

**UNIVERSITY OF VIRGINIA  
BOARD OF VISITORS**

**Joint Meeting of the Finance and  
Buildings and Grounds Committees**

**June 9, 2017**

**JOINT MEETING OF THE FINANCE AND  
BUILDINGS AND GROUNDS COMMITTEES**

**Friday, June 9, 2017  
9:50 – 10:10 a.m.  
Board Room, The Rotunda**

**Finance Committee Members:**

James B. Murray Jr., Chair  
L. D. Britt, M.D.  
Elizabeth M. Cranwell  
Thomas A. DePasquale  
Kevin J. Fay

John F. Macfarlane III  
William H. Goodwin Jr., Ex-officio  
Nina J. Solenski, M.D., Faculty Member  
Bryanna F. Miller, Student Member  
Daniel Maxwell Meyers, Consulting Member

**Buildings and Grounds Committee Members:**

Kevin J. Fay, Chair  
Mark T. Bowles  
Whittington W. Clement  
Elizabeth M. Cranwell  
Thomas A. DePasquale

Barbara J. Fried  
John G. Macfarlane III  
James B. Murray Jr.  
James V. Reyes  
William H. Goodwin Jr., Ex-officio

**AGENDA**

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<b>I. ACTION ITEM (Ms. Sheehy)</b>	<b>1</b>
• 2017 Multi-Year Major Capital Plan	
<b>II. WRITTEN REPORT</b>	
• Additions to the Multi-Year Capital Plan and Capital Planning Studies	<b>10</b>

**UNIVERSITY OF VIRGINIA  
BOARD OF VISITORS AGENDA ITEM SUMMARY**

**BOARD MEETING:** June 9, 2017

**COMMITTEE:** Finance and Buildings and Grounds

**AGENDA ITEM:** I. 2017 Multi-Year Major Capital Plan

**BACKGROUND:** In November 2015, the Buildings and Grounds Committee endorsed a capital approval process to more actively engage the Board of Visitors throughout the capital planning process. As shown in the flowchart on the following page, projects proposed to be added to the capital planning master list are reviewed with the Buildings and Grounds Committee after being vetted by the Space Leadership Committee (SLC) and executive leadership to ensure alignment with institutional priorities, and a revised six-year capital plan is presented to the Finance Committee, the Buildings and Grounds Committee, and the full Board of Visitors for approval in June.

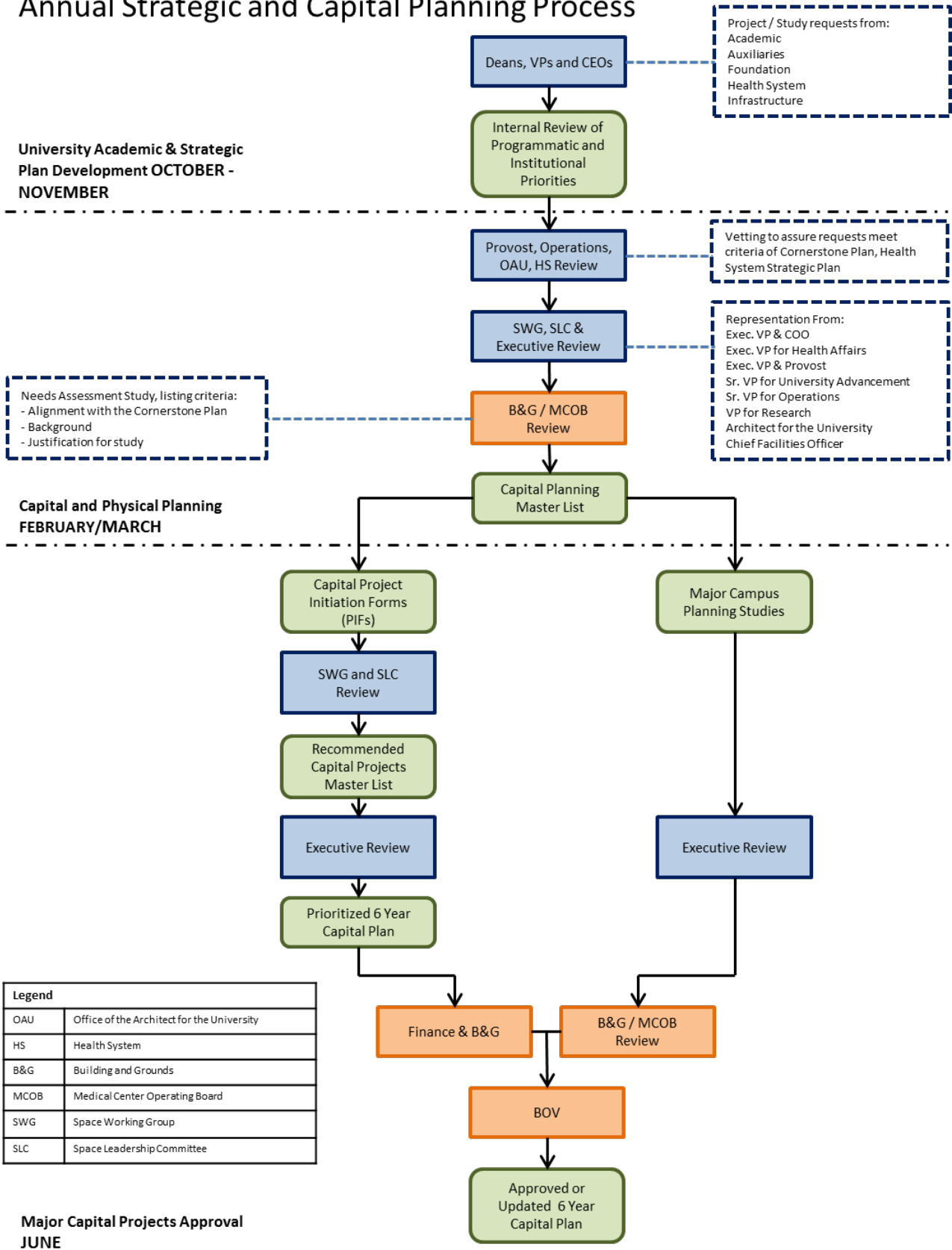
In June 2016, the Board of Visitors approved the 2016 Major Capital Plan for the Academic Division, Health System, and College at Wise. In accordance with the Strategic and Capital Planning Process, the University updates the Plan annually to add new projects, remove projects that are no longer a priority, and align high-priority projects across a six-year plus timeframe according to the level of work and resources expected to be dedicated to each project. The SLC used the following criteria to assist in identifying high-priority projects and determining where a particular project fits relative to the six-year timeframe:

- Responds to a legal, compliance, or regulatory mandate; addresses a life safety risk
- Addresses more than one function/unit
- Aligns with the strategic goals of the University
- Provides value to the customer
- Improves current conditions
- Complies with current land use master plans
- Presents a viable funding plan

The 2017 Multi-Year Major Capital Plan was reviewed with the Building and Grounds Committee at the March 2017 meeting. Since that meeting, four projects have been added to the Plan:

- Squash Facility Expansion (UVa Foundation project in planning)
- Football Operations Center (near-term)
- Pavilion VIII Renovation (near-term)
- Darden Academic Building Addition and Facility Renovation (mid-term)

# Annual Strategic and Capital Planning Process



Legend	
OAU	Office of the Architect for the University
HS	Health System
B&G	Building and Grounds
MCOB	Medical Center Operating Board
SWG	Space Working Group
SLC	Space Leadership Committee

**Major Capital Projects Approval JUNE**

**DISCUSSION:** The SLC evaluated previously-authorized projects except those currently in construction and in planning, and all proposed projects based on how well each met the criteria noted above. The SLC prioritized projects to be added to the plan into three timeframes based on when the project is expected to be initiated: near-term (2016-2018), mid-term (2018-2020), and long-term (after June 30, 2020). Prioritizing in this manner also aligns with State requirements for the submission of a six-year capital plan.

The proposed 2017 Capital Plan updates the plan approved by the Board in June 2016 with current cost estimates, adds new projects, and removes projects no longer planned within the next six years. Three Academic Division projects that are anticipated to change in scope and/or approach have been removed from the plan: (1) MR-4 Renovation; (2) Anheuser-Busch Coastal Research Center - Phase II; and (3) North Grounds to Old Ivy Ductbank.

The University's executive leadership reviewed the preliminary financial plans for each of the near-term projects, including private funding assessments and strategies; the repayment of debt service; and the required funding of incremental operating and maintenance costs. As reflected in the tables beginning on page 5, several proposed projects are dependent upon external fund sources (e.g., state general funds, private fundraising/gifts); if these funds are not realized, the projects will not proceed unless other fund sources are identified.

In addition to projects proposed to be added to the 2017 Capital Program, the University proposes to engage in several land-use planning and space needs studies that will inform future projects:

Near Term (2016-18)

- Ivy Mountain Redevelopment Planning (in progress)
- North Grounds/Athletics Precinct (in progress)
- Architecture School Space Needs
- Curry School Space Needs
- Darden Master Plan
- Engineering School Space Needs
- Environmental Health & Safety
- Fontaine Master Plan & Transportation Study
- Student Activities Building (also included as a proposed mid-term project)

Mid Term (2018-20)

- O'Hill Dining Hall Expansion
- Research Enterprise Space Needs
- UVA Technology Center
- University Police Department/Public Safety Space Needs

## Overall Debt Assessment

The University's Treasury Department has conducted an assessment to evaluate the impact of projects to be debt-funded on the University's key debt ratios as outlined in the Board of Visitors approved debt policy. For projects expected to begin by 2018, Treasury concluded there is sufficient capacity for the debt required, based on the historical rate of capital draws.

Should there be an acceleration of the rate at which draws occur, the debt capacity analysis will be updated. Treasury will conduct a project-specific creditworthiness check prior to initiating debt for any project. By accepting the Treasury Department's assessment, the Board of Visitors does not authorize the issuance of debt or any other long-term financial obligation; rather, the Board of Visitors approves the inclusion of these debt-funded projects as a part of the 2017 Major Capital Program.

## Overall Private Funding Assessment

The University's Vice President for Advancement has conducted an assessment of each program sponsor's ability to meet the philanthropic requirements as outlined in the project financial plan. For projects expected to begin by 2018, gifts are either in-hand, have written enforceable pledges, or remain to be raised. It is the University's assessment that the total private funding component sought for new projects proposed in the near term, while perhaps a stretch goal for some project sponsors, is consistent with current private fundraising objectives and opportunities.

