

**BOARD OF VISITORS BUILDINGS AND GROUNDS COMMITTEE
MINUTES**

August 30, 2021

The Buildings and Grounds Committee of the Board of Visitors of Virginia Polytechnic Institute and State University met on Monday, August 30, 2021 at 9:30 a.m. to tour the President's Suite renovation project in Lane Stadium (185 Beamer Way, Blacksburg). A quorum of the Buildings and Grounds Committee was present.

Board of Visitors Members

Present:

Tish Long (Rector)
Shelly Butler Barlow (Committee Chair)
Carrie Chenery
Greta Harris
C.T. Hill
Sharon Brickhouse Martin
Melissa Nelson
Chris Petersen
Horacio A. Valeiras
Preston M. White

Absent:

Ed Baine
Anna James
Mehul Sanghani
Jeff Veatch

Constituent Representatives Present:

Robert Weiss (Faculty Representative)
Serena Young (Staff Representative)
Paolo Fermin (Undergraduate Student Representative)
Phil Miskovic (Graduate Student Representative)

Also present were the following Virginia Tech staff members:

President Timothy Sands, Ms. Kim O'Rourke (Secretary to the Board), Ms. Lynsay Belshe, Dr. Cyril Clarke, Mr. Tom Gabbard, Ms. Kay Heidbreder, Mr. Chris Kiel, Dr. Chris Kiwus, Ms. Sharon Kurek, Ms. Jamie Lau, Ms. Joy Manning, Ms. Meghan Marsh, Mr. Ken Miller, Mr. Mark Owczarski, Dr. Dwayne Pinkney, Mr. John Tarter, Mr. Dwyn Taylor, Mr. Jon Clark Teglas, Ms. Tracy Vosburgh

Tour of President's Suite Renovation Project in Lane Stadium

Hosted by the Department of Intercollegiate Athletics, the Committee toured the President's Suite renovation project in Lane Stadium. The university has partnered with a third-party to re-imagine this venue. It is designed to enhance the game-day experience and beyond. Scheduled to open fully later in fall 2021, the venue will now offer dining, event, and meeting spaces in addition to game-day events.

The tour concluded at 10:15 a.m.

The Buildings and Grounds Committee of the Board of Visitors of Virginia Polytechnic Institute and State University reconvened on Monday, August 30, 2021 at 1:15 p.m. to tour Randolph Hall (460 Old Turner Street, Blacksburg) and the Holden Hall construction site (445 Old Turner 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)
Carrie Chenery
Greta Harris
C.T. Hill
Sharon Brickhouse Martin
Melissa Nelson
Horacio A. Valeiras
Preston M. White

Absent:

Ed Baine
Anna James
Chris Petersen
Mehul Sanghani
Jeff Veatch

Constituent Representatives Present:

Robert Weiss (Faculty Representative)
Paolo Fermin (Undergraduate Student Representative)
Phil Miskovic (Graduate Student Representative)

Also present were the following Virginia Tech staff members:

President Timothy Sands, Ms. Kim O'Rourke (Secretary to the Board), Ms. Lynsay Belshe, Mr. Bob Broyden, Dr. Robert Canfield, Dr. Cyril Clarke, Dr. Sean Corcoran, Dr. William Devenport, Dr. Azim Eskandarian, Ms. Kari Evans, Ms. Kay Heidbreder, Dr. Frances Keene, Mr. Chris Kiel, Dr. Chris Kiwus, Ms. Sharon Kurek, Ms. Jamie Lau, Mr. Jack Leff, Dr. Alexander Leonessa, Dr. Kramer Luxbacher, Ms. Meghan Marsh, Mr. Ken Miller, Ms. Liza Morris, Dr. Ed Nelson, Mr. Mark Owczarski, Dr. Eric Paterson, Dr. Dwayne Pinkney, Dr. Julia Ross, Dr. Frank Shushok, Mr. Ken Smith, Mr. John Tarter, Mr. Dwyn Taylor, Mr. Jon Clark Teglas, Mr. Johnny Underwood, Ms. Tracy Vosburgh

Tour of Randolph Hall and the Holden Hall Construction Site

Hosted by the College of Engineering, the Committee toured Randolph Hall and the Holden Hall construction site. Randolph Hall is the largest engineering building on campus. The existing building requires updating to help advance the university's strategic mission, enhance the future tech-talent pipeline, sustain existing engineering enrollment, meet new building code and accessibility requirements, include top-notch sustainability features, and modernize building systems. Replacement of the facility is at the top of the university's current Capital Outlay Plan and envisions razing the entire existing building

and constructing a new, larger building at the same site. This project is in preliminary design. Holden Hall was originally built in 1940. The extensive renovation project underway includes a new Autonomous Mining and Robotics Center where students will engage in autonomous mining, working with material that is three to four feet deep. A two-story mock mine includes a glassed-in area where students can learn and observe advanced automation methods. New computational and lab spaces will allow for faster, more-efficient development of new materials, all while using cutting-edge technology.

The tour concluded at 2:20 p.m.

The Buildings and Grounds Committee of the Board of Visitors of Virginia Polytechnic Institute and State University reconvened on Monday, August 30, 2021 at 2:30 p.m. to tour the Creativity and Innovation District Living-Learning Community (185 Kent 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)
Carrie Chenery
Greta Harris
C.T. Hill
Sharon Brickhouse Martin
Melissa Nelson
Horacio A. Valeiras
Preston M. White

Absent:

Ed Baine
Anna James
Chris Petersen
Mehul Sanghani
Jeff Veatch

Constituent Representatives Present:

Robert Weiss (Faculty Representative)
Paolo Fermin (Undergraduate Student Representative)
Phil Miskovic (Graduate Student Representative)

Also present were the following Virginia Tech staff members:

President Timothy Sands, Ms. Kim O'Rourke (Secretary to the Board), Dr. Tim Baird, Ms. Lynsay Belshe, Mr. Bob Broyden, Dr. Cyril Clarke, Ms. Kari Evans, Ms. Kay Heidbreder, Mr. Travis Jessee, Dr. Frances Keene, Mr. Chris Kiel, Dr. Chris Kiwus, Ms. Sharon Kurek, Ms. Jamie Lau, Mr. Jack Leff, Ms. Meghan Marsh, Mr. Ken Miller, Ms. Liza Morris, Mr. Paul O'Keef, Mr. Mark Owczarski, Dr. Dwayne Pinkney, Dr. Frank Shushok, Mr. Ken Smith, Mr. John Tarter, Mr. Dwyn Taylor, Mr. Jon Clark Teglus, Ms. Tracy Vosburgh

Tour of the Creativity and Innovation District Living-Learning Community

Hosted by Student Affairs, the Committee toured the recently completed Creativity and Innovation District Living-Learning Community. This residence hall is now home to nearly

600 Hokies, including participants in the Studio 72, Innovate, and Rhizome living-learning communities; student-athletes; and a resident faculty principal (Dr. Tim Baird and his family). The Student Affairs leadership team described the space as a one-of-a-kind facility, a national model for how the boundaries of academic and student life can be blurred to facilitate a holistic and integrated student experience.

The tour concluded at 3:11 p.m.

The Buildings and Grounds Committee of the Board of Visitors of Virginia Polytechnic Institute and State University reconvened on Monday, August 30, 2021 at 3:30 p.m. in open session in Latham Ballroom A and B of the Inn at Virginia Tech and Skelton Conference Center (901 Prices Fork Road, Blacksburg). A quorum of the Buildings and Grounds Committee was present.

Board of Visitors Members

Present:

Tish Long (Rector)
Shelly Butler Barlow (Committee Chair)
Carrie Chenery
Greta Harris
C.T. Hill
Sharon Brickhouse Martin
Melissa Nelson
Chris Petersen
Horacio A. Valeiras
Preston M. White

Absent:

Ed Baine
Anna James
Mehul Sanghani
Jeff Veatch

Constituent Representatives Present:

Robert Weiss (Faculty Representative)
Serena Young (Staff Representative)
Paolo Fermin (Undergraduate Student Representative)
Phil Miskovic (Graduate Student Representative)

Also present were the following Virginia Tech staff members:

President Timothy Sands, Ms. Kim O'Rourke (Secretary to the Board), Mr. Mac Babb, Ms. Lynsay Belshe, Mr. Eric Brooks, Mr. Bob Broyden, Ms. Charlene Casamento, Dr. Cyril Clarke, Mr. Van Coble, Mr. Al Cooper, Mr. John Cusimano, Mr. Corey Earles, Mr. Jeff Earley, Ms. Alisha Ebert, Ms. Kari Evans, Dr. Michael Evans, Dr. Lance Franklin, Dr. Ron Fricker, Mr. Bryan Garey, Mr. Mark Gess, Dr. Alan Grant, Mr. Tony Haga, Ms. Wendy Halsey, Ms. Mary Helmick, Ms. Kay Heidbreder, Mr. Jim Hillman, Mr. Patrick Hilt, Ms. Elizabeth Hooper, Ms. Mary-Ann Ibeziako, Dr. Frances Keene, Mr. Chris Kiel, Dr. Chris Kiwus, Ms. Sharon Kurek, Ms. Jamie Lau, Mr. Jack Leff, Mr. Rob Mann, Ms. Meghan Marsh, Ms. Elizabeth McClanahan, Ms. Nancy Meacham, Mr. Ken Miller, Ms. Liza Morris, Dr. Saied Mostaghimi, Mr. Mike Mulhare, Mr. Justin Noble, Mr. Mark Owczarski, Dr.

Dwayne Pinkney, Dr. Ellen Plummer, Dr. John Randolph, Dr. Frank Shushok, Mr. Adam Smith, Mr. Ken Smith, Dr. Don Taylor, Mr. Dwyn Taylor, Mr. Jon Clark Teglas, Ms. Tracy Vosburgh, Mr. Chris Yianilos

Open Session

1. **Welcome:** The Committee Chair convened the meeting and provide welcoming remarks. Dr. Dwayne Pinkney recognized the newly appointed Vice President for Enterprise Administrative and Business Services, Lynsay Belshe; newly promoted Chief Sustainability Officer, Mary-Ann Ibeziako, who also maintains her prior role of Assistant Vice President for Infrastructure; and the newly appointed Associate Vice President for Enterprise Administrative Operations, Charlene Casamento.
2. **Consent Agenda:** The Committee approved the items listed on the Consent Agenda.
 - a. **Approval of the Minutes from the June 8, 2021 Meeting:** The Committee approved the minutes from the June 8, 2021 meeting.
 - * b. **Resolution on Appointment to the New River Valley Emergency Communications Regional Authority:** The Committee reviewed for approval an appointment to the New River Valley Emergency Communications Regional Authority. The Committee recommended the Resolution to the full Board for approval.
3. **Capital Process and Capital Project Status Report:** The Committee received a briefing on the university's capital process and accepted the capital project status report from Bob Broyden, Associate Vice President for Campus Planning and Capital Financing, and Dwyn Taylor, Assistant Vice President for Capital Construction.
4. **Update on Residential Facilities:** The Committee received a briefing on the university's re-imagining of the residential experience from Frank Shushok, Vice President for Student Affairs, and Bob Broyden, Associate Vice President for Campus Planning and Capital Financing. Student Affairs is laying the groundwork for an innovative residential life model that promotes well-being, student success, and inclusion – transforming on-campus living and making higher education a catalyst for cultural change.
5. **Update on Climate Action, Sustainability, and Energy Initiatives:** The Committee received an update from Mary-Ann Ibeziako on ongoing climate action, sustainability, and energy initiatives. Mary-Ann was joined by John Randolph, Professor Emeritus and Senior Fellow for Climate Action, and Jack Leff, President of the Graduate and Professional Student Senate and a Graduate Assistant in the Office of Climate Action, Sustainability, and Energy to supplement her remarks.
6. **Update on Agricultural Facilities:** The Committee received an update from Alan Grant, Dean of the College of Agriculture and Life Sciences, on agricultural facilities

planning and construction. Dean Grant was joined by Michael Evans, Director and Professor in the School of Plant and Environmental Sciences, to discuss innovative agriculture centers. Dean Grant offered a tour of various Agricultural Research and Extension Centers, possibly in spring 2022.

- 7. Design Preview and Review for Hitt Hall:** The Committee approved the combined design preview and review for Hitt Hall from Liza Morris, Assistant Vice President for Planning and University Architect. The 98,985 gross square feet, three-story facility is organized in two wings around a central circulation link and collaboration space. Hitt Hall will provide an expansion of the Myers-Lawson School of Construction, add critical dining capacity, and include general assignment academic spaces in a new combined program facility for Virginia Tech. The \$85 million project is split funded with \$25 million in gifts, \$13 million in internal lease funding, and \$47 million in auxiliaries. This project was first proposed on the 2018-2024 Capital Outlay Plan.
- 8. Future Agenda Items and Closing Remarks:** The Committee discussed potential topics for inclusion on future meeting agendas.

The meeting concluded at 4:58 p.m.

The Buildings and Grounds Committee and the Finance and Resource Management Committee of the Board of Visitors of Virginia Polytechnic Institute and State University convened on Monday, August 30, 2021 at 4:58 p.m. in joint open session in Latham Ballroom A and B of the Inn at Virginia Tech and Skelton Conference Center (901 Prices Fork Road, Blacksburg). A quorum of the Joint Committee was present.

Board of Visitors Members

Present:

Tish Long (Rector)
Shelly Butler Barlow
Carrie Chenery
Greta Harris
C.T. Hill
Sharon Brickhouse Martin
Melissa Nelson
Chris Petersen
Horacio A. Valeiras
Preston M. White

Absent:

Ed Baine (Vice Rector)
Anna James
Mehul Sanghani
Jeff Veatch

Constituent Representatives Present:

Robert Weiss (Faculty Representative)
Serena Young (Staff Representative)
Paolo Fermin (Undergraduate Student Representative)
Phil Miskovic (Graduate Student Representative)

Also present were the following Virginia Tech staff members:

President Timothy Sands, Ms. Kim O'Rourke (Secretary to the Board), Mr. Mac Babb, Ms. Lynsay Belshe, Mr. Eric Brooks, Mr. Bob Broyden, Ms. Charlene Casamento, Dr. Cyril Clarke, Mr. Van Coble, Mr. Al Cooper, Mr. John Cusimano, Mr. Corey Earles, Mr. Jeff Earley, Ms. Alisha Ebert, Ms. Kari Evans, Dr. Michael Evans, Dr. Lance Franklin, Dr. Ron Fricker, Mr. Bryan Garey, Mr. Mark Gess, Dr. Alan Grant, Mr. Tony Haga, Ms. Wendy Halsey, Ms. Mary Helmick, Ms. Kay Heidebreder, Mr. Jim Hillman, Mr. Patrick Hilt, Ms. Elizabeth Hooper, Ms. Mary-Ann Ibeziako, Dr. Frances Keene, Mr. Chris Kiel, Dr. Chris Kiwus, Ms. Sharon Kurek, Ms. Jamie Lau, Mr. Jack Leff, Mr. Rob Mann, Ms. Meghan Marsh, Ms. Elizabeth McClanahan, Ms. Nancy Meacham, Mr. Ken Miller, Ms. Liza Morris, Dr. Saied Mostaghimi, Mr. Mike Mulhare, Mr. Justin Noble, Mr. Mark Owczarski, Dr. Dwayne Pinkney, Dr. Ellen Plummer, Dr. John Randolph, Dr. Frank Shushok, Mr. Adam Smith, Mr. Ken Smith, Dr. Don Taylor, Mr. Dwyn Taylor, Mr. Jon Clark Teglas, Ms. Tracy Vosburgh, Mr. Chris Yianilos

Joint Open Session

- * 1. Approval of Resolution for a Capital Project for Hitt Hall:** The Committees reviewed for approval the resolution for a capital project for Hitt Hall.

In 2017, the Board of Visitors approved a \$6 million planning authorization to design a multi-purpose facility to support doubling the size of the Building Construction academic program, increasing dining services, and increasing general assignment instruction space. The project design for the approximately 100,000 gross square foot facility is 65 percent complete, with an early site package expected to begin in October 2021 and the building construction package slated to start in January 2022.

The university estimates that the total project cost will be \$85 million, inclusive of all hard and soft costs. The funding plan for this project calls for \$25 million of private support, \$47 million of dining services revenues, and \$13 million of internal lease funding for the academic space. The timing of revenues results in the use of cash and approximately \$73 million of debt. Any cash designated for the project accumulated prior to the issuance of permanent debt may be used directly for project costs and to lower the total debt service issuance.

This request is for approval of a \$79 million supplement to the existing \$6 million authorization for an adjusted \$85 million authorization to complete the construction of the Hitt Hall project.

The Committees recommended the Resolution for a Capital Project for Hitt Hall to the full Board for approval.

