BOARD OF VISITORS BUILDINGS AND GROUNDS COMMITTEE MINUTES

June 8, 2021

The Buildings and Grounds Committee of the Board of Visitors of Virginia Polytechnic Institute and State University met on Tuesday, June 8, 2021, at 8:15 a.m. A quorum of the Buildings and Grounds Committee was present.

Buildings and Grounds Committee Members

Present:	**Absent:**
Tish Long (Vice Rector)	Mehul Sanghani
C.T. Hill (Committee Chair)	
Sharon Brickhouse Martin	
Shelly Butler Barlow	

Constituent Representatives Present:
Eric Kaufman (Faculty Representative)
Tamarah Smith (Staff Representative)
Camellia Pastore (Undergraduate Student Representative)

Also present were the following Virginia Tech staff members:
Mac Babb, Whit Babcock, Bob Broyden, Lance Collins, Mark Gess, Alan Grant, Rebekah Gunn, Tony Haga, Sarah Hill, Patrick Hilt, Mary-Ann Ibeziako, Chris Kiel, Chris Kiwus, Elizabeth McClanahan, Liza Morris, Saied Mostaghimi, Mike Mulhare, Phil Muskovic, Justin Noble, Mark Owczarski, Ken Smith, John Tarter, Dwyn Taylor, Jon Clark Teglas, and Neal Vines

Open Session

1. **Welcome:** The Committee Chair convened the meeting and provided welcoming remarks. This included an introduction of the new University Building Official, Chris Kiel.

2. **Consent Agenda:** The Committee approved and accepted the items listed on the Consent Agenda:

   a. **Approval of the Minutes from the March 22, 2021 Meeting:** The Committee approved the minutes from the March 22, 2021 meeting.

   * b. **Amendment to the Resolution on the Demolition of Femoyer Hall:** The Committee approved an amendment to a prior resolution on the demolition of Femoyer Hall (Building No. 0013). This facility is a 35,500 gross square foot academic building. Constructed in 1949, the brick building originally served as a residence hall. When the facility became obsolete as a residence hall, it was transitioned to academic and program office space

through minimal renovations. Overall, the structure has received very few improvements since original construction and without major renovation will continue to require significant, sustained maintenance investment. The university seeks to demolish the structure and replace it with a residential facility. The amendment provides clarification on external consultative engagement regarding historic preservation efforts. The Committee recommended the resolution to the full Board for approval.

* c. **Amendment to the Resolution on the Partial Demolition of the Art and Design Learning Center:** The Committee approved an amendment to a prior resolution on the partial demolition of the Art and Design Learning Center (Building No. 0196). This facility is a 22,532 gross square foot academic building. Constructed in 1931, the brick and concrete building was originally a mechanical engineering laboratory. The basement and sub-structure portion of the facility houses the Boiler Plant water treatment facility; this portion of the building will remain intact and in use. The university seeks to partially demolish the structure to allow for the growth, expansion, and support of the university's Corps of Cadets and ROTC programs. The amendment provides clarification on external consultative engagement regarding historic preservation efforts. The Committee recommended the resolution to the full Board for approval.

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

3. **Update on Agricultural Facilities Planning and Construction:** 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 Neal Vines, Director of Information Technology for the College of Agriculture and Life Sciences, to discuss recently completed technology enhancements and projects underway.

4. **Annual Report of the University Building Official:** The Committee accepted the annual report from Chris Kiel, University Building Official, learning how that unit fosters community-wide dialogue and progress around code compliance, safety, accessibility, and much more.

5. **Design Review for the Innovation Campus Academic I Building:** The Committee approved the design review for the Innovation Campus Academic I Building as presented by Liza Morris, Assistant Vice President for Planning and University Architect. The building is a 299,733 gross square foot facility in Alexandria. The site for Academic I is an approximately 4-acre master planned campus within the larger 65-acre mixed-use development known as North Potomac Yard. This strategic location places Virginia Tech and its future partners near the nation's capital, diverse industries, and leading tech companies, including Amazon's HQ2, amid the creation of a new, vibrant Innovation District. Academic I is a catalyst for development of the

District and provides instruction, research, office, and support spaces primarily for graduate programs including, but not limited to, Computer Science and Computer Engineering. The building envelope creates a bold new urban identity for the 'VT Experience' shaped by science, technology and engineering around sustainability, resiliency, and flexibility. The project positions Virginia Tech as a model 21st century land grant institution and moves us toward net zero and carbon neutrality goals. The project is currently in the working drawings phase. Construction is expected to begin in September 2021. Substantial completion is targeted for April 2024, anticipating classes to begin in the fall 2024 academic semester.

6. **Future Agenda Items and Closing Remarks:** The Committee discussed potential topics for inclusion on future meeting agendas.

7. **Tour of Intercollegiate Athletics Facilities:** The Committee toured recently renovated intercollegiate athletics facilities, including the ACC Network Broadcast Studio, Athletics Weight Room, and the Student-Athlete Performance Center.

There being no further business, the meeting adjourned at 10:42 a.m.

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Welcome

BUILDINGS AND GROUNDS COMMITTEE

June 8, 2021

The Buildings and Grounds Committee Chair will open with welcoming remarks.

Consent Agenda

BUILDINGS AND GROUNDS COMMITTEE

June 8, 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 March 22, 2021 Meeting

* b. Amendment to the Resolution on the Demolition of Femoyer Hall

* c. Amendment to the Resolution on the Partial Demolition of the Art and Design Learning Center

d. Acceptance of the Capital Project Status Report

*** Requires full Board approval.**

BOARD OF VISITORS BUILDINGS AND GROUNDS COMMITTEE MINUTES

March 22, 2021

The Buildings and Grounds Committee of the Board of Visitors of Virginia Polytechnic Institute and State University met on Monday, March 22, 2021, at 7:50 a.m. A quorum of the Buildings and Grounds Committee was present.

Buildings and Grounds Committee Members

Present:	**Absent:**
Mr. Horacio Valeiras (Rector)	
Ms. Tish Long (Vice Rector)	
Mr. C.T. Hill (Committee Chair)	
Ms. Sharon Brickhouse Martin	
Ms. Shelly Butler Barlow	
Mr. Mehul Sanghani	

Other Board Members Present:
Mr. Preston White

Constituent Representatives Present:
Dr. Eric Kaufman (Faculty Representative)
Ms. Camellia Pastore (Undergraduate Student Representative)
Ms. Sabrina Sturgeon (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, Mr. Eric Brooks, Mr. Bob Broyden, Ms. Caroline Buscaglia, Mr. David Chinn, Mr. Al Cooper, Mr. Ted Faulkner, Mr. Kevin Foust, Major General Randal Fullhart, Ms. Elaine Gall, Mr. Mark Gess, Dr. Alan Grant, Ms. Wendy Halsey, Mr. Patrick Hilt, Ms. Elizabeth Hooper, Ms. Mary-Ann Ibeziako, Mr. Travis Jessee, Dr. Frances Keene, Mr. Nathan King, Dr. Chris Kiwus, Ms. Jamie Lau, Mr. Ken Miller, Ms. Liza Morris, Dr. Saied Mostaghimi, Mr. Justin Noble, Mr. Paul O'Keefe, Mr. Charlie Phlegar, Dr. Dwayne Pinkney, Dr. John Randolph, Mr. Dwyn Taylor, Mr. Jon Clark Teglas

Open Session

1. **Tour of the Creativity and Innovation District Living-Learning Community:** The Committee toured the Creativity and Innovation District Living-Learning Community construction site.

2. **Welcome:** The Committee Chair provided welcoming remarks. The Committee Chair recognized and congratulated Elaine Gall, University Building Official, and

Kevin Foust, Associate Vice President for Safety and Security, on their upcoming retirements from the university.

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

a. **Approval of the Minutes from the November 15, 2020 Meeting:** The Committee approved the minutes from the November 15, 2020 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 on Appointment to the New River Valley Emergency Communications Regional Authority to the full Board for approval.

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

4. Update on Agricultural Facilities Planning and Construction: The Committee received an update from Alan Grant, Dean of the College of Agriculture and Life Sciences, on agricultural facilities planning and construction. Dr. Grant was joined by Dr. Michael Schwarz, Director of the Virginia Seafood Agricultural Research and Extension Center, to discuss the impacts of the center and current improvement projects underway.

5. Design Review for the New Upper Quad Residence Hall: The Committee approved the design review for the New Upper Quad Residence Hall. Located in the Northeast and Upper Quad District on the corner of Stanger Street and Old Turner Street, the New Upper Quad Residence Hall (NUQRH) will serve to expand the housing capacity for the Virginia Tech Corps of Cadets with the addition of 301 beds.

The 67,876 gross square feet, five-story facility will accommodate a mix of residential rooms and support spaces on the ground floor. The second through fourth floors are residential, and the fifth will be comprised of attic space and mechanical equipment. This project will occupy the current site of Femoyer Hall, an existing facility that will be demolished as a part of this facility's construction. Adjacent to this project's eastern edge is the site of another capital project, the Corps Leadership and Military Science Building (CLMS), which is anticipated to begin construction in summer 2021. These two projects will be constructed concurrently and managed by a single construction manager at risk. The NUQRH is currently in working drawings with construction start and substantial completion to be coordinated with the adjacent CLMS schedule.

The $40 million project includes debt service to be provided by Residential Programs revenue and includes the $7 million supplement approved by the Board of Visitors in

November 2020. This project was first proposed as part of the 2018-2024 Capital Outlay Plan.

6. **Future Agenda Items and Closing Remarks:** The Committee discussed possible topics for future meetings and other topics as needed.

There being no further business, the meeting adjourned at 10:18 a.m.

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The Buildings and Grounds Committee and Finance and Resource Management Committee of the Board of Visitors of Virginia Polytechnic Institute and State University met in Joint Open Session on Monday, March 22, 2021, at 10:45 a.m. A quorum was present.

Joint Committee Members

Present:	**Absent:**
Mr. Horacio Valeiras (Rector)	
Ms. Tish Long (Vice Rector)	
Mr. Ed Baine	
Mr. C.T. Hill	
Ms. Sharon Brickhouse Martin	
Ms. Shelly Butler Barlow	
Ms. Anna James	
Mr. Mehul Sanghani	
Mr. Preston White	

Also present were the following Virginia Tech staff members:
President Timothy Sands, Ms. Kim O'Rourke (Secretary to the Board), Mr. Mac Babb, Ms. Callan Bartel, Mr. Eric Brooks, Mr. Bob Broyden, Ms. Caroline Buscaglia, Mr. Al Cooper, Mr. David Crotts, Mr. John Cusimano, Mr. Kevin Foust, Ms. Elaine Gall, Mr. Mark Gess, Ms. Wendy Halsey, Ms. Kay Heidbreder, Mr. Tim Hodge, Ms. Elizabeth Hooper, Mr. Travis Hundley, Ms. Mary-Ann Ibeziako, Dr. Frances Keene, Ms. Sharon Kurek, Mr. Nathan King, Dr. Chris Kiwus, Ms. Jamie Lau, Mr. Jack Leff, Ms. Nancy Meacham, Mr. Ken Miller, Ms. Liza Morris, Mr. Justin Noble, Mr. Mark Owczarski, Dr. Dwayne Pinkney, Dr. John Randolph, Ms. Rachel Spector, Mr. Dwyn Taylor, Mr. Jon Clark Teglas, Ms. Tracy Vosburgh

Also present was the following guest:
Mr. Henri Gendreau

Joint Open Session with the Finance and Resource Management Committee

* **1. Approval of the 2022-2028 Capital Outlay Plan:** The Committees reviewed for approval the 2022-2028 Capital Outlay Plan. The university prepares an updated

Six-Year Capital Outlay Plan every two years as part of its normal planning and budgeting cycle. The Plan is a critical component of positioning the university for state support of major Educational and General projects and for advancing high priority projects that may be funded entirely with nongeneral fund resources. The next state capital outlay plan will be for 2022-2028 and will be established in the 2022 budget development process. Traditionally, the state requires each institution to submit a capital plan in June of the year before a new biennium begins. Based on that timetable, a plan from the university for 2022-2028 will be due to the state in June of 2021.

Preliminary work has been done to identify potential projects for inclusion in the 2022-2028 Capital Outlay Plan in anticipation of future guidance and instructions from the state. These projects are consistent with programmatic needs established for the planning period and with the strategic plan of the university, and they position the university with options to respond to guidance from the state.

Since the submission date for the new Plan may occur before the June 2021 Board of Visitors meeting, the university is requesting the review and approval of the list of potential projects for inclusion in the 2022-2028 Capital Outlay Plan. The university will provide an update to the status of the 2022-2028 Plan at a future Board of Visitors meeting.

The Committees recommended the 2022-2028 Capital Outlay Plan to the full Board for approval.

2. **Financial Considerations of the Virginia Tech 2020 Climate Action Commitment:** The Committees received a presentation on the financial considerations of the Virginia Tech 2020 Climate Action Commitment. A highly collaborative cross-divisional team worked to identify the financial impacts to achieve each prescribed pathway of the updated commitment. The team analyzed the economic and financial impacts of each initiative in depth.

   While detailed and comprehensive, the analysis was based on assumptions regarding technologies, costs, and policies for the future that are dynamic in nature. Current developments and future projections in energy markets and in state and federal energy policy indicate that future values of those assumptions may become more favorable for cost-effective implementation of the updated commitment. These evolving factors will be monitored and incorporated into five-year revisions in 2025 and 2030. In addition, the updated commitment requires an annual report of progress. That annual report will evaluate the assumptions and actual costs and/or savings of the commitment's implementation.

   No specific funding decisions are to be made at this time. Funding requests will be incorporated into annual operating and/or capital budgeting processes. All financial needs compete for resources while considering tuition/fee constraints and university debt capacity.

*** 3. Resolution to Approve the Virginia Tech 2020 Climate Action Commitment:** The Committees reviewed for approval a resolution on the Virginia Tech 2020 Climate Action Commitment. Approved initially in 2009 by the Board of Visitors and revised in 2013, the Virginia Tech Climate Action Commitment serves as the university's guiding framework around sustainability and energy efficiency in campus operations, facilities, curriculum, and research.

In late 2019, President Sands called for its renewal and revision to ensure the most stringent climate and sustainability standards are implemented as the university continues to grow and seeks to be a leader in environmental stewardship. The mission of the revised commitment is to achieve carbon neutrality by changing our physical infrastructure, collective and individual behaviors, and educational mission; to engage everyone in creating a culture of sustainability; and to achieve these objectives through just and equitable means.

A working group of faculty experts, governance representatives, students, operations professionals, and community members led this charge and crafted the revision. Through participation in working group and subcommittee meetings, brainstorming sessions, and community engagement events, students involved in the revision process had countless opportunities to gain practical sustainability experience. Senior Vice President and Chief Business Officer, Dwayne Pinkney, sponsored the initiative. The work group was chaired by John Randolph, professor emeritus of urban affairs and planning, and co-chaired by Todd Schenk, assistant professor of urban affairs and planning and member of the Commission on Faculty Affairs.

On an aggressive timeline, the revision moved through university governance during Fall Semester 2020, receiving approval from the Energy and Sustainability Committee, the Commission on University Support, and the University Council. It was endorsed by the Faculty and Staff Senates, the Student Government Association, and the Graduate Student Assembly. The Board received a preview of the updated Climate Action Commitment at its November 2020 meeting.

The Committees recommended the Virginia Tech 2020 Climate Action Commitment resolution to the full Board for approval.

There being no further business, the meeting adjourned at 11:30 a.m.