It is the University's policy that the design phase of a project may begin only after design funding is in-hand in a University account. Further, the construction phase for gift-funded projects will begin only if: (1) 50% of philanthropy, valued on a present value basis, is received and deposited into a University account with the remaining 50% committed via written enforceable pledges; and (2) 100% of the written enforceable pledges will be collected prior to the project's completion, or the project sponsor is prepared to use short-term financing to bridge cash collections of pledges.

Ms. Sheehy will review the proposed 2017 Multi-Year Capital Program. Write-ups describing proposed additions to the Capital Program were shared with the Committee in advance of the meeting and are included as written reports beginning on page 11.

## 2017 Multi-Year Major Capital Plan

### Academic Division Authorized and **Proposed** Projects Under Construction and In Planning

Under Construction			In Planning		
	Budget	Source		Budget	Source
Gilmer Hall and Chemistry Building Renovation	\$186.8M	State GF, Gifts, Cash	Baseball Stadium Expansion	\$16.2M	Gifts, Debt
Gooch Dillard Residence Hall Renovation Phases II/III	\$32.0M	Debt, Auxiliary	Center for Human Therapeutics	\$8.2M	State GF
International Residential College Renovation	\$16.0M	Debt, Auxiliary	Clean Room Upgrades	\$9.1M	Other
McCormick Rd Residence Hall Renovation	\$104.7M	Debt, Auxiliary	Contemplative Sciences Center	\$53.3M	Gifts
UVa-Dominion Virginia Power Ductbank	\$14.6M	Debt	Ivy Stacks Expansion	\$7.9M	Debt, Other
			Laboratory Renovations	\$4.3M	State GF
			Old Ivy Road Office Building	\$30.5M	Debt
			<b>Squash Facility Expansion (UVAF)</b>	<b>\$9.0M</b>	<b>Gifts</b>
<b>Total Under Construction</b>	<b>\$354.1M</b>		<b>Total In Planning</b>	<b>\$138.5M</b>	

### Academic Division Authorized<sup>1</sup> and **Proposed** Projects

Near-Term (2016-18)			Mid-Term (2018-20)			Long-Term (2020 and beyond)		
	Budget	Source		Budget	Source		Budget	Source
Alderman Library Renewal Phase I (Planning)	\$7.5M	State GF	Alderman Library Renewal Phase I (Construction)	\$145.0M	State GF	Drama Building: Phase II South Addition	\$17.9M	Gifts
Center for Politics	\$14.0M	Gifts	Bayly Building Addition/Renovation	\$28.0M	State GF, Gifts	Fiske Kimball Fine Arts Library Renewal	\$18.7M	State GF, Gifts
Memorial to Enslaved Laborers	\$5.5M- \$6.0M	Gifts	Frank Batten School of Leadership & Public Policy	TBD	Gifts	Music Building	\$52.1M	Gifts

<sup>1</sup> Excludes maintenance reserve: \$18.4M in 2016-18, \$19.5M in 2018-20, \$20.7M in 2020 and beyond.

**Academic Division Authorized<sup>1</sup> and Proposed Projects**

Near-Term (2016-18)			Mid-Term (2018-20)			Long-Term (2020 and beyond)		
Budget	Source		Budget	Source		Budget	Source	
Physics Building Renewal (Planning)	\$2.0M	State GF	Physics Building Renewal (Construction)	\$33.0M	State GF	Old Cabell Hall Renewal	\$41.8M	State GF, Gifts
Student Health Center	\$52.0M	Debt, Gifts	Alderman Road Residence Halls - Buildings 7 & 8	\$60.0M-\$110.0M	Debt	Science & Engineering Plant: Replace Chemistry Chillers	\$23.1M	Debt, Auxiliary
Golf Facility at Birdwood (UVAF)	\$4.9M-\$5.4M	Gifts	Carr's Hill Renovation and Event Structure	TBD	TBD			
Tennis Stadium at Boar's Head (UVAF)	\$11.8M-\$12.8M	Gifts	Darden Academic Building Addition & Facility Renovation	\$75.0M-\$85.0M	Gifts			
Brandon Avenue Green Street & Infrastructure	\$41.0M	Debt	McIntire Academic Facility	TBD	Gifts			
Brandon Avenue Upper-Class Residence Hall	\$66.0M	Debt, Gifts	Student Activities Building	TBD	TBD			
Football Operations Center	\$55.0M-\$60.0M	Gifts	Thornton Hall B Wing Renovation (SEAS)	\$12.0M-\$15.0M	State GF			
Ivy Corridor Landscape and Infrastructure, Phase I	\$36.2M	Debt						
Ivy Mountain District Energy Development Zone	\$12.0M-\$16.0M	Debt, Cash						
Low Temperature Hot Water Conversion, Phase I	\$14.0M-\$20.0M	Debt						
Main Heat Plant - New Boiler	\$8.0M-\$11.0M	Debt, Cash						
Pavilion VIII Renovation	\$5.0M-\$7.0M	Gifts, Debt						
Softball Facility Renovation	\$8.0M-\$10.0M	Debt						
<b>Total Near-Term</b>	<b>\$342.9M-\$366.9M</b>		<b>Total Mid-Term</b>	<b>\$353.0M-\$416.0M</b>		<b>Total Long-Term</b>	<b>\$153.6M</b>	



**Health System Authorized Projects Under Construction and In Planning<sup>2</sup>**

Under Construction			In Planning		
	Budget	Source		Budget	Source
500 Ray C. Hunt Drive Acquisition & Renovation	\$35.0M	Cash	Emily Couric Clinical Cancer Center 4th Floor Fit-Out	\$14.8M	Cash
Hospital HVAC, Phases III and IV	\$28.0M	Cash	Pinn Hall Renovation, Phase I	\$32.0M	Cash
Outpatient Procedure Center Renovation	\$13.0M	Cash			
University Hospital Expansion	\$391.6M	Debt, Cash			
University Hospital Renovations (Levels 7 & 8)	\$20.0M	Cash			
<b>Total Under Construction</b>	<b>\$487.6M</b>		<b>Total In Planning</b>	<b>\$46.8M</b>	

**Health System Authorized and **Proposed** Projects**

Near-Term (2016-18)			Mid-Term (2018-20)			Long-Term (2020 and beyond)		
	Budget	Source		Budget	Source		Budget	Source
Ivy Mountain Orthopedics Center	\$146.0M-\$164.0M	Debt	545 Ray C. Hunt Renovation (Clinic Space)	\$10.1M	Cash	Multi-Disciplinary Ambulatory Clinic Building	TBD	TBD
Translational Research Building	\$150.0M-\$200.0M	Debt	Medical Center Data Center	\$23.0M	Cash			
			Consumer-Based Ambulatory Clinic Building	TBD	TBD			
			Pinn Hall Renovation, Phase II	TBD	TBD			
<b>TOTAL</b>	<b>\$296.0M-\$364.0M</b>		<b>TOTAL</b>	<b>\$33.1M</b>		<b>TOTAL</b>	<b>-</b>	

<sup>2</sup> Excludes \$82.3M for 10-Year Deferred Maintenance Master Plan

**College at Wise Authorized Projects [no proposed projects]<sup>3</sup>**

Near-Term (2016-18)			Mid-Term (2018-20)			Long-Term (2020 and beyond)		
Budget	Source		Budget	Source		Budget	Source	
Wyllie Library Renovation and Conversion (Planning)	\$0.8M	State GF	Athletic Building	\$15.7M	Gifts	Bowers-Sturgill Hall Renovation	\$5.9M	State GF
			Campus Welcome Center/Public Safety Facility	\$4.9M	State GF	Darden Hall Renovation	\$24.7M	State GF
			Proscenium Theatre	\$31.6M	State GF	Zehmer Hall Renovation	\$23.6M	State GF
			Sandridge Science Center Lab Wing Renovation	\$32.2M	State GF			
			Wyllie Library Renovation and Conversion (Construction)	\$11.7M	State GF			
<b>TOTAL</b>	<b>\$0.8M</b>		<b>TOTAL</b>	<b>\$96.1M</b>		<b>TOTAL</b>	<b>\$54.2M</b>	

<sup>3</sup> Excludes maintenance reserve: \$1.2M in 2016-18, \$1.3M in 2018-20, \$1.5M in 2020 and beyond.

**ACTION REQUIRED:** Approval by the Buildings and Grounds Committee, by the Finance Committee, and by the Board of Visitors

**2017 MULTI-YEAR MAJOR CAPITAL PLAN FOR THE ACADEMIC DIVISION, HEALTH SYSTEM, AND COLLEGE AT WISE**

WHEREAS, in accordance with the capital projects approval process endorsed by the Buildings and Grounds Committee in November 2015, major capital projects are vetted by the Space Leadership Committee and executive leadership, as well as by appropriate committees of the Board of Visitors, to ensure alignment with the Cornerstone Plan and institutional priorities; and

WHEREAS, the projects included in the proposed 2017 Major Capital Plan are arrayed across a six-year plus timeframe based on the anticipated work related to each project; and

WHEREAS, the University is also engaging in several major capital planning studies that will result in specific projects in the future; and

WHEREAS, the Executive Vice President and Chief Operating Officer will confirm that appropriate funding is in place before any project commences construction;

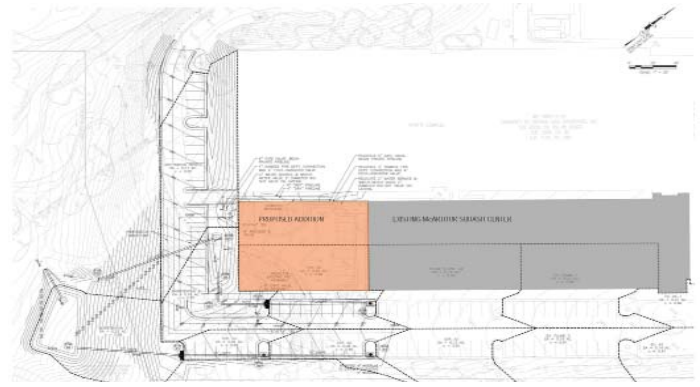
RESOLVED, the 2017 Multi-Year Major Capital Plan for the Academic Division, the Health System, and the College at Wise is approved; and

RESOLVED FURTHER, the financial plans for capital projects expected to begin by 2018 in the update of the 2017 Multi-Year Major Capital Plan are complete and approved.

**WRITTEN REPORT**

**University of Virginia  
Board of Visitors  
Joint Meeting of the Finance and  
Buildings and Grounds Committees**

**June 9, 2017**



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# University of Virginia

## MCARTHUR SQUASH CENTER EXPANSION AT THE BOAR'S HEAD SPORTS CLUB

A PROJECT MANAGED BY THE UVA FOUNDATION

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### Program Background

The UVA Foundation has been asked to manage the design and construction of a 20,000 square foot addition to the existing 33,000 square foot McArthur Squash Center at the Boar's Head Sports Club. The project has a budget of \$9 million and will be funded by gifts.

