



UNIVERSITY
of VIRGINIA

Board of Visitors Buildings & Grounds Committee
September 14, 2017

Agenda

Consent Agenda

- Namings: (1) Total Advising Center as Dathel and John Georges Student Center; (2) Lewis House as Yen House
- Demolition of 1939 Ivy Road
- Architect/Engineer Selections: (1) Student Health and Wellness Building; (2) Thornton Hall C Wing Clean Room Upgrades; (3) Main Heat Plant New Boiler
- Amended Capital Project Procurement Process

Action Items

- Plaque Commemorating the University's Bicentennial
- Revision to the 2017 Capital Plan: Baseball Stadium Expansion, Revised Scope

Committee Discussion

- University Building Official
- Sustainability Report
- Ivy Corridor Landscape Framework Plan Update
- Lawn Accessibility Project
- Jeffersonian Grounds Initiative

Consent Agenda



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- Namings
 - Total Advising Center as Dathel and John Georges Student Center
 - Lewis House as Yen House
- Demolition of 1939 Ivy Road
- Architect/Engineer Selections
 - Student Health and Wellness Building:
VMDO of Charlottesville, VA and Duda Paine of Durham, NC
 - Thornton Hall C Wing Clean Room Upgrades:
Hodess Construction Corporation of Attleboro Falls, MA
 - Main Heat Plant New Boiler:
Jacobs Engineering of Forth Worth, Texas
- Amended Capital Project Procurement Process

Action Items



Plaque Commemorating the University's Bicentennial



UNIVERSITY of VIRGINIA
BICENTENNIAL

OCTOBER 6, 2017

ON THE TWO-HUNDREDTH ANNIVERSARY OF THE LAYING
OF THE CORNERSTONE OF THE UNIVERSITY OF VIRGINIA,
THE BOARD OF VISITORS AND PRESIDENT
UNVEILED THIS PLAQUE IN AFFIRMATION OF THE BELIEF
THAT NO OTHER SURE FOUNDATION, SAVE EDUCATION,
CAN ENSURE THE PRESERVATION OF FREEDOM AND HAPPINESS.
TOGETHER WITH THE ALUMNI, FACULTY, STAFF,
AND FRIENDS OF THE UNIVERSITY,
IN CELEBRATION OF THE BICENTENNIAL,
THEY MADE FIRM THE UNIVERSITY'S COMMITMENT TO
ADVANCING THE HUMAN EXPERIENCE
AND ENSURING THE FLOURISHING OF DEMOCRACY.

PRESENTED BY
THE COMMISSION ON THE BICENTENNIAL
PRESIDENT TERESA A. SULLIVAN
RECTOR FRANK M. CONNER, III

- Recommendation of the Bicentennial Commission
- Honors 200th laying of the University's cornerstone
- Proposed to be installed at Pavilion VII
- Active tribute to the University's vision and reminder that UVA exists to "advance the human condition and ensure the flourishing of democracy"

Baseball Stadium Expansion, Revised Scope

- Originally approved as 40,000 GSF expansion with projected cost of \$16.16 million
- Additional scope (originally included as part of next phase):
 - 3,450 GSF for administrative office area for coaching and operations staff
 - 5,370 GSF for pitching development center
- Estimated revised project cost: \$18.16 million to be funded with private gifts



Committee Discussion





Introduction of University Building Official



UVA SUSTAINABILITY HIGHLIGHTS: 2017 -



HIGHLIGHTS: 2017-2018



STEWARD



- Greenhouse Gas
- Energy
- Nitrogen
- Water
- Materials and Waste
- Land and Building Use
- Food
- Investments

ENGAGE



- Awareness
- Engagement
- Health
- Equity

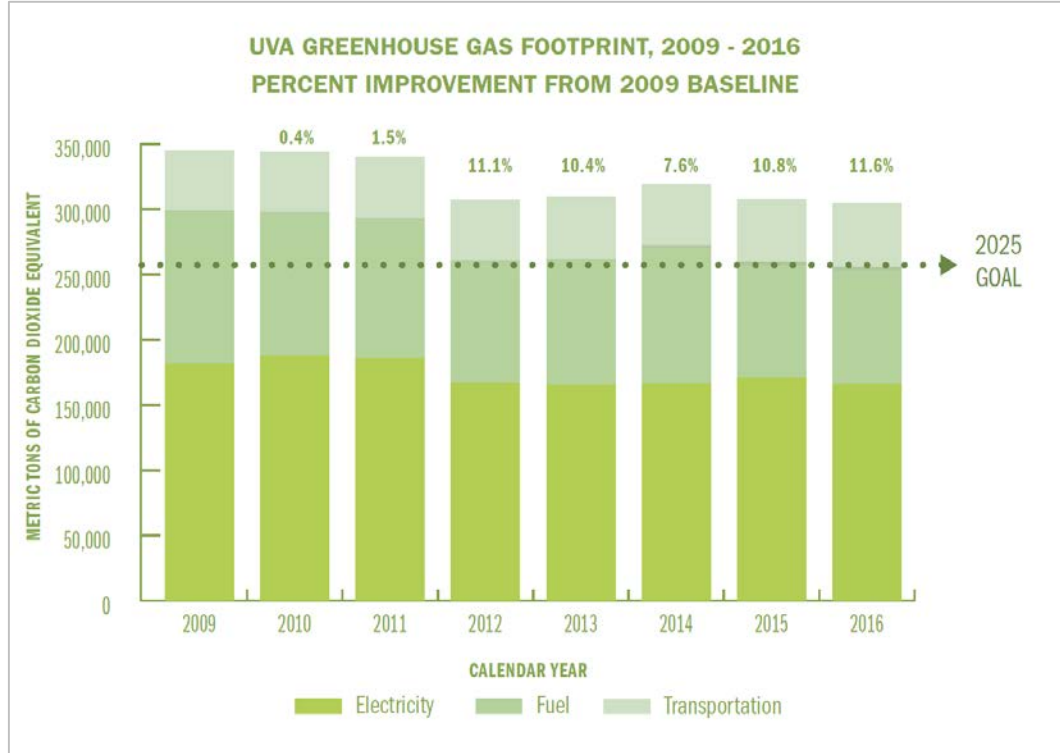
DISCOVER



- Research
- Curriculum
- Grounds as a Learning Tool

STEWARD: UVA GREENHOUSE GAS FOOTPRINT

Reduce greenhouse gas emissions 25% 2009 levels by 2025



Baseline (2009)

- 345,196 MTCDE

Required Reductions

- 86,300 MTCDE (25% reduction against 2009) +
- 75,500 MTCDE (2009 - 2025 growth estimates) =
- **161,800 MTCDE** (Total reduction needed including future growth)

Progress

- 40,166 MTCDE reduction achieved, as of 2016: (11% reduction), slightly more than offsetting growth to date

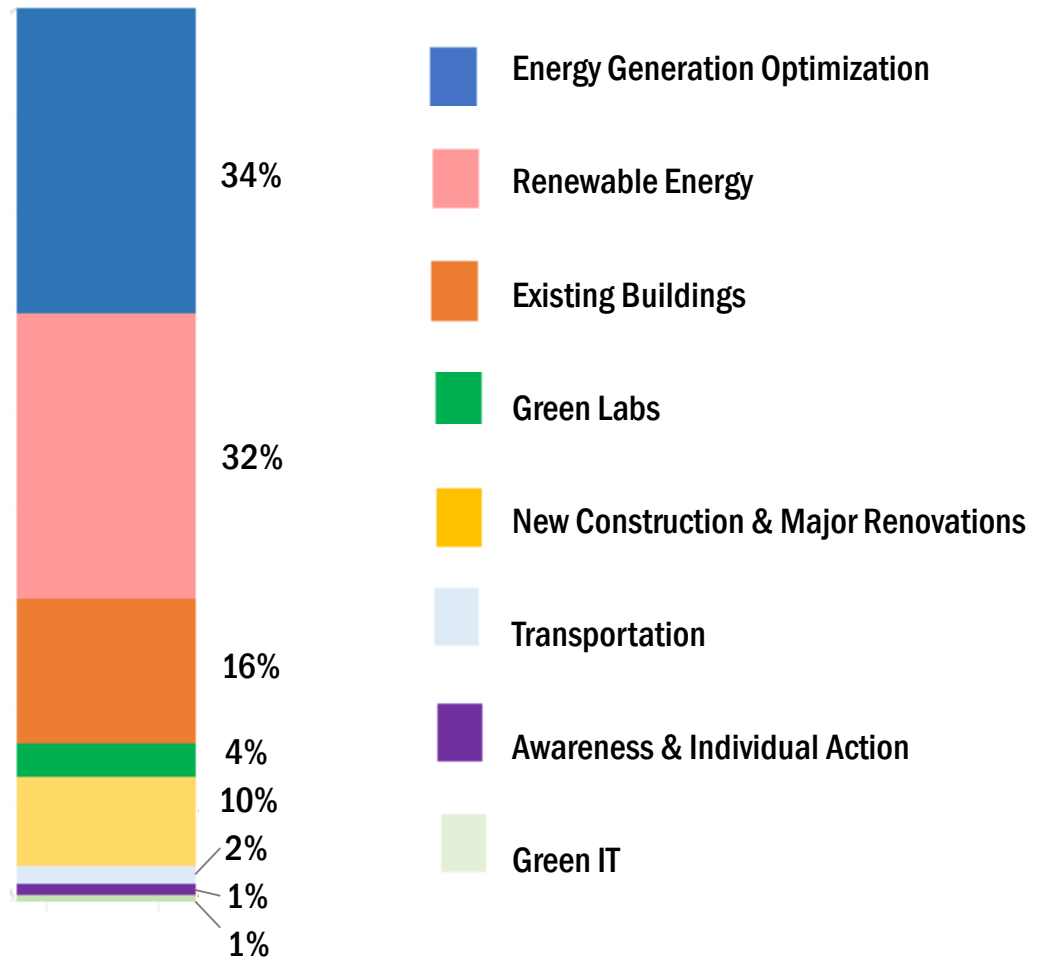
Additional Reductions Needed

- **Remaining reduction needed: 121,683 MTCDE**

STEWARD: UVA GREENHOUSE GAS ACTION PLAN

Estimated remaining reduction needed:
121,683 MTCDE

Estimated total annual reductions from
GHG Action Plan strategies:
126,000 – 216,000 MTCDE



STEWARD: RENEWABLE ENERGY

Off-Grounds Utility-Scale Solar PV: 32 MW

UVA Hollyfield + UVA Puller Solar Project – online in 2018

- PPA with Dominion Energy; 25 year agreement
- 123,800 panels in total
- 160 acres in Manquin, VA + 120 acres in Middlesex County
- Represents 21% of UVA's electricity consumption

Rooftop Solar PV on Grounds – Owned and Operated: 175 kW

- Clemons Library and Skipwith Hall
- *On-Grounds Rooftop Solar Roadmap + 5-Year Phasing Plan*