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Attachment E

CAPITAL PROJECTS STATUS REPORT

Prepared for the Buildings and Grounds Committee

June 8, 2021

VIRGINIA TECH™

Project Portfolio

- 23 projects (active and completed/1-year warranty phase)
- Total value of ~$1 billion
- Adds 2 million gross square feet (GSF) of new construction
- Renovates nearly 300,000 GSF of existing space

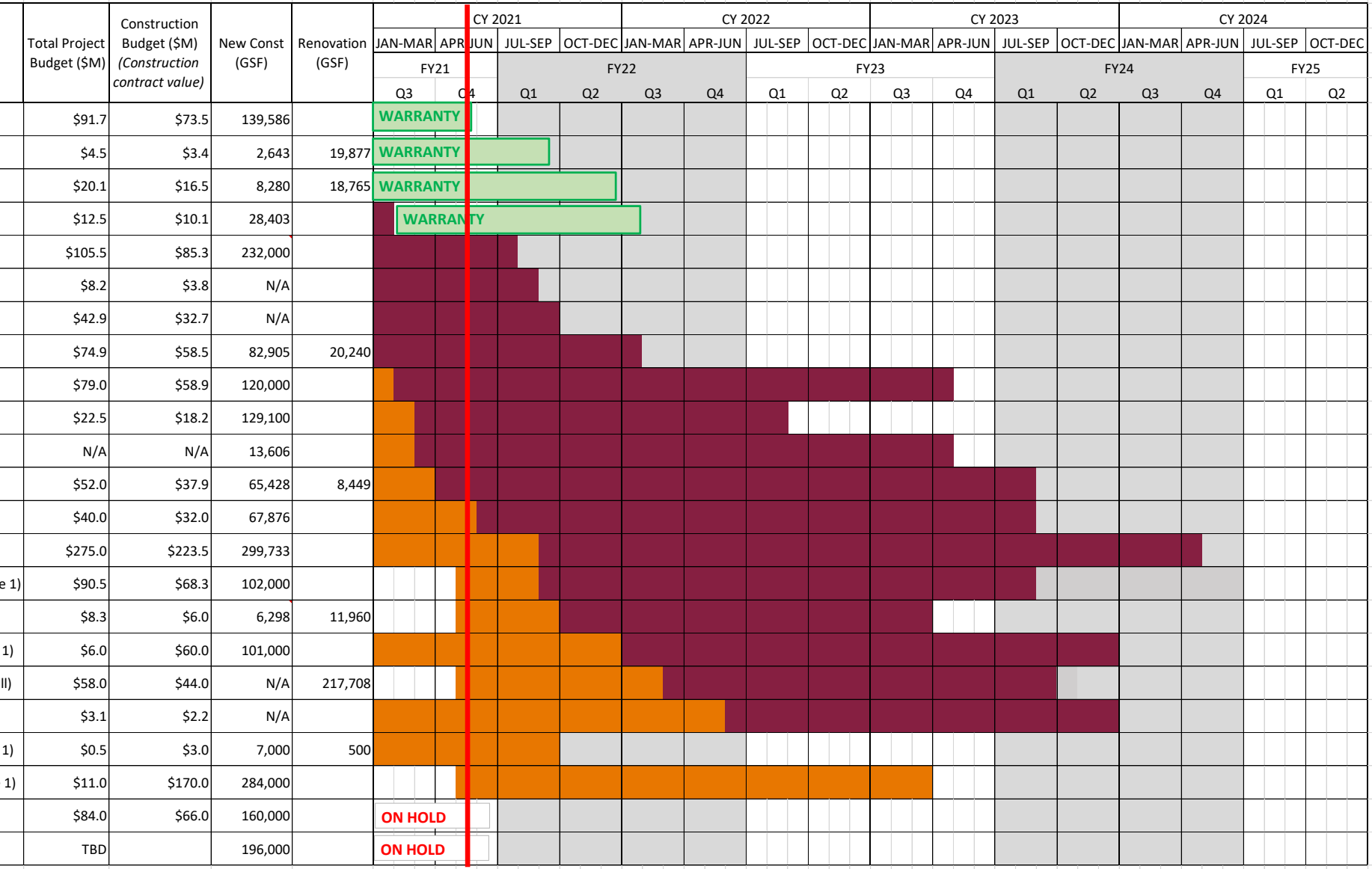
Capital Construction Executive Summary (Progressive)

Date Prepared: 14 MAY 2021

Attachment E

Legend: Design Construction

Project Title	Total Project Budget ($M)	Construction Budget ($M) *(Construction contract value)*	New Const (GSF)	Renovation (GSF)
VTC Biomedical Research Expansion (PPEA)	$91.7	$73.5	139,586	
Athletic Weight Room Renovations & Expansion	$4.5	$3.4	2,643	19,877
Student Athlete Performance Center (Jameson Hall)	$20.1	$16.5	8,280	18,765
Improve Kentland Facilities (Phase II) -- Various Locations	$12.5	$10.1	28,403	
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	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 1)	$90.5	$68.3	102,000	
Dietrick First Floor & Plaza Renovation	$8.3	$6.0	6,298	11,960
Planning: HITT Hall (Note 1)	$6.0	$60.0	101,000	
Student Wellness Improvements (War Memorial Gym & McComas Hall)	$58.0	$44.0	N/A	217,708
Life, Health, Safety, Accessibility and Code Compliance	$3.1	$2.2	N/A	
Planning: Tennis Center Improvements (Note 1)	$0.5	$3.0	7,000	500
Planning: Randolph Hall Replacement (Design Only) (Note 1)	$11.0	$170.0	284,000	
Global Business & Analytics Complex Residence Halls	$84.0	$66.0	160,000	
Planning: Slusher Hall Replacement	TBD		196,000	
TOTALS	**$1,090.2**		**2,045,858**	**297,499**

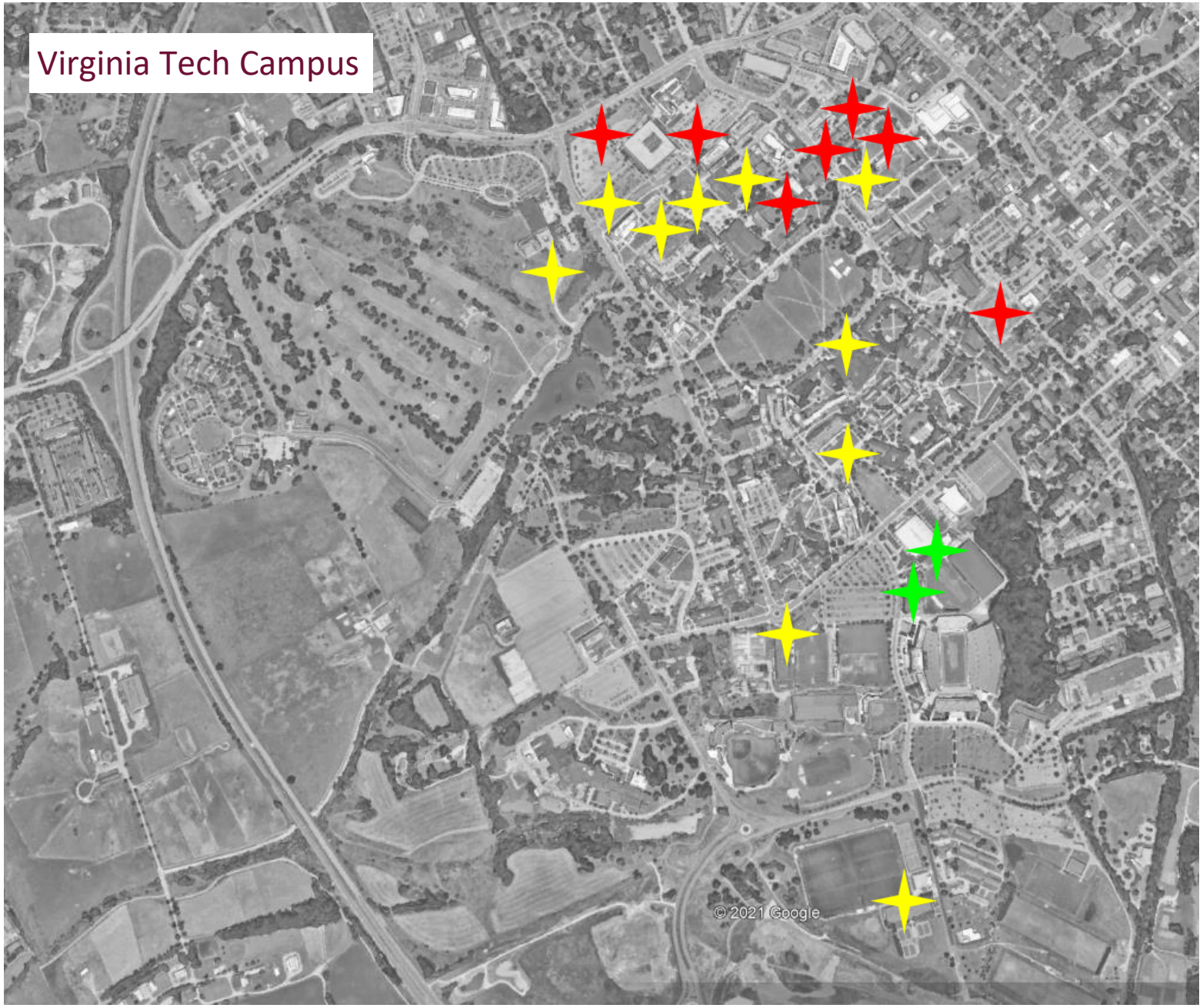


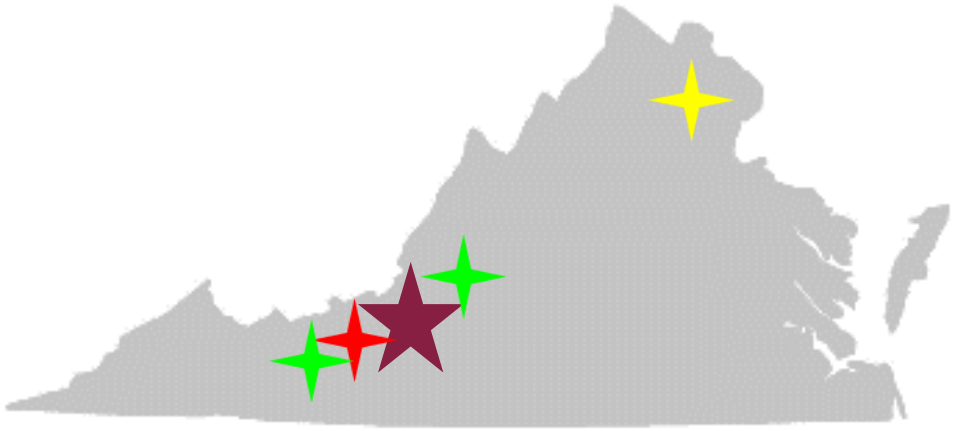
Note 1: Construction not yet authorized; construction dates (where shown) are "earliest possible"

Project Portfolio Distribution

	1st Quarter Ended	2nd Quarter Ended	3rd Quarter Ended	4th Quarter Pending
 Design	16	16	11	
 Construction	7	7	8	
 Closeout	1	1	4	
Total Projects	24	24	23	

Capital Project Portfolio





Legend

= In Design

= Under Construction

= Warranty

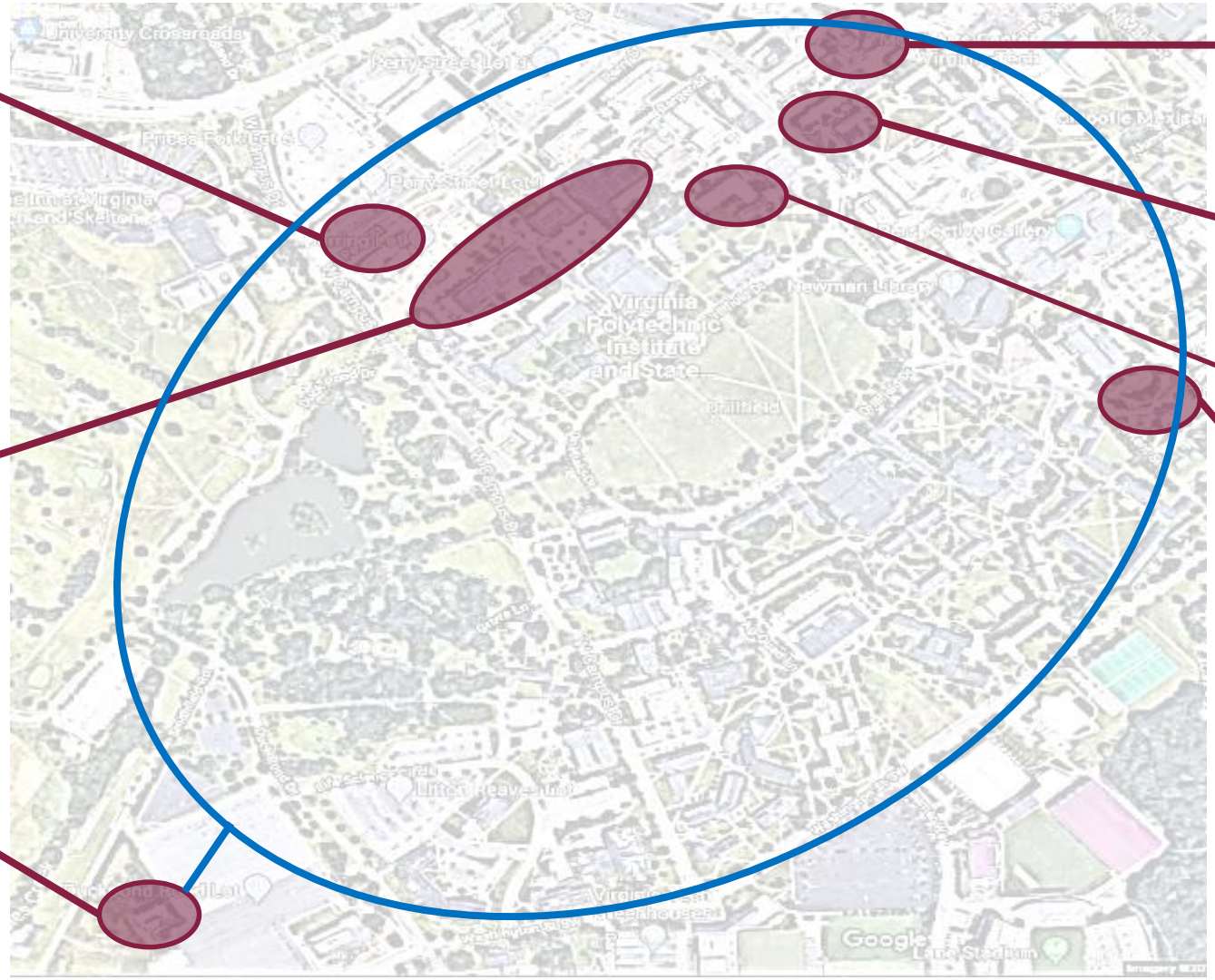
Under Construction

Active Construction On Campus

Data & Decisions Science Building

Multi-Modal Transit Facility

Chiller Plant (Phase II)



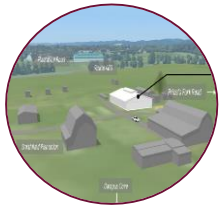
Gas-Fired Boiler at Central Steam Plant

Corps Leadership & Military Science Building

Holden Hall Renovations

CID LLC

Livestock & Poultry Research Facilities



VTC Biomedical Research Expansion

PPEA
State Authorized

Status:
- Construction complete

Next Actions:
- Conclude warranty period and close-out contract

Legend: Design Construction

Designer: AECOM (Carilion Contract)

Builder: Skanska (Carilion Contract)

Project Title	Total Project Budget ($M)	Construction Budget ($M) *(Construction contract value)*	New Const (GSF)	Renovation (GSF)	CY 2021 JAN-MAR	CY 2021 APR-JUN	CY 2021 JUL-SEP	CY 2021 OCT-DEC	CY 2022 JAN-MAR	CY 2022 APR-JUN	CY 2022 JUL-SEP	CY 2022 OCT-DEC	CY 2023 JAN-MAR	CY 2023 APR-JUN	CY 2023 JUL-SEP	CY 2023 OCT-DEC	CY 2024 JAN-MAR	CY 2024 APR-JUN	CY 2024 JUL-SEP	CY 2024 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

