University of Virginia

Dell Area Concept Design
Final Report

Nelson Byrd Woltz
Landscape Architects

August 11, 2021

1 Introduction

The Dell area landscape is located between Emmett Street and Alderman Road. It is comprised several landscape zones that currently exist independently of one another: Dell Pond, Meadow Creek, tennis courts, historic allee, McCormick dorm slopes. and the Cemetery. It will also become a new home to the Contemplative Commons building that will be adjacent to the Dell Pond and will provide a pedestrian link between Newcomb Road and McCormick Dorms.

Project Scope and Timeline

The scope of the Dell study includes 2 key phases: Site Analysis and Concept Design.

The Site Analysis portion of the project was completed on December 1, 2020. It includes analysis of site history, vegetation, circulation. maintenance, and utilities. Based on the findings and feedback from the working group and Arboretum and Landscape Committee the design team developed a concept design proposal which is presented in this document.

Key recommendations of the concept design plan include: developing more continuous accessibility across all pieces of the site (both vehicular and pedestrian), increase the number of existing gathering spaces, expand existing interpretive narratives, and creating a more robust and cohesive landscape language through enhanced horticulture. It also proposes improvements to recapture key site views, maintenance of vegetation and aging site materials, erosion control at McCormick dorm slopes and degradation Meadow Creek banks.

Finally, we propose future follow up studies and projects that will build on the concept design study with the goal to unify the different landscape types and provide an enhanced experience for students and visitors.

This study was sponsored by the Arboretum and Landscape Committee. Thank you.

Working Group:

Nancy Takahashi
Helen Wilson
Mary Hughes
Rich Hopkins
Worthy Martin
Erica Perkins

Concept Plan Overview

The design proposal seeks to unify several landscape zones that currently exist independently of one another. The proposal sees the existing Dell landscape, the entirety of Meadow Creek, the historic Walk and its accompanying slope, the cemetery and its environs - as one continuous space. Project goals are to provide more continuous accessibility across all pieces of the site (both vehicular and pedestrian), increase the number of existing gathering spaces, expand existing interpretive narratives, and create a more robust and cohesive landscape language through enhanced horticulture.

LEGEND

1. Dell Pond
2. Historic Walk and McCormick Dorm Slope
3. Dell Waterway East
4. Dell Waterway West
5. Cemetery
6. Hancock Circle

2 Detail Plans and Studies

Dell Pond

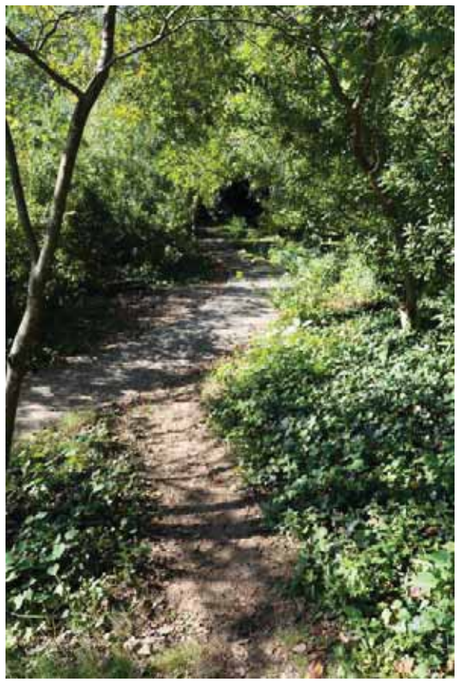
NBW has found the Dell pond generally functions well in terms of hydrology, circulation, and vegetation, leaving just a few key areas for improvement. Recommendations include formalizing two prominent desire paths from Thomson Road to the Dell, added and cleaned up dwelling spaces along the meandering path, a shore-side gathering space for increased engagement with water, and replacement of decaying path materials. The proposal also recommends refining existing plantings -- managing invasives, clearing originally intended site lines, and select replanting.

See Appendix p. 56 for additional circulation studies.

LEGEND

1. Formalized desire paths to Thomson Road
2. New overlook seating
3. Refined ground materials + replaced furniture at existing overlook
4. Shore-side gathering area

Dell Pond - Existing Conditions



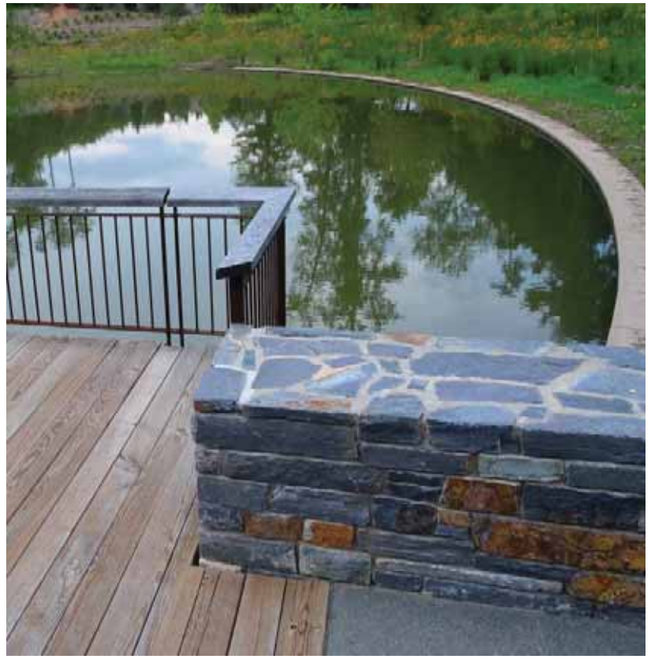
Dell Pond

Materials

Materials around the Pond should be cohesive with the existing material palette, which includes bluestone capped fieldstone walls, crushed stone, concrete, and wood.

Dell Pond

Material precedents



Dell Pond

Path Material Options

Concrete (current path material)

Advantages:
- ease of maintenance
- long lasting
- fits within existing material context

Drawbacks:
- cost
- impervious

Asphalt (current path material)

Advantages:
- cost effective

Drawbacks
- short lifespan
- maintenance
- impervious

Stabilized Aggregate

Advantages:
- naturalistic aesthetic
- pervious
- no need for contained edge

Drawbacks:
- cost

Flexi-pave

Advantages:
- pervious
- cost-effective

Drawbacks:
- not contextually appropriate

Wood

Advantages:
- aesthetic
- good for wet areas or bordering water

Drawbacks:
- maintenance
-cost of foundation

Pervious Concrete

Advantages:
- pervious
- fits within existing material context
- long lasting
- ease of maintenance

Drawbacks:
- cost

Historic Walk and McCormick Dorm Slopes

Concept designs for the historic Walk and adjacent McCormick Dorm slope seek to decrease erosion impacts, increase accessibility along and across the steep topography, while creating new gathering spaces that take advantage of views over the Dell landscape. This is accomplished by repaving and widening the existing historic Walk path to 8’ (which also supports vehicular access), adding pedestrian access down the slope, and incorporating ADA accessible routes along the entire length of the historic Walk from the dorms above. This added accessibility ties into a larger goal for wholistic access for people of all abilities throughout the entirety of the site. Recreationally, this access would feed directly into the larger pedestrian and trail network of the University

Water sheeting from dorm roofs and the quad is slowed, filtered, and celebrated along the slope through water management structures, while dense perennial and shrub plantings mitigate erosion.

Declining historic Walk trees are replaced with a new row of trees to the north of expanded Walk path, while a more naturalized mixed grove of trees is planted on the slope to the south.

Lighting should continue along the entire historic Walk path.

See Appendix p. 58 for additional slope and circulation studies.

LEGEND

1. Widened historic Walk path
2. New mid-slope gathering spaces or hammock grove
3. New stair access across slope
4. ADA and vehicular accessible route to historic Walk
5. Water Management Structures

Historic Walk and McCormick Dorm Slopes - Existing Conditions

Historic Walk and McCormick Dorm Slopes

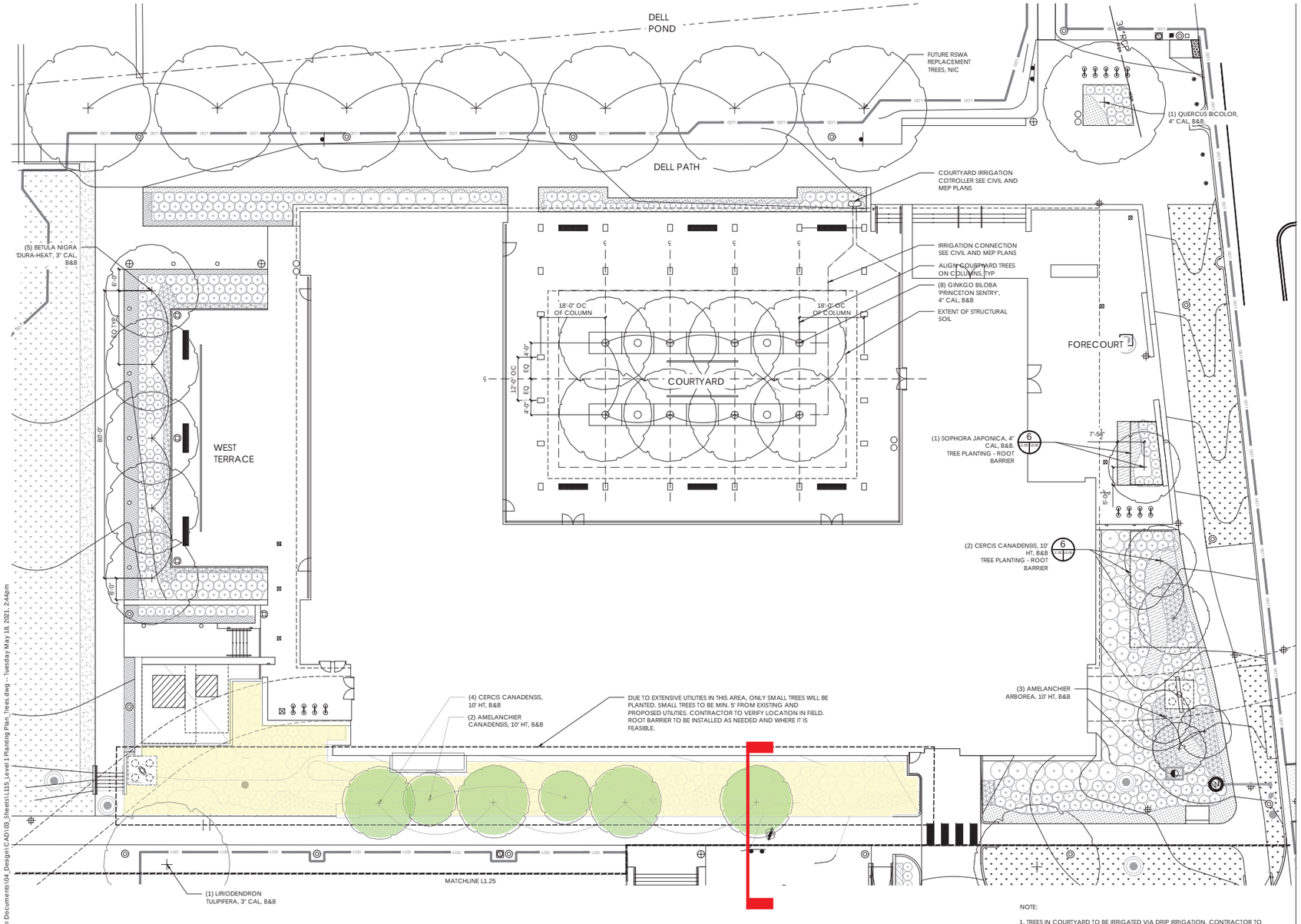
Slope Design Considerations + Goals:

- Mitigate erosion from water sources, primarily sheet flow from dorm roofs and point flow from both Hancock Drive, quad and the newly expanded dining terrace.
- Mitigate maintenance demands associated with mowing steep slope
- Increase connectivity and accessibility across slope
- Extend botanical and water narrative of Dell to distinct landform of steep slope
- Create dwelling spaces along slope, accessible by a variety of users, and taking advantage of views over Dell landscape
- Consider using boulders or natural materials to create gathering spaces

Plant palettes from Virginia's cove and boulderfield forests fit this steep landform, while creating simple, low-maintenance alternatives to the current mown turf condition. Dense planting and integration of large stone-like elements would work to control and slow water, while mitigating erosion.

Historic Walk at Contemplative Commons

At the Contemplative Commons (to the east of the new living bridge) the historic Walk transitions to a more naturalistic condition. Large historic Walk trees on the slope to the south of the path will remain for now. As these trees decline and are removed, it is recommended to evaluate their replanting within the context of this concept plan. Plantings to the north of the path along the Contemplative Commons will incorporate plantings of understory trees, shrubs, and perennials - in accordance with both the limited space and abundance of utilities located in that zone.



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NOTE:

1. TREES IN COURTYARD TO BE IRRIGATED VIA DRIP IRRIGATION. CONTRACTOR TO FOLLOW REQUIREMENTS FOR GREEN BUILDING STANDARDS. SEE MEP DWGS FOR IRRIGATION AND BUILDING HOSEBIB CONNECTIONS.

2. SEE PLANTING SCHEDULE 6/L6.00 FOR TOTAL PLANTING QUANTITIES, AREAS, AND SPECIES.

3. SEE PLANTING DETAILS SHEET L6.00

4. CONTRACTOR TO VERIFY ALL TREE LOCATION AND UTILITY CLEARANCES. UNLESS NOTED, ALL TREES SHOULD BE MIN. 10'-0" OFF UTILITY LINES.

aidlin darling design
990 third street
suite 400
san francisco, ca 94107
415 974 0849 fax
415 974 5903 phone

NELSON BYRD WOLTZ LANDSCAPE ARCHITECTS

310 East Market Street
Charlottesville
VA 22902

T 434.984.1358
F 434.984.4158
www.nbwla.com

UNIVERSITY OF VIRGINIA

CONTEMPLATIVE COMMONS

CHARLOTTESVILLE, VA

UVA Project Number P03079, WO#1476120
NBW Project Number 1918

COMMONWEALTH OF VIRGINIA
THOMAS JEFFERSON ALLEY
Reg. No. 000910
LANDSCAPE ARCHITECT

Drawn By KS, CK, ZP
Checked By JA, ZP

GRAPHIC SCALE - 1" = 10'
0 10' 20' 30'

ISSUES AND REVISIONS

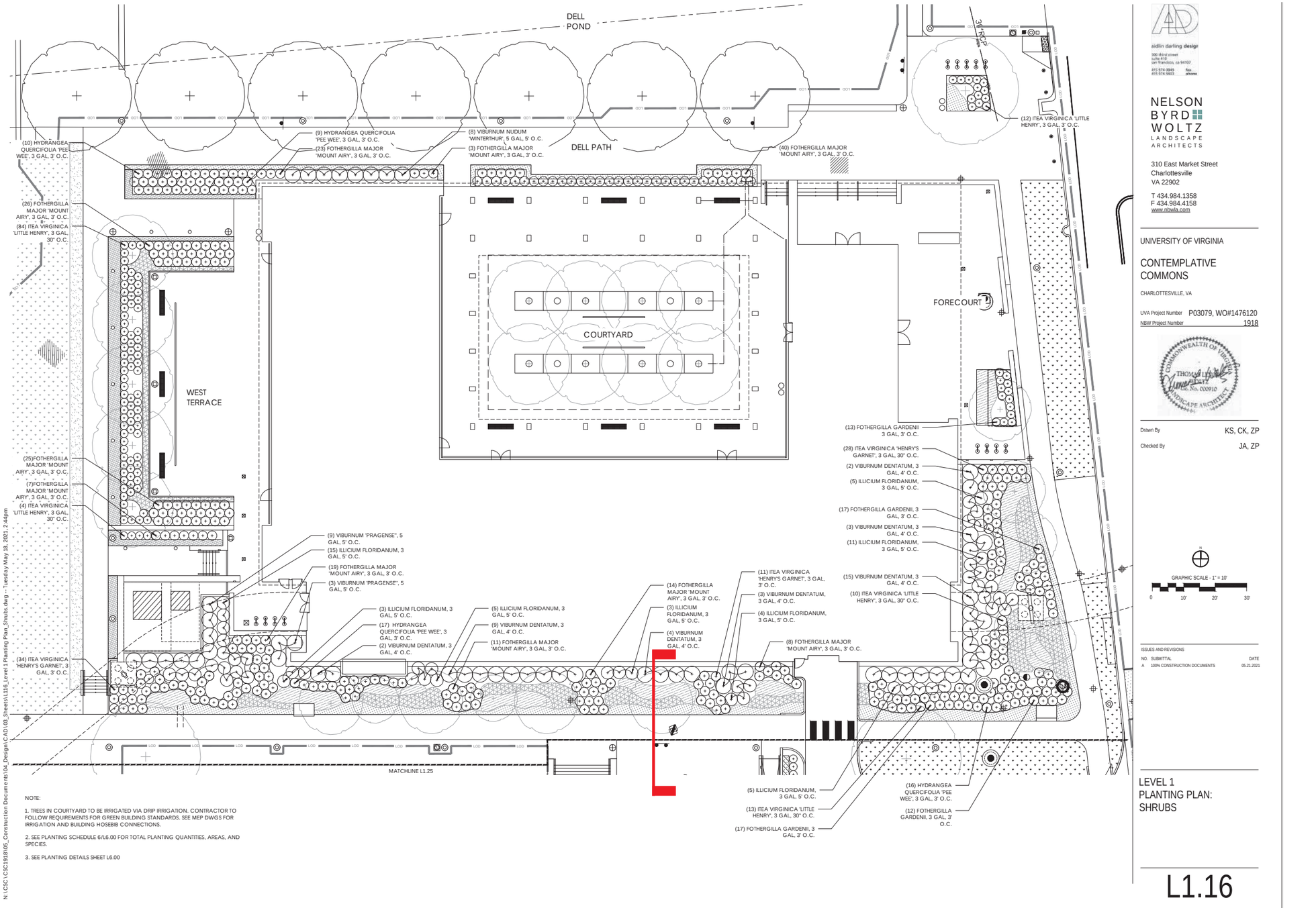
NO.	SUBMITTAL	DATE
A	100% CONSTRUCTION DOCUMENTS	05.21.2021

