Note and any amendment thereto of total gross university sponsored overhead, unrestricted endowment income, tuition and fees, indirect cost recoveries, auxiliary enterprise revenues, general and nongeneral fund appropriations, and other revenues not required by law or previous binding contract to be devoted to some other purpose, restricted by a gift instrument for another purpose or excluded from such pledge as provided in the Loan Agreement, subject to the provisions of Section 3 hereof.

Section 2. Subject to the provisions of Section 3 hereof, the Authorized Officers are each hereby delegated and invested with full power and authority to execute, deliver, and issue, on behalf of the Institution, (a) the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), with approval of such documents in accordance with Section 1 hereof evidenced conclusively by the execution and delivery of the respective document, and (b) any other documents, instruments, or certificates as may be deemed necessary or desirable to finance or refinance costs of the Project through and participate in the Program, and to further carry out the purposes and intent of this resolution. The Authorized Officers are authorized and directed to take such steps and deliver such certificates in connection with delivery of the Note, and any amendment thereto, as may be required under any existing obligations, including bond resolutions relating to any outstanding general revenue pledge bonds, and to notify Virginia Department of Treasury representatives serving as Authority staff at least 60 days in advance of a pledge of any amounts pledged to the payment of the Note in accordance with Section 1 hereof to, or as security for, the payment of any other Institution obligations issued or entered into after the date hereof for so long as the Note and any amendments thereto remain outstanding.

Section 3. The authorizations given above as to the approval, execution, delivery, and issuance of the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise) are subject to the following parameters: (a) the principal amount to be paid under the Note allocable to any component of the Project, together with the principal amount of any other indebtedness with respect to such component, shall not be greater than the amount authorized for such component by the General Assembly plus amounts needed to fund issuance costs, original issue discount, other financing (including, without limitation, refunding) expenses, and any other increase permitted by law; (b) the aggregate principal
amount of the Note shall in no event exceed $10 million as the same may be so increased; (c) the aggregate interest rate payable under the Note shall not exceed a “true” or “Canadian” interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities, as reported by Thomson Municipal Market Data (MMD) or another comparable service or index, as of the date that the interest rates on the Authority’s Pooled Bonds are determined, taking into account any original issue discount or premium; (d) the weighted average maturity of the principal payments due under the Note shall not exceed 20 years after the original issue date of the Note; (e) the last principal payment date under the Note shall not extend beyond the reasonably expected economic life of the Project; and (f) subject to the foregoing, the actual amount, interest rates, principal maturities, and date of the Note shall be approved by an Authorized Officer, as evidenced by the execution thereof.

Section 4. The Board acknowledges that if there is a failure to make, as and when due, any payment of the principal of, premium, if any, and interest on any promissory note issued by the Institution as a Participating Institution to the Authority under the Program, including without limitation the Note and any amendments thereto, the State Comptroller is authorized under the Program and Section 23.1-1211 of the Code of Virginia of 1950, as amended, to charge against appropriations available to the Institution all future payments of principal of, premium, if any, and interest on such promissory note when due and payable and to make such payments to the Authority or its designee, so as to ensure that no future default will occur on such promissory note.

Section 5. The Board agrees that if the Authority determines the Institution as a Participating Institution shall be subject to continuing disclosure obligations under Rule 15c2-12 of the federal Securities and Exchange Commission with respect to any Pooled Bonds, (a) an Authorized Officer shall, and is hereby authorized and directed to, enter into a continuing disclosure undertaking in form and substance reasonably satisfactory to the Authority, and (b) the Institution will comply with the provisions and disclosure obligations contained therein.

Section 6. The Board designates the University Treasurer and the Assistant Vice President and Associate Treasurer to be responsible for implementing procedures to monitor post-issuance compliance with covenants in any loan agreement between the Institution as a Participating Institution and the Authority, including the Loan Agreement and any amendments thereto, related to maintaining tax-exempt status for federal income tax purposes of interest on any Pooled Bonds, including, without limitation, monitoring the use of any portion of all Capital Projects for the Institution financed or refinanced with such Pooled Bonds and compliance with any applicable federal income tax remedial action requirements in connection with certain changes in such use. Such officer shall review such post-issuance compliance at least annually for so long as such Pooled Bonds remain outstanding.

**RECOMMENDATION:**

That the above resolution authorizing the issuance of 9(d) bonds for the Data and
Decision Science Capital Outlay Project Number 18427 be approved.

August 23, 2022
Approval of Hitt Hall 9(d) Debt Financing

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

The Hitt Hall project (Capital Outlay Project #18605) has been authorized by the state to be financed pursuant to Article X, Section 9(d) of the Constitution of Virginia for up to $25.887 million plus amounts needed to fund issuance costs, reserve funds, and other financing expenses. However, further financial analysis identified alternative funding sources such that the university will only issue $12 million of 9(d) debt.

The project provides an expansion of Myers-Lawson School of Construction, a new dining center, and other academic spaces. The approximately 100,900 gross square foot building will be located on the north side of campus. The total $83.6 million project cost for Hitt Hall includes $4.859 million cash from dining programs, $25 million of private gifts, $41.741 million of 9(c) debt, and $12 million of 9(d) debt. Debt service will be paid from gift receipts, auxiliary revenue, and an internal lease for academic program space utilized by E&G programs. The university may use commercial paper as short-term financing and would reimburse itself from the 9(d) bond proceeds.