Design-Bid-Build
BOV Authorized

Status:

- Construction complete

Next Actions:

- Conclude warranty period and close-out contract

Legend: Design Construction

Designer: Hanbury

Builder: Thor

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
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: Design Construction

Designer: Hanbury

Builder: Branch Builds

Project Title	Total Project Budget ($M)	Construction Budget ($M) *(Construction contract value)*	New Const (GSF)	Renovation (GSF)	CY 2021 JAN-MAR	CY 2021 APR-JUN	CY 2021 JUL-SEP	CY 2021 OCT-DEC	CY 2022 JAN-MAR	CY 2022 APR-JUN	CY 2022 JUL-SEP	CY 2022 OCT-DEC	CY 2023 JAN-MAR	CY 2023 APR-JUN	CY 2023 JUL-SEP	CY 2023 OCT-DEC	CY 2024 JAN-MAR	CY 2024 APR-JUN	CY 2024 JUL-SEP	CY 2024 OCT-DEC
					FY21		FY22		FY22		FY23		FY23		FY24		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: Design Construction

Designer: Spectrum Design

Builder(s): APR = Snyder; MRL & BETR = CPPI

Project Title	Total Project Budget ($M)	Construction Budget ($M) *(Construction contract value)*	New Const (GSF)	Renovation (GSF)	CY 2021 JAN-MAR	CY 2021 APR-JUN	CY 2021 JUL-SEP	CY 2021 OCT-DEC	CY 2022 JAN-MAR	CY 2022 APR-JUN	CY 2022 JUL-SEP	CY 2022 OCT-DEC	CY 2023 JAN-MAR	CY 2023 APR-JUN	CY 2023 JUL-SEP	CY 2023 OCT-DEC	CY 2024 JAN-MAR	CY 2024 APR-JUN	CY 2024 JUL-SEP	CY 2024 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 on track (95% complete)

Next Actions:

- Anticipated completion in July 2021

Legend: Design Construction

Designer: Hanbury

Builder: WM Jordan

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
Creativity & Innovation District Living Learning Community	$105.5	$85.3	232,000																	

Gas-Fired Boiler at Central Steam Plant

Design-Bid-Build
BOV Authorized

Status:

- Project on track (99% complete)

Next Actions:

- Complete boiler performance testing and commissioning for alternative fuel source (fuel oil)

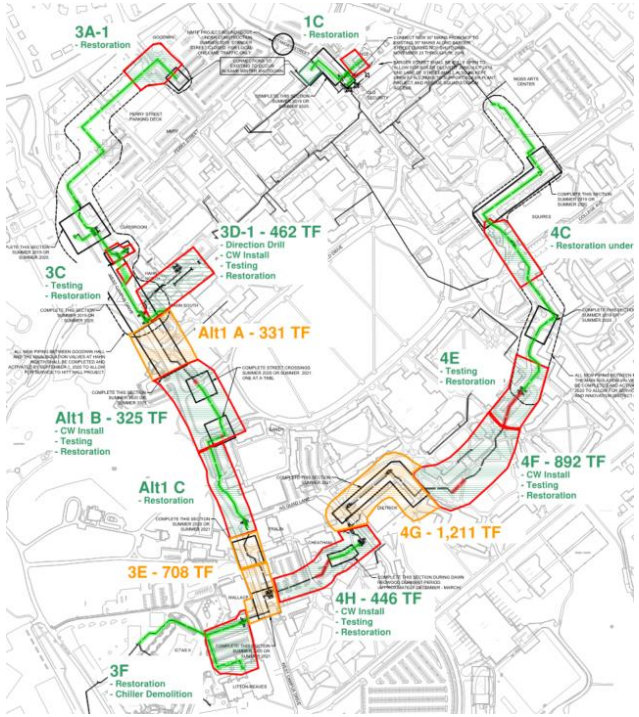
Legend: Design Construction

Designer: AEI

Builder: Southern Air

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
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 (85% complete)

Next Actions:

- Anticipated completion in September 2021

Legend: Design Construction

Designer: AEI

Builder: Faulconer

Project Title	Total Project Budget ($M)	Construction Budget ($M) *(Construction contract value)*	New Const (GSF)	Renovation (GSF)	CY 2021 JAN-MAR	CY 2021 APR-JUN	CY 2021 JUL-SEP	CY 2021 OCT-DEC	CY 2022 JAN-MAR	CY 2022 APR-JUN	CY 2022 JUL-SEP	CY 2022 OCT-DEC	CY 2023 JAN-MAR	CY 2023 APR-JUN	CY 2023 JUL-SEP	CY 2023 OCT-DEC	CY 2024 JAN-MAR	CY 2024 APR-JUN	CY 2024 JUL-SEP	CY 2024 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 (45% complete)

Next Actions:

- Anticipated completion in January 2022

Legend: Design Construction

Designer: Moseley

Builder: WM Jordan

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
Holden Hall Renovations	$74.9	$58.5	82,905	20,240																

Data & Decisions Sciences Building

CM at Risk
State Authorized

Status:

- Project on track (10% complete)

Next Actions:

- Anticipated completion in April 2023

Date Prepared: 27 APR 2021

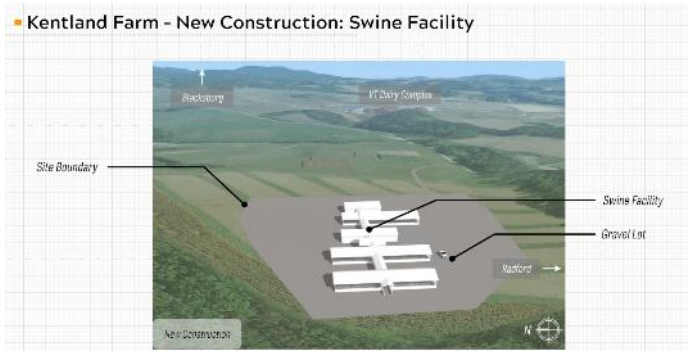
Legend: Design Construction

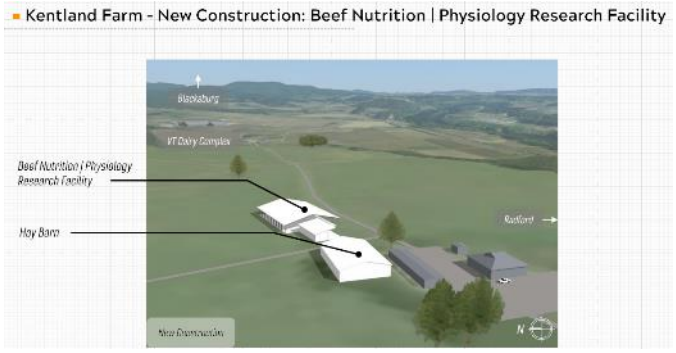
Designer: Moseley

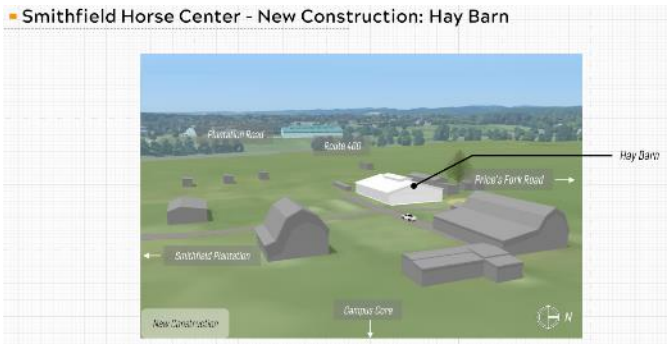
Builder: Kjellstrom & Lee

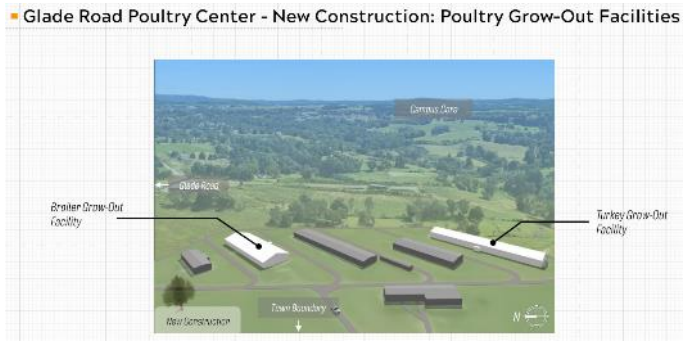
Project Title	Total Project Budget ($M)	Construction Budget ($M) *(Construction contract value)*	New Const (GSF)	Renovation (GSF)	CY 2021 JAN-MAR	CY 2021 APR-JUN	CY 2021 JUL-SEP	CY 2021 OCT-DEC	CY 2022 JAN-MAR	CY 2022 APR-JUN	CY 2022 JUL-SEP	CY 2022 OCT-DEC	CY 2023 JAN-MAR	CY 2023 APR-JUN	CY 2023 JUL-SEP	CY 2023 OCT-DEC	CY 2024 JAN-MAR	CY 2024 APR-JUN	CY 2024 JUL-SEP	CY 2024 OCT-DEC
					FY21		FY22		FY22		FY23		FY23		FY24		FY24		FY25	
					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)









Design-Bid-Build
State Authorized

Status:

- Construction initiated for Poultry, Swine, Equine and Beef Facilities

Next Actions:

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

Legend: Design Construction

Designer: Spectrum Design

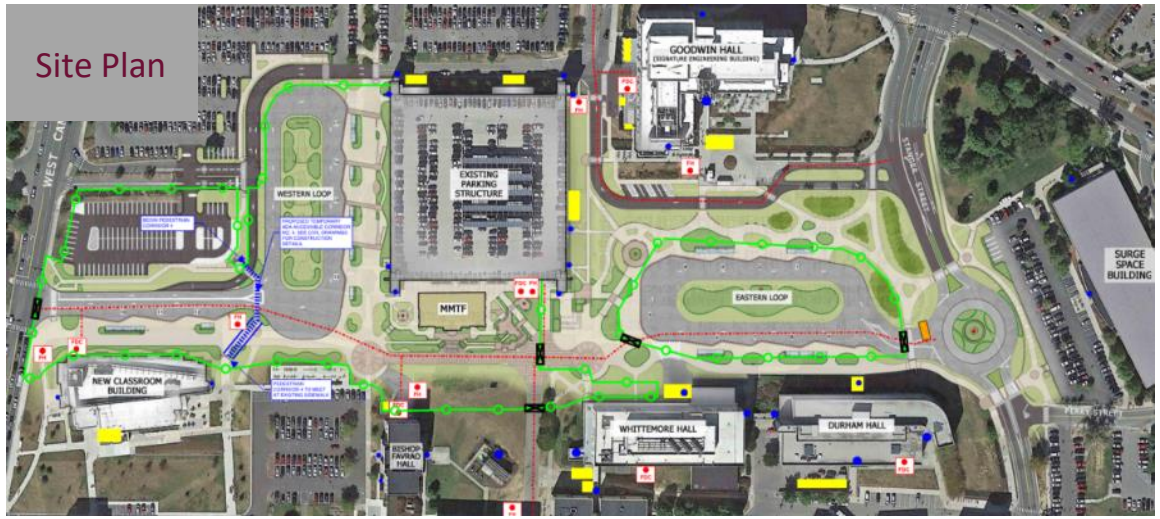
Builder: (Various)

Project Title	Total Project Budget ($M)	Construction Budget ($M) *(Construction contract value)*	New Const (GSF)	Renovation (GSF)	CY 2021 JAN-MAR	CY 2021 APR-JUN	CY 2021 JUL-SEP	CY 2021 OCT-DEC	CY 2022 JAN-MAR	CY 2022 APR-JUN	CY 2022 JUL-SEP	CY 2022 OCT-DEC	CY 2023 JAN-MAR	CY 2023 APR-JUN	CY 2023 JUL-SEP	CY 2023 OCT-DEC	CY 2024 JAN-MAR	CY 2024 APR-JUN	CY 2024 JUL-SEP	CY 2024 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																	

Multi-Modal Transit Facility

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

Site Plan



Status:

- Construction underway

Next Actions:

- Anticipated completion in April 2023

Legend: Design Construction

Designer: Wendel (ToB contract)

Builder: WM Schlosser (ToB contract)

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
Multi-Modal Transit Facility	N/A	N/A	13,606																	

Corps Leadership & Military Science Building

CM at Risk
BOV Authorized

Status:

- Construction contract awarded and underway

Next Actions:

- Anticipated completion in July 2023

Legend: Design Construction

Designer: Clark-Nexsen

Builder: Vannoy

Project Title	Total Project Budget ($M)	Construction Budget ($M) *(Construction contract value)*	New Const (GSF)	Renovation (GSF)
Corps Leadership & Military Science Building	$52.0	$37.9	65,428	8,449

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

In Design

On-Campus Projects In Design

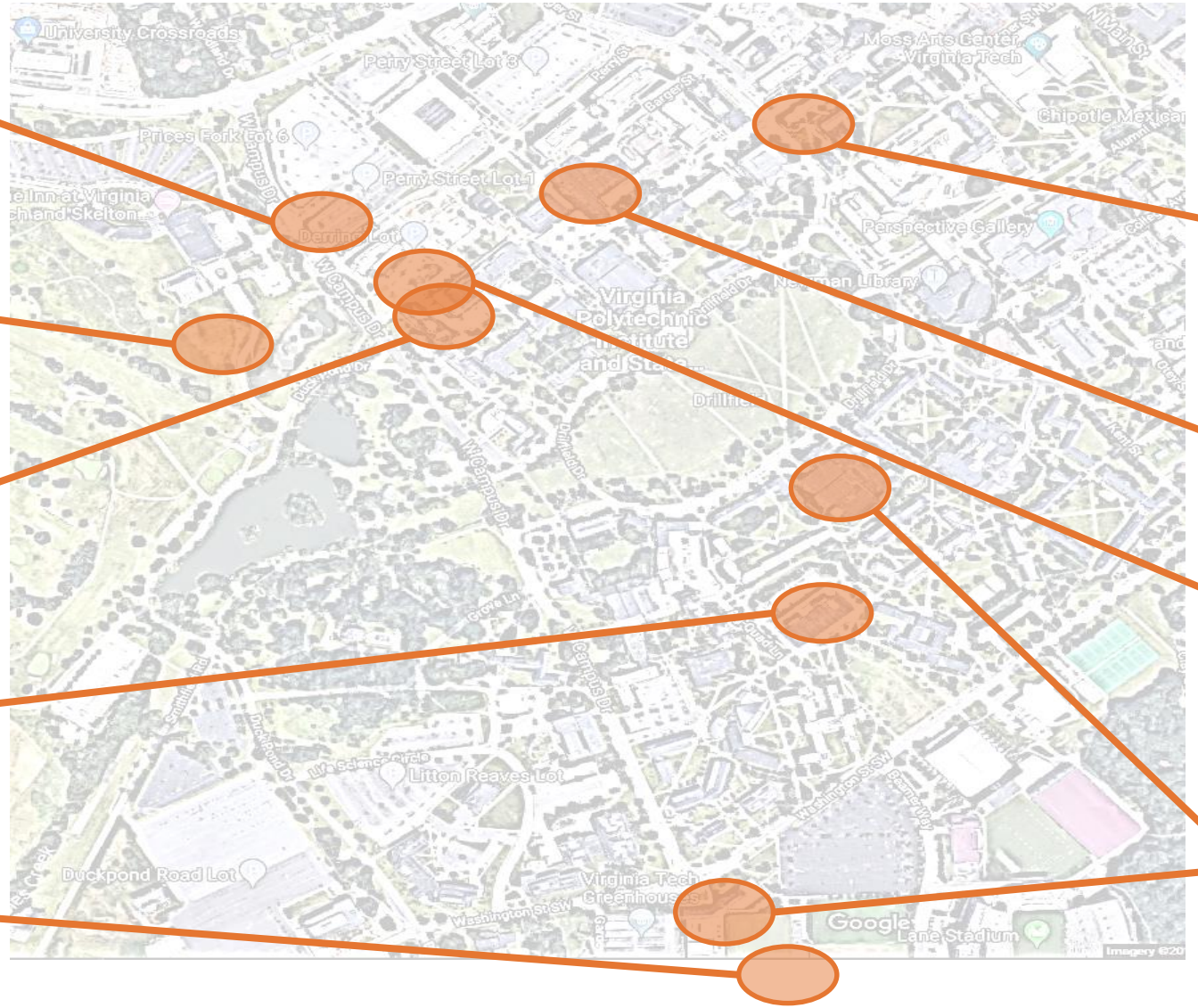
Undergraduate Science Laboratory Building

