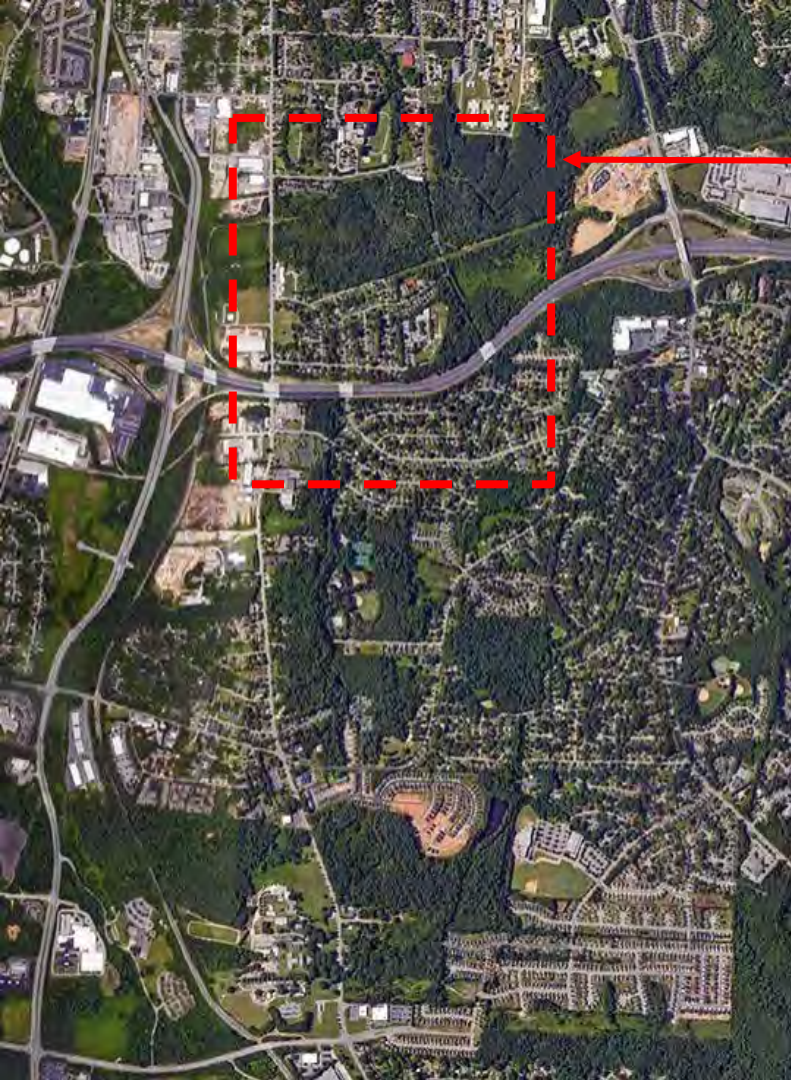


Parks with Purpose

LAR 502 Spring 2019 Reviews

Agenda

- Welcome and Introductions
- Summary site inventory and context
- Student presentations (4 total)
- Break
- Student presentations (4 total)
- Summary comments and reflection
- Adjourn

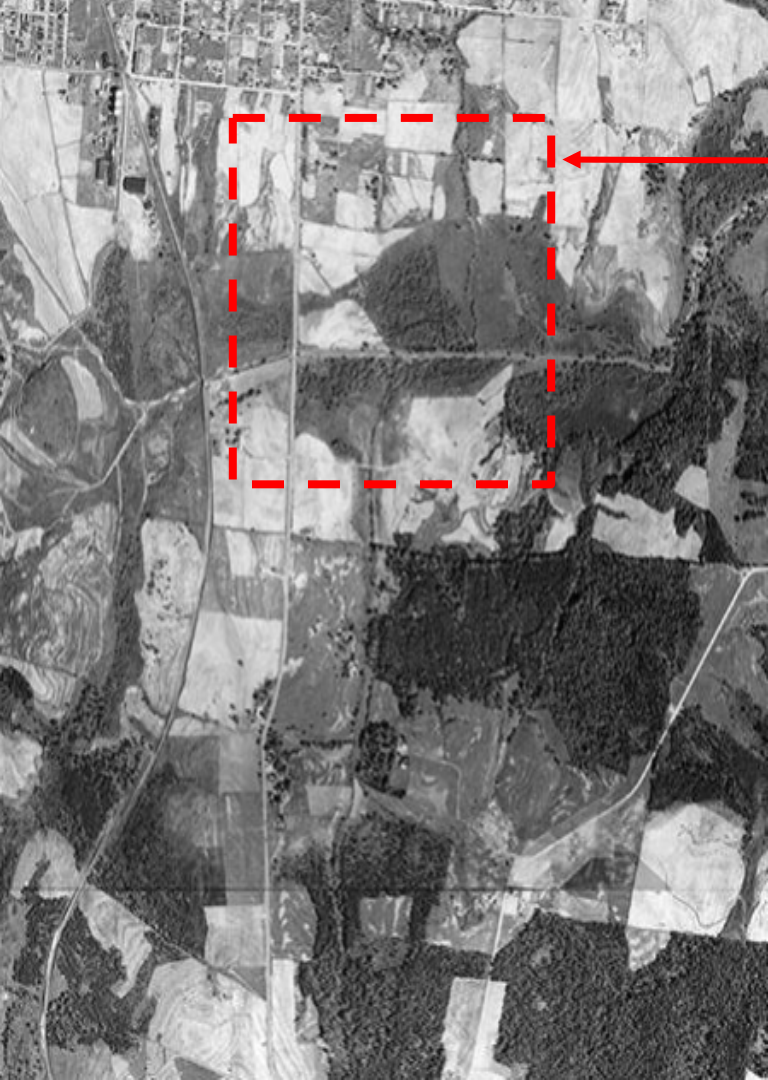


Study Area (Raleigh 2018)

Notes

- Study Area selected because:
- Historically African American and underserved community
- History of flooding
- Potential to leverage Wetland Center and coming investment in Wetland Park

- Hurricane Floyd (Lake Raleigh drained) flooded Rochester Heights. City of Raleigh fixed similar flooding problem in North Raleigh (wealthy and white) but wanted to assess Rochester Heights a fee to fix flooding there
- Birth of Episcopalians for Environmental Justice (later Partners for Environmental Justice)

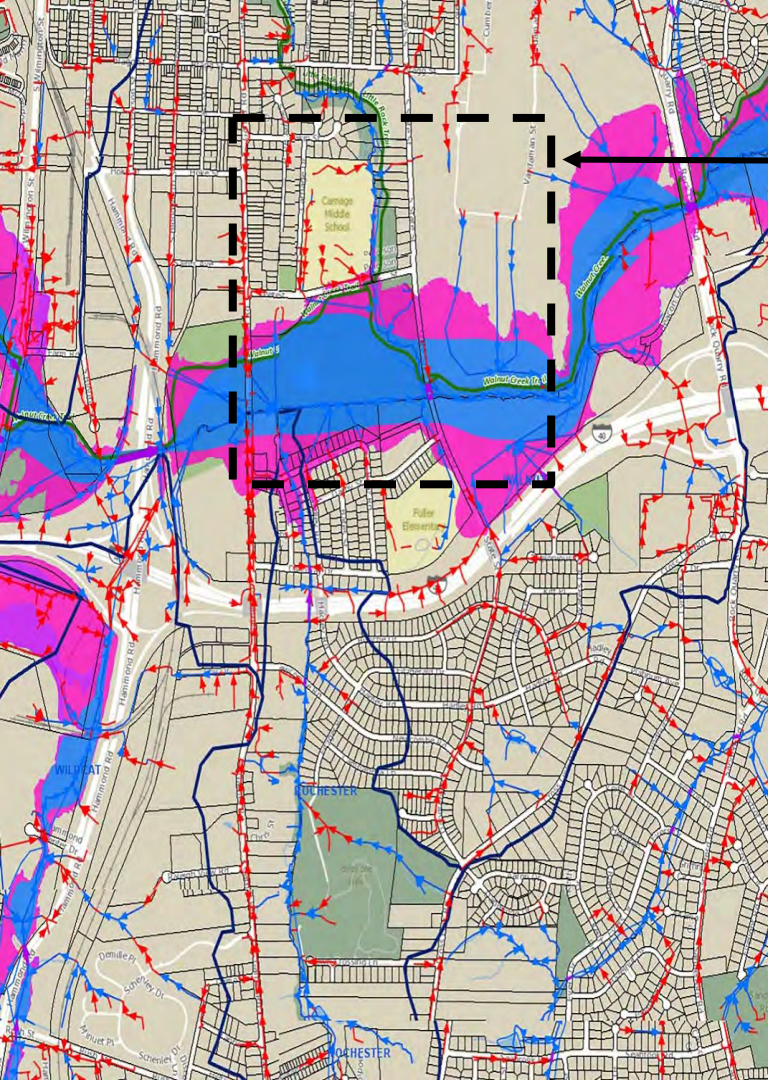


Study Area (1939)

Notes

- Study Area selected because:
- Historically African American and underserved community
- History of flooding
- Potential to leverage Wetland Center and coming investment in Wetland Park

- Previously rural land (First owned by Freedmen)
- Racialized topography (Race and elevation)
- Dr. Camp's analysis of urbanization and increased flood risk
- Future sites of Rochester Heights* and Biltmore Hills (First post-World War II suburban communities for African Americans)



Study Area (Raleigh 2018)

Notes

- Study Area selected because:
- Historically African American and underserved community
- History of flooding
- Potential to leverage Wetland Center and coming investment in Wetland Park

- Proposal of Wetland Education Park (2000) and Wetland Education Center from PEJ
- FEMA buyouts of properties south of Wetland Park but no further action
- Community demand for more “connections” to the Wetland Park