The bonds will be issued through the Virginia College Building Authority (the “Authority”), and the university will enter into a loan agreement and promissory note with the Authority. The loan agreement and note are subject to the following parameters: (a) the principal amount shall not be greater than the amount authorized by the General Assembly of Virginia; (b) the aggregate principal amount shall not exceed $12 million plus amounts needed to fund issuance costs and other financing expenses; (c) the interest rate payable shall not exceed a true interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities; (d) the weighted average maturity of the principal payments shall not be in excess of 20 years; (e) the last principal payment date shall not extend beyond the expected economic life of the project; and (f) the actual amount, interest rates, principal maturities, and date of the note shall be approved by an Authorized Officer.

The resolution identifies (1) the Vice President for Finance, (2) the University Treasurer, and (3) the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer, as being authorized to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the bonds.
RESOLUTION ON HITT HALL
9(d) FINANCING

WHEREAS, pursuant to and in furtherance of Chapter 12, Title 23.1 of the Code of Virginia of 1950, as amended (the “Act”), the Virginia College Building Authority (the “Authority”) developed a program (the “Program”) to purchase debt instruments issued by public institutions of higher education in the Commonwealth of Virginia (“Participating Institutions” and each a “Participating Institution”) to finance or refinance projects of capital improvement (“Capital Projects” and each a “Capital Project”) included in a bill passed by a majority of each house of the General Assembly of Virginia (the “General Assembly”);

WHEREAS, under the Program, the Authority from time to time issues its Educational Facilities Revenue Bonds (Public Higher Education Financing Program) (“Pooled Bonds”) to finance the purchase or refunding of debt instruments issued by Participating Institutions to finance or refinance Capital Projects;

WHEREAS, if a Participating Institution desires to finance or refinance a Capital Project through the Program, it must enter into a loan agreement with the Authority, under which: (i) the Participating Institution will issue its promissory note pursuant to the Act to evidence a loan to it by the Authority; (ii) the Authority will agree to issue Pooled Bonds and use proceeds thereof to purchase the promissory note; (iii) the Participating Institution will agree to use proceeds of Pooled Bonds, loaned to it and received in exchange for its promissory note, to finance or refinance the Capital Project and to not take actions that may jeopardize any federal tax-exempt status of interest on Pooled Bonds allocable to financing or refinancing the Capital Project; and (iv) the Participating Institution will agree to make payments under the promissory note in sums sufficient to pay, together with certain administrative and arbitrage rebate payments, the principal of, premium, if any, and interest due on such Pooled Bonds;

WHEREAS, the Board of Visitors (the “Board”) of Virginia Polytechnic Institute and State University (the “Institution”) from time to time desires to finance or refinance Capital Projects for the Institution as a Participating Institution under the Program, and now proposes that the Institution issue its promissory note or notes (collectively, the “Note”) to be sold to the Authority in accordance with a loan agreement or loan agreements between the Institution and the Authority (collectively, the “Loan Agreement”), under which proceeds of Pooled Bonds will be loaned to and received by the Institution in exchange for the Note, to finance or refinancing costs of the following Capital Project authorized for bond financing by the General Assembly: Hitt Hall – Capital Outlay Project Number 18605 (the “Project”); and

WHEREAS, the Board desires to designate certain Institution officers: (i) delegated the authority to approve the forms of and to execute and deliver the Loan Agreement, the Note, and any amendments thereto, and any other documents necessary or desirable in connection with financing or refinancing costs of the Project through and participation in the Program; and (ii) responsible for monitoring post-issuance compliance with covenants of the Institution related to maintaining any federal tax-exempt status of interest on Pooled Bonds.
NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF VISITORS OF VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY:

Section 1. The Project is hereby designated to be undertaken and financed or refinanced by the Authority and, accordingly, the Vice President for Finance, the University Treasurer, and the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer (the “Authorized Officers”) are each hereby delegated and invested with full power and authority to approve the forms of the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), and any pledge to the payment of the Note and any amendment thereto of total gross university sponsored overhead, unrestricted endowment income, tuition and fees, indirect cost recoveries, auxiliary enterprise revenues, general and nongeneral fund appropriations, and other revenues not required by law or previous binding contract to be devoted to some other purpose, restricted by a gift instrument for another purpose or excluded from such pledge as provided in the Loan Agreement, subject to the provisions of Section 3 hereof.

Section 2. Subject to the provisions of Section 3 hereof, the Authorized Officers are each hereby delegated and invested with full power and authority to execute, deliver, and issue, on behalf of the Institution, (a) the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), with approval of such documents in accordance with Section 1 hereof evidenced conclusively by the execution and delivery of the respective document, and (b) any other documents, instruments, or certificates as may be deemed necessary or desirable to finance or refinance costs of the Project through and participate in the Program, and to further carry out the purposes and intent of this resolution. The Authorized Officers are authorized and directed to take such steps and deliver such certificates in connection with delivery of the Note, and any amendment thereto, as may be required under any existing obligations, including bond resolutions relating to any outstanding general revenue pledge bonds, and to notify Virginia Department of Treasury representatives serving as Authority staff at least 60 days in advance of a pledge of any amounts pledged to the payment of the Note in accordance with Section 1 hereof to, or as security for, the payment of any other Institution obligations issued or entered into after the date hereof for so long as the Note and any amendments thereto remain outstanding.