GBAC LLCs

Life, Health, Safety, Accessibility

Dietrick First Floor & Plaza Renovations

Tennis Center Improvements



New Upper Quad Residence Hall

Randolph Hall Replacement

HITT Hall

Student Wellness Improvements

New Upper Quad Residence Hall

CM at Risk
BOV Authorized

Status:

- Working drawings are complete

Next Actions:

- Construction pricing is expected in June 2021

Legend: Design Construction

Designer: Clark-Nexsen

Builder: Vannoy

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
New Upper Quad Residence Hall	$40.0	$32.0	67,876																	

Innovation Campus-Academic Building

CM at Risk
State Authorized

Status:

- Working Drawings underway

Next Actions:

- Construction expected to begin September 2021

Legend: Design Construction

Designer: SmithGroup

Builder: Whiting-Turner

Project Title	Total Project Budget ($M)	Construction Budget ($M) *(Construction contract value)*	New Const (GSF)	Renovation (GSF)	CY 2021 JAN-MAR	CY 2021 APR-JUN	CY 2021 JUL-SEP	CY 2021 OCT-DEC	CY 2022 JAN-MAR	CY 2022 APR-JUN	CY 2022 JUL-SEP	CY 2022 OCT-DEC	CY 2023 JAN-MAR	CY 2023 APR-JUN	CY 2023 JUL-SEP	CY 2023 OCT-DEC	CY 2024 JAN-MAR	CY 2024 APR-JUN	CY 2024 JUL-SEP	CY 2024 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																	

Planning: Undergraduate Science Lab Building

CMAR
State Authorized

Status:

- Design is complete
- General Assembly approved full construction authorization

Next Actions:

- Construction procurement will occur in summer 2021

Legend: Design Construction

Designer: ZGF

Builder: Skanska

Project Title		Total Project Budget ($M)	Construction Budget ($M) *(Construction contract value)*	New Const (GSF)	Renovation (GSF)	CY 2021 JAN-MAR	CY 2021 APR-JUN	CY 2021 JUL-SEP	CY 2021 OCT-DEC	CY 2022 JAN-MAR	CY 2022 APR-JUN	CY 2022 JUL-SEP	CY 2022 OCT-DEC	CY 2023 JAN-MAR	CY 2023 APR-JUN	CY 2023 JUL-SEP	CY 2023 OCT-DEC	CY 2024 JAN-MAR	CY 2024 APR-JUN	CY 2024 JUL-SEP	CY 2024 OCT-DEC
						FY21		FY22				FY23				FY24				FY25	
						Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Planning: Undergraduate Science Laboratory Building	(Note 1)	$90.5	$68.3	102,000																	

Dietrick First Floor & Plaza Renovation

Design-Bid-Build
BOV Authorized

Status:

- Bids received on May 8, 2020 were over budget
- Path forward will implement improvements to Dietrick Hall within approved budget and seek private support for improvements to outdoor plaza (which will be implemented separately when private support is secured)

Next Actions:

- A/E prepare bid documents for improvements to Dietrick Hall

Legend: Design Construction

Designer: Hanbury

Builder: TBD

Project Title	Total Project Budget ($M)	Construction Budget ($M) *(Construction contract value)*	New Const (GSF)	Renovation (GSF)	CY 2021 JAN-MAR	CY 2021 APR-JUN	CY 2021 JUL-SEP	CY 2021 OCT-DEC	CY 2022 JAN-MAR	CY 2022 APR-JUN	CY 2022 JUL-SEP	CY 2022 OCT-DEC	CY 2023 JAN-MAR	CY 2023 APR-JUN	CY 2023 JUL-SEP	CY 2023 OCT-DEC	CY 2024 JAN-MAR	CY 2024 APR-JUN	CY 2024 JUL-SEP	CY 2024 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	6,298	11,960																

Planning: Hitt Hall

CM at Risk
BOV Authorized

Status:

- Preliminary Design phase underway

Next Actions:

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

Legend: Design Construction

Designer: Cooper Cary

Builder: W M Jordan

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
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: Design Construction

Designer: Cannon Design

Builder: Whiting-Turner

Project Title	Total Project Budget ($M)	Construction Budget ($M) *(Construction contract value)*	New Const (GSF)	Renovation (GSF)	CY 2021 JAN-MAR	CY 2021 APR-JUN	CY 2021 JUL-SEP	CY 2021 OCT-DEC	CY 2022 JAN-MAR	CY 2022 APR-JUN	CY 2022 JUL-SEP	CY 2022 OCT-DEC	CY 2023 JAN-MAR	CY 2023 APR-JUN	CY 2023 JUL-SEP	CY 2023 OCT-DEC	CY 2024 JAN-MAR	CY 2024 APR-JUN	CY 2024 JUL-SEP	CY 2024 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 phase is underway

Next Actions:

- Transition to Preliminary Design phase in July 2021

Legend: Design Construction

Designer: Quinn Evans

Builder: TBD

Project Title	Total Project Budget ($M)	Construction Budget ($M) *(Construction contract value)*	New Const (GSF)	Renovation (GSF)	CY 2021 JAN-MAR	CY 2021 APR-JUN	CY 2021 JUL-SEP	CY 2021 OCT-DEC	CY 2022 JAN-MAR	CY 2022 APR-JUN	CY 2022 JUL-SEP	CY 2022 OCT-DEC	CY 2023 JAN-MAR	CY 2023 APR-JUN	CY 2023 JUL-SEP	CY 2023 OCT-DEC	CY 2024 JAN-MAR	CY 2024 APR-JUN	CY 2024 JUL-SEP	CY 2024 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: Design Construction

Designer: Tymoff & Moss

Builder: TBD

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
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: Design Construction

Designer: TBD

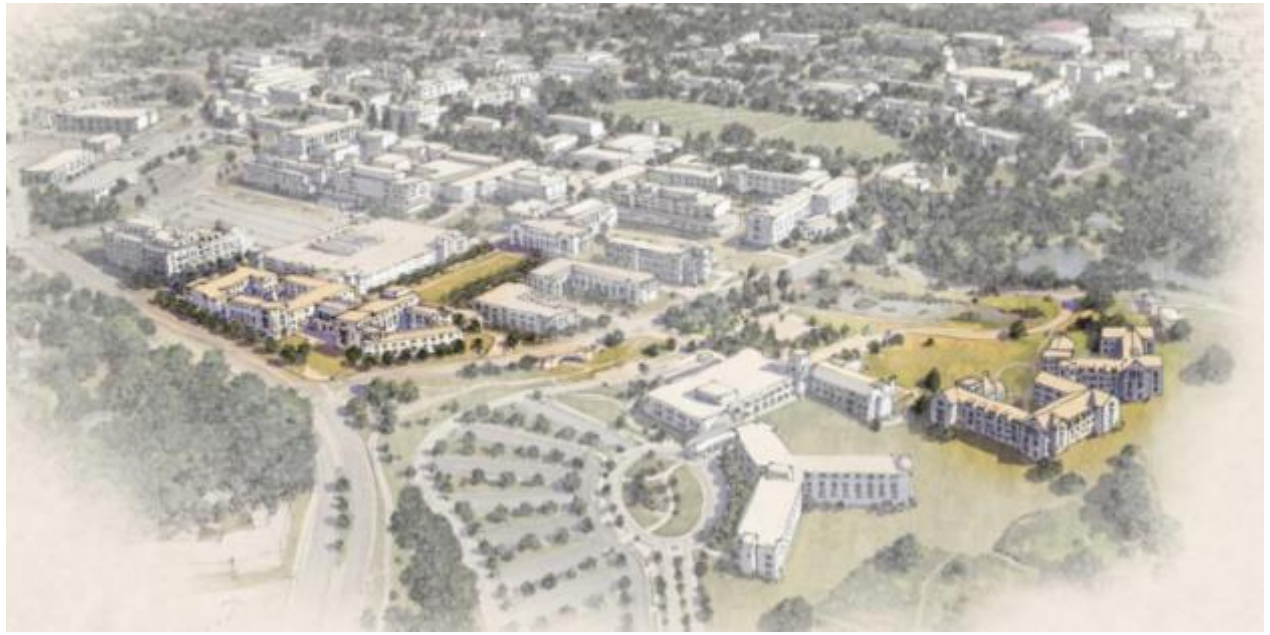
Builder: TBD

Project Title		Total Project Budget ($M)	Construction Budget ($M) *(Construction contract value)*	New Const (GSF)	Renovation (GSF)
Planning: Randolph Hall Replacement (Design Only)	(Note 1)	$11.0	$170.0	284,000	

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

Design-Bid-Build
BOV Authorized



Status:

- Acquisition strategy is shifting; exploring alternative delivery methods

Next Actions:

- Determine appropriate course of action for project

Legend: Design Construction

Designer: TBD

Builder: TBD

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
Global Business & Analytics Complex Residence Halls	$84.0	$66.0	160,000		ON HOLD															

Planning: Slusher Hall Replacement

Design-Build
Non-General Funds

Status:

- Exploring alternative development approaches to deliver residential beds

Next Actions:

- Close-out of project

Legend: Design Construction

Designer: Clark Nexsen

Builder: TBD

Project Title	Total Project Cost ($M)	New Const (GSF)	Renovation (GSF)	CY 2020				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	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC
				FY20		FY21				FY22				FY23				FY24				FY25	
				Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Slusher Hall Replacement	TBD	196,000		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

Attachment E

Update on Agricultural Facilities

Alan L. Grant, Ph.D.
Dean of the College of Agriculture and Life Sciences

Neal Vines
Director of Information Technology
College of Agriculture and Life Sciences

June 8, 2021

VIRGINIA TECH

INVESTING IN THE FUTURE OF AGRICULTURE AND LIFE SCIENCES

CAPITAL PROJECT OVERVIEW

✓ **COMPLETE:** Improve Kentland Facilities, Phase 2

❑ **UNDERWAY:**

- Livestock & Poultry Research Facilities, Phase 1 (10 new buildings)
- Seafood AREC Replacement Project

➢ **PROPOSED:**

- System-wide AREC Improvements
- Human and Agricultural Biosciences Building 2
- Livestock & Poultry Research Facilities, Phase 2

PROTECTING OUR SHARED RESOURCES

2020-21 NON-CAPITAL PROJECT SUMMARY

- 12 Maintenance Reserve projects complete, $1,418,000
  - Tidewater AREC: Roof replacement, 2 buildings
  - Alson H. Smith AREC: Water Pressure Booster Pump Replacement
  - Southern Piedmont AREC: Main Building Restroom Renovation
  - Shenandoah Valley AREC: Big Meadow Shed Replacement
  - Hampton Roads AREC: Roof repairs/replacement, 5 buildings
  - Alphin-Stuart Arena: Roof Repair
  - Turkey Farm: Service Building Restroom Renovation

INCREMENTAL PROGRESS TOWARD IMPROVEMENT

2020-21 NON-CAPITAL PROJECT SUMMARY

- 13 College funded projects completed, $276,000
  - 9 AREC projects:
    - Various Housing repairs
    - EVAREC Garage improvements
    - SVAREC electrical extension for smart scales
    - AHS AREC LED lighting Pilot Project
    - SPAREC Well Pump Generator
    - TAREC Lab Abatement (2 buildings)
  - 4 Campus Farm projects at Dairy Center, Livestock Center and Glade Road Research Center


WHERE WE ARE SPENDING TIME NOW
2020-21 NON-CAPITAL PROJECT SUMMARY
Non-capital Projects in progress
Signage Upgrades
2 minor projects
4 Maintenance Reserve projects
1045 Hare Road
VIRGINIA TECH

Attachment E

COMPLETED SIGN INSTALLATIONS

LOOKING AHEAD

2020-21 NON-CAPITAL PROJECT SUMMARY

- Upcoming non-capital projects
  - 5 AREC Maintenance Reserve projects in **design**
  - 5 more AREC MR projects **planned** for 2nd year of biennium
  - 7 Campus Farm MR projects **requested**
  - At least 2 **new** projects funded by CALS for FY 2022

AGRICULTURAL FACILITY CONNECTIVITY UPDATE

INTERNET CONNECTIVITY AT THE ARECs

Currently:

- 8 ARECs with 200 Mbps fiber service*
- 2 ARECs with ~100 Mbps fiber service
- 2 ARECs with 50 Mbps fiber service**

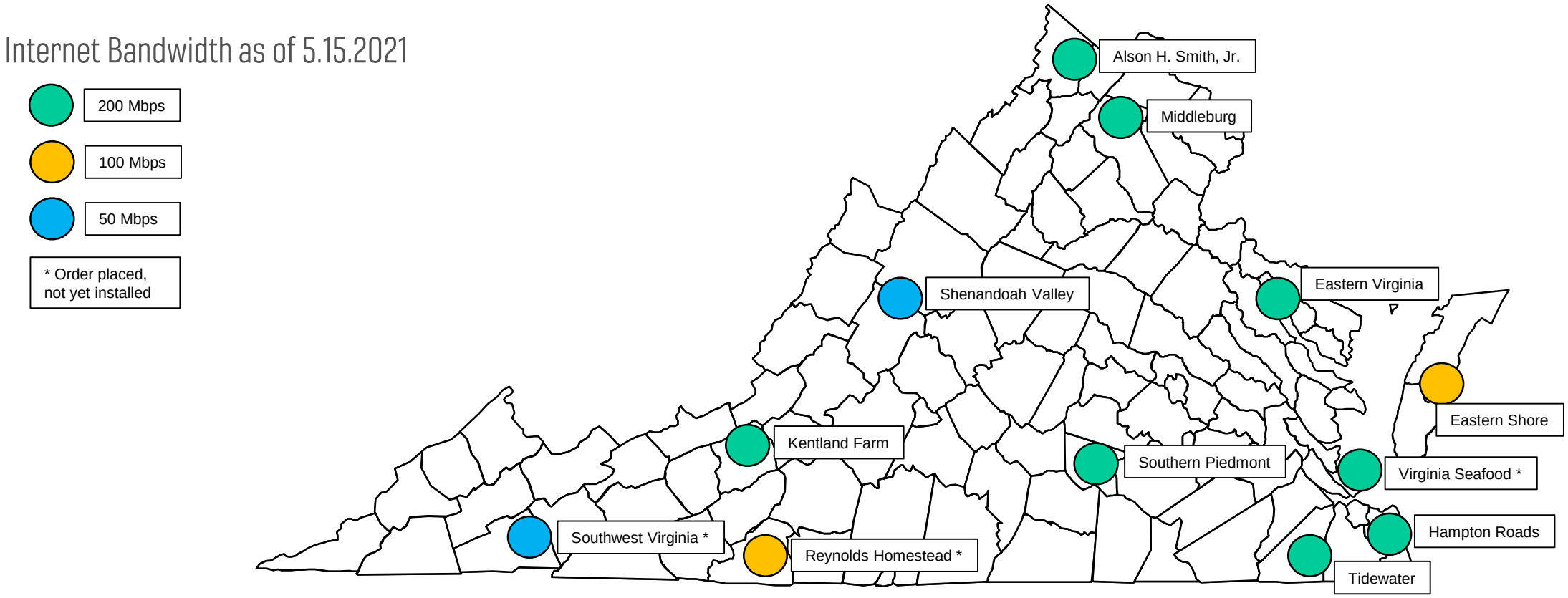
- Dedicated business class service
- Extension of campus network
- Most service locations are upgradeable