Rooftop Solar PV on Grounds - Solar Lease Program: 450 kW

- Owned by Dominion, leased roof space on Ruffner Hall and UVA Bookstore

UVA Today

UVA, DOMINION ENERGY AND CORONAL ENERGY ANNOUNCE AMBITIOUS SOLAR ENERGY PROJECT

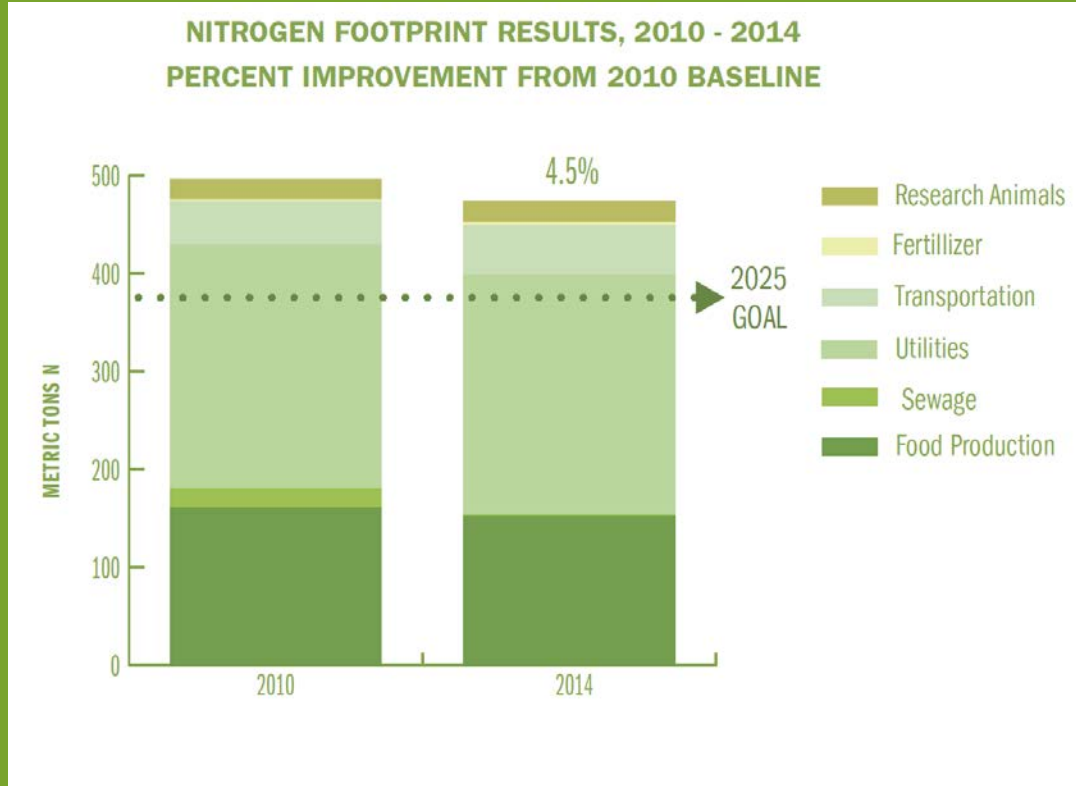


The UVA Puller Solar Facility – the second solar farm the University has backed – will feature approximately 58,800 solar panels, enough to power about 3,750 homes at peak output. (Photo courtesy Dominion Energy)



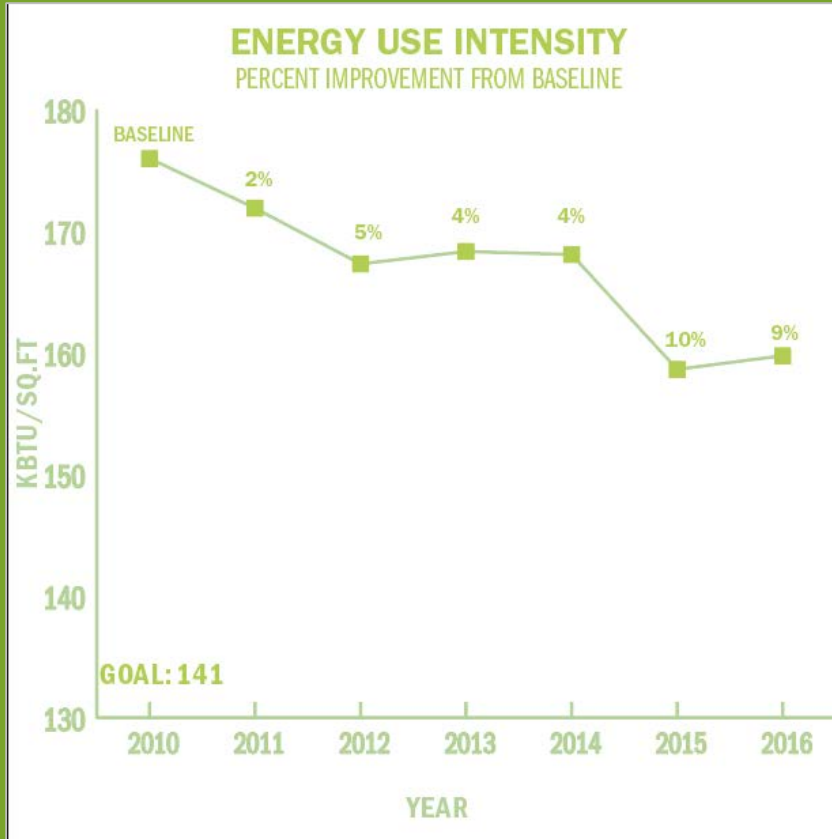
STEWARD: NITROGEN FOOTPRINT

Reduce reactive nitrogen losses to the environment 25% below 2010 levels by 2025



STEWARDSHIP: ENERGY USE INTENSITY

Reduce energy use intensity 20% below 2010 levels by 2020



ENERGY AT UVA

From heat plants, classrooms, residence halls, hospital rooms, and research labs, UVA is changing how we consume energy and setting ambitious energy goals to ensure a sustainable tomorrow.

WHAT YOU CAN DO:



Turn Off Computers

If everyone at UVA turned off their computers for one night, the energy saved could light up the Eiffel tower for 27 days. Get in the habit of turning off your computer before leaving work.



Day Light Your Home or Office

Use day lighting to illuminate your home or office space instead of overhead lighting, when possible. Not only will it save energy, research shows that daylight environments increase occupant productivity and comfort, and provide mental and visual stimulation.



Join the Green Workplace Program

The Green Workplace Program provides long-term energy solutions that will save energy and money for your department. The program also covers ways to reduce materials, food and water waste while increasing wellness and community building in the workplace.

Energy Efficiency in Buildings

Total Building Energy Use of Delta Force Projects from 2009 - 2015

Energy efficiency projects through UVA's Delta Force program have reduced total energy consumption of 37 buildings by 11% since 2009. That's equivalent to over \$22 million in avoided costs.

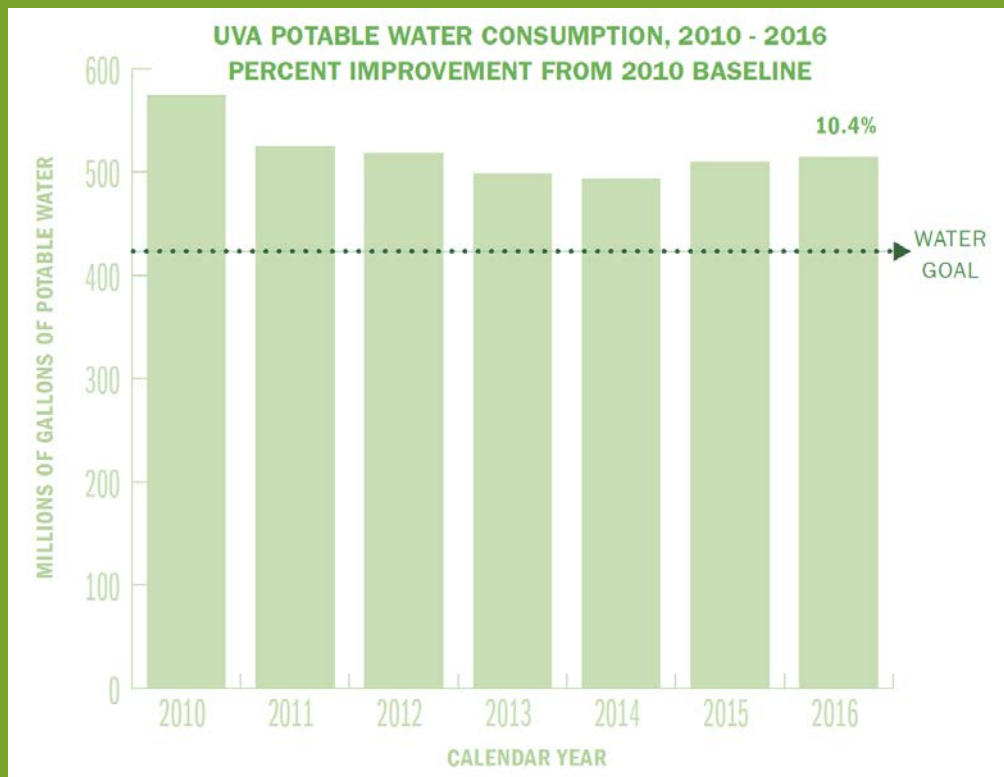
WHAT IS NEXT AT UVA

- * Increase energy derived from renewable resources
- * Eliminate coal as a fuel source within the next 10 years

UVA seeks to provide energy that is cost effective, lowers emissions and ensures reliable power for our community. Learn more about UVA's energy & sustainability goals in the UVA Sustainability Plan.

WATER

Goal: 25% reduction below 2010 levels by 2035



World Water EVENTS



KEYNOTE Wednesday, March 15	Amphibious Territories and Urban Wetlands Ila Berman Dean, UVA School of Architecture ***** 5:30 pm Campbell 15B *****
KEYNOTE Tuesday, March 28	The Next Urban Water Revolutions A Path for Avoiding Water Scarcity David Sedlak Professor and Director Institute for Environmental Science University of California, Berkeley ***** 4 pm Clark Hall 108 *****
CLEAN WATER EVENT Friday, March 24	Ragged Mountain Reservoir Trek Brian Richter Chief Water Scientist, The Nature Conservancy ***** 3-6 pm Ragged Mountain Reservoir Shuttle from UVA Chapel or Trinity Presbyterian Church, reserve via sustainability@virginia.edu *****
PANEL Thursday, April 13	Flint, Two Years Later Water Quality, Infrastructure and Social Justice PANELISTS Amy Pruden Professor, Department of Civil and Environmental Engineering Associate Dean and Director of Interdisciplinary Graduate Education in the Graduate School, Virginia Tech G. Ruffner Page, Jr. President and CEO, McWane Cale Jaffe Assistant Professor of Law Director, Environmental and Regulatory Law Clinic University of Virginia ***** 6 pm Darden Business School, Room 50 *****
CLEAN WATER EVENT Saturday, April 8	Water Quality Testing at Riverview Park Robbi Savage Executive Director, Rivanna Conservation Alliance ***** 10 am - 12 noon Riverview Park *****
For more information UVAworldwater.org	