Section 3. The authorizations given above as to the approval, execution, delivery, and issuance of the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise) are subject to the following parameters: (a) the principal amount to be paid under the Note allocable to any component of the Project, together with the principal amount of any other indebtedness with respect to such component, shall not be greater than the amount authorized for such component by the General Assembly plus amounts needed to fund issuance costs, original issue discount, other financing (including, without limitation, refunding) expenses, and any other increase permitted by law; (b) the aggregate principal amount of the Note shall in no event exceed $12 million as the same may be so increased; (c) the aggregate interest rate payable under the Note shall not exceed a “true”
or “Canadian” interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities, as reported by Thomson Municipal Market Data (MMD) or another comparable service or index, as of the date that the interest rates on the Authority’s Pooled Bonds are determined, taking into account any original issue discount or premium; (d) the weighted average maturity of the principal payments due under the Note shall not exceed 20 years after the original issue date of the Note; (e) the last principal payment date under the Note shall not extend beyond the reasonably expected economic life of the Project; and (f) subject to the foregoing, the actual amount, interest rates, principal maturities, and date of the Note shall be approved by an Authorized Officer, as evidenced by the execution thereof.

Section 4. The Board acknowledges that if there is a failure to make, as and when due, any payment of the principal of, premium, if any, and interest on any promissory note issued by the Institution as a Participating Institution to the Authority under the Program, including without limitation the Note and any amendments thereto, the State Comptroller is authorized under the Program and Section 23.1-1211 of the Code of Virginia of 1950, as amended, to charge against appropriations available to the Institution all future payments of principal of, premium, if any, and interest on such promissory note when due and payable and to make such payments to the Authority or its designee, so as to ensure that no future default will occur on such promissory note.

Section 5. The Board agrees that if the Authority determines the Institution as a Participating Institution shall be subject to continuing disclosure obligations under Rule 15c2-12 of the federal Securities and Exchange Commission with respect to any Pooled Bonds, (a) an Authorized Officer shall, and is hereby authorized and directed to, enter into a continuing disclosure undertaking in form and substance reasonably satisfactory to the Authority, and (b) the Institution will comply with the provisions and disclosure obligations contained therein.

Section 6. The Board designates the University Treasurer and the Assistant Vice President and Associate Treasurer to be responsible for implementing procedures to monitor post-issuance compliance with covenants in any loan agreement between the Institution as a Participating Institution and the Authority, including the Loan Agreement and any amendments thereto, related to maintaining tax-exempt status for federal income tax purposes of interest on any Pooled Bonds, including, without limitation, monitoring the use of any portion of all Capital Projects for the Institution financed or refinanced with such Pooled Bonds and compliance with any applicable federal income tax remedial action requirements in connection with certain changes in such use. Such officer shall review such post-issuance compliance at least annually for so long as such Pooled Bonds remain outstanding.

RECOMMENDATION:

That the above resolution authorizing the issuance of 9(d) bonds for the Hitt Hall Capital Outlay Project Number 18605 be approved.

August 23, 2022
Approval of Innovation Campus - Academic Building 9(d) Debt Financing

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

The Innovation Campus - Academic Building project (Capital Outlay Project #18412) has been authorized by the state to be financed pursuant to Article X, Section 9(d) of the Constitution of Virginia for up to $107 million plus amounts needed to fund issuance costs, reserve funds, and other financing expenses.

The project will construct a 300,000 gross square foot building located in Alexandria, Virginia. The Innovation Campus-Academic Building will support graduate-degree programs and research opportunities in computational sciences and engineering; data science and analytics; and technology and policy. The project includes construction of a two-level below grade parking structure that contains 178 spaces and a surface lot that contains 104 spaces for the Innovation Campus. The total $302.136 million project will be funded with $107 million of 9(d) bond proceeds, $27.136 million of 9(c) bond proceeds, and $168 million of 21st Century VCBA bond proceeds. Debt service for the 9(d) building component of this project will be paid from private gift and other receipts. The university may use commercial paper as short-term financing and plans to reimburse itself from the 9(d) bond proceeds.

The bonds will be issued through the Virginia College Building Authority (the “Authority”), and the university will enter into a loan agreement and promissory note with the Authority. The loan agreement and note are subject to the following parameters: (a) the principal amount shall not be greater than the amount authorized by the General Assembly of Virginia; (b) the aggregate principal amount shall not exceed $107 million plus amounts needed to fund issuance costs and other financing expenses; (c) the interest rate payable shall not exceed a true interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities; (d) the weighted average maturity of the principal payments shall not be in excess of 30 years; (e) the last principal payment date shall not extend beyond the expected economic life of the project; and (f) the actual amount, interest rates, principal maturities, and date of the note shall be approved by an Authorized Officer.

The resolution identifies (1) the Vice President for Finance, (2) the University Treasurer, and (3) the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer, as being authorized to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the bonds.
RESOLUTION ON INNOVATION CAMPUS – ACADEMIC BUILDING
9(d) FINANCING

WHEREAS, pursuant to and in furtherance of Chapter 12, Title 23.1 of the Code of Virginia of 1950, as amended (the “Act”), the Virginia College Building Authority (the “Authority”) developed a program (the “Program”) to purchase debt instruments issued by public institutions of higher education in the Commonwealth of Virginia ("Participating Institutions" and each a “Participating Institution”) to finance or refinance projects of capital improvement (“Capital Projects” and each a “Capital Project”) included in a bill passed by a majority of each house of the General Assembly of Virginia (the “General Assembly”);

WHEREAS, under the Program, the Authority from time to time issues its Educational Facilities Revenue Bonds (Public Higher Education Financing Program) (“Pooled Bonds”) to finance the purchase or refunding of debt instruments issued by Participating Institutions to finance or refinance Capital Projects;

WHEREAS, if a Participating Institution desires to finance or refinance a Capital Project through the Program, it must enter into a loan agreement with the Authority, under which: (i) the Participating Institution will issue its promissory note pursuant to the Act to evidence a loan to it by the Authority; (ii) the Authority will agree to issue Pooled Bonds and use proceeds thereof to purchase the promissory note; (iii) the Participating Institution will agree to use proceeds of Pooled Bonds, loaned to it and received in exchange for its promissory note, to finance or refinance the Capital Project and to not take actions that may jeopardize any federal tax-exempt status of interest on Pooled Bonds allocable to financing or refinancing the Capital Project; and (iv) the Participating Institution will agree to make payments under the promissory note in sums sufficient to pay, together with certain administrative and arbitrage rebate payments, the principal of, premium, if any, and interest due on such Pooled Bonds;