### Project Drivers

The project is being developed in support of the men's and women's varsity squash teams and the desire to host intercollegiate tournament play. The current squash center does not contain enough courts to support this level of event. It is envisioned that this extension will add 5 singles courts bringing the total count to 14 singles and 2 doubles courts.

### Findings

The programming of the space will, in addition to the five singles courts, add locker facilities, training room, coach's offices, study facilities, a media room and other support facilities. The location of the facility directly adjacent to the existing squash center, takes advantage of existing functions such as additional locker room space which may be used to host visiting teams.

### Status and Recommendations

The UVA Foundation is designing and developing the project on UVA Foundation land. A site plan has been submitted to the County of Albemarle and the following work is either complete or underway:

- Completion of building and site design (currently underway)
- Completion of conceptual cost estimates and establishment of final project budget
- Completion of draft operating agreement and expenses

It is estimated that the project will be in design through August of this year and will begin construction in September/October with a completion date targeted for June/July 2018.



# University of Virginia

## BRANDON AVENUE GREEN STREET AND INFRASTRUCTURE

### Program Background

Brandon Avenue, identified in the 2008 Grounds Plan as a near-term redevelopment zone, is a valuable asset, providing a 7.5 acre redevelopment opportunity in the heart of the Grounds adjacent to the Health System, the College of Arts & Sciences, and the Academical Village. The area is ideal for a mix of residential and academic programs, and in September 2016 the Board of Visitors approved the strategic master plan for Brandon Avenue, the design of which incorporates landscape, pedestrian circulation and vehicular parking, storm water accommodation and university utilities, as well as identifying sites for future buildings. This Project will establish street design guidelines and the design of the infrastructure to support concurrent and future building projects.

### Criteria in Support of the Cornerstone Plan

The Brandon district will support the development of student housing in a location within Central Grounds and will provide opportunities for academic space in close proximity to The Lawn and academic facilities, with the opportunity to provide multi-disciplinary and innovative spaces, including active flexible classroom spaces.

The design of the Brandon Green Street supports sustainable infrastructure development through its innovative storm water management while creating a new student-centered learning community and public space for UVa.

### Project Drivers

There is an immediate need for upper class housing to replace that which was repurposed for first-year student housing to accommodate enrollment growth over the last ten years; Brandon Avenue, through student surveys, was determined to be a highly desirable location.

### Status and Recommendation

The Green Street and Utilities Infrastructure project will include the following components in its scope:

1. Design and construction of new university utility lines (hot and chilled water, storm water, electric) along Brandon Avenue from central utilities to proposed new buildings.
2. Design and construction of a new street, sidewalks and pathways, parks, and green spaces.
3. Design adjustments to the Intersection of Brandon Avenue and JPA to improve safety and enhance traffic and pedestrian flow.

**Anticipated Cost: \$41M**





# University of Virginia

## BRANDON AVENUE UPPER CLASS HOUSING

### Program Background

On-Grounds upper-class housing last experienced growth with the 1992 construction of the Hereford College buildings. The conversion of Gooch/Dillard to first-year student housing removed approximately 600 beds from the upper class inventory. Current housing application numbers and enrollment growth illustrate the need for increasing the current undergraduate housing options.

### Project Drivers

Given the described need for on-Grounds undergraduate housing options, this project seeks to construct an upper class housing development and provide approximately 300 beds in an apartment-style facility with single rooms and amenities comparable to the off-Grounds market.

To ensure that this important redevelopment zone and the planned projects provide maximum long-term value to the University, the Brandon Avenue Strategic Master Plan was developed and approved by the Board of Visitors in September 2016. This development, known as the Green Street, proposes a vibrant student-oriented, mixed-use (academic, student housing, and student services) community connected by green space. The proposed buildings will frame the Green Street - a reconfigured Brandon Avenue that provides green space, a working landscape addressing storm water, a new streetscape that prioritizes pedestrian activity, and an improved intersection at Brandon Avenue and Jefferson Park Avenue.

### Criteria in Support of the Cornerstone Plan

The Brandon district will support the development of upper class housing in an ideal location within Central Grounds, strengthening the University's distinctive residential culture.

The Brandon district will support the development of student housing in a location within Central Grounds and will provide opportunities for academic space in close proximity to The Lawn and the College of Arts & Sciences, with the opportunity to provide multi-disciplinary and innovative spaces, including active flexible classroom spaces.

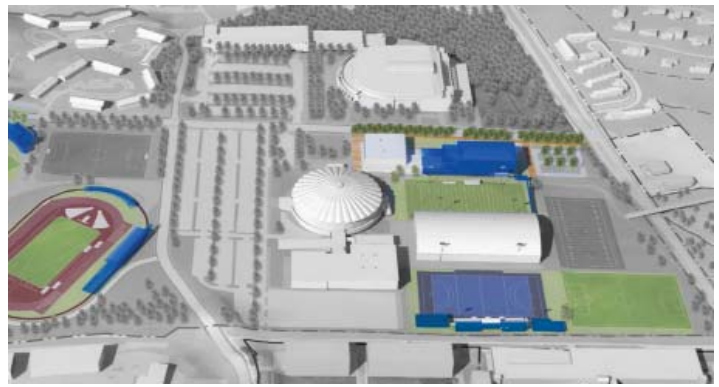
### Status and Recommendation

The BOV authorized the planning of new upper class student residential complex on Brandon Avenue in September 2016.

Estimated Project Cost: \$63-69M

Funding 100% bonds/debt service

Projected occupancy: Fall 2019



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# University of Virginia

## FOOTBALL OPERATIONS CENTER

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### Mission-Department of Athletics

The Department of Athletics is an integral part of the University of Virginia's commitment to educational excellence. Its mission is to enhance and support the intellectual purpose of the University and its exemplary academic standards and traditions. Critical to the Department's mission are high academic achievement; nationally competitive and successful teams; comprehensive integration of student athletes within the University and local communities; the attraction and retention of the highest quality student athletes and staff.

The Department of Athletics unites the varied constituencies of the University community through its intercollegiate and intramural programs. The programs are designed to build support for and add value to the academic purposes of the institution while developing students with strong values of leadership, sportsmanship, equity, citizenship, physical fitness, teamwork, and a commitment to excellence.

Fielding competitive teams in our primary revenue sports, particularly football and basketball, helps support the entire Athletics Department operation including our Olympic sports.

### Background

Opened in 1990, the McCue Center currently functions as the daily home for the football program. Periodic updates have been completed over the last 24 years to support the football program, but the building cannot be configured to accommodate the features that are commonly found with peer programs.

The landscape of the ACC has changed dramatically since the McCue Center was built. While academic excellence is still the most important factor in a recruit's choice of school, team facilities also rank very high. It is critical to upgrade the facilities for the football program to address deficiencies identified by coaches, student-athletes and recruits. Within the ACC alone, seven of UVA's competitors have a facility dedicated exclusively to football.

### Status and Recommendations

A new football operations center will include an expanded academic suite to support tutoring, individual and group study to help reach a 100% graduation rate goal. Student athletes will have their own lounge and meeting spaces where they can build community and strengthen team relationships. Players will have access to state-of-the-art football specific equipment and training. Portions of the McCue Center will be repurposed to provide a dedicated weight room and training facility for Olympic sports.

The University is currently in the midst of a North Grounds master planning study that includes the Athletics district. The likely site for the football operations center is to the east side of McCue, and north of the George Welsh indoor practice facility overlooking the practice fields. Final siting and programming will be determined at the conclusion of the planning study.

**Anticipated Scope:** 140,000 GSF (includes structured parking and renovation of 15,000 GSF in McCue).

**Anticipated Cost:** \$55-\$60M





# University of Virginia

## IVY CORRIDOR PHASE 1

### Program Background

In March of 2015, the Board of Visitors adopted the following goals for the Ivy Corridor area:

- Enhance safety and connectivity between the redevelopment area and Grounds while providing an opportunity for interaction with the Charlottesville community;
- Identify green space potential;
- Accommodate current transportation, parking, and stormwater functions;
- Optimize economically viable development and University support activities;
- Provide appropriate screening of the parking garage.

In September 2016, the Board of Visitors approved the landscape framework plan for the phased development of the Ivy Corridor area and authorized the University to proceed with planning Phase 1 of the redevelopment effort and to provide a recommendation regarding the Cavalier Inn for consideration in June of 2017.

### Criteria in Support of the Cornerstone Plan

The location of the Ivy Corridor site, within walking distance of Arts Grounds, Central Grounds, and North Grounds, makes it an excellent candidate for development of academic and support facilities that encourage interdisciplinary collaboration.

### Project Drivers

The Cavalier Inn is in need of significant capital investment to extend its usefulness and marketability.

Therefore, the timing is appropriate to consider the long-term redevelopment potential of this strategic location for the growth and development of University facilities.

Additionally, the City of Charlottesville was awarded a grant by the Commonwealth of Virginia Department of Transportation to implement various safety and connectivity improvements along Emmet Street from Ivy Road to Arlington Boulevard. The City's planned project will contribute to improvements in the safety, appearance, and functionality of the Ivy/Emmet intersection for all modes of transportation and aligns with the University's proposed streetscape improvements to Ivy Road and Emmet Street.

### Status and Recommendations

Next steps include design and construction of the approved landscape framework plan in support of Phase 1 development that will include:

- Street and intersection improvements to Ivy Road and Emmet Street;
- Undergrounding electrical services along Ivy Road and Emmet Street;
- Demolition of the Cavalier Inn and site restoration;
- Storm water infrastructure and landscape improvements of the site between Emmet Street and Rothery Road;
- Landscape reconstruction of the southwest corner of the Ivy Road and Emmet Street intersection.

Cost: Conceptual estimates suggest \$36.2M. Project to be initiated 2017.



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# University of Virginia

## IVY MOUNTAIN DISTRICT ENERGY IVY MOUNTAIN DEVELOPMENT ZONE

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### Executive Summary

The Ivy Mountain Development Zone creates an opportunity for the implementation of highly efficient and innovative district energy generation and distribution systems.

The scope of this project includes the construction of a central heating/cooling plant and installation of heating and cooling distribution systems to support the first phase of new construction, with expansion capability for future buildings. The project budget includes boilers, chillers, and distribution systems only, as it is assumed that the equipment would be located within one of the new buildings.

