



Bryan Park Dam Removals and Stream Restoration Project Urban Design Committee Conceptual Review

March 2026



Hazen

waterstreetstudio

Project Drivers, Goals, and Benefits



REGULATORY BASIS

- Hydrologic and hydraulic analysis indicates that both dams lack sufficient hydraulic capacity to safely pass minor storms (e.g., 1-inch of rainfall) and do not meet spillway design flood requirements
- Dam breach modeling demonstrates that Upper Dam failure could trigger subsequent failure of Lower Dam
- Lower Dam failure creates downstream hazards, classifying it as a High Hazard structure
- **Lower Dam is out of compliance with DCR Dam Safety Program regulations** due to structural condition and insufficient hydraulic capacity
- Although only the Lower Dam is subject to state regulation, **removal of both dams is necessary to fully eliminate dam safety risks and resolve regulatory noncompliance**

PROJECT DRIVERS - VIRGINIA DAM SAFETY PROGRAM REGULATORY COMPLIANCE



1 Meet Virginia Department of Conservation and Recreation Dam Safety Regulations



4 Minimize Temporary and Permanent Impacts to Bryan Park and the Surrounding Area



2 Involve and Coordinate with Regulatory Agencies and all Private and Public Stakeholders



5 Improve the Ecosystem and Environment of Bryan Park



3 Develop Solutions Consistent with the Character of Bryan Park



6 Explore Cost-Effectiveness and Grant Funding Eligibility

PROJECT GOALS



Fish Passage

Reconnecting over five miles of stream for fish passage



Invasive Vegetation Removal & Native Plantings



Water Quality Improvements

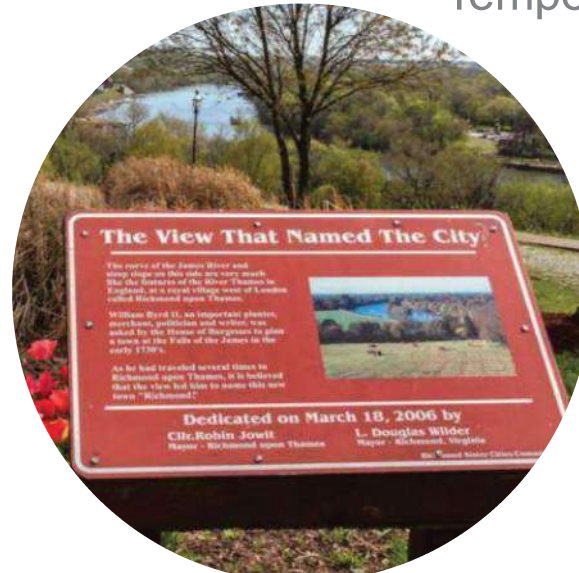
Dissolved Oxygen and Temperature Benefits



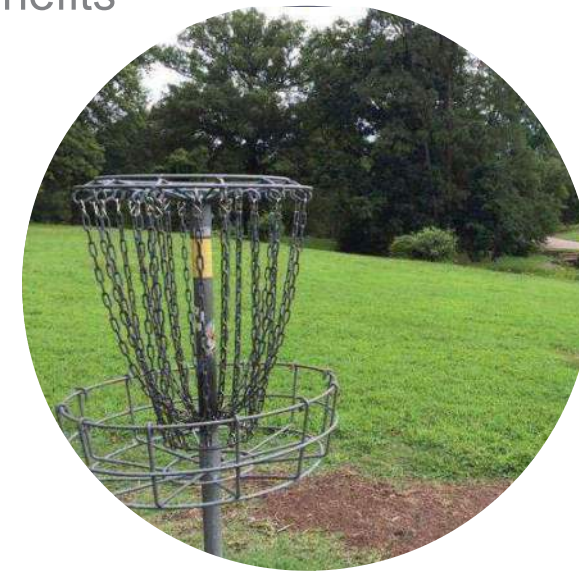
Restoration of Aquatic and Riparian Habitat



Circulation and Accessibility Enhancements



Interpretation of the Site's Layered History



Existing and Future Programming Support

PROJECT BENEFITS

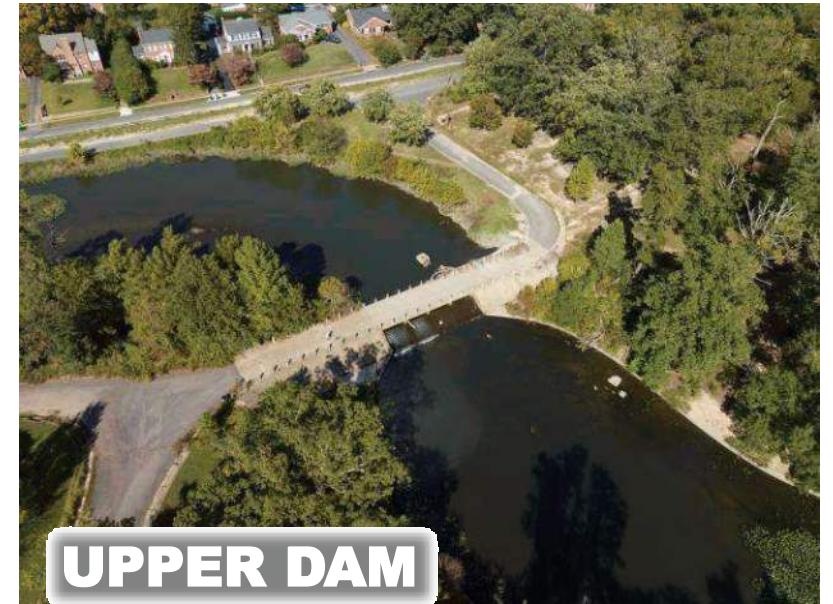
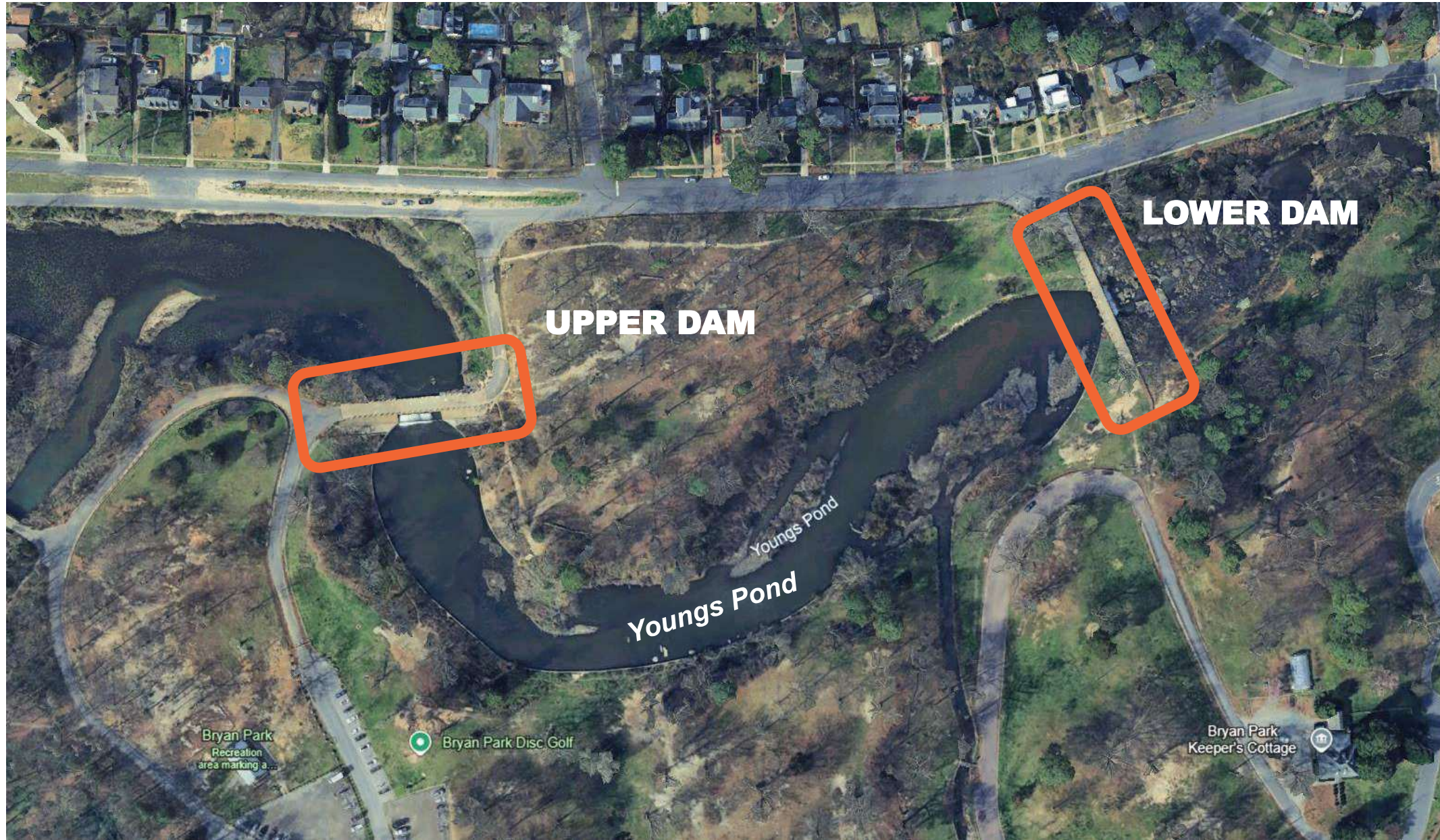
Existing Conditions