LEVEL 1
PLANTING PLAN:
TREES

L1.15

Historic Walk at Contemplative Commons

100% Construction Documents - Shrub planting



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suite 410
san francisco, ca 94107
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415 974 5603 phone

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THOMAS JAMES ALLEY
REG. No. 030910
LANDSCAPE ARCHITECT

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0 10' 20' 30'

ISSUES AND REVISIONS

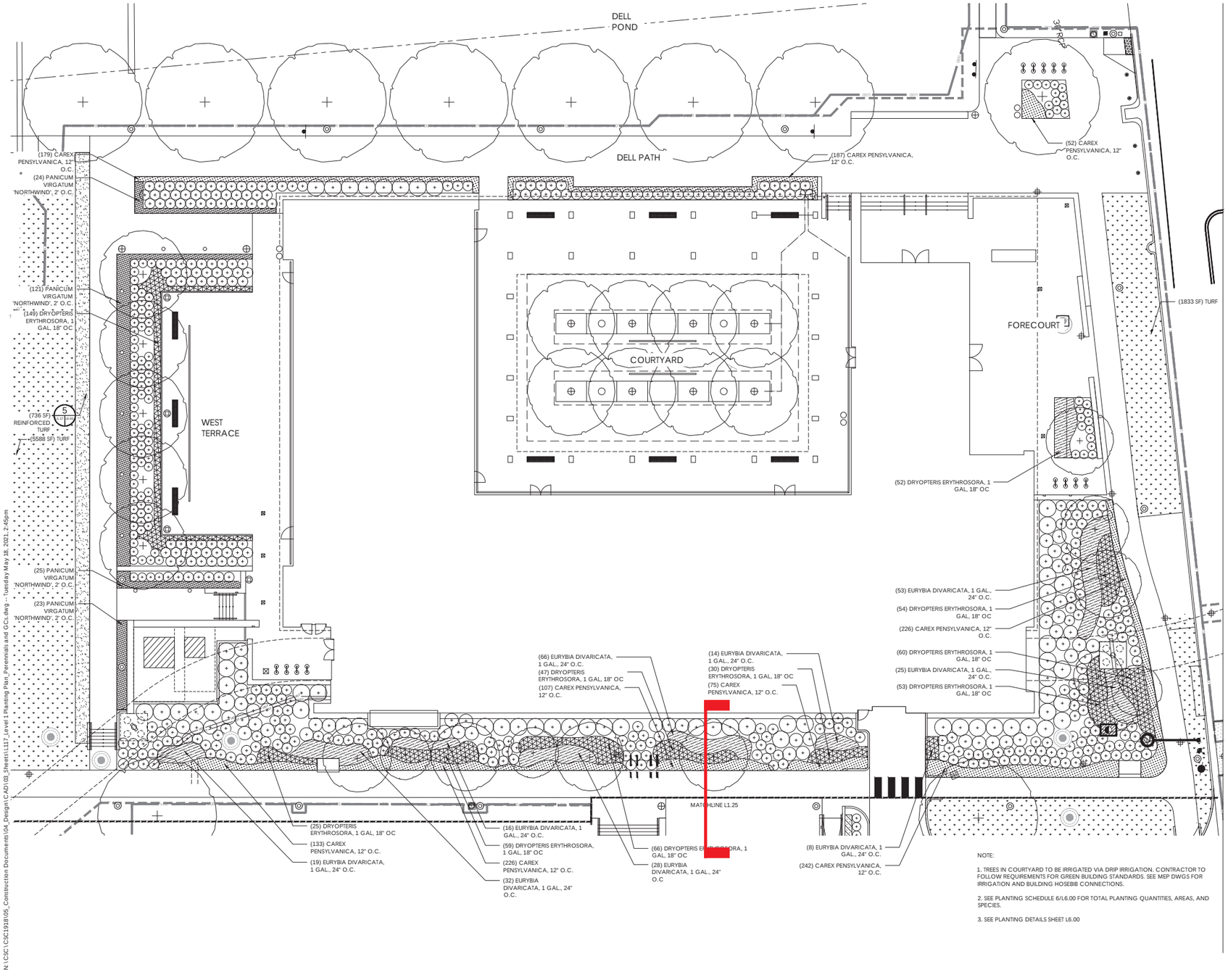
NO.	SUBMITTAL	DATE
A	100% CONSTRUCTION DOCUMENTS	05.21.2021

LEVEL 1
PLANTING PLAN:
SHRUBS

L1.16

Historic Walk at Contemplative Commons

100% Construction Documents Perennials and groundcover planting



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NOTE:

1. TREES IN COURTYARD TO BE IRRIGATED VIA DRIP IRRIGATION. CONTRACTOR TO FOLLOW REQUIREMENTS FOR GREEN BUILDING STANDARDS. SEE MEP DWGS FOR IRRIGATION AND BUILDING HOSEBIB CONNECTIONS.

2. SEE PLANTING SCHEDULE 6/L6.00 FOR TOTAL PLANTING QUANTITIES, AREAS, AND SPECIES.

3. SEE PLANTING DETAILS SHEET L6.00

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415 974 0849 fax
415 974 5603 phone

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F 434.984.4158
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CONTEMPLATIVE COMMONS

CHARLOTTESVILLE, VA

UVA Project Number P03079, WO#1476120
NBW Project Number 1918

COMMONWEALTH OF VIRGINIA
THOMAS J. LATHAM
LIC. NO. 020910
LANDSCAPE ARCHITECT

Drawn By KS, CK, ZP
Checked By JA, ZP

GRAPHIC SCALE - 1" = 10'
0 10' 20' 30'

ISSUES AND REVISIONS

NO.	SUBMITTAL	DATE
A	100% CONSTRUCTION DOCUMENTS	05.21.2021

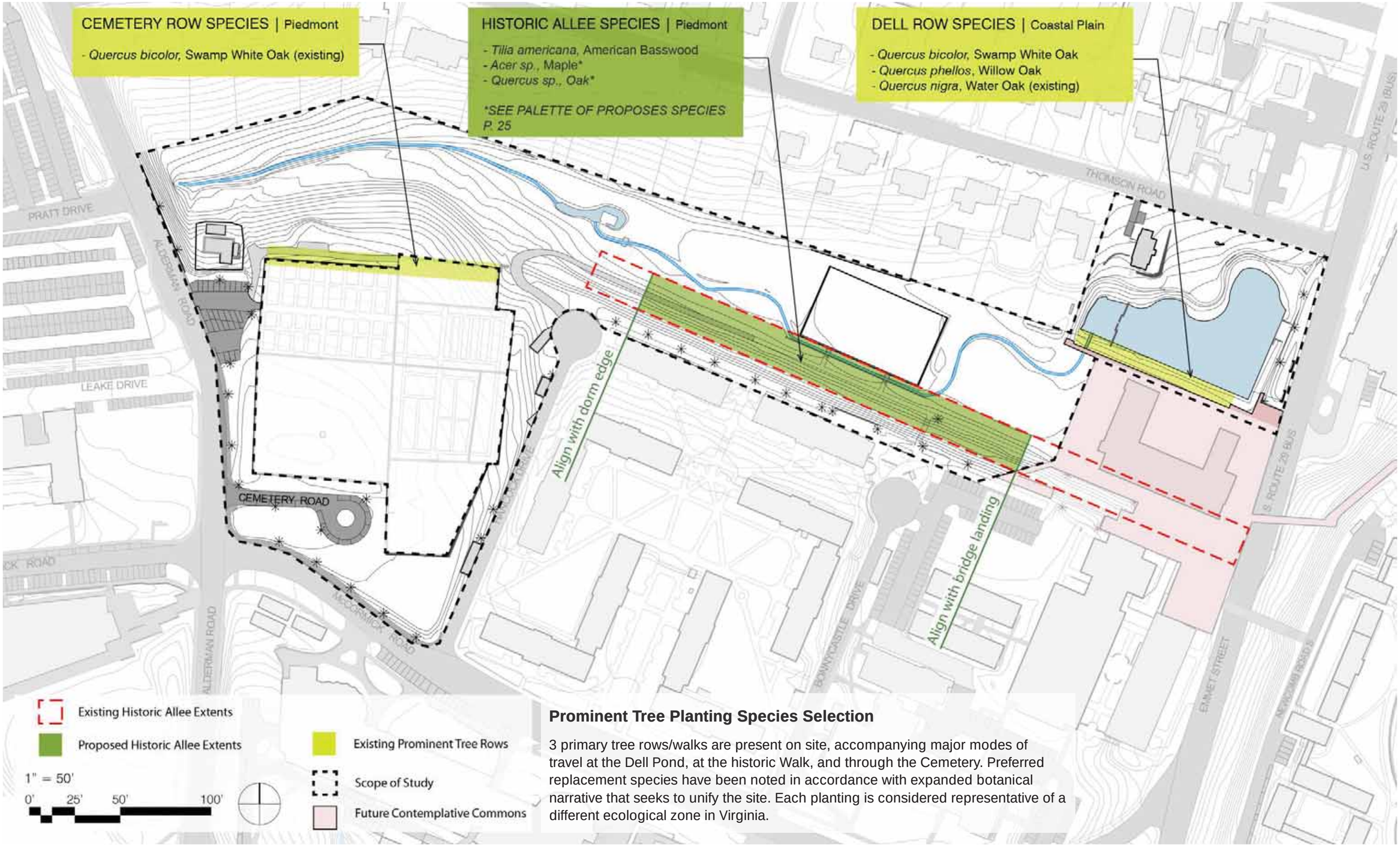
LEVEL 1 PLANTING PLAN: PERENNIALS + GROUNDCOVERS

L1.17

Historic Walk at Contemplative Commons

See preceding plan for section location.

Prominent Tree Alignments



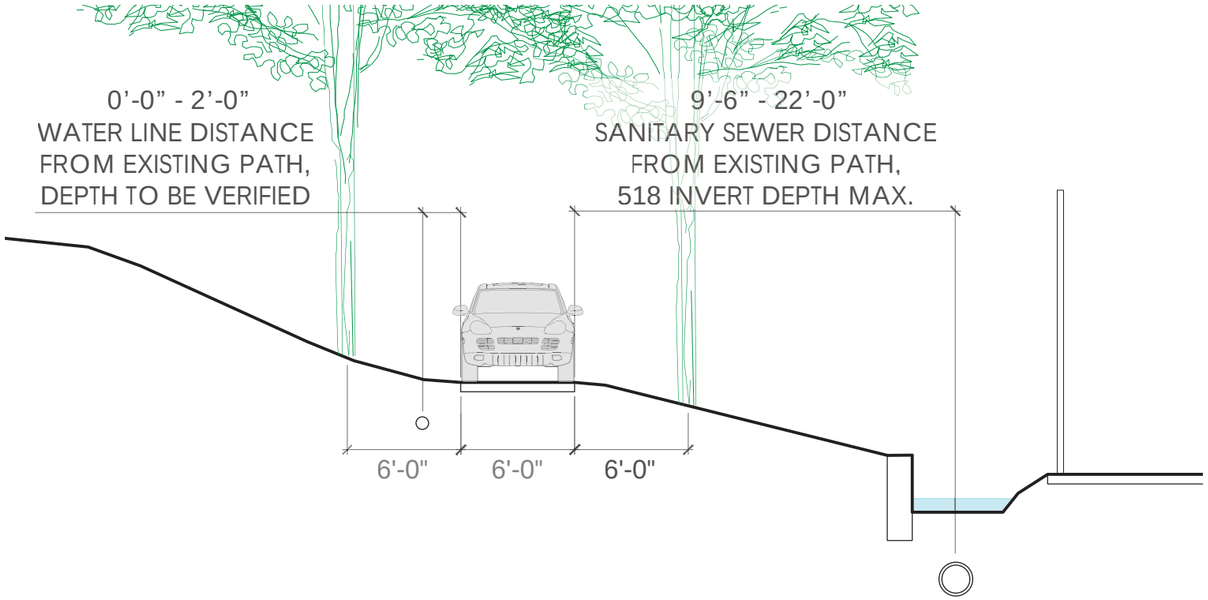
Prominent Tree Planting Species Selection

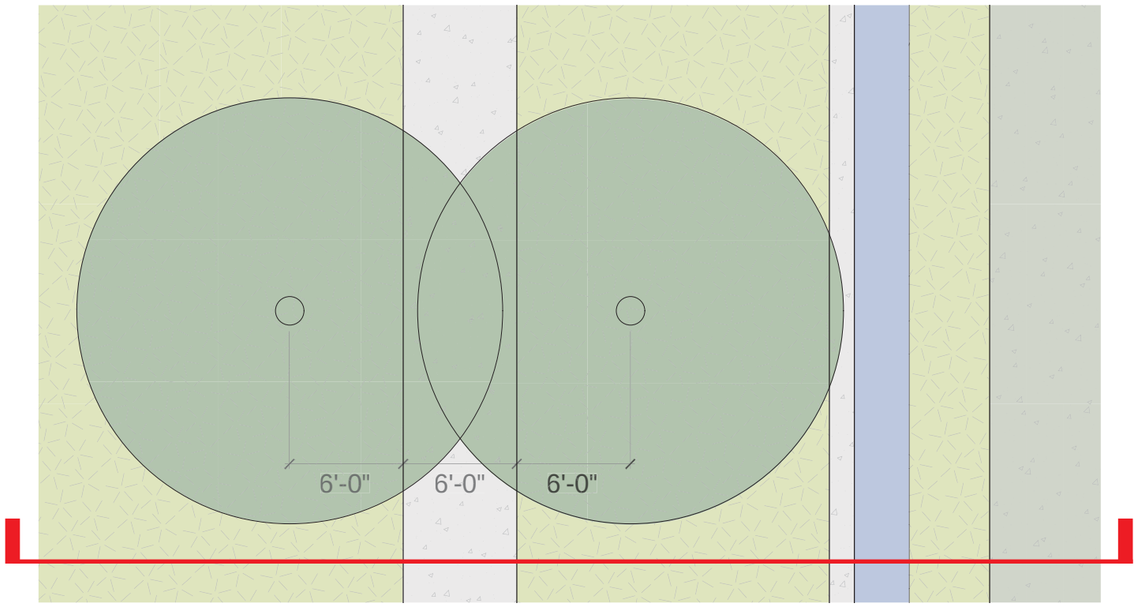
3 primary tree rows/walks are present on site, accompanying major modes of travel at the Dell Pond, at the historic Walk, and through the Cemetery. Preferred replacement species have been noted in accordance with expanded botanical narrative that seeks to unify the site. Each planting is considered representative of a different ecological zone in Virginia.