* Includes Kentland Farm, new order for Hampton Roads, and new construction for VA Seafood
** On order for Southwest VA

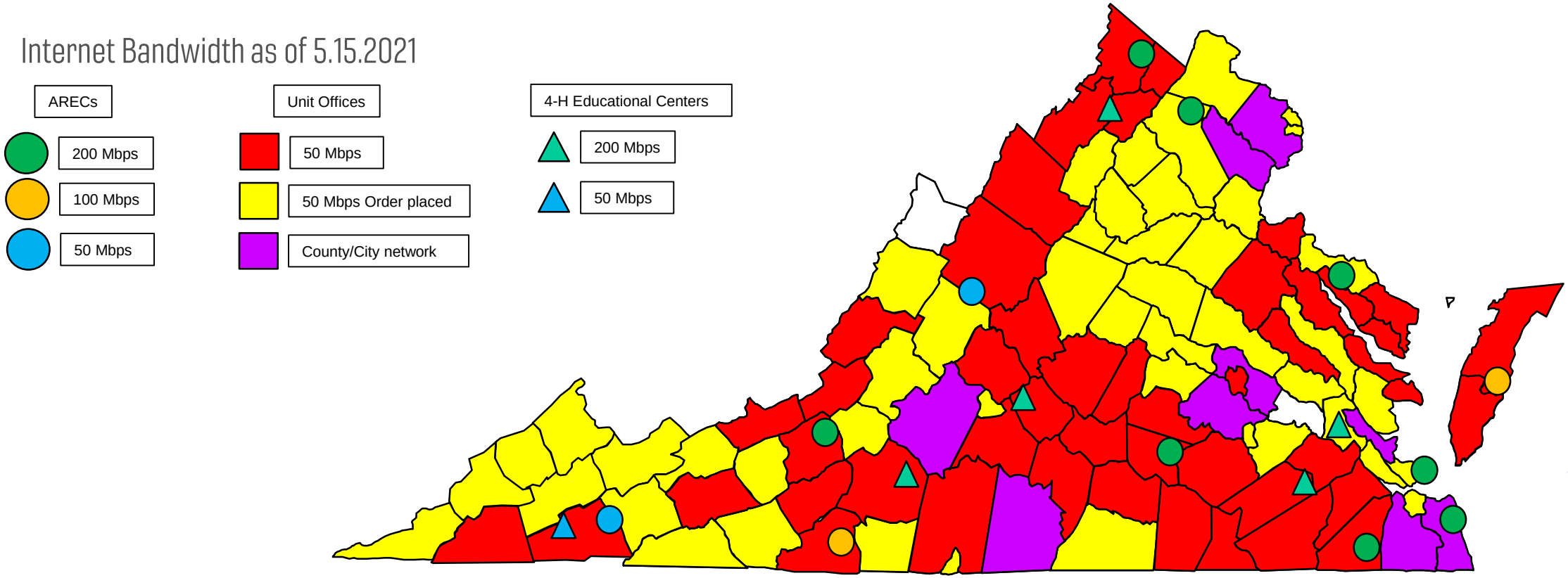
CURRENT IMPROVEMENT PLANS

- Wi-Fi enhancements and upgrades
- Extending local area network to employee housing
- Wide area wireless coverage supporting SmartFarm Initiative
  - Cisco/Dish Network and university IT partnership
- RTK
- Additional network services
  - Guest login
  - Hokie Passport

AGRICULTURAL RESEARCH AND EXTENSION CENTERS



AGRICULTURAL RESEARCH AND EXTENSION CENTERS and VIRGINIA COOPERATIVE EXTENSION UNIT OFFICES/4-H EDUCATIONAL CENTERS



College of Agriculture Life Sciences (CALS) Projects Status Report
BUILDINGS AND GROUNDS COMMITTEE
June 8, 2021

PROJECT NAME	PROJECT DESCRIPTION	ESTIMATED TOTAL PROJECT COST	FUND SOURCE	PROJECT TEAMS	CONTRACT COMPLETION DATE	PROJECT STATUS
CAPITAL PROJECTS						
Updates through May 28, 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 bulding 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 Snyder, CPPI	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.
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 E.T. Gresham	November 2021	Other than delays due to wet weather, project is on track. Evaluating options to fund furniture and equipment purchases.
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 Pkg 1: SIMCON Pkg 2: CPPI Pkg 3: CPPI Pkg 4: Clark Nexsen Pkg 5: TBD	Packages 1-4: Summer 2022	Pkg 1: Construction began April 2021 Pkg 2: Construction began May 2021 Pkg 3: Construction began April 2021 Pkg 4: Construction began May 2021 Pkg 5: Design on hold pending funding appeal
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	TBD	Scope and budget development.
NON-CAPITAL PROJECTS						
Updates through May 28, 2021						
PROJECTS COMPLETED SINCE LAST REPORT						
<u>Minor Projects (<$25,000 each):</u> Shenandoah Valley AREC House 0859 Repairs Middleburg AREC House 816 Repairs Eastern Shore AREC House 1223 Bathtub repair Tidewater AREC Lab abatement Southern Piedmont AREC Well Pump Backup Generator	Misc. minor repairs to tenant house 0859. Misc. Minor interior and exterior repairs to tenant house 0816. Replace leaking bathtub and repair flooring in tenant house 1223. Asbestos abatement of damaged floor tile in 2 lab buildings Install a new 22kw propane powered emergency generator to run well pump for cattle waterers	$49,000	CALS / VAES	- Multiple	Ongoing	Minor projects listed are complete.
Dairy Center Calan Gate installation	Conversion of 8 existing headlocks in special needs barn to accommodate removeable headlocks or 8 removeable calan gates	$27,000	CALS / VAES	- Kesler	February 2021	New gates installed and in use.
Hampton Roads AREC - Repair/Replace Roofs (5 buildings)	Roofs of several buildings are failing and leaking into finished spaces: The 2000 wing of the Main Office and Lab (1101) has a flat membrane roof that is leaking into Office Spaces. The Pesticide Storage Building (1106), Garage and Workshop Buildings (1107 and 1108) and Head house (1105) have shallow to medium slope metal roofs leaking into chemical storage and work areas.	$409,000	Maintenance Reserve	HDH Shaddeau Roofing	Summer 2021	Roof repairs/replacements are complete.
PROJECTS IN CONSTRUCTION						
<u>Minor Projects (<$25,000 each):</u> Alson H. Smith Jr. AREC New Hoophouse Eastern Shore AREC Headhouse Boiler Replacement	Construct a 20' x 48' gable high tunnel hoophouse for horticultural research projects. Replace leaking boiler in Headhouse	$26,000	CALS / VAES	- Multiple	Ongoing	In Progress
AREC Exterior Signage Upgrades	Installation of 2 new exterior signs at each AREC with refreshed design to match current branding.	$81,000	CALS / VAES	- Westview	TBD	Signage instation complete at Tidewater AREC and Southwest Virginia AREC. Final design and fabrication pending at others.
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 TBD	July 2021	Construction began April 2021.
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 Colin Marine	Winter 2021	Contractor secured in April 2021 by purchase order. Permitting complete. Work to be scheduled for fall 2021.

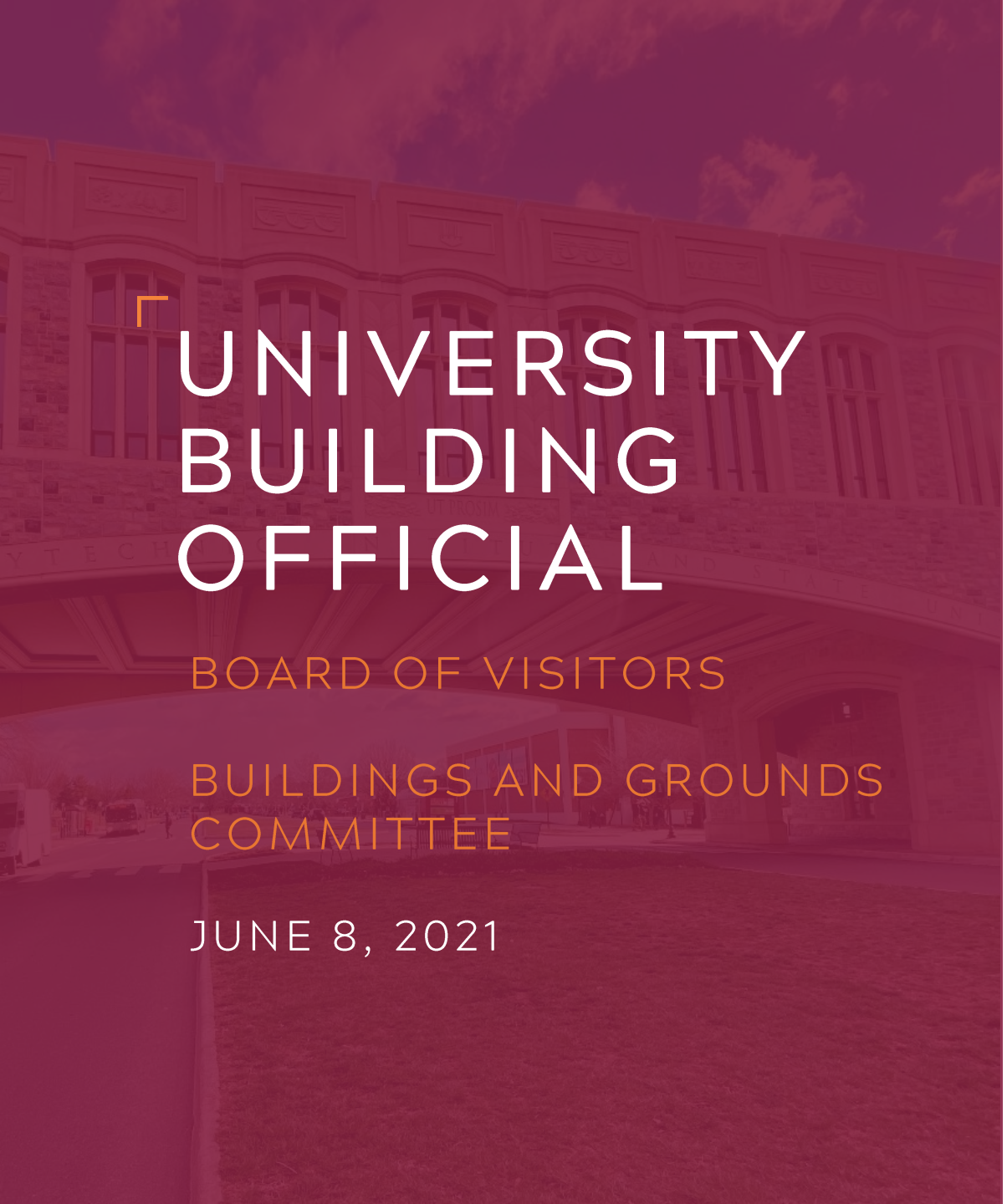
College of Agriculture Life Sciences (CALS) Projects Status Report
BUILDINGS AND GROUNDS COMMITTEE
June 8, 2021

PROJECT NAME	PROJECT DESCRIPTION	ESTIMATED TOTAL PROJECT COST	FUND SOURCE	PROJECT TEAMS	CONTRACT COMPLETION DATE	PROJECT STATUS
Smithfield Equine Classrom Renovations	Buiding envelope repairs and HVAC upgrade to add cooling, classroom interior enhancements	$283,000	Maintenance Reserve, various	5 Design Simcon	August 2021	Contruction begain April 2021 with base bid work only. Additive bid items (interior and exterior accessibility improvments, new windows, new lights) deferred to future project.
Beef Barn Repairs	Exterior and interior demolition followed by the installation 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 Thor	TBD	Exterior repairs begain May, 2021. Interior repairs are being designed.
PROJECTS IN DESIGN						
Tidewater AREC - Batten Hall waterproofing	Batten Hall (portion of Building 0771) is subject to chronic flooding in basement requiring assessement of waterproofing and mitigation measures.	$235,000	Maintenance Reserve	WDP Associates TBD	TBD	Project on hold pending drain cleaning by AREC after asbestos abatement.
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	TBD	Scope review with University Building Official (UBO) is necessary to resolve code requirements and funding eligibility. Project deferred to 2023.
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).	$243,000	Maintenance Reserve	5 Design TBD	TBD	Design review underway and bidding anticipated in Summer 2021.
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	TBD	Design is in progress.
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	TBD	Design is in progress.
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	- TBD	TBD	Design is in progress.
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	TBD	Contractor quote received. Funding options being evaluated.
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	TBD	Work Order requested.
Washington Street Greenhouse Complex Renovations	Repairs and upgrades to modernize aging controlled growth environments.	TBD	CALS / VAES / Maintenance Reserve	TBD TBD	TBD	Overall scope and budget development. LED Lighting upgrade completed in one room (pilot project).
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	TBD	Capital and operational costs for project under review internally.
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	TBD	Scope and budget development.
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	TBD	Scope and budget development.

PROJECT NAME	PROJECT DESCRIPTION	ESTIMATED TOTAL PROJECT COST	FUND SOURCE	PROJECT TEAMS	CONTRACT COMPLETION DATE	PROJECT STATUS
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	TBD	Scope and budget development.
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	TBD	Scope and budget development.
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	TBD	Scope and budget development. Construction planned in FY 2023.
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 or structural repairs. Basement of Annex (0812) floods and needs drainage corrections.	$158,000	Maintenance Reserve	TBD TBD	TBD	Scope and budget development. Construction planned in FY 2022.
Reynolds Homestead FRRC - Exterior Repairs	Main Building (1030) needs window replacement, repairs of rotting soffit/fascia/flashing, deck repair and bathroom upgrade. Lath House (1030C) roof and trusses need repair.	$30,000	Maintenance Reserve	TBD TBD	TBD	Scope and budget development. Construction planned in FY 2023.
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	TBD	Scope and budget development.
Southern Piedmont AREC - Building Repairs	Packhouse (0897) restroom is in need of plumping 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	TBD	Scope and budget development. Construction planned in FY 2022.
Tidewater AREC - Water system repair	Water line from well to main office complex is failing in multiple locations and requires frequent repairs. Project is to install new 2-inch water line away from landscaping to reduce need for future repairs.	$26,000	Maintenance Reserve	TBD TBD	TBD	Scope and budget development.
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	TBD	Scope and budget development.
INFORMATION TECHNOLOGY (IT) EVALUTATION & PROJECTS						
Updates through May 28, 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 Cisco	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.
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 WeatherSTEM	Completed Summer 2019	All are functioning and data is readily accessible through web and WeatherSTEM app interfaces.
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 Lee Hartman and Sons	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.

PROJECT NAME	PROJECT DESCRIPTION	ESTIMATED TOTAL PROJECT COST	FUND SOURCE	PROJECT TEAMS	CONTRACT COMPLETION DATE	PROJECT STATUS
PROJECTS IN PROGRESS						
Bandwidth and Internet Connectivity	AREC**s**: 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 50 Mb service at Southwest Virginia.** Campus Farm locations**:** 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.	$**140,000** Annually	CALS / VAES	CALS IT Various	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.
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 Division of 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.
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. Citizens Band Radio Service (CBRS) technology was investigated and deemed unsuitable for this project.	TBD	TBD	TBD TBD	TBD	Funding request submitted to State.