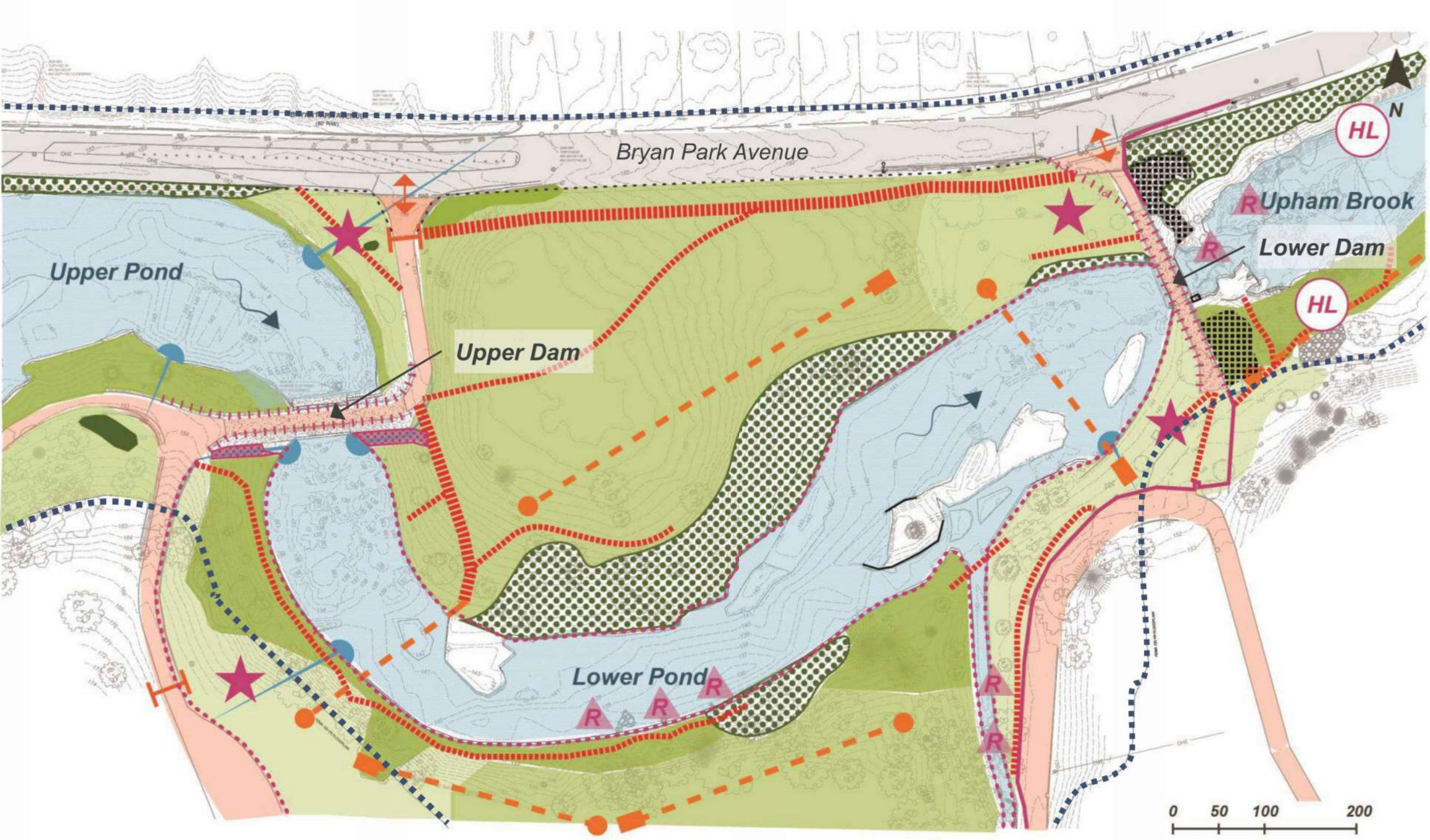
Legend

- Dedicated Bike Lane
- Bike-friendly Road
- Vehicle Entrance
- Bike and Pedestrian Entrance
- Shared Park Roads
- Designated Park Trails
- Access Gate
- Playground and Sports Courts
- Parking
- Information Bulletins