WHEREAS, the Board of Visitors (the “Board”) of Virginia Polytechnic Institute and State University (the “Institution”) from time to time desires to finance or refinance Capital Projects for the Institution as a Participating Institution under the Program, and now proposes that the Institution issue its promissory note or notes (collectively, the “Note”) to be sold to the Authority in accordance with a loan agreement or loan agreements between the Institution and the Authority (collectively, the “Loan Agreement”), under which proceeds of Pooled Bonds will be loaned to and received by the Institution in exchange for the Note, to finance or refinance costs of the following Capital Project authorized for bond financing by the General Assembly: Innovation Campus - Academic Building – Capital Outlay Project Number 18412 (the “Project”); and

WHEREAS, the Board desires to designate certain Institution officers: (i) delegated the authority to approve the forms of and to execute and deliver the Loan Agreement, the Note, and any amendments thereto, and any other documents necessary or desirable in connection with financing or refinancing costs of the Project through and participation in the Program; and (ii) responsible for monitoring post-issuance compliance with covenants of the Institution related to maintaining any federal tax-exempt status of interest on Pooled Bonds.
NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF VISITORS OF VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY:

Section 1. The Project is hereby designated to be undertaken and financed or refinanced by the Authority and, accordingly, the Vice President for Finance, the University Treasurer, and the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer (the “Authorized Officers”) are each hereby delegated and invested with full power and authority to approve the forms of the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), and any pledge to the payment of the Note and any amendment thereto of total gross university sponsored overhead, unrestricted endowment income, tuition and fees, indirect cost recoveries, auxiliary enterprise revenues, general and nongeneral fund appropriations, and other revenues not required by law or previous binding contract to be devoted to some other purpose, restricted by a gift instrument for another purpose or excluded from such pledge as provided in the Loan Agreement, subject to the provisions of Section 3 hereof.

Section 2. Subject to the provisions of Section 3 hereof, the Authorized Officers are each hereby delegated and invested with full power and authority to execute, deliver, and issue, on behalf of the Institution, (a) the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), with approval of such documents in accordance with Section 1 hereof evidenced conclusively by the execution and delivery of the respective document, and (b) any other documents, instruments, or certificates as may be deemed necessary or desirable to finance or refinance costs of the Project through and participate in the Program, and to further carry out the purposes and intent of this resolution. The Authorized Officers are authorized and directed to take such steps and deliver such certificates in connection with delivery of the Note, and any amendment thereto, as may be required under any existing obligations, including bond resolutions relating to any outstanding general revenue pledge bonds, and to notify Virginia Department of Treasury representatives serving as Authority staff at least 60 days in advance of a pledge of any amounts pledged to the payment of the Note in accordance with Section 1 hereof to, or as security for, the payment of any other Institution obligations issued or entered into after the date hereof for so long as the Note and any amendments thereto remain outstanding.

Section 3. The authorizations given above as to the approval, execution, delivery, and issuance of the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise) are subject to the following parameters: (a) the principal amount to be paid under the Note allocable to any component of the Project, together with the principal amount of any other indebtedness with respect to such component, shall not be greater than the amount authorized for such component by the General Assembly plus amounts needed to fund issuance costs, original issue discount, other financing (including, without limitation, refunding) expenses, and any other increase permitted by law; (b) the aggregate principal amount of the Note shall in no event exceed $107 million as the same may be so increased; (c) the aggregate interest rate payable under the Note shall not exceed a “true”
or “Canadian” interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities, as reported by Thomson Municipal Market Data (MMD) or another comparable service or index, as of the date that the interest rates on the Authority’s Pooled Bonds are determined, taking into account any original issue discount or premium; (d) the weighted average maturity of the principal payments due under the Note shall not exceed 30 years after the original issue date of the Note; (e) the last principal payment date under the Note shall not extend beyond the reasonably expected economic life of the Project; and (f) subject to the foregoing, the actual amount, interest rates, principal maturities, and date of the Note shall be approved by an Authorized Officer, as evidenced by the execution thereof.

Section 4. The Board acknowledges that if there is a failure to make, as and when due, any payment of the principal of, premium, if any, and interest on any promissory note issued by the Institution as a Participating Institution to the Authority under the Program, including without limitation the Note and any amendments thereto, the State Comptroller is authorized under the Program and Section 23.1-1211 of the Code of Virginia of 1950, as amended, to charge against appropriations available to the Institution all future payments of principal of, premium, if any, and interest on such promissory note when due and payable and to make such payments to the Authority or its designee, so as to ensure that no future default will occur on such promissory note.

Section 5. The Board agrees that if the Authority determines the Institution as a Participating Institution shall be subject to continuing disclosure obligations under Rule 15c2-12 of the federal Securities and Exchange Commission with respect to any Pooled Bonds, (a) an Authorized Officer shall, and is hereby authorized and directed to, enter into a continuing disclosure undertaking in form and substance reasonably satisfactory to the Authority, and (b) the Institution will comply with the provisions and disclosure obligations contained therein.