There being no further business, the meeting adjourned at 5:16 p.m.

Open Session Agenda

BUILDINGS AND GROUNDS COMMITTEE

The Inn at Virginia Tech and Skelton Conference Center

Monday, August 30, 2021

*Bus departs for tour of Lane Stadium President's Suite Renovations at 9:30 a.m. from Inn Lobby.
Bus will return from Inn after tour.*

Bus departs for tours of Randolph Hall, Holden Hall, and the Creativity and Innovation District Living-Learning Community at 1:15 p.m. from Inn Lobby.

Open session meeting begins at 3:15 p.m. in Latham A/B of the Inn at Virginia Tech and Skelton Conference Center.

<u>Agenda Item</u>	<u>Reporting Responsibility</u>
1. Welcome	Shelley Butler Barlow, Chair
2. Consent Agenda <ul style="list-style-type: none"> a. Approval of the Minutes from the June 8, 2021 Meeting * b. Resolution on Appointment to the New River Valley Emergency Communications Regional Authority 	Shelley Butler Barlow, Chair
3. Capital Process and Capital Project Status Report	Bob Broyden Dwyn Taylor
4. Update on Residential Facilities	Frank Shushok Bob Broyden
5. Update on Climate Action, Sustainability, and Energy Initiatives	Mary-Ann Ibeziako
6. Update on Agricultural Facilities	Alan Grant Michael Evans
7. Design Preview and Review for Hitt Hall	Liza Morris
8. Future Agenda Items and Closing Remarks	Shelley Butler Barlow, Chair

Joint Open Session Agenda

**FINANCE AND RESOURCE MANAGEMENT COMMITTEE
AND
BUILDINGS AND GROUNDS COMMITTEE**

Latham Ballroom A/B, The Inn at Virginia Tech

4:45 p.m.

August 30, 2021

Agenda Item

**Reporting
Responsibility**

- * 1. Approval of Resolution for a Capital Project for Hitt Hall

Ken Miller
Chris Kiwus

* Requires full Board approval.

◆ Discusses Enterprise Risk Management topic(s).

Consent Agenda
BUILDINGS AND GROUNDS COMMITTEE

August 30, 2021

The Committee will consider for approval and acceptance the items listed on the Consent Agenda.

Consent Agenda

- a. Approval of the Minutes from the June 8, 2021 Meeting
- * b. Resolution on Appointment to the New River Valley Emergency Communications Regional Authority

* Requires full Board approval.



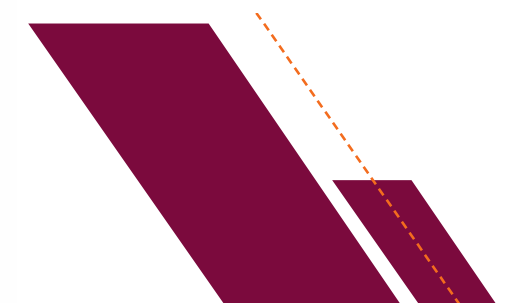
CAPITAL PROCESS AND CAPITAL PROJECT STATUS REPORT

BOB BROYDEN, ASSOCIATE VICE PRESIDENT FOR CAMPUS PLANNING AND CAPITAL FINANCING
DWYN TAYLOR, ASSISTANT VICE PRESIDENT FOR CAPITAL CONSTRUCTION
AUGUST 30, 2021



VIRGINIA
TECH.

150

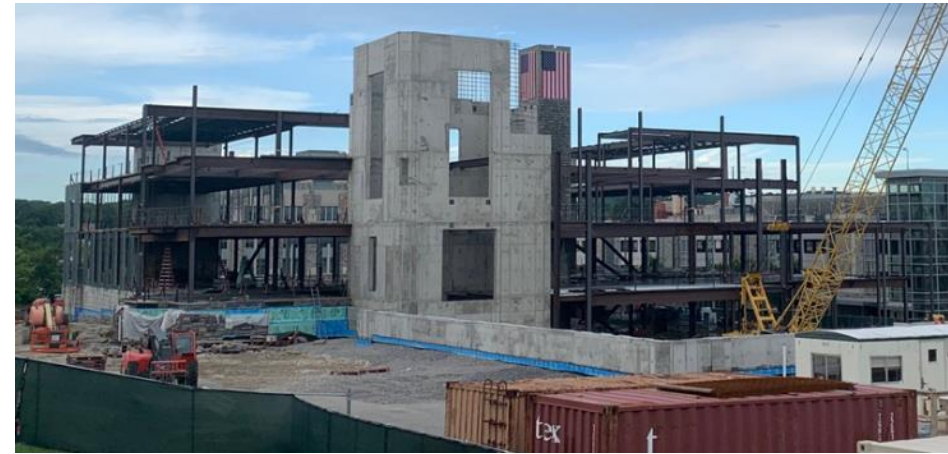


Key Projects Underway...



Holden Hall Renovations

- On track for completion in January 2022



Data & Decision Sciences Building

- On track for completion in April 2023



Equine Facility



Poultry Grow Out Facility



Swine Facility



Beef Nutrition Facility

Livestock & Poultry Research Facilities

- 4 of 6 bid packages under construction



Corps Leadership & Military Science Building + New Upper Quad Residence Hall

- Demo complete for CLMS; Femoyer demo underway

On the Near Horizon...



Undergraduate Science Laboratory Building

- *Out to market for full GMP targeted for September 2021*



Hitt Hall

- *Out to market for GMP-1 targeted for October 2021*



Dietrick Renovation

- *Out to market targeted for October 2021*



Innovation Campus Academic Building

- *Out to market for GMP-2 (building) in October 2021*

QUESTIONS?



CAPITAL PROJECT STATUS REPORT

PREPARED FOR THE BOARD OF VISITORS
AUGUST 30, 2021



VIRGINIA
TECH.

150

Project Portfolio

- 21 projects (active and completed/1-year warranty phase)
- Total value of ~\$1B
- Adds 1.7M gross square feet (GSF) of new construction
- Renovates nearly 300K GSF of existing space



Capital Construction Executive Summary (Progressive)

Date Prepared: 20 JUL 2021

Legend:

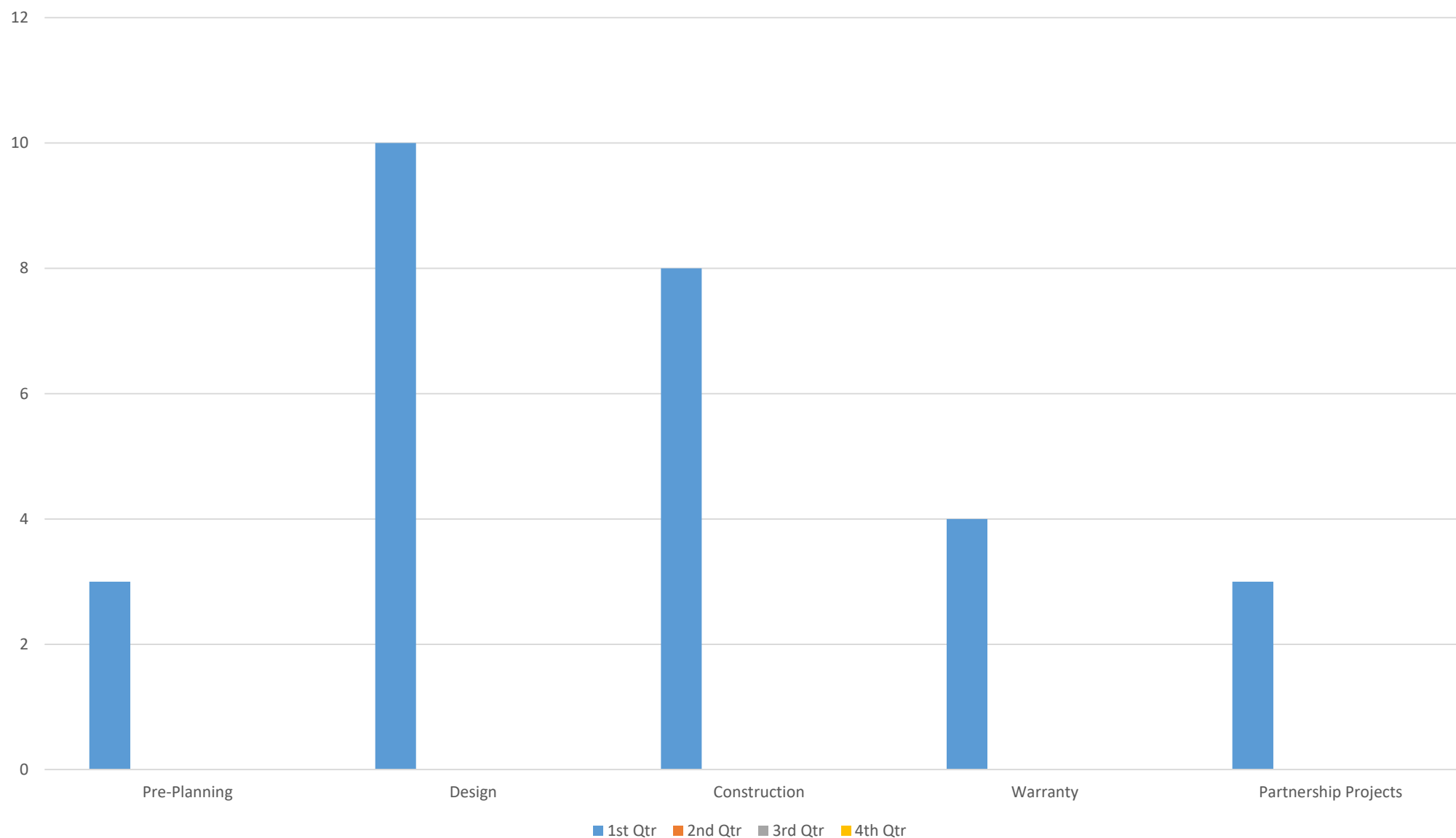
Design

Construction

Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024			
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC
					FY21		FY22				FY23				FY24				FY25	
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
VTC Biomedical Research Expansion (PPEA)	\$91.7	\$73.5	139,586		WARRANTY															
Athletic Weight Room Renovations & Expansion	\$4.5	\$3.4	2,643	19,877	WARRANTY															
Student Athlete Performance Center (Jameson Hall)	\$20.1	\$16.5	8,280	18,765	WARRANTY															
Improve Kentland Facilities (Phase II) -- Various Locations	\$12.5	\$10.1	28,403		WARRANTY															
Creativity & Innovation District Living Learning Community	\$105.5	\$85.3	232,000																	
Gas-Fired Boiler at Central Steam Plant	\$8.2	\$3.8	N/A																	
Chiller Plant Phase II	\$42.9	\$32.7	N/A																	
Holden Hall Renovations	\$74.9	\$58.5	82,905	20,240																
Data & Decision Sciences Building (D&DS)	\$79.0	\$58.9	120,000																	
Livestock & Poultry Research Facilities (Ph I) -- Various Locations	\$22.5	\$18.2	129,100																	
Multi-Modal Transit Facility (Note 1)	N/A	N/A	13,606																	
Corps Leadership & Military Science Building	\$52.0	\$37.9	65,428	8,449																
New Upper Quad Residence Hall	\$40.0	\$32.0	67,876																	
Innovation Campus - Academic Building	\$275.0	\$223.5	299,733																	
Planning: Undergraduate Science Laboratory Building (Note 2)	\$90.5	\$68.3	102,000																	
Dietrick First Floor & Plaza Renovation	\$8.3	\$6.0	6,298	11,960																
Planning: HITT Hall (Note 2)	\$6.0	\$60.0	101,000																	
Student Wellness Improvements (War Memorial Gym & McComas Hall)	\$58.0	\$44.0		217,708																
Life, Health, Safety, Accessibility and Code Compliance	\$3.1	\$2.2																		
Planning: Tennis Center Improvements (Note 2)	\$0.5	\$3.0	7,000	500																
Planning: Randolph Hall Replacement (Design Only) (Note 2)	\$11.0	\$170.0	284,000																	
Global Business & Analytics Complex Residence Halls	\$84.0	\$66.0	160,000		ON HOLD															
TOTALS	\$1,090.2		1,849,858	297,499																

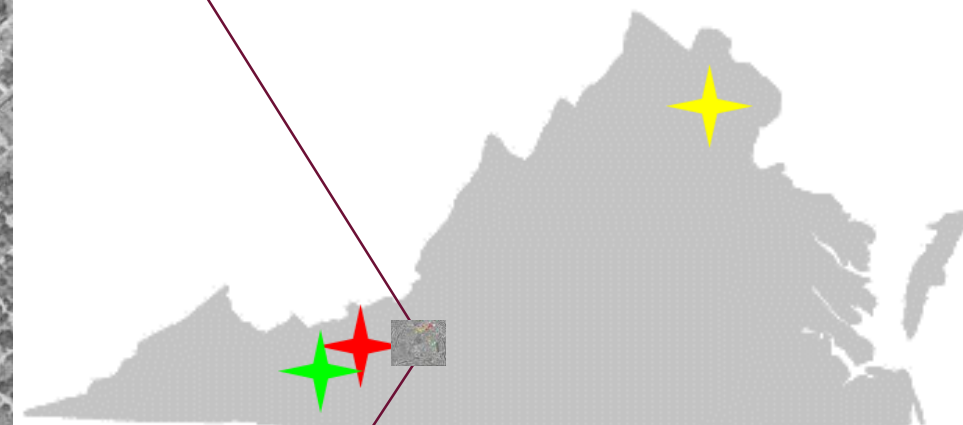
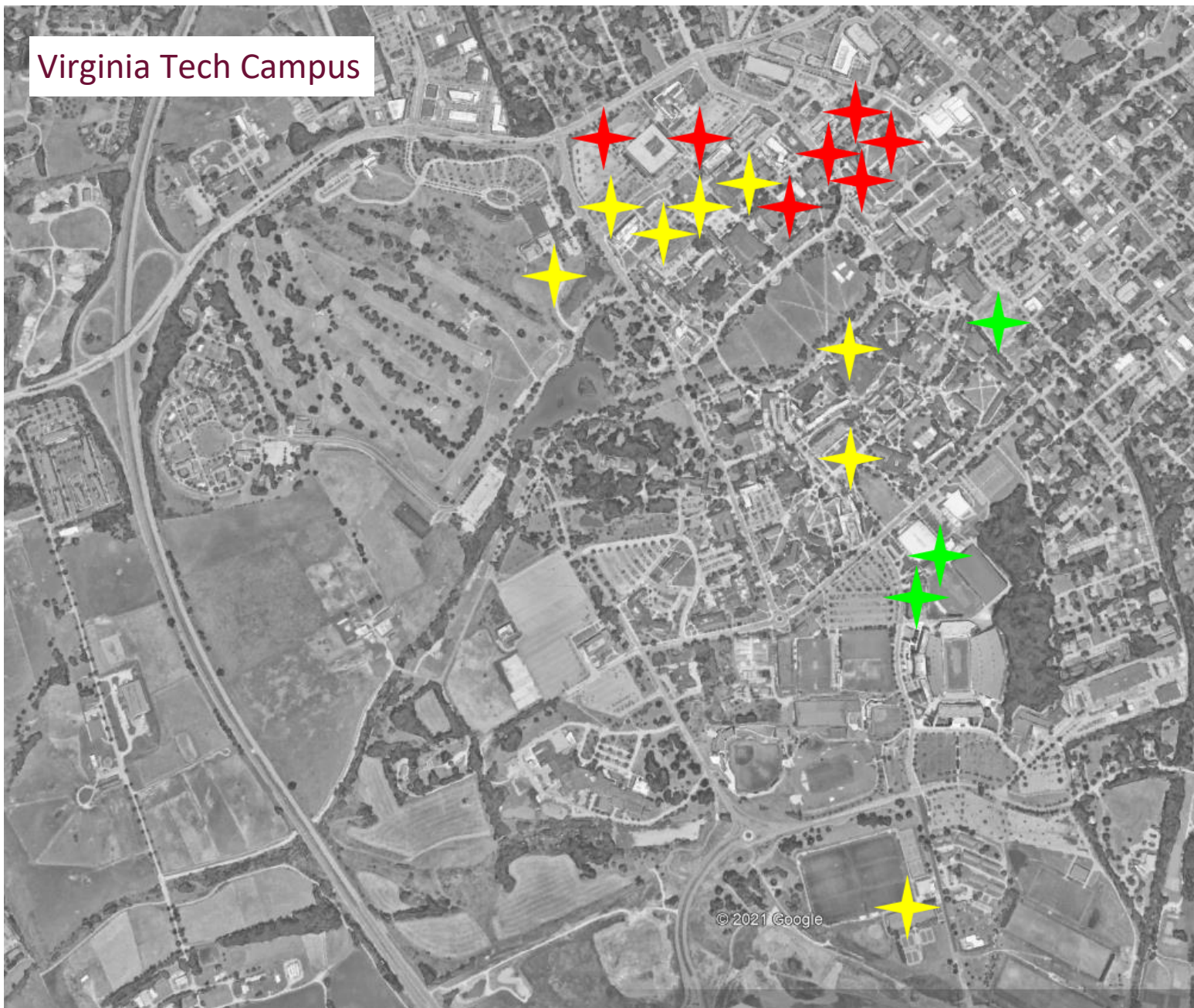
Note 1: Non-VT project
Note 2: Construction not yet authorized; construction dates (where shown) are "earliest possible"