SITE LOCATION AND CIRCULATION

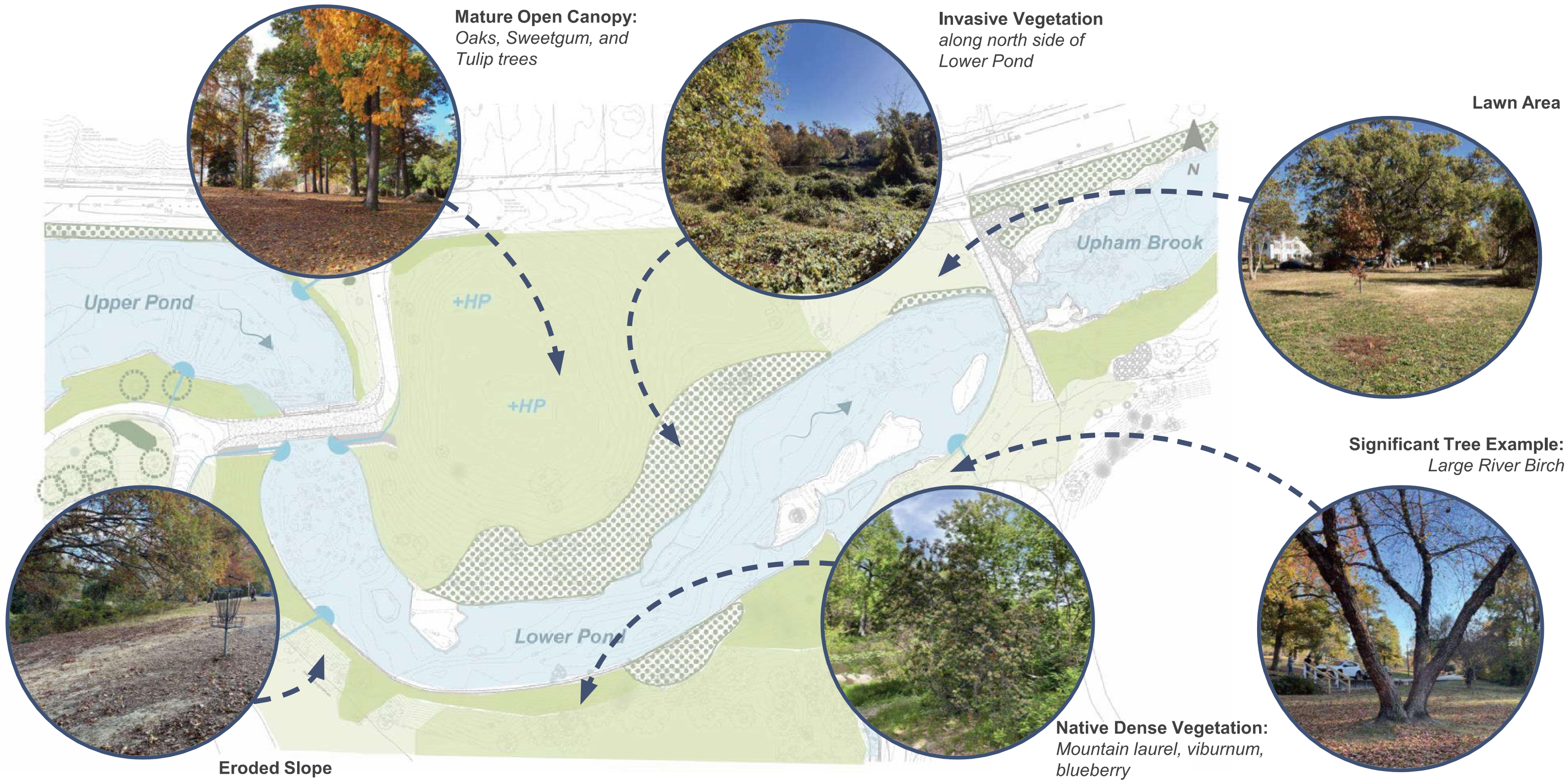


EXISTING CONDITIONS - UPPER AND LOWER DAMS

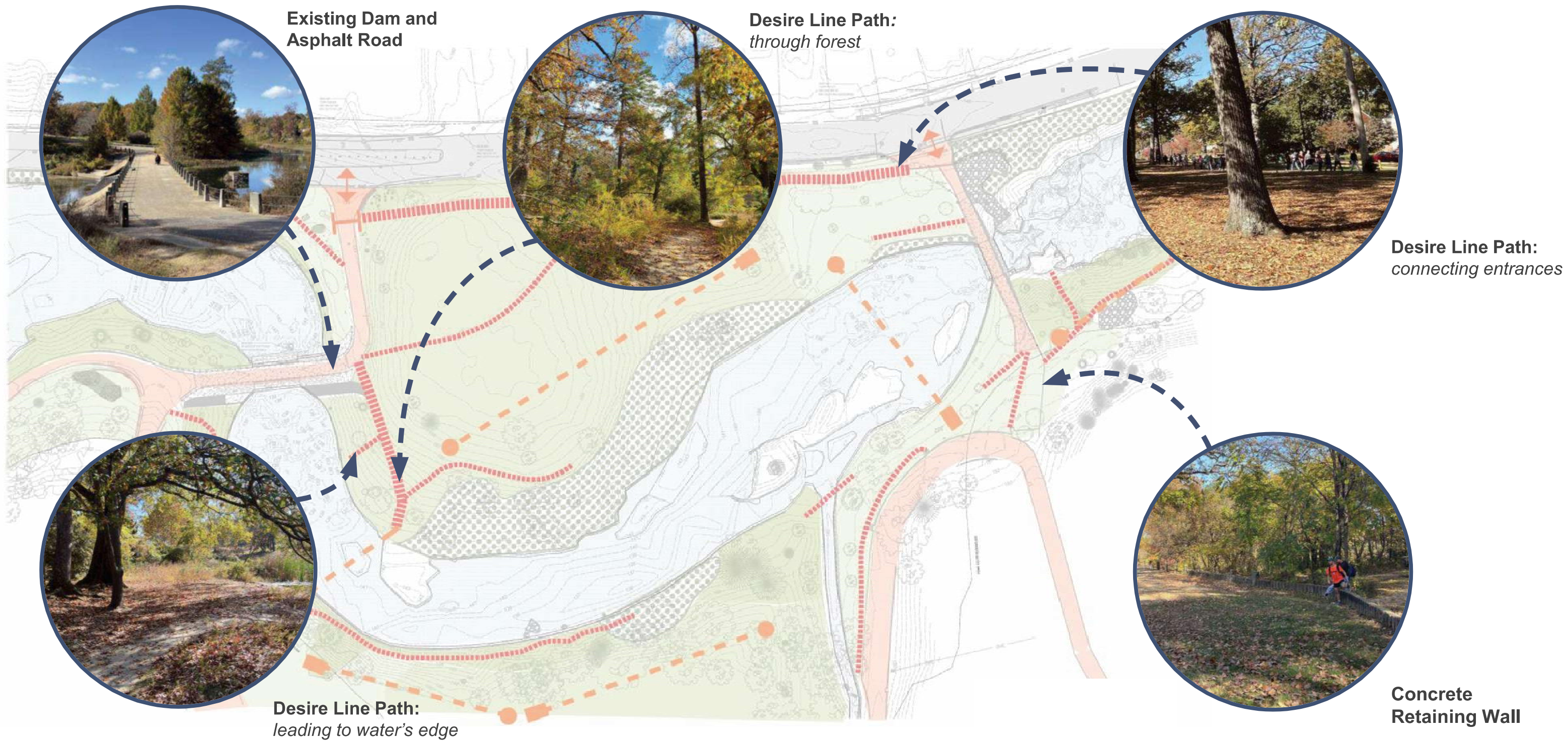


- Pond and Stream
- FEMA 100 Year Flood Plain
- +HP Topographic High Point
- Lawn
- Open Canopy
- Dense Vegetation
- Pollinator Garden
- Invasive Vegetation
- Paved Paths
- Vehicular Gates
- Entrance Points
- Major Desire Paths
- Minor Desire Paths
- Disc Golf Tee to Target
- Historic cobblestone
- Stone Retaining Wall or Curb
- HL Historic Landmark
- R Notable Rock Features
- Concrete Retaining Wall
- Concrete Bollard & Chain, 1958-59
- ★ Picnic Benches
- Concrete Rubble

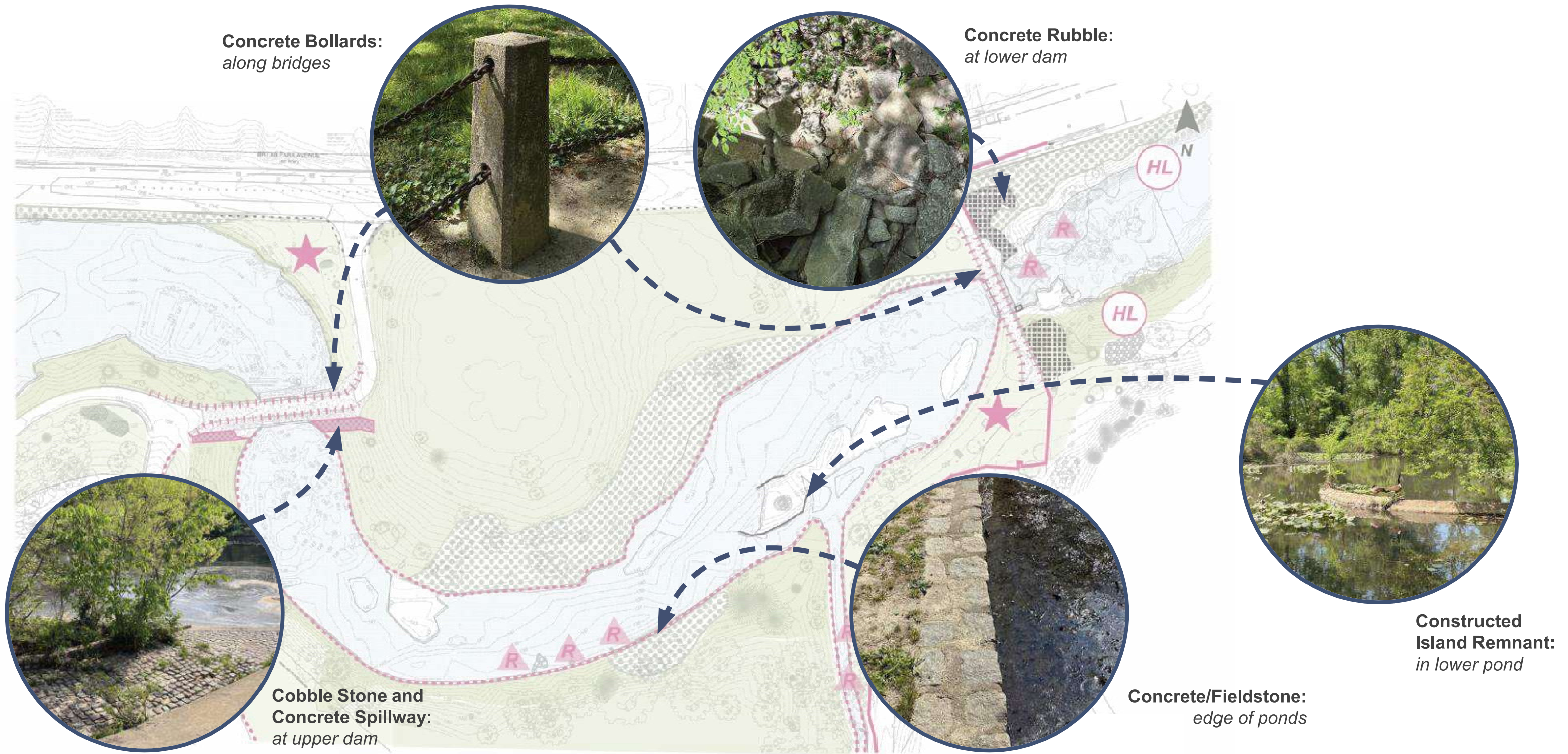
EXISTING CONDITIONS - ANALYSIS



EXISTING CONDITIONS - VEGETATION

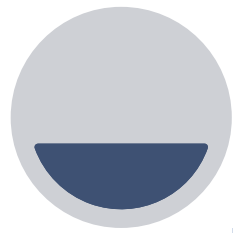


EXISTING CONDITIONS - CIRCULATION



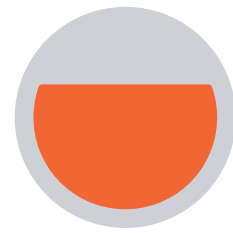
EXISTING CONDITIONS- MATERIAL CHARACTER

Community Engagement



30% Design

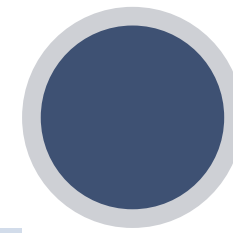
- 2024 public meeting
- Friends of Bryan Park engagement
- 2025 public pop-up events at Bryan Park
- Open-ended survey prompts
- Follow-up with Friends of Bryan Park
- Disc golf community involvement