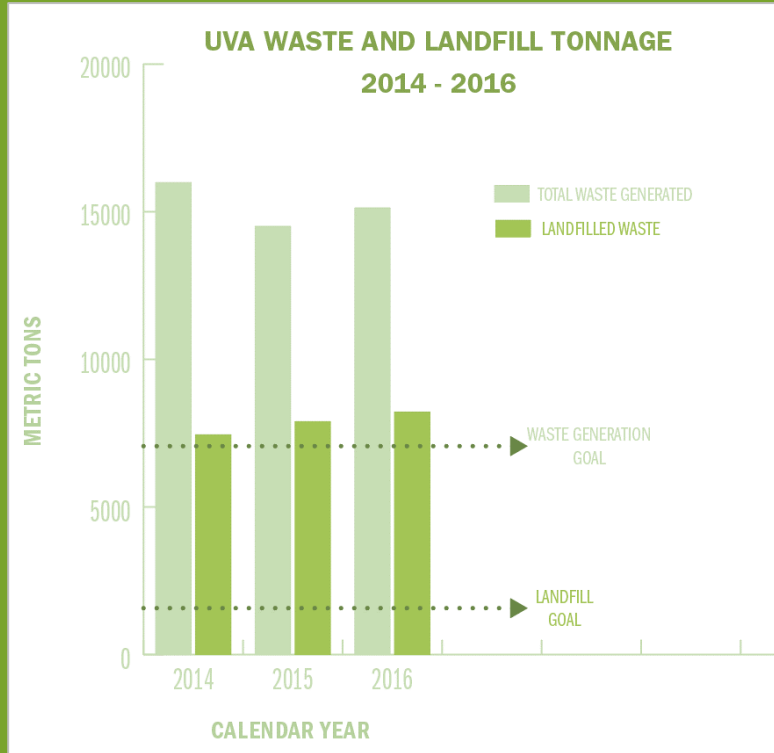
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The Uva World Water Events are supported by

Center for Global Health | Department of Environmental Sciences | Darden School of Business | Frank Batten School of Leadership and Public Policy
 UVA School of Architecture | UVA School of Engineering and Applied Science | Rivanna Conservation Alliance and UVA Office for Sustainability

STEWARD: MATERIALS AND WASTE

- Reduce total tonnage of waste 50% below 2014 amounts by 2035
- Landfill less than 2000 tons annually by the year 2035



ENGAGE

Student leadership

- 35 + student organizations
- Career development



Collaboration

- 85+ events
- Alumni engagement



Social + Environmental Intersections

- Equity and Environment Fund: Sustainability Plan small student grants for projects on the intersections of social +



DISCOVER

Research

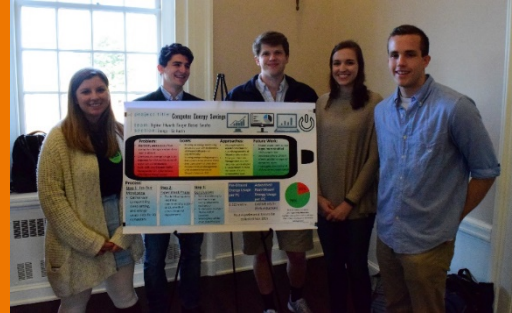
- Environmental Resilience Institute
- 6 Sustainability Plan grants for research



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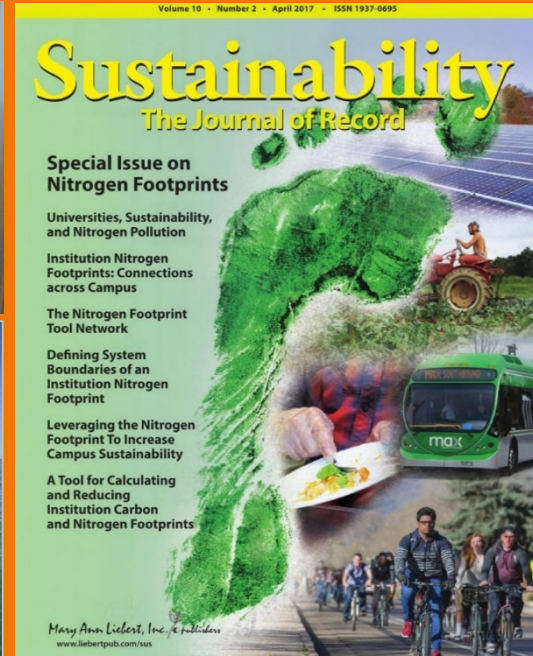
Curriculum

- 160+ sustainability-related courses
- 5 grants for course development



Grounds a Learning Tool/Experiential Learning

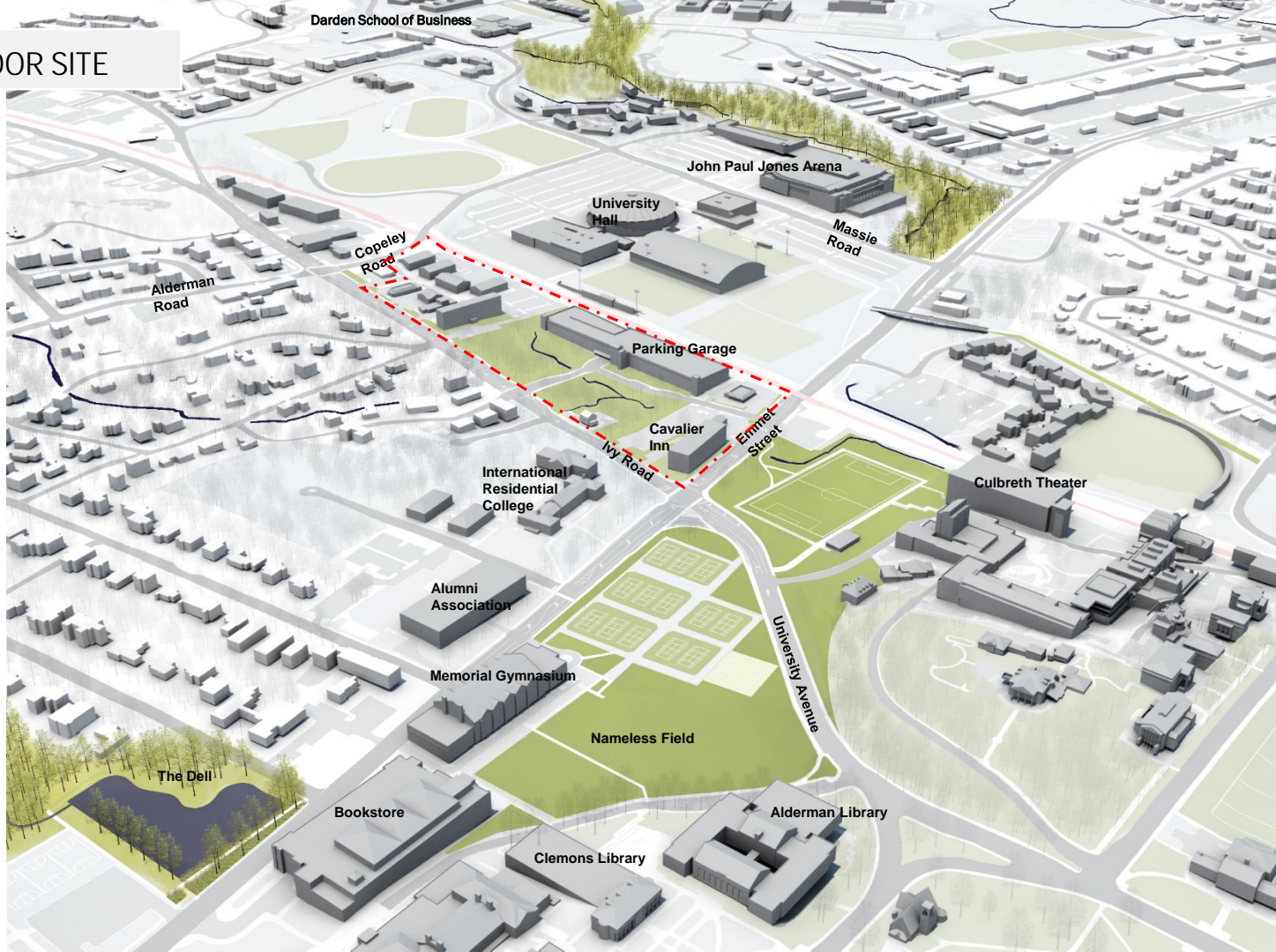
- GIFT grant funding
- 3 Grounds as a Learning Tool grants
- Global Sustainability course projects



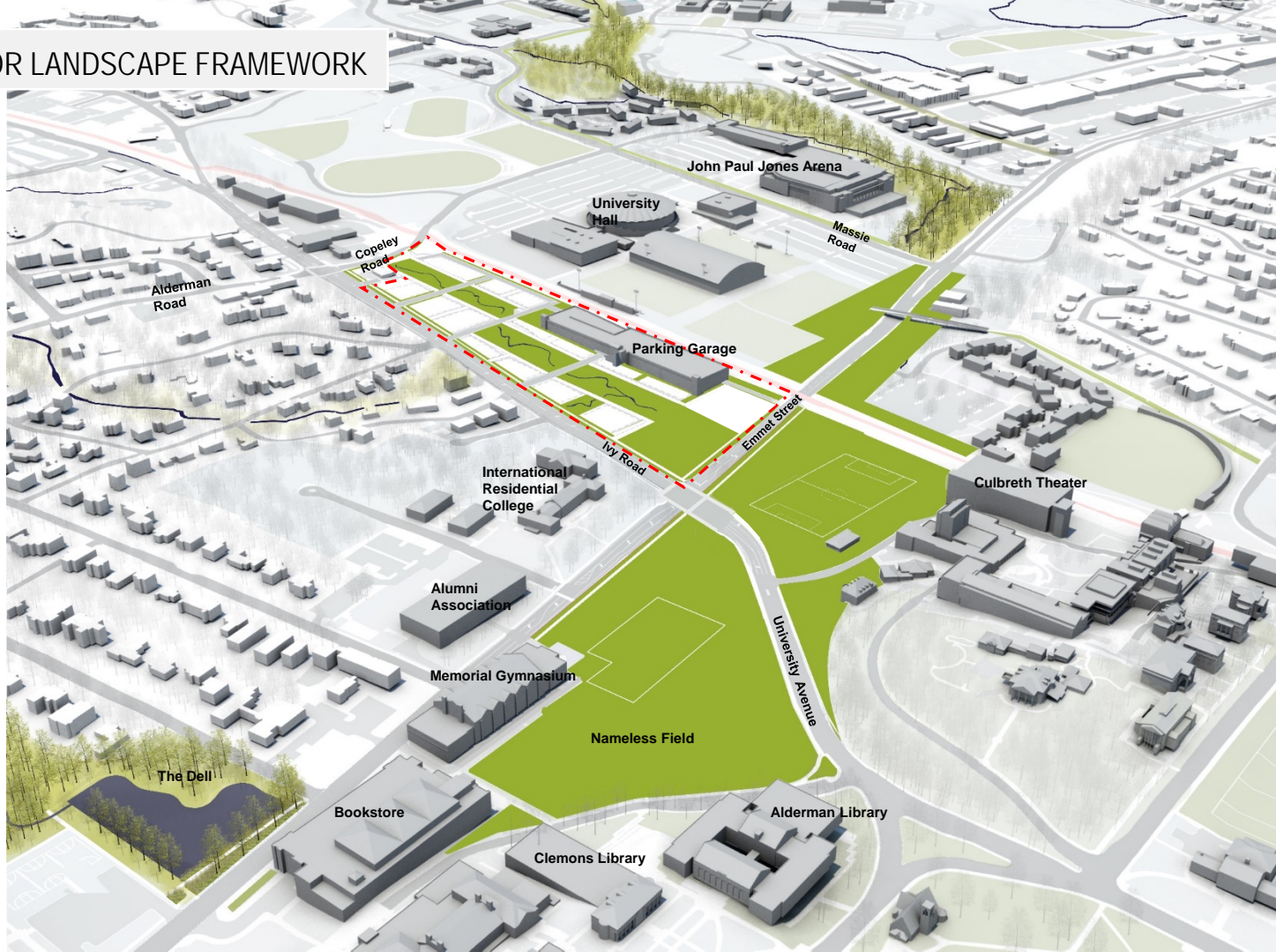
Ivy Corridor Landscape Framework Plan Update