Attachment E



UNIVERSITY BUILDING OFFICIAL

BOARD OF VISITORS

BUILDINGS AND GROUNDS COMMITTEE

JUNE 8, 2021

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

OFFICE OF THE UNIVERSITY BUILDING OFFICIAL

Established in 2010, the Office of the University Building Official has primary responsibility for the proper management for, and enforcement of, the Virginia Uniform Statewide Building Code to ensure that construction projects conducted on property owned by the university are completed in compliance with the code, related laws, and regulations.

CHRIS KIEL, UNIVERSITY BUILDING OFFICIAL

Attachment E

- Nearly three decades of experience in building and fire jurisdictions across the U.S.
- Most recently served as plan check engineer with Municipal Plan Check Services. Provided building plan code compliance services for jurisdictions in greater Silicon Valley.
- Has held positions encompassing all aspects of the construction process: Owner's representative; designer; contractor; inspector; senior plan check engineer; fire marshal; and building official.
- Licensed Professional Engineer in six states.
- Over 40 International Code Council certifications.
- Bachelor of Science in Building Construction Management from Purdue University.

UBO TEAM

Chris Kiel
University Building Official

John Bush
Building Code Plan Reviewer/Inspector

Marie Castillo
Assistant Permit Technician

Tim Hagedorn
Building Code Plan Reviewer/Inspector

Steven Smith
Building Code Plan Reviewer/Inspector

Heather Snidow
Permit Technician/ Administrative Coordinator

Jack Thompson, Jr.
Building Code Plan Reviewer/ Inspector

CAMPUS ACCESSIBILITY

ACCESSIBILITY REMAINS A CENTRAL FOCUS AND JURISDICTION AREA FOR THE UNIVERSITY BUILDING OFFICIAL

The University Building Official is responsible for ensuring the campus environment is compliant with the Americans with Disabilities Act (ADA), including both building interiors and exteriors:

- All Virginia Tech facilities across the state.
- New buildings, renovations, minor alterations.
- Stadiums, residence halls, dining halls, academic buildings — even event tents.
- Classrooms, labs, maker spaces.
- Restrooms: Toilets, showers, sinks.
- Doors, ramps, stair rails, doors, thresholds.
- Sidewalks, outdoor amphitheaters, temporary concert venues.

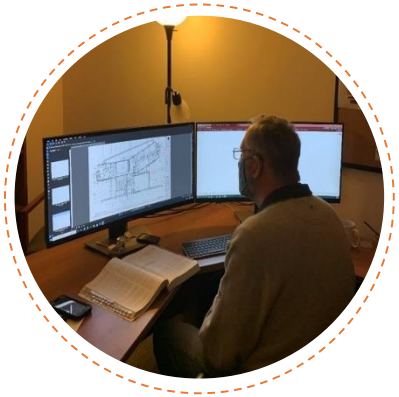
Attachment E

ACCESSIBILITY INSPECTIONS

The University Building Official team remains on the frontlines working to ensure designers and clients embrace accessibility requirements and university guidelines.

REVIEWS

ELECTRONIC PROCESSES



CENTRALIZED LOCATION FOR UNIVERSITY BUILDING OFFICIAL REQUESTS AND MATERIALS

IMPROVED TIMELINESS FOR SERVICE DELIVERY

MORE STRUCTURED REVIEW PROCESS

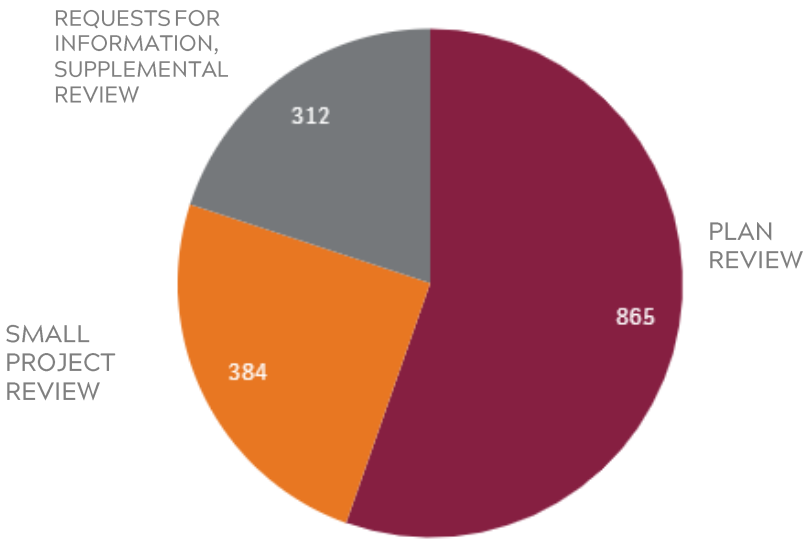
Electronic improvements have led to a substantial reduction in permit review time:

- Non-capital average plan review: **2 days** turnaround
- Capital project average plan review: **5 days** turnaround

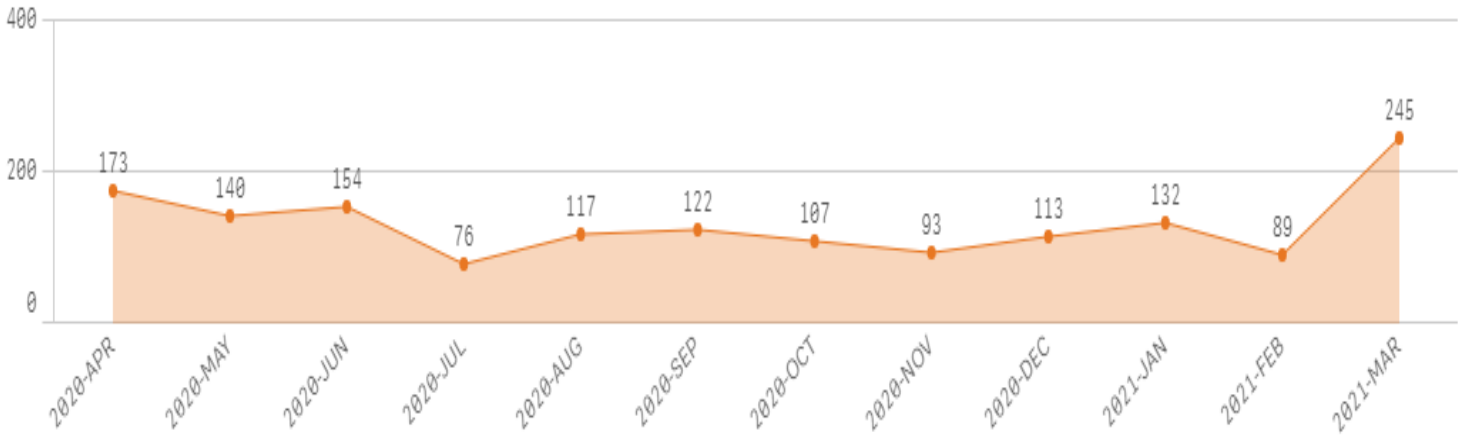
REVIEWS

Attachment E

TOTAL COMPLETED PLAN REVIEWS: 1,561



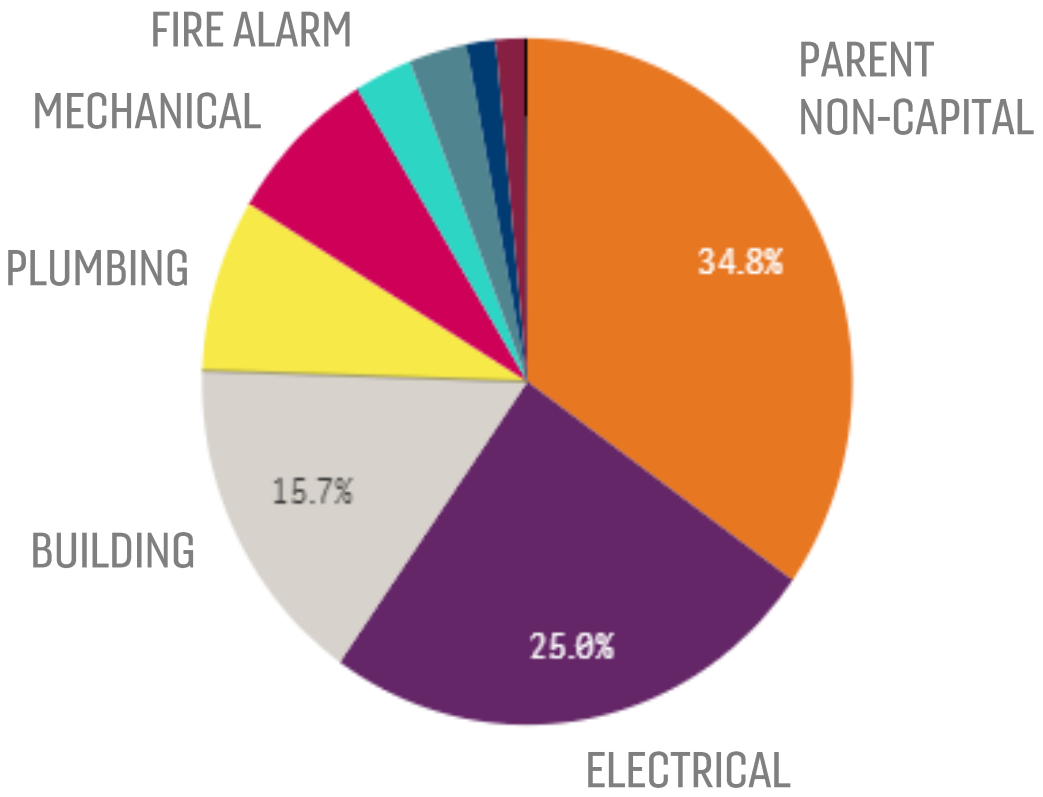
COMPLETED PLAN REVIEWS BY MONTH



Reviews: April 1, 2020 – March 31, 2021

PERMITS

TOTAL PERMITS ISSUED: 833

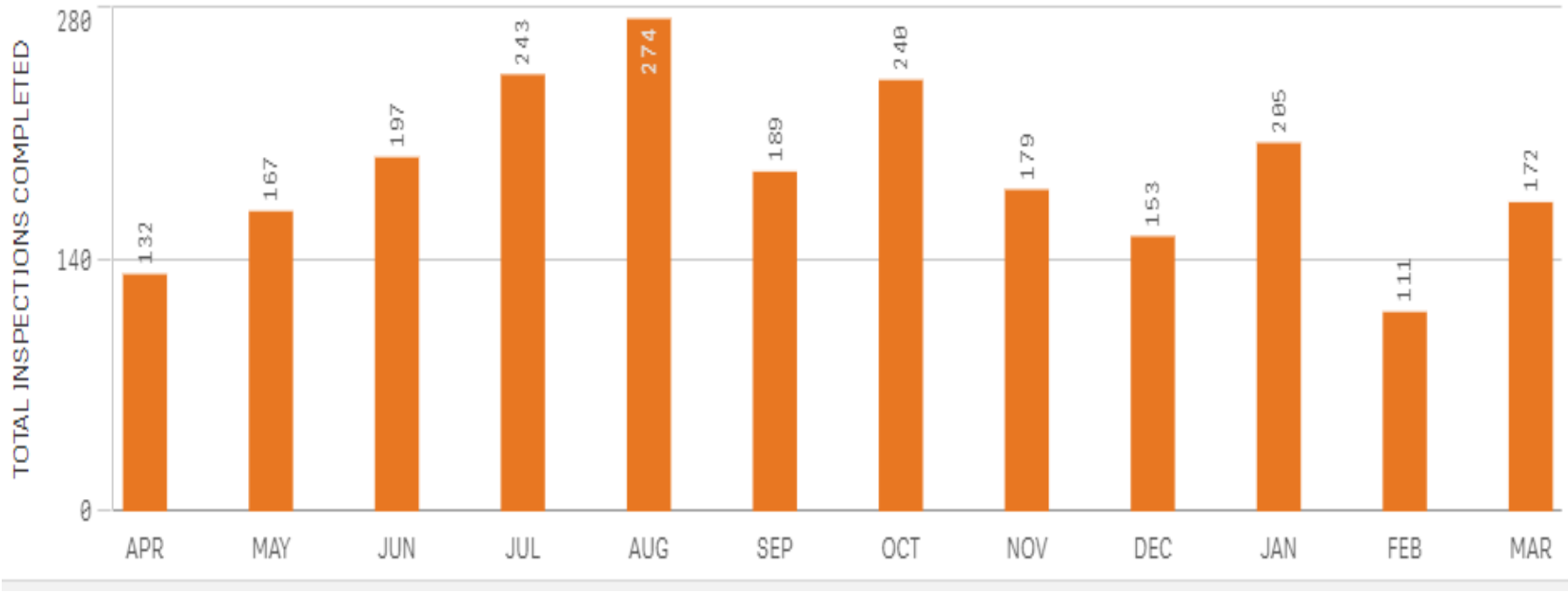


Electronic system beneficial over the past year of remote work due to COVID-19.

Permits: April 1, 2020 – March 31, 2021

INSPECTIONS

TOTAL NUMBER OF INSPECTIONS: 2,262



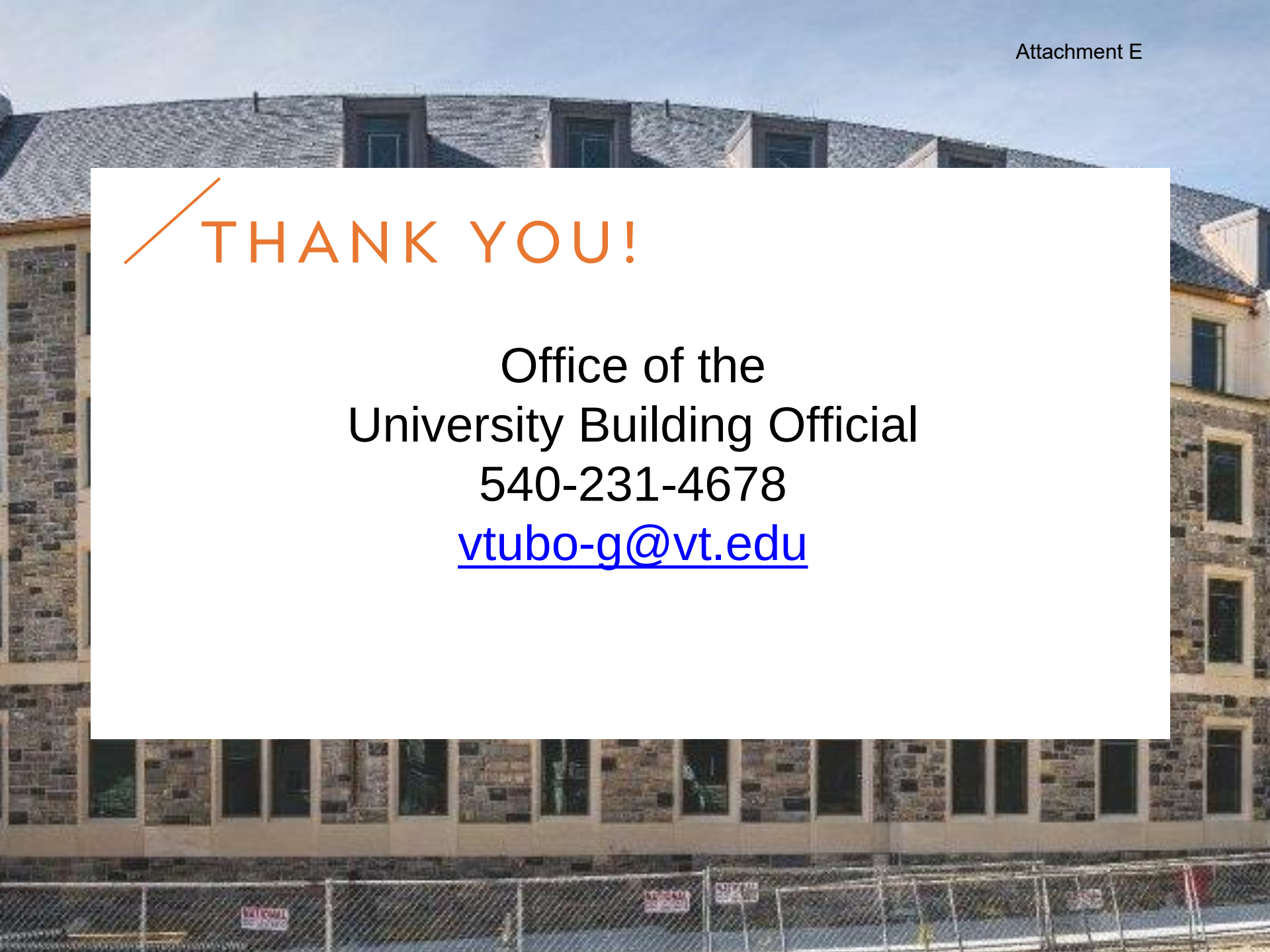
Inspections: April 1, 2020 – March 31, 2021

INSPECTIONS

- Inspections continue through COVID-19 emergency with enhanced personal protective equipment and safety measures taken.