Section 6. The Board designates the University Treasurer and the Assistant Vice President and Associate Treasurer to be responsible for implementing procedures to monitor post-issuance compliance with covenants in any loan agreement between the Institution as a Participating Institution and the Authority, including the Loan Agreement and any amendments thereto, related to maintaining tax-exempt status for federal income tax purposes of interest on any Pooled Bonds, including, without limitation, monitoring the use of any portion of all Capital Projects for the Institution financed or refinanced with such Pooled Bonds and compliance with any applicable federal income tax remedial action requirements in connection with certain changes in such use. Such officer shall review such post-issuance compliance at least annually for so long as such Pooled Bonds remain outstanding.

RECOMMENDATION:

That the above resolution authorizing the issuance of 9(d) bonds for the Innovation Campus - Academic Building Capital Outlay Project Number 18412 be approved.

August 23, 2022
Approval of Student Wellness Improvements 9(d) Debt Financing

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

The Student Wellness Services project (Capital Outlay Project #18357) has been authorized by the state to be financed pursuant to Article X, Section 9(d) of the Constitution of Virginia for up to $59.190 million plus amounts needed to fund issuance costs, reserve funds, and other financing expenses. However, further financial analysis identified alternative funding sources such that the university will only issue $46.954 million of 9(d) debt.

The project will renovate approximately 197,000 gross square feet of War Memorial Hall. The improvements will provide space for Hokie Wellness, Recreational Sports, Human Nutrition, Foods, and Exercise, and the School of Education. The project will address deferred maintenance, code requirements, and install air conditioning to the building. The total $70 million project cost will be funded with approximately $46.954 million of 9(d) debt and $23.046 million of cash from Student Health and Recreational Sports. Debt service for this project will be paid from self-generated funds derived from Student Health and Recreational Sports auxiliary revenues. The E&G program cost share for the School of Education will be covered by an internal lease. The university may use commercial paper as short-term financing and would reimburse itself from the 9(d) bond proceeds.

The bonds will be issued through the Virginia College Building Authority (the “Authority”), and the university will enter into a loan agreement and promissory note with the Authority. The loan agreement and note are subject to the following parameters: (a) the principal amount shall not be greater than the amount authorized by the General Assembly of Virginia; (b) the aggregate principal amount shall not exceed $46,954,000 plus amounts needed to fund issuance costs and other financing expenses; (c) the interest rate payable shall not exceed a true interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities; (d) the weighted average maturity of the principal payments shall not be in excess of 30 years; (e) the last principal payment date shall not extend beyond the expected economic life of the project; and (f) the actual amount, interest rates, principal maturities, and date of the note shall be approved by an Authorized Officer.

The resolution identifies (1) the Vice President for Finance, (2) the University Treasurer, and (3) the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer, as being authorized to execute and deliver all certificates and instruments and to take all such further action as may be considered necessary or desirable in connection with the sale and issuance of the bonds.
RESOLUTION ON STUDENT WELLNESS IMPROVEMENTS
9(d) FINANCING

WHEREAS, pursuant to and in furtherance of Chapter 12, Title 23.1 of the Code of Virginia of 1950, as amended (the “Act”), the Virginia College Building Authority (the “Authority”) developed a program (the “Program”) to purchase debt instruments issued by public institutions of higher education in the Commonwealth of Virginia (“Participating Institutions” and each a “Participating Institution”) to finance or refinance projects of capital improvement (“Capital Projects” and each a “Capital Project”) included in a bill passed by a majority of each house of the General Assembly of Virginia (the “General Assembly”);

WHEREAS, under the Program, the Authority from time to time issues its Educational Facilities Revenue Bonds (Public Higher Education Financing Program) (“Pooled Bonds”) to finance the purchase or refunding of debt instruments issued by Participating Institutions to finance or refinance Capital Projects;

WHEREAS, if a Participating Institution desires to finance or refinance a Capital Project through the Program, it must enter into a loan agreement with the Authority, under which: (i) the Participating Institution will issue its promissory note pursuant to the Act to evidence a loan to it by the Authority; (ii) the Authority will agree to issue Pooled Bonds and use proceeds thereof to purchase the promissory note; (iii) the Participating Institution will agree to use proceeds of Pooled Bonds, loaned to it and received in exchange for its promissory note, to finance or refinance the Capital Project and to not take actions that may jeopardize any federal tax-exempt status of interest on Pooled Bonds allocable to financing or refinancing the Capital Project; and (iv) the Participating Institution will agree to make payments under the promissory note in sums sufficient to pay, together with certain administrative and arbitrage rebate payments, the principal of, premium, if any, and interest due on such Pooled Bonds;

WHEREAS, the Board of Visitors (the “Board”) of Virginia Polytechnic Institute and State University (the “Institution”) from time to time desires to finance or refinance Capital Projects for the Institution as a Participating Institution under the Program, and now proposes that the Institution issue its promissory note or notes (collectively, the “Note”) to be sold to the Authority in accordance with a loan agreement or loan agreements between the Institution and the Authority (collectively, the “Loan Agreement”), under which proceeds of Pooled Bonds will be loaned to and received by the Institution in exchange for the Note, to finance or refinance costs of the following Capital Project authorized for bond financing by the General Assembly: Student Wellness Improvements – Capital Outlay Project Number 18357 (the “Project”); and

WHEREAS, the Board desires to designate certain Institution officers: (i) delegated the authority to approve the forms of and to execute and deliver the Loan Agreement, the Note, and any amendments thereto, and any other documents necessary or desirable in connection with financing or refinancing costs of the Project through and participation in the Program; and (ii) responsible for monitoring post-issuance compliance with covenants of the Institution related to maintaining any federal tax-exempt status of interest on Pooled Bonds.
NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF VISITORS OF VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY:

Section 1. The Project is hereby designated to be undertaken and financed or refinanced by the Authority and, accordingly, the Vice President for Finance, the University Treasurer, and the Assistant Vice President and Associate Treasurer in consultation with the Chief Business Officer (the “Authorized Officers”) are each hereby delegated and invested with full power and authority to approve the forms of the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), and any pledge to the payment of the Note and any amendment thereto of total gross university sponsored overhead, unrestricted endowment income, tuition and fees, indirect cost recoveries, auxiliary enterprise revenues, general and nongeneral fund appropriations, and other revenues not required by law or previous binding contract to be devoted to some other purpose, restricted by a gift instrument for another purpose or excluded from such pledge as provided in the Loan Agreement, subject to the provisions of Section 3 hereof.