WE ARE HERE

60% Design

- Online engagement via public survey with design-specific prompts
- Utilize Friends of Bryan Park and City channels for distribution
- April 2026 public meeting, open to all
- Site visit with Friends of Bryan Park



90% Design

- Final Urban Design Committee and City Planning Commission meetings
- Review and approve location, character, and extent of project
- Indirect public input



Continuous Engagement: RVAH2O.org Website, FAQ, and Flyer Updates

COMMUNITY ENGAGEMENT



COMMUNITY FEEDBACK

PROMPT #1

What do you love most about the area of the park around the ponds and what would you want to make sure stays the same?

KEY THEMES FROM COMMUNITY:

- Wildlife Habitat
- Native Plant Restoration
- Scenic Beauty
- Recreational Value
- Mature Trees
- Bird Watching
- Making Childhood Memories

PROMPT #2

If you could shape the future of this area of the park, **what would you change** or imagine for the next generation?

KEY THEMES FROM COMMUNITY:

- Accessibility Improvements
- Invasive Species Removal
- Trail and Connectivity Enhancements
- Historical Interpretation
- Trash Management

PROMPT #3


What else should we be considering as we continue to move forward with this project?

KEY THEMES FROM COMMUNITY:

- Construction Sensitivity
- Flooding and Hydrology
- Community Relations and Access
- Habitat and Tree Protection
- Park Maintenance
- Ecological Monitoring
- Educational Opportunities
- Volunteer Opportunities

COMMUNITY FEEDBACK- KEY TAKEAWAYS

Key Elements of the Project Area the Community Wishes to Preserve




Wildlife Habitat

- Ponds are cherished for their role in supporting water birds, turtles, fish, pollinators, and other wildlife
- Area is considered one of Richmond’s top birding locations




Native Plant Restoration

- Community members appreciate restored native plant zones
- Would like to see these efforts continue and invasive species removed



Scenic and Recreational Value

- The natural beauty of the water and surrounding trees
- Unpaved trails, meadows, and tree-lined paths
- Improved access for people with all abilities



Personal and Cultural Connections

- Many shared personal memories tied to Bryan Park
- Childhood experiences and bird watching
- Interest in education on the area’s historical significance

Incorporating these Elements into Design

Restoring fish passage through Upham Brook and improving water quality through stream restoration will attract rich diversity of birds and aquatic life

Removal of invasive vegetation, long-term management of invasives, and robust replanting of native vegetation will diversify and strengthen native habitat

A new unpaved trail system will improve recreational access, while preservation of the mature tree canopy and stream restoration will maintain scenic value

Gathering spaces, trails, access to the streams, and educational signage will provide opportunities for continued personal and cultural connections

COMMUNITY FEEDBACK INCORPORATED

Design Response: Lower Bridge Relocation

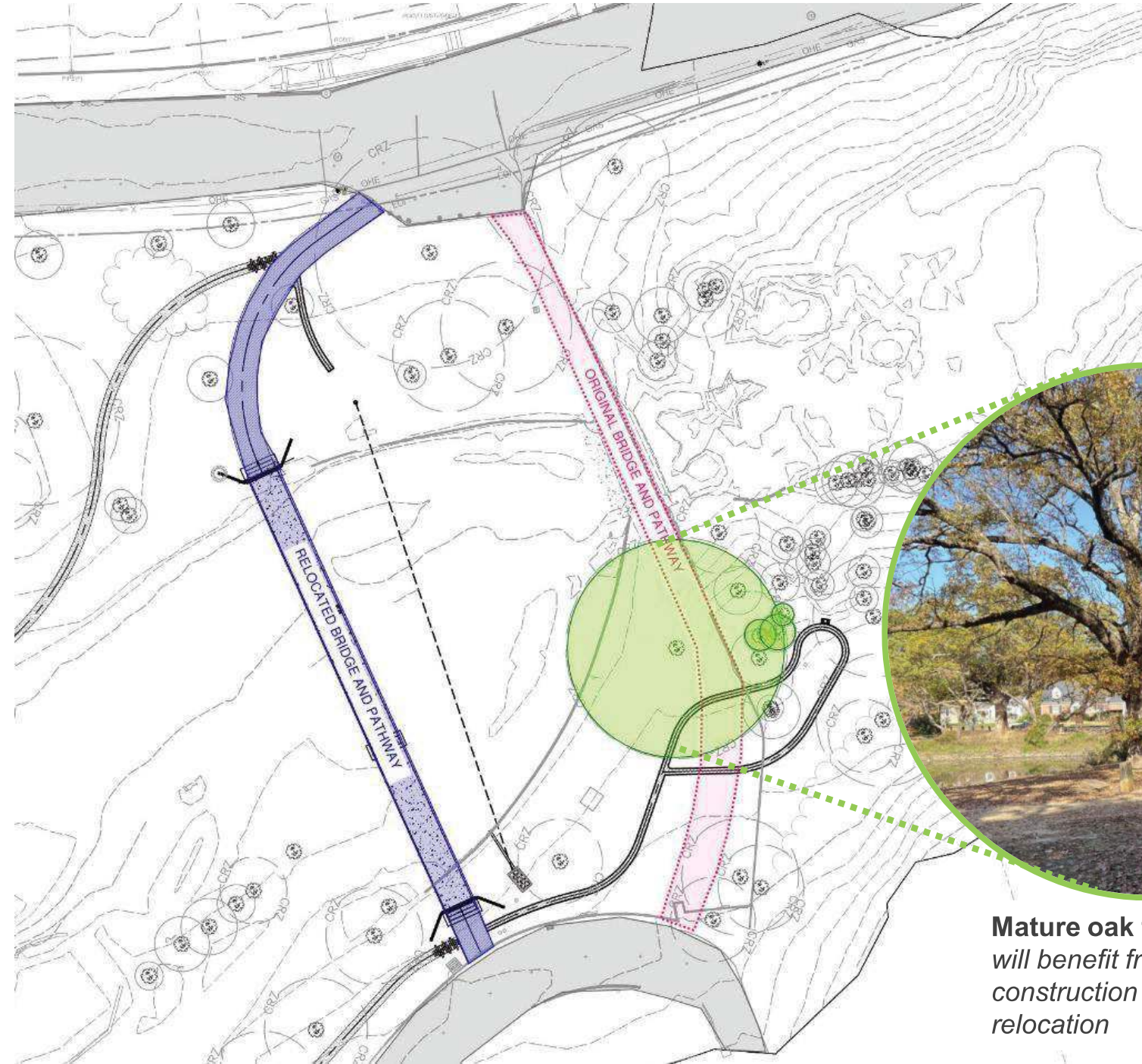
Public concern regarding large, mature trees—particularly the two oaks at either end of the lower dam—resulted in relocating the lower bridge further upstream to reduce construction impacts and risks to the oak at the lower dam and other trees downstream.

① protect Big oaks AT ENDS OF Lower DAM
② Re-use the retaining wall materials
③ RIPAP for large amounts of debris washing down during storm

The Tree

We have some old trees in the park. Please protect! Generally limit impact/tree removal

Please be particularly sensitive to fate of existing mature Native trees - takes decades to replace large, old tree.



Mature oak tree at lower dam: will benefit from reduced construction impacts due to bridge relocation

COMMUNITY FEEDBACK INCORPORATED

Design Response Based on Specific Community Feedback

"I walk every day there. I love the way the water looks in different light settings and seeing all the different wildlife."- Online Response

Added a larger open water area between the upper and lower stream restoration reaches

trails (unpaved)
meadow for birds
trees
NATURE!