- Virtual inspection process for Agriculture Research and Extension Centers (ARECS) highly applicable to today.

QUESTIONS?



THANK YOU!

Office of the
University Building Official
540-231-4678
vtubo-g@vt.edu

Attachment E

INNOVATION CAMPUS ACADEMIC I BUILDING

Board of Visitors Design Review

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

June 8, 2021

VIRGINIA TECH™

PROJECT INFORMATION

Scope:	299,733 GSF
Delivery method:	C M at Risk
Total project authorization:	$275 million
Design phase:	Working Drawings
Construction start:	September 2021
Targeted occupancy:	April 2024

DESIGN PRINCIPLES

1. **The VT Experience and Identity** – create a memorable campus experience and identity by showcasing VT programs and activities and by developing of a sense of place that engages students, faculty, staff, potential partners and the community.

2. **Universal Design** – utilize universal design principles to guide the design with the goal of promoting access and engagement opportunities for a diverse range of campus users.

3. **Ease of Movement** – create an environment that prioritizes accessibility, pedestrian, bicycle and other self-propelled modes of movement over automobiles, buses and service vehicle traffic.

4. **Health and Wellness** – create an environment that promotes health and wellness by providing spaces for contemplation, recreation and relaxation.

5. **Green and Social Spaces** – incorporate biophilic principles throughout, and shaded green spaces and circulation routes that offer human comfort and that promote a collegial environment for social events and programs.

DESIGN PRINCIPLES

6. **Connectivity** – ensure that strong physical and visual connections are established to the amenities and services of the surrounding innovation district and the broader context of Washington, D.C.

7. **Flexibility** – plan for adaptation to accommodate changes in technology, higher education, research, and the economy.

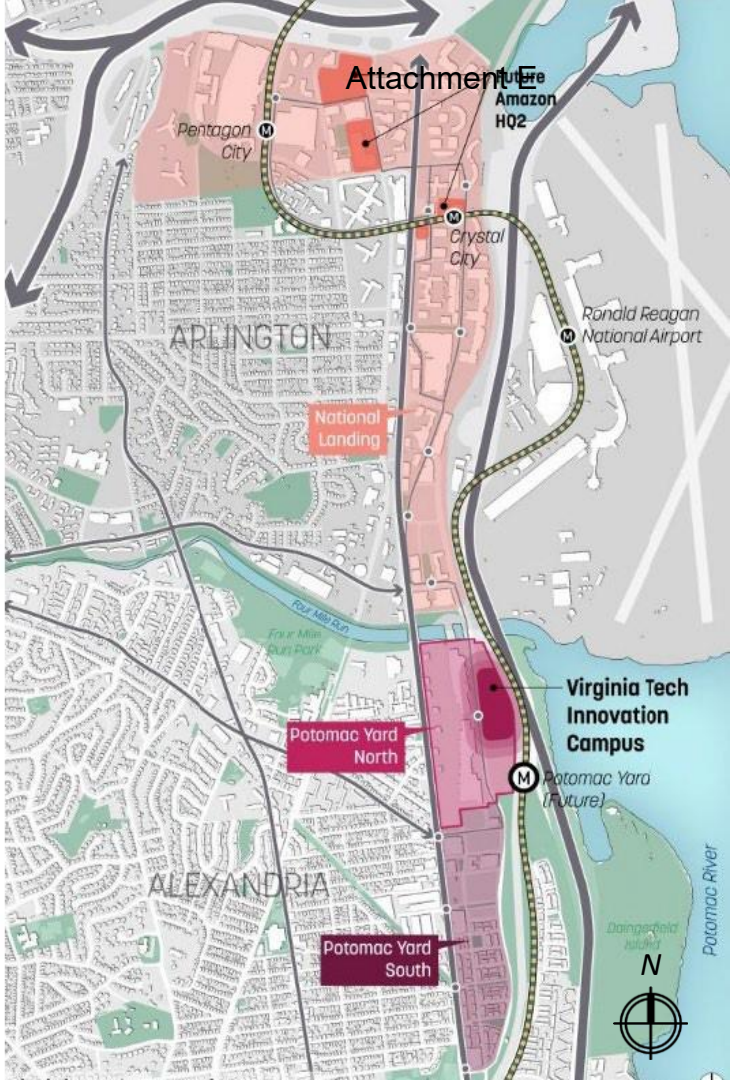
8. **Visual connectivity and transparency** – locate active uses on the ground floors of buildings to connect interior and exterior activities especially along pedestrian routes and open space.

9. **Integrated Technology** – embed technology to create a "smart" and resilient campus environment and to support VT research activities.

10. **Sustainability and Resiliency** – integrate sustainable energy, water and waste management solutions into the design with the goal of creating a resilient campus environment and to demonstrate VT's values and capabilities.

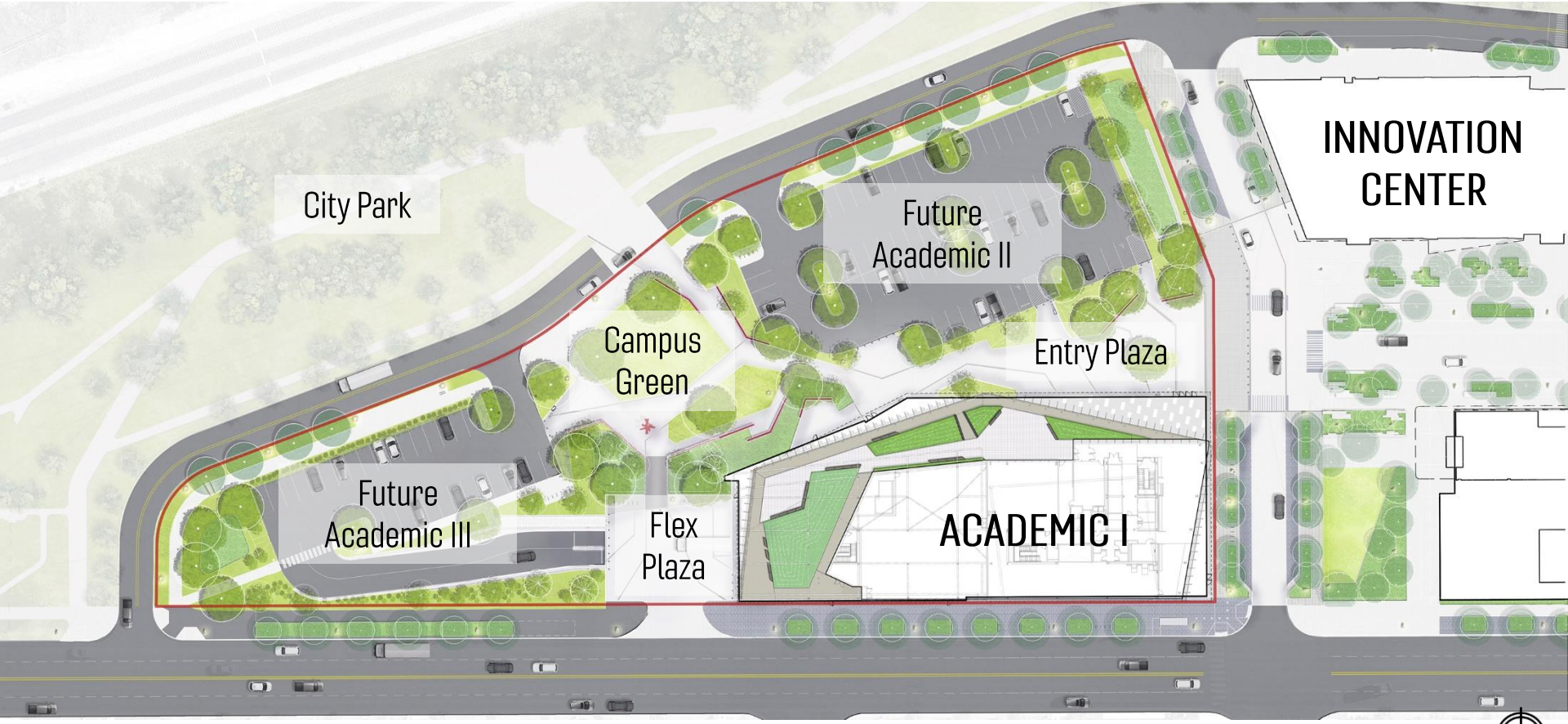
PROJECT LOCATION

Attachment E



CAMPUS / SITE PLAN

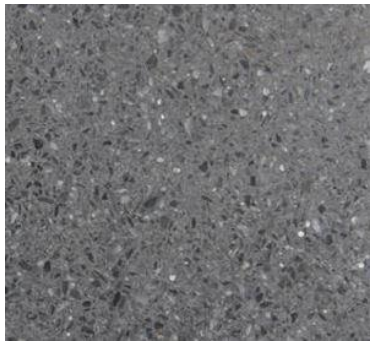
Attachment E



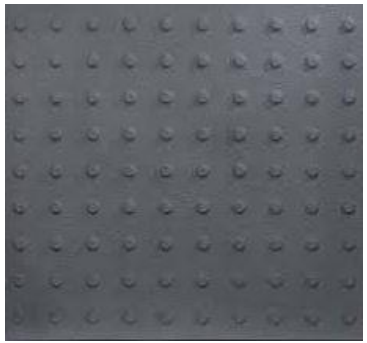
/ INNOVATION CAMPUS ACADEMIC I

SITE MATERIALS

Modular and CIP Paving



Accent Paving

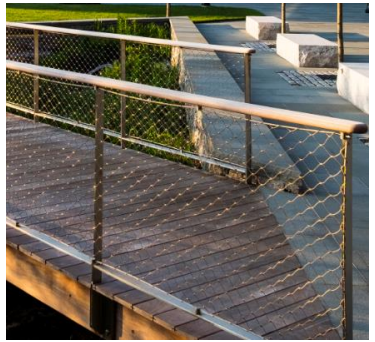


Detectable Paving

Steel Curbing

Quarry Cut Hokie Stone

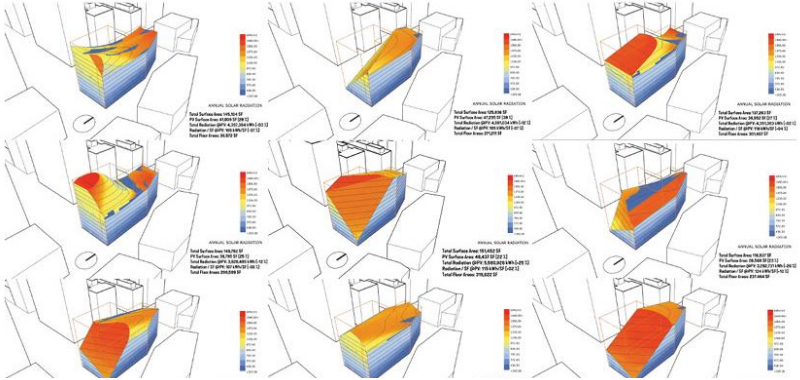
Concrete



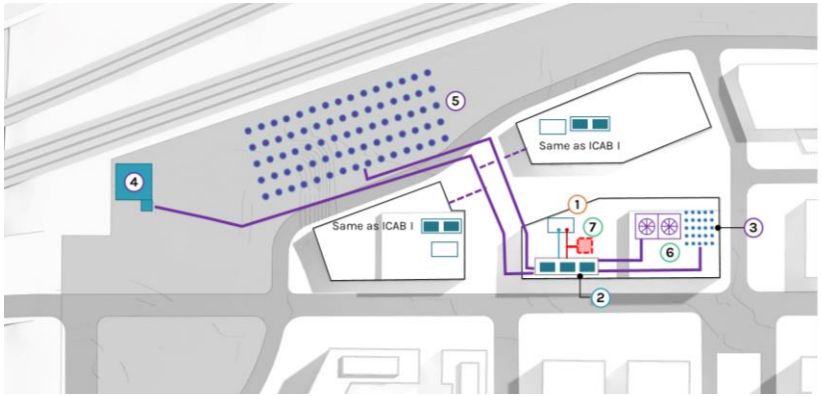
Steel and Mesh Guardrail

SUSTAINABLE, NET ZERO, CARBON NEUTRAL STRATEGIES

- Building-integrated photovoltaic panels
- 100% roof rainwater capture
- Graywater system
- Bio-retention basins
- Ongoing water and air performance testing
- Demolition and construction diversion
- Bike storage and showers
- EV car charging stations
- Priority parking for LEV vehicles
- Occupancy sensors
- Active daylighting controls
- High efficiency LED site lighting
- Future geothermal bore field



Form Optimization for Solar Orientation



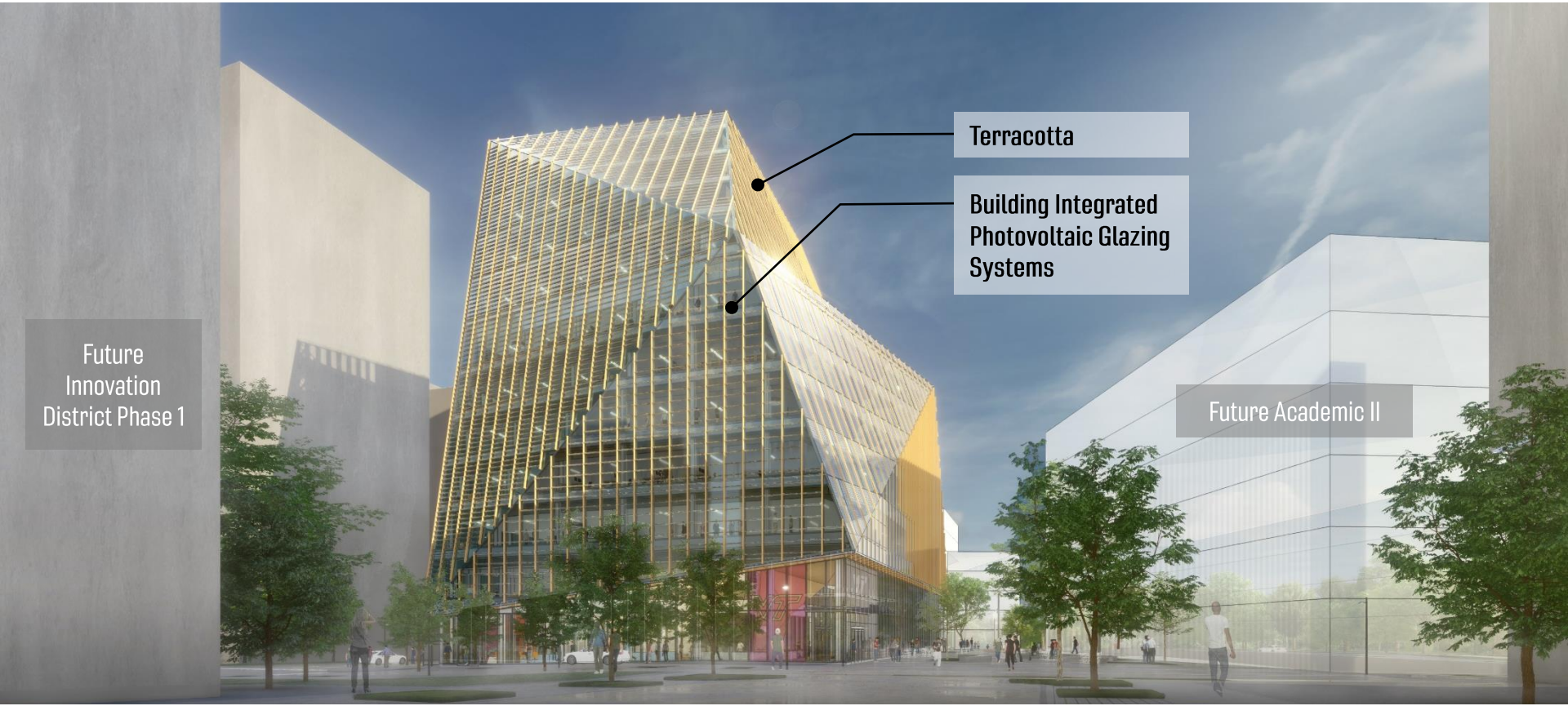
Future Sewage Wastewater Energy Exchange (SWEE)