IVY CORRIDOR SITE



IVY CORRIDOR LANDSCAPE FRAMEWORK



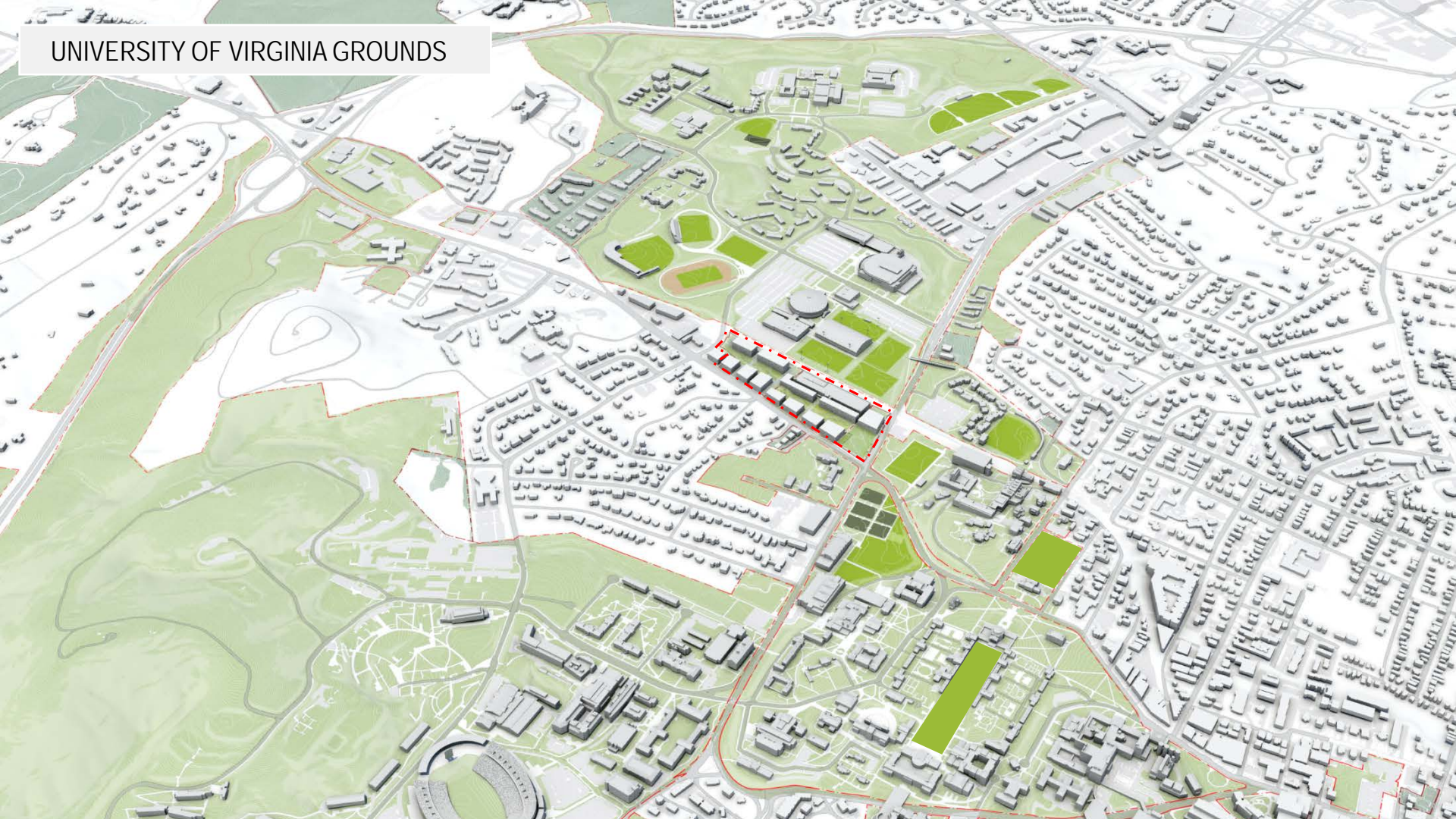
APPROVED CORNER OPEN SPACE



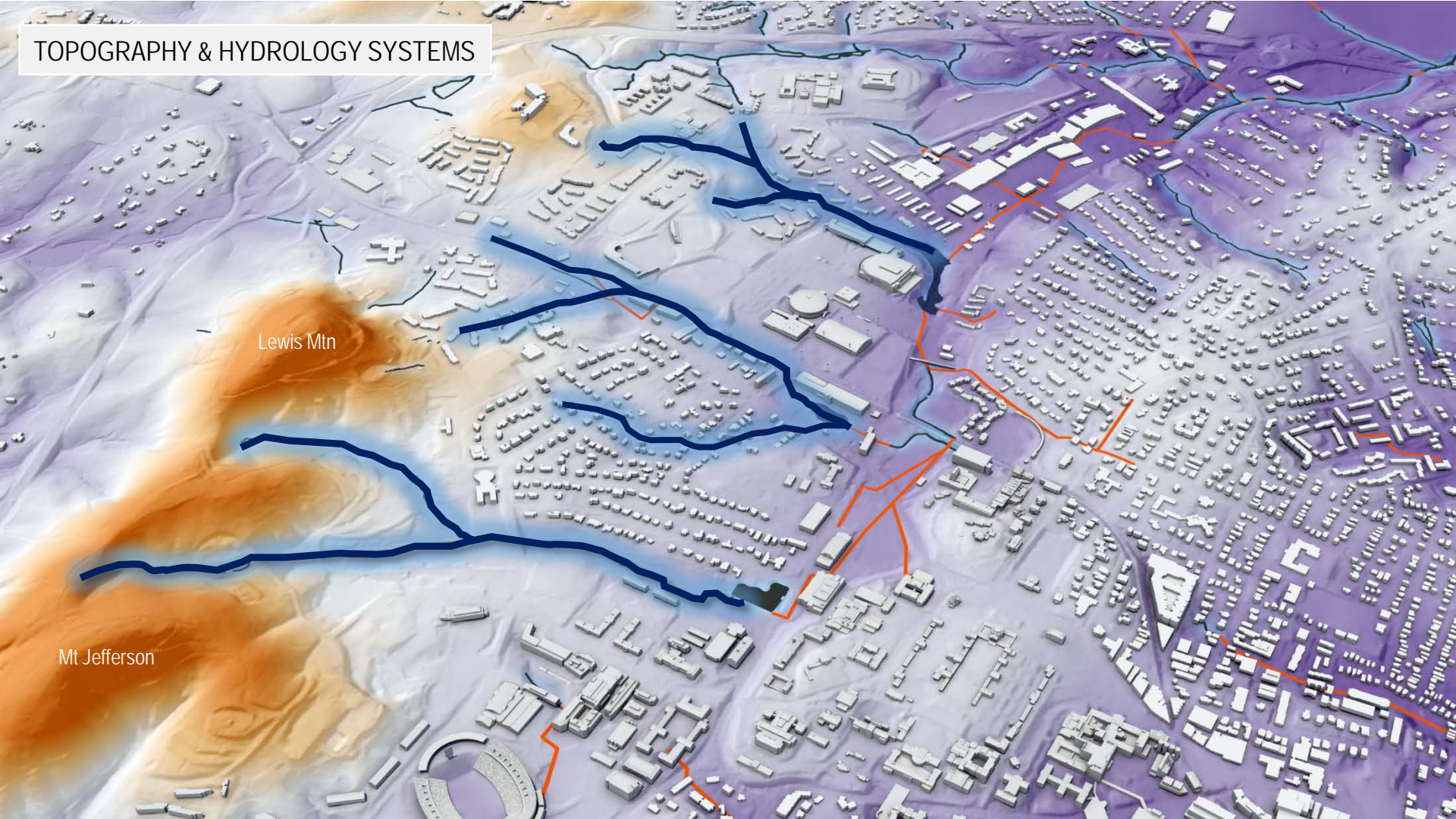
PROPOSED CORNER OPEN SPACE



UNIVERSITY OF VIRGINIA GROUNDS



TOPOGRAPHY & HYDROLOGY SYSTEMS

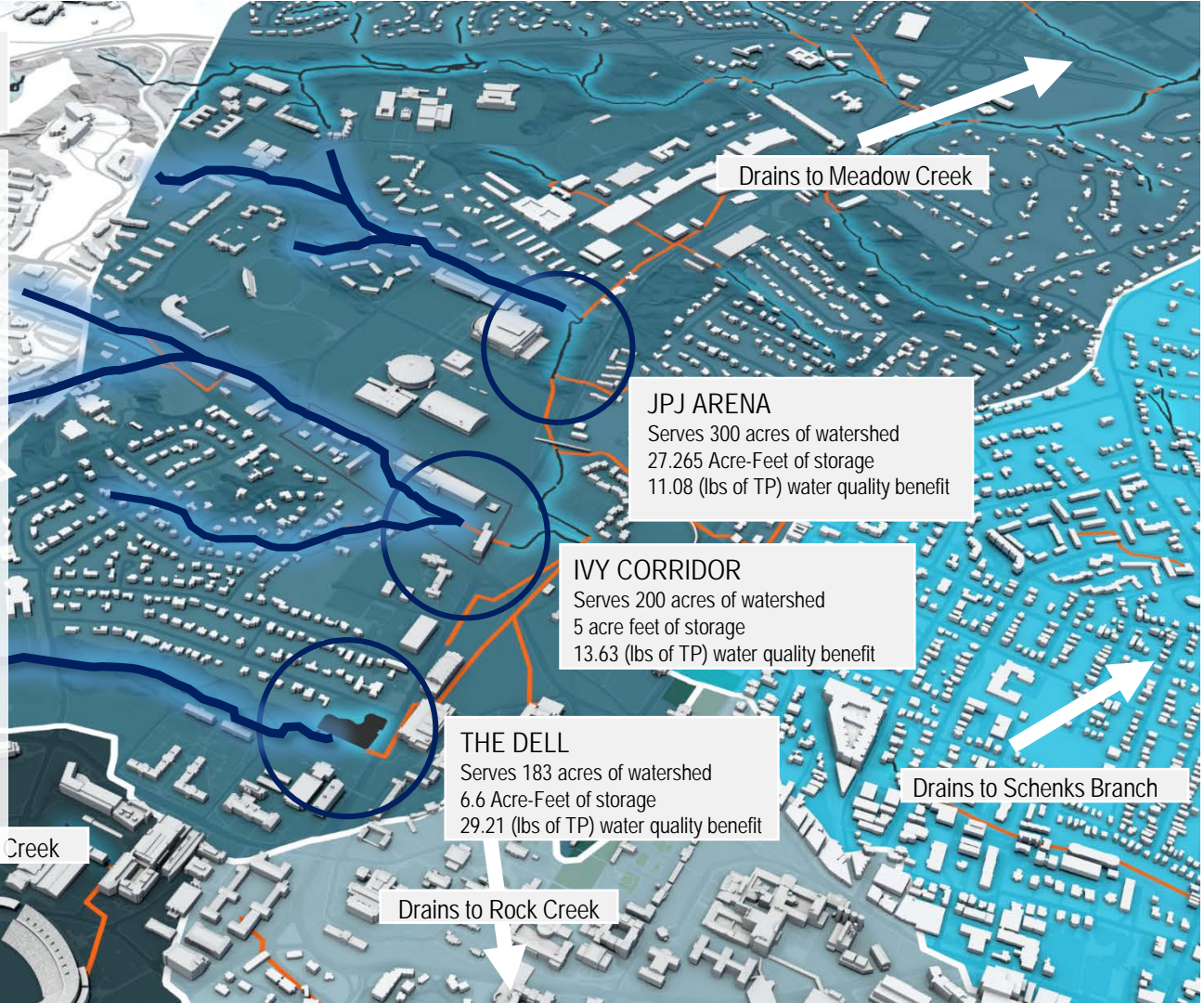


Lewis Mtn

Mt Jefferson

1999 STRATEGIC PLAN FOR WATER RESOURCES MANAGEMENT

- UVA property is located within two major watersheds – Meadow Creek and Moore's Creek
- In 1999, a strategic planning study of water resource management for UVA was approved by the Virginia Dept. of Conservation and Recreation (DCR)
- Three regional facilities were implemented as a result of a comprehensive Meadow Creek Storm Water Master Plan
- Each facility provides water quality and storm water storage for 683 acres of watershed for The University of Virginia and surrounding areas.
- Emmet Street will be flooded in a 10 year storm event



IVY CORRIDOR EXISTING CONDITIONS



IVY CORRIDOR EXISTING CONDITIONS

- The existing facility and stream were approved as part of a watershed study and subject to regulatory agreements and requirements
- Existing basin provides approximately 5 acre feet of water storage and 13.63 (lbs of TP) water quality for 200 acres of watershed
- Water is stored on site for a minimum of 1 - 2 days, every time 1" or more rain falls on the site. Ground continues to be saturated beyond for an extended period due to shallow water table