Historic Walk and McCormick Dorm Slopes

Existing Conditions

Issues: narrow path width, sloped planting surface

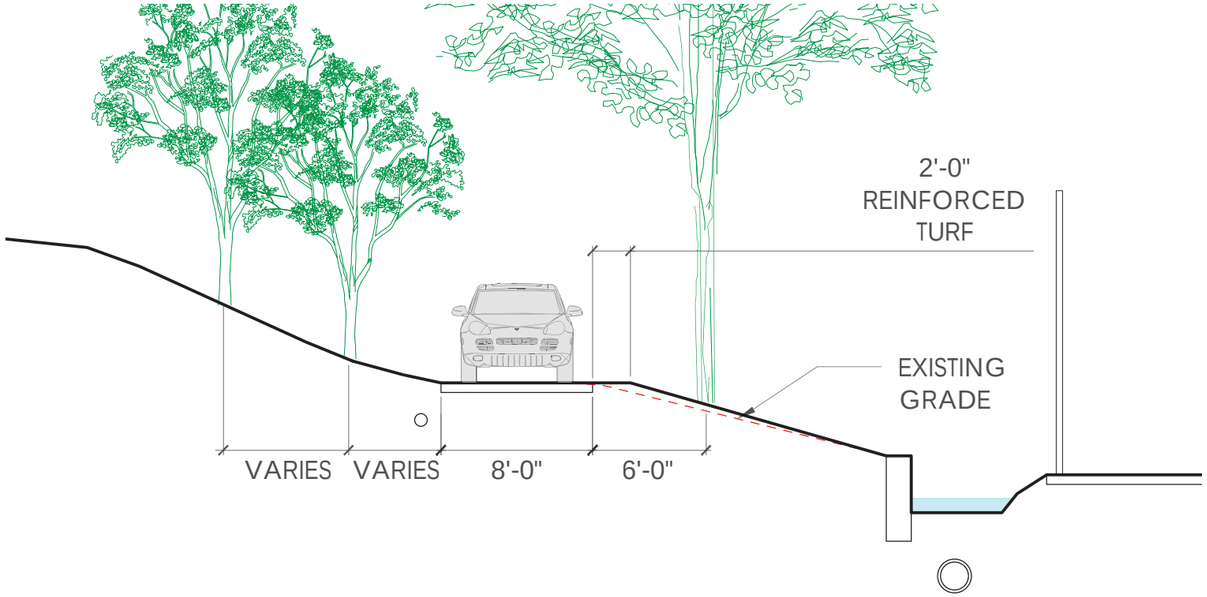


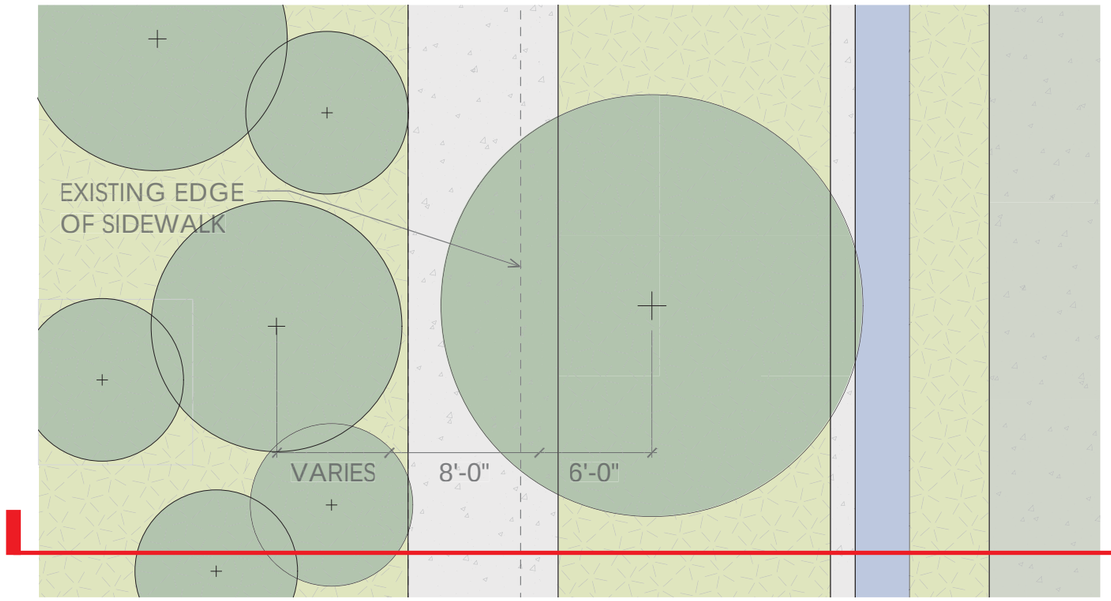


Historic Walk and McCormick Dorm Slopes

Alternate 1 (Preferred Scheme)

Path widened to 8', 2' reinforced mown strip north of path, tree row replanted on downhill slope, understory mix on uphill slope

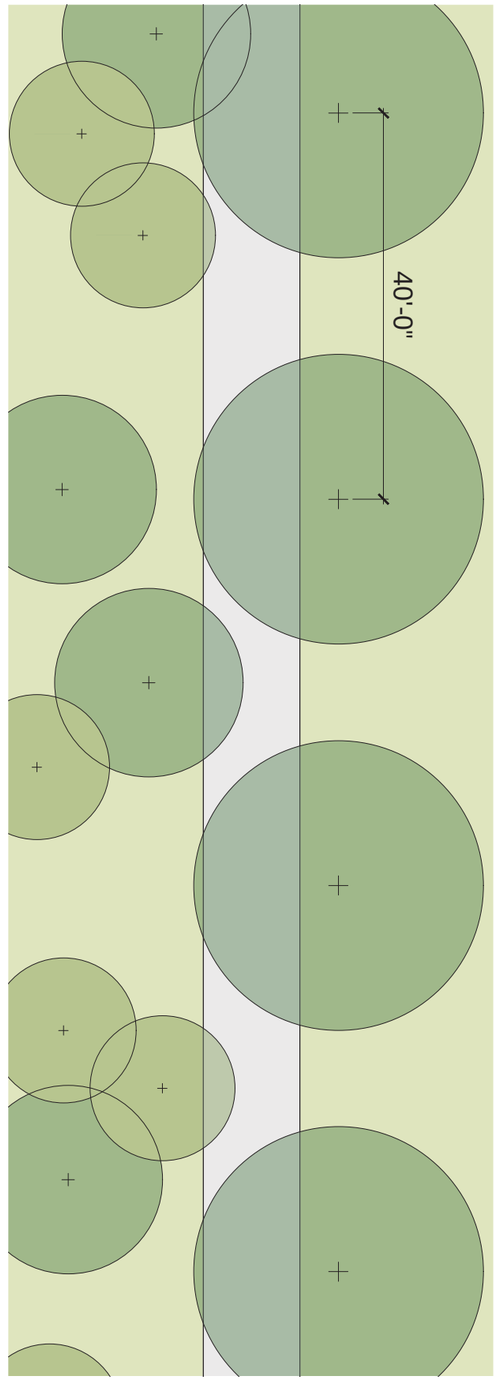




- Consistent tree row on downhill slope, spaced as existing (40' O.C.)
- Mixed understory tree/shrub edge on uphill slope that avoids the existing water line

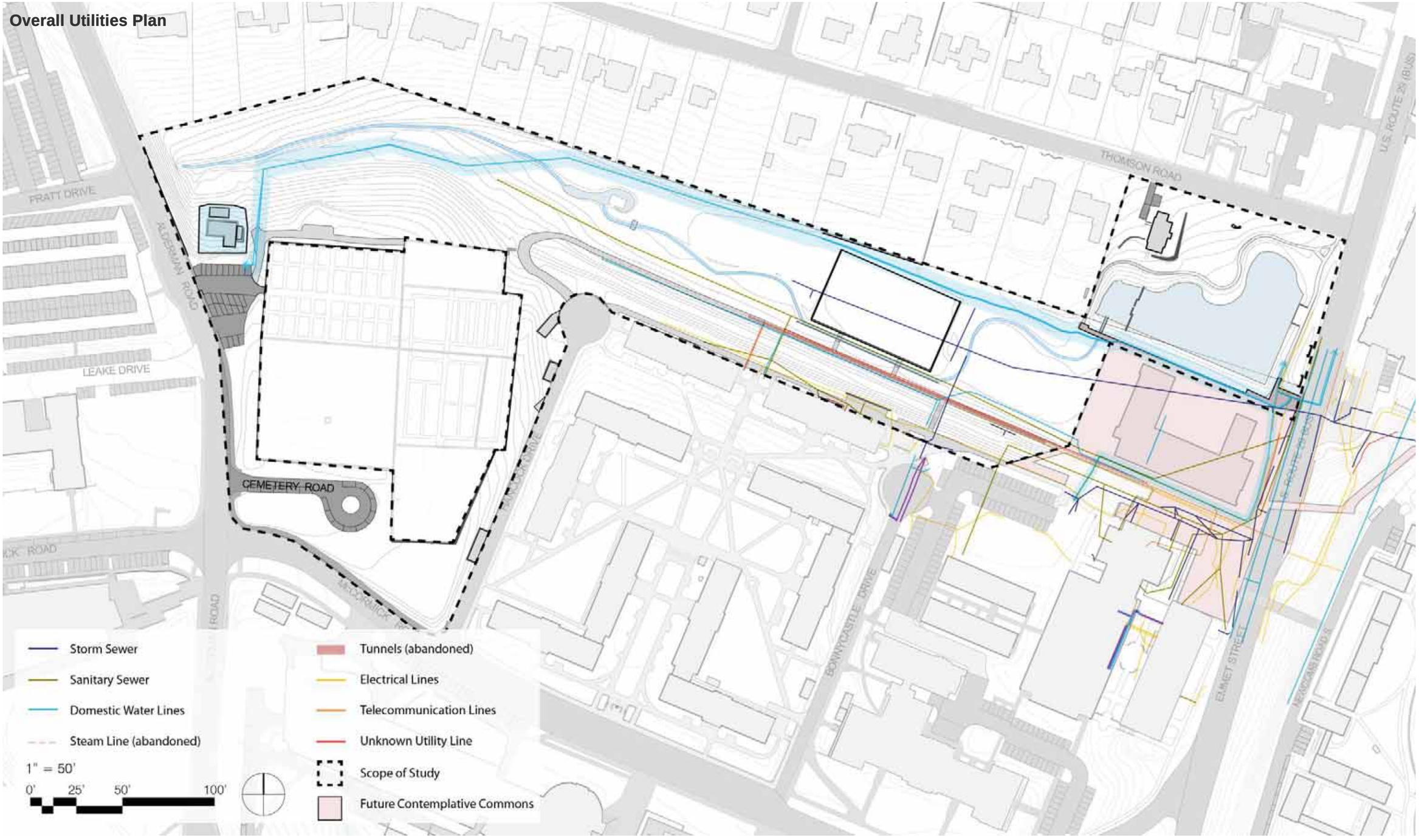
Opportunities:
- greater stabilization of uphill slope without substantial regrading
- naturalistic corridor feel
- matches language of other prominent tree rows on site (Dell pond Water Oak Row, cemetery Swamp White Oak row)

See Appendix p. 60 for additional tree spacing studies.



Historic Walk and McCormick Dorm Slopes Utilities

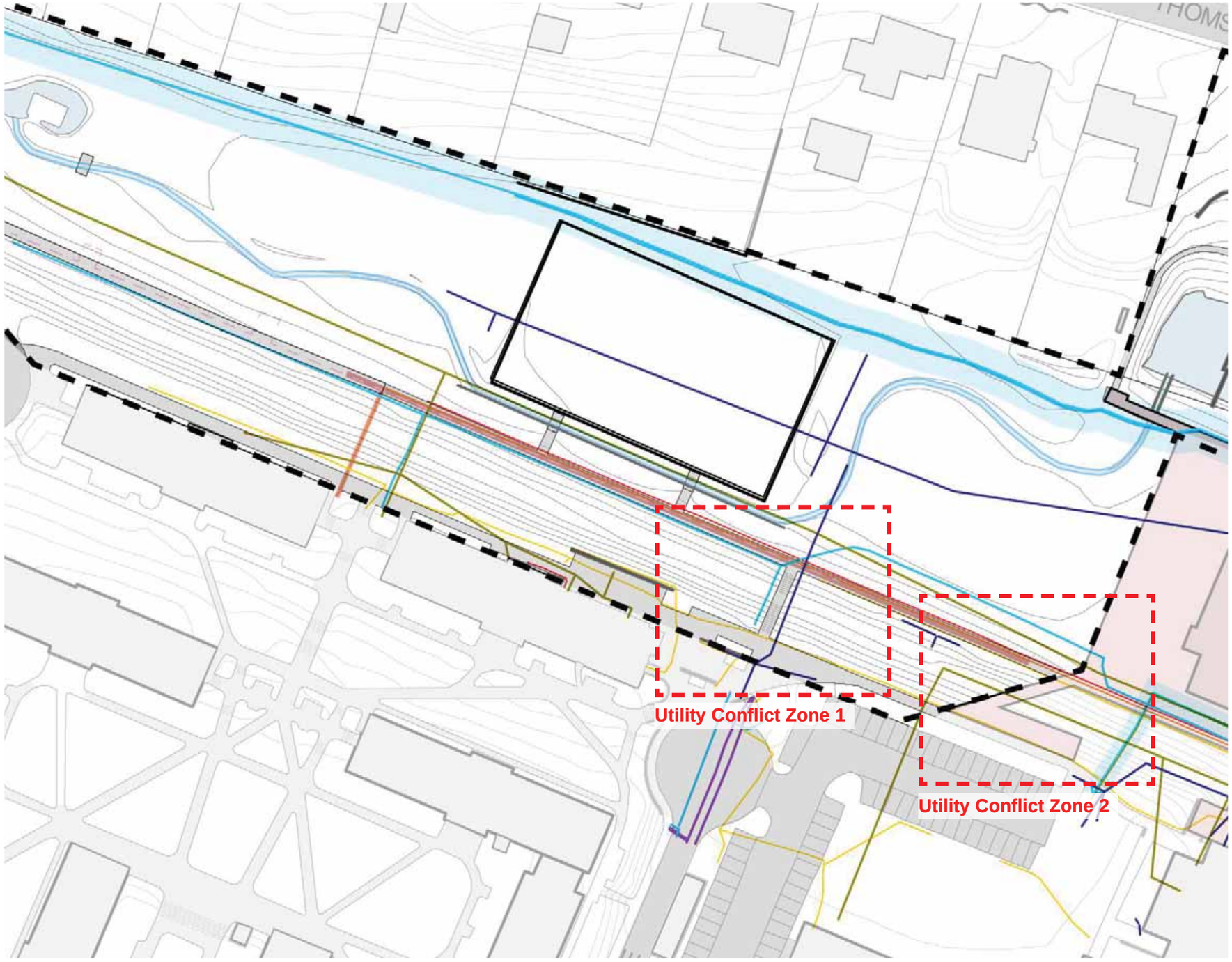
Overall Utilities Plan



Historic Walk and McCormick Dorm Slopes Utilities

Utilities Conflicts

A variety of utility lines run underneath and adjacent to the historic walk, as well as cross perpendicularly underneath it. Along the Walk's length, trees have been planted extremely close to these utility lines, often within 5' or less. The areas of most significant conflict are noted on the plan.



- Storm Sewer
- Sanitary Sewer
- Domestic Water Lines
- Steam Line (abandoned)
- Tunnels (abandoned)
- Electrical Lines
- Telecommunication Lines
- Unknown Utility Line
- Scope of Study
- Future Contemplative Commons

1" = 50'

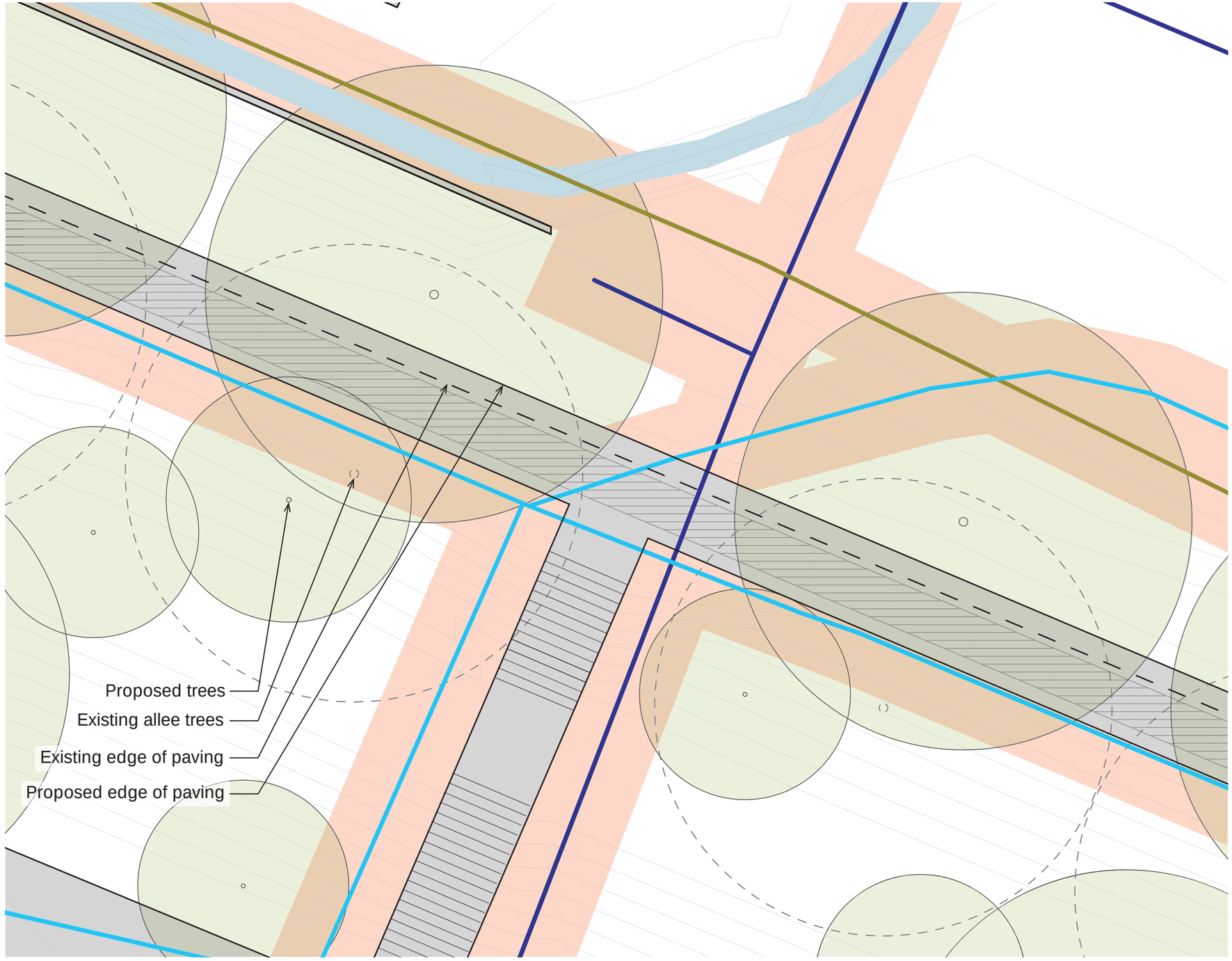
0' 25' 50' 100'

Historic Walk and McCormick Dorm Slopes Utilities

Utility Conflict Zone 1

Detail plan highlights active water, sanitary sewer, and storm sewer lines that constrain potential new extents of historic Walk path and planting at existing stair. Red hatches denote zones within 5’ of an active line (minimum offset for newly planted trees). Note that this requires trees on the southern side of Walk to be moved farther from the path edge than current trees.