AERIAL VIEW

Attachment E

SOUTH FAÇADE & METRO APPROACH TO CAMPUS

Attachment E



EXTERIOR VIEW

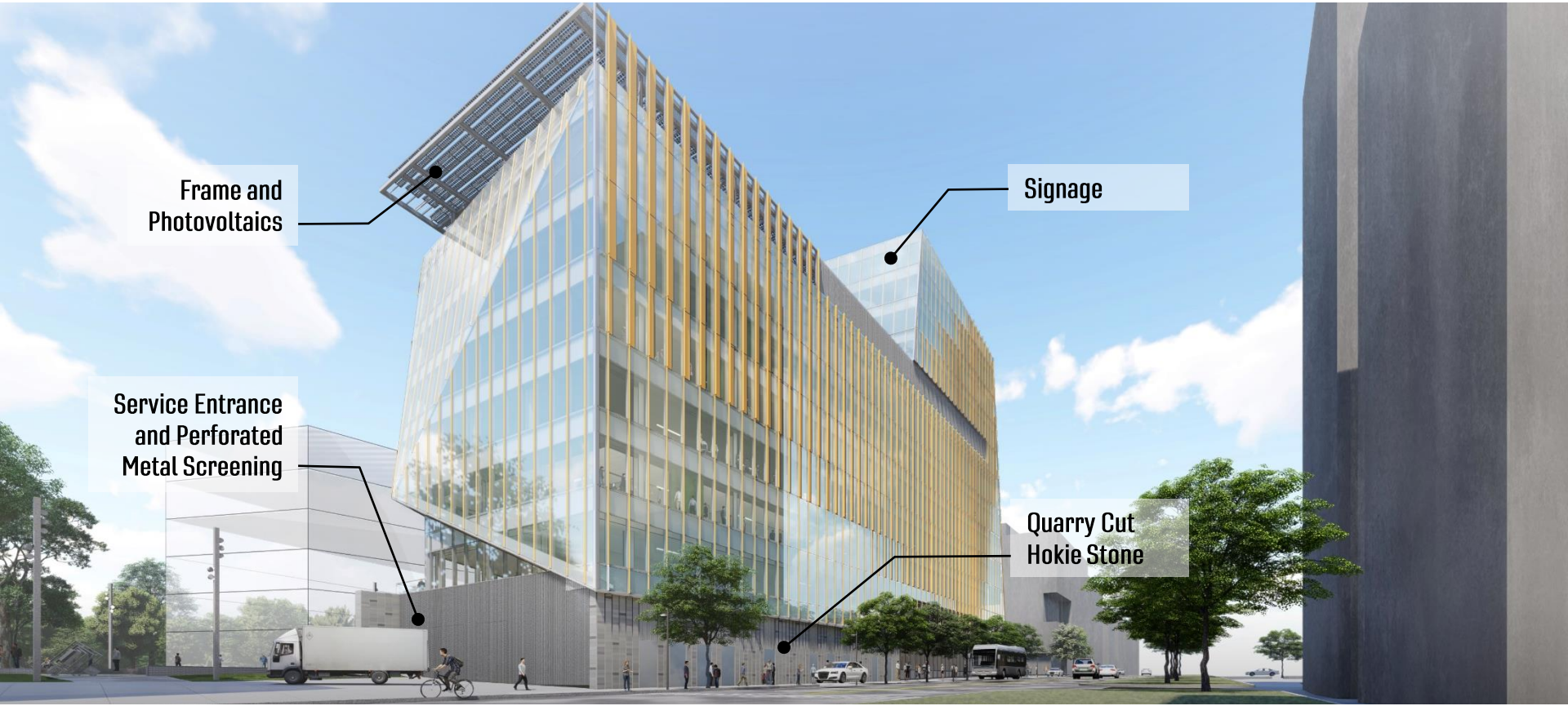
Attachment E

NORTHEAST FAÇADE

Attachment E

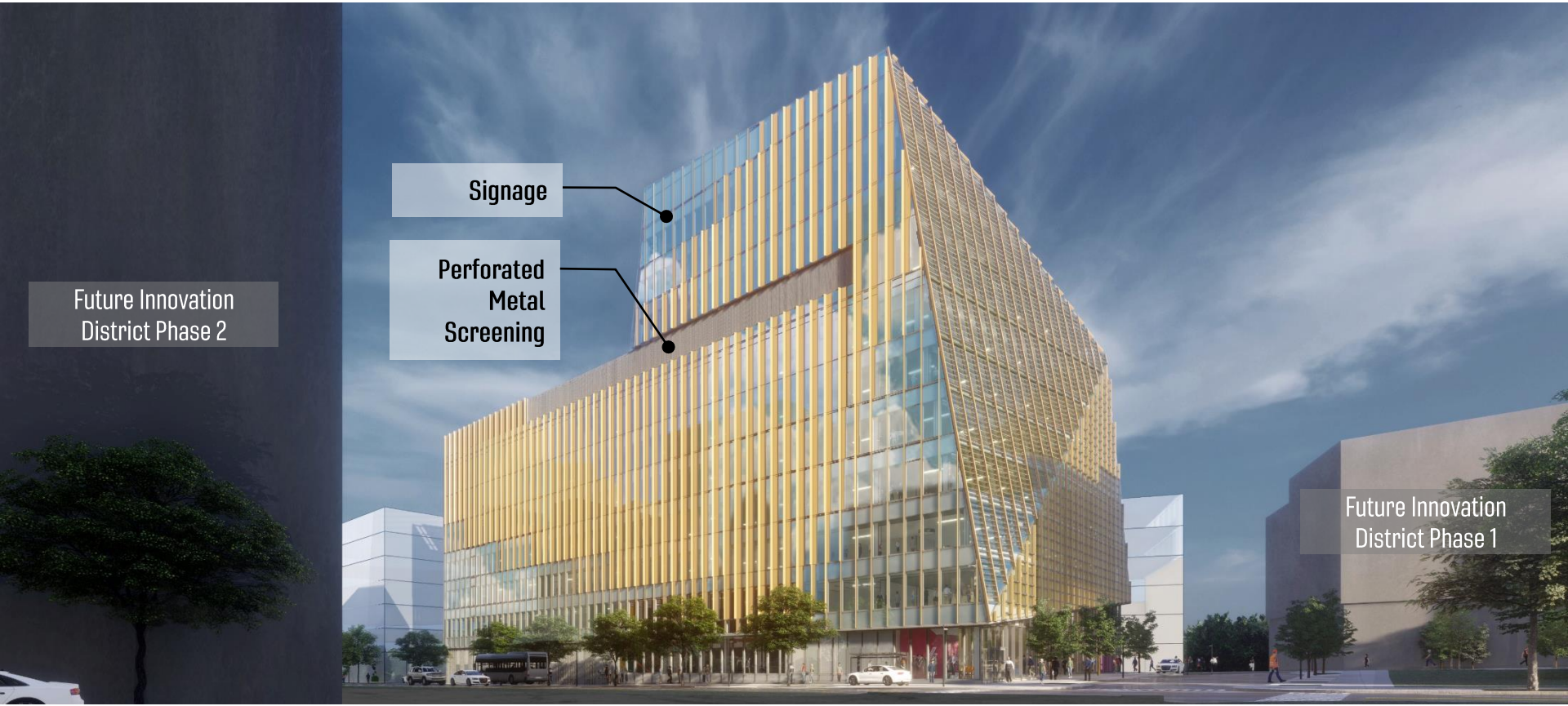
NORTHWEST FAÇADE

Attachment E



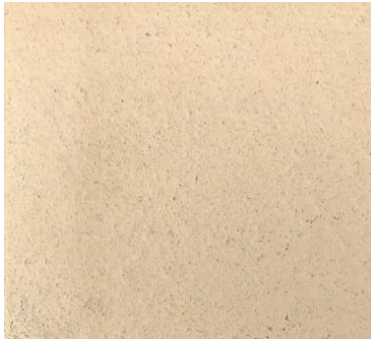
SOUTHWEST FAÇADE

Attachment E



ARCHITECTURAL MATERIALS

Attachment E



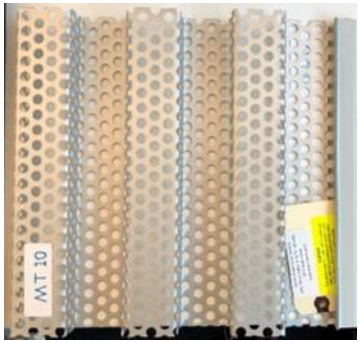
Terracotta

Glazing

BIPV Glazing

Spandrel Glazing

Quarry Cut Hokie Stone



Perforated Metal

Wood

INTERIOR RENDERING

Attachment E

INTERIOR RENDERING

Attachment E

INTERIOR RENDERING

Attachment E

TERRACE VIEW

Attachment E

FLOOR PLANS

Attachment E

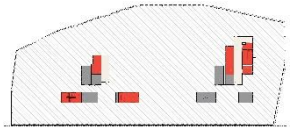
01

02

03

04

05



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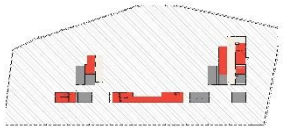

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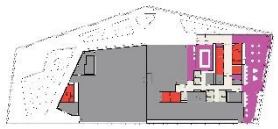

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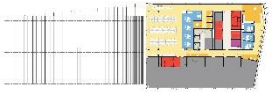

09

10

11

LEGEND

- Classroom
- Laboratory Facilities
- Office Facilities
- Study Facilities
- Special Use Facilities
- General Use Facilities
- Support Facilities

RESOLUTION

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 THE INNOVATION CAMPUS ACADEMIC I BUILDING

The Innovation Campus Academic I Building is a 299,733 gross square foot facility in Alexandria. The site for the building is an approximately 4-acre master planned campus within the larger 65-acre mixed-use development known as North Potomac Yard. This strategic location places Virginia Tech and its future partners near the nation's capital, diverse industries, and leading tech companies, including Amazon's HQ2, amid the creation of a new, vibrant Innovation District.

Academic I is a catalyst for development of the District and provides instruction, research, office, and support spaces primarily for graduate programs including, but not limited to, Computer Science and Computer Engineering. The building envelope creates a bold new urban identity for the 'VT Experience' shaped by science, technology and engineering around sustainability, resiliency, and flexibility. The project positions Virginia Tech as a model 21st century land grant institution and moves the university toward net zero and carbon neutrality goals.

The project is currently in the working drawings phase. Construction is expected to begin in September 2021. Substantial completion is targeted for April 2024, anticipating classes to begin in the fall 2024 academic semester.

Capital Project Information Summary – Innovation Campus Academic I Building

BUILDINGS AND GROUNDS COMMITTEE

June 8, 2021

Title of Project:

Innovation Campus Academic I Building

Location:

The site is located on an approximately 4 acre master planned campus in Alexandria, at the north end of phase one of a larger 65-acre mixed-use development known as North Potomac Yard. Phase one development boasts a proposed Metro stop within a two-block distance, is adjacent to Potomac Avenue to the west, and the rail line and George Washington Memorial Parkway to the east.

Current Project Status and Schedule:

The project is funded and is currently in the working drawings phase. Construction is predicated upon site turnover and is expected to begin in September 2021. Substantial completion is targeted for April 2024, anticipating classes to begin in the fall 2024 academic semester.

Project Description:

In June of 2019 Virginia Tech announced intentions to locate a new Innovation Campus in North Potomac Yard, Alexandria. This strategic location places Virginia Tech and its future partners near the nation's capital, diverse industries, and leading tech companies, including Amazon's HQ2, amid the creation of a new, vibrant Innovation District.

Virginia Tech's Innovation Campus positions the university as a model of the 21st century land grant institution, an institution committed to its agricultural and engineering legacy while expanding its mission to address the issues and problems of the 21st century which are increasingly urban and global in nature. The Innovation Campus will enable Virginia Tech to forge stronger links between the rural and a global capital city, where this connection enables the university to integrate its mission with innovative businesses, national and international organizations, and government agencies.

Academic I is a catalyst for development of the Innovation Campus and larger Innovation District.

Brief Program Description:

Academic I provides 299,733 gross square feet of instruction, research, office, and support spaces primarily for graduate programs including, but not limited to, Computer Science and Computer Engineering. Experiential Learning environments within this building are designed to enhance the 'VT Experience' including flexible multi-purpose areas, research and testing labs, and maker spaces.

Campus wide, there will be entrepreneurship environments which facilitate and encourage an entrepreneurial spirit. Types of spaces include incubator, ideation, networking, and showcase. Engagement is also core to the mission of the Innovation Campus, and Academic I is envisioned to be a part of an engagement ecosystem, providing a platform to connect Virginia Tech with its partners and community. These resource gateways are welcoming spaces to connect the university with business, organization, and industry partners as well as the broader community.

The building is infused with technologies to support program within the building, campus and district, as well as leveraging programs and people at other Virginia Tech locations throughout the Commonwealth, and globally.

Contextual Issues and Design Intent:

The Innovation Campus is designed to offer moments of surprise, delight, and to foster creativity. The design will offer opportunities to educate occupants and visitors on the sustainability, resiliency, and innovation features of the campus.

There is a deliberate and well-thought-out approach to the public realm, designed to support engagement and interaction. For example, vibrant ground-level interior and exterior spaces are designed to showcase Virginia Tech activities and provide flexibility to facilitate changing programmatic needs and uses. The design promotes wellbeing, as well as universal design principals to foster an inclusive, healthy environment for all users.

Further, high performance and net zero energy building practices are utilized, with the goal of significant strides toward net zero energy through production of energy, innovative technology, and renewable sources including photovoltaics. The project is also utilizing low embodied energy and low carbon materials, and is designed in response to climate and thermal comfort.

The resultant design marks a bold urban identity for the 'VT Experience' shaped by science, technology and engineering around sustainability, resiliency, flexibility, and wellness.

Funding:
The project was funded through a $275 million state appropriation.

Architect/Engineer:
SmithGroup

Construction Manager at Risk:
Whiting Turner

Future Agenda Items and Closing Remarks

BUILDINGS AND GROUNDS COMMITTEE

June 8, 2021

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

Attachment E

Tour

BUILDINGS AND GROUNDS COMMITTEE

June 8, 2021

The Buildings and Grounds Committee will tour select intercollegiate athletics facilities, including the ACC Network Broadcast Studio, Athletics Weight Room, and the Student-Athlete Performance Center.