History of the Area

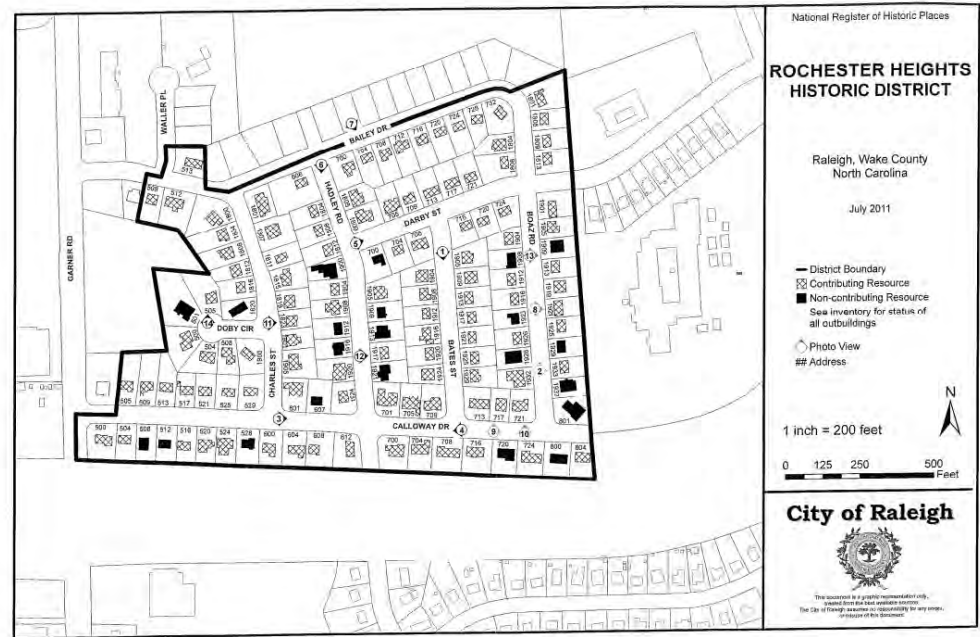
The Walnut Creek Wetlands were once largely owned by an African-American family, the Youngs, who farmed the land for a variety of crops. The family had ties with the Brimley brothers (Herbert Hutchinson and Clement Samuel) who collected and studied samples of animal and plant life from the wetlands. These studies ultimately led to the creation of the NC State Museum of Natural Sciences. South of the wetlands are Rochester Heights and Biltmore Hills communities, the first post World War II neighborhoods built for African-Americans in Raleigh, NC.



The Young family pictured in 1936 on site where Fuller Elementary School now stands.

History of the Area

The Rochester Heights Historic District, with a period of significance from 1957 to 1964, meets National Register Criterion A for its contributions to the Community Planning and Development and Black Ethnic Heritage history of mid-twentieth-century Raleigh. Built as one of only a handful of post-World War II subdivisions planned for and open to the black community in the city, the district originally was home to physicians, educators, builders, business owners, general laborers, retired military personnel and government agency employees



Historic District Map

History of the Area



Dr. Norman Camp is an educator, environmentalist, political activist, community advocate and NC State University alumnus. He received his Ph.D. in Science Education in 1979, was born in East Raleigh and grew up exploring the Walnut Creek Wetlands. Dr. Camp served as college administrator at three different institutions throughout the Southeast, including holding positions of Dean and Vice Chancellor.

Norman and Betty Camp Wetland Education Center



Walnut Creek Wetland Park



Parks with Purpose

Parks with Purpose Project



ADDITIONAL PARTNERS

American Rivers
Carolina Wetlands Association
Center for Human and Earth Restoration
City of Raleigh: Dept. of Parks, Recreation and Cultural Resources; Stormwater Management Division; Office of Sustainability; Walnut Creek Wetland Park
Fuller Elementary School
Institute for Landscape Art and Sustainable Spaces
The IPB Foundation
NC State University: College of Natural Resources; College of Humanities and Social Sciences; Natural Learning Initiative
Partners for Environmental Justice
Pisces Foundation
Rochester Heights & Biltmore Hills residents
Shaw University
St. Ambrose Episcopal Church
Triangle Greenways Council

WHAT IS A PARK WITH PURPOSE?

Parks are important places in our communities, where kids can play and families can gather. With thoughtful planning these natural areas can also support other purposes, including absorbing and cleaning stormwater when it rains, supporting training programs for green jobs, and meeting other community needs.



WALNUT CREEK WETLAND COMMUNITY PARTNERSHIP

This partnership provides a communication hub for residents, community stakeholders, academic and government leaders to collaborate on sustainable management of the wetlands and development of opportunities that benefit those who live, work, and play in the surrounding community.

The Walnut Creek Wetland Community Partnership, the NC Water Resources Research Institute, and the Conservation Fund are working hand-in-hand with residents and a variety of partners to identify, protect, and restore land for a new park or greenspace that will provide a variety of benefits for the community.

Get Involved!

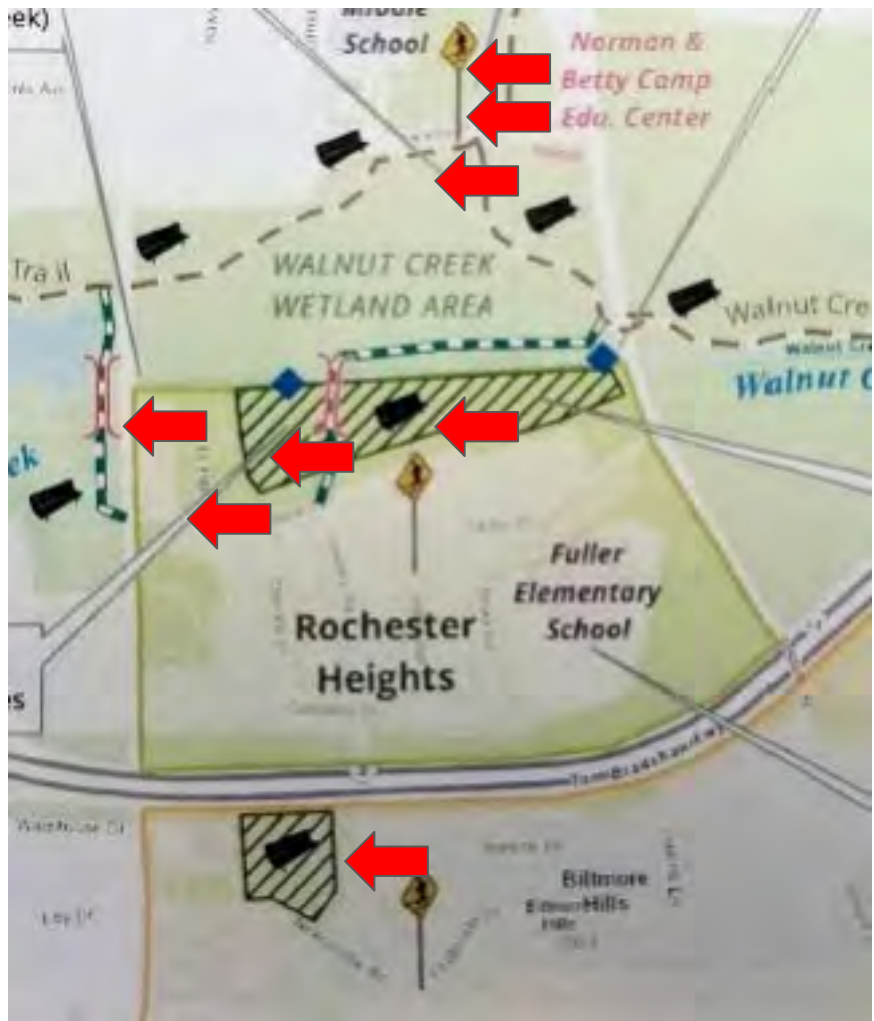
We are currently working to identify a potential location and develop plans for this new greenspace. Please join us to share what you would like to see in the park, help guide the planning process, and find out more about how you can get involved.

We meet quarterly at St. Ambrose Church or the Wetland Park. Meeting details are posted at go.ncsu.edu/walnutcreekwetlandpartners

Walnut Creek Wetland Community Partnership Priority Projects



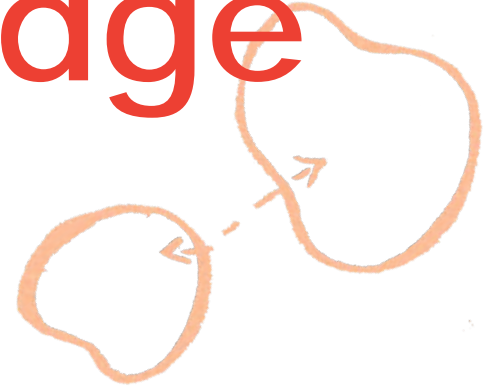
Walnut Creek Wetland Community Partnership Priority Projects