*Note that a planting variance to 10’standard UVA utility setback may be required due to the density of utilities in this zone.

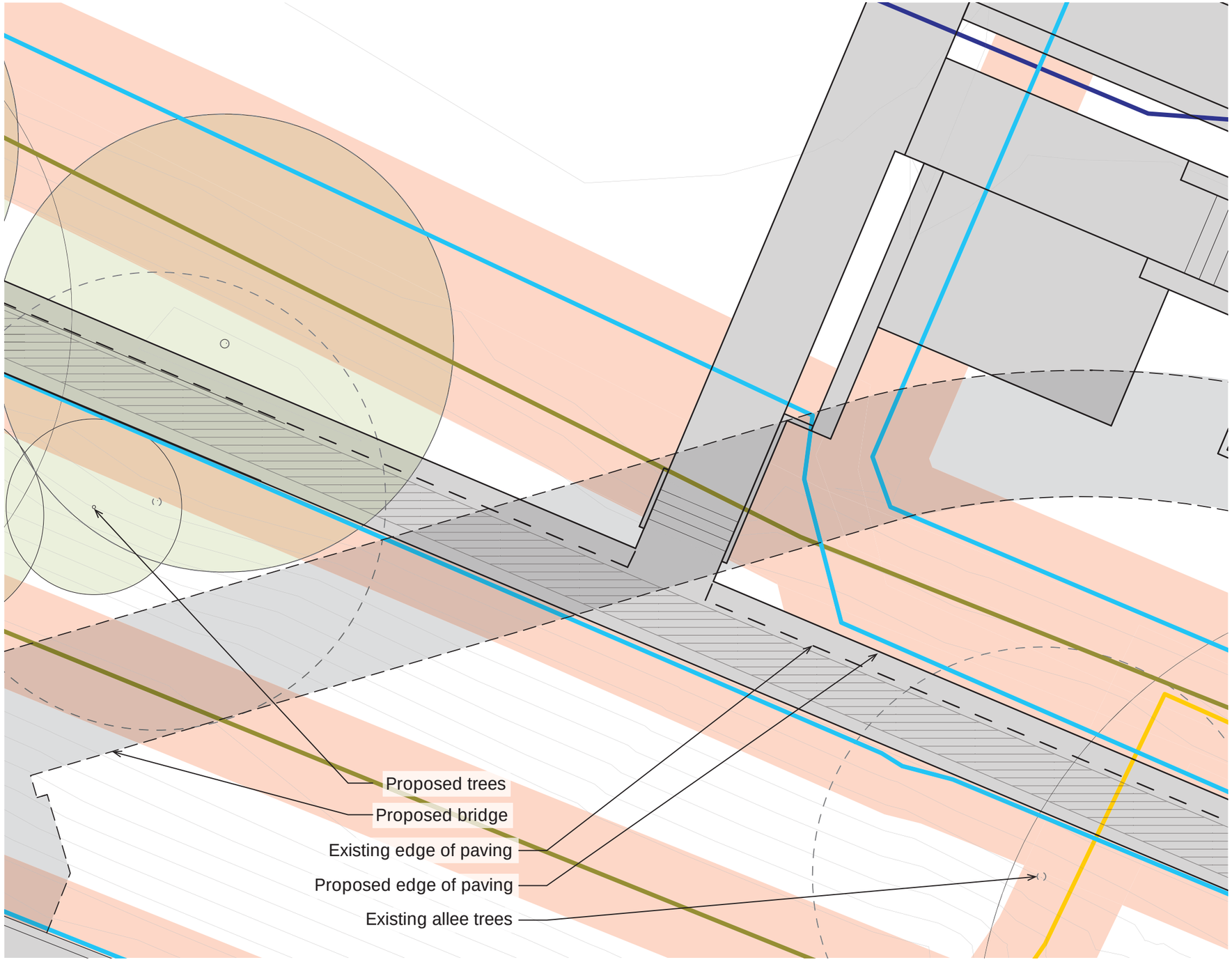


Historic Walk and McCormick Dorm Slopes Utilities

Utilities Conflict Zone 2

Detail plan highlights active water, sanitary sewer, storm sewer, and high voltage lines that constrain potential new extents of historic Walk path and planting at corner of Contemplative Commons. Red hatches denote zones within 5’ of an active line (a preferred minimum offset for newly planted trees).

*Note that a planting variance to 10’standard UVA utility setback may be required due to the density of utilities in this zone.



Storm Sewer

Sanitary Sewer

Domestic Water Lines

Utility Tunnel (abandoned)

High Voltage Line

Stream

5’ Minimum Utility Offsets (pending UVA approval)

1” = 10’

0’ 5’ 10’ 20’

Historic Walk and McCormick Dorm Slopes

Considerations for Walk Paving:

- ADA accessibility
- Contextual consistency of materials
- Erosion resistence
- Ease of maintenance
- Permeability

Concrete

Advantages:
- ease of maintenance
- long lasting
- fits within existing material context

Drawbacks:
- cost
- impervious

Compacted Crushed Stone / Decomposed Granite

Advantages:
- naturalistic aesthetic
- cost-effective (and potentially ADA)
- need for contained edge (e.g. curb)

Drawbacks:
- maintenance

Stabilized Aggregate

Advantages:
- naturalistic aesthetic
- pervious
- no need for contained edge

Drawbacks:
- cost

Flexi-pave

Advantages:
- pervious
- cost-effective

Drawbacks:
- not contextually appropriate

Asphalt

Advantages:
- cost effective

Drawbacks
- short lifespan
- maintenance
- impervious

Pervious Concrete

Advantages:
- pervious
- fits within existing material context
- long lasting
- ease of maintenance

Drawbacks:
- cost

Historic Walk and McCormick Dorm Slopes

Considerations for Walk Replacement Species:

- Tall, regular, vault-forming planted form
- Long lifespan
- Relatively fast growing
- Resilient to water + storm damage
- Representative of Virginia ecology

Tilia americana, American Basswood

- Lifespan: 200 years
- Size: 50’-80’ tall, 30’-50’ wide

Platanus occidentalis, American Sycamore

- Lifespan: 250+ years
- Size: 75’-100’ tall, 75’-100’ wide
- Fast growing, tall
- Fit for wider Walk
- Issues: Sycamore Anthracnose

Smaller Alternate: **London Planetree**

Acer saccharum, Sugar Maple

- Lifespan: 300 years
- Size: 40’-80’ tall, 30-60’ spread
- More intimate Walk

Quercus phellos, Willow Oak

- Lifespan: 100+ years
- Size: 40’-75’ tall, 25’-50’ wide
- Relatively fast growing

Quercus bicolor, Swamp White Oak

- Lifespan: 300 years
- Size: 50’-60’ tall, 50’-60’ spread
- Smaller in size, but reliable and water/drought tolerable

Quercus montana, Chestnut Oak

- Lifespan: 300 years
- Size: 50’-70’ tall and wide
- May be better on slope above – likes rocky, drier soils, but is profuse in adjacent woodland
- Often tall and narrow in woodland setting

OTHER POSSIBLE SPECIES:

***Quercus coccinea*, Scarlet Oak**
***Acer rubrum*, Red Maple (cultivar)**
***Ulmus americana*, American Elm (disease resistant cultivar)**

Dell Waterway East

The Dell Waterway plan assumes the persistence of the existing tennis courts. This scheme would leave the stream generally where it currently exists, while selectively dredging sedimented stream segments and bioretention basins. Existing plantings would be thinned for increased water accessibility and new gathering spaces while invasives would be removed and replaced with plantings in accordance with expanded botanical narrative.

See Appendix p. 66 for circulation studies.

LEGEND

1. Existing tennis courts
2. Dredged and replanted stream channel
3. Dredged and replanted bioretention basins
4. New gathering space
5. Improved picnic area
6. Improved recreational path

Dell Waterway East (Alternate)

Alternate design for the Dell Waterway assumes the removal of the existing tennis courts. The design team recognizes that currently there is no plan nor budget for relocation of the tennis courts so this plan remains speculative. This scheme would redirect the stream's meander, creating more opportunity for water interaction, gathering spaces, and planting. Sedimented portions of the stream and its bioretention basins would be dredged and/or reshaped. Existing plantings would be thinned for increased water accessibility and new gathering spaces while invasives would be removed and replaced with plantings in accordance with expanded botanical narrative. This option affords greater opportunity for plantings that screen the campus landscape from adjacent neighbours. The stream alignment would need to be refined through further design and studies that would need to include civil engineer and hydrologist as part of the consultant team.

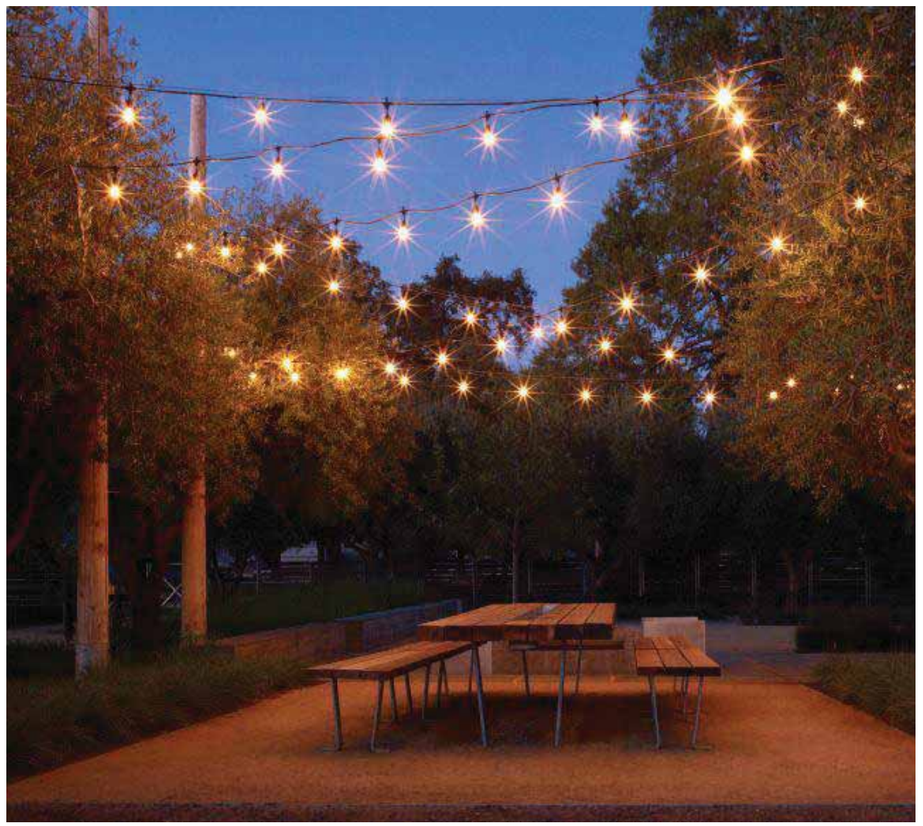
LEGEND

1. New stream-side gathering spaces + reshaped channel
2. Dredged and replanted stream channel
3. Dredged and replanted bioretention basins
4. New gathering space in woodland
5. Densified planted buffer
6. Outdoor classrooms
7. Boardwalk access and overlooks
8. Recreational path

Dell Waterway East - Circulation Character

Dell Waterway East - Outdoor Classrooms and Gathering Spaces

Dell Waterway East - Seating



Cemetery, Dell Waterway West and Hancock Circle

Concept designs for the project seek to unify the extents of the original Dell designs with other disjointed spaces nearby. These spaces include the western stretch of Meadow Creek, the UVA Cemetery and its environs, and the junction at Hancock Circle.

Designs for the western stretch of Meadow Creek include a more robust water narrative commensurate with its eastern counterpart. Features include a re-tooled outfall below Alderman Road, eroded bank restoration, expanded bioretention basins, removal of invasive species, and replanting in accordance with an expanded botanical narrative. Opportunities for naturalistic trails and gathering spaces along forested, meadow, and stream-side conditions are incorporated as well - linking into the larger University trail system. Trails and gathering spaces in this zone could include expanded interpretive elements which note the rich history along this part of Meadow Creek (e.g. indigenous community uses, drinking water for the Academical Village, earthen dams, ice ponds, religious ceremonies, agricultural uses, etc.).

As the Cemetery holds a rich history the design seeks to integrate it into the Dell and University trail network, while highlighting its untold narratives. These narratives include the newly discovered Native American cache, the presence of 3 Notched Road, burials of enslaved laborers/students/professors/soldiers/etc., stories of leisure and grave-robbing, etc. Increased connectivity through and around the cemetery could be paired with interpretive / contemplative gathering spaces for visitors. Additionally, the disjointed parking area to the west, which currently obstructs the cemetery's primary entry, is reworked to honor the entrance, create a more efficient parking layout, and provide greater pedestrian and vehicular access to the north of the cemetery.

Hancock Circle's pedestrian and vehicular circulation would be re-tooled to for greater access down the slope to the north, including a shared bicycle and pedestrian route that would provide continuous access to the historic Walk, the Cemetery, and to Alderman Road.
See Appendix p. 68 for additional studies.

LEGEND

1. Re-tooled creek outfall
2. Eroded bank restoration
3. Streamside overlook
4. Naturalistic Trails
5. ADA trails through cemetery
6. Primary cemetery entrance & parking
7. Interpretive gathering space
8. Bicycle and pedestrian access
9. Parallel parking with turnaround
10. Utility access drive

Cemetery, Dell Waterway West and Hancock Circle - Existing Conditions










Cemetery, Dell Waterway West and Hancock Circle

Cemetery Circulation and Parking

- Existing vehicular access and parking for the cemetery is largely convoluted and difficult to navigate. Concept designs restructure the western parking area for more efficient use of space, while dignifying the cemetery entry that has been obstructed by the existing parking lot. A redefined access drive to the north of the cemetery provides ease of access (and additional parking) for the columbarium, with opportunity for bicycle and pedestrian connection to Hancock Drive and the historic Walk.

Alternative parking layout is not feasible due to slopes and adjacency to cemetery walls.

Pedestrians and bicycle shared path to historic Walk

Entrance to cemetery from reconfigured parking

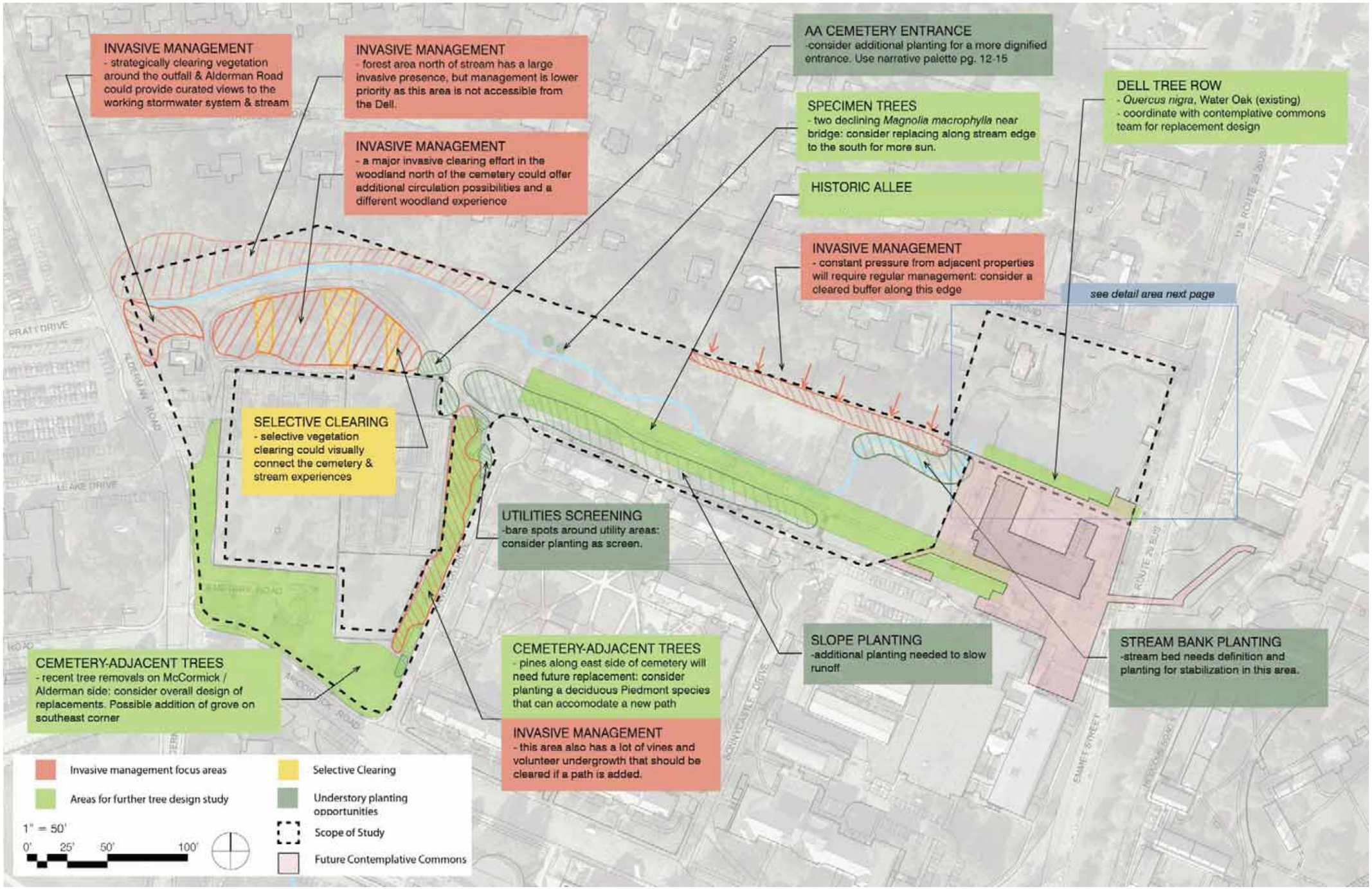
Cemetery, Dell Waterway West and Hancock Circle