### Program Background

By integrating heat recovery chillers with condensing boilers and traditional electric chillers, heat that is typically rejected to cooling towers is recovered and reused for building heat. Additionally significant water savings are achieved by avoiding the potable water consumed during the evaporative cooling process. UVa has recently successfully demonstrated this concept with the renewal of the North Grounds Mechanical Plant, which has realized almost 50% reduction in energy required to heat/cool the same connected load.

### Criteria in Support of the Cornerstone Plan

This project is aligned with Pillars 2 and 5 of the Cornerstone Plan. This project will provide innovative technology to provide infrastructure necessary to support new University programs in facilities that will be built in this District.

### Status and Recommendation

**Cost and Proposed Funding Source(s):** The estimated project cost is \$12-16M. Funding will be debt, repaid from the capital component of the utility rate.

**Year project to be initiated:** FY2017 (coincident with utility/civil work for Ivy Mountain)

**Conclusion:** FY2019



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# University of Virginia

## LOW TEMPERATURE HOT WATER CONVERSION

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### Executive Summary

The scope of this project includes the addition of up to four low temperature hot water hubs to the heating distribution systems for buildings connected to the Main Heat Plant. This project also includes the installation of a 600-ton heat recovery chiller in the AFC Chiller Plant.

These strategically placed low temperature hot water hubs will allow a multi-year phased transition from steam and medium temperature hot water to a low integration of waste heat recovery equipment into our generation fleet, and reduce GHG emissions (by lowering the heat lost from the distribution piping).

### Background

The University is beginning the process of converting the heating medium on Grounds from steam and MTHW to low temperature hot water (LTHW) for the purpose of reducing the environmental impact and developing an infrastructure that is more energy efficient and sustainable. LTHW distribution systems can be more efficient than MTHW and steam systems because less heat is lost in distribution between the

points of generation and consumption. Furthermore, LTHW systems are often able to take advantage of more efficient and renewable technologies that reduce energy consumption, thereby reducing the annual cost of utilities, the production of greenhouse gases and other air pollutants.

### Criteria in Support of the Cornerstone Plan

This project is aligned with Pillars 2 and 5 of the Cornerstone Plan. It provides an innovative solution to satisfy heating demand while advancing sustainability initiatives and observing high standards of stewardship for University infrastructure.

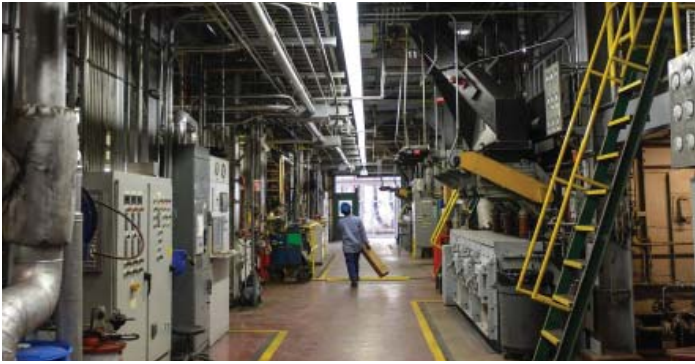
### Status and Recommendations

*Cost and Proposed Funding Source(s):* \$14-20 M project cost over four years. The funding source for this project is debt, to be repaid from the capital component of the utility rate.

Year project to be initiated: FY2018

Conclusion: FY2022





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# University of Virginia

## MAIN HEAT PLANT BOILER #6

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### Executive Summary

An additional boiler in the main heat plant is required to meet the growing heat demand of new University buildings.

This project includes installing a sixth boiler in the Main Heat Plant and optimizing the exhaust draft to fully realize the capacity of two existing boilers. This project will increase the firm heating capacity of the plant that is needed to meet the demand caused by recent growth and the Hospital Expansion currently under construction. The primary fuel for this new boiler is natural gas, with distillate oil as a back-up fuel.

### Background

The past decade has realized significant growth to UVA facilities connected to the Main Heat Plant. This growth has fully utilized the firm heating capacity of the plant. The new heat load from the University Hospital Expansion project will require additional boiler capacity by 2018. This new boiler will also provide additional natural gas based generation in support of our eventual shift from coal to 100% natural gas.

### Criteria in Support of the Cornerstone Plan

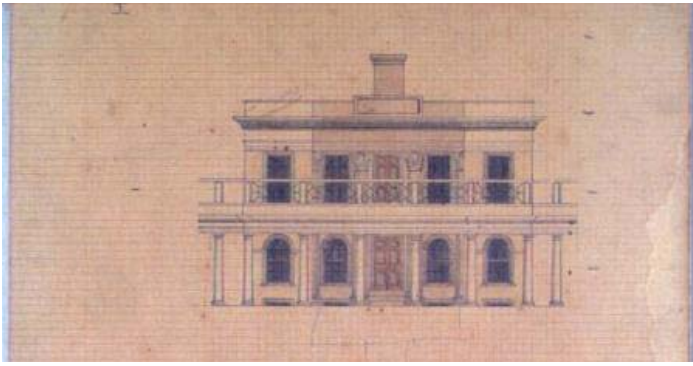
This project is aligned with Pillars 2 and 5 of the Cornerstone Plan. Installation of this boiler will ensure that the Plant heating capacity meets University demand while advancing sustainability initiatives.

### Status and Recommendation

*Cost and Proposed Funding Source(s):* This project is expected to cost in the \$8-\$11M range, and funding will be 100% debt, to be repaid from the capital portion of the utility rate.

Year project to be initiated: January 2017

Conclusion: November 2018



# University of Virginia

## PAVILION VIII RENOVATION

### Background

Construction of Pavilion VIII began in early 1820 and was complete, except for the installation of its marble capitals, by late 1822. The capitals arrived from Italy and were installed in 1823. Thomas Hewitt, professor of mathematics, was its first resident, though only for a brief time. He was followed by Charles Bonnycastle. The building was a residence until 1949. Under President Darden, it became offices for the President and the Board of Visitors. In 1984, the Pavilion VIII was returned to residential use on the top floor and lower floor, with two classrooms and an office for the University Guides on the main floor, and a third classroom on the lower floor.

### Criteria in Support of the Cornerstone Plan

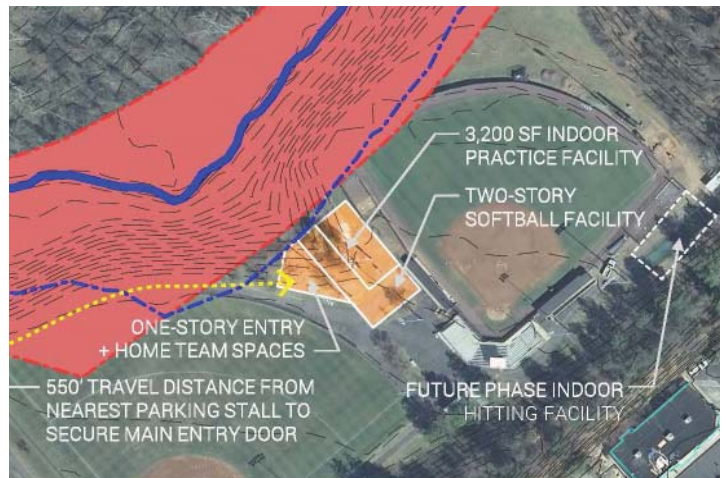
Pavilion VIII is essential to the University's distinctive residential culture, with two apartments for faculty that allow them to live among the students on the Lawn. Its three classrooms maintain the presence of teaching on the Lawn - as Jefferson intended - in distinctive, historic spaces that provide unique teaching environments and opportunities for engagement. Renovating the building will enhance the building's condition and the University's stewardship of the original Grounds.

### Project Drivers

Pavilion VIII was last renovated in 1984. While there have been ongoing maintenance and some improvements, most of the building's systems are at the end of their useful lives. Outside, the roof needs to be replaced and the wooden ornament on the exterior needs repair. Investigations are under way to determine the viability of recreating the original parapet. Uniquely, and unfortunately, the original Carrara marble Corinthian capitals have been painted white. Removing this paint would improve both their appearance and their long-term preservation. Inside, the classrooms will benefit from better integration of modern teaching equipment. The bathrooms throughout the building and the kitchens in both apartments are past their prime. The impending vacancy of both apartments following Commencement in 2017 provides an opportunity to undertake this much-needed work.

### Status and Recommendations

A Historic Structure Report for Pavilion VIII has been completed. Design work for the renovation is pending, with a goal of having it completed so that the renovation could begin in early 2018.



# University of Virginia

## SOFTBALL FACILITY EXPANSION

### Program Background

University of Virginia Athletics is committed to expanding team-support facilities at the Varsity Softball Facility located at The Park in North Grounds. The core focus of the project is to enhance player development capacities through the construction of a flexible, indoor practice facility with four batting tunnels. Furthermore, the program also includes player lockers, coaching offices, administrative support space, and a player lounge. The goal will be to create a dynamic hub for players and coaching staff that will re-emphasize softball's home at The Park.

### Criteria in Support of the Cornerstone Plan

This project is rooted in the commitment to enhance player development experience with the hope of creating new leaders both on and off the field. The new facility will further strengthen team culture here on Grounds, as well as enhance the competitive presence in the conference and beyond.

### Findings

The initial design concept proposed the bulk of the program space to be located along the first baseline, however after thorough review Athletics requested an analysis of locating the new facility along the third baseline. The desire is to create a more pronounced entry for the Softball Facility from North Grounds, as well as provide easier and safer stadium access for athletes, staff and spectators from the nearest parking area adjacent to The Park intramural fields.

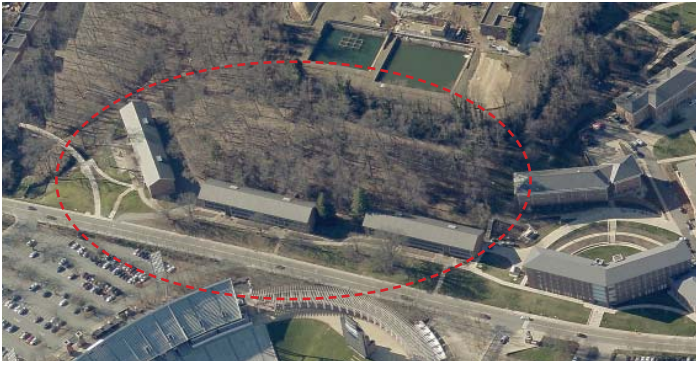
### Status and Recommendation

The project is currently in conceptual design and Athletics hopes to have an approved revised space program and redeveloped site plan in the next few weeks.