Project Portfolio Distribution






Virginia Tech Campus

Capital Project Portfolio



Legend

-  = In Design
-  = Under Construction
-  = Warranty

Under Construction



Active Construction Projects



Athletic Weight Room Renovations & Expansion



Status:

- Construction complete



Next Actions:

- Conclude warranty period and close-out contract

Design-Bid-Build
BOV Authorized

Legend: <div>Design</div> <div>Construction</div>		Designer: Hanbury										Builder: Thor								
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024			
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC
					FY21		FY22				FY23				FY24				FY25	
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Athletic Weight Room Renovations & Expansion	\$4.5	\$3.4	2,643	19,877	WARRANTY															

Student Athlete Performance Center

Design-Bid-Build
BOV Authorized



Status:

- Construction complete

Next Actions:

- Conclude warranty period and close-out contract

Legend: <div>Design</div> <div>Construction</div>		Designer: Hanbury										Builder: Branch Builds									
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024				
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	
					FY21		FY22		FY23		FY24		FY25								
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Student Athlete Performance Center (Jameson Hall)	\$20.1	\$16.5	8,280	18,765	WARRANTY																

Improve Kentland Facilities (Ph II)

Design-Bid-Build
State
Authorized

APR Building



Complete

MRL Building



Complete

BETR Building



Complete

Status:

- APR Building construction complete
- BETR Building construction complete
- MRL Building construction complete

Next Actions:

- APR Building: Close out contract (warranty period complete)
- BETR Building: Conclude warranty period and close-out contract
- MRL Building: Conclude warranty period and close-out contract

Legend: <div></div> Design <div></div> Construction				Designer: Spectrum Design										Builder(s): APR = Snyder; MRL & BETR = CPPI									
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024						
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC			
					FY21		FY22				FY23				FY24				FY25				
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Improve Kentland Facilities (Phase II) -- Various Locations	\$12.5	\$10.1	28,403			WARRANTY																	

Creativity & Innovation District LLC

Design-Build
BOV Authorized



Status:

- Project complete



Next Actions:

- Address punch list items and close out contract

Legend: <div>Design</div> <div>Construction</div>						Designer: Hanbury										Builder: WM Jordan									
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) (Construction contract value)	Construction Unit Cost (\$/SF)	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024							
						JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC				
						FY21		FY22				FY23				FY24				FY25					
						Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2				
Creativity & Innovation District Living Learning Community	\$105.5	\$85.3	\$367.59	232,000																					

Gas-Fired Boiler at Central Steam Plant



Design-Bid-Build
BOV Authorized

Status:

- Project on track (99% complete)

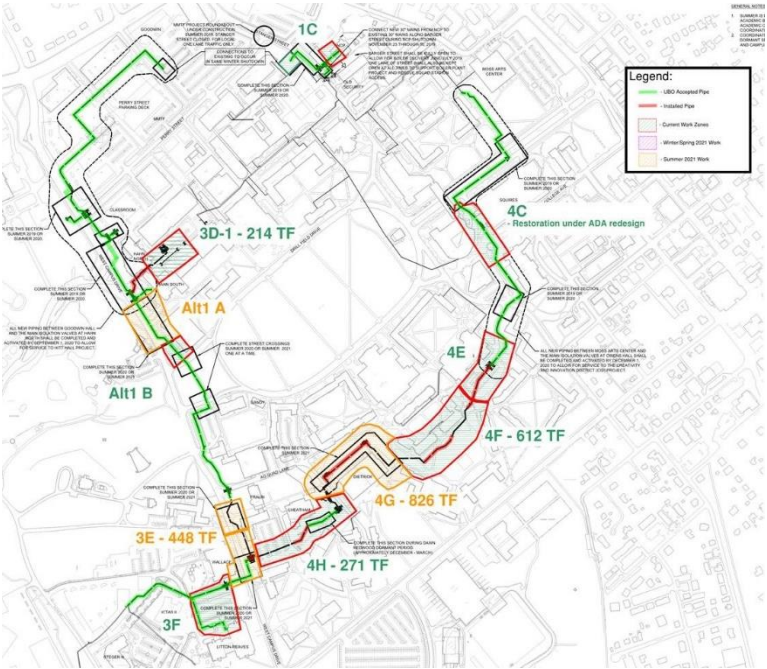
Next Actions:

- Resolve DEQ boiler permit for alternative fuel source (fuel oil)

Legend: <div></div> Design <div></div> Construction				Designer: AEI										Builder: Southern Air									
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	CY 2021					CY 2022				CY 2023				CY 2024					
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC			
					FY21		FY22				FY23				FY24				FY25				
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Gas-Fired Boiler at Central Steam Plant	\$8.2	\$3.8	N/A																				

Chiller Plant (Phase II)

Design-Bid-Build
State Authorized



Status:

- Project on track (90% complete)

Next Actions:

- Anticipated completion in September 2021

Legend: <div></div> Design <div></div> Construction		Designer: AEI										Builder: Faulconer									
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024				
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	
					FY21		FY22				FY23				FY24				FY25		
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Chiller Plant Phase II	\$42.9	\$32.7	N/A																		

Holden Hall Renovations



CM at Risk
State Authorized

Status:

- Project on track (72% complete)

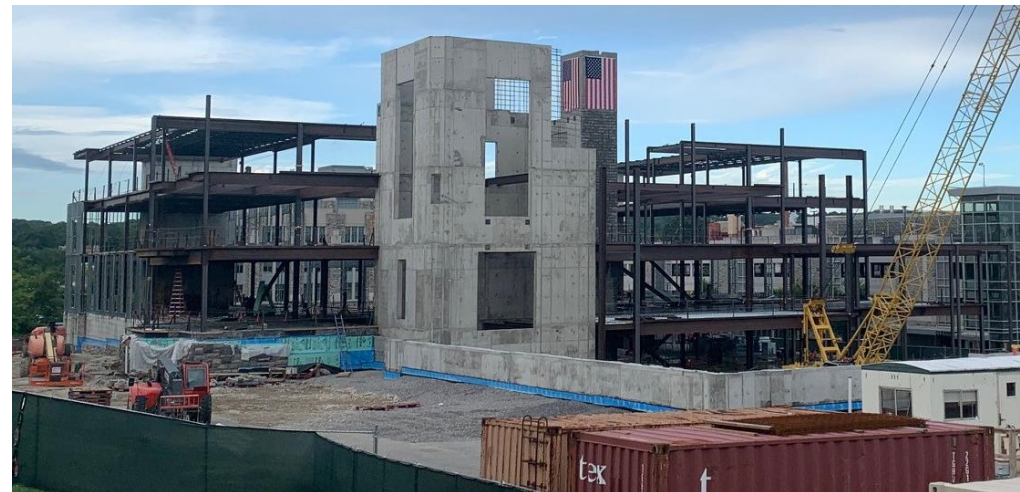
Next Actions:

- Anticipated completion in January 2022

Legend: <div>Design</div> <div>Construction</div>		Designer: Moseley										Builder: WM Jordan									
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024				
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	
					FY21		FY22				FY23				FY24				FY25		
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Holden Hall Renovations	\$74.9	\$58.5	82,905	20,240																	

Data & Decisions Sciences Building

CM at Risk
State Authorized



Status:

- Project on track (20% complete)

Next Actions:

- Anticipated completion in April 2023

Date Prepared: 27 APR 2021

Legend:	 Design	 Construction
---------	---	---

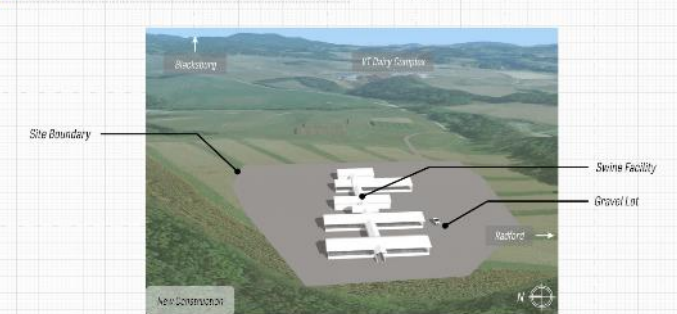
Designer: Moseley

Builder: Kjellstrom & Lee

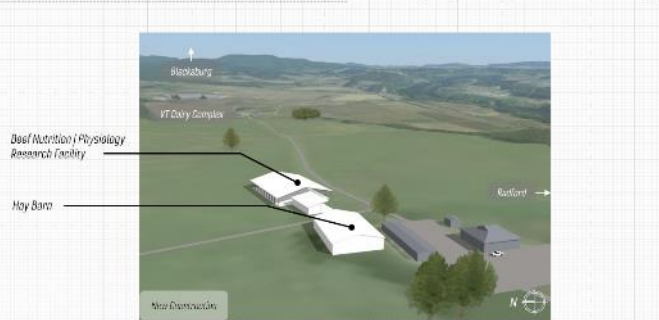
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) (Construction contract value)	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024			
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC
					FY21		FY22		FY23		FY24		FY25		FY26		FY27		FY28	
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Data & Decision Sciences Building (D&DS)	\$79.0	\$58.9	120,000																	

Livestock & Poultry Research Facilities (Ph I)

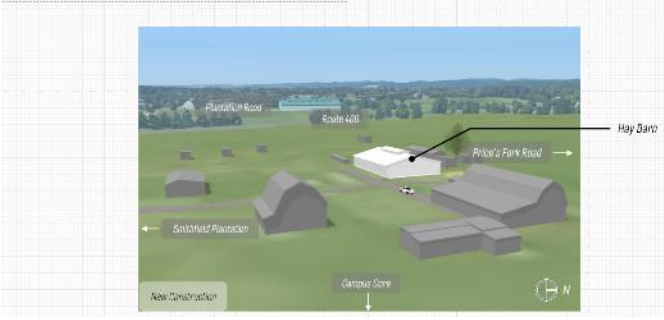
■ Kentland Farm - New Construction: Swine Facility



■ Kentland Farm - New Construction: Beef Nutrition | Physiology Research Facility

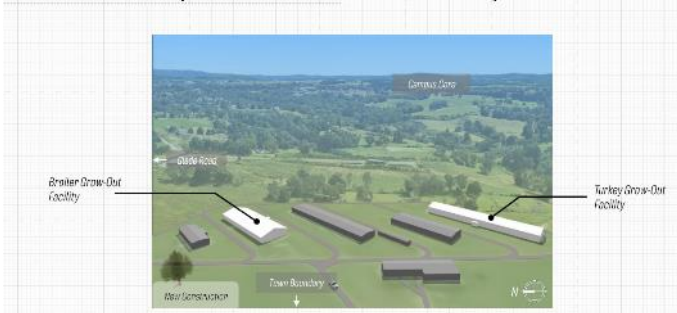


■ Smithfield Horse Center - New Construction: Hay Barn



Design-Bid-Build
State Authorized

■ Glade Road Poultry Center - New Construction: Poultry Grow-Out Facilities



■ Plantation Road Corridor - New Construction



Status:

- Construction underway on 4 of 6 bid packages:
Poultry: 14% complete Swine: 11% complete
Equine: 15% complete Beef: 11% complete

Next Actions:

- Packages for 3 hay barns and demolition under development and construction funding may requested in State's 2022 capital budget call

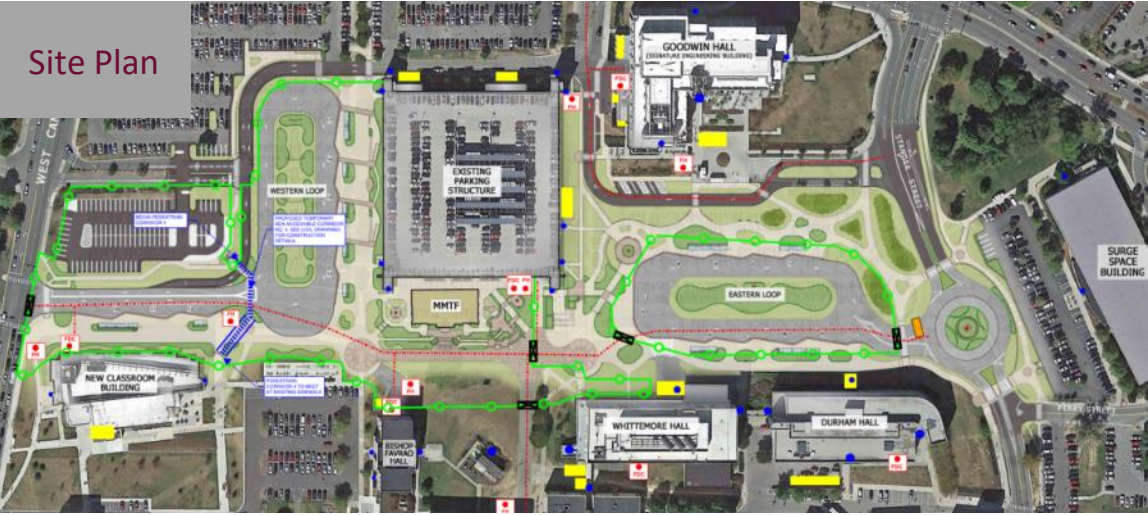
Legend:	<div></div> Design	<div></div> Construction
---------	--------------------	--------------------------

Designer: Spectrum Design

Builder: (Various)

Project Title	Total Project Budget (\$M)	Construction Budget (\$M) (Construction contract value)	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024			
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC
					FY21		FY22		FY23				FY24				FY25			
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Livestock & Poultry Research Facilities (Ph I) -- Various Locations	\$22.5	\$18.2	129,100																	

Design-Bid-Build
Town of Blacksburg (ToB) Project



Status:

- Construction underway (4% complete)

Next Actions:

- Anticipated completion in April 2023

Legend: <div>Design</div> <div>Construction</div>		Designer: Wendel (ToB contract)										Builder: WM Schlosser (ToB contract)									
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024				
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	
					FY21		FY22		FY23		FY24		FY25								
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Multi-Modal Transit Facility	N/A	N/A	13,606																		

Corps Leadership & Military Science Building

CM at Risk
BOV Authorized



Status:

- Project on track (8% complete)

Next Actions:

- Anticipated completion in July 2023

Legend: <div>Design</div> <div>Construction</div>				Designer: Clark-Nexsen										Builder: Vannoy									
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	CY 2021					CY 2022				CY 2023				CY 2024					
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC			
					FY21		FY22				FY23				FY24				FY25				
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Corps Leadership & Military Science Building	\$52.0	\$37.9	65,428	8,449																			

New Upper Quad Residence Hall



CM at Risk
BOV Authorized

Status:

- Construction contract awarded and underway

Next Actions:

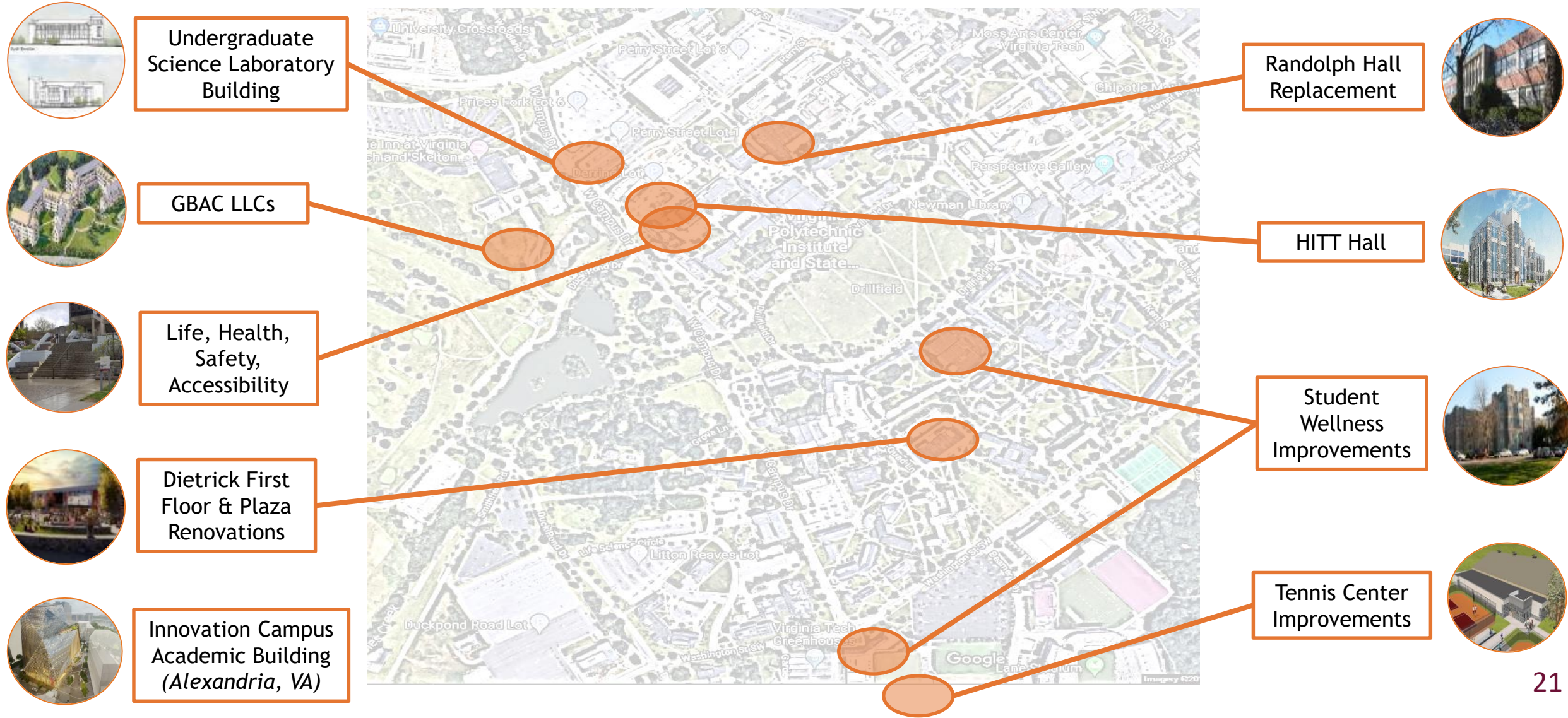
- Anticipated completion in August 2023

Legend: <div>Design</div> <div>Construction</div>		Designer: Clark-Nexsen										Builder: Vannoy									
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	Construction Unit Cost (\$/SF)	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024			
						JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC
						FY21		FY22				FY23				FY24				FY25	
						Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
New Upper Quad Residence Hall	\$40.0	\$32.0	\$471.45	67,876																	

In Design



Projects In Design



Innovation Campus-Academic Building



CM at Risk
State Authorized

Status:

- Working Drawings underway

Next Actions:

- Construction expected to begin September 2021

Legend: <div>Design</div> <div>Construction</div>		Designer: SmithGroup										Builder: Whiting-Turner									
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024				
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	
					FY21		FY22				FY23				FY24				FY25		
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Innovation Campus - Academic Building	\$275.0	\$223.5	299,733																		

Undergraduate Science Lab Building

CMAR
State Authorized



Status:

- Design is complete
- General Assembly approved full construction authorization

Next Actions:

- Construction procurement underway

Legend: Design Construction		Designer: ZGF										Builder: Skanska									
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	Construction Unit Cost (\$/SF)	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024			
						JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC
						FY21		FY22				FY23				FY24				FY25	
						Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Undergraduate Science Laboratory Building	\$90.5	\$68.3	\$669.98	102,000																	

Dietrick Renovation



Design-Bid-Build
BOV Authorized

Status:

- Bids received on May 8, 2020 were over budget
- Implementing improvements to Dietrick Hall within approved budget and outdoor plaza through private support as a non-capital project
- Both projects to be executed under a single construction contract

Next Actions:

- A/E finalize bid documents for re-procurement

Legend: <div></div> Design <div></div> Construction		Designer: Hanbury										Builder: TBD										
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	Construction Unit Cost (\$/SF)	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024				
						JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	
						FY21		FY22				FY23				FY24				FY25		
						Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Dietrick First Floor & Plaza Renovation	\$8.3	\$6.0	\$328.62	6,298	11,960																	

Planning: Hitt Hall



CM at Risk
BOV Authorized

Status:

- Preliminary Design complete
- Pricing estimate under review

Next Actions:

- Transition to Working Drawings phase in Aug 2021
- Construction start targeted for Jan 2022

Legend: <div>Design</div> <div>Construction</div>		Designer: Cooper Cary										Builder: W M Jordan									
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024				
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	
					FY21		FY22		FY23		FY24		FY25								
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Planning: HITT Hall	(Note 1)	\$6.0	\$60.0	101,000																	

Student Wellness Improvements

CM at Risk
BOV Authorized



Status:

- GMP received July 15, 2020 was over budget
- Redesigning scope to fit within authorized budget

Next Actions:

- Construction pricing expected by March 2022

Legend: <div>Design</div> <div>Construction</div>		Designer: Cannon Design										Builder: Whiting-Turner									
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024				
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	
					FY21		FY22				FY23				FY24				FY25		
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Student Wellness Improvements (War Memorial Gym & McComas Hall)	\$58.0	\$44.0	N/A	217,708																	

Life, Health, Safety, Accessibility & Code Compliance

Design-Bid-Build
State Authorized



Status:

- Schematic Design under review

Next Actions:

- Transition to Preliminary Design and prepare PD cost estimates

Legend: <div>Design</div> <div>Construction</div>		Designer: Quinn Evans																Builder: TBD			
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024				
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	
					FY21		FY22		FY23				FY24				FY25				
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Life, Health, Safety, Accessibility and Code Compliance	\$3.1	\$2.2	N/A																		

Planning: Tennis Center Improvements

Design-Bid-Build
BOV Authorized



Status:

- Working Drawings phase underway

Next Actions:

- BOV construction authorization pending completion of private fund raising campaign

Legend: <div><div></div> Design</div> <div><div></div> Construction</div>		Designer: Tymoff & Moss										Builder: TBD									
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024				
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	
					FY21		FY22				FY23				FY24				FY25		
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Planning: Tennis Center Improvements	(Note 1)	\$0.5	\$3.0	7,000	500																

Planning: Randolph Hall Replacement

CMAr
State Authorized



- Status:
- Project authorized for preliminary design only
 - A/E and CMAr procurements are underway

- Next Actions:
- Finalize A/E and CMAr procurements
 - Advance Schematic Design phase

Legend: <div></div> Design <div></div> Construction		Designer: TBD										Builder: TBD									
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024				
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	
					FY21		FY22				FY23				FY24				FY25		
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Planning: Randolph Hall Replacement (Design Only) (Note 1)		\$11.0	\$170.0	284,000																	

Global Business & Analytics Complex Residence Halls

Design-Bid-Build
BOV Authorized



Status:

- Acquisition strategy is shifting; exploring alternative delivery methods

Next Actions:

- Determine appropriate course of action for project

Legend: <div>Design</div> <div>Construction</div>				Designer: TBD										Builder: TBD									
Project Title	Total Project Budget (\$M)	Construction Budget (\$M) <i>(Construction contract value)</i>	New Const (GSF)	Renovation (GSF)	CY 2021				CY 2022				CY 2023				CY 2024						
					JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC			
					FY21		FY22		FY23		FY24		FY25										
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
Global Business & Analytics Complex Residence Halls	\$84.0	\$66.0	160,000		ON HOLD																		



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 Method Refresher

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

<https://vtx.vt.edu/articles/2021/08/sa-080221-newresmodel.html>

<https://www.gallup.com/education/328961/why-higher-education-lead-wellbeing-revolution.aspx>

A Glimpse into Life at The Hokie Student Life Village—Imagine.

Imagine the palpable energy you feel when you cross the threshold into Virginia Tech's new Student Life Village. As you approach the center green, a mini-drill field, you spot a diversity of activity out of every corner of your sight. On the green, there's an impromptu soccer match between several groups of residence hall students, both teams sporting their residential college intramural jerseys. Although you live in the Village and are returning from a meeting with your academic advisor in Goodwin Hall, you have many stops to make before you land in your room, beginning with a late lunch with your best friend at the Village Well-being café. After a healthy lunch, the two of you are off for a quick workout and shower at the gym, followed by your senior capstone course taught in a seminar room of your residence hall. A surprising routine that's developed for you is stopping by the interfaith chapel, a technology-free zone, for a moment of calm and quiet that has become a powerfully centering moment for you.

The thing you love most about the Student Life Village is that it's been your home hub for three years. After a year in Pritchard Hall, the Student Life Village attracted you to stay on campus a second year and you've never left. Because the Village is a diversity of students from all classifications, including a few graduate students, it feels like a place for everyone. You especially love that three faculty members live "in-residence" in the Village—one of whom has become a personal mentor. In fact, conversations with her led you to add a pathways minor in "ecosystems for human well-being." You feel grateful for an overall environment that has emphasized "well-being" in so many ways and aided in your discovery of this personal passion.

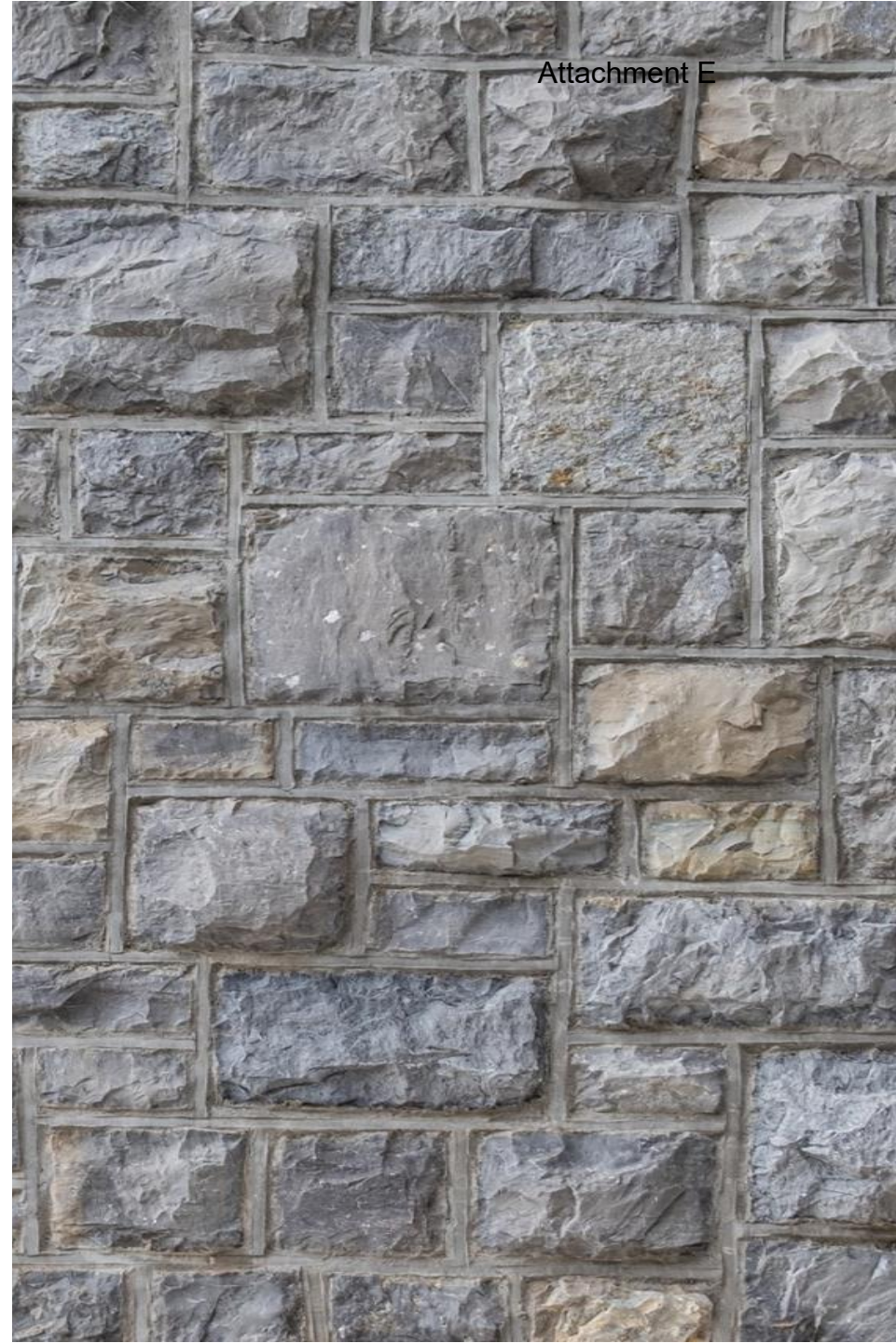
It's hard to go anywhere in the Village without seeing a dozen people you know by name. Although you lived in a typical-sized room with a friend for two years, you're excited about your transition into an apartment-style suite with a single room and two other seniors next year. Not having to leave your building and living-learning community, but "upgrading" your housing makes staying connected to the community you love a really special way to conclude your undergraduate years at Virginia Tech. Your best friend also lives in the Village, but he found his place with his fraternity that occupies a section of an adjacent residential building. It's been a blast to watch away Hokie football games in his fraternity's chapter room. He loves coming to weekly events in your living-learning community. You both love jogging the "Village Loop Trail" and always running into dozens of friends.

When you think about coming to Virginia Tech just three short years ago, it's hard to express the growth you've experienced. In reflecting back, you realize having the "community home base" of the Student Life Village has given you the courage to explore so many things. While Virginia Tech is a big university by all accounts, it sure feels small to you. In a moment of recognition, you finally "get" what you heard at first-year orientation about Virginia Tech creating "beyond boundaries environments." The Student Life Village created a home for you that facilitated your holistic development, helped you find mentors, and ensured that you'd develop diverse friendships with people studying the most fascinating things represented every corner of the university. While you'll be getting a degree in a year, you know you'll also receive a powerful and transformative education that will serve you for a lifetime.

Update on Climate Action, Sustainability, and Energy Initiatives



DIVISION OF CAMPUS PLANNING,
INFRASTRUCTURE, AND FACILITIES
VIRGINIA TECH.



Sustainability Annual Report Highlights

- Primary vehicle for reporting progress on Climate Action Commitment and sustainability goals
- 11 consecutive years of annual reports available on our website
 - <https://fal.cn/annualreports>
- Developed in partnership with 50 student, campus, and community organizations
- Full 2020-21 SAR coming in November 2021

SUSTAINABILITY

2019-20 ANNUAL REPORT



Awards and Recognition

- STARS - Gold Rating
 - Highest in Virginia
 - Highest in ACC
- Tree Campus Higher Ed - 13th year
- Princeton Review Guide to Green Colleges - 11th year
- Time Higher Education (THE) Impact Rankings
 - Global Top 200
 - SDG 6: Clean Water and Sanitation (#101-200)
 - SDG 11: Sustainable Cities and Communities (#101-200)
 - Global Top 25
 - SDG 12: Responsible Consumption and Production (#23)