- In the last ten years, there have been 117 storm events greater than 1"
- Emmet Street floods during a 10 year storm event (+5.5") affecting existing drainage infrastructure and roadway



Current Facility provides approximately 5 acre-feet of storage

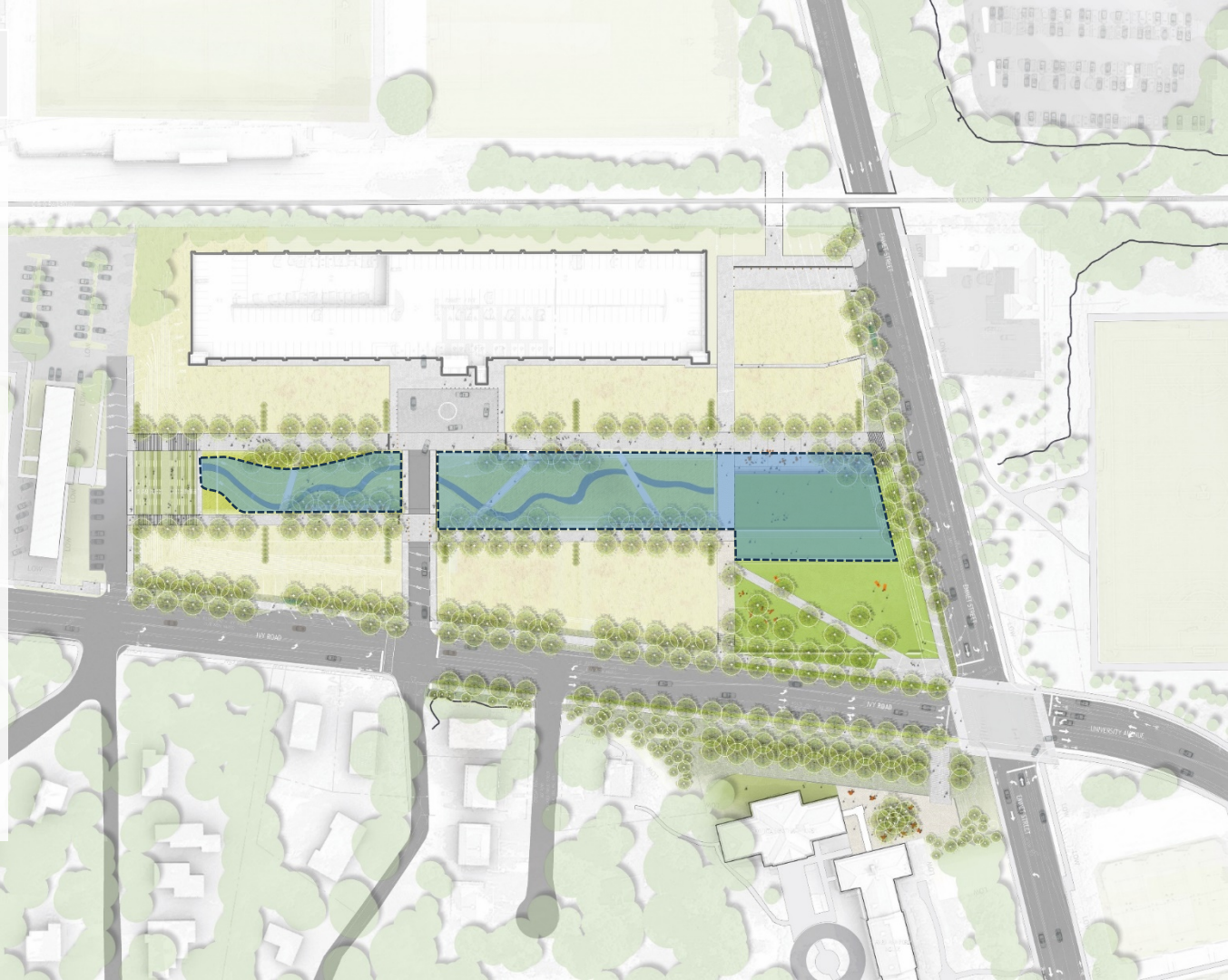
IVY CORRIDOR PHASE 1 – OPEN LAWN

- Required storm water storage (minimum 5 acre-feet)
- Above ground storage space is limited; storm water storage on site would have to take place underground
- Piping all flow downstream is not permissible and one cannot purchase credits for water quantity storage
- Due to the size and location, the required underground detention systems are expensive to install and require long term maintenance
- Water quality benefits for the region and Ivy Corridor site will need to be met off site or purchased (minimum \$200,000)
- Emmet Street will still flood in 10 year storm event



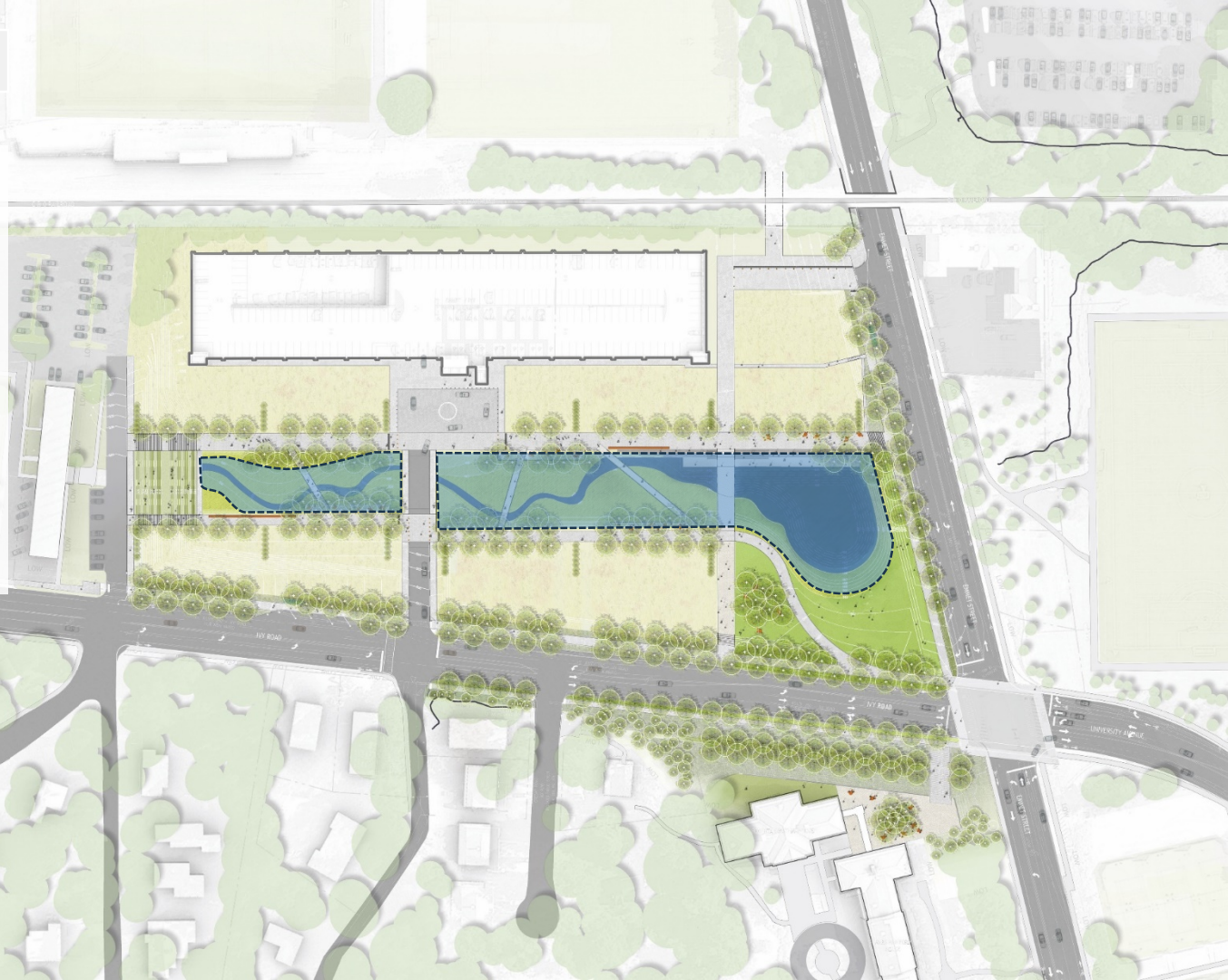
IVY CORRIDOR – STEPPED LAWN

- Required storm water storage is exceeded by above ground storage (8 acre-feet provided)
- The above ground storage area will be inundated with water for a minimum of 1-2 days after the site receives more than 1" rainfall (117 times in the last ten years)
- The above ground storage area will be saturated and wet beyond that period due to shallow water table
- Water quality benefits for the region and Ivy corridor site will need to be met/purchased off site (min. \$200,000)
- Emmet Street will not flood in this scenario for 10 year storm event