Coordinated with Friends of Bryan Park to select the surface material for the unpaved trail network:

- 5-ft wide decomposed granite trails
- 3-ft wide compacted earth trails

Please use Digital Atlas of the Virginia Flora as a guide in selection of native species to be planted in order to select only species native to this area.

All selected plant species are native to Richmond. Landscape design team visited the site to ensure we incorporate native species that are already growing in Bryan Park.

COMMUNITY FEEDBACK INCORPORATED

Please do your best to replicate true wetland's experience in upper pool area - currently attracts many bird species.

Preserving wetlands in Upper Pond using a structural control that will be buried beneath the stream bed to maintain water levels and prevent erosion

"My dad used to take me and my sister boulder hopping below the lower dam when we were children."- Online Response

Incorporating a low-water riffle crossing and added a spur trail to the boulders downstream of the lower dam's location

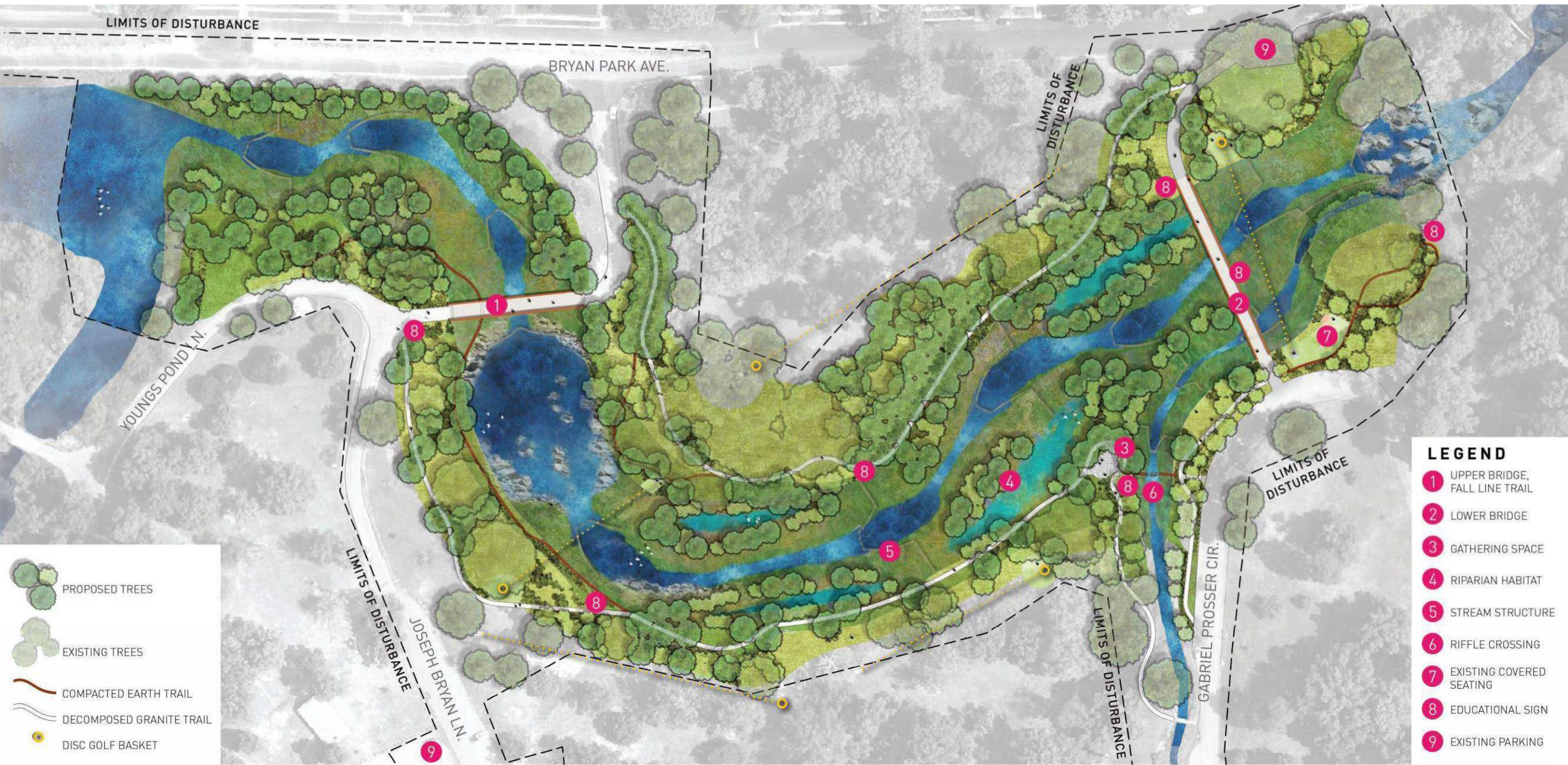
Historical, interpretive signage to educate about Gabriel/Prosser

Curating a series of educational signs throughout the project area, including one dedicated to Young's Spring and Gabriel's Rebellion.

Neighbors in lakeside need a good/safe/convenient way to walk into park during construction. Build one bridge @ a time - keeping other open to foot traffic

Revised proposed construction sequence to manage access to and from Bryan Park Avenue throughout construction.

Proposed Plan



CONCEPTUAL MASTERPLAN

Existing

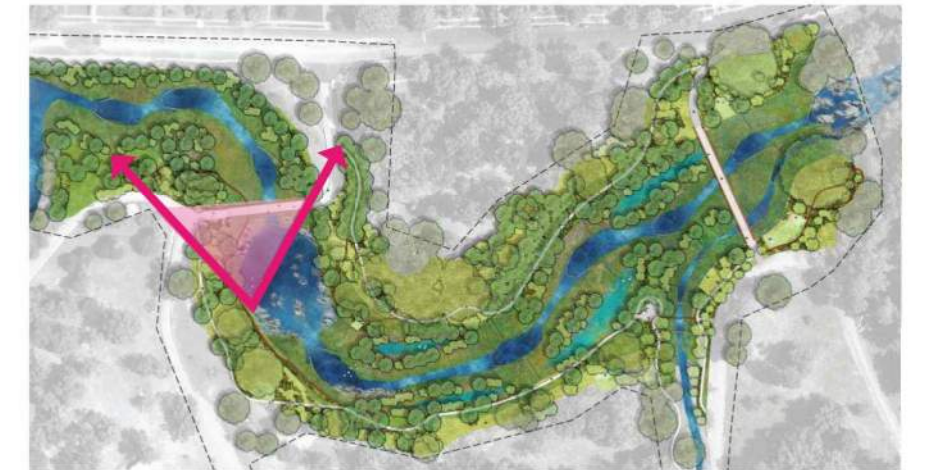


Proposed



RENDERING - UPPER DAM REMOVAL

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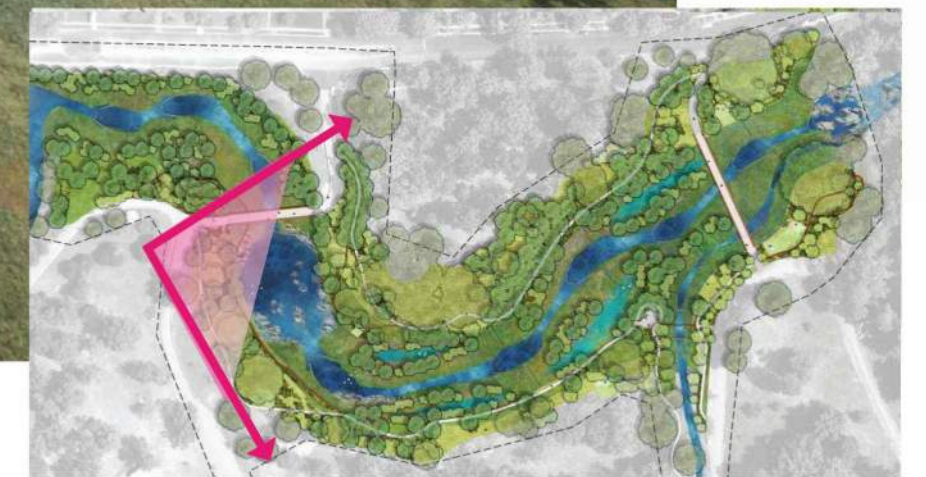
RENDERING - UPHAM BROOK UPPER REACH AND FALL LINE TRAIL BRIDGE

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RENDERING - UPHAM BROOK POOL, LOWER REACH, AND LANDSCAPE DESIGN



Existing



Proposed



RENDERING - LOWER DAM REMOVAL

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RENDERING - UPHAM BROOK LOWER REACH, PRINCETON CREEK, AND LOWER BRIDGE