Materials

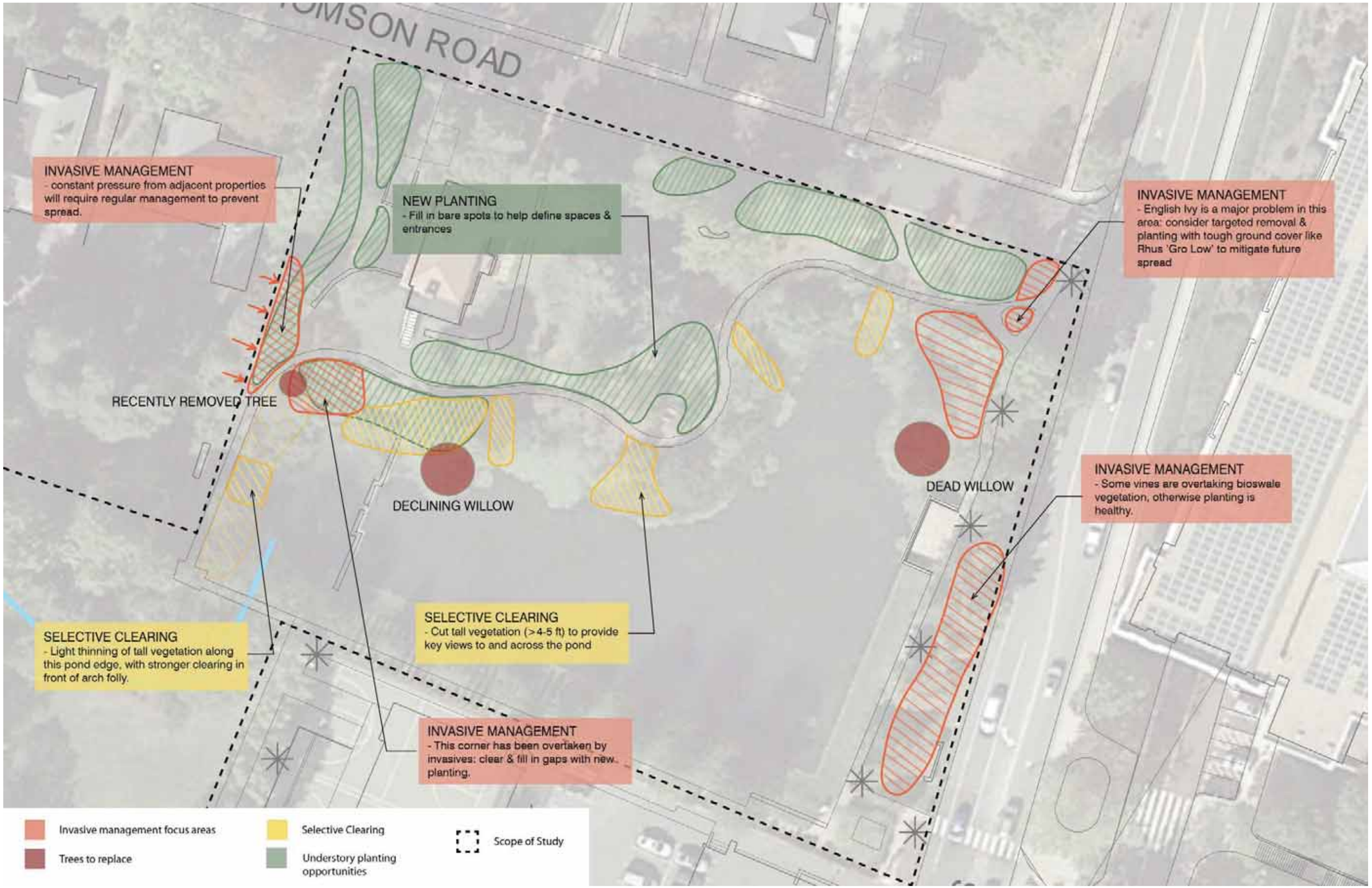
- The assumed alignment of the historic Three-Notched Road intersects many existing materials -- lawn, sidewalks, roads and walls. Opportunity to mark and acknowledge this important indigenous travel route in ground materials and text or with simple signage.

3 Vegetation: Overall Site Recommendations & Concerns

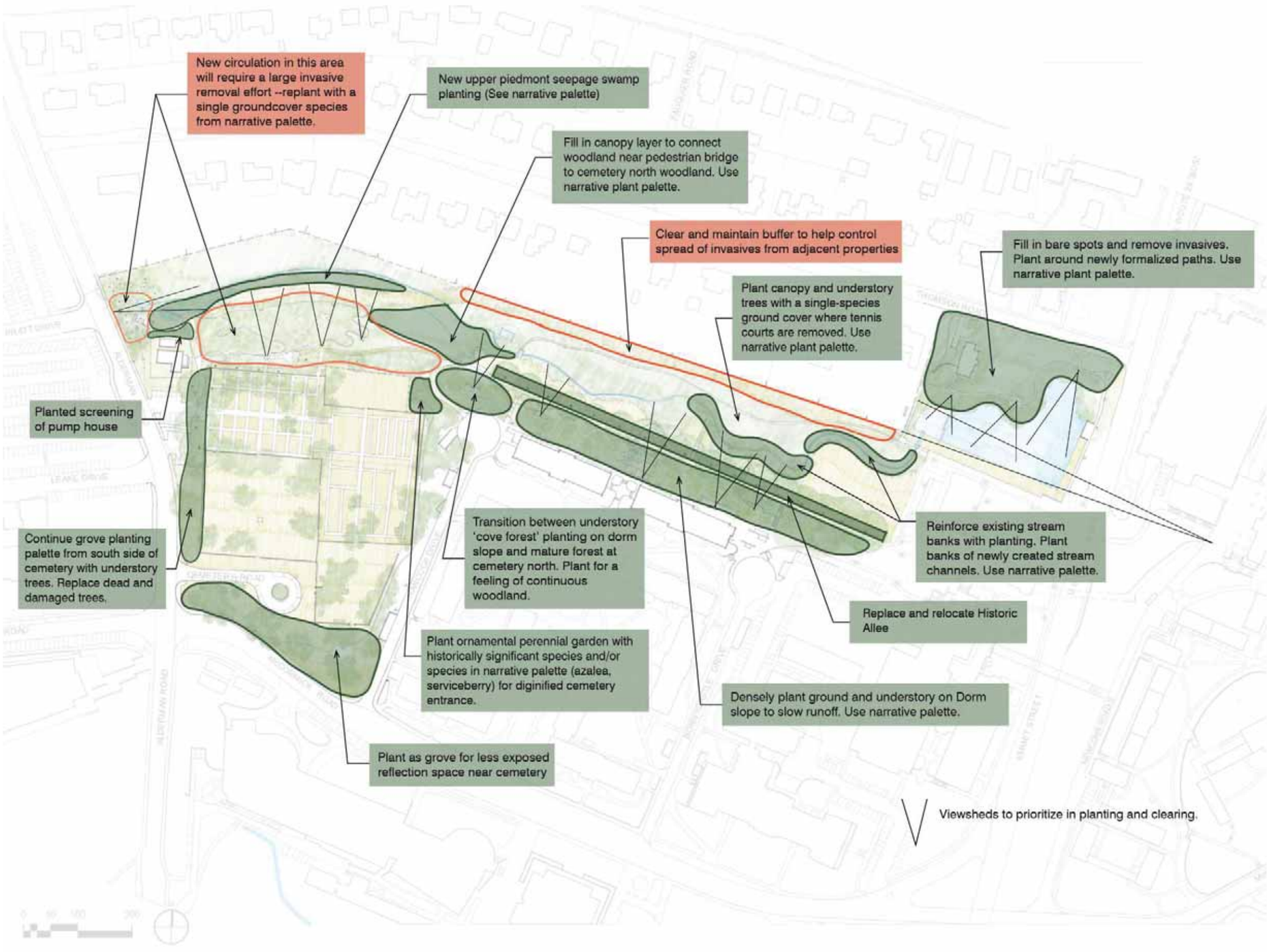
Overall Planting Management



Dell Pond Planting Management



Guidelines for New Planting



4 Vegetation: Botanical Expansion

As the Dell was originally intended to be a botanical microcosm of Virginia, new zones under consideration hold potential to build on and enrich that story. Distinct physical characteristics in these zones and existing vegetation provide the bones for showcasing more representative Virginia plant communities than the original Dell designs do -- harnessing further educational and aesthetic potential for the site.

Mountain plant communities are limited in this updated scheme, focusing more primarily on coastal communities and expanded piedmont communities, which will thrive much more appropriately in the existing soil and climate conditions.

Selection of key dominant canopy trees and mass planting areas will be important in each zone.

1. Coastal Plain Bottomland Forest

2. Maritime Upland Forest + Dune Scrub

3. Bald Cypress Swamps

4. Piedmont Floodplain Forest

5. Lower Piedmont Seepage Swamp

6. Upper Piedmont Seepage Swamp

7. Cove Forest

8. Low Elevation Boulderfield Forest

9. Oak / Heath Forest

10. Mesic Forest

Overall Planting Diagram

Planting Palettes

1. Coastal Plain Bottomland Forest

- Low elevation woodland near coast
- Opportunity: engage with existing waterside planting

- Representative Species: Shagbark Hickory, Sweetgum, Parsley Hawthorn, Lizard's-tail, Virginia Blue flag, Arrow-arum, Cattail Sedge

2. Maritime Upland Forest + Dune Scrub

- Open piney woodland with interspersed shrubs and perennial grasses
- Sunny, shrubby massings
- Opportunity: enhance upland planting within "Coastal" zone; engage with existing shrub and tree plantings

- Representative Species: Loblolly Pine, Willow Oak, Common Persimmon, Black Cherry, Wax Myrtle, Highbush Blueberries, American Beauty Berry, Dune Grasses

3. Bald Cypress Swamps

- Periodically flooded
- shrubs and perennials under Bald Cypress canopy
- Opportunity: rethink ground plain planting (now shaded out) under existing Bald Cypress row

- Representative Species: Bald Cypress, Sweet Pepperbush, Highbush blueberries, Lizard's-tail, Cinnamon Fern, Netted Chain Fern

Planting Palettes

Planting Palettes

4. Piedmont Floodplain Forest

- Periodically flooded, low-lying forest community
- Opportunity: Engage with low-lying valley zone, screen neighboring parcels

- Representative Species: American Sycamore, Hackberry, Swamp White Oak, River Birch, Musclewood, Paw-paw, Spicebush, Winterberry, Common Elderberry, Silky Dogwood, Early Wild Rye, Wood Nettle, Virginia Bluebells

5. Lowder Piedmont Seepage Swamps

- Periodically flooded woodlands
- Opportunity: engage with periodically flooded streamside zones and bioretention basins along eastern stretch of Meadow Creek

- Representative Species: Black Gum, Red Maple, Sweetbay Magnolia, Northern long sedge, Common Brome Sedge, Skunk cabbage, Cinnamon Fern, Royal Fern

6. Upper Piedmont Seepage Swamps

- Periodically flooded woodlands
- Opportunity: engage with wet streamside zone and retention basins along western stretch of Meadow Creek

- Representative Species: Tulip Poplar, Red Maple, Sweet Birch, Spicebush, Swamp azalea, Winterberry, American False-Hellebore, Brome Sedge, Marsh marigold, Skunk cabbage, Marsh blue violet, Orange jewelweed, Bog bluegrass

Planting Palettes

Planting Palettes

7. Cove Forests

- Steep slopes
- Open woodland with rich ground plain
- Opportunity: integrate with erosion control and planting densification of dorm slope

- Representative Species: Sugar Maple, Basswoods, Tulip Poplar, Umbrella Magnolia, Great Rhododendron, Mountain Laurel, Hay-scented Fern, Interrupted Fern, Maidenhair Fern, Large-flowered Trillium, Dutchman's Breeches, Twinleaf, Wild Ginger

8. Low-Elevation Boulderfield Forest

- Steep slopes
- Open woodland
- Opportunity: integrate with erosion control + gathering spaces along dorm slope with mass planting strategy

- Representative Species: Chestnut Oak, Sweet birch, Blackgum, Mountain Paper Birch, Eastern Hop Hornbeam, Red Elderberry, Wild Hydrangea, Flowering Raspberry, Yellow Jewelweed, Marginal Wood Fern, Wood Nettle

Planting Palettes

Planting Palettes

9. Oak / Heath Forests

- Harwood forests with rich shrub plain
- Opportunity: build on existing oak/heath forest communities or oak plantings (present on site and on adjacent O'Hill)

- Representative Species: Chestnut Oak, White Oak, Northern Red Oak, Virginia Pine, Black gum, Sourwood, Sassafras, Serviceberry, Mountain Laurel, Black Huckleberry, Wild Azalea, Rhododendrons

10. Mesic Forest

- Adaptable forest community
- Opportunity: use for low-maintenance alternative to existing Cemetery plantings, incorporating smaller hardwood trees and simplified ground plain

- Representative Species: Tulip Poplar, Bitternut Hickory, Basswoods, Paw-paw, Painted Buckeye, Lowland Bladder Fern, Glade Fern, Toad Trillium, Blue Cohosh, Common wild ginger, Wood Nettle, Pennywort, Virginia Bluebells, Mayapple, Canada Waterleaf

Planting Palettes

5 Summary of Future Study and Project Recommendations

1. Historic Walk

- Widen path to 8’
- Tree replacement
- Install continuous lighting
- ADA accessible connection to Hancock Drive

2. McCormick Dorm Slopes

- Erosion and stormwater improvements
- Access and gathering space

3. Dell Pond

- Most public and visible space
- Site views
- Replacements of dead trees
- Formalize select pedestrian paths
- Repair and replacement of aged materials and furnishings
- Construction of overlook and water’s edge access

4. Cemetery Access and Parking Improvements

- Cemetery entry reconfiguration
- Access and parking at Columbarium
- Path to McCormick Circle
- Maintenance access to RSWA facility
- Planting and circulation improvements

5. Dell Waterway Improvements

- Stream dredging and erosion control, planting
- Recreation trails
- Outdoor classrooms/gathering spaces

Comprehensive Dell Maintenance Manual

- Focused on overarching design goals icluding site views, invasive plants removal and plant maintenance
- Detail guide for maintenance staff and future projects in the area

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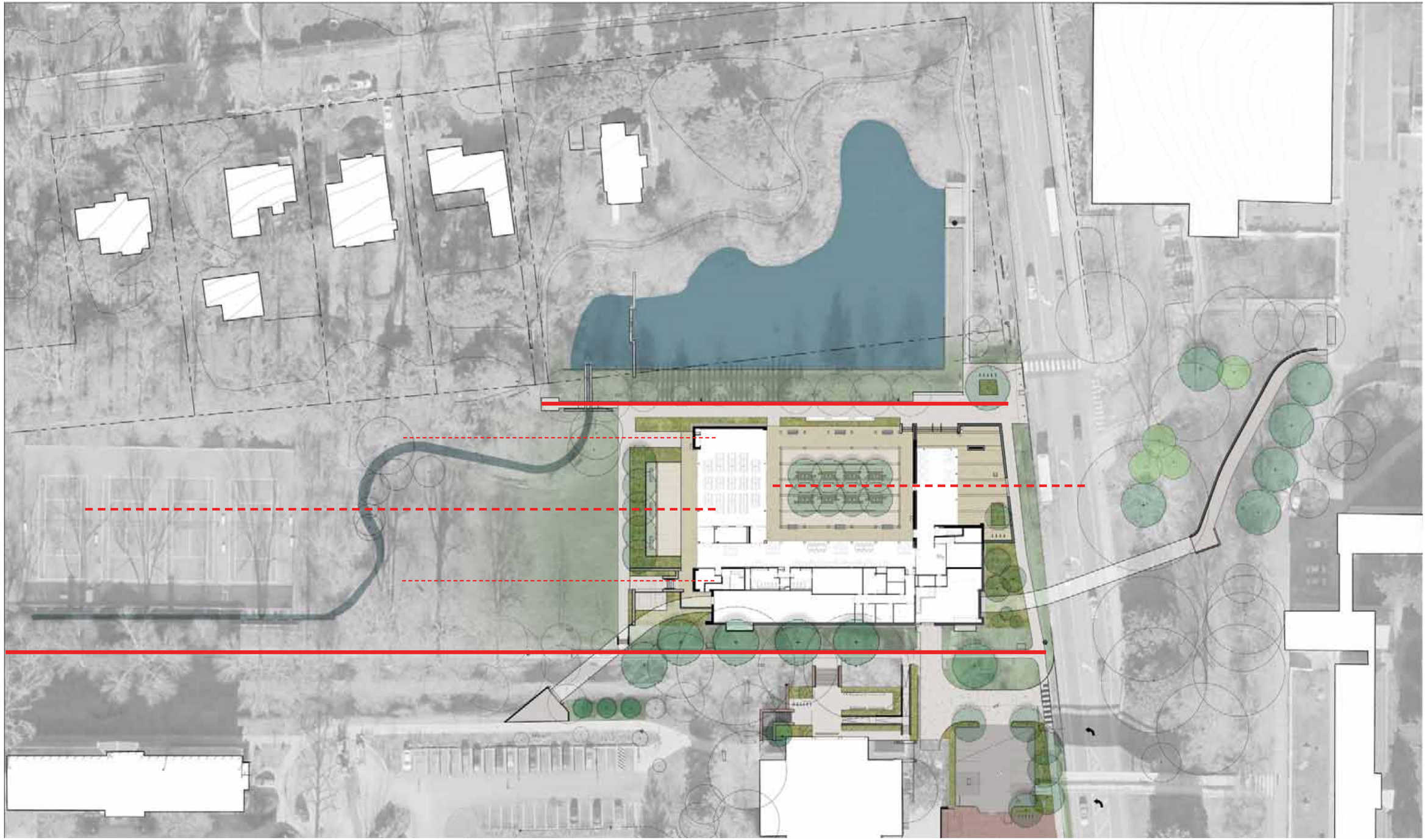
6 Appendix