Project Cost: \$10M

Funding Source: TBD





# University of Virginia

## ALDERMAN ROAD RESIDENCE FACILITY FIRST YEAR STUDENT RESIDENCE FACILITY

### Background

Endorsed by the Board of Visitors in April of 2005, the Alderman Road Residence Area Replacement project is a multi-year, phased program to demolish eleven first year residences, increasing capacity with modern facilities that will accommodate the mandated growth of student enrollment. The first four phases of the project are complete. The fifth and final phase was delayed so that the three remaining original halls could be used as swing space. Upper class, Gooch and Dillard, and first-year McCormick Road residence halls had to be renovated to accommodate unanticipated near-term first-year housing needs. The three older buildings, Fitzhugh, Dungleison and Courtenay Houses will be demolished to make way for buildings seven and eight.

### Project Drivers

The original Alderman Road residence halls are fifty years old and in need of structural repairs and renovations extensive enough to make replacement a more cost effective option. Even with extensive renovations, it would be impossible to create the community amenities desired by incoming first year students.

The proposed buildings will be modeled after the new, highly successful Alderman Road residence halls. First year students will share double rooms with study spaces and lounges on each floor. The identified site is expected to accommodate between 400 and 600 first year students and approximately 18 to 25 resident staff.

### Criteria in support of the Cornerstone Plan

Housing and Residence Life, in conjunction with the Office of the Dean of Students, works collaboratively to create inclusive, welcoming communities where students are empowered to engage their potential as scholars and leaders through self-governance and participation in their residential community. This project also supports the University's important goal of housing all first year students on Grounds.

### Status and Recommendations

Planning for buildings seven and eight will begin in 2017, with occupancy anticipated in the fall of 2022.



Alderman Road Area - Before



Alderman Road Area - After



# University of Virginia

## CARR'S HILL RENOVATION AND EVENT STRUCTURE

### Background

Starting in the early 1830s, the Carr's Hill site was a privately-owned boarding house for students. That use continued after the University's purchase of the property in 1867, until the construction of the president's house and garage in 1909. The house and garage, designed by McKim Mead and White, have served each of the presidents since their completion. The three other buildings around Carr's Hill are antebellum structures that were part of the boarding house complex.

### Criteria in Support of the Cornerstone Plan

Carr's Hill is essential to the University's distinctive culture and to its promotion of good stewardship of resources. Events at the house reinforce alumni ties with the University, provide memorable moments with faculty and staff, during students' time in Charlottesville, and help to present the University in a good light to the local and national communities. Activities at the house also support the University's philanthropic efforts.

### Project Drivers

Over its 100+ year history, Carr's Hill house has been well maintained, but has had no significant renovation. Power, data, plumbing, and air conditioning are inadequate. Flaws with the building's original construction left the roof improperly supported, imposing loads on interior walls and floors that were not anticipated. This has led to substantial deflection at the third floor level and in the rear stair. While not apparently active now, this structural instability remains and warrants attention in the near future. Permanent structural reinforcement should also be done on the main floor.

The house was designed and constructed with a significant public function in mind. However, the number, nature, and size of those functions have grown over the years. In FY2015-16, approximately 11,000 guests visited Carr's Hill attending 160 events and meetings. Attendance at these engagements ranged from as few as six individuals to more than 3,000 and included community leaders, faculty, staff, students, alumni, members of the General Assembly of Virginia, state officials, our Board of Visitors and their spouses/partners, donors, and friends of the University. Large events are challenging for the house; there is a shortage of restrooms and staging for catering is difficult.

These large events are generally accommodated in a white vinyl tent that is erected seasonally over the enlarged eastern patio. Besides being unsightly, the tent cannot be adequately conditioned. Catering for events operates from a smaller, adjacent tent. The new entertainment structure would address these problems and permit additional activities. It would have flexible furniture set ups to support the range of events, restrooms with capacity for the crowds in attendance, media and data for meetings, and a dedicated indoor space for catering.

### Status and Recommendations

A comprehensive study which identified condition issues with the house was completed in 2006. The most urgent repairs were made in 2007, and the report was updated in 2015-16. While there is no immediate threat to the house, the conditions warrant attention in the near future. A concept plan for siting and massing of the event structure was completed in late 2016.

PHOTO CREDIT: ALBERT AND SHIRLEY SMALL SPECIAL COLLECTIONS LIBRARY





# University of Virginia

## DARDEN SCHOOL OF BUSINESS ACADEMIC HUB AND FACILITY ENHANCEMENT

### Program Background

The University of Virginia Darden School of Business holds a distinctive presence in graduate business education, driven by a powerful mission to improve the world by developing and inspiring responsible leaders through its MBA, Ph.D. and Executive Education programs. Essential to Darden achieving its ambitious academic strategic plan is the renovation of and addition to existing core Darden classroom and faculty facilities, including the construction of an expanded Academic Hub.

### Criteria in Support of the Cornerstone Plan

Darden delivers a transformational education experience, and its close-knit community creates a unique culture and student experience among peer business schools. The Academic Hub and Facilities Enhancement project will enhance the academic experience for students and faculty with new centralized community, collaboration and learning areas.

### Project Drivers

The Darden School's strategic plan, called Darden.Worldwide aims to fulfill the full potential of the school's academic mission. The main drivers of the masterplan study are: (1) enabling projected enrollment growth; (2) modernizing aging facilities to remain competitive with peers; (3) enhancing research; (4) improving the student, faculty, staff and alumni experience; (5) amplifying connectivity between Darden and the University. The Academic Hub, and existing facility renovations included in the scope, are critical to supporting and enhancing:

- Changing curriculum and pedagogies through flexible, technology enhanced classroom space.
- Visible and accessible student support spaces such as admissions, financial aid, and alumni and student career services.
- Media Production of synchronous and asynchronous educational content.
- Formal and informal gathering locations to maximize collaboration opportunities and host global business events.

### Project Description

Darden, along with Brightspot Strategy, developed a strategic space plan in 2014 to assess existing facilities and project future needs to inform the facility master planning. In 2015, Robert A.M. Stern Architects developed a master plan that will serve as a roadmap for Darden facilities in the near to midterm as well as long term ideas to support its recently developed strategic plan. Components of this plan include an "Academic Hub," a central organizing space and gathering location for the school, as well as co-location of student services, improved food service, student-friendly outdoor pedestrian spaces, and the enhancement of a technology infrastructure for in-classroom learning and synchronous and asynchronous distance learning.

### Status and Recommendations

The proposed Academic Hub and Facility Enhancement would increase Darden's physical space by approximately 15%, consisting of new construction of 42,000 square feet and renovation of 45,000 square feet of existing space. New construction includes student services, media, and community spaces; and renovations include classroom, faculty, and library facilities.

The estimated project cost is \$75-85 million, financed through philanthropy.



# University of Virginia

## MCINTIRE SCHOOL OF COMMERCE ACADEMIC FACILITY

### Program Background

The McIntire School of Commerce is regarded as one of the nation's finest business schools, offering undergraduate and graduate programs. Over the years the program has grown beyond its current facilities. The need for a new or renovated building in addition to its current space in Rouss & Robertson Halls will support continued growth in programs, student enrollment and faculty.

### Criteria in support of the Cornerstone Plan

McIntire facilitates student leadership development, strengthens the University's capacity to advance knowledge at home and in the world, and provides educational experiences that deliver new levels of student engagement.

### Project Drivers

The McIntire School has a long-term plan for purposeful growth. New graduate programs, expanding current graduate and executive programs, developing research and study programs through centers, and enhancing the portfolio of undergraduate programs will maintain its current stature and competitive advantage. A space needs assessment was conducted based on McIntire's:

- **Growth and Success** – trajectory of growth & success for the last 12-15 years
- **Global Orientation** – international expansion with engagement of other students, researchers, & business professionals
- **Technology Needs** – for global programming, teaching business analytical skills, community access to new research resources, communication & future online learning
- **Learning Environment** – spaces that better facilitate interactions, conversations, & group work

### Findings

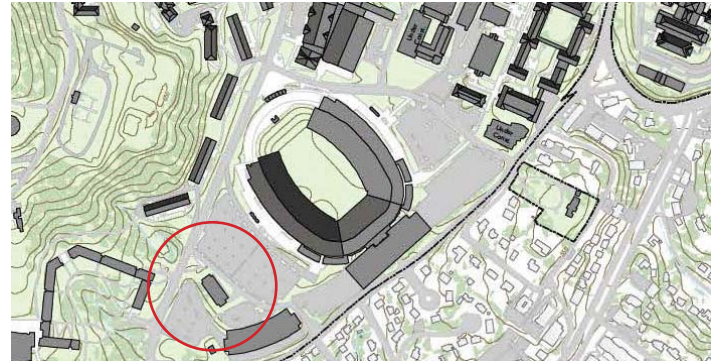
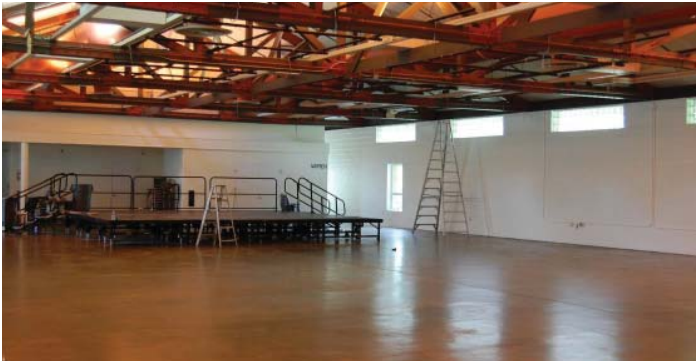
Based on analysis and modeling completed by Brightspot Strategy, McIntire estimates that it needs at least 70,000 GSF, in addition to its existing 125,000 GSF. The additional space includes classroom and lab spaces, faculty and staff offices, formal and informal gathering areas, and event space. The target site should be near or adjacent to Rouss & Robertson Halls.

- **Meeting** – shortage of formal meeting space, which impacts faculty & staff who often have to hold group meetings in individual offices or communal space
- **Informal** – impromptu meetings & conversations are a crucial activity at McIntire, & space to support this kind of interaction & sharing is critical for the culture of the school
- **Events** – spaces for connecting with its global network by hosting events & visitors at the school such as Friday Forums for potential employers & visiting scholars
- **Specialized** – specialized spaces & classrooms that cater specifically to new kinds of teaching, learning, & research such as big data and analytics
- **Office space** - the school has exceeded its current capacity of office space for faculty and staff

### Status and Recommendations

The proposed project includes site identification, analysis of renovation and new building options as well as a review of current programs in Rouss & Robertson Halls and the feasibility of some programs or units being moved or reconfigured within the new space. The desired outcome of this project would be the acquisition and/or build of 70,000 sq ft of academic space for the purpose of accommodating McIntire's growth in the vicinity of Rouss & Robertson Halls. The identified need represents a growth of 19% over current classroom space, 28% increase above current office/meeting space, 32% growth over current public/event space along with increases in other areas for research, study and support.