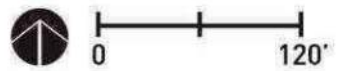
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- Surveyed Tree to Remain (160)
- Tree to be Removed (93)
- Approx. Invasive Vegetation Management Area

TREE INVENTORY, REMOVAL, AND INVASIVE MANAGEMENT

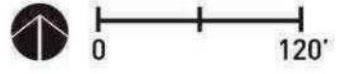


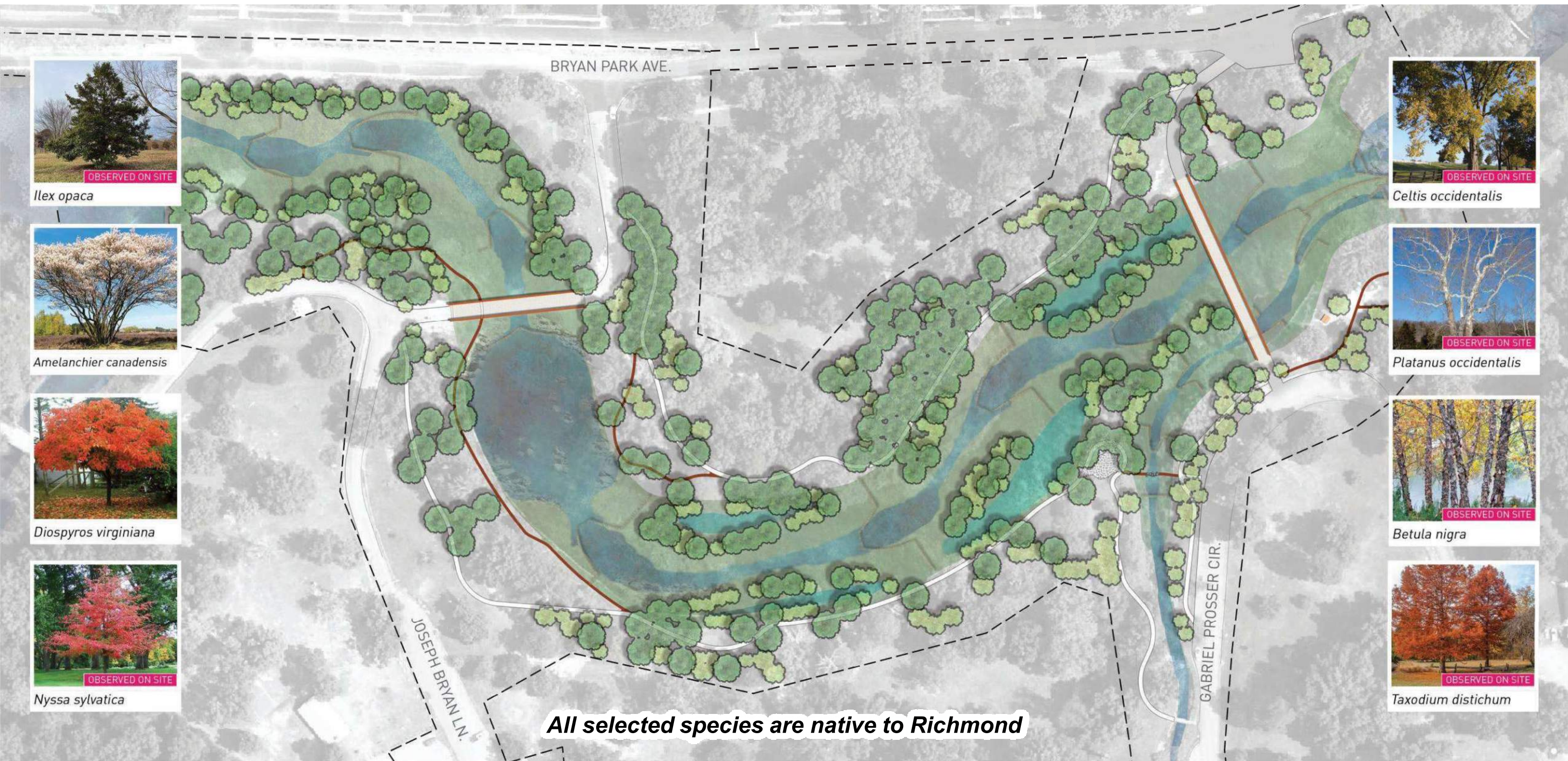


-  CANOPY TREES (205)
-  UNDERSTORY TREES (245)