Section 2. Subject to the provisions of Section 3 hereof, the Authorized Officers are each hereby delegated and invested with full power and authority to execute, deliver, and issue, on behalf of the Institution, (a) the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), with approval of such documents in accordance with Section 1 hereof evidenced conclusively by the execution and delivery of the respective document, and (b) any other documents, instruments, or certificates as may be deemed necessary or desirable to finance or refinance costs of the Project through and participate in the Program, and to further carry out the purposes and intent of this resolution. The Authorized Officers are authorized and directed to take such steps and deliver such certificates in connection with delivery of the Note, and any amendment thereto, as may be required under any existing obligations, including bond resolutions relating to any outstanding general revenue pledge bonds, and to notify Virginia Department of Treasury representatives serving as Authority staff at least 60 days in advance of a pledge of any amounts pledged to the payment of the Note in accordance with Section 1 hereof to, or as security for, the payment of any other Institution obligations issued or entered into after the date hereof for so long as the Note and any amendments thereto remain outstanding.

Section 3. The authorizations given above as to the approval, execution, delivery, and issuance of the Loan Agreement, the Note, and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise) are subject to the following parameters: (a) the principal amount to be paid under the Note allocable to any component of the Project, together with the principal amount of any other indebtedness with respect to such component, shall not be greater than the amount authorized for such component by the General Assembly plus amounts needed to fund issuance costs, original issue discount, other financing (including, without limitation, refunding) expenses, and any other increase permitted by law; (b) the aggregate principal amount of the Note shall in no event exceed $46.954 million as the same may be so increased; (c) the aggregate interest rate payable under the Note shall not exceed a “true”
or “Canadian” interest cost more than 50 basis points higher than the interest rate for “AA”
rated securities with comparable maturities, as reported by Thomson Municipal Market
Data (MMD) or another comparable service or index, as of the date that the interest rates
on the Authority’s Pooled Bonds are determined, taking into account any original issue
discount or premium; (d) the weighted average maturity of the principal payments due
under the Note shall not exceed 30 years after the original issue date of the Note; (e) the
last principal payment date under the Note shall not extend beyond the reasonably
expected economic life of the Project; and (f) subject to the foregoing, the actual amount,
interest rates, principal maturities, and date of the Note shall be approved by an
Authorized Officer, as evidenced by the execution thereof.

Section 4. The Board acknowledges that if there is a failure to make, as and when due,
any payment of the principal of, premium, if any, and interest on any promissory note
issued by the Institution as a Participating Institution to the Authority under the Program,
including without limitation the Note and any amendments thereto, the State Comptroller
is authorized under the Program and Section 23.1-1211 of the Code of Virginia of 1950,
as amended, to charge against appropriations available to the Institution all future
payments of principal of, premium, if any, and interest on such promissory note when due
and payable and to make such payments to the Authority or its designee, so as to ensure
that no future default will occur on such promissory note.

Section 5. The Board agrees that if the Authority determines the Institution as a
Participating Institution shall be subject to continuing disclosure obligations under Rule
15c2-12 of the federal Securities and Exchange Commission with respect to any Pooled
Bonds, (a) an Authorized Officer shall, and is hereby authorized and directed to, enter
into a continuing disclosure undertaking in form and substance reasonably satisfactory to
the Authority, and (b) the Institution will comply with the provisions and disclosure
obligations contained therein.

Section 6. The Board designates the University Treasurer and the Assistant Vice
President and Associate Treasurer to be responsible for implementing procedures to
monitor post-issuance compliance with covenants in any loan agreement between the
Institution as a Participating Institution and the Authority, including the Loan Agreement
and any amendments thereto, related to maintaining tax-exempt status for federal income
tax purposes of interest on any Pooled Bonds, including, without limitation, monitoring the
use of any portion of all Capital Projects for the Institution financed or refinanced with
such Pooled Bonds and compliance with any applicable federal income tax remedial
action requirements in connection with certain changes in such use. Such officer shall
review such post-issuance compliance at least annually for so long as such Pooled Bonds
remain outstanding.

RECOMMENDATION:

That the above resolution authorizing the issuance of 9(d) bonds for the Student
Wellness Improvements Capital Outlay Project Number 18357 be approved.

August 23, 2023
APPROVAL OF 9(c) AND 9(d) FINANCING RESOLUTIONS

KEN MILLER, VICE PRESIDENT FOR FINANCE
JOHN CUSIMANO, UNIVERSITY TREASURER

AUGUST 22, 2022
9(c) AND 9(d) FINANCING RESOLUTIONS

- To complete the financing plans for eight capital projects under construction and previously authorized by the Board of Visitors, the university needs approval to issue two types of long-term debt.

- The debt financing for these projects was included in the “University Debt Ratio and Debt Capacity” report accepted by the Finance and Resource Management Committee on November 8, 2021.

- The university generally uses commercial paper to fund the initial planning and construction costs which are reimbursed once the permanent debt is issued.

