

# COLLEGE PARK MASTER PLAN UPDATE

A plan to connect people, water and community

**August 2022**

*Developed by Skeo Solutions and GKY for the City of Lynchburg*





# CONTENTS

Project Overview	2
Community and Stakeholder Input	3
Managing Neighborhood Stormwater	4
College Park Master Plan Update	6
College Park Connectivity	10
Next Steps	12



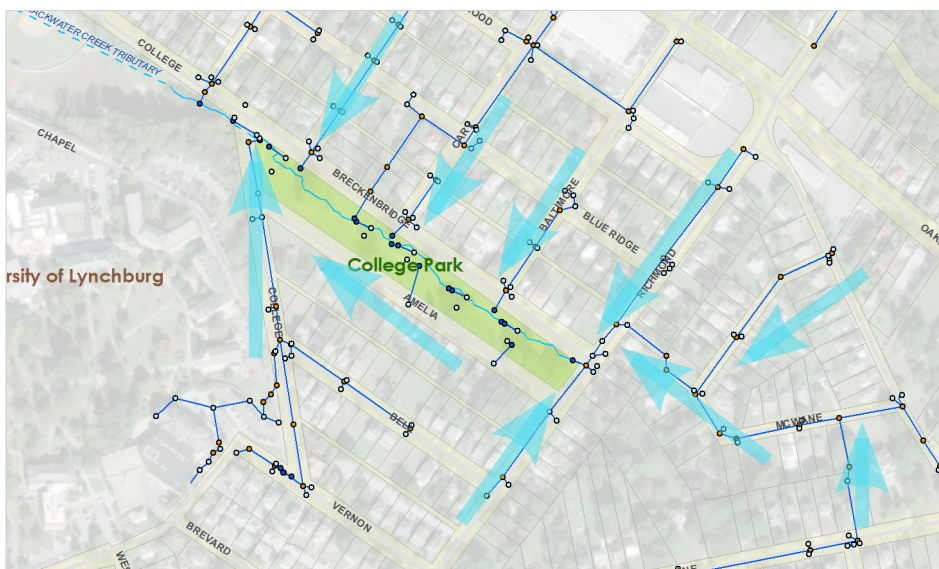
View of College Park from Amelia Street

## Introduction

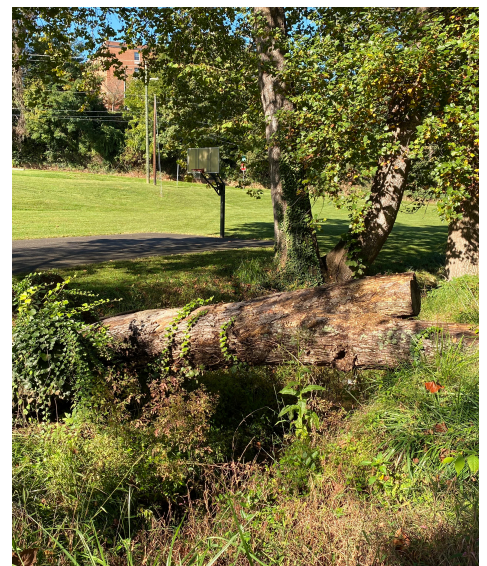
The College Park Master Plan Update reimagines the 60-year old park with new walking paths, contemplative spaces, gathering areas, and plantings intertwined with structural improvements to the park's primary feature, a series of five connected stormwater ponds. This updated plan builds on the College Park Master Plan developed in 2007 to specifically address existing site conditions, stormwater management, and community goals for the park. The City of Lynchburg's multi-pronged goal for the project is to improve water quality and reduce flooding, while enhancing passive recreation and pedestrian connectivity for the three-acre linear College Park and the surrounding area.