Retrofitting the Edge

LAR 502.002 LA Studio
Xinyu Li



EDGIES



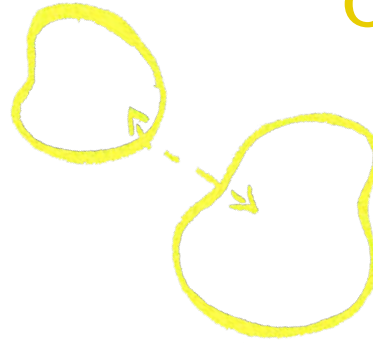
SAFETY



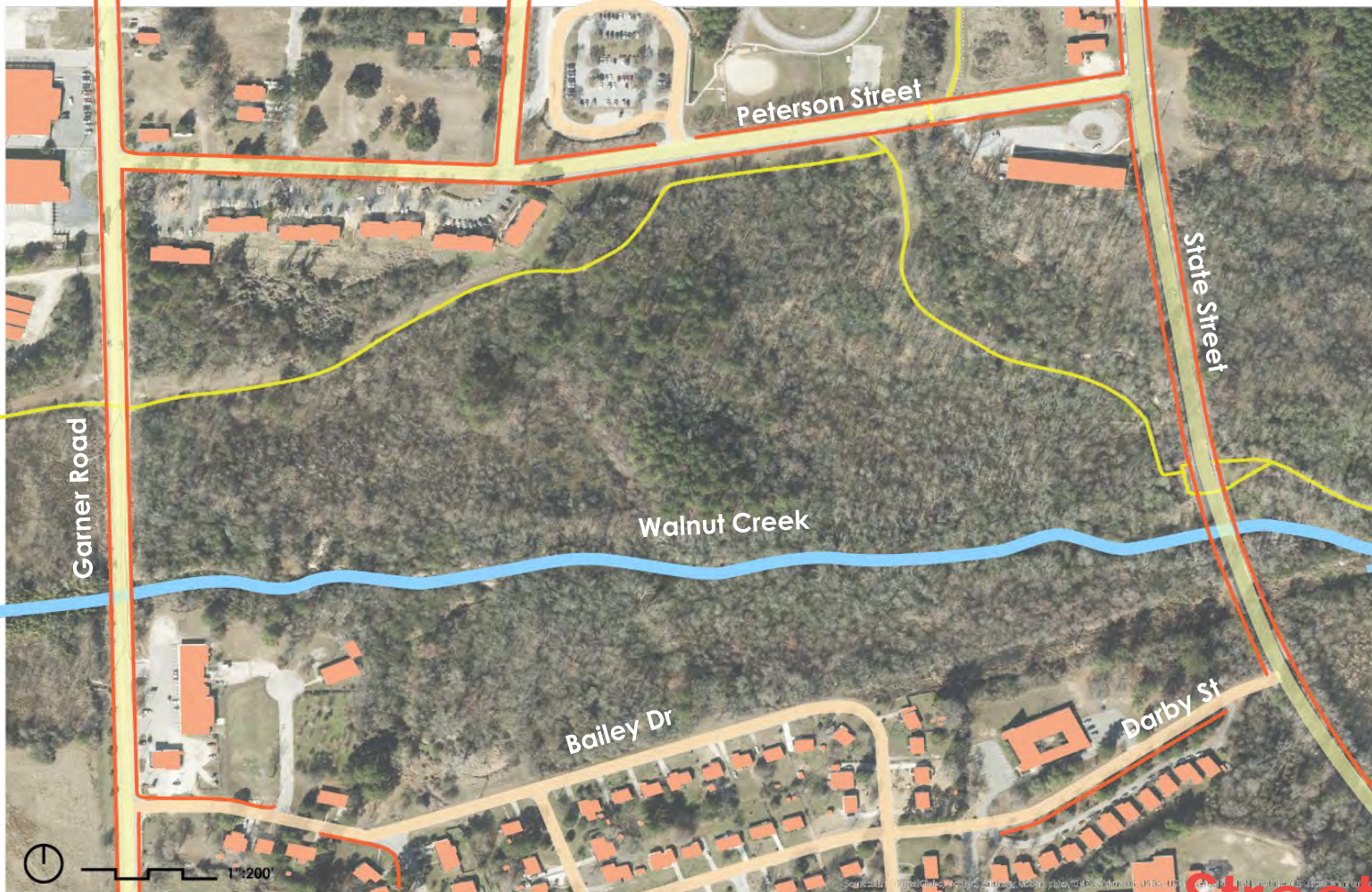
ECOLOGY



CONNECTION



AESTHETICS



- Trail
- walnut Creek
- Main Road
- Private Road
- Sidewalk

Street system

Existing condition



1 No sidewalk

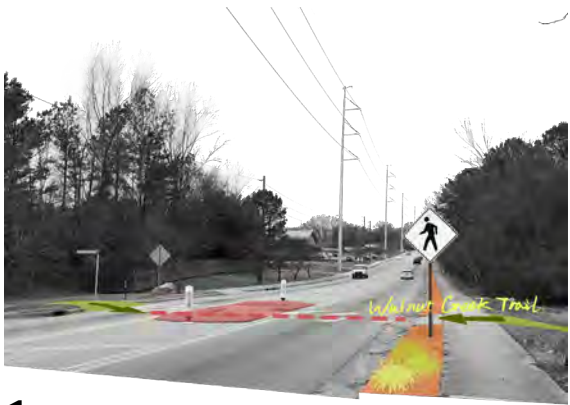


No sidewalk



Poor Quality

Existing condition



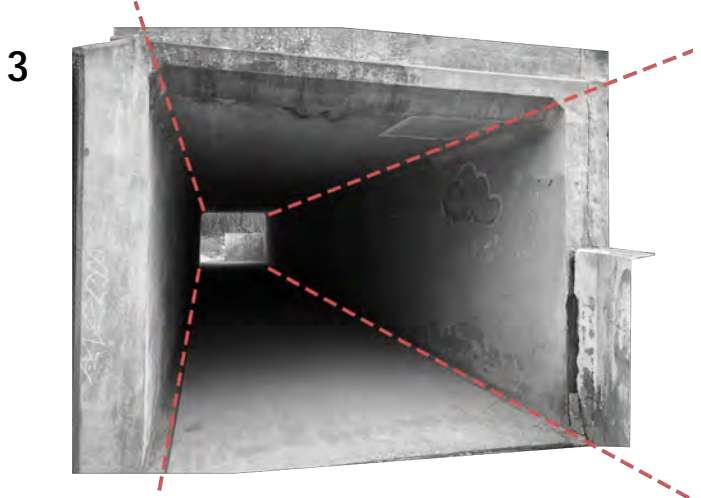
1 Poor Quality



2 No Connection

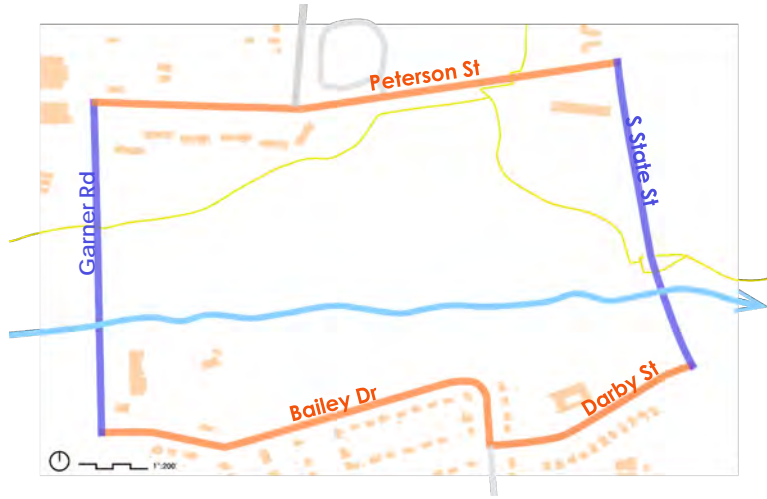




- No Sidewalk
- Poor Quality Sidewalk

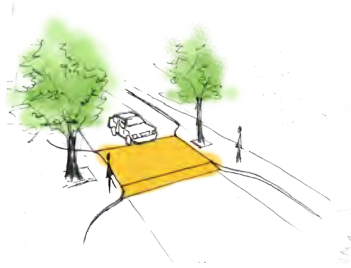
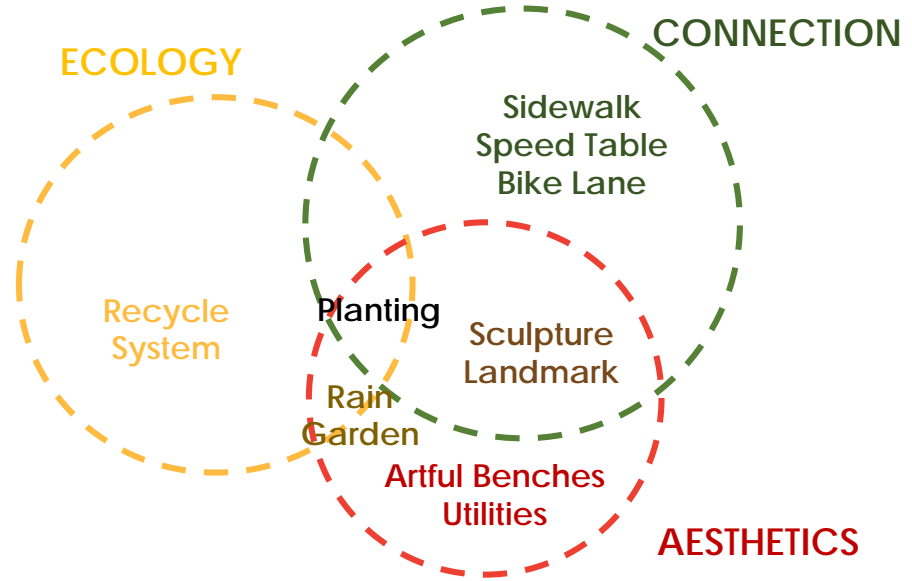


Safety

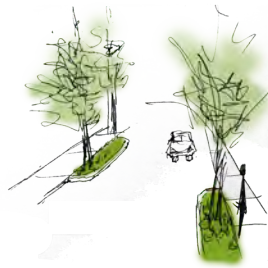
Design Concept



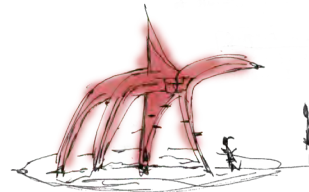
-  Improve Safety / Connection
-  Improve Aesthetic/ Connection



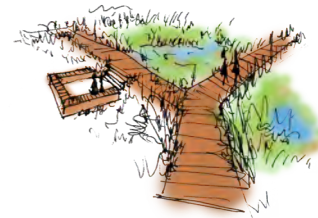
Speed Table



Planting Bed



Landmark



Broadwalk

Master Plan

Wetland Center

- Green wall
- Outdoor learning garden
- Rain garden
- Climbing wall
- Nature play

Sidewalk System

- Speed Table
- Planting bed
- bike lane
- Street Trees
- Landmark(wayfinding)