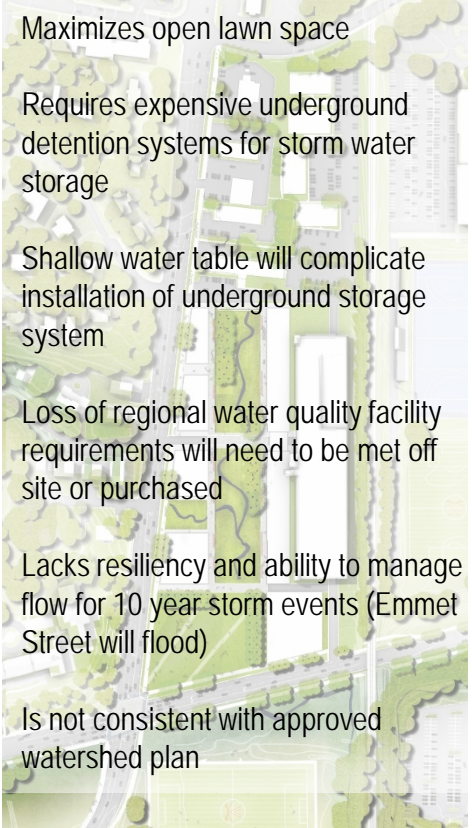


IVY CORRIDOR - POND

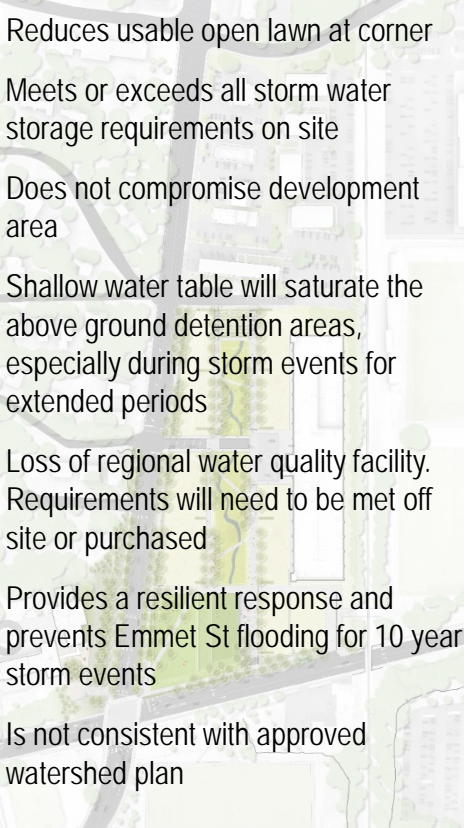
- Required storm water storage is exceeded by above ground storage (8 acre-feet provided)
- Water quality benefits for the region and Ivy corridor site are met on site
- No shallow water table concerns at corner due to pond
- Emmet Street will not flood in this scenario for a 10 year storm



OPEN LAWN

- Maximizes open lawn space
 - Requires expensive underground detention systems for storm water storage
 - Shallow water table will complicate installation of underground storage system
 - Loss of regional water quality facility requirements will need to be met off site or purchased
 - Lacks resiliency and ability to manage flow for 10 year storm events (Emmet Street will flood)
 - Is not consistent with approved watershed plan
- 

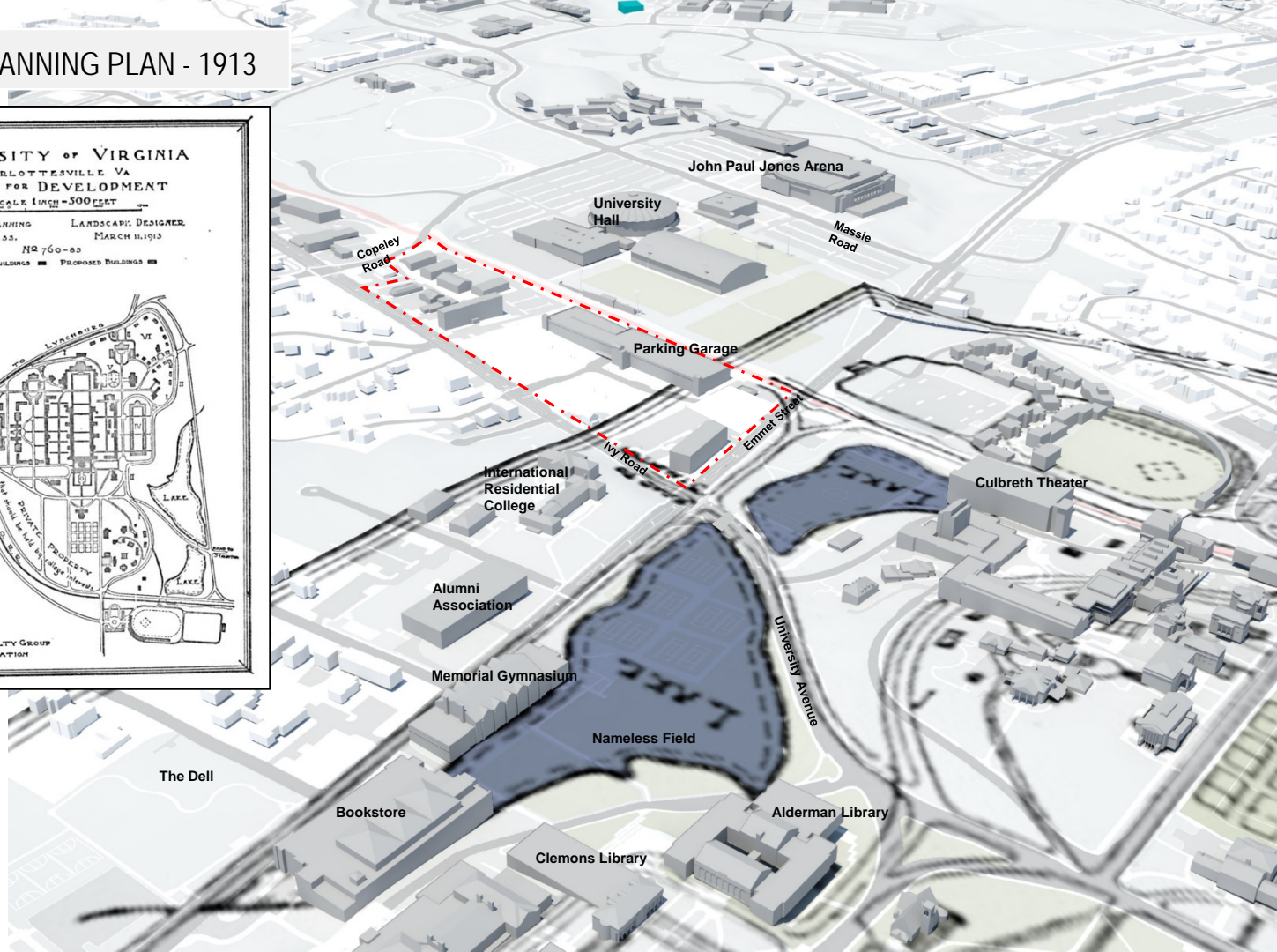
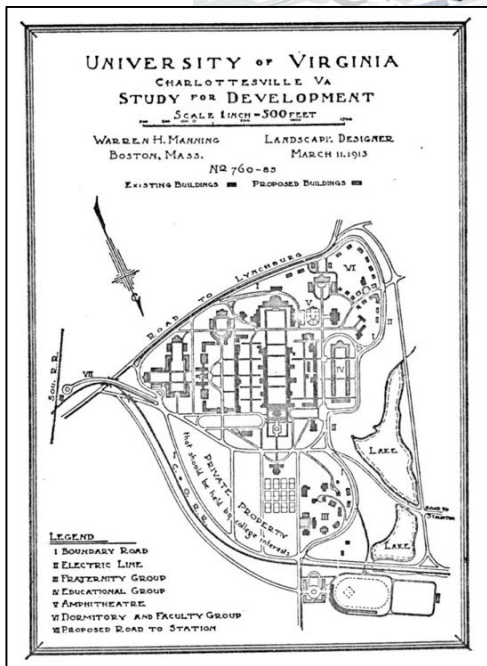
STEPPED LAWN

- Reduces usable open lawn at corner
 - Meets or exceeds all storm water storage requirements on site
 - Does not compromise development area
 - Shallow water table will saturate the above ground detention areas, especially during storm events for extended periods
 - Loss of regional water quality facility. Requirements will need to be met off site or purchased
 - Provides a resilient response and prevents Emmet St flooding for 10 year storm events
 - Is not consistent with approved watershed plan
- 

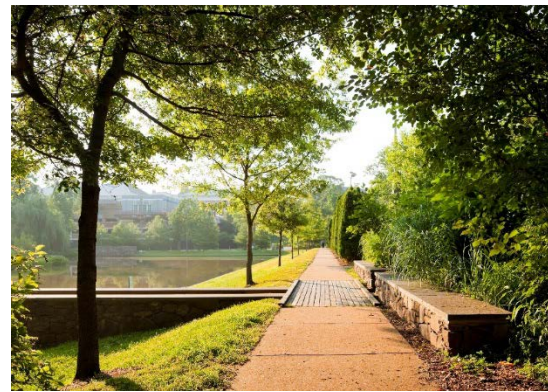
POND

- Reduces open lawn at corner
 - Meets or exceeds all storm water storage requirements on site
 - Does not compromise development area
 - No water table concerns due to pond
 - Maintains water quality benefit for region and site
 - Provides a resilient response and prevents roadway flooding for 10 year storms
 - Consistent with sustainability principles and approved watershed plan
- 