- The university accesses state debt programs to reduce administrative burdens and costs of issuance and to obtain lower costs of capital.
9(c) DEBT FINANCING

- Debt issued under Section 9(c) of Article X of the Constitution of Virginia:
  - Is issued by the Treasury Board on behalf of the University.
  - Is a general obligation revenue bond of the university and backed by the full faith and credit of the commonwealth.
  - Is generally approved for NGF auxiliary revenue producing projects - such as parking facilities, residence halls, and dining facilities.
  - Is rated AAA.
 Debt issued under section 9(d) of Article X of the Constitution of Virginia:

- Can be issued by the university or a conduit issuer like the Virginia College Building Authority (VCBA).
- Is backed by a pledge of its general revenues.
- Is rated Aa1/AA+ when issued through VCBA.
9(c) and 9(d) Financing Resolutions Details
9(c) FINANCING RESOLUTIONS

- Three financing resolutions must be approved to participate in the Commonwealth’s 9(c) issuance.
- The underlying projects and authorized principal amounts include:

<table>
<thead>
<tr>
<th>Project</th>
<th>Amount (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hitt Hall (Dining)</td>
<td>41.741</td>
</tr>
<tr>
<td>Innovation Campus Academic Bldg. (Parking)</td>
<td>27.136</td>
</tr>
<tr>
<td>New Upper Quad Residence Hall</td>
<td>33.00</td>
</tr>
</tbody>
</table>

Total: $101.877
The financing parameters of the 9(c) bond sale include:

- That the aggregate principal amount shall not exceed the authorized principal amount plus other issuance costs, reserve funds, construction period interest, and other financing expenses.

- That the repayment of the bonds are secured by the net revenues of the projects.

- That the 9(c) bonds secured by the net revenues of an individual project are on parity with other university 9(c) obligations secured by the same net revenues.

- That the university pay it proportionate share of all expenses incurred in connection to the sale of the bonds.
9(d) FINANCING RESOLUTIONS

- Five financing resolutions must be approved to participate in the VCBA’s 9(d) issuance.
- The underlying projects and authorized principal amounts include:

<table>
<thead>
<tr>
<th>Project</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corps Leadership and Military Science</td>
<td>$31.35</td>
</tr>
<tr>
<td>Data and Decision Science Building</td>
<td>$10.00</td>
</tr>
<tr>
<td>Hitt Hall</td>
<td>$12.00</td>
</tr>
<tr>
<td>Innovation Campus Academic Building</td>
<td>$107.00</td>
</tr>
<tr>
<td>Student Wellness Services</td>
<td>$46.954</td>
</tr>
</tbody>
</table>

Total: $207.304
The financing parameters of the 9(d) bond sale include:

- That the principal amount for each project shall not be greater than the amount authorized by the General Assembly plus amounts needed to fund issuance costs, original issue discount, other financing expenses, and any other increase permitted by law.

- That the interest rate shall not exceed more than 50 basis points higher than the rate for “AA” rated securities with comparable maturities.

- That the weighted average maturity of the principal payments shall not exceed 20 years.

- That the last principal payment shall not exceed the reasonable expected life of the project.
9(c) AND 9(d) FINANCE RESOLUTIONS

The resolutions authorize the Vice President for Finance, University Treasurer, and Assistant Vice President for Finance and Associate Treasurer, in consultation with the Chief Business Officer, to do the following:

**9(c) debt issues**
- Execute and deliver all certificates and instruments; and
- To take all such further action as may be considered necessary in connection with the sale and issuance of the bonds.

**9(d) debt issues**
- To execute and deliver the loan agreement and promissory note with the Authority and any amendments thereto.
- To execute and deliver any other documents, instruments, or certificates as may be deemed necessary or desirable to finance or refinance the costs of the project through the VCBA program.
The university plans on participating in the Department of Treasury’s 9(c) and VCBA’s 9(d) debt financing programs.

To do so, the three 9(c) and the five 9(d) financing resolutions need to be approved by the Board.

Total debt financing is $309.2 million
- Total 9(c) = $101.9 million
- Total 9(d) = $207.3 million
APPROVAL OF 9(c) AND 9(d) FINANCING RESOLUTIONS

RECOMMENDATION

1) That the resolutions authorizing the issuance of 9(c) bonds totaling $101.877 million for the Hitt Hall (dining facility), Innovation Campus Academic Building (parking facility), and Upper Quad Residence Hall projects be approved; and

2) That the resolutions authorizing the issuance of 9(d) bonds through the VCBA totaling $207.304 million for the Corps Leadership and Military Science, Data and Decision Science Building, Hitt Hall, Innovation Campus Academic Building, and Student Wellness Services projects be approved.

August 23, 2022
Virginia Tech India

Guru Ghosh, Vice President, Outreach & International Affairs
Roop Mahajan
Tarun Sen

Board of Visitors - Finance and Resource Management Committee August 21-22, 2022
VTIREF - SOUTHERN REGION EDUCATION PROGRAMS

Ongoing Programs

Flagship Program
Certificate Program in Business Analytics & AI [6 months] - 4 Cohorts completed

Corporate Mentorship
Development Program [3 Days]

Proposed Programs

Certificate Program in Automotive Analytics & AI [4 months]
Space System Technology [9 months]
Cybersecurity [4 months]
Drone Pilot Program Training [9 months]

University Collaborations

Mahindra University
Hyderabad
B. Tech Nano Technology - Aug 2022

Vellore Institute of Technology (VIT)
Business Analytics and AI

ABBS College, Bengaluru
Business Analytics and AI
Institute for Global Education & Curriculum Development (IGE)

- Graduate and undergraduate programs in Mumbai and Blacksburg
- Encourage applicants to graduate programs at Virginia Tech from NMIMS
- Faculty collaborations for international research