Master Plan



Carnage Middle School

Nature Play

Climbing Wall

Centre meadow

Little Rock Creek

Peterson Street

State Street

Wetland Center

Rain garden

Outdoor Learning Garden

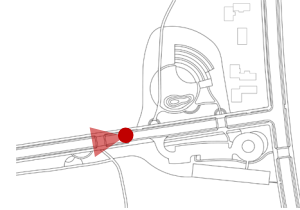
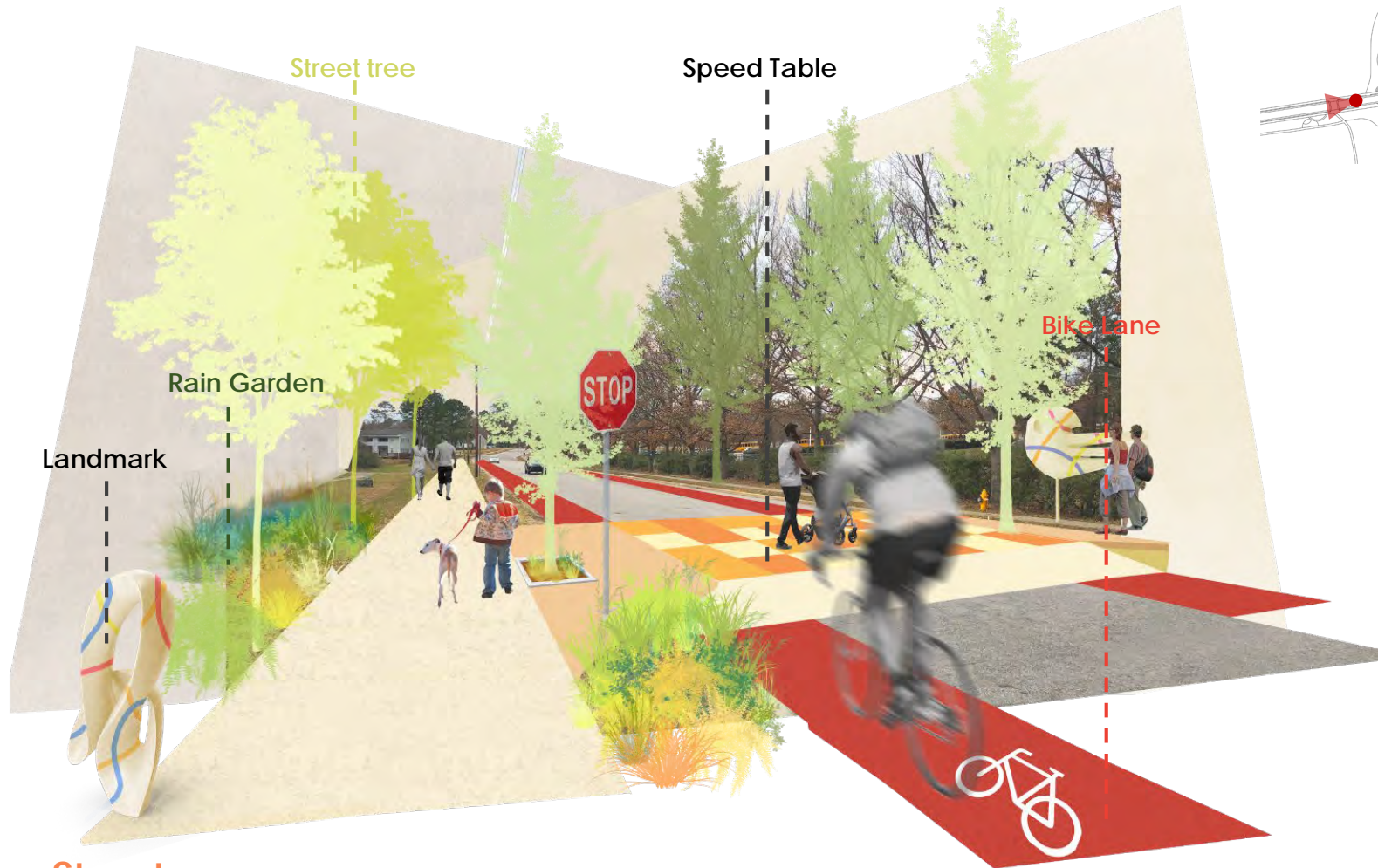
Playground

Bike Lane

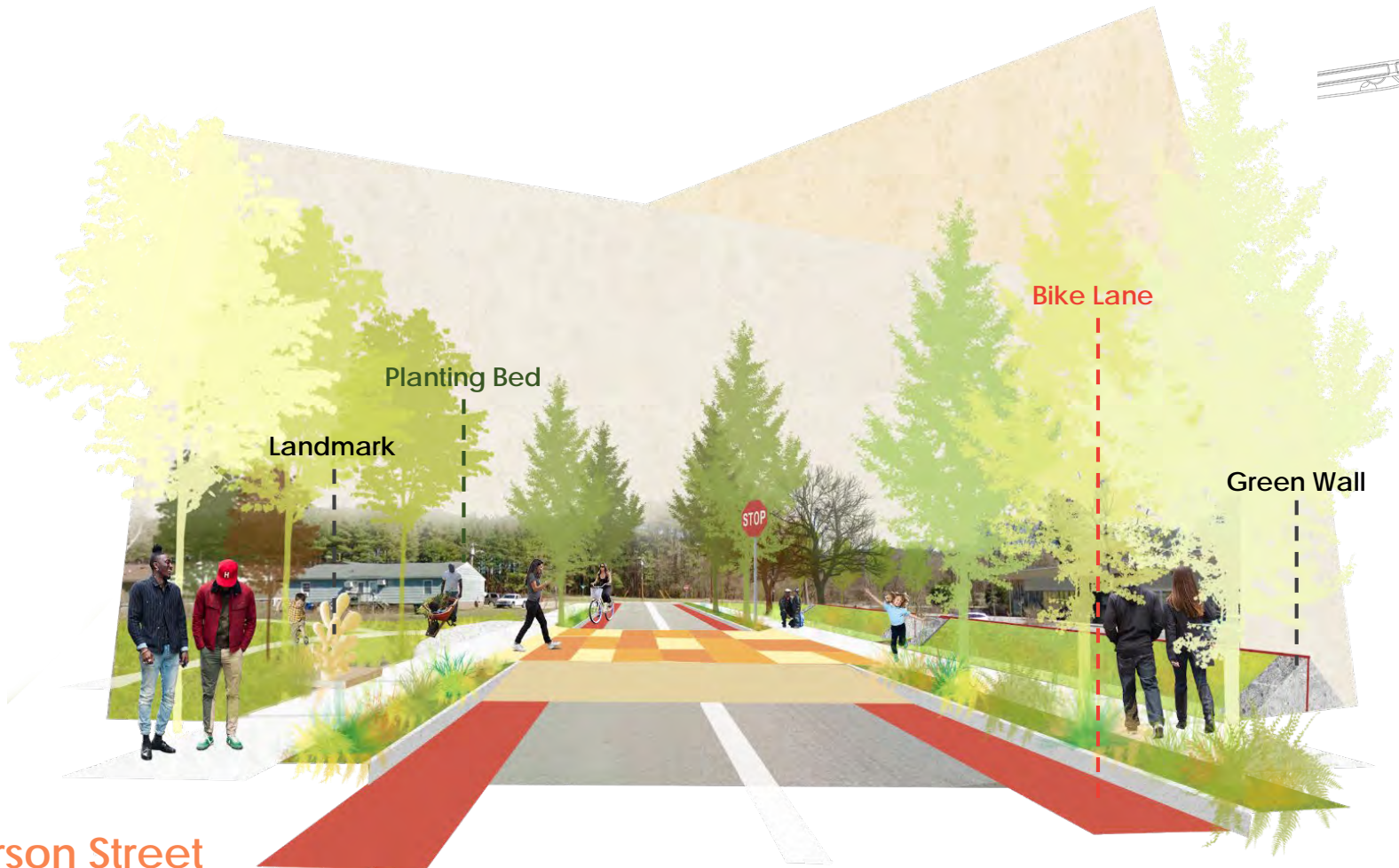
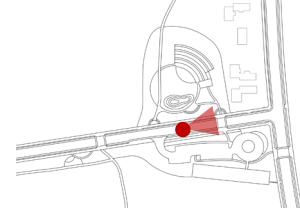
Native plants garden