# University of Virginia

## STUDENT ACTIVITIES BUILDING

### Background

Student Affairs currently occupies activity space in several buildings creating a network around the University Grounds. A review of recent event statistics reveals a steady increase in demand for rehearsal, performance, and meeting spaces. The existing Student Activities Building is 33 years old and has had no significant improvements to the simple, utilitarian space since 2000. The facility is neither configured nor equipped to support the exploding interest in dance, voice and drama, student clubs and collaborative activities.

### Criteria in Support of the Cornerstone Plan

Replacing the Student Activities Building (SAB) will address a variety of core needs. First, as a performing arts center, the new SAB will provide a theater and practice rooms for vocal and dance groups, and a variety of meeting and storage spaces for student organizations. In doing so, the facility will further strengthen the University's residential culture by permitting students to remain on-Grounds, within the University community. In addition, the new SAB will create a vibrant crossroads for collaboration among student groups.

### Project Drivers

As enrollment continues to grow and academic space becomes less available to students for co-curricular use, the University faces a significant space shortage and cannot offer student groups on-Grounds opportunities for activities.

The completion of 1515 University Avenue will provide some additional meeting, rehearsal and performance space, but demand will still exceed the available space.

A key focus of the SAB will be to provide a safe alternative to more high risk activities.

While it is not located in a highly trafficked area, it is very accessible, having plenty of parking and a location near a UTS bus stop and the first-year residence areas.

An appropriately sized and equipped campus venue would reduce the number of events held in costly rented off-Grounds facilities.

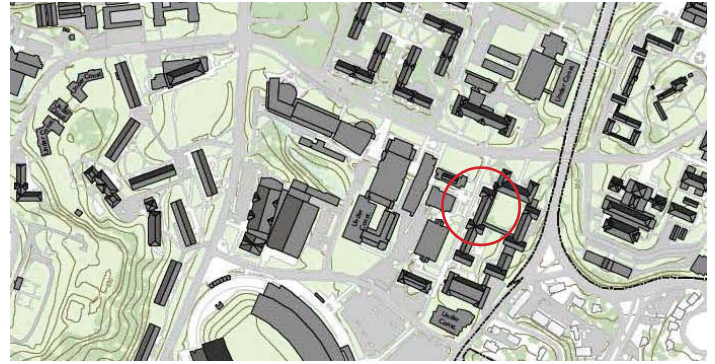
A new SAB would be sized to permit student organizations the flexibility to hold dances/mixers & the University Programs Council (UPC) to host major concerts.

A new SAB can serve as a venue for Final Exercises and other University-wide events, including SpringFest and Welcome Week.

### Status and Recommendations

Replacing the Student Activities Building with a new performance/rehearsal/meeting venue will advance a core University priority by extending and strengthening our residential culture. The facility will create: (1) additional physical spaces on Grounds for informal gatherings that are destinations in the daily academic and social life of students, faculty, and staff; (2) multipurpose performance and rehearsal space for student groups; (3) a major event venue for alcohol-free activities; and (4) additional flexible meeting space to serve the University community.

It is anticipated that a survey of student demand, and an inventory of available facilities and venues will be conducted during the Spring of 2017. These data will inform a feasibility study that will develop a strategy for a new facility that increases capacity and seamlessly connects academic and out-of-classroom life.



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# University of Virginia

## THORNTON HALL B WING RENOVATION

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### Executive Summary

The STEM Integrated Facilities Planning Study (November 11, 2015) recognized that Thornton Hall is inadequate to support modern research and recommended that the building be repurposed for office, classroom, and student space that supports multiple disciplines and uses. A recent major renovation in Thornton Hall C-Wing repurposed 3700 sq ft of underutilized space for Electrical Engineering's Engineering Discovery Laboratory designed to provide state-of-the-art education and hands-on experience to the next generation of engineering leaders.

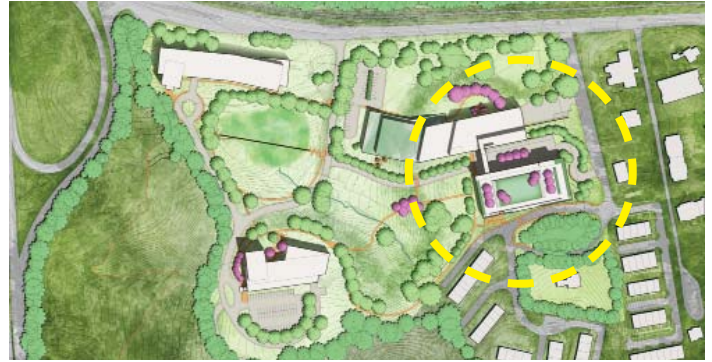
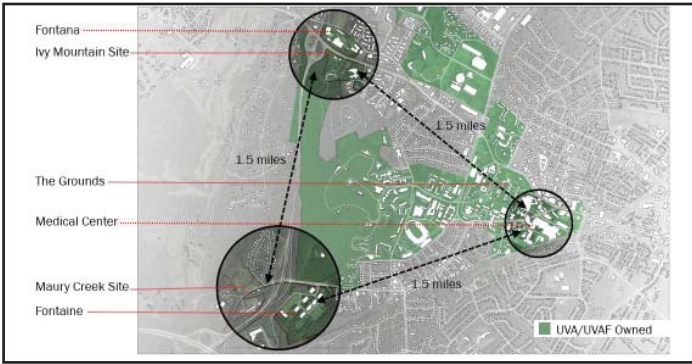
Engineering proposes a full renovation of Thornton Hall B-Wing, preserving the historic building while replacing outdated internal infrastructure to create a space and resource that minor piecemeal renovations cannot accomplish. The first floor will become a comprehensive student service center, providing needed contiguous space for academic and career advisory teams, diversity and inclusion, and registrar functions under one roof - enabling them to work in a synergistic and coordinated way. Currently these activities are scattered and working in insufficient and inappropriate spaces. The second floor will become office, meeting, and classroom space utilizing flexible floor plans with new mechanical systems for increased efficiency.

### Criteria in support of the Cornerstone Plan

Thornton Hall B Wing renovation will support both Pillars 1 and 2 of the Cornerstone Plan. Not only will the project provide improved space for scholarship but also a comprehensive student services center in support of the total advising concept which promotes academic and career coaching.

### Status and Recommendations

A previous plan for the B-Wing renovation envisioned renovating 15,000 square feet. Cost: \$12-15M



# University of Virginia

## IVY MOUNTAIN DEVELOPMENT

### Executive Summary

This project follows the Ivy Mountain Master Plan, proposing to develop an orthopedics center on one of the identified sites. The center will include numerous orthopedic and support services to provide a complete patient experience. Demand for orthopedic services is expected to increase over the next several years, and this center will provide the growing patient population with a comfortable and accessible facility.

The patient care spaces will be designed to facilitate multiple configurations and occupancy by a variety of orthopedic services to achieve greater efficiency. Greater efficiency and enhanced patient experience can only be achieved with a building of sufficient size that allows multiple orthopedic services to function together.

### Background

In 2015 the UVA Health System engaged Latimer Healthcare Consulting to undertake the Integrated Space Planning (ISP), a comprehensive analysis of our research, teaching and clinical enterprises. The ISP laid out a 10-12 year strategy to achieve the following broad goals.

1. Increase medical research grant activity to \$300M within 10 years.
2. Rank among the top 25 academic research health systems in the country.
3. Become the provider of choice in the Commonwealth and beyond with an increasing emphasis on high acuity, tertiary, and quaternary care.

The ISP study as well as a comprehensive analysis of parking and traffic in and around the Medical Center resulted in several key findings:

1. The road network and patient parking capacities are strained with limited ability to make significant improvements to either.
2. The study identified the need to relocate ambulatory clinic activity totaling 200,000 visits a year to near and off grounds locations as a strategy to allow procedural and high acuity in-patient activities to expand on Grounds.

One of the early project goals identified by the study was to create future development opportunities at the Fontaine campus for migrating clinic volume off Grounds. This project accomplishes that goal by shifting a significant amount of clinical activity onto the Ivy Mountain site and in turn creates future development capacity at Fontaine, in addition to leveraging the aspirational goals for Orthopedics business expansion.

### Status and Recommendation

- Ivy Mountain Master Plan to be presented at March 2017 BOV meeting.
- Project approval to develop orthopedic center June 2017.
- A/E approval June 2017.

**Funding Source:** Routine Hospital Operating Capital

UVA Sports/Joint Replacement/ Ortho Clinics	<b>Low</b> \$146M*	<b>High</b> \$164M*
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\*Project Cost INCLUDES FFE

**Year Project will be initiated:** 2017





# University of Virginia

## Translational Research Building

PROPOSED FACILITY

### Project Summary

The Health System's Integrated Space Planning Study (ISP) has recommended the construction of a new 250,000 GSF research building at Fontaine Research Park as a key initial investment to provide state-of-the-art research facilities. This facility would provide flexible/adaptable research laboratories, computational space, and core facilities. The building will serve as a catapult for the School of Medicine to meet its recruitment and enterprise expansion goals, as well as to align programs within the School and Medical Center thematically. This new research building will also facilitate renovations of existing buildings such as Pinn Hall and Aurbach, and support collaborative research activities across Grounds.

The Health System has made recent investments at Fontaine, namely the Life Sciences Annex (LiSA) Vivarium and the Ivy Translational Research Building. Growing the research footprint at Fontaine enables key collaborations to occur, fully utilizes existing core and vivaria space, and allows the School to move from poor-quality, inefficient space on-Grounds. As the University supports multidisciplinary, cross-Grounds collaborations, the building will also provide substantial space for investigators from the Schools of Engineering, Curry, and Arts and Sciences, creating a central location for research innovation. Discussions are ongoing with these partners to determine shared program needs and the scope and scale of shared space in the building.

### Background

The HS ISP is a master-planning effort designed to better align the Health Systems core missions of patient care, education, and research. The study outlines several key recommendations and investments strategies, among which is the finding that with specific investment, the Health System can accommodate projected growth in its clinical and research environments in a smaller and more operationally efficient footprint. The proposed Translational Research Building is the linchpin to realizing these efficiencies for the School of Medicine. The proposed project is supported by the Health System, School of Medicine, College of Arts and Sciences, Curry School of Education, and the School of Engineering and Applied Sciences.