## Water Flow Through College Park

Water flows from surrounding neighborhoods into the ponds at College Park. Approximately 60 acres drain stormwater into the park, entering at the head of the park on Richmond Street and through culverts from side streets. The stormwater detention system at College Park, constructed in the 1990's, lacks proper storage volume to handle the water entering the park during heavy rain events. A 150-year storm event in August 2018 caused significant flooding and damage in the lower area of the neighborhood surrounding the intersection of College Drive and Breckenbridge Street. Redesigning the pond system and park landscape increases resilience to larger, more frequent storm events, protecting the neighborhood and downstream waterbodies including Blackwater Creek, College Lake and the Chesapeake Bay.



Existing water flow into and through College Park



Erosion along bank of tributary



## Community and Stakeholder Input

The City of Lynchburg is committed to creating a sustainable future by protecting and restoring the City's natural assets. Experts and leaders from City departments and organizations participated in the design process for the College Park Master Plan Update to discuss ideas and feedback on the designs, which integrate a range of strategies to serve the community and enhance ecological health.

The City presented the draft master plan update to the community during a public open house at the park in Fall 2021. Residents of all ages from the surrounding neighborhood reviewed the draft master plan and shared thoughts and questions about the design.

A survey was also distributed to gather community input. The City coordinated with students from nearby University of Lynchburg to participate in community engagement.

Key community input:

- Of the proposed features, participants indicated they are most excited about the walking loop and nature path.
- Community members would like to retain a full or half hard surface court for basketball and other activities.
- Participants strongly support new trees and plantings, and reduced frequency of mowing steep hillsides in the park.
- Residents strongly support enhancements to the stormwater pond system to improve water quality.
- Residents would like to retain the peaceful, quiet nature of the neighborhood park.
- Residents indicated that traffic-calming measures and sidewalks on Breckenbridge Street and Richmond Street are very important.

### City of Lynchburg Cross Departmental Stakeholder Group

- Communications and Public Engagement
- Community Development
- Parks and Recreation
- Public Works
- Water Resources



*City of Lynchburg Water Resources Water Quality Manager discusses the stormwater system with youth during the neighborhood open house.*



*Participants review concept plans and explore the park during the open house.*



# MANAGING NEIGHBORHOOD STORMWATER

The College Park Master Plan integrates nature-based features (“green infrastructure”) with traditional infrastructure improvements to handle a large volume of water entering the park from the surrounding neighborhood. The proposed changes increase the park’s stormwater management capacity from handling one-year to ten-year storm events to prevent floods that damage roads, structures, and downstream water bodies.

Key improvements to the stormwater system include:

- Enlarged stormwater ponds to slow the water flow through the park and prevent flooding.
- Native grasses, wildflowers, shrubs, and trees along the pond edges to infiltrate water, stabilize slopes, and enhance the natural beauty.
- Maintained wetland plants that clean water, create new wildlife habitats, and provide opportunities for education and birdwatching.
- Updated pipes and culverts to allow the ponds to drain efficiently, prevent standing water and associated issues such as mosquito breeding.

## Water Flow During Rain Events



Typical (base) water flow through College Park during rain event



Temporary water flow level during a 2-year storm event



Temporary water flow level during a 10-year storm event

## Best Management Practices

The following nature-based best management practices are integrated in the concept to support sustainable stormwater management.



### STREAM RESTORATION

Vegetated buffers on either side of a waterway enhance watershed health by moderating water runoff quantities and improving water quality. The vegetation can intercept, absorb, and infiltrate surface runoff to help moderate the peak runoff rates during rain events, which reduces erosion and sedimentation of the channel.



### NATIVE PLANTINGS

Planted curbs and swales along streets can capture and infiltrate stormwater runoff from streets to improve water quality. A swale is proposed along the east side of College Drive to slow water flow toward the low point of the drainage area. These areas can be planted with grasses, perennials, shrubs and trees to increase aesthetic and habitat value.



### PLANTED SWALES AND CURB EXTENSIONS

Incorporating vegetation into the landscape is a stormwater management technique that mimics natural drainage. Vegetated areas intercept and infiltrate rainfall to decrease stormwater volumes and can also remove pollutants. Native plants also support pollination and enhance biodiversity.