Speed Table



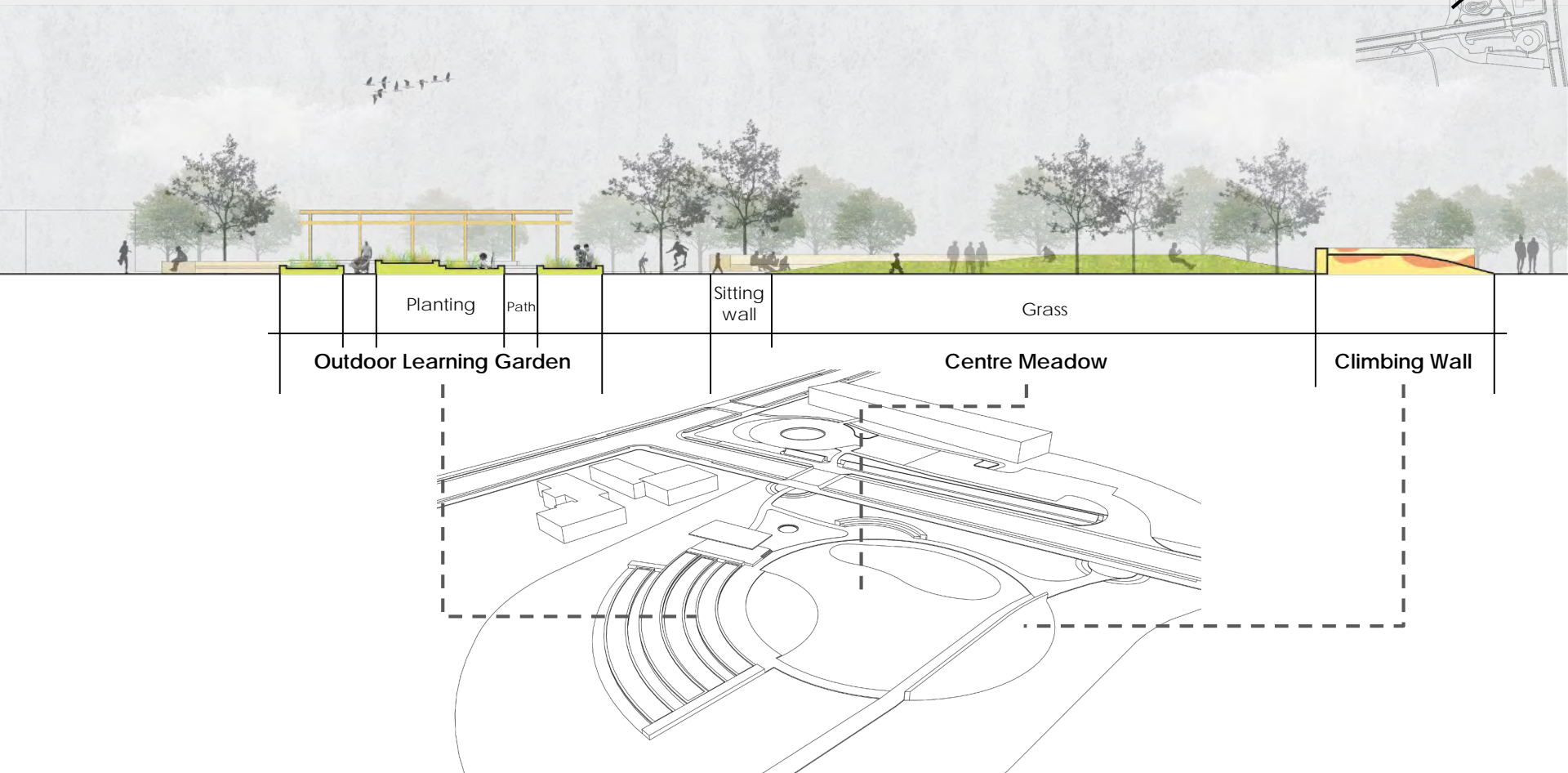


Peterson Street



Peterson Street

Wetland Education Garden



Planting

Path

Sitting wall

Grass

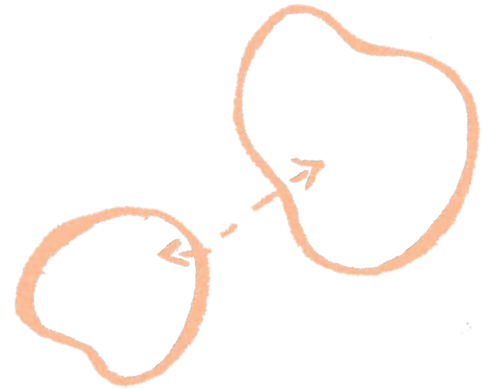
Outdoor Learning Garden

Centre Meadow

Climbing Wall



THANKS



The Community Park

Tong Zhang

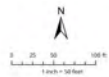
Context



Google



图像 © 2019 Google, 地图数据 © 2019 Google

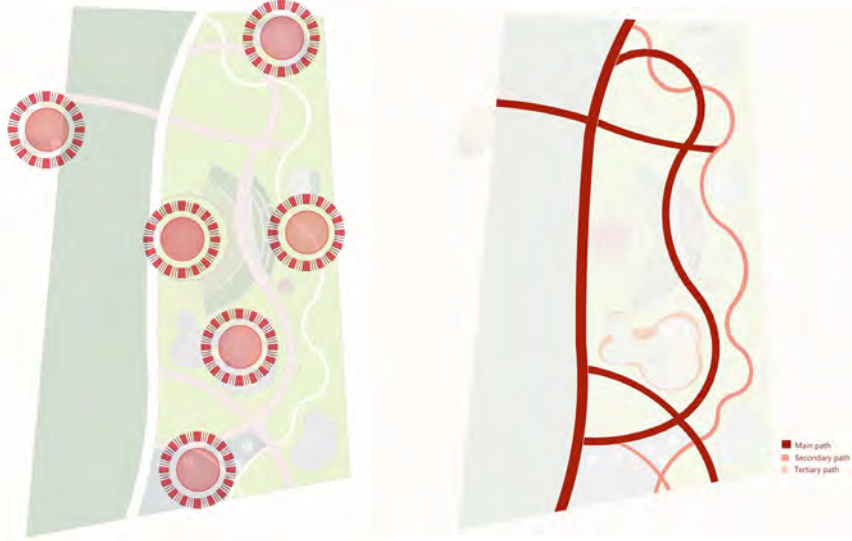


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Disclaimer: Google Maps users are offered to present and update the digital content and services. Information is provided for informational purposes only. The accuracy, completeness, and timeliness of the information is not guaranteed. The information is provided as is and is not intended to be used for any purpose other than that for which it is provided.

Master Plan



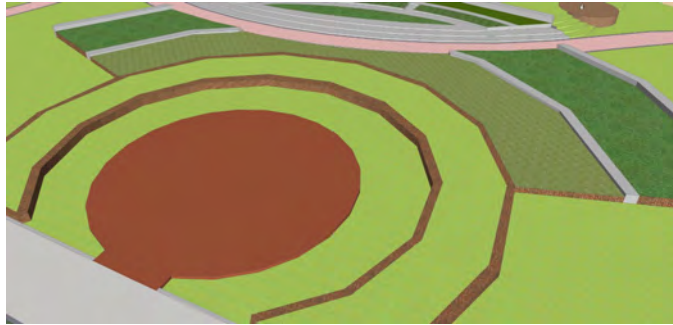
Master Plan



Section



SketchUp Model



Reference

Duke Garden at Duke University



Perspective





Perspective



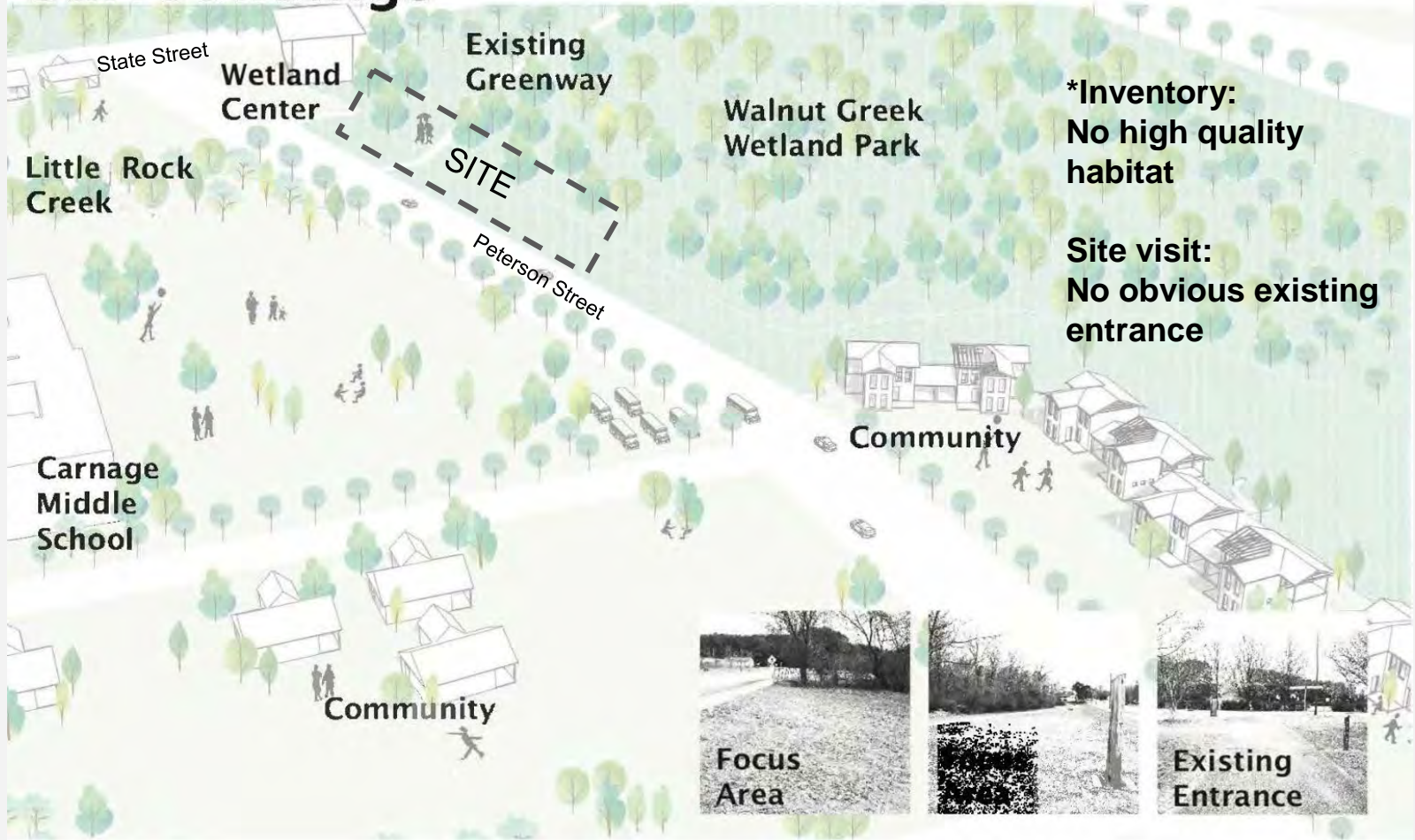
Thanks for watching!