WARREN MANNING PLAN - 1913



THE DELL



PROPOSED CORNER OPEN SPACE



POND AND LINEAR GREEN LOOKING WEST

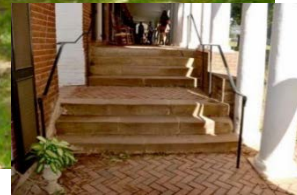
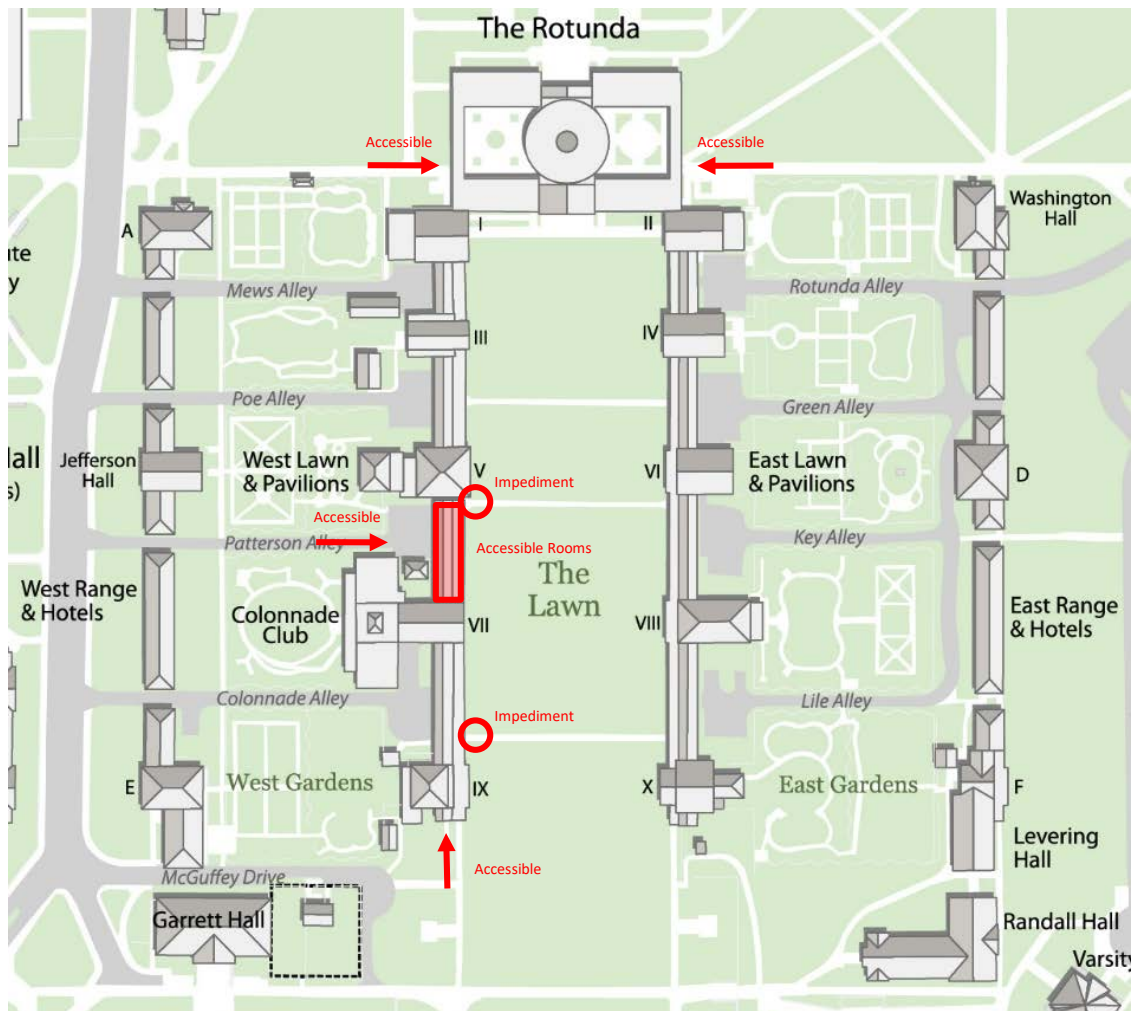


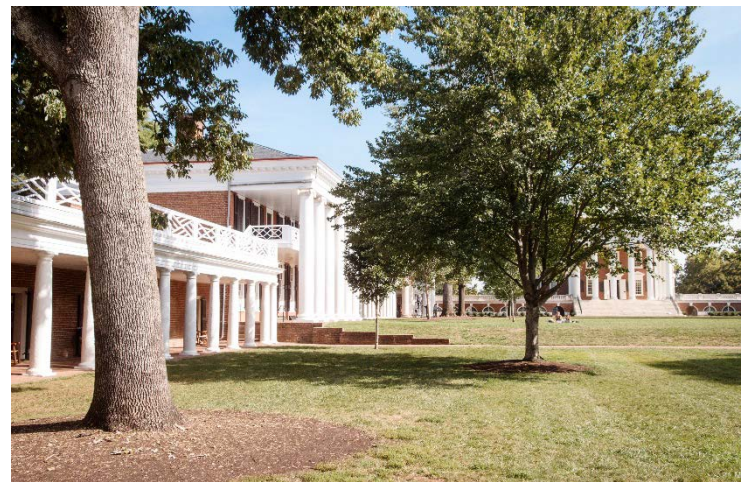
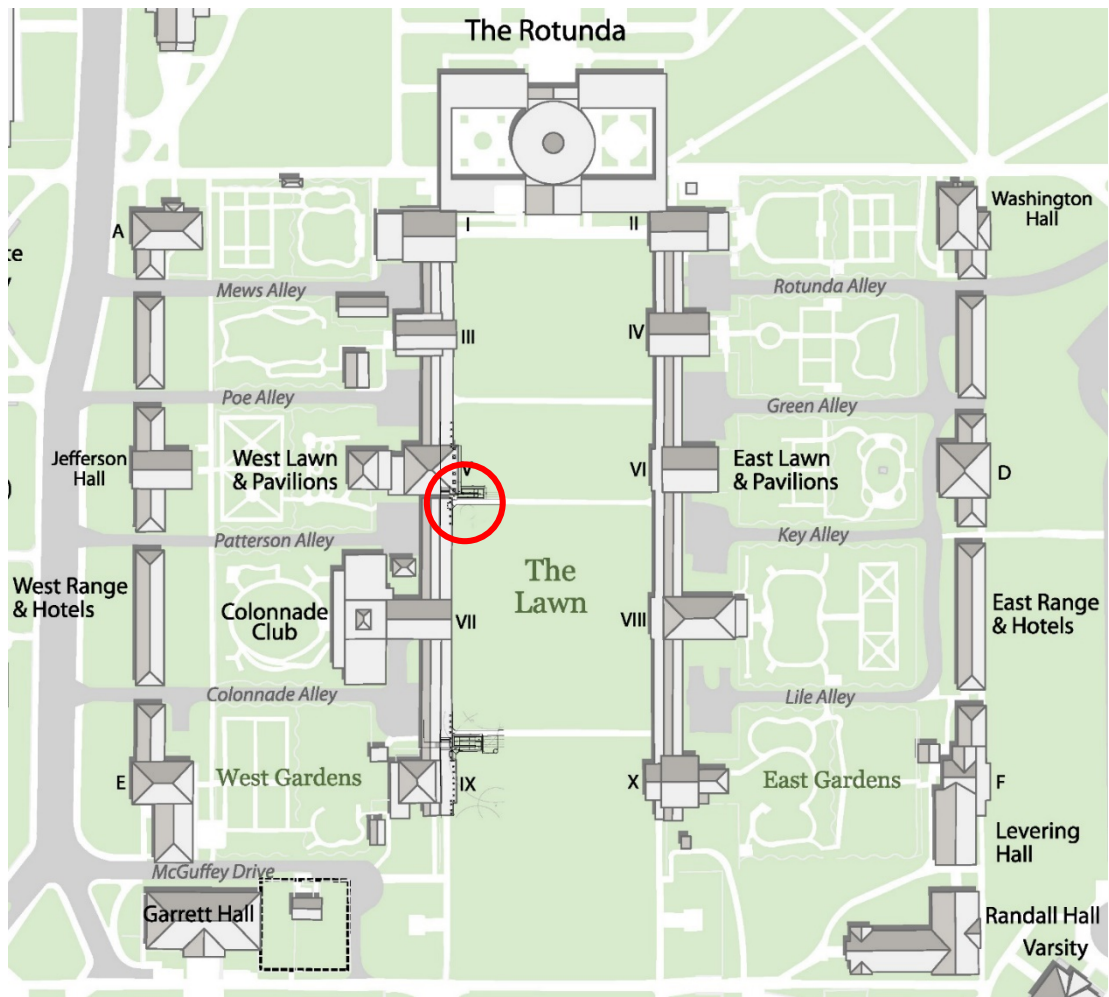
LINEAR GREEN LOOKING TO CARR'S HILL