### Status and Recommendations

Estimated Range: \$150-\$200M, funding sources are being identified.

Year Project Initiated: 2017

Proposed Project Schedule

- Project Approval June 2017
- Pre-design / Project Program Fall 2017
- A/E Approval December 2017
- Design Approval June 2018
- Construction Start Spring 2019



# University of Virginia

## CONSUMER-BASED AMBULATORY CLINIC BUILDING

### Project Summary

The Health System proposes the establishment of a new consumer-based ambulatory care building to be constructed in a yet to be determined location either near or off-Grounds. The ambulatory care building will house specialty care clinics, with associated procedural and diagnostic services, in a facility designed with convenience and enhanced patient experience at its core. The building as well as the clinics and services contained therein will promote healthy mind and body wellness, through advanced diagnostic screenings, patient education and consultation, and both surgical and non-surgical treatments and procedures.

The building will be designed to facilitate multiple clinical activities sharing procedural and diagnostic services that ensure patient privacy and comfort, and occupancy by varied clinical services to achieve greater overall operational efficiency and offer a level of patient convenience in a “one stop shop” not currently available at UVA.

### Background

Late in 2015 the UVA Health System engaged Latimer Healthcare Consulting to undertake the Integrated Space Plan (ISP) a comprehensive analysis of our research, teaching, and clinical enterprises. The study investigated the physical assets of the Health System, providing quantitative and qualitative analysis of space across all sectors of the institutional mission. The ISP laid out a 10-12 year strategy for addressing the physical plant of the Health System in order to achieve the following broad goals.

1. Increase medical research grant activity to \$300M within 10 years.
2. Rank among the top 25 academic research health systems in the country.
3. Become the provider of choice in the Commonwealth and beyond for patient care services with an increasing emphasis on high acuity tertiary and quaternary care.

The ISP study, as well as a comprehensive analysis of parking and traffic in and around the Medical Center resulted in several key findings:

1. The majority of existing on-Grounds ambulatory clinics are housed in spaces that are not conducive to high levels of utilization based on size, configuration, and their sequestered nature (single department occupancy).
2. The road network and patient parking capacities are strained with limited ability to make significant improvements to either.
3. The condition of many of the current clinics in the West Complex, 1222 Jefferson Park Ave., and the Primary Care Center will require significant upgrades over the next 5-10 years to remain viable as ambulatory care locations. Even with significant upgrades, it is unlikely the challenges preventing high throughput and utilization can be overcome.
4. The study identified the need to relocate ambulatory clinic activity totaling approximately 200,000 visits a year to near and off-Grounds locations as a strategy to allow procedural and high acuity inpatient activities to expand on-Grounds.

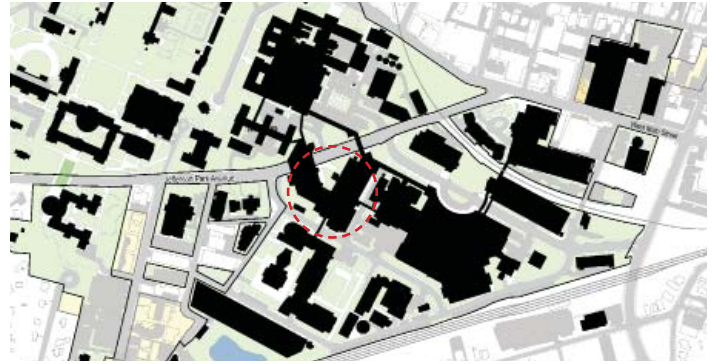
### Status and Recommendations

Cost, funding sources, and timeline will be determined pending business plan and program development.

### Criteria in Support of the Cornerstone Plan

The establishment of a consumer-based ambulatory care building supports Pillar 2 of the Cornerstone Plan. The facility will help further the mission of providing world class patient care in service to the Commonwealth, nation, and world.





# University of Virginia

## PINN HALL PHASE 2 RENOVATION

### Project Summary

Identified as a critical first enabling project in the Health System Integrated Space Plan, the renovation of Pinn Hall will transform inefficient and poor quality research space into state-of-the-art, flexible research space to better support translational science and increase utilization. Strategically located between the Medical Center and the School of Medicine (SOM), Pinn Hall, when renovated, will offer a variety of key spaces supporting clinical, computational, and experimental research as well as providing education and community spaces, which are sorely lacking in the Health System.

Renovating Pinn Hall is proposed as a multi-phased project. The initial phase will encompass two research floors of Pinn Hall and related enabling projects. This phase will increase research laboratory utilization, provide needed support space, and aid the retention and recruitment of established research teams. The early renovations of Pinn Hall will help the SOM bridge the research space gap until a new transdisciplinary research building is built in 2022. However, the final phase of the Pinn Hall renovations are dependent on new construction to provide the swing space needed to decant the remaining research floors.

### Background

Pinn Hall (Old Jordan Hall) was built in 1971 with an addition (New Jordan Hall) in 1995. At almost 450,000 GSF, Pinn Hall is the largest single research building at the University. The original portion of Pinn received infrastructure updates in 2010-2013, supported by state funding. However, much of the space was not updated and remains in its original state: small, compartmentalized research labs lacking the flexibility needed in today's collaborative research environments. This program would create open lab modules with adequate support space, increase

research cores and medical education studios, and provide productive meeting and community areas. Post renovation, Pinn Hall is expected to increase utilization by over 25%.

### Status and Recommendations

The total renovation of Pinn Hall will be completed in several phases, with the final and largest phase facilitated by the construction of the new Translational Research building.

Cost and Proposed Funding Source(s): Each floor is at a cost of approximately \$12M. Funding sources will include Medical Center Routine Capital.

### Project Timeline

- Phase 1- Includes 2 floors and was approved by the Board in December 2016 and is currently in planning
- Phase 1- Construction Fall 2017, includes renovation of 2 floors
- Phase 2- Project Approval June 2017, number of floors to be renovated is dependent on new construction providing necessary swing space to decant current occupants. Phase 2 estimated to begin in 2020
- Remaining Phases are planned through 2024

### Criteria in support of the Cornerstone Plan

Pinn Hall renovation will support Pillars 2 and 4 of the Cornerstone Plan. Not only will the project provide much needed improved research space, but will also assist in attracting and supporting distinguished faculty.





# University of Virginia

## MULTIDISCIPLINARY AMBULATORY CARE BUILDING

### Project Summary

The Health System proposes the establishment of a new multidisciplinary ambulatory care building to be constructed at the Fontaine Research Park. The ambulatory care building will house primary and specialty care clinics, procedural based services, and diagnostic and imaging modalities in a facility designed with patient convenience, wellness, efficiency, and safety at the forefront. The patient care spaces will be designed in such a way as to facilitate multiple configurations and occupancy by varied clinical services to achieve greater efficiency. Greater efficiency and enhanced patient experience can only be achieved with a building of sufficient size that allows multiple clinics to function on a single platform and in turn flex up and down to meet demand or react to changes in care delivery models.

### Background

Late in 2015 the UVA Health System engaged Latimer Healthcare Consulting to undertake the Integrated Space Planning Study (ISP) a comprehensive analysis of our research, teaching, and clinical enterprises. The study investigated the physical assets of the Health System, providing quantitative and qualitative analysis of space across all sectors of the institutional mission. The ISP laid out a 10-12 year strategy for addressing the physical plant of the Health System in order to achieve the following broad goals:

1. Increase medical research grant activity to \$300M within 10 years.
2. Rank among the top 25 academic research health systems in the country.
3. Become the provider of choice in the Commonwealth and beyond for patient care services with an increasing emphasis on high acuity tertiary and quaternary care.

The ISP study, as well as a comprehensive analysis of parking and traffic in and around the Medical Center resulted in several key findings:

1. The majority of existing on-Grounds ambulatory clinics are housed in spaces that are not conducive to high levels of utilization based on size (limited floor plates), configuration (barriers to flex up/down), and their sequestered nature (single department occupancy).
2. The road network and patient parking capacities are strained with limited ability to make significant improvements to either.
3. The condition of many of the current clinics in the West Complex, 1222 Jefferson Park Ave., and the Primary Care Center will require significant upgrades over the next 5-10 years to remain viable as ambulatory care locations. Even with significant upgrades, it is unlikely the challenges preventing high throughput and utilization can be overcome.
4. The study identified the need to relocate ambulatory clinic activity totaling 200,000 visits a year to near and off-Grounds locations as a strategy to allow procedural and high acuity inpatient activities to expand on grounds.

### Status and Recommendations

Cost, funding sources, and timeline will be determined pending business plans and program development.

### Criteria in Support of the Cornerstone Plan

The establishment of a multidisciplinary ambulatory care building supports Pillar 2 of the Cornerstone Plan. The facility will help further the mission of providing world class patient care in service to the Commonwealth, nation, and world.



### School of Architecture

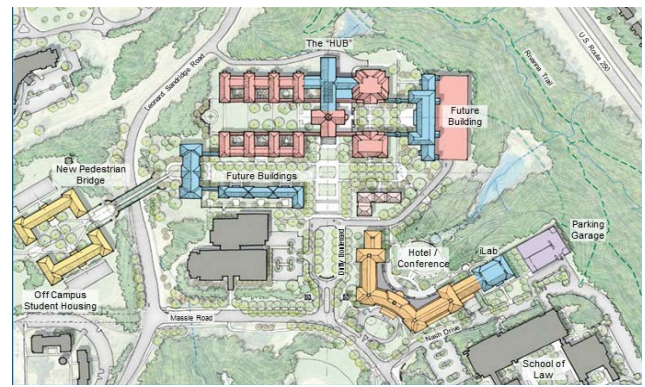
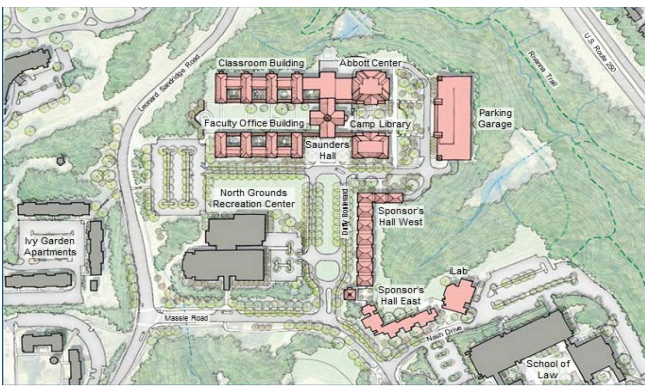
During the summer of 2016, the School of Architecture worked with the Provost's Office and the Office of the Architect to conduct a space supply and demand analysis. Deficiencies were identified in faculty/staff offices, teaching space, and fabrication/research space. In the near-term, the School will increase classroom utilization through scheduling and do modest renovations to additional activities. Faculty/staff offices and fabrication/research space will require additional space to fully meet the school's long-term needs. The School would like to explore creating additional square footage to accommodate increasing enrollment and faculty and staff to support expanding and evolving programs.