Hear the Voice

Entrance design for Walnut Creek Wetland Park

LAR 502.002 Kofi Boone
Qixuan Zhuang(Urey)

Surroundings

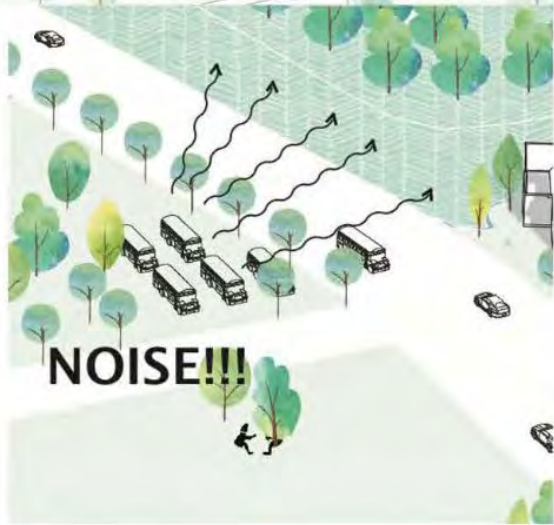


***Inventory:**
No high quality habitat

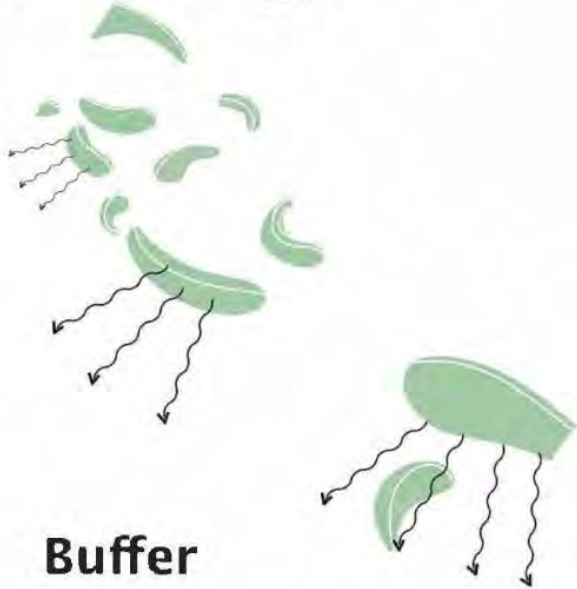
Site visit:
No obvious existing entrance



Existing Issue



Strategy



Buffer

Prevent the noise



Outdoor Activity

Educational purpose
eg: ADELAIDE ZOO



Circulation

Guide more people

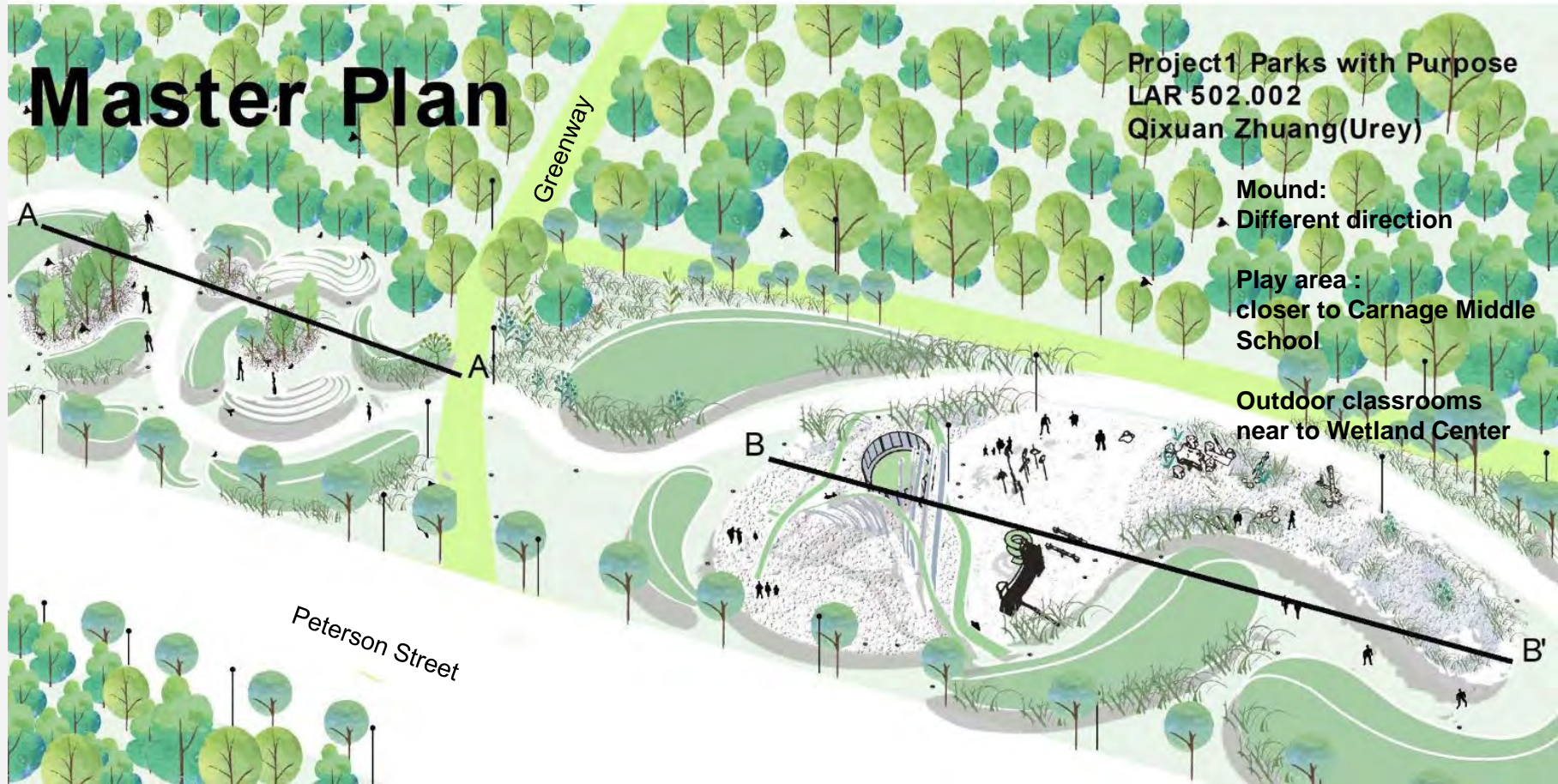
Master Plan

Project1 Parks with Purpose
LAR 502.002
Qixuan Zhuang(Urey)

Mound:
▶ Different direction

Play area :
closer to Carnage Middle
School

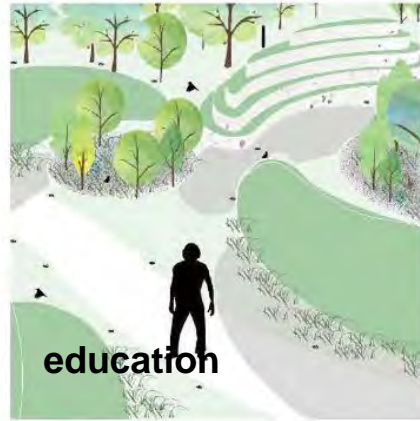
Outdoor classrooms
near to Wetland Center



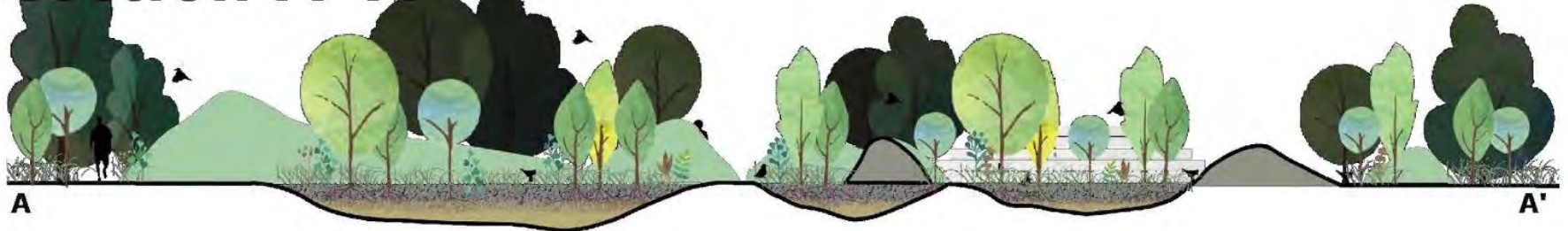
Outdoor classroom



open



Section A- A'



Perspective



Hard surface
Stone

Protect
pollution

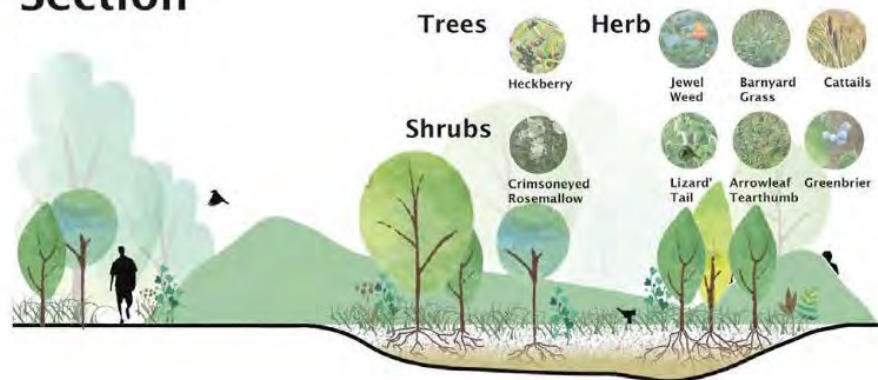
Soft surface
Stone

Protect
pollution

Tree with
flowers and
fruit.