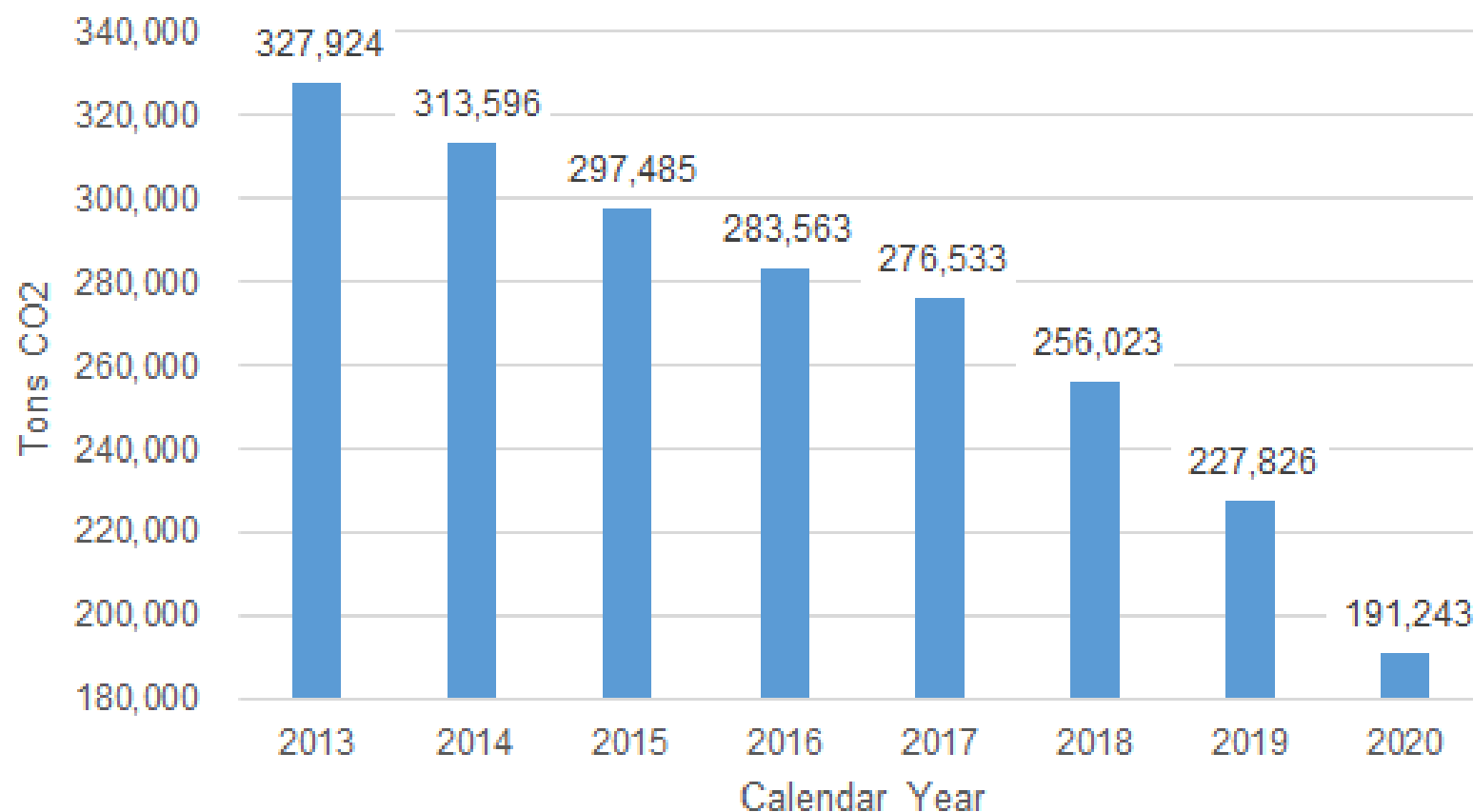




Sustainability Programs and Highlights

- Award-Winning Student Internship Program
- Green Office Certification
 - 9 certified offices across multiple Virginia Tech campuses
 - 30 Green Representatives identified
- New - Green Lab Certification
- Green Grads - 110+ participants
- One of the largest Earth Weeks in Virginia Tech history with over 40 events

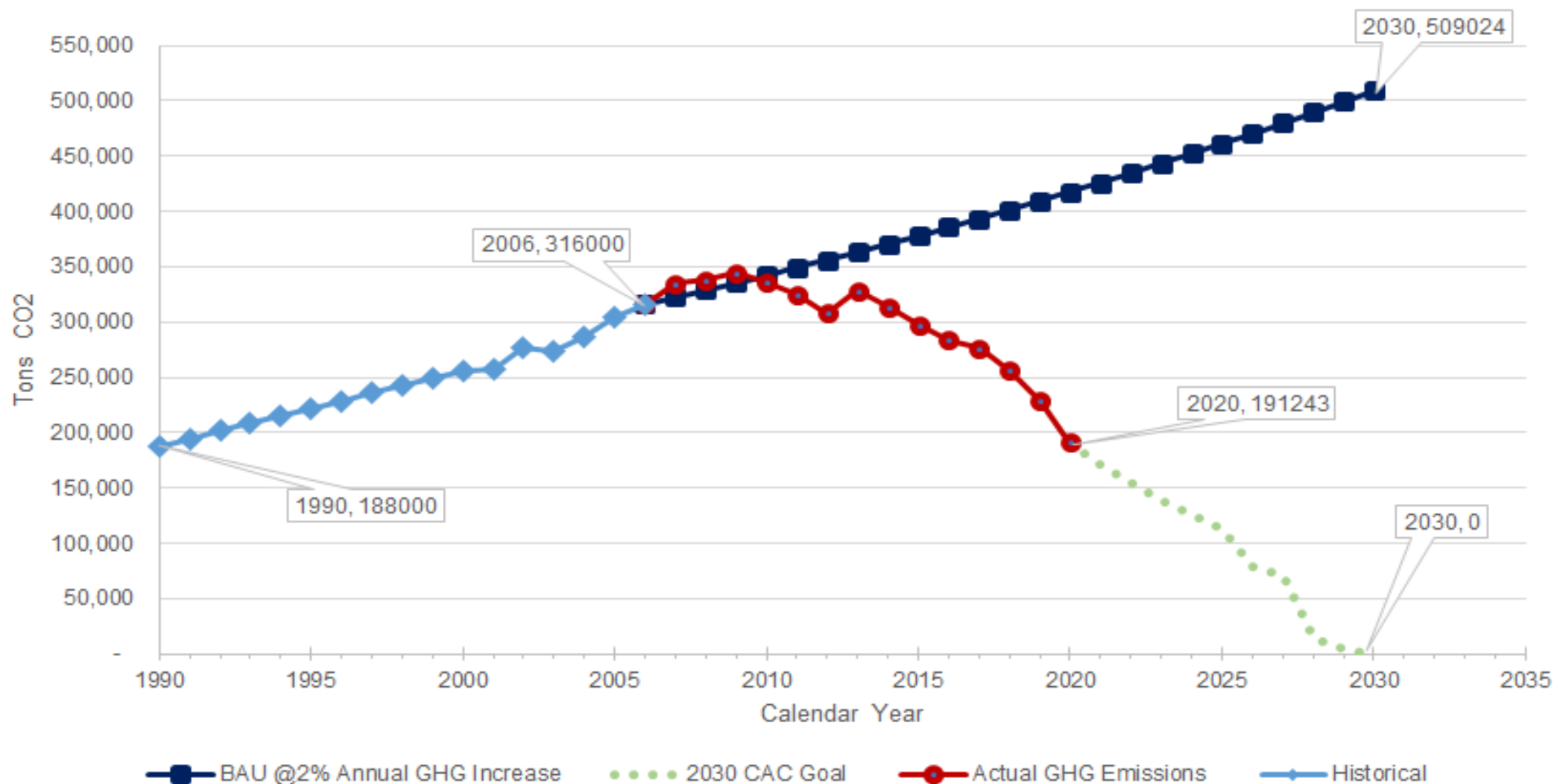
Annual CO2 Emissions



CY2020 shows a 14 percent decrease in total emissions compared to CY2019.



Carbon Footprint and Climate Action Commitment Goals



Climate Action Commitment Progress to Date

The [2020 Virginia Tech Climate Action Commitment](#), was approved by the BOV in March 2021, and sets the university on a path to carbon neutrality by 2030.

Other recommended actions in the commitment include:

- Achieve 100% renewable electricity by 2030
- Achieve a zero-waste campus by 2030
- Reduce transportation related GHG emissions by 40% by 2030
- Reduce building energy consumption
- Establish a Climate Action Living Laboratory to enhance educational opportunities



Climate Action Commitment Progress to Date

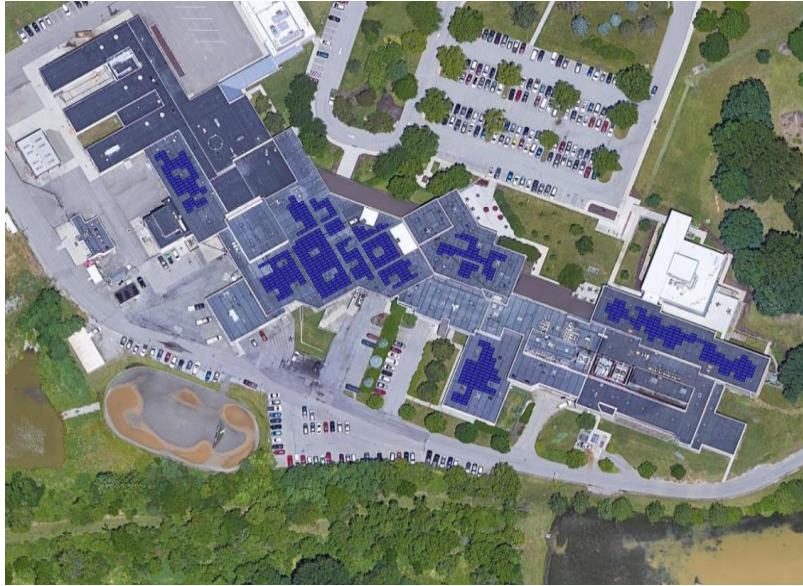
Shortly after the BOV approved the 2020 Climate Action Commitment, a Working Group was formed to develop implementation guidelines. This group met weekly for most of the summer, ending in early August.

The new [implementation guidelines](#) are delivering detailed pathways for achieving each of the 15 tenets in the 2020 commitment.

Achieve 100% Renewable Electricity by 2030

Attachment E

Vet Med
312 kW
426,266 kWh/yr



McComas Hall
281 kW
385,413 kWh/yr



Sterrett Facility Complex
484 kW
664,629 kWh/yr



VT Electric Service
330 kW
396,657 kWh/yr

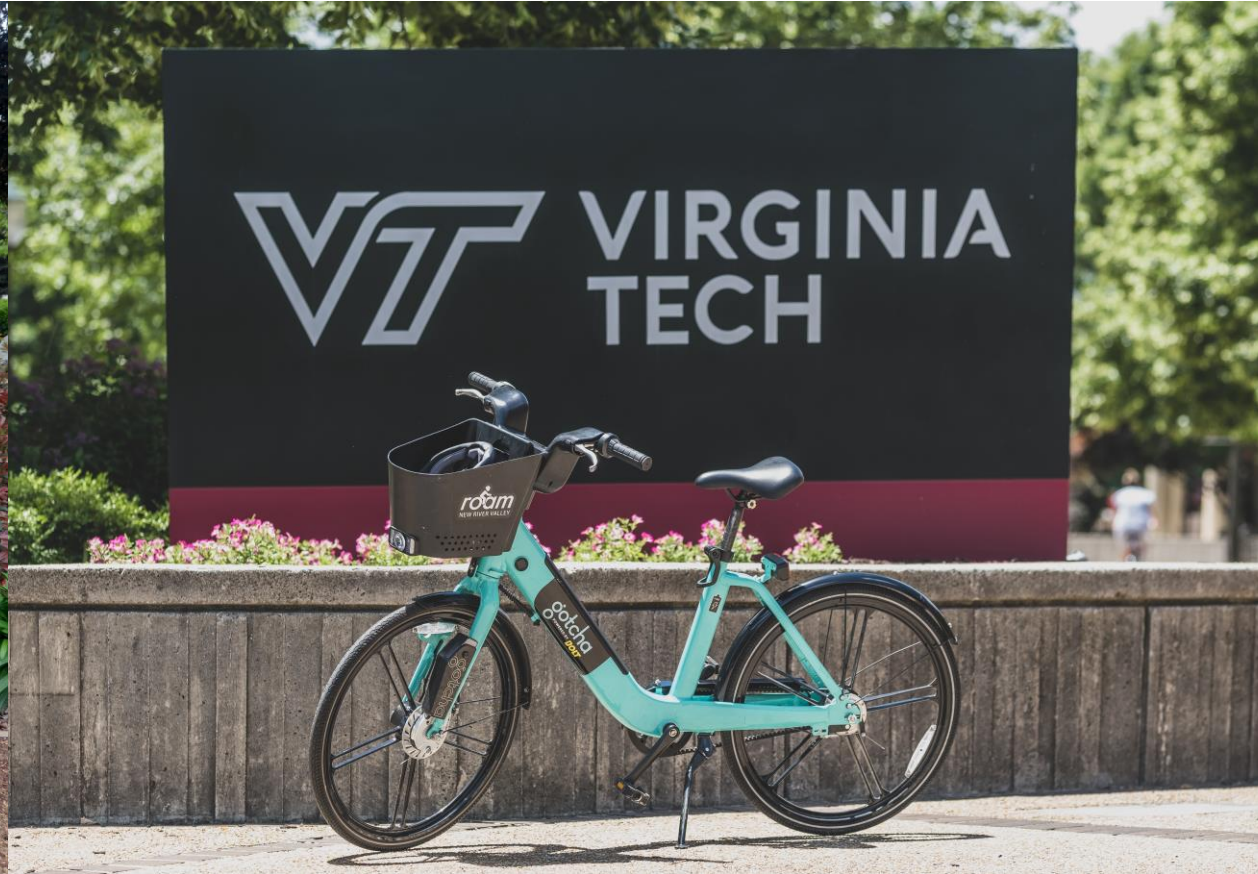


Achieve a Zero Waste Campus by 2030

- Cross-campus working group established to respond to EO-77 submitted initial implementation plan
- Student Green RFP approved to pilot compostable straws and utensils as replacements for single use plastic
- \$50,000 approved for Waste Management Consultative Services
- Calendar Year 2020 Recycling Rate = 38.1%
- Calendar Year 2020 Waste Diversion Rate = 85.2%



Reduce Transportation Related GHG Emissions by 40% by 2030



Total Emissions

Campus commuting
total 17,820
mtCO₂e

BT Bus System =
3,029 mtCO₂e

Fleet and aviation
fuels and business
air travel total
13,809 mtCO₂e

*data from 2019
GHG Inventory &
Assessment Report

Three level 2 charging stations from ChargePoint are in the Squires lot.

The bike share system relaunched in June with 150 e-bikes across hubs at Virginia Tech and in Blacksburg, Christiansburg, and Montgomery County. This represents a doubling of the fleet size, with six new hubs on campus to accommodate the additional bikes. Users should find the system more convenient to use, helping to encourage non-SOV modes. We will continuously log the miles to estimate the equivalent GHG displaced.

Reduce Building Energy Consumption

- Key activities:
 - Campus wide lighting audit complete; campus wide LED conversion underway
 - Ramping up HVAC retro-commissioning and BAS modernization
 - Chilled water plant and distribution system upgrades and optimization
 - LEED O+M Recertification Program - measurement for high performance buildings



Establish a Climate Action Living Laboratory to Enhance Educational Opportunities

Attachment E

Learning Factory Solar Array

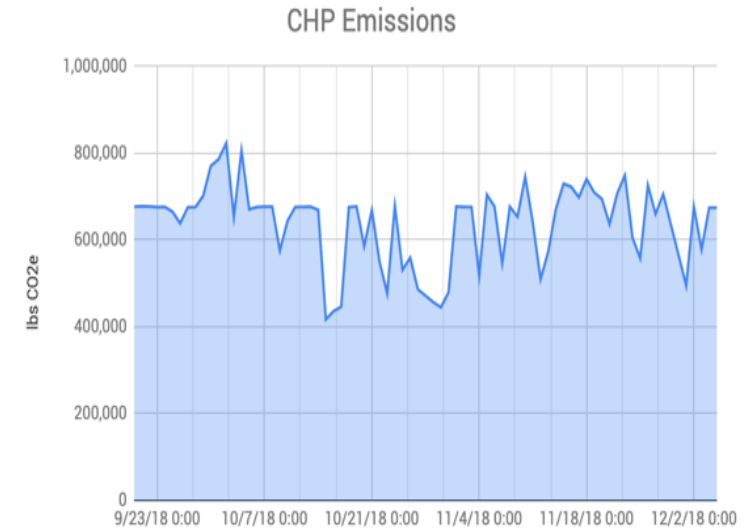


9 panel array on top of Durham Hall which was completed as part of an ISE senior design project.

The Learning Factory has a net zero carbon footprint!