### PERVIOUS SURFACES

Pervious materials such as pervious asphalt or crushed gravel provide sturdy surfaces for walking and gathering while reducing stormwater runoff volume, rate, and pollutants.

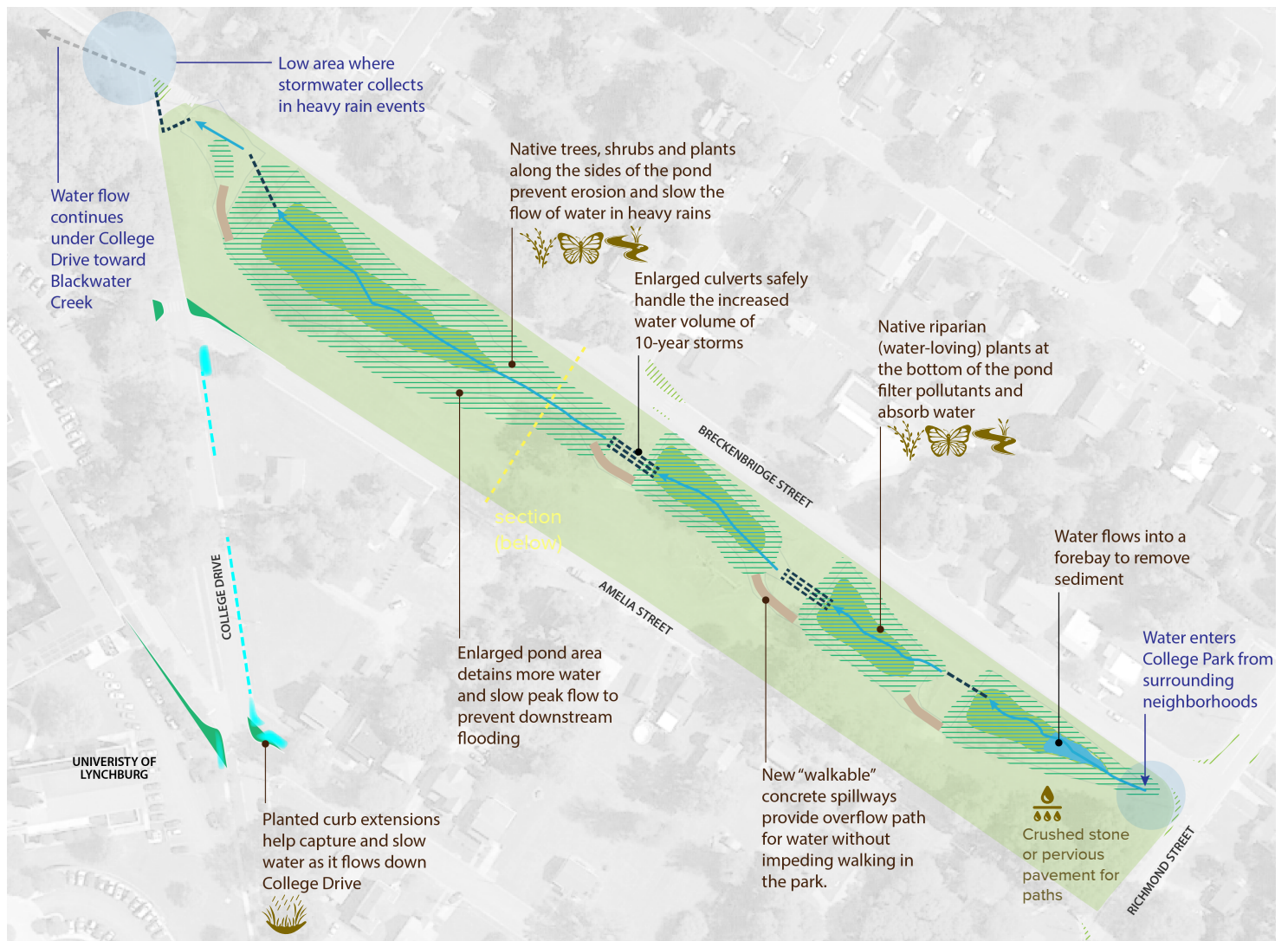
Section illustrating stormwater basin and boardwalk crossing



Amelia Street



The proposed design includes sustainable practices and infrastructure improvements to manage the volume, flow and treatment of stormwater while integrating amenities to improve public spaces and walking safety.