200+ students annually enrolling through VT-NMIMS programs
25+ Virginia Tech faculty participating in programs in India

BS/MS Program in Business Analytics & Cybersecurity

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>Started with Pamplin’s BIT Department</td>
</tr>
<tr>
<td>3+1+1</td>
<td>3 years in NMIMS, Mumbai</td>
</tr>
<tr>
<td>3</td>
<td>3 degrees: B. Tech in CS from NMIMS</td>
</tr>
<tr>
<td>40</td>
<td>Annual Enrollments</td>
</tr>
<tr>
<td>Fall ‘23</td>
<td>First batch arrives in Virginia Tech Campus</td>
</tr>
</tbody>
</table>
M. Tech in Data Science
• Started in 2019
• M. Tech offered by NMIMS
• Certificate from Virginia Tech
• Batches graduated - 2
• Enrollments ~ 20 annually - 3 Virginia Tech Faculty

B. Tech in Data Science
• Started in 2020
• B. Tech offered by NMIMS
• Certificate from Virginia Tech
• Enrollments ~ 60 annually - 7 Virginia Tech Faculty

B. Tech - Artificial Intelligence
• Started in 2020
• B. Tech offered by NMIMS
• Certificate from Virginia Tech
• Enrollments ~ 60 annually - 7 Virginia Tech Faculty

B. Tech - Cybersecurity
• Started in 2020
• B. Tech offered by NMIMS
• Certificate from Virginia Tech
• Enrollments ~ 60 annually - 7 Virginia Tech Faculty
VT-IIT KGP Certificate Program in Business Analytics and Artificial Intelligence

- Started in June 2022
- 9 month online program - jointly taught by Virginia Tech and IIT KGP faculty
- Enrollment - 16

Research Collaboration (in-progress)

- Joint Ph.D. Programs in areas of mutual interest; Creates valuable Ph.D. student pipeline
- IIT KGP B. Tech student internships; encourages applicants for Masters programs at Virginia Tech
- Approvals in process at - IIT KGP and Virginia Tech
- Team from IIT KGP visited campus in May 2022

LAB FACILITIES
1. Material Processing Lab
2. Material Characterization Lab
3. Centre for Excellence in Emerging Technologies
4. Flight Simulator Lab
5. Drone Integration Lab
Indian Institute of Technology Madras (IITM) is ranked:
- #1 in Engineering, 7th consecutive year
- #1 Overall, 4th consecutive year
  
Source: National Institute Ranking Framework (NIRF) in 2022

VTIREF’s IITM Research Park is India’s first university-based Research Park
- Situated in the IITM Research Park
- Started in January 2022
- Aim is to work in close relationship with IITM for Research & Innovation
  - Research Projects and Joint Research Funding
  - Conferences and Seminars
  - Student and Faculty Programs

Virginia Tech-Thapar University Center of Excellence in Emerging Materials (CEEMS)
- Harnessing the power of Nano+Materials
  - Graphene-x
  - Composite & Exploratory Research
  - Bio-x
  - Computational
- 22 Number of regular (with JRF) projects, + 2 projects of RA
- 15 Number of seed-money projects (no JRF)
- 50 Number of TIET faculty involved
- 1 Patent: one application on epoxy-graphene anticorrosion coatings for steel and concrete
- 17 Number of SCI publications: 8 (published/accepted) 9 (under review)
Machine learning (ML) based smart digital stethoscope for detection and classification of the heart murmur

- Congenital heart disease (CHD) is one of the leading causes of death among children all over the world
- It was estimated that in India alone 240,000 children are affected by CHD and accounted for 10% of infant mortality annually
- CHD disease can be identified during auscultation and detected through the presence of a murmur
- The objective of this project is to automatically identify pathological murmurs using machine learning algorithm and classify them from innocent ones
Revenue
Virginia Tech to VTIREF $ 1,441,750
India Sourced Revenue: NMIMS, Thapar, MGR, and Certificate Programs $ 988,250
Total Revenue $2,430,000

Expenditures
Research Equipment, India Salaries and Operations $ 1,527,680
Virginia Tech Faculty and Staff Salaries $ 874,200
Total Expenditures $ 2,401,880
Balance $ 28,120
COMPREHENSIVE UPDATE ON ADVANCEMENT

CHARLES D. PHLEGAR, VICE PRESIDENT FOR ADVANCEMENT

AUGUST 22, 2022
YEAR-END GIVING RESULTS
for the period July 1, 2021 - June 30, 2022

- New Gifts & Commitments
  - $268,362,824
  - Increased from $100,419,843 in 2016
- Cash
  - $207,149,449
  - Increased from $101,451,931 in 2016
- Beyond Boundaries Scholarship Initiative
  - Over $1.2M raised that will be matched by VT to support under-represented and high-achieving students
YEAR-END GIVING RESULTS
for the period July 1, 2021 - June 30, 2022

- Boundless Impact Campaign
  - $1,157,556,855 raised toward a $1.872 billion goal

- Overall Alumni Participation Rate was 22.43%
  - 42,162 undergraduate alumni donors
  - More than doubled participation in less than 6 years
  - Class of 2022: 42% participation rate
  - Additional $1B over the next 20 years due to alumni base growth
NEAR-TERM FOCUS AREAS

- Fundraising Priorities:
  - Focus on university strategic plan
- Athletics
- Innovation Campus
- Principal Partnership Office
- Continued Alumni Donor Growth
- Culture of Philanthropy
DISCUSSION
DISCUSSION OF FUTURE AGENDA TOPICS AND CLOSING REMARKS

COMMITTEE CHAIR, FINANCE AND RESOURCE MANAGEMENT COMMITTEE