[LF Solar Output](#)

Classroom Exercises: Carbon Emissions



Virginia Tech's new PI Server will provide real-time high resolution interval data of:

1. Power Plant and VTES
2. On Campus Renewables
3. AEP Grid Connection

This will allow for a student exercise in a multidimensional time series analysis of Virginia Tech's carbon emissions (lbs CO₂e)

<https://fal.cn/DSASubsiary>

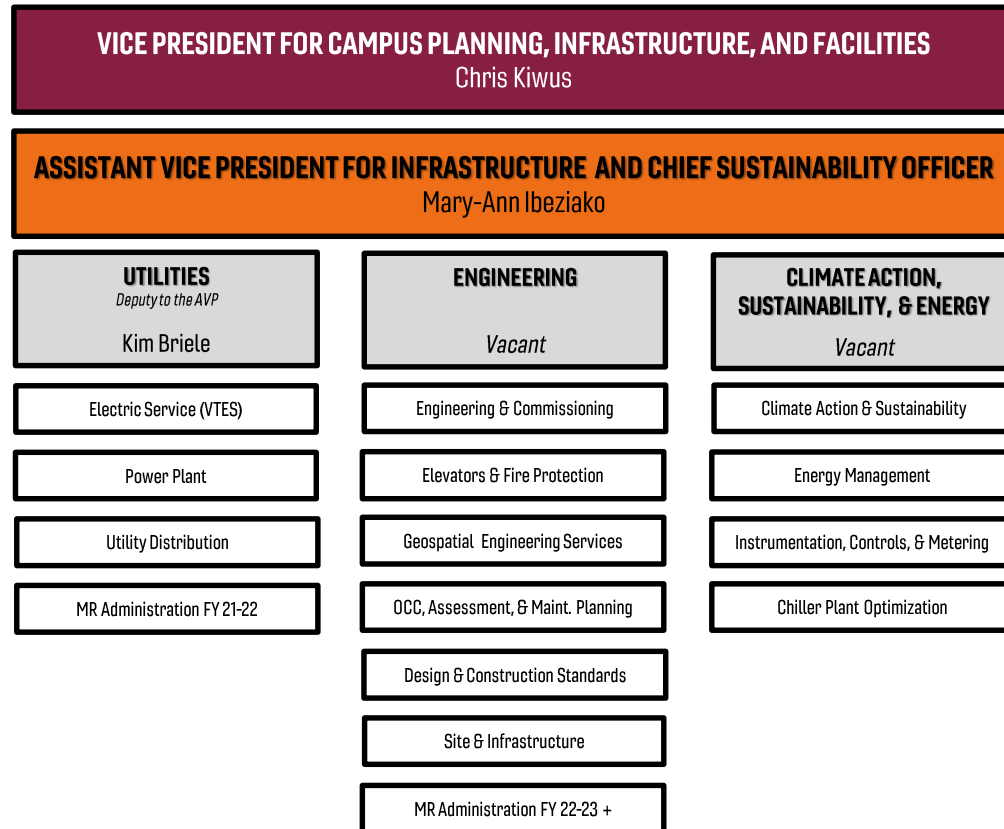
2020 Climate Action Goals and Progress: Engagement Process Through Fall Semester

- Gaining broad institutional support through Climate Action Commitment "road shows" with approximately 30 meetings planned with key stakeholders
- Partnering with the Provost's Office, college deans, and select department heads to advance Climate Action Living Laboratory (CALL)
- 65 potential CALL core faculty invited to a workshop/retreat to achieve CALL objectives:
 - Improve climate change/climate action curriculum,
 - Integrate campus physical Climate Action Commitment projects into the educational mission, and
 - Utilize faculty/student expertise to help develop strategies for Climate Action Commitment physical and non-physical goals.

2020 Climate Action Goals and Progress: Organizational Changes

- Division of Campus Planning, Infrastructure, and Facilities reorganization:
- New roles:
 - Assistant Vice President for Infrastructure and Chief Sustainability Officer: **MARY-ANN IBEZIAKO**
 - Director of Climate Action, Sustainability, and Energy: **NEW POSITION, SEARCH UNDERWAY**
 - Senior Fellow for Climate Action (interim): **JOHN RANDOLPH**
 - Assistant Vice President for Operations: **WENDY HALSEY**

Climate Action, Sustainability, and Energy (CASE) Team



- Nathan King - Campus Sustainability Manager
- Emily Vollmer - Sustainability Coordinator
- Yugasha Bakshi - Graduate Assistant
- Michael Bell - Graduate Assistant
- Jack Leff - Graduate Assistant
- 20 Student Interns
- Hundreds of student volunteers through various clubs and programs



Thank You!

Questions?



Update on Agricultural Facilities Planning and Construction

Alan L. Grant, Ph.D.

Dean of the College of Agriculture and Life Sciences

Michael R. Evans, Ph.D.

Director and Professor

School of Plant and Environmental Sciences

August 30, 2021





NEWS AND NOTES

PROJECT UPDATES

- Livestock and Poultry Research Facilities (LPRF)
 - Phase I Underway: New Swine, Beef Nutrition, Turkey, Broiler, Equine, Hay Barns and Equipment Storage shed to be completed spring/summer 2022. 16 buildings to be demolished.
 - Phase 2 being requested. Scope to include new facilities for beef cattle, equine, sheep, and poultry programs.



NEWS AND NOTES

PROJECT UPDATES

- Human and Agricultural Biosciences Building II
 - Future home of School of Plant and Environmental Sciences research programs
 - Faculty currently utilizing leased space at Corporate Research Center as short-term solution
 - CALS to re-engage Architect of Global Systems Science for updated feasibility study to downsize GSS to HABB-II in preparation for capital request to General Assembly

NEWS AND NOTES

PROJECT UPDATES

- Virginia Seafood AREC – New Building
 - Project is on schedule for completion prior to winter break
 - Open House event being planned for Spring 2022
 - VT Coastal Collaborator space acquired
- AREC Connectivity efforts
 - Expanding fiber optic network to additional buildings
 - SmartFarm initiative growth

Innovative Agriculture Centers in the School of Plant and Environmental Sciences

Michael R. Evans

Director and Professor, School of Plant and Environmental Sciences
Virginia Tech, Blacksburg, VA



Controlled Environment Agriculture Innovation Center (CEA-IC)

Attachment E

at the Institute for Advanced Learning and Research, Danville, VA



Mission of the CEA Innovation Center

- Create an ecosystem around CEA and CEA technologies that brings together Virginia Tech and private sector
- Assist in attracting CEA production companies and allied support companies to Virginia
- Create new CEA technology companies
- Assist in work force development to support CEA companies
- Assist in work force development to prepare citizens to take advantage of CEA job opportunities

Press Releases

State-of-the-Art Hydroponic Greenhouse in Virginia Beach to Create 155 New Jobs

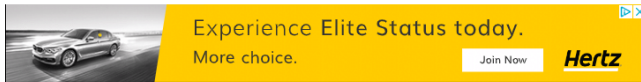
April 20, 2021

RICHMOND—Governor Ralph Northam today announced that startup company Sunny Farms, LLC will invest \$59.6 million to establish a state-of-the-art hydroponic greenhouse for production, workforce development, and research in the City of Virginia Beach. The company's location at Taylor Farms will also house One Matters Inc., a new 501(c)(3), not-for-profit entity that will offer workforce development opportunities for underserved populations. Virginia successfully competed with Florida, Georgia, North Carolina, and South

Daily News-Record

Search... [Search](#)

[Home](#) [News](#) [Opinion](#) [Sports](#) [Features](#) [Obituaries](#) [Photos](#) [Services](#) [Advertise With Us](#) [Classifieds](#) [Jobs](#) [Homes](#) [Public Notices](#) [Events](#) [e-](#)



HOT TOP STORY

Shenandoah Growers To Invest \$100 Million In Va.

By IAN MUNRO Daily News-Record Jun 21, 2019 1

[f](#) [t](#) [e](#) [p](#) [i](#)

HARRISONBURG — Shenandoah Growers, an indoor agriculture company, is undergoing a major expansion to its location in Harrisonburg, which is part of a \$100 million investment in the company's three locations in Virginia over the next year.

The facility, off U.S. 11, packages, receives and ships out produce from the Shenandoah Growers facility off of Koehn Drive, east of Lacey Spring in Rockingham County.

The addition is not for new packaging space, but for agriculture space.

News Updates
Sign up to stay up to date with
Headlines and COVID-19 Updates

[e](#) Enter email address

[Sign up](#)



Press Releases

Greenswell Growers to Establish New Hydroponic Greenhouse in Goochland County

August 12, 2020

RICHMOND—Governor Ralph Northam today announced that Greenswell Growers, Inc. will invest more than \$17 million to establish a new commercial hydroponic greenhouse operation in Goochland County's West Creek Industrial Park. The company will create 27 new jobs in addition to internships and learning opportunities for Goochland County's High School's Career and Technical Education students.

AeroFarms breaks ground on world's largest aeroponic indoor vertical farm

April 30, 2021 - General News

[Print](#) [Email](#) [f](#) [t](#) [+](#)



Coming online in the second quarter of 2022, AeroFarms' next-generation Model 5 farm will be the largest and most technologically advanced aeroponic indoor vertical farm in the world.

NEWARK, N.J.—(BUSINESS WIRE)—AeroFarms, a certified B Corporation and leader in indoor vertical farming, today announced the ground breaking of its second commercial indoor vertical farm in Danville-Pittsylvania County, Virginia.

Elected officials from Pittsylvania County and the City of Danville, along with Virginia Governor Ralph Northam, Virginia Secretary of Agriculture Bettina Ring and other state and community leaders, will join AeroFarms representatives for a groundbreaking ceremony this morning to celebrate the beginning of construction of the 136,000 square foot farm.

produce nearly 3.7 million pounds of leafy greens for three years of full production. The facility will be able to produce local growing operation and will be the fifth of its kind in the state. In addition to donating five percent of its production to area food banks, Virginia's largest food bank.

industry nationwide, and thanks to companies like Greenswell to remain a leader in agricultural innovation," said Governor Northam. "AeroFarms' commitment to vocational training for Virginia students, and utilizing energy from a low carbon grid."



Institute for Advanced Learning and Research, Danville, VA



Greenhouse, Indoor Agriculture and Engineering Facilities



Indoor Vertical Farming Research Racks



Greenhouse-based Indoor Agriculture Research Systems



Attachment E

Optical Sensor Test Bed in Controlled Environment Agriculture Engineering Facility

Innovative Agriculture Technologies Center (IAT)

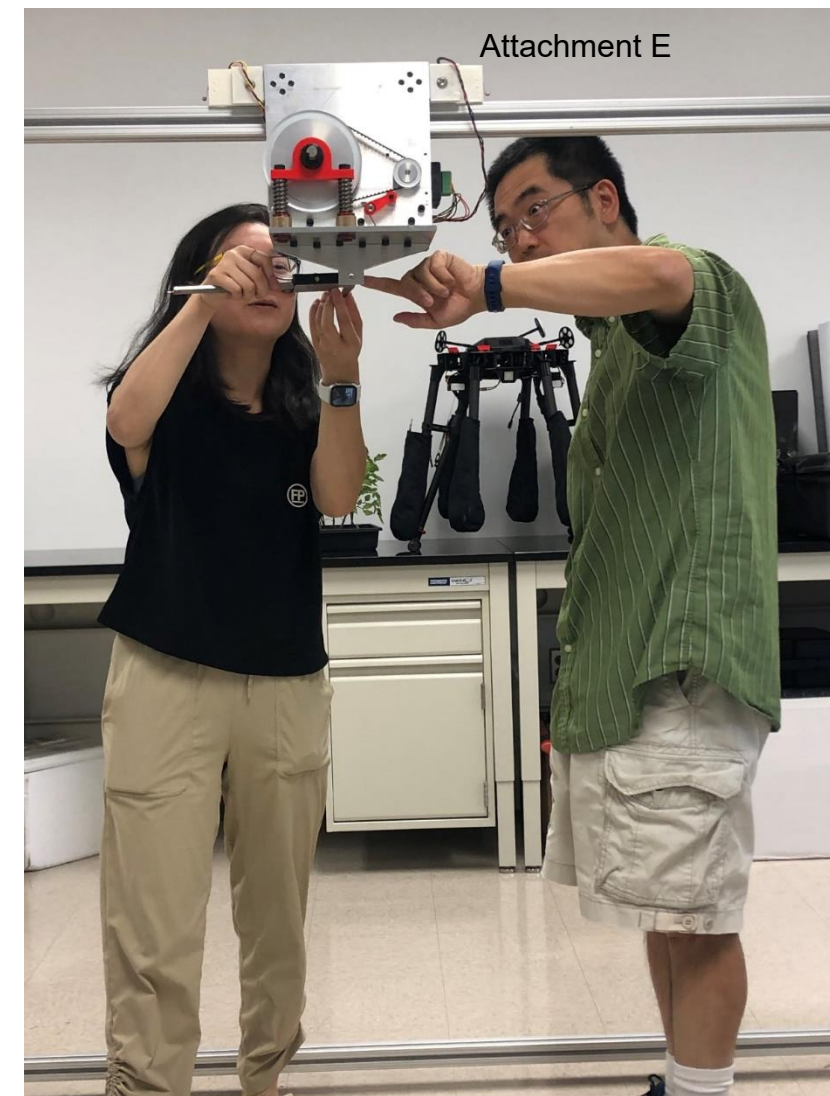
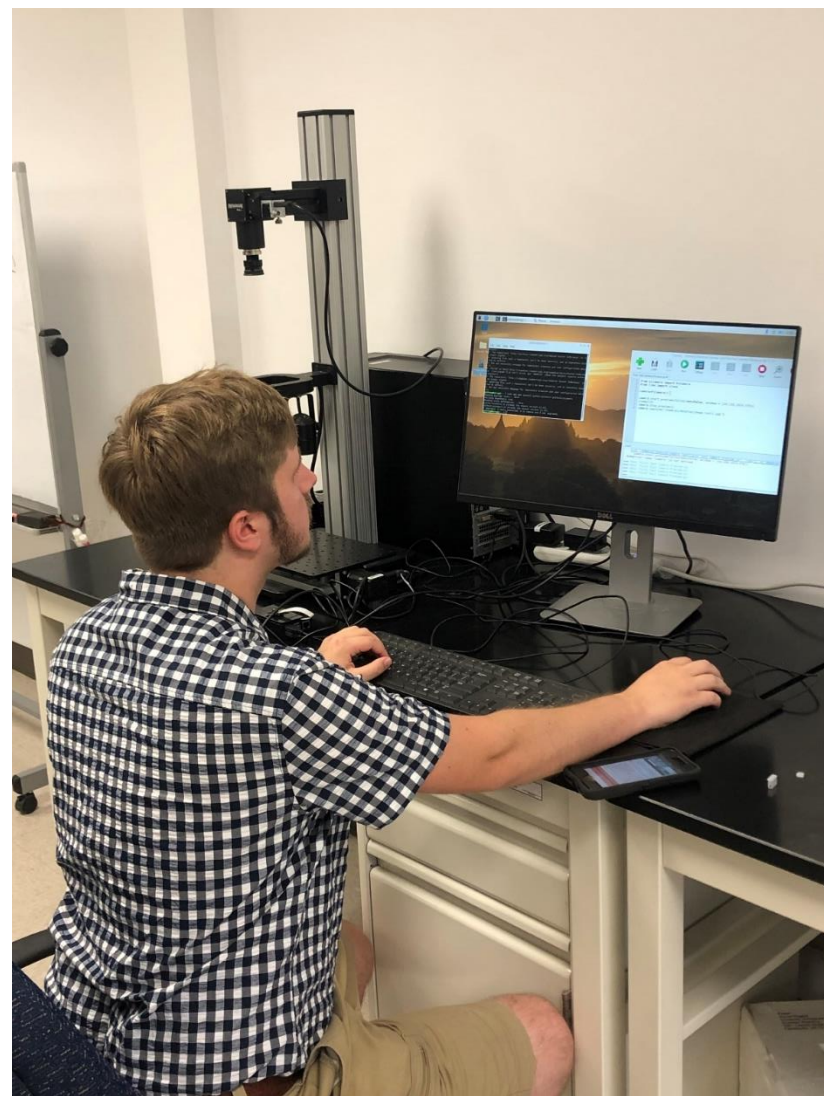
at Virginia Tech Corporate Research Park, Blacksburg, VA



Mission of the Innovative Agriculture Technologies Center (IAT)

Attachment E

- Bring faculty together in one facility to encourage collaboration and increase creative collisions and innovation.
- Create an ecosystem around IAT that brings together Virginia Tech and private sector researchers.
- Assist in attracting IAT companies to Virginia and create new IAT companies.
- Assist in work force development to support IAT companies and prepare citizens to take advantage of IAT job opportunities.



Teams of Faculty and Students Working in IAT Research Labs

THANK YOU!