2003 Biohabitats and NBW Implemented Dell Design

2003 Biohabitats and NBW Scheme - tennis courts removed

2017 Contemplative Commons - Labyrinth scheme (Concept Design)

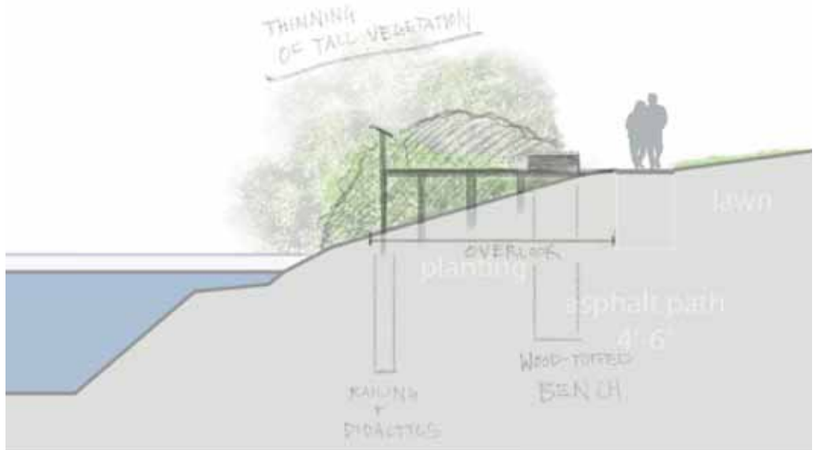
2020 Contemplative Commons: Key Alignments (Design Development)



Dell Pond Studies

Circulation

- We propose formalizing two of the main desire paths on the north side of the pond, with one providing additional access for maintenance vehicles. Existing desire paths extending from Lambeth house could also be mulched. Combined with additional plantings this approach would work to consolidate foot traffic coming into the Dell from the north and limit the current network of informal desire paths.
- Current desire paths and use of the pond demonstrate a clear desire for some interaction at the level of the water. To limit the attraction of walking across the top of the weir, we propose establishing a small deck or other occupiable space elsewhere at the waters edge.
- We recommend that this area, along with the existing bench and new weir overlook be tied into the formal and material language of the entire design to provide a more cohesive experience.
- The method for this outlined in scheme 1 proposes a continuation of the rectilinear logic of the south and east sides of the pond, as a justaposition to the curving north side of the pond.



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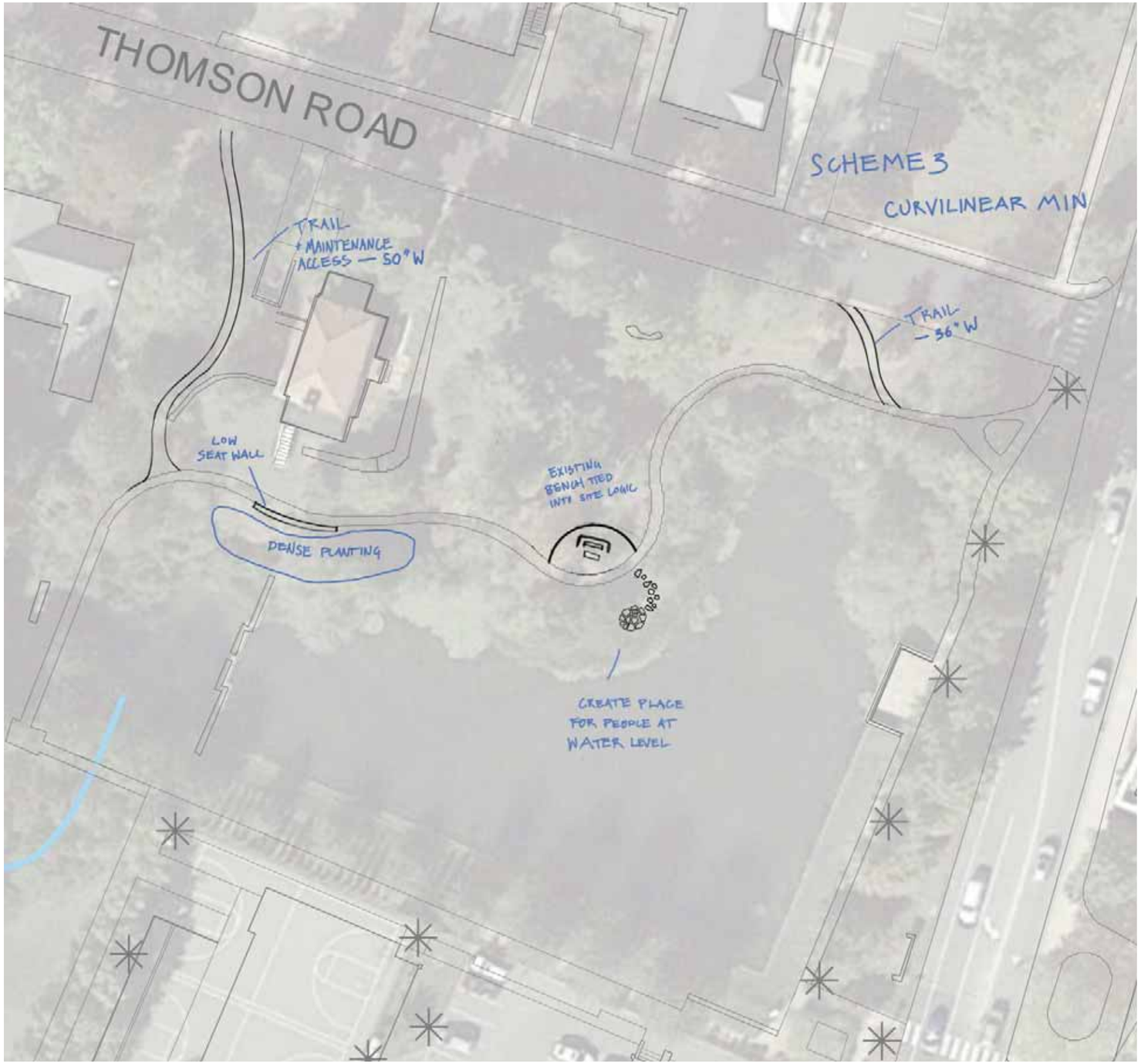
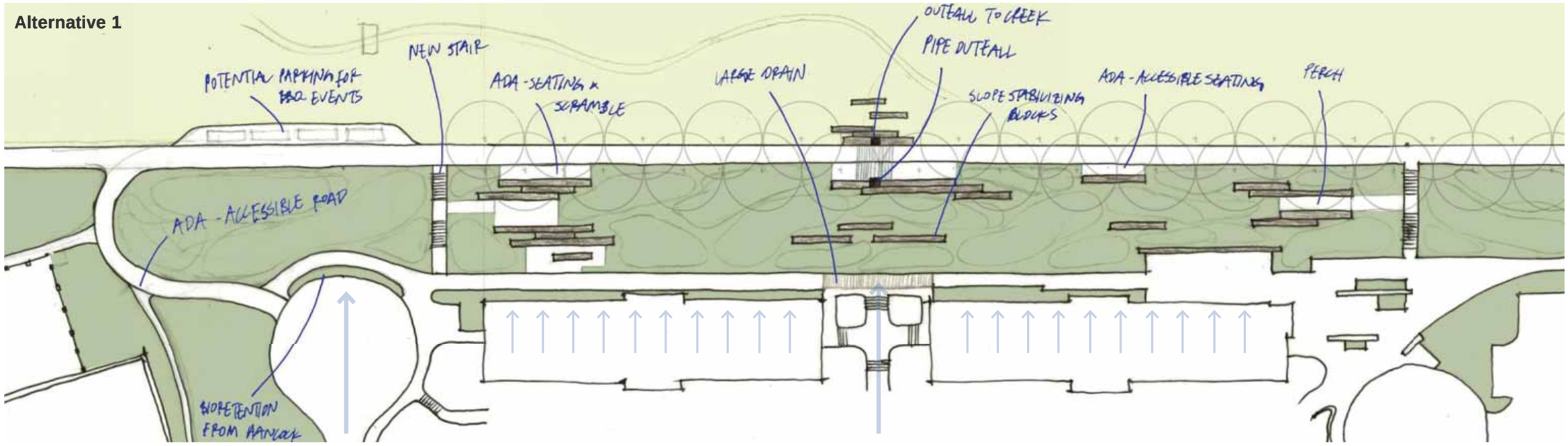
Dell Pond Studies

Circulation

- Scheme 3 takes a more minimal approach, with a seat wall instead of an overlook on the west side, and a smaller area bringing people down to the water's edge.



Historic Walk and McCormick Dorm Slopes Studies



Alternative 1

- incorporates shared ADA / vehicular access road from Hancock Drive to historic Walk
- includes potential for parking at historic BBQ pit area
- notes potential for capturing of dorm and quad runoff via trench drain, that could ceremoniously outfall to Meadow Creek at historic Walk path

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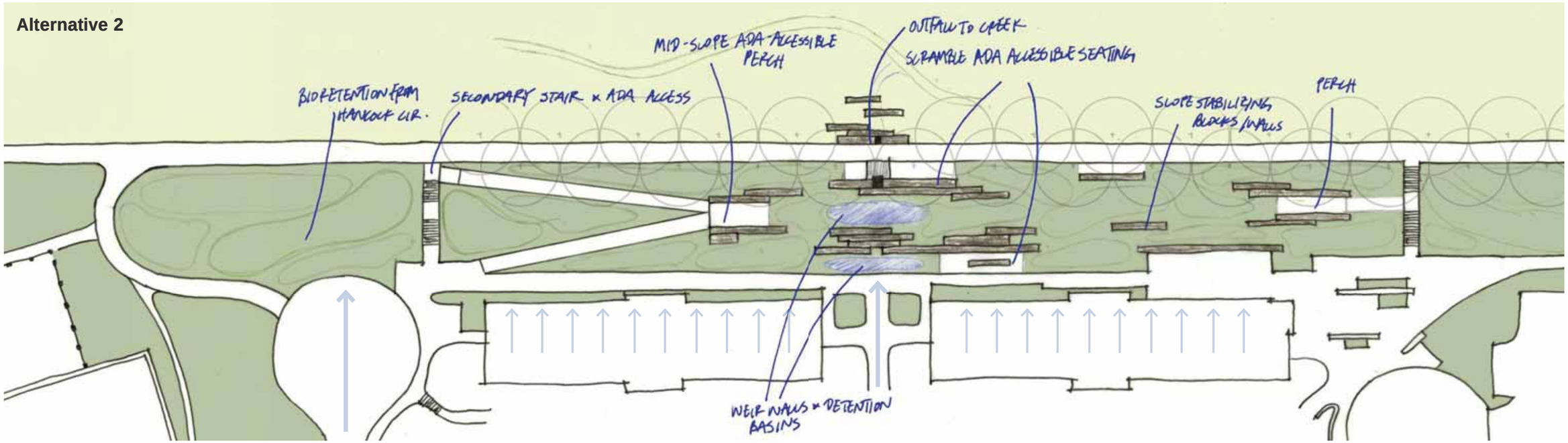
Historic Walk and McCormick Dorm Slopes Studies



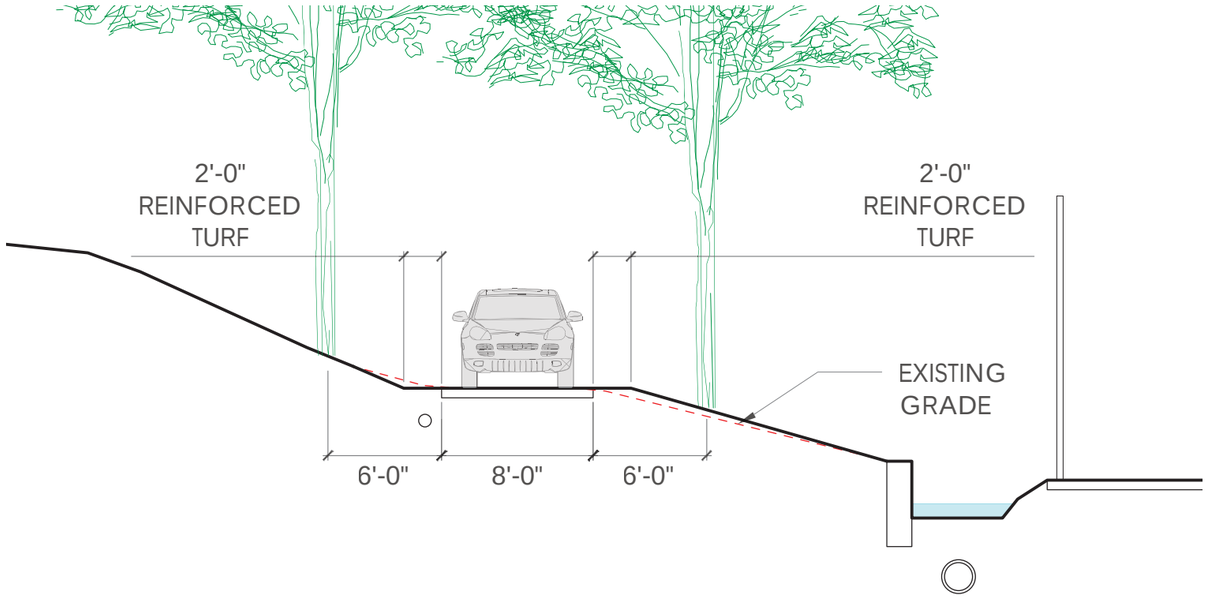
Alternative 2

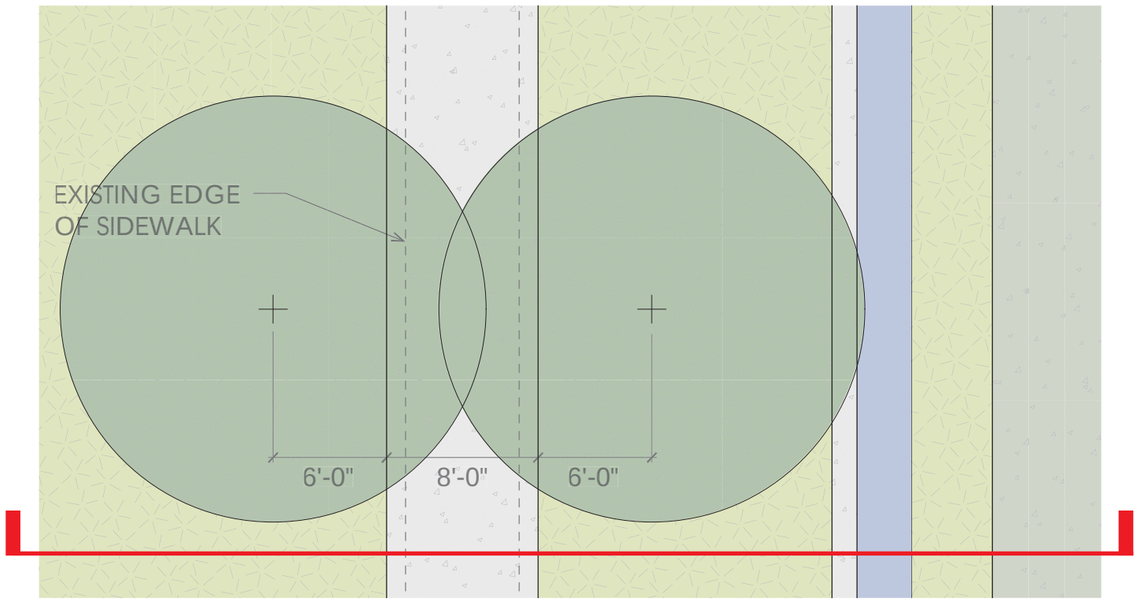
- incorporates ADA ramp on slope which gives opportunity for accessible mid-slope gathering space
- notes potential for bioretention system across dorm slope, which would daylight, filter, slow, and celebrate runoff from dorms and quad before outfalling to Meadow Creek