College Park Master Plan stormwater concept highlighting stormwater management features



10-year storm event water level

Breckenbridge Street



# COLLEGE PARK MASTER PLAN

## Overview

The College Park Master Plan is designed to:

- Enhance passive recreation opportunities and amenities, such as gathering spaces, small play areas, public art, and walking paths for nearby residents.
- Improve pedestrian connectivity to the surrounding neighborhood and the nearby university.
- Integrate sustainable practices for handling water flow through the connected stormwater ponds to reduce flooding and improve water quality.
- Provide learning opportunities by increasing visibility of nature-based stormwater features and installing interpretive signage.
- Enhance the ecology and natural beauty of the park by preserving and protecting the existing mature tree canopy and enhancing stream buffers with native vegetation.

## Key Features

Six features are proposed enhance community recreation, natural beauty, water quality, and the ecological health of College Park.

- 1 PARK LOOP
- 2 NATURE PATH
- 3 STORMWATER BASINS
- 4 OBSERVATION AREAS AND OVERLOOKS
- 5 PASSIVE RECREATION, GATHERING AND PLAY
- 6 SUSTAINABLE PLANTINGS AND MAINTENANCE









# KEY PARK FEATURES

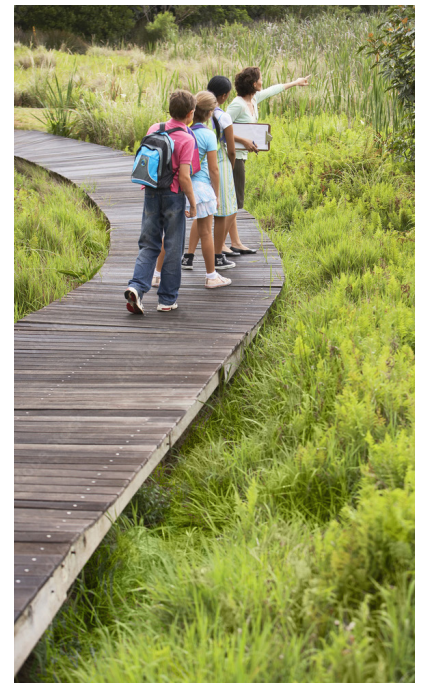
## 1 PARK LOOP

- A 1/2-mile loop around the park includes paved segments and unpaved segments (see solid and dashed lines on concept plan) that connect to existing and proposed sidewalks.
- Paved segments can be constructed using permeable pavers, and unpaved segments can be constructed with a sturdy material such as crushed stone.
- The majority of the path can be constructed for ADA accessibility.



## 2 NATURE PATH

- A path of cleared trails and elevated walkways extends along the ponds, giving visitors an up-close view of water flow and native plantings with minimal disturbance to the ecological activity.
- The nature path connects to an elevated platform at the west end that can be used for gathering and education or recreational programming and a smaller platform along Breckenbridge that is accessible from off-street parking.
- Switchbacks or steps traverse steep grades to connect the nature path to the accessible loops.



## 3 STORMWATER BASINS

- A series of ponds planted with native perennials, shrubs and trees slow the flow of stormwater, infiltrate and clean the runoff, and temporarily retain water to prevent downstream flooding.
- The system's flow rate is designed to prevent standing water, which is associated with insect breeding.
- Plantings, sloped benches, and protected overlook areas ensure visitor safety around deeper areas of the basins.



Source: Big Muddy Workshop



## 4 OBSERVATION AREAS AND OVERLOOKS

- Observation areas constructed with stone or concrete serve as retaining structures and seating.
- Rails might be necessary for safety.
- Overlooks provide a safe viewing platform to see the park stormwater features from steep slopes.