### Curry School of Education

Inadequacy of existing space for the Curry School Kinesiology department and growth of sponsored research across Curry School departments and research centers will soon limit the school's ability to perform mission-critical work, including contributions to the University's plans to increase total sponsored research to \$500M. 90% of offices in Bavaro and 80% of offices in Ruffner are occupied full-time. The remaining offices are occupied by managerial or research staff. Underutilized spaces were identified and are now used intensively. Conference rooms and group meeting rooms have been converted to labs to accommodate expansion of sponsored research, and staff have been moved into multi-unit, high-efficiency workrooms to accommodate growth without taking on additional space. Renovations have dramatically improved Ruffner Hall, and Bavaro Hall to serve the school well as a clinic, faculty office and administrative center, but neither building is designed for the kind of collaborative research that is the future of the social sciences. The School would like to conduct a study to determine the amount and type of space that it needs to fulfill its mission.





# University of Virginia

## DARDEN SCHOOL OF BUSINESS ADMINISTRATION MASTER PLAN DEVELOPMENT

### Program Background

The University of Virginia Darden School of Business holds a distinctive presence in graduate business education, driven by a powerful mission to improve the world by developing and inspiring responsible leaders through its MBA, Ph.D. and Executive Education programs. Achievement of Darden's ambitious ten-year strategic plan will require expansion of the Darden Goodwin Family Grounds, opened on the University's North Grounds in 1998 and for years regarded as one of the premier campuses among peer business schools.

### Criteria in Support of the Cornerstone Plan

Darden delivers a transformational education experience, and its close-knit community creates a unique culture and student experience among peer business schools. An innovative master plan will enhance the academic experience for students and faculty with centralized community, collaboration, and learning areas, and high quality hospitality and food service to support Darden's Executive Education programs and conference potential.

### Project Drivers

The Darden School's strategic plan, called Darden.Worldwide, aims to fulfill the full potential of the school's academic mission. The main drivers of the masterplan study are: (1) enabling projected enrollment growth; (2) modernizing aging facilities to remain competitive with peers; (3) enhancing research; (4) improving the student and alumni experience; (5) activating North Grounds and enhancing connectivity and University collaboration; and (6) reducing traffic, increasing safety, and creating better, more pedestrian friendly green spaces.

### Project Description

Beginning in 2015 and most recently reevaluated in January 2017, Darden engaged Robert A.M Stern Architects to develop a master plan that maximized facility growth on the Darden Grounds. This master plan, which received unanimous support from the Darden Foundation Board of Trustees, includes the following potential projects:

- Grounds enhancements, including quads, landscaping, and pedestrian bridges that expand the outdoor learning options, improved Law School connectivity, and open beautiful green spaces;
- Enablement of the planned growth in tenure track, general, visiting and emeritus faculty (25%+), non-residential students (200%+), alumni (15%+), and executive education participants (30%+) in Charlottesville foreseen in the strategic plan;
- Enhanced student and faculty experience via collaboration and gathering space, infrastructure, technology, program delivery, food and event enhancement, and indoor and outdoor spaces;
- A replacement for the Darden Inn to include event, innovation and convening space consistent with a top business school, with a responsible economic model that provides a net unrestricted, financial contribution to Darden;
- An innovative, dedicated, proximate, high-quality, modern student residential housing option.

### Status and Recommendations

In April 2017, the Darden School Foundation Board of Trustees expressed its support of the master plan concept, and the test fit of the Darden Grounds to support the school's strategy, future growth, and aspirations for the fulfillment of its mission. Following further development, we will bring the master plan forward for B&G Committee approval later in the fall. As individual projects within the master plan are analyzed, programmed, funded, and presented, the School and Board of Trustees are expected to advance capital plan recommendations to the BOV for inclusion in the Capital Plan





### School of Engineering and Applied Sciences (SEAS) Integrated Space Plan

The purpose of the SEAS integrated space planning effort is to articulate a ten-year academic plan and strategic goals for SEAS and align these objectives with current space inventory. The study will also identify a capital outlay plan to address current needs and anticipated demands within a ten-year horizon. The proposed planning process will insure that adequate consultation with constituent groups and stakeholders and appropriate standards for the use of SEAS and University resources. The plan will anticipate growth in the core areas as identified by the strategic planning process; and institutional priorities regarding allocation of faculty and capital resources for facilities development. The study will:

- Facilitate collaborative (multi-school where applicable) conversations to define strategic goals for realigning or expanding targeted programs.
- Identify critical instructional and research needs associated with program development, including space requirements, anticipating growth in each area of emphasis.
- Benchmark trends at peer institutions – identification of “best practices” in similar programs, including metrics on how space and utilization are allocated and measured.
- Develop a planning model utilizing baseline space requirements for various space types – a budgeting and planning tool for use in developing space governance and allocation policies and long term capital budget requirements.
- Develop ten-year capital plan for SEAS.



### Environmental Health & Safety

The current Environmental Health and Safety, Special Materials Handling Facility (SMHF) located at 515 Edgemont Road, was constructed in three phases from 1984 to 1994. The 12,337 SF facility houses approximately 18 EHS staff and contains designated areas for receiving, processing, and storing radioactive, chemical, and biohazardous materials and wastes. As a result of departmental growth stimulated by changes in the regulatory and accreditation landscape, EHS outgrew SMHF within a decade of the complex's completed construction. In 2004, EHS entered a lease agreement with Enterprise Properties to create overflow office space for nearly 20 EHS personnel at One Morton Drive. The facility is now fully leased. Separation of departmental staff between two buildings presents challenges in communication and efficiency of operations. Furthermore, EHS will be significantly impacted by the University's desire to increase research activity across Grounds. Increased volume coupled with regulatory changes further impacts an already inadequate facility. EHS proposes a study to fully understand the impacts of additional growth on the current facility and opportunities to better deliver services to the University.





Fontaine Aerial View



Fontaine Site Plan

# University of Virginia

## FONTAINE CLINICS & RESEARCH PARK MASTER PLAN AND TRANSPORTATION STUDY

### Executive Summary

A next step for the Health System Integrated Space Plan (ISP) is to fully understand the development opportunities in the Fontaine Research Park and to align its physical plan with the ISP programmatic initiatives. Fontaine is an important resource of the University and the Health System, and the ISP has identified Fontaine as essential to the implementation of several of the Health System’s goals, including:

- Providing a “near Grounds” growth area for clinical and research programs.
- Enabling a strategy of decompressing traffic, parking, and overall congestion created by the existing patient volumes in and around Lee Street and West Main (On-Grounds).
- Accommodating 400-500K GSF of new development to enhance UVA’s translational medicine capabilities, and establishing a critical mass of clinicians and researchers at Fontaine.
- Facilitating the shifting of targeted research and clinical programs to enable the decanting of the West Complex and several other Health System buildings that can no longer support research and patient care.
- Enabling the development and co-location of transdisciplinary research programs to include medicine, engineering, science, and education.

The proposed planning study would provide a physical plan for the Fontaine Research Park that would take into account new construction, adaptive reuse strategies of existing buildings, traffic, transportation to and from the park, parking infrastructure, and programmatic development.

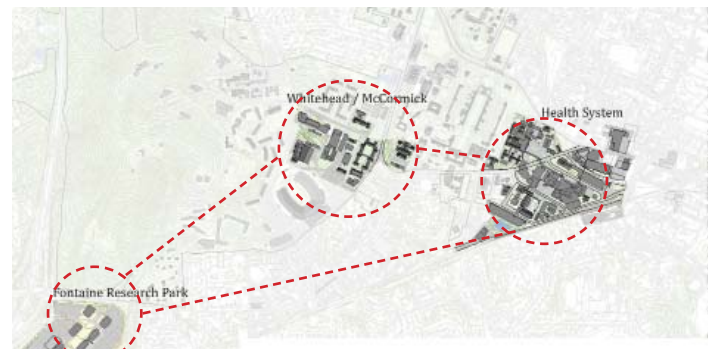
### Background

The HS Integrated Space Planning (ISP) Study is a master-planning effort designed to better align the Health System’s core missions of patientcare, education, and research. The study outlines several key recommendations and investment strategies, among which is the finding that with specific investments, the health system can accommodate projected growth in its clinical and research environments in a smaller and more operationally efficient footprint.

**Cost and Proposed Funding Source(s):** \$250K - \$350K, funded from Health System operating cash.

**Year project to be initiated:** Spring of 2017

**Conclusion:** The proposed planning effort will also help inform several of the Capital projects outlined in the ISP, including a 250,000 GSF Interdisciplinary and Translation Research Building and a 200,000 GSF Multispecialty Ambulatory Center.



UVA Clinical and Research Precincts



### O'Hill Dining Hall Expansion

The Observatory Hill (O'Hill) Residential Dining Hall Expansion project will complement the final phase of the Alderman Road Residence Area Buildings 7 and 8, and address first-year enrollment growth with increased residential dining and retail capacity and student gathering space. The project will provide increased seating, expanded cooking and serving stations, and support areas of coolers, freezers and dry storage as well as dishwashing capabilities. The O'Hill Residential dining site serves as a focal point for first-year students; maintaining ample capacity and an attractive and inviting environment is critical to sustaining a successful residential dining program. A feasibility study will be required to establish the scope and budget for the facility which must be on line no later



### UVA Technology Center

The role of information and technology in education, research, health care, and the management of the UVA enterprise is increasingly critical. Information and technology literacy is important for our students, faculty, healthcare providers, and the community. UVA would benefit from consolidating its information and technology work, its IT professionals, and its work with the community to advance the use of IT. Combining these functions could create synergy, energy, and innovation, housing and harnessing 900 IT professionals from the University and the Health System while providing the primary data center for both the Health System and the University. Advancing the University's research agenda, a dedicated facility would create an IT laboratory space for stu-



### University Police Department (UPD)/Public Safety Building

UPD moved into 2304 Ivy Road building in 1986. Since that time the department has seen significant growth in the number of employees and in the use of technology that make the current building obsolete. With limitations imposed by the construction of the building, aging mechanical systems, and the challenging topography immediately surrounding the building, an addition and/or remodel of the building is likely not feasible. Building a new Public Safety Building that might have the capacity to house several related functions will be explored.