Attract birds

Section



Garner Road Connection

Walnut Creek Wetlands

Alex Walters



Areas of Improvement





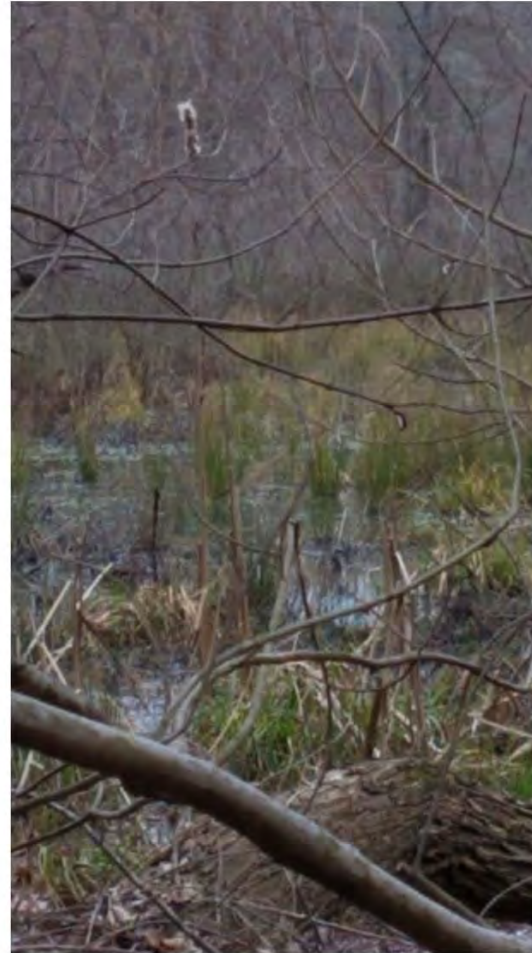
Infrastructure



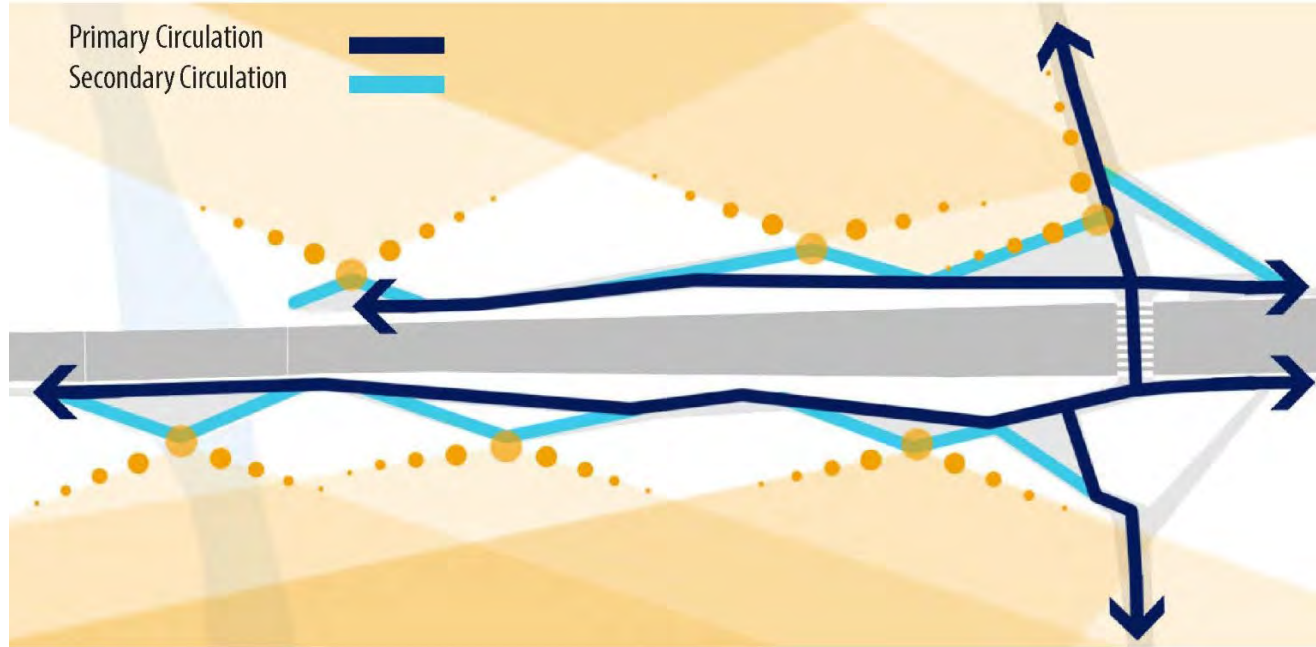




Greenway Awareness



Circulation and Viewshed



Information
Maze

Terraced
Stormwater
Planters

Elevated
Boardwalk

Stormwater
Planters

Immersed
Overlook

Exercise
Stations

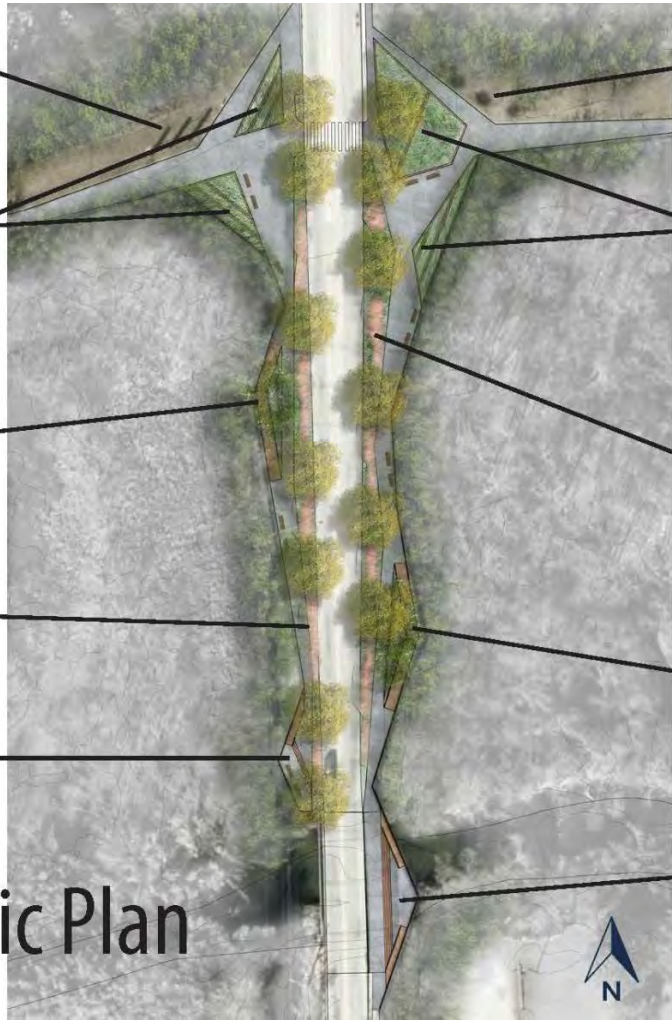
Terraced
Stormwater
Planters

Stormwater
Planters

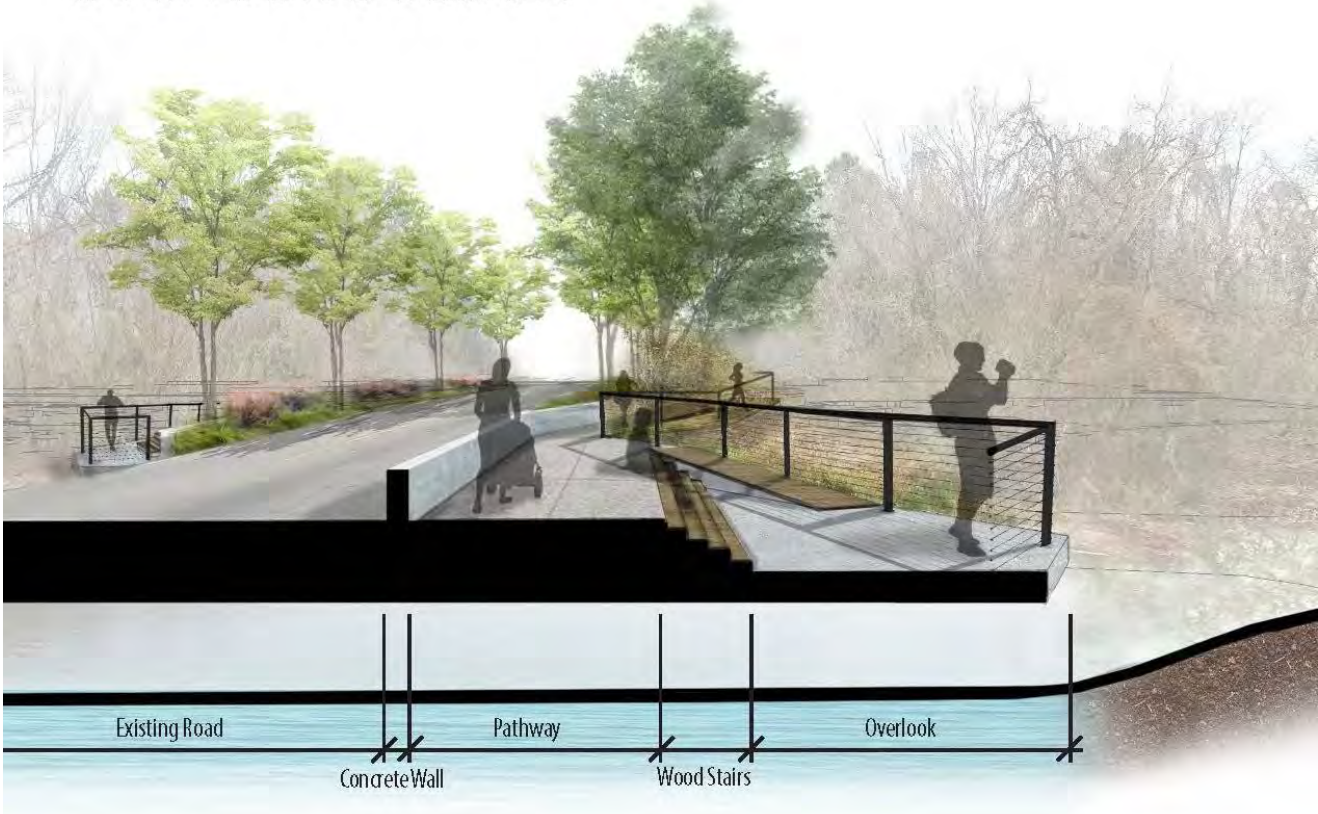
Elevated
Boardwalk

Immersed
Overlook

Schematic Plan



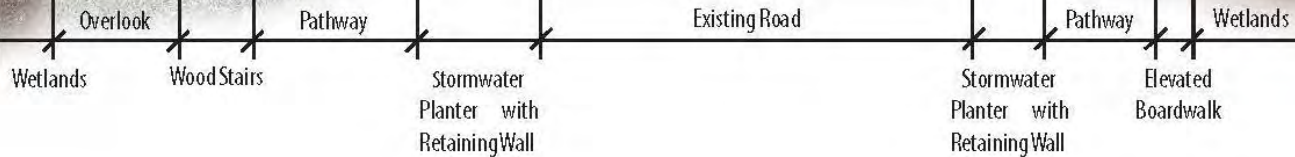
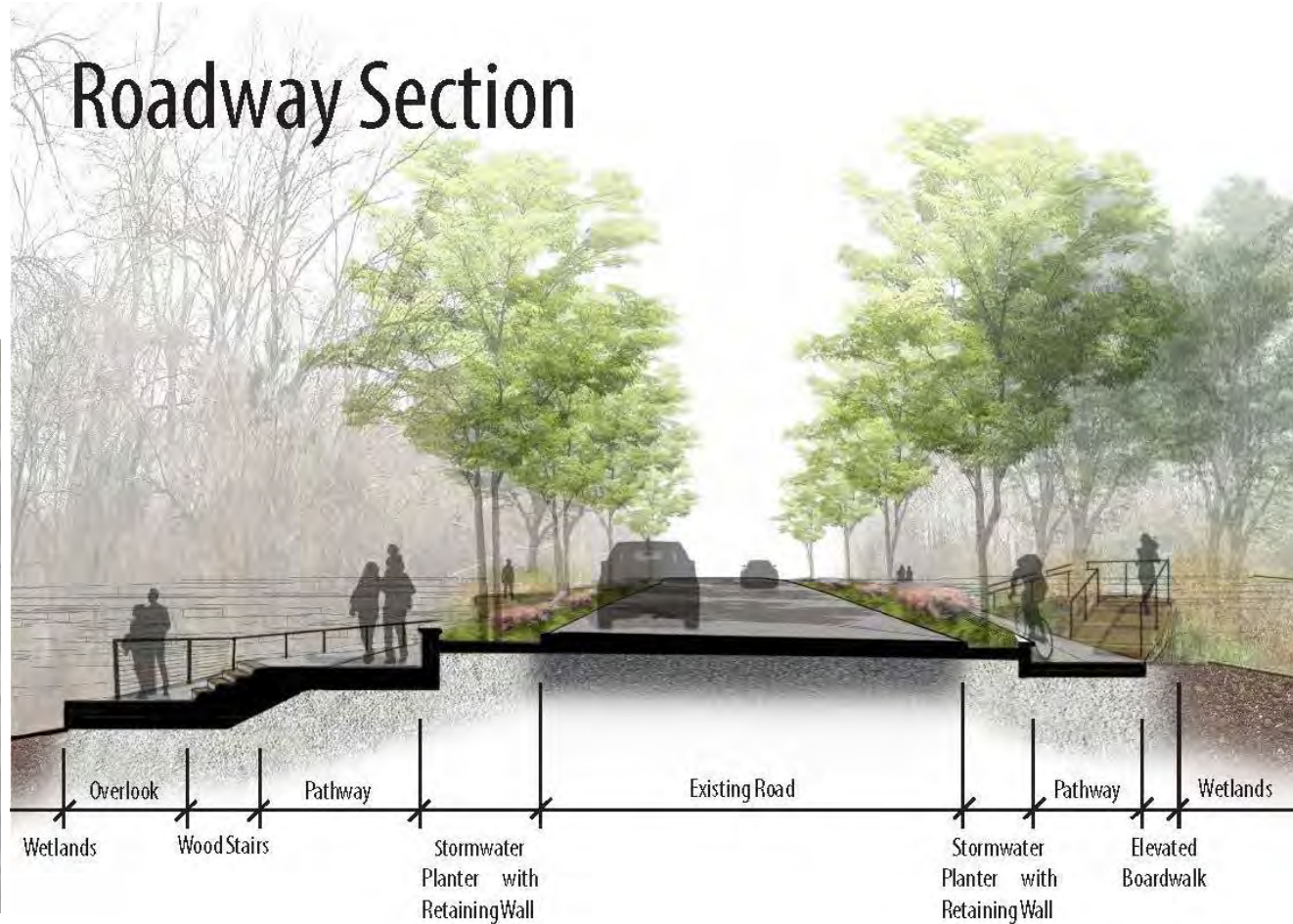
Overlook Section



Terraced Garden Path Section



Roadway Section





Greenway Entrance

Thank You

Creating Connections to the Walnut Creek Wetlands