All selected species are native to Richmond

PROPOSED TREES
450 new trees





All selected species are native to Richmond

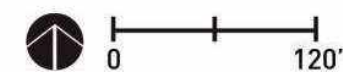
PROPOSED TREES

450 new trees





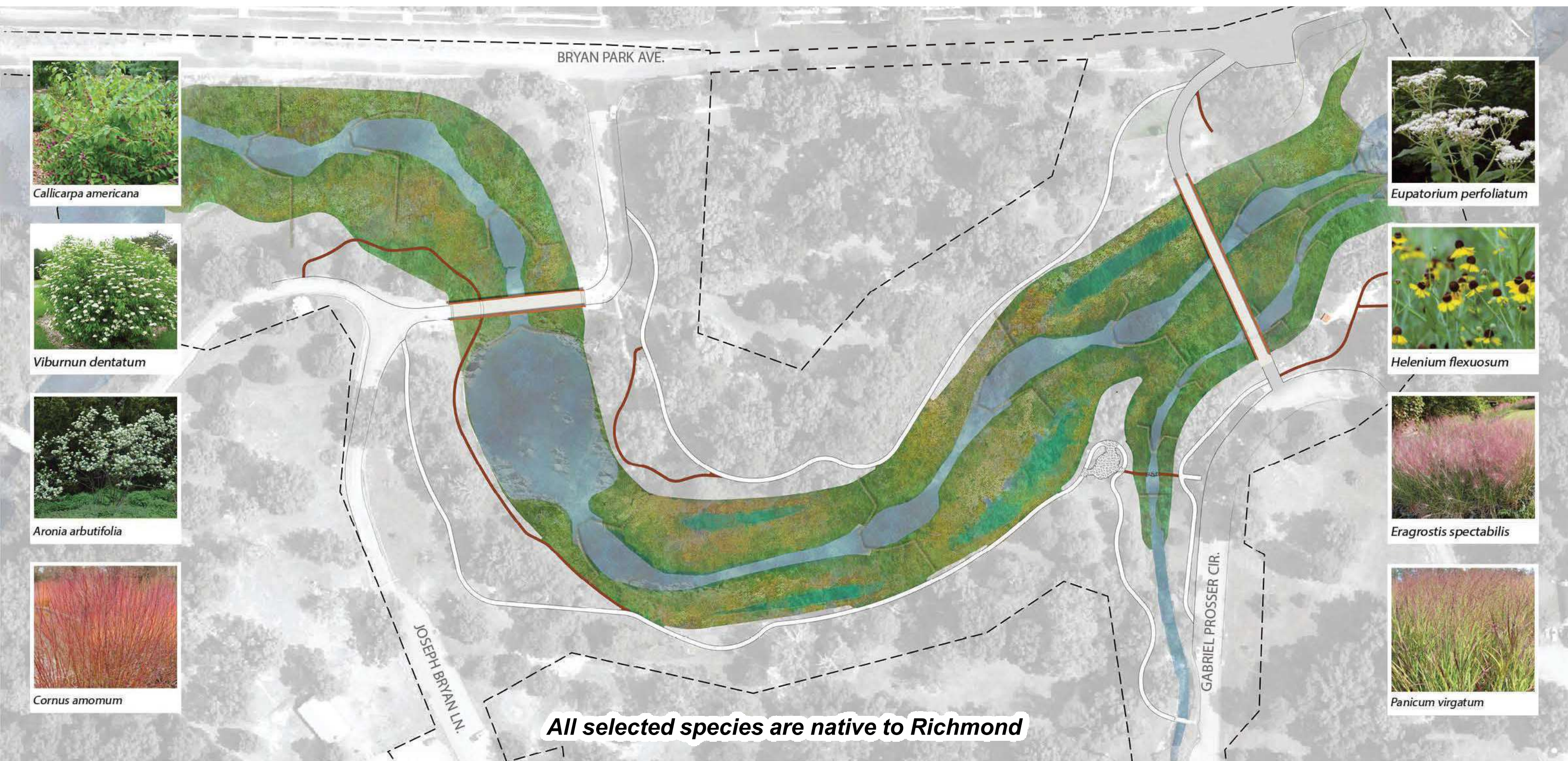
PLANT PALETTE- SHRUBS



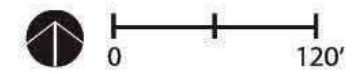


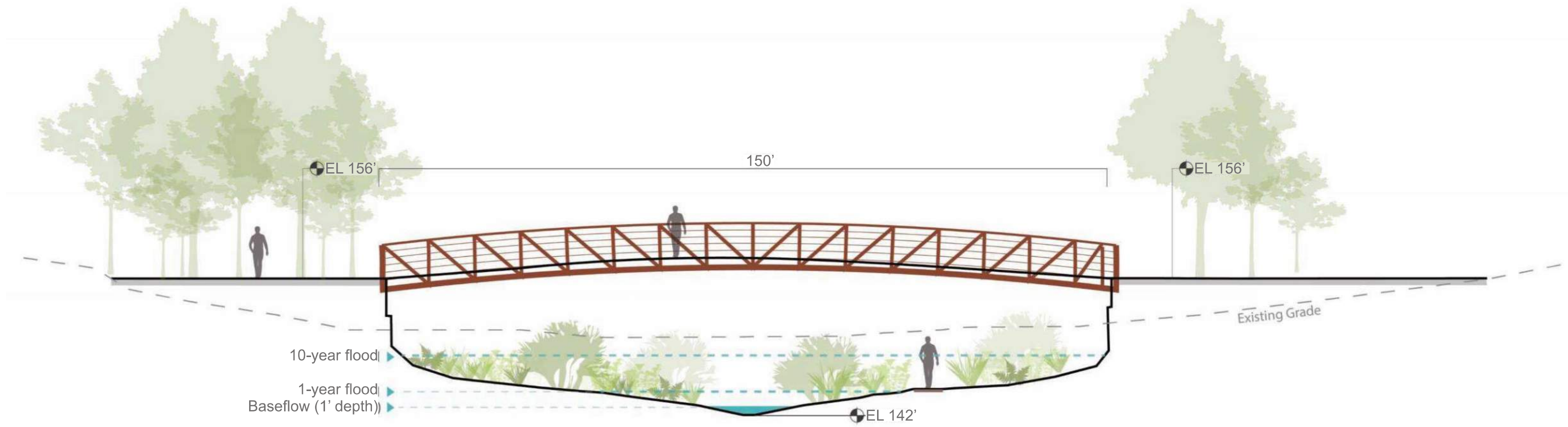
PLANT PALETTE - GROUNDCOVERS



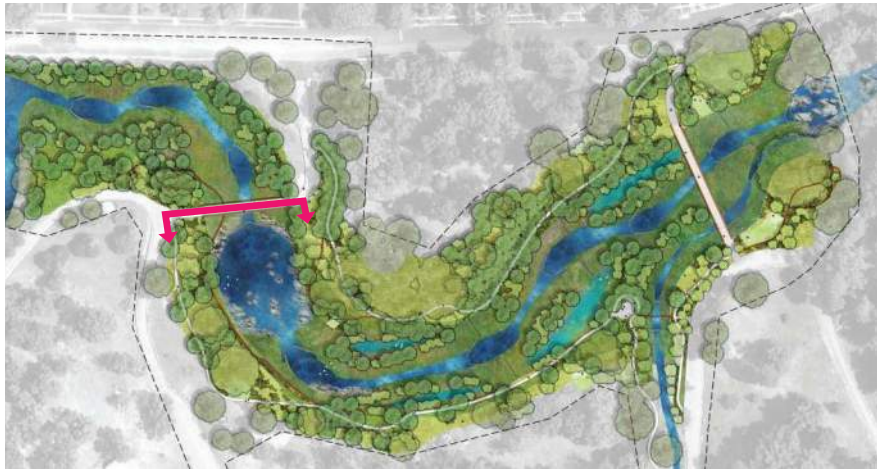


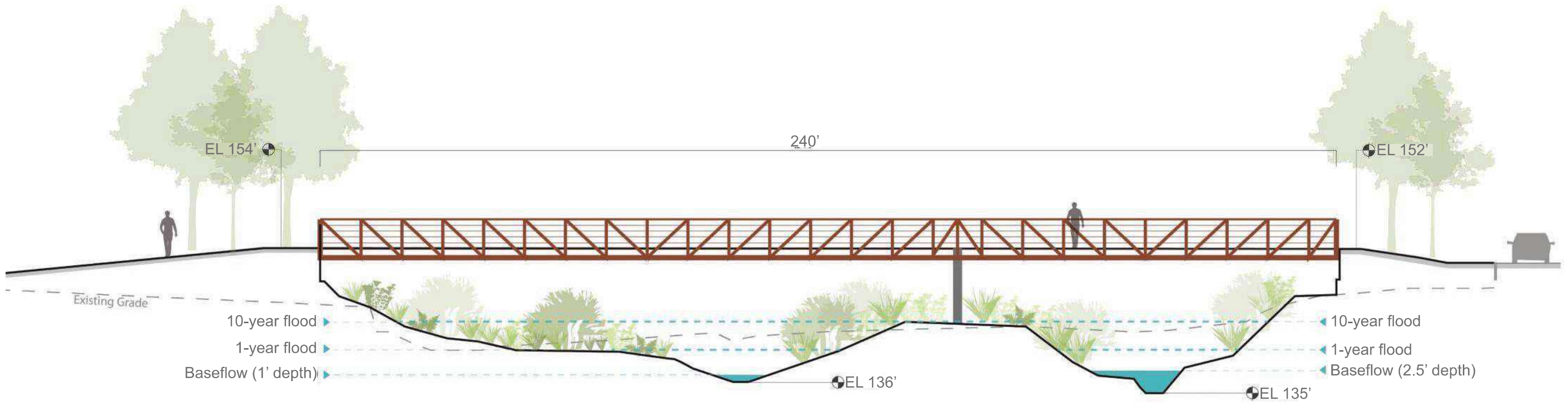
PLANT PALETTE- RIPARIAN EDGE





UPPER BRIDGE





LOWER BRIDGE





Ex. Disc Golf Basket



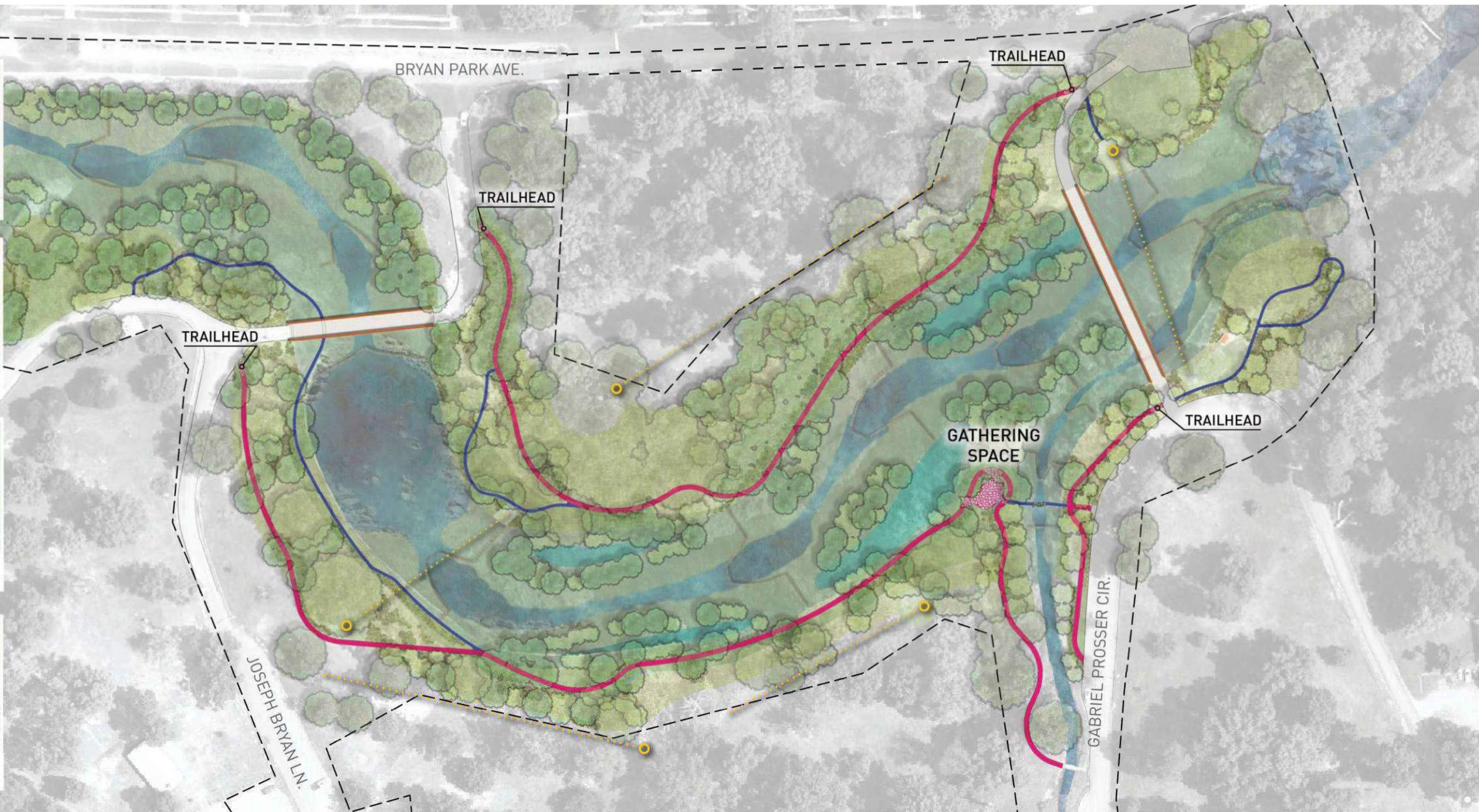
Ex. Disc Golf Course



Compacted Earth Trail
3'-0" wide



Decomposed Granite Trail
5'-0" wide



MATERIAL PALETTE - PATHWAYS