## 5 PASSIVE RECREATION, GATHERING AND PLAY

- Picnic tables, grills, water fountains and small play areas for children are located on the gently sloped areas at each end of the park.
- Natural materials on the site, such as logs, tree stumps, boulders and soil (even the slope of the park) can be used to create playground features such as balance beams, stepping stones and slides.
- Temporary shade structures can be installed during the summer months until new planted trees grow large enough to provide natural shade.



## 6 SUSTAINABLE PLANTINGS AND MAINTENANCE

- High traffic areas such as paths and gathering areas are designated for regular maintenance and mowing.
- Areas not designated for high traffic, wetland plantings or soil stabilization are to be maintained as meadow conditions or low mow zones, which are mowed less frequently to allow native plants and grasses to grow.
- Trees will be planted to replace trees recently lost during storms and trees removed during the construction of basins.





# COLLEGE PARK CONNECTIVITY

The plan proposes pedestrian safety features to improve access to College Park from the surrounding neighborhood.

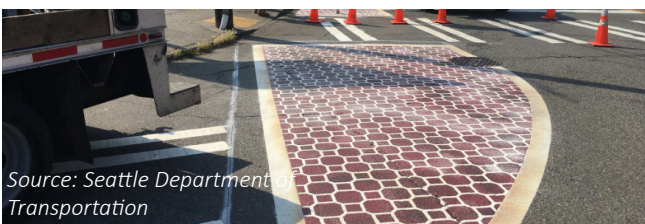
- Curb extensions (or “bump-outs”) along Richmond Street, Breckenbridge Street and College Drive can help slow vehicular traffic at proposed street crossings.
- Proposed sidewalks adjacent to the park can improve safe access to the park; they also create part of a 1/2-mile walking loop.
- Crosswalks are proposed at adjacent intersections.



*Planted structural curb extensions can enhance the streetscape and capture street run-off while slowing traffic.*



*Source: Bike Durham*



*Source: Seattle Department of Transportation*

*Painted curb extensions/bump outs slow traffic and narrow pedestrian crossings.*

## Pedestrian Safety Features

The following features are integrated in the concept to support community connectivity and pedestrian safety within and around College Park.



### CURB EXTENSIONS/BUMP OUTS

Curb extensions (or “bump-outs”) narrow the roadway for a short segment to slow traffic and reduce street crossing distance for pedestrians. They can be installed at intersections to tighten the vehicular traffic patterns, or along streets to slow advancing traffic.

Curb extensions can be planted and designed to capture stormwater from the street to improve water quality. These are proposed for College Drive and possibly Breckenbridge Street.



### CURB EXTENSIONS (PAINTED)

Pavement painting can be used to create visible, non-structural curb extensions to direct traffic to narrowed lanes. These are useful to increase driver awareness and slow traffic on roads where curbs or physical barriers cannot be installed. These are proposed along Richmond Street and at the median at the intersection of College Drive and possibly Breckenbridge Street.



### CROSSWALKS

Painted crosswalks are proposed at key intersections adjacent to the park to improve pedestrian safety.



### SIDEWALKS AND PATHS

Sidewalks are proposed along Richmond Street and the east side of College Drive. The perimeter park path will serve as a sidewalk along Breckenbridge Street.



Several features are proposed to create safe pedestrian connections to the park and improve walkability within the surrounding neighborhood.



College Park Master Plan connectivity concept highlighting pedestrian safety features



1 Curb extensions at the intersection of College Drive and Breckenbridge Street can improve vehicular and pedestrian safety at the wide intersection.



2 Curb extensions and crosswalks at the intersection of Breckenbridge Street and Richmond Street will slow fast-moving vehicles on Richmond Street.



3 The wide right of way along Breckenbridge Street provides ample area for a sidewalk that also serves as part of the park walking loop.



# NEXT STEPS

The City of Lynchburg will continue to refine the plans for College Park during an engineering and design development phase.



## Contact info

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