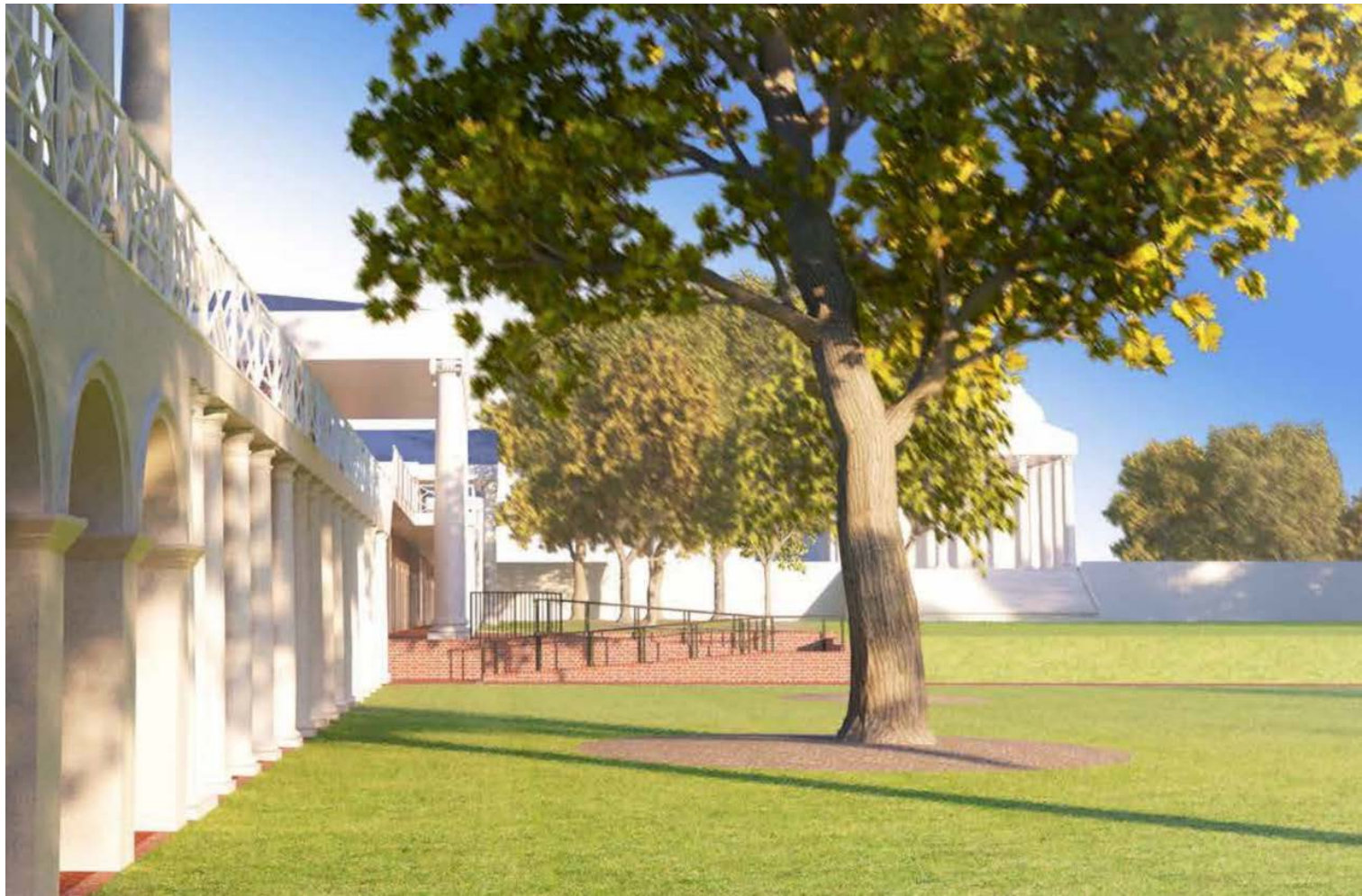


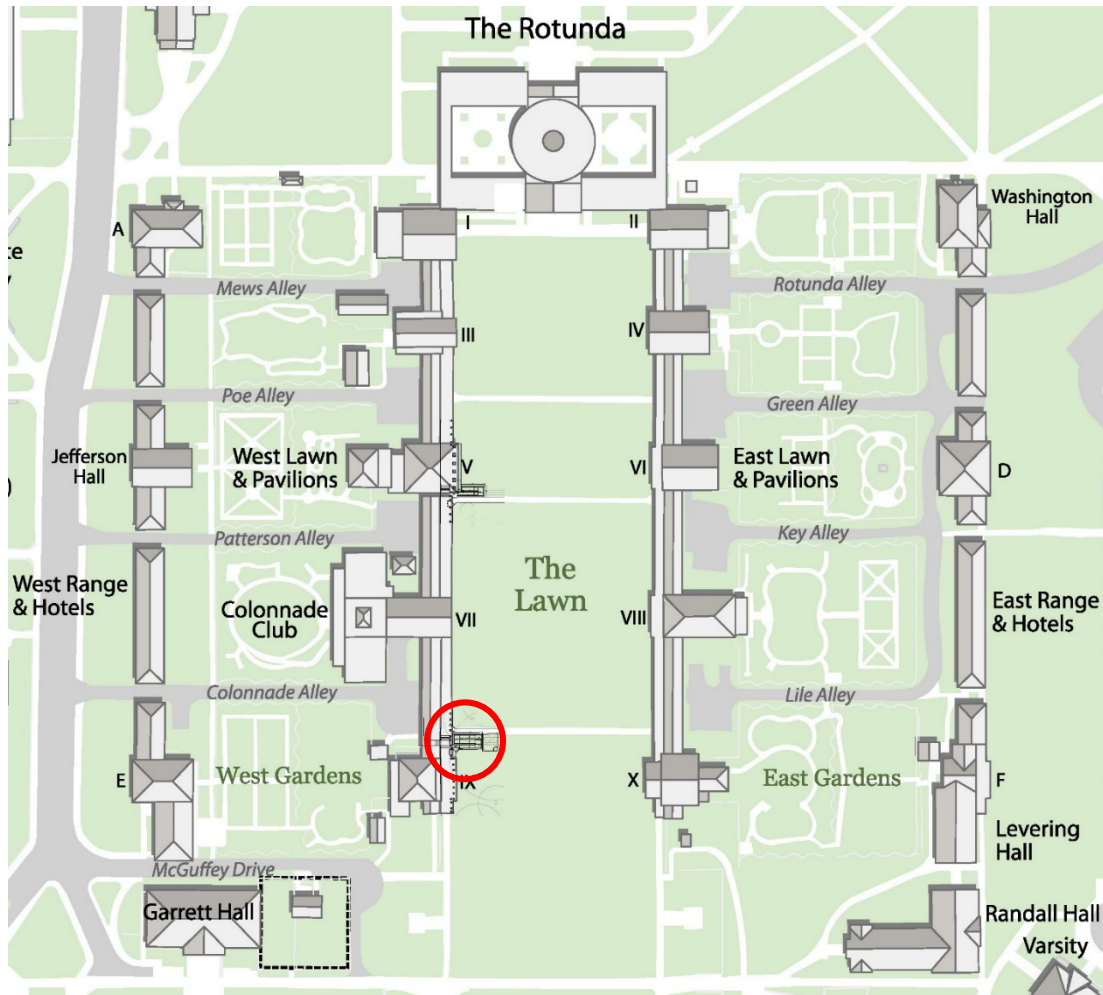
Lawn Accessibility Project















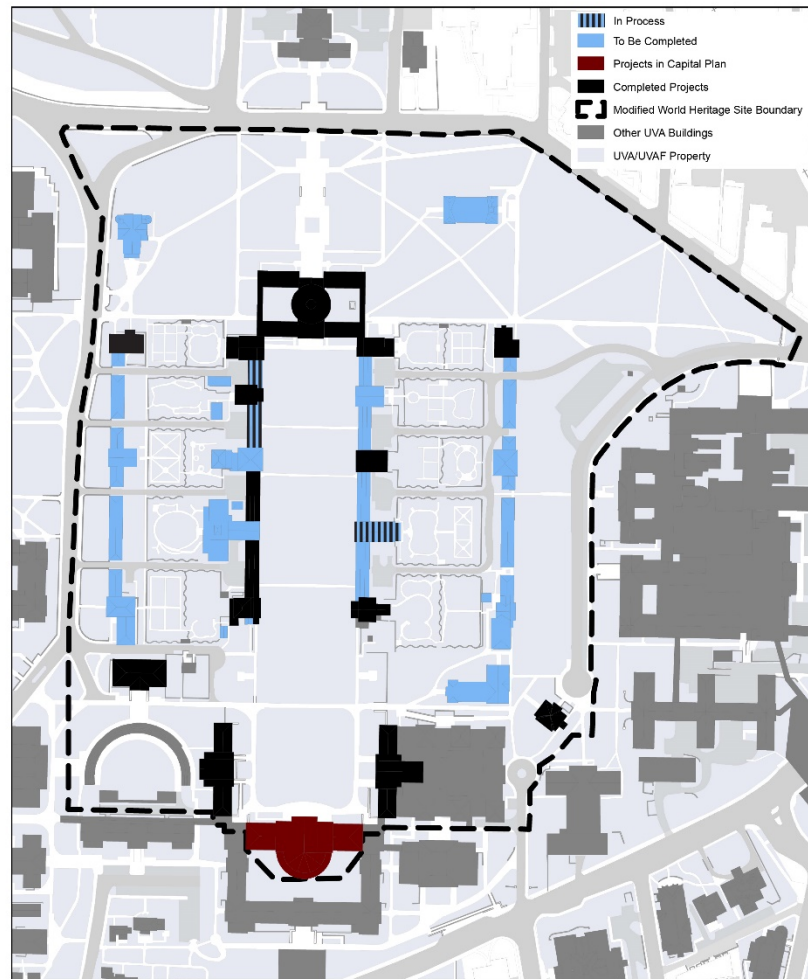


Jeffersonian Grounds Initiative (JGI)



JGI Three Priorities

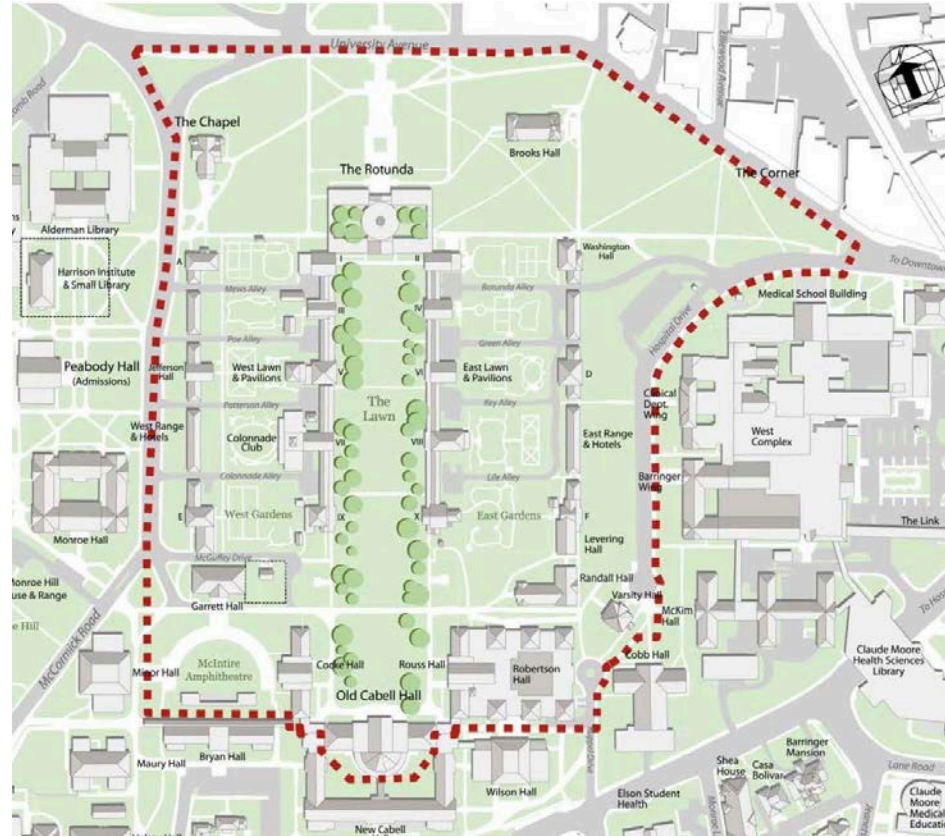
- **The Rotunda Renovation:** Preserving the heart of the Grounds
- **The Historic Buildings and Grounds:** Restoring the Academical Village
- **The Jeffersonian Grounds Endowment:** Stewarding the Jeffersonian Grounds in perpetuity



Academical Village

JGI Current and Upcoming Renovation Projects

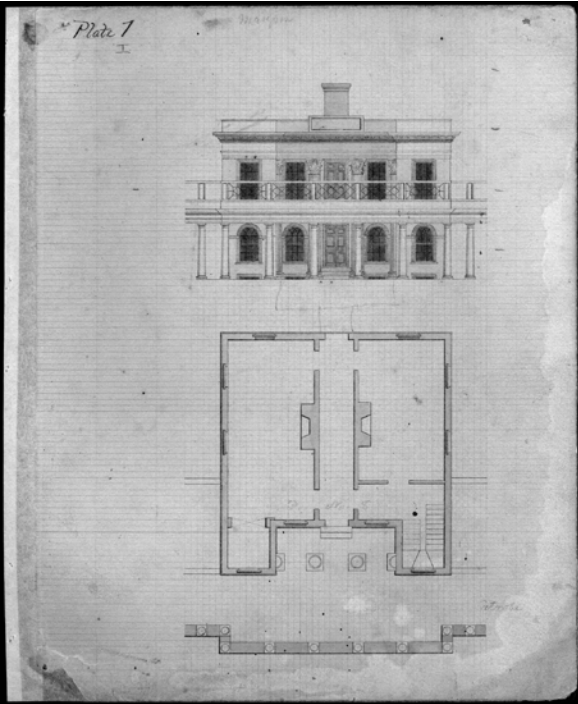
- Hotel A, Hotel B, and Pavilion III have been recently completed.
- Pavilion VIII in design, renovation to begin in early 2018.
- Roof restoration between Pavilions V & VI completed Summer 2017, and between Pavilions III & V (const. summer 2018) and Pavilions I & III (const. summer 2019) in design.
- Colonnade repairs south of Pavilion VIII under way.
- Next in need: Pavilion IV, Pavilion V, Hotels C (partially renovated), D, and F



Pavilion III before and after renovation



Pavilion VIII – Existing Conditions



Roof restoration and ongoing repairs to the Colonnade



JGI Three Priorities – Fundraising

	Goal	Source	Status
The Rotunda Renovation	\$ 50 million	½ General Fund ½ Philanthropy	Completed
Restoring the Academical Village	\$125 million	Philanthropy	Ongoing
The JGI Endowment	\$ 50 million	Philanthropy	Ongoing