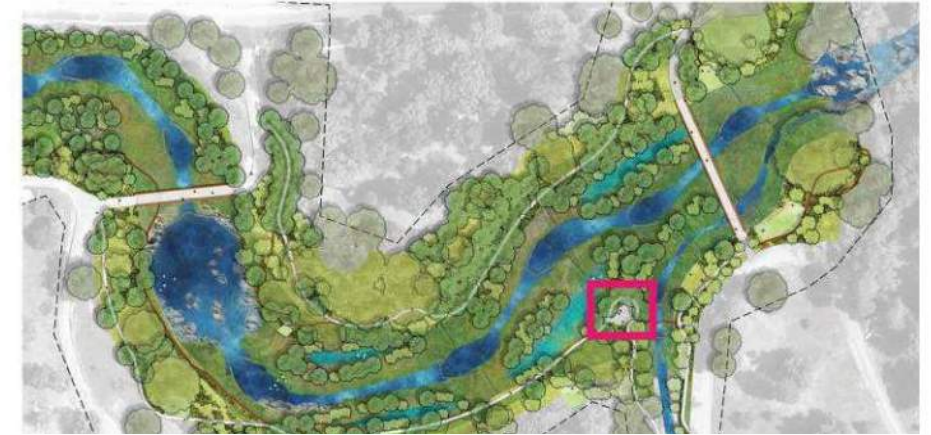




PAVING PRECEDENT



EXISTING MATERIAL - COBBLESTONE SPILLWAYS

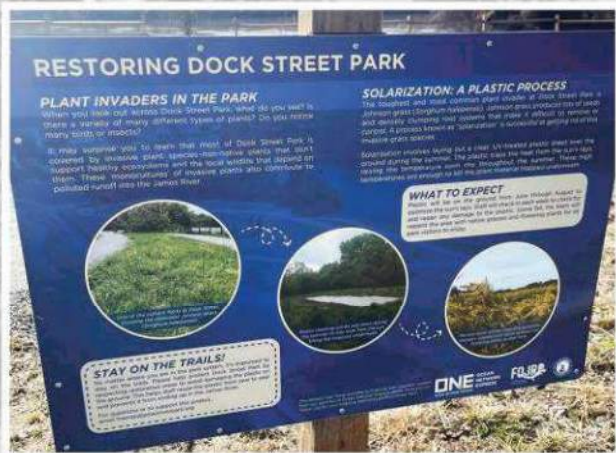


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MATERIAL PALETTE - RECLAIMED MATERIALS AT GATHERING SPACE



SIGNAGE PRECEDENT
National Park Service
Standard Vertical



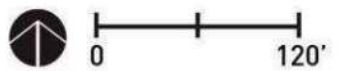
SIGNAGE PRECEDENT
DOCK STREET PARK



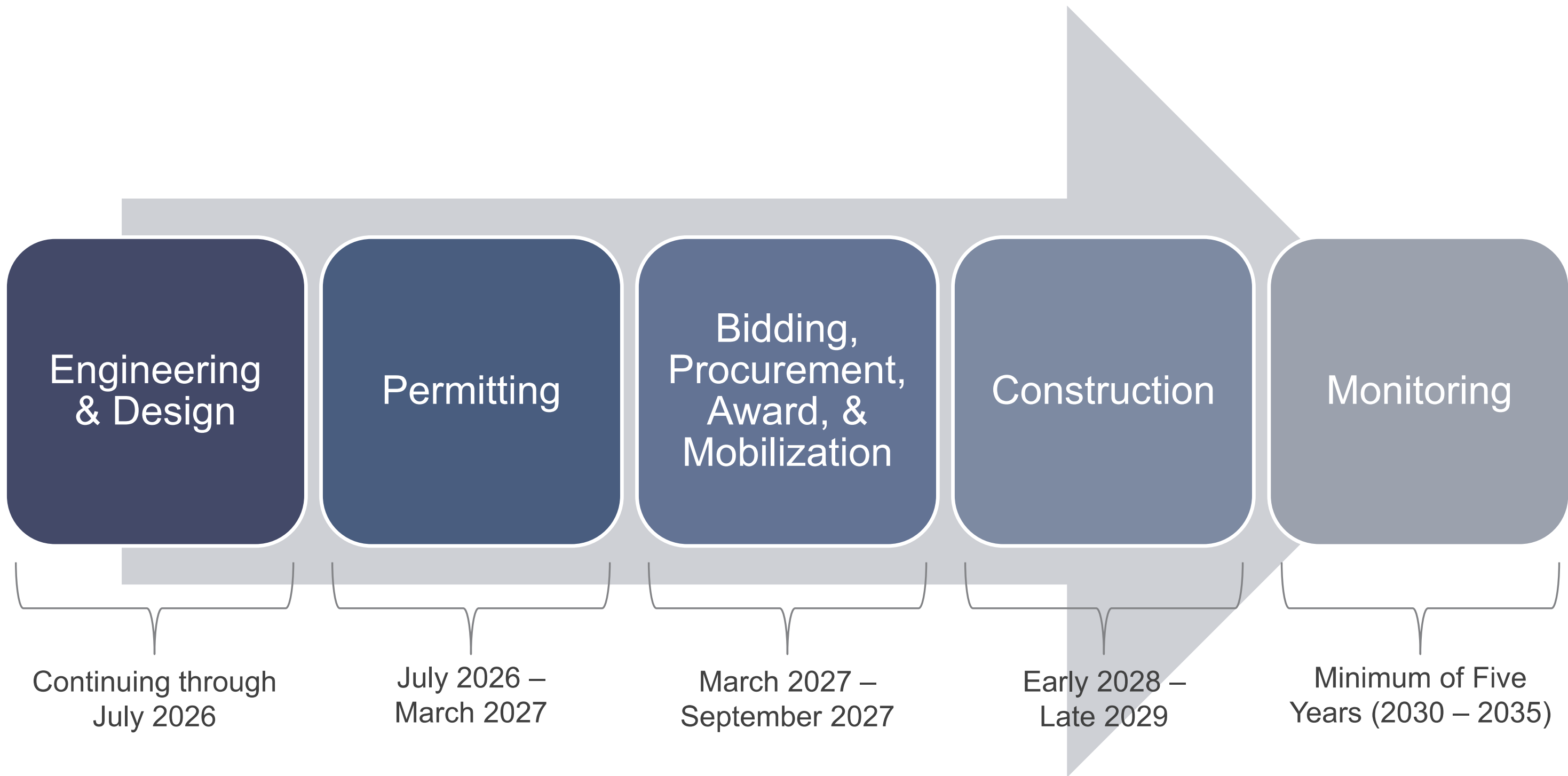
SIGNAGE CONTENT

- 1 RIPARIAN HABITAT RESTORATION
- 2 SALVAGED MATERIAL
- 3 SITE HISTORY: ICE PIT
- 4 SITE HISTORY: GABRIEL'S REBELLION
- 5 STREAM RESTORATION
- 6 UPPER DAM REMOVAL
- 7 LOWER DAM REMOVAL

EDUCATIONAL SIGNAGE



Project Timeline



PROJECT TIMELINE