- Continual progress on capital and non-capital projects
- Virginia Seafood AREC open house event in March 2022
- System-wide AREC tour for BOV and others (to be coordinated with B&G Committee)
- On- and off-campus facilities are open for scheduled visits

PROJECT NAME	PROJECT DESCRIPTION	ESTIMATED TOTAL PROJECT COST	FUND SOURCE	PROJECT TEAMS	CONTRACT COMPLETION DATE	PROJECT STATUS
CAPITAL PROJECTS						
Updates through August 6, 2021						
PROJECTS IN CONSTRUCTION						
Improve Kentland Facilities, Phase II	Applied Reproduction Facility (APR): 4,510 SF barn at Vet-Med for palpation and breeding instruction. Bovine Extension, Teaching and Research (BETR) Facility: 3,500 SF classroom building and 5,100 SF demonstration arena at livestock center on Plantation Road. Metabolic Research Laboratory (MRL): 11,330 SF animal laboratory at the Dairy Center at Kentland Farm.	\$12,463,000	Capital Outlay	Spectrum	Fall 2020	All projects have reached substantial completion and have certificate of occupancy. Minor corrective work is ongoing and owner furnished equiopment installation is in progress.
				Snyder, CPPI		
New Virginia Seafood AREC Building	21,698 SF, 3-story bulding to replace existing aging and structurally unsound facility in Hampton, Virginia with state-of-the-art aquaculture research and extension facilities. Facility owned and developed by Virginia Tech Foundation.	\$9,260,000	Various	RRMM	November 2021	Project is on track. Evaluating options to fund furniture and equipment purchases.
				E.T. Gresham		
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 Broiler &Turkey 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: 3 New Hay Sheds at Smithfield Horse Center, Fields west of US 460, and Heth Farm	\$25,274,000	Capital Outlay	Spectrum	Packages 1-4: Summer 2022	Packages 1-4 are under construction and making good progress. Pkg 5: Design on hold pending funding appeal
				Pkg 1: SIMCON Pkg 2: CPPI Pkg 3: CPPI Pkg 4: Clark Nexsen Pkg 5: TBD		
PROJECTS IN DESIGN						
(none)						
PROJECT INITIATION / PLANNING STAGE						
6-Year Capital Outlay Plan for the 2022-24 biennium	Capital budget requests for six projects: CNRE Center Woods, System-Wide AREC Improvements Phase I, Glade Road Relocation, Livestock and Poultry Research Facilities Phase II, Human and Agricultural Biosciences Building II, and System-Wide AREC Improvements Phase II.	TBD	TBD	TBD	TBD	Scope and budget development.
				TBD		
NON-CAPITAL PROJECTS						
Updates through August 6, 2021						
PROJECTS COMPLETED SINCE LAST REPORT						
<u>Minor Projects (<\$25,000 each):</u> Southern Piedmont AREC Well Pump Backup Generator	Install a new 22kw propane powered emergency generator to run well pump for cattle waterers	\$14,000	CALS / VAES	-	Ongoing	Minor projects listed are complete.
				Multiple		
PROJECTS IN CONSTRUCTION						
<u>Minor Projects (<\$25,000 each):</u> Alson H. Smith Jr. AREC New Hoophouse Eastern Shore AREC Headhouse Boiler Replacement Eastern Shore AREC Fiber Optic Installation Hampton Roads AREC Fiber Optic Installation	Construct a 20' x 48' gable high tunnel hoophouse for horticultural research projects. Replace leaking boiler in Headhouse Install underground fiber optic lines to extend network service to additional buildings (2 residences) Install underground fiber optic lines to extend network service to additional buildings (2 res., 1 office)	\$56,000	CALS / VAES	-	Ongoing	In Progress
				Multiple		
AREC Exterior Signage Upgrades	Installation of 2 new exterior signs at each AREC with refreshed design to match current branding.	\$81,000	CALS / VAES	-	TBD	Signage instation complete at Tidewater, Southwest Virginia, Alson H. Smith Jr., Eastern Virginia, Middleburg, and Shenandoah Valley ARECs. Final design and fabrication pending at others.
				Westview		
Turkey Center Service Building 603 Roof and Misc. Repairs	After leaks were discovered in the roof above new restroom renovation project, building condition assessment determined more extensive work was necessary to preserve building including new roof, gutters, windows, doors, and other misc. repairs	\$151,000	Maintenance Reserve	HDH	July 2021	Delays expected due to roofing materials.
				SRC		
Hampton Roads AREC Repair Bulkhead & Pump House	Existing bulkhead, which protects the freshwater intake, pump system and pump house has deteriorated beyond repair. Project will replace wooden bulkhead with vinyl, and replace deteriorated door and roof on pump house.	\$68,000	Maintenance Reserve	Mattern and Craig	Winter 2021	Contractor secured in April 2021 by purchase order. Permitting complete. Work to be scheduled for fall 2021.
				Colin Marine		
Smithfield Equine Classrom Renovations	Buiding envelope repairs and HVAC upgrade to add cooling, classroom interior enhancements	\$283,000	Maintenance Reserve, various	5 Design	August 2021	Construction in progress. Delay expected due to availability of HVAC equipment.
				Simcon		
Beef Barn Repairs	Exterior and interior demolition followed by the installtion of new roofing, hay loft flooring, doors, windows and lighting. This work was originally included in LPRF Phase 1, but removed due to scope concerns.	\$745,000	Maintenance Reserve	HDH, FEA	TBD	Exterior repairs contracted in May, 2021 but work has not yet begun due to availability of roofing materials. Interior repairs are being designed.
				Thor		

PROJECT NAME		PROJECT DESCRIPTION	ESTIMATED TOTAL PROJECT COST	FUND SOURCE	PROJECT TEAMS	CONTRACT COMPLETION DATE	PROJECT STATUS
Beef Cattle Reproduction Center LED Upgrade	Conversion of existing lighting in Beef Reproduction Barn and Beef Reproducion Shed to LED for enhanced visibility and energy performance.	\$15,000	Energy Management	-	September 2021	Construction in progress.	
				Shively			
PROJECTS IN DESIGN							
Tidewater AREC - Batten Hall waterproofing	Batten Hall (portion of Building 0771) is subject to chronic flooding in basement requiring assesement of waterproofing and mitigation measures.	\$235,000	Maintenance Reserve	WDP Associates	TBD	Project on hold pending drain cleaning by AREC after asbestos abatement.	
				TBD			
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 LPRF Phase 1, but removed due to scope concerns.	\$362,000	Maintenance Reserve	TBD	TBD	Scope review with University Building Official (UBO) is necessary to resolve code requirements and funding eligibility. Project deferred to 2023.	
				TBD			
Southwest Virginia AREC - Exterior Building Repairs	Repair roof, siding and door damage on Tobacco Barns 1 (0749) and 2 (0747), Cattle Barn #5 (0741) and Workshop/Machinery Shed (0742).	\$583,000	Maintenance Reserve	5 Design	TBD	Bidding is in progress	
				TBD			
Eastern Virginia AREC - Experiment Building Renovation	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.	\$180,000	CALS / VAES / Maintenance Reserve	Structures Group	TBD	Design is in progress.	
				TBD			
Eastern Shore AREC - Exterior Building Repairs	Multiple buildings are in need of exterior repairs. Head house (1214) and Shop Building (1215) is in need of structural repairs to walls and repointing. Implement Shed (1216), Sweet Potato Storage (1217), Produce Grading (1218), and Insectary (1220) need exterior waterproofing, door repair, pointing repairs and gutters.	\$160,000	Maintenance Reserve	Structures Group	TBD	Design is in progress.	
				TBD			
Southern Piedmont AREC - Pavement repairs	Existing main parking lots (3) and primary internal roadways are deteriorating and in need of repair. Approximately 1,300 square feet of milling and 8,400 square yards of 2-inch asphalt overlay required.	\$126,000	CALS / VAES	-	TBD	Contractor quote received. Funding options being evaluated.	
				TBD			
Tidewater AREC - Water system repair	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.	TBD	TBD	TBD	TBD	City tap fee received. Obtaining quote for water line installation on private side of meter.	
				TBD			
PROJECT INITIATION / PLANNING STAGE							
Ag Engineering Building, Bldg 0545 Roof and Drainage Repairs	Mitigate flooding into workshop areas and repair roof leaks.	TBD	Maintenance Reserve	-	TBD	Work Order requested.	
				TBD			
Washington Street Greenhouse Complex Renovations	Repairs and upgrades to modernize aging controlled growth environments.	TBD	CALS / VAES / Maintenance Reserve	TBD	TBD	Overall scope and budget development. LED Lighting upgrade completed in one room (pilot project).	
				TBD			
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 228-2 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.	\$1,823,000	TBD	Coker Composting & Consulting	TBD	Capital and operational costs for project under review internally.	
				TBD			
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. This work was originally included in LPRF Phase 1, but removed due to scope concerns.	\$140,000	Maintenance Reserve	TBD	TBD	Scope and budget development.	
				TBD			
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 LPRF Phase 1, but removed due to scope concerns.	\$93,000	Maintenance Reserve	TBD	TBD	Scope and budget development.	
				TBD			
Moore Farm Barn 0501 Repairs	This highly visible and prominent barn is for many purposes such as lambing of sheep, loafing facility, hay bale storage, emergency storage for weather-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 soon, the condition will deteriorate to the point of loss.	TBD	Maintenance Reserve	TBD	TBD	Scope and budget development.	
				TBD			

PROJECT NAME		PROJECT DESCRIPTION	ESTIMATED TOTAL PROJECT COST	FUND SOURCE	PROJECT TEAMS	CONTRACT COMPLETION DATE	PROJECT STATUS
	Moore Farm Shed 0508 Repairs	This hay shed was built in the 1950’s and received heavy use for that purpose. Over the years its condition has continued to worsen and recent wind and snow 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.	TBD	Maintenance Reserve	TBD	TBD	Scope and budget development.
					TBD		
	Alson H. Smith AREC - Repair paving and parking	Existing asphalt parking lot and drives are deteriorating and in need of repaving.	\$56,000	Maintenance Reserve	TBD	TBD	Scope and budget development. Construction planned in FY 2023.
					TBD		
	Middleburg AREC - Exterior Repairs	Siding on several buildings is in need of repair/replacement due to advanced age: Annex (0812), Frame Beef Barn (0807), Milking Barn and Milk House (0809), Loafing Barn (0810), Clinic/Admin Building (0823), Stable (0824). 8 run-in sheds (0799) are deteriorating and in need of repair or replacement. Corn House and Machinery Shed (0803) is in need of structural repairs. Basement of Annex (0812) floods and needs drainage corrections.	\$158,000	Maintenance Reserve	TBD	TBD	Scope and budget development. Construction planned in FY 2022.
					TBD		
	Reynolds Homestead FRRC - Exterior Repairs	Main Building (1030) needs window replacement, repairs of rotting soffit/fascia/flushing, deck repair and bathroom upgrade. Lath House (1030C) roof and trusses need repair.	\$30,000	Maintenance Reserve	TBD	TBD	Scope and budget development. Construction planned in FY 2023.
					TBD		
	Shenandoah Valley AREC - Repair/Replace Sheep Barn	Sheep Barn (0854) has rotten posts at ground level and leaking roof. The building should be evaluated for repair or replacement.	\$76,000	Maintenance Reserve	TBD	TBD	Scope and budget development.
					TBD		
	Shenandoah Valley AREC - Renovate Carriage House	Renovate Carriage House to add two single-user public restrooms and welcome center area for visitors to the McCormick Farm.	TBD	CALS / VAES	TBD	TBD	Scope and budget development underway. Study will be necessary to address development within historic property for Department of Historic Resources.
					TBD		
	Southern Piedmont AREC - Building Repairs	Packhouse (0897) restroom is in need of plumbing repairs and upgrade to be reconfigured for ADA access. Packhouse roof is leaking and needs repair. Repair/replace siding and five deteriorated lean-to equipment storage sheds attached to four tobacco curing barns (0893A, 0893B, 0893C, 0893D)	\$122,000	Maintenance Reserve	TBD	TBD	Scope and budget development. Construction planned in FY 2022.
					TBD		
	Smithfield Equine Complex	Develop new facilities for Equine Complex on Plantation Road including covering outdoor arena, add bleachers, restrooms, announcer stand, fencing, quarantine facility.	TBD	Private	TBD	TBD	Scope and budget development.
					TBD		
INFORMATION TECHNOLOGY (IT) EVALUTATION & PROJECTS							
Updates through August 6, 2021. New information is in bold.							
PROJECTS COMPLETED							
	Network Equipment Upgrades	Upgrading network equipment to adequately manage current and future network data traffic, including VOIP, in anticipation of Smart Farm initiatives.	\$128,000	CALS / VAES	CALS IT	Complete	Network equipment has been upgraded at all ARECs within the last year and is operating satisfactorily. Sufficient expansion capacity exists for near-term technology needs.
					Cisco		
	WeatherSTEM	New WeatherSTEM weather station and sky camera installation at all ARECs and three campus farm locations.	\$104,000 initial cost and \$37,000 annually	CALS / VAES	CALS IT	Completed Summer 2019	All are functioning and data is readily accessible through web and WeatherSTEM app interfaces.
					WeatherSTEM		
	AREC A/V Upgrades, Phase 1	Installation of new audio and video equipment for ARECs to provide enhanced conferencing capability in meeting rooms. Phase 1 includes Alson H. Smith, Eastern Shore, Hampton Roads, Southern Piedmont and Tidewater ARECs.	\$34,000	CALS / VAES	CALS IT	Fall 2019	Phase 1 (five ARECs) is complete. Scope and schedule for Phase 2 project (remaining ARECs) to be evaluated upon completion of Phase 1.
					Lee Hartman and Sons		

PROJECT NAME		PROJECT DESCRIPTION	ESTIMATED TOTAL PROJECT COST	FUND SOURCE	PROJECT TEAMS	CONTRACT COMPLETION DATE	PROJECT STATUS
	PROJECTS IN PROGRESS						
	Bandwidth and Internet Connectivity	<u>ARECs</u> : All ARECs have 200 Mb service except Shenandoah Valley (50 Mb), Southwest Virginia (10 Mb), Reynolds Homestead (2 Mb), Hampton Roads (50 Mb), Eastern Shore (30 Mb) and Virginia Seafood (30 Mb). Northern Piedmont Center has a 50 Mb cable connection. Goal is to upgrade all to at least 200 Mb. 200 Mb service for Hampton Roads has been ordered. Eastern Shore has been upgraded to 100 Mb service. Reynolds Homestead is in the process of having an order placed for 100 Mb service. A quote has been recieved for 100 Mb service at Southwest Virginia.	\$140,000 Annually	CALS / VAES	CALS IT	Ongoing	Alternative service providers are being sought for turfgrass center. Reviewing service levels and needs at Livestock Facilities on Plantation Road. Reviewing options to extend internet service to employee housing at Eastern Shore, Hampton Roads, Shenandoah Valley and Middleburg.
		<u>Campus Farm locations</u> : Kentland Farm has adequate 200 Mb service. Moore Farm and Urban Horticulture Center share a 50 Mb cable service which is currently adequate. The CSES Research Farm (Agronomy Farm) also has a 50 Mb cable connection. Prices Fork Research Center has a 50 Mb fiber connection. Turkey Farm cable service is being upgraded from 50 Mb to 200 Mb during LPRF phase 1, no additional cost. Upgrades are needed to provide sufficient bandwidth for existing video-based research and future initiatives after LPRF 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.			Various		
	AREC Voice-Over Internet Protocol (VOIP) Conversion	Conversion of legacy voice telephone system at all ARECs to unified VOIP system matching voice service on campus.	\$75,000	CALS / VAES	CALS IT	Ongoing	VOIP conversion projects have been, or will soon be, completed at 6 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 will be converted to VOIP with the construction of their new building. The College has funded the conversion project at Middleburg, and the service has been completed.
					Division of IT		
PROJECT INITIATION / PLANNING STAGE							
	SmartFarm Projects	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 Environtmental Sciences, and now includes work at Kentland Farm and Eastern Virginia AREC.	TBD	TBD	TBD	TBD	Funding needs and sources are being resolved.
					TBD		



Hitt Hall

Board of Visitors Design Preview and Review

Liza L.C. Morris, NCARB
Assistant Vice President for Planning and University Architect

August 30, 2021

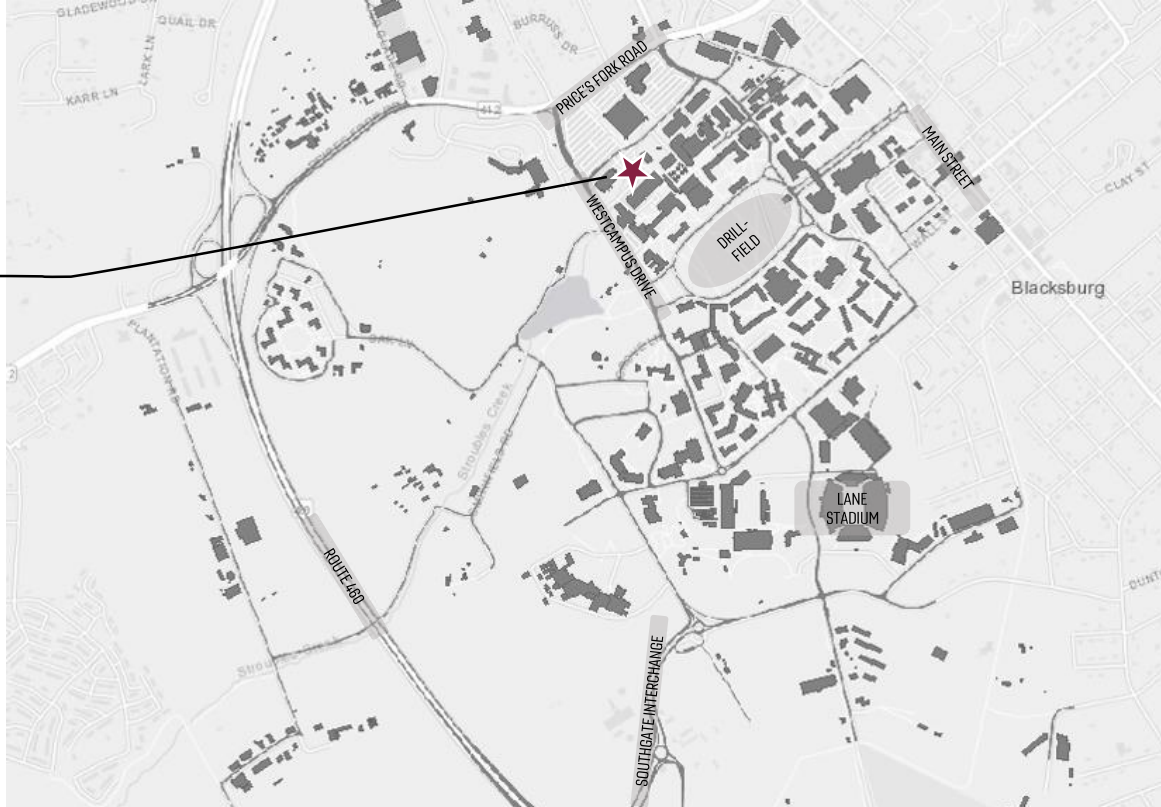




- Scope: 100,000 GSF*
- Delivery method: Construction Manager at Risk
- Total project budget: \$85,000,000
- Design phase: Working drawings
- Estimated construction start: January 2022
- Estimated construction completion: January 2024