Historic Walk and McCormick Dorm Slopes Studies

Alternate 2

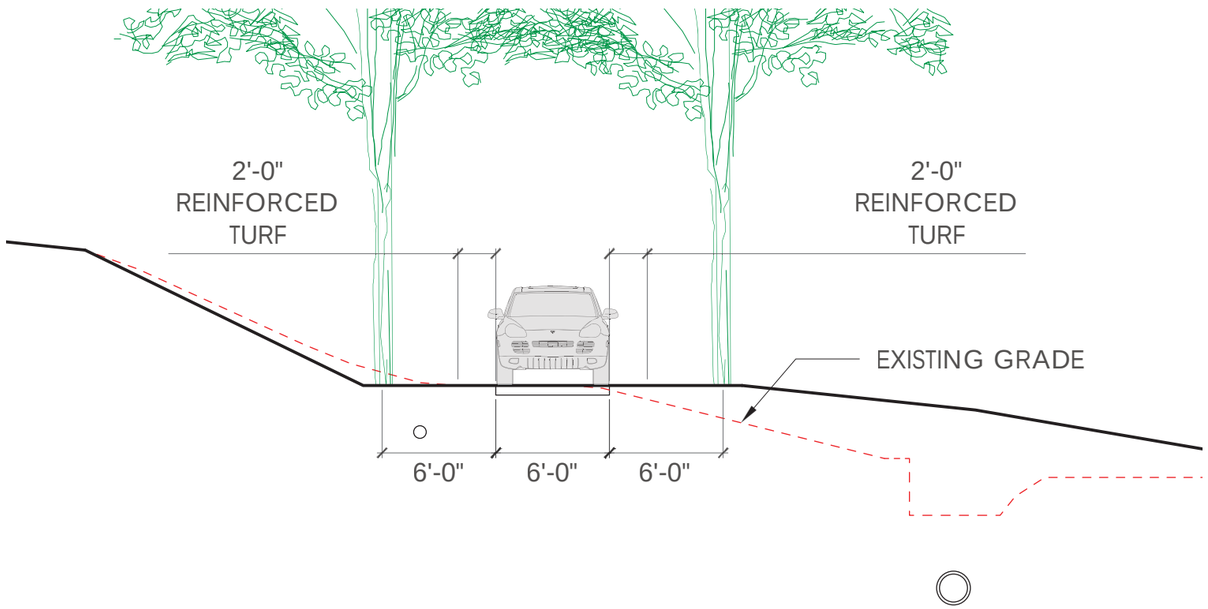
Path widened 2', 2' reinforced mown strips flanking path, trees replanted on slope

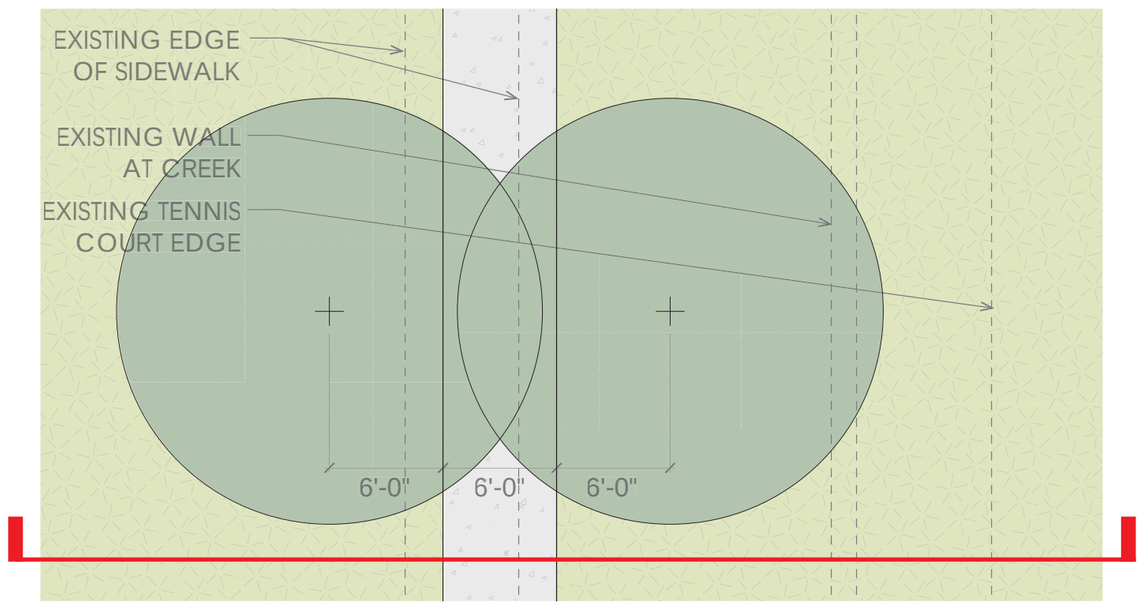




Alternate 3

Path width remains and shifts north, 2' reinforced mown strips and flat planting surfaces flank path, tennis courts removed

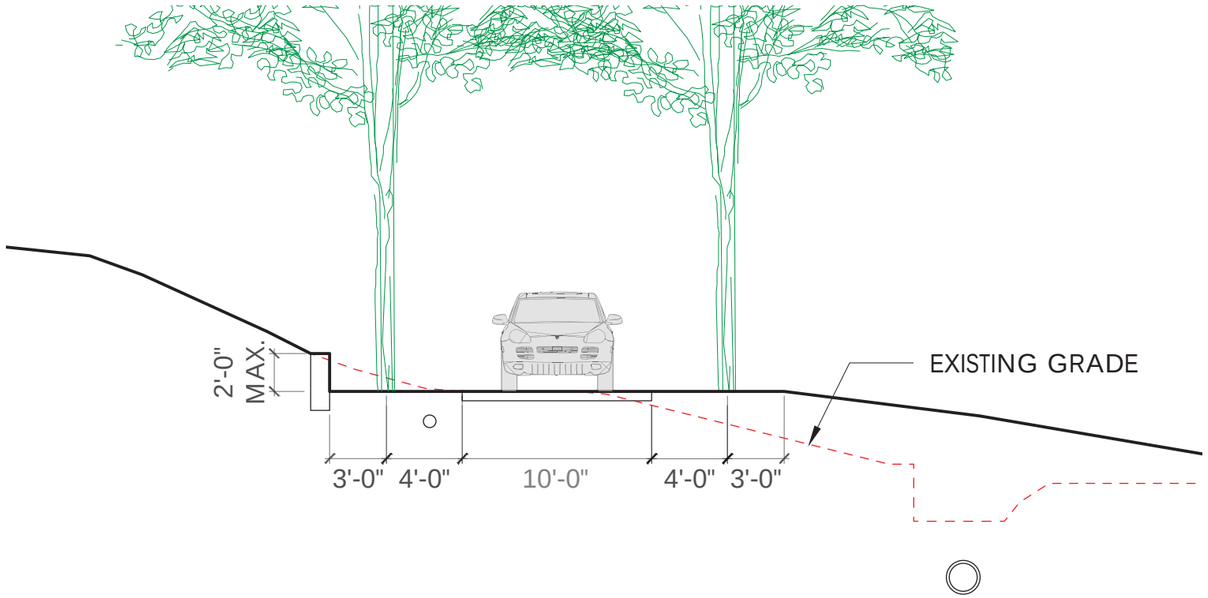


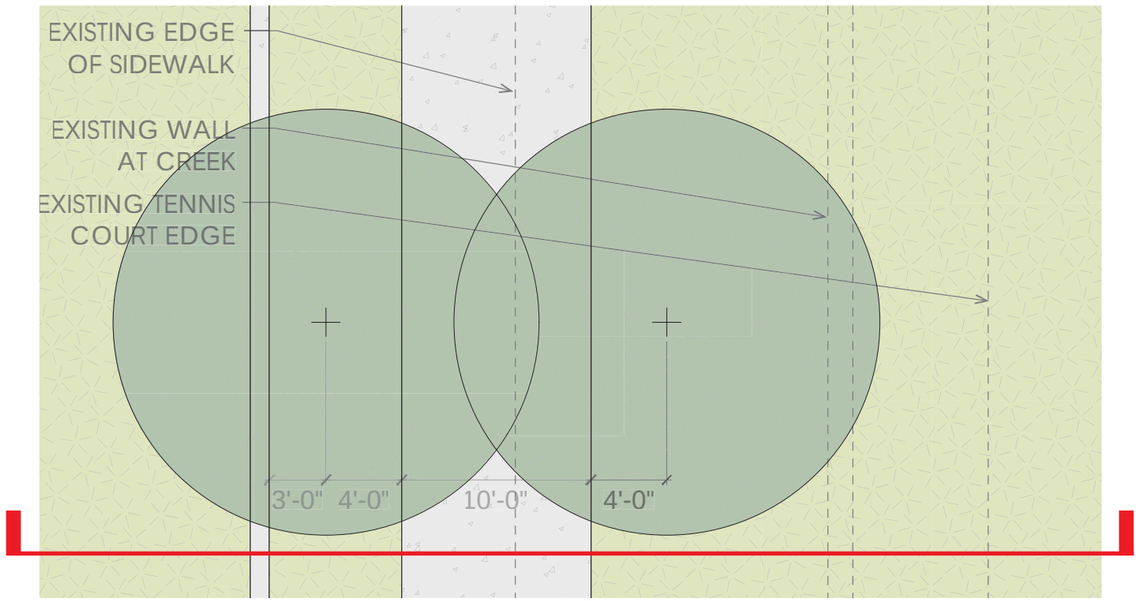


Historic Walk and McCormick Dorm Slopes Studies

Alternate 4

Path widens by 4’ to the north, flat planted zones flank path, low wall integrated along slope, tennis courts removed





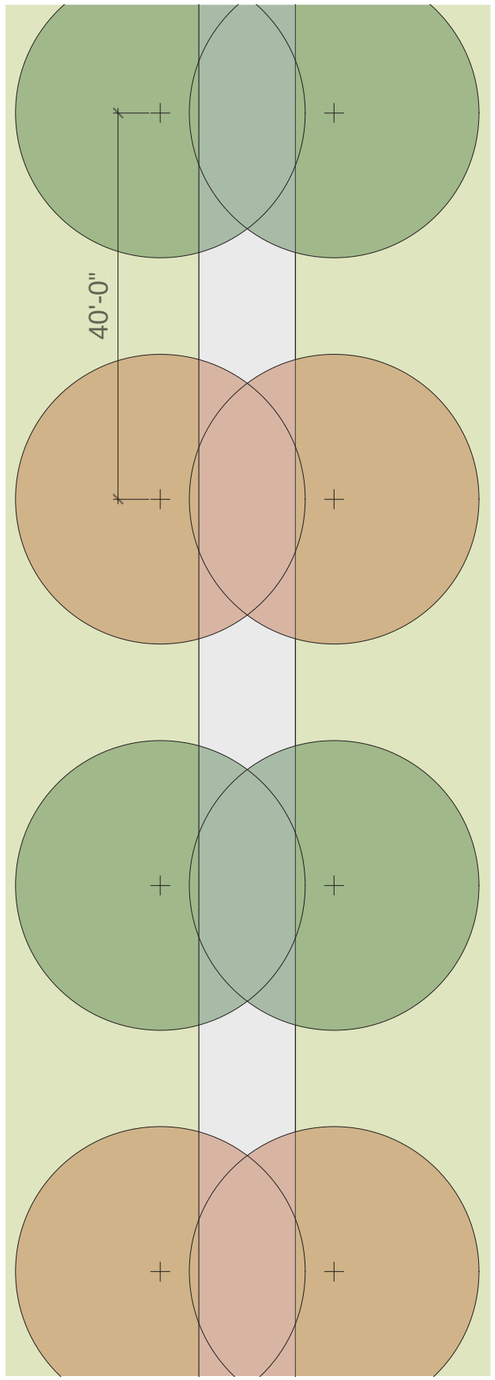
Historic Walk and McCormick Dorm Slopes - Tree Spacing Studies

Existing Conditions

- Walk trees spaced 40’ O.C.
- Alternating Species

Opportunities:

- highlight differences between species
- protect against loss of species

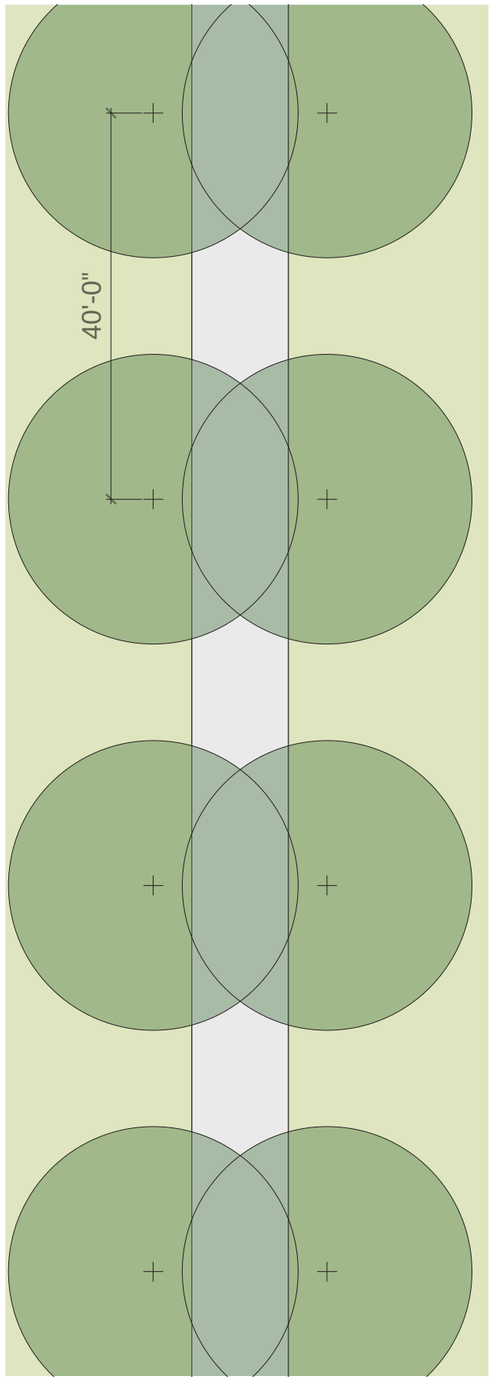


Alternate 1

- Walk retains existing spacing (40’ O.C.)
- Sigle species

Opportunities:

- single species could bring continuity to space



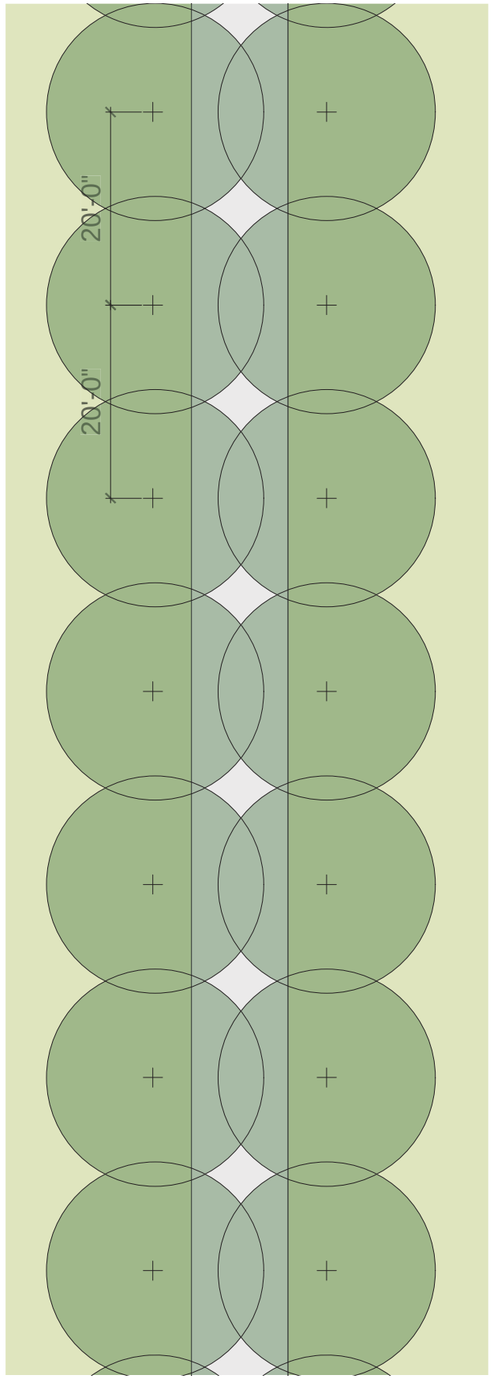
Historic Walk and McCormick Dorm Slopes - Tree Spacing Studies

Alternate 2

- Walk trees spaced 20’ O.C.
- Single, smaller species

Opportunities:

- single species could bring continuity to space
- tighter spacing dramatizes Walk effect
- smaller species could bring more intimate effect

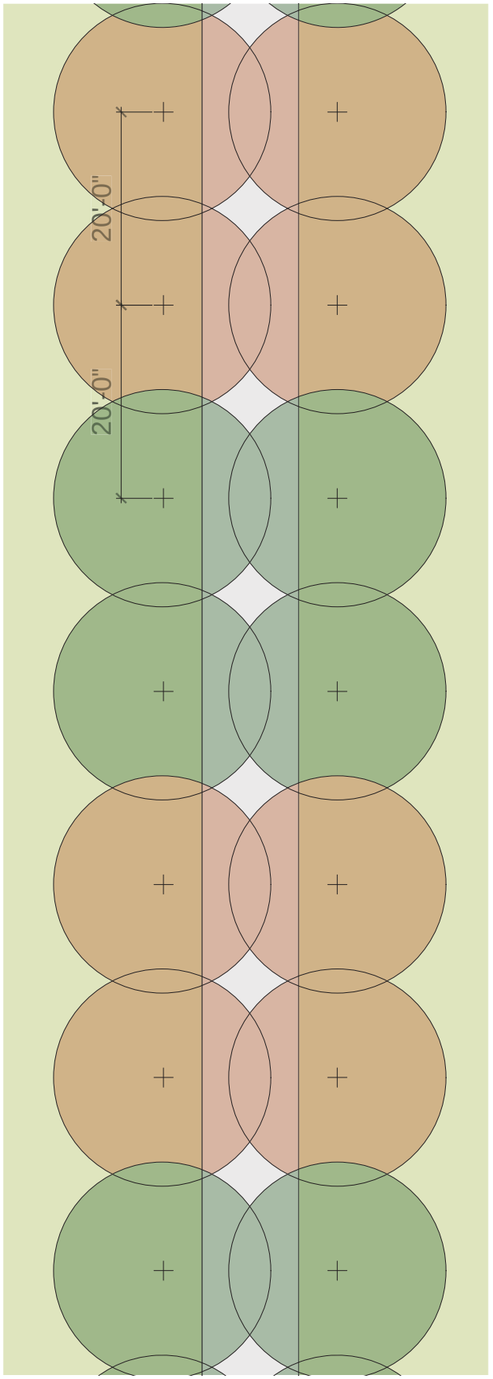


Alternate 3

- Walk trees spaced 20’ O.C.
- Alternating, smaller species

Opportunities:

- tighter spacing dramatizes Walk effect
- highlight differences between species
- protection of structure upon loss of species
- smaller species could bring more intimate effect



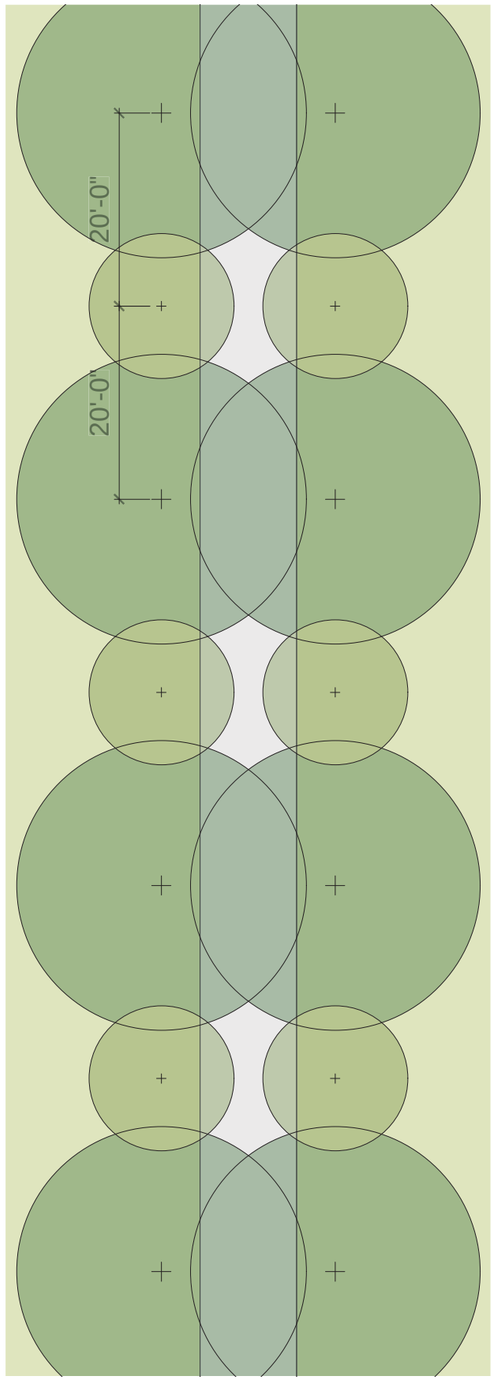
Historic Walk and McCormick Dorm Slopes - Tree Spacing Studies

Alternate 4

- High-canopy trees retain existing Walk spacing (40’ O.C.)
- Alternate understory species spaced between

Opportunities:

- more intimate Walk effect
- greater ornamental potential
- tighter spacing dramatizes Walk effect
- greater highlight on different tree species

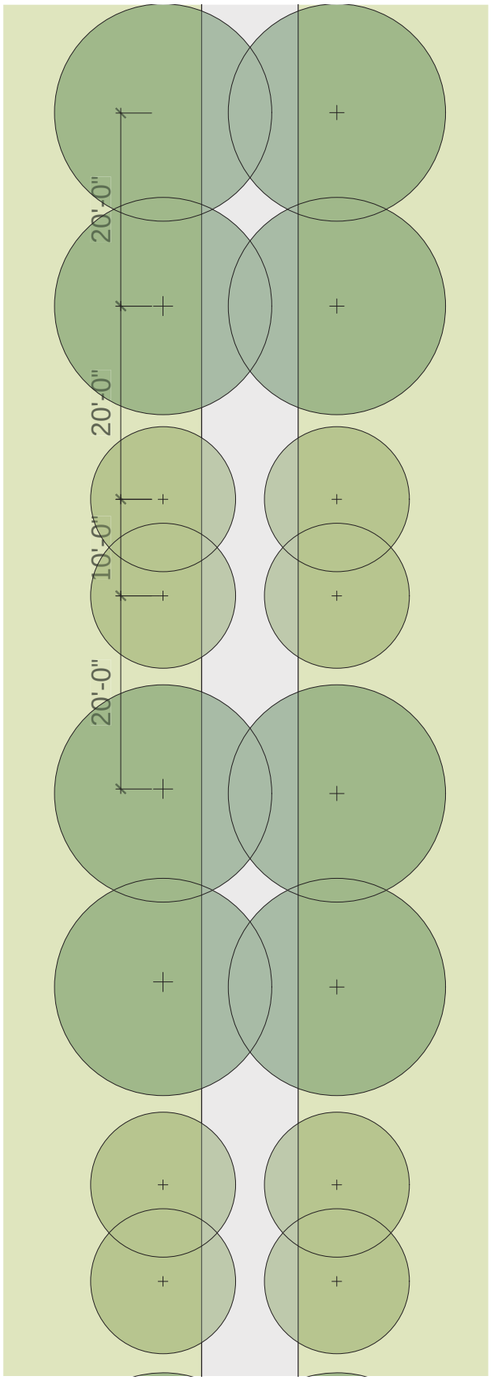


Alternate 5

- High-canopy trees and understory trees grouped in fours
- Trees spaced tightly according to mature sizes (10’ or 20’ O.C.)
- Narrower canopy trees chosen

Opportunities:

- more naturalistic feel
- more intimate Walk effect
- greater ornamental potential
- tighter spacing dramatizes Walk effect
- greater highlight on different tree species



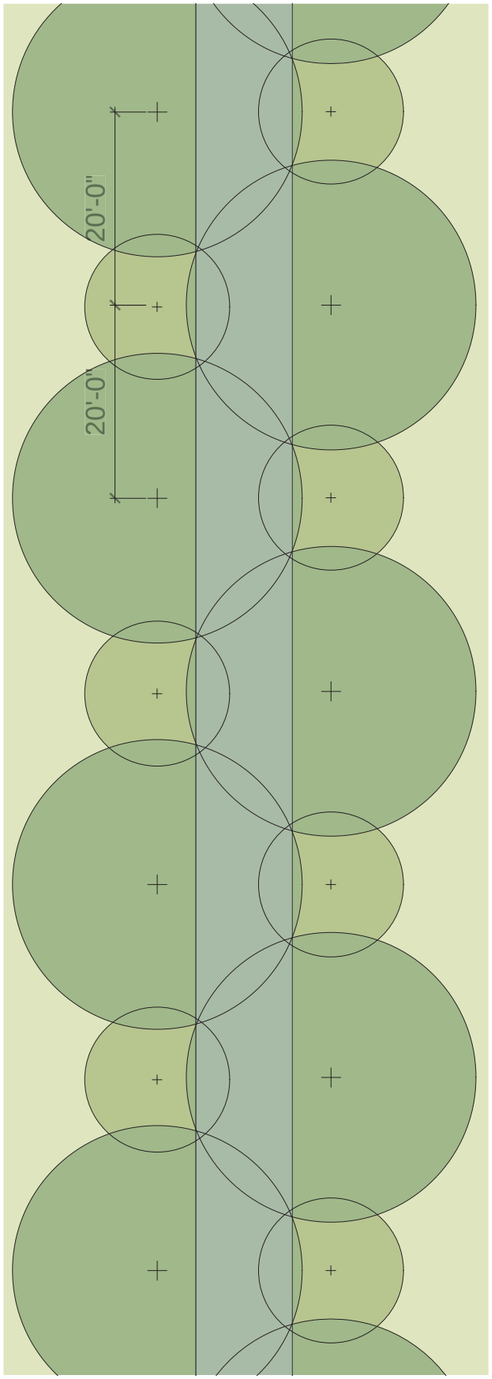
Historic Walk and McCormick Dorm Slopes - Tree Spacing Studies

Alternate 5

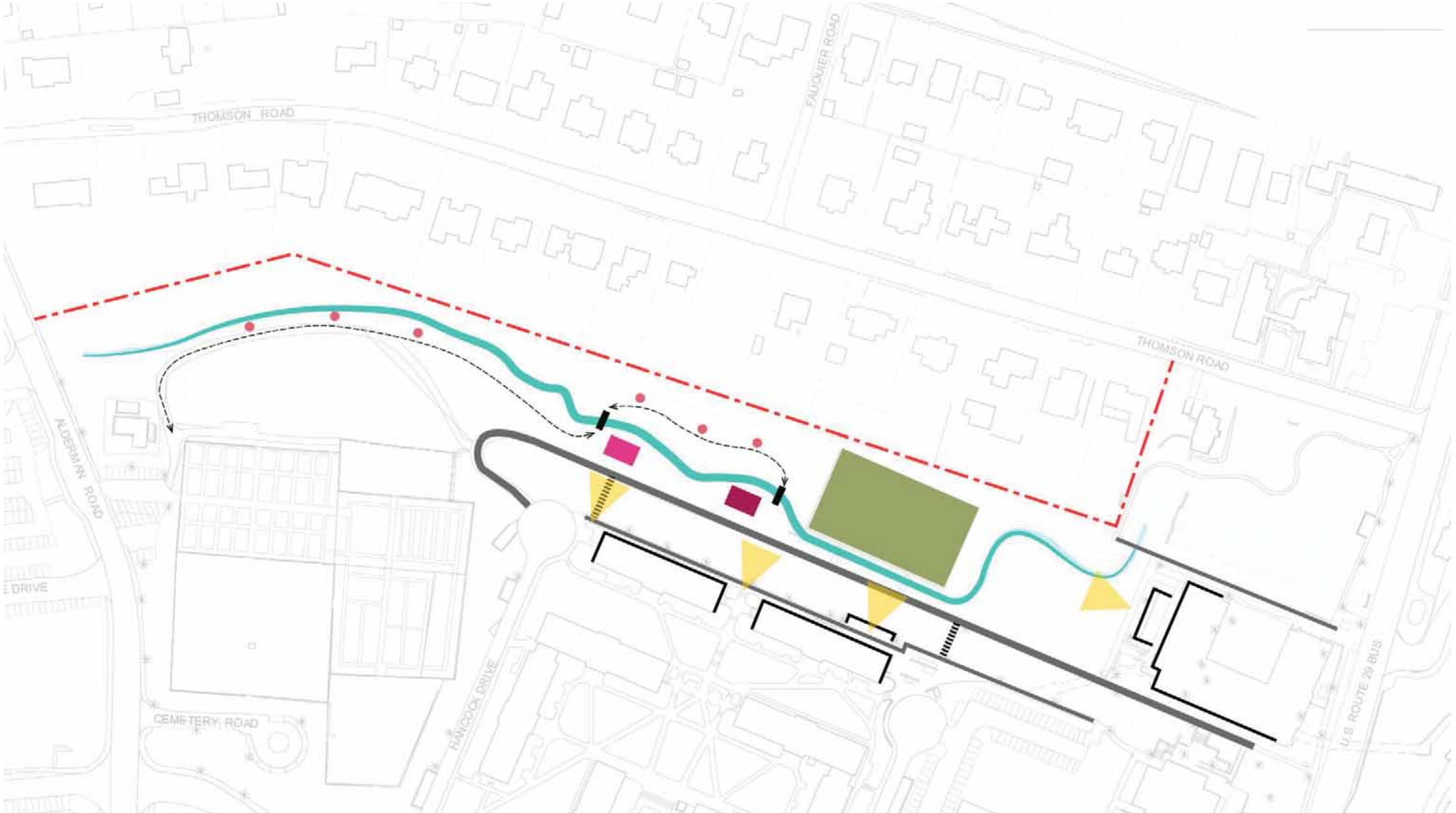
- Trees ‘hip-hop’ along Walk length
- Canopy and understory trees alternate

Opportunities:

- full growth potential for large canopy trees (increased lateral space)
- More informal Walk
- greater highlight on different tree species



Dell Waterway East and West - Circulation and Spaces - Option 1 Studies



Dell Waterway East and West - Circulation and Spaces - Option 2 Studies

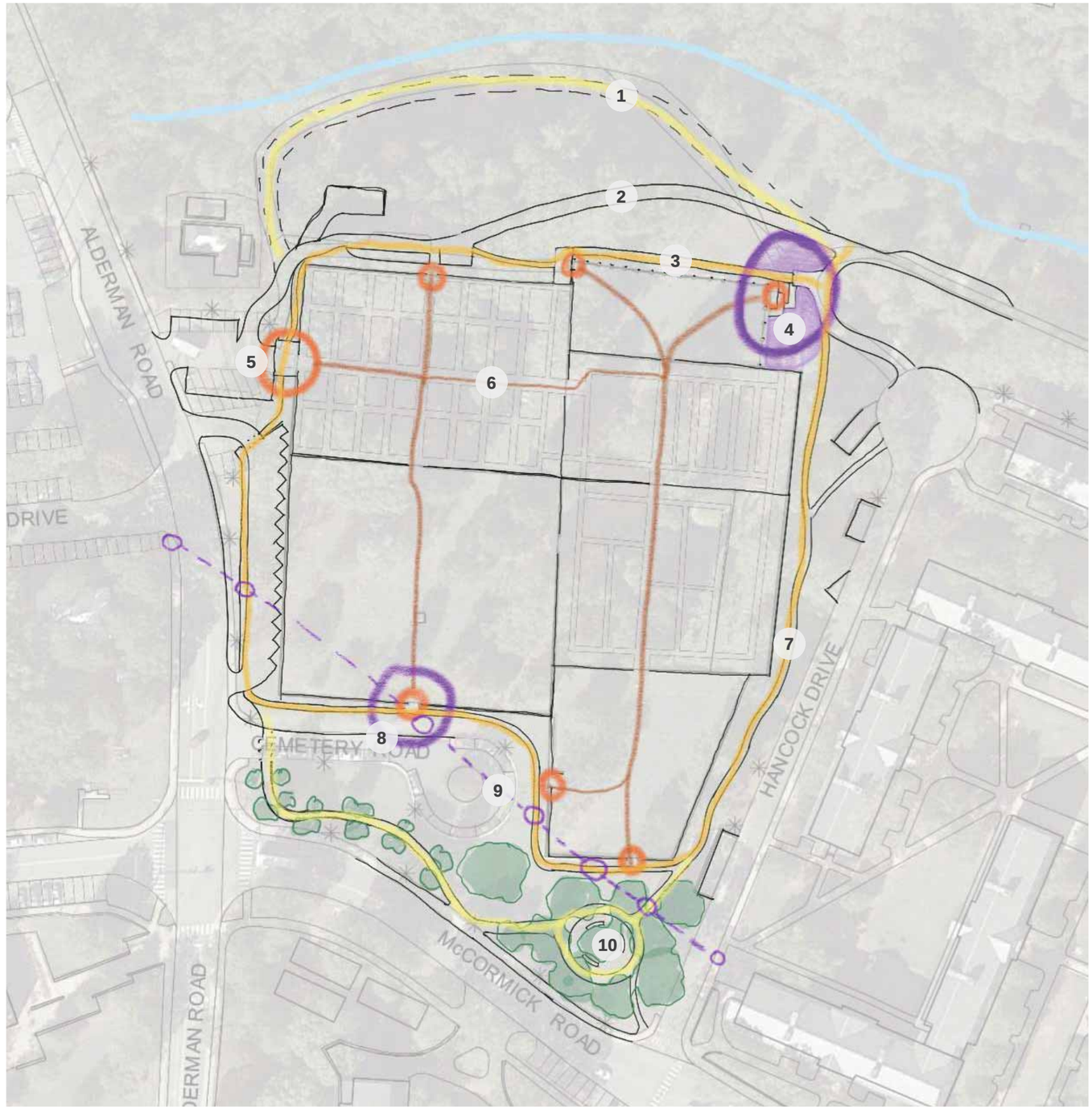
Cemetery, Dell Waterway and Hancock Circle Studies

Circulation

- Proposed circulation improvements provide an outer nature-focused and inner history-focused loops around the cemetery.

LEGEND

1. Cemetery outer walking loop (extends larger Dell nature trail, see below.)
2. Road connection and added ADA access
3. Cemetery inner walking loop
4. Ornamental planting at African American cemetery for a dignified entrance
5. Formalize main cemetery entrance
6. Heirarchy/wayfinding for main paths through cemetery
7. Trail for better pedestrian experience of Hancock drive
8. Opportunity for historic interpretation: where Three-Notched Road intersects with entrance to confederate cemetery
9. Approximate route of Three-Notched Road and opportunities for marking/ commemorating in the ground plane
10. Reflection grove



Cemetery, Dell Waterway and Hancock Circle

ADA Accessibility

- Circulation improvements could include additional ADA connections around the cemetery and to the rest of the Dell.

Existing ADA access

Proposed with shared ADA / vehicular access to historic Walk

Proposed closed loop with shared ADA / vehicular access north of Cemetery