Site



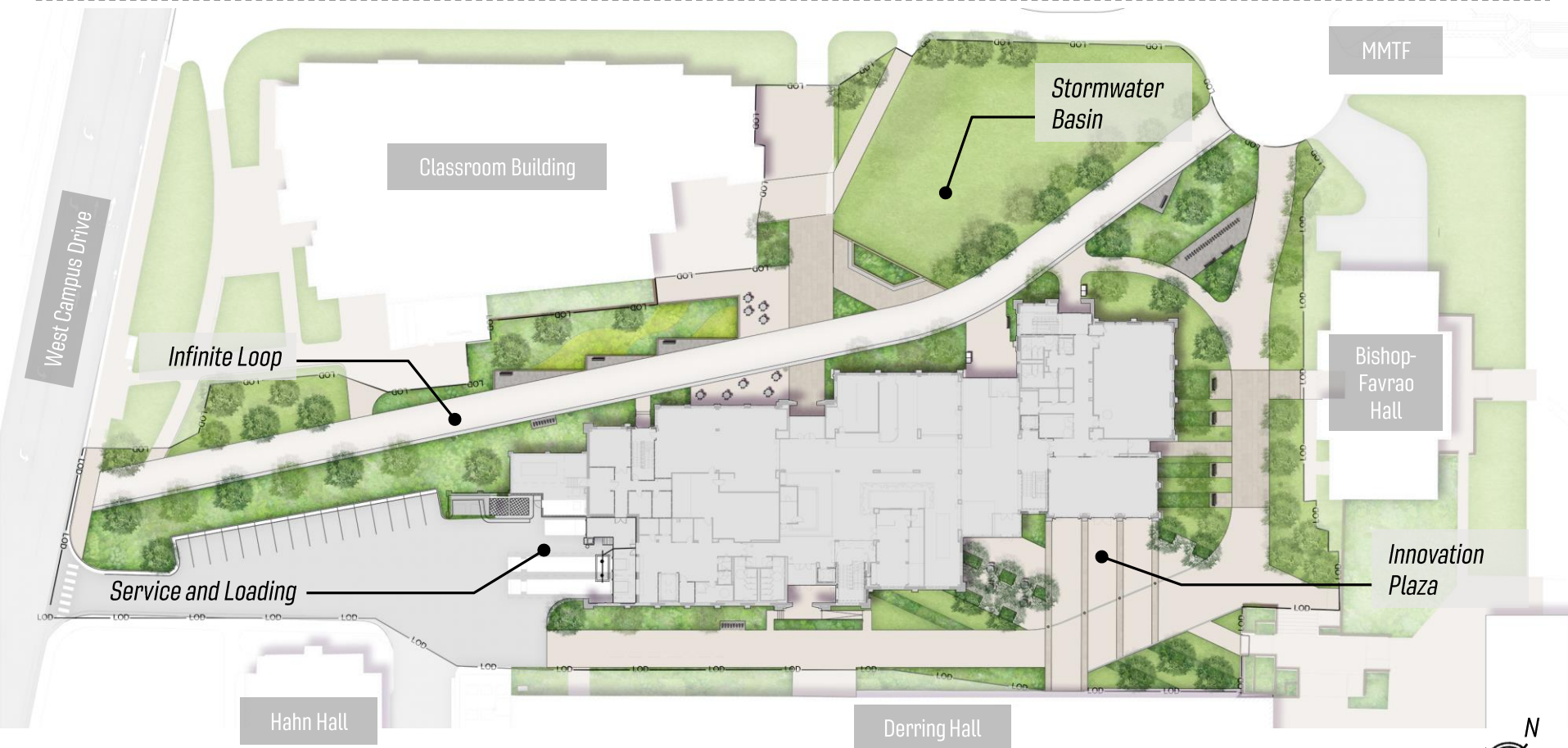
EXISTING CONDITION

Attachment E



SITE PLAN

Attachment E



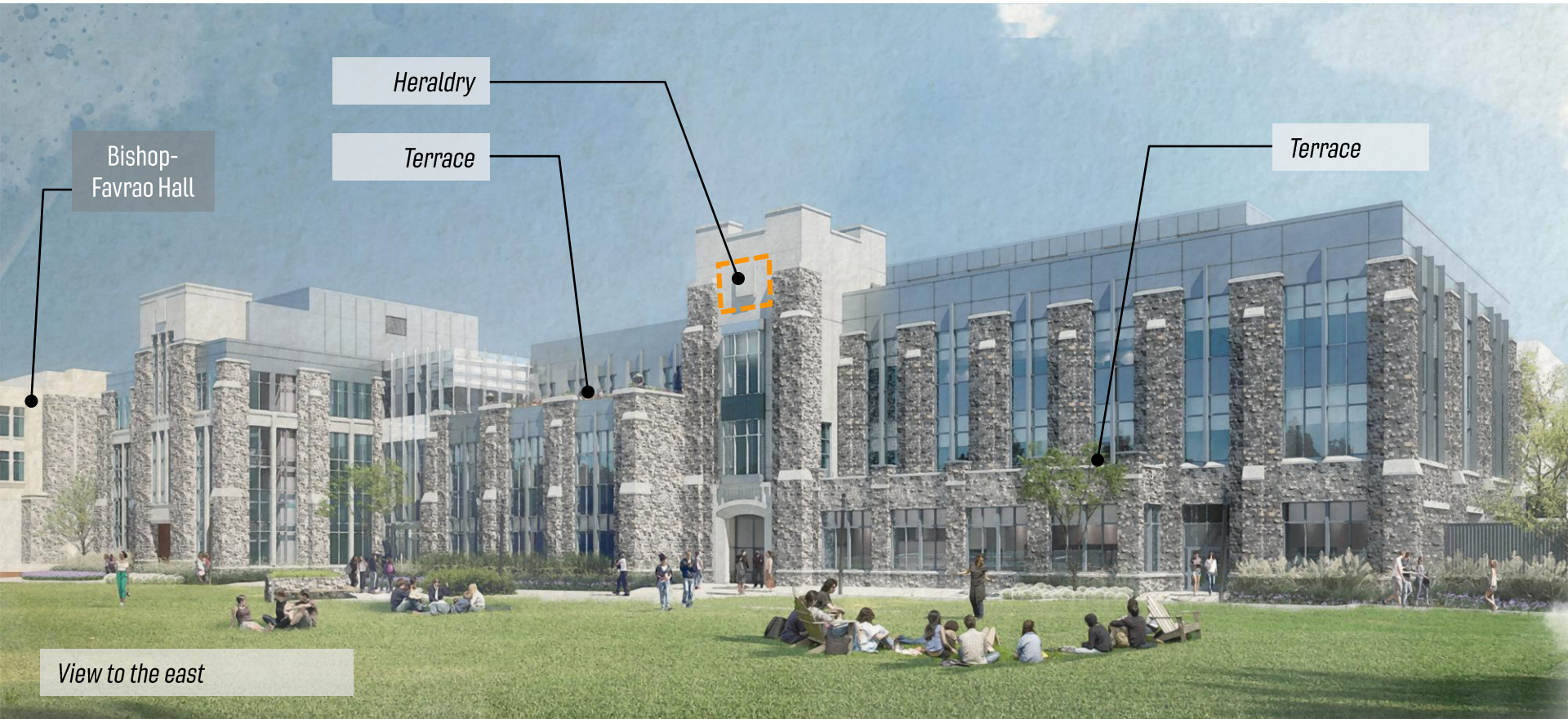
EXTERIOR RENDERING

Attachment E



EXTERIOR RENDERING

Attachment E



EXTERIOR RENDERING

Attachment E



EXTERIOR RENDERING

Attachment E

*Multi-story
glazing system
at Link*

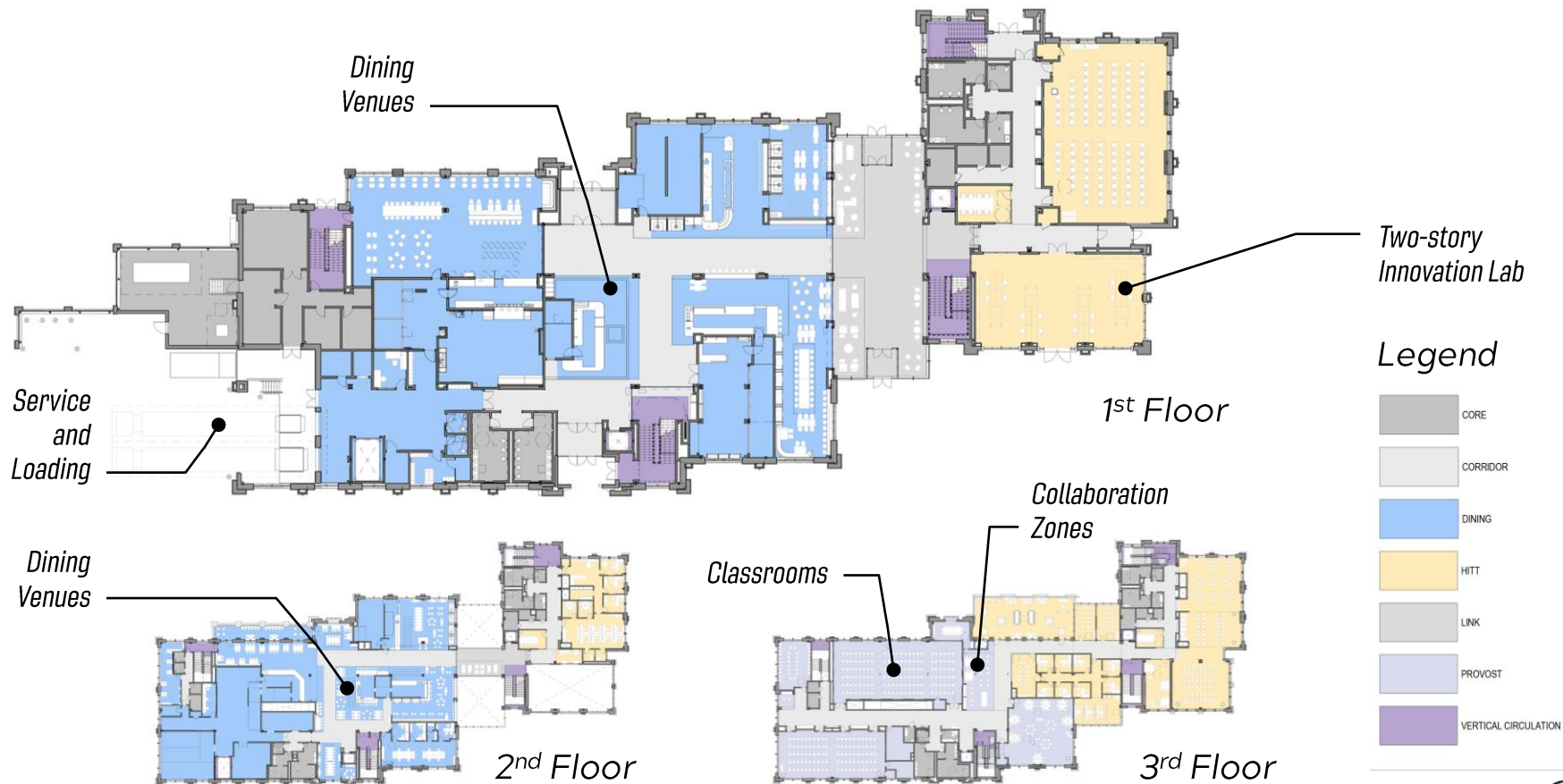
*Punched openings
with glazing
system*

View to the west

*Two-story
Innovation Lab*

FLOOR PLANS

Attachment E



INTERIOR RENDERING

Attachment E

Multi-story
glazing
system

Collaboration
Zones

Dining
Venues

/ HITT HALL





That the Design Preview and Review graphics be approved, and authorization be provided to continue with the project design consistent with the drawings shown.



DESIGN PREVIEW AND REVIEW FOR HITT HALL

Located in the North Academic District, the site is off West Campus Drive in an area bounded by Perry Street to the north, Derring Hall to the south, Bishop-Favrao Hall to the east, and the Classroom Building to the north-west.

The approximately 100,000 gross square feet, three-story facility is organized in two wings around a central circulation link and collaboration space. Hitt Hall will provide an expansion of the Myers-Lawson School of Construction, add critical dining capacity, and include general assignment academic spaces in a new combined program facility for Virginia Tech.

The \$85 million project is split funded with \$25 million in gifts, \$13 million in internal lease funding and \$47 million in auxiliaries. This project was first proposed as part of the 2018-2024 Capital Outlay Plan.

Capital Project Information Summary – Hitt Hall

BUILDINGS AND GROUNDS COMMITTEE

August 30, 2021

Title of Project:

Hitt Hall

Location:

The project site is within the North Academic District, adjacent to West Campus Drive, in an area bounded by Perry Street to the north, Derring Hall to the south, Bishop-Favrao Hall to the east, and the Classroom Building to the north-west. The project is identified in *Beyond Boundaries 2047, The Campus Plan*, as a central campus component of the Intelligent Infrastructure Corridor extending west to the Smart Design & Construction Village. Located on the Infinite Loop the project also supports the master plan's connected and distributed campus commons and dining model.

Current Project Status and Schedule:

The project is in the working drawings phase with construction scheduled to begin in January 2022. Substantial completion is anticipated in January 2024.

Project Description:

The approximately 100,000 gross square feet, three-story building, will support an expansion of the Myers-Lawson School of Construction (MLSOC), add critical dining seating and venues, and include general assignment academic spaces in a new combined program facility.

Brief Program Description:

The project provides cutting edge innovation and discovery spaces to support the MLSOC, allowing the program to double enrollment. The two-story Innovation Lab is one such feature space for the school, directly adjacent to the Innovation Plaza which allows the program opportunities for temporary and large-scale student-based projects featuring equipment testing, display, and other uses.

The project also creates a 600-seat full-service multi-venue dining facility on two floors to meet burgeoning demands, flexible general assignment classrooms on the third floor, and open collaboration spaces throughout.

Contextual Issues and Design Intent:

Within the District, just north of the project site, several projects are currently in design or are under construction. These include the Multi-Modal Transit Facility

(MMTF), the Undergraduate Science Laboratory Building (USLB) and Data and Decision Sciences (D&DS). The project site is currently used for surface parking. Site Circulation patterns for pedestrian connections and service access in and around the site play a significant role in the layout and design. Accessible pathway initiatives surround the building, including the Infinite Loop along the north edge of the building, and several Green Links in the north-south direction. The site configuration also responds to its location within the Stroubles Creek drainage with a water-receiving landscape to the north to address stormwater.

The architecture is consistent with Campus Design Principles, rendered in a collegiate gothic expression in Hokie Stone, precast concrete, metal cladding, and glazing systems. A central circulation link will connect the two wings with a highly transparent multi-story glazing system.

Funding:

The \$85 million project is split funded with \$25 million in gifts, \$13 million in internal lease funding, and \$47 million in auxiliaries. This project was first proposed as part of the 2018-2024 Capital Outlay Plan.

Architect/Engineer:

Cooper Carry

Construction Manager at Risk:

W. M. Jordan Company

Future Agenda Items and Closing Remarks

BUILDINGS AND GROUNDS COMMITTEE

August 30, 2021

The Committee Chair will discuss future agenda items and make closing remarks.