Hunter Williams

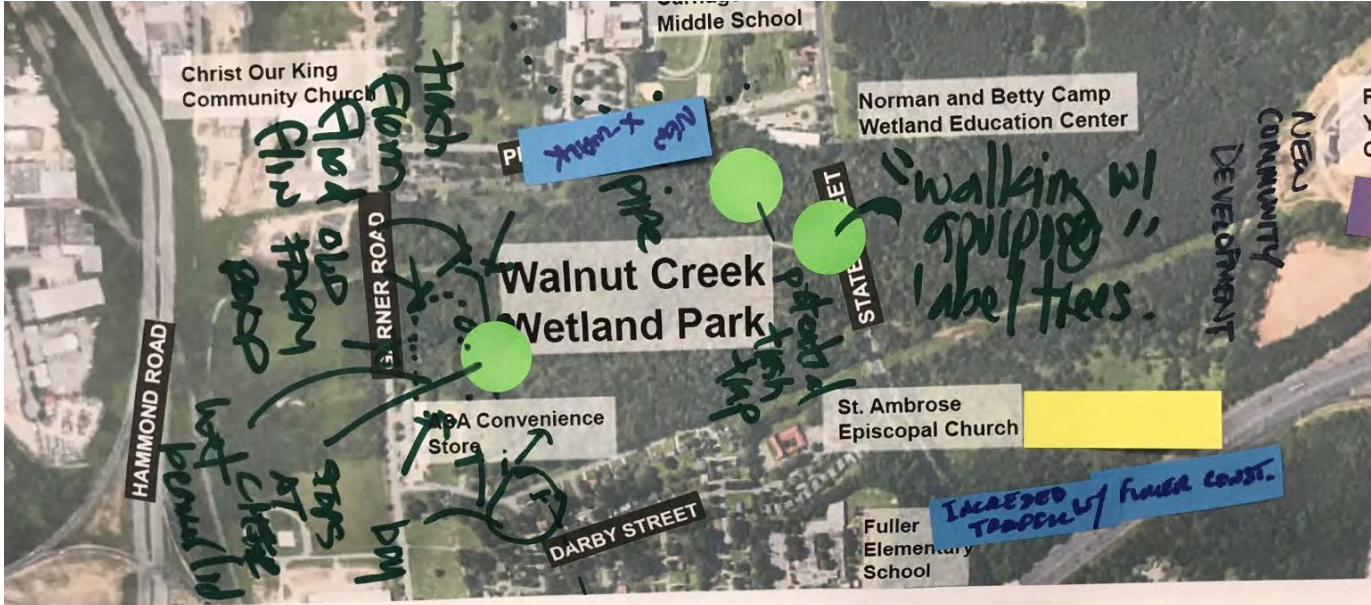
The Problem

Dumping and
Invasive Plants

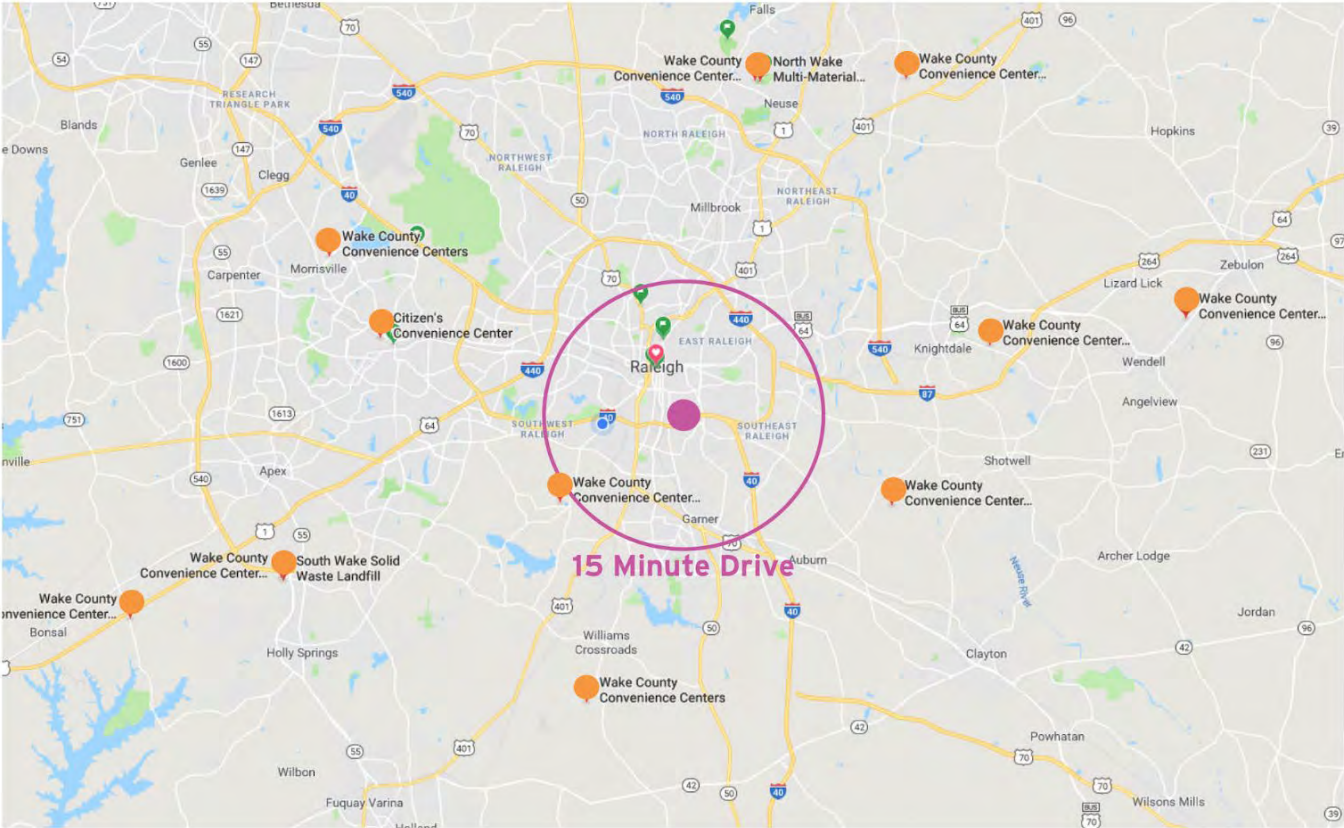


Lack of Connections
and Programming





Lack of Access to Convenience Centers



The Solution

UPCYCLING PARK

UpCycling:

Reusing products in ways to create a product of higher value

How the Center Will Work:

1. **Drop off** recyclable goods.
2. **Organize** dropped-off goods and assist at **volunteer** events.
3. Use recycled goods to **create** pieces of art, projects, inventions, etc.

UPCYCLING MARKET

UpCycled creations can be sold at markets or online stores, generating income for participants and the community.

UPCYCLING SUSTAINER

The Center can be supported by Sustainers who give monetary funds to support maintenance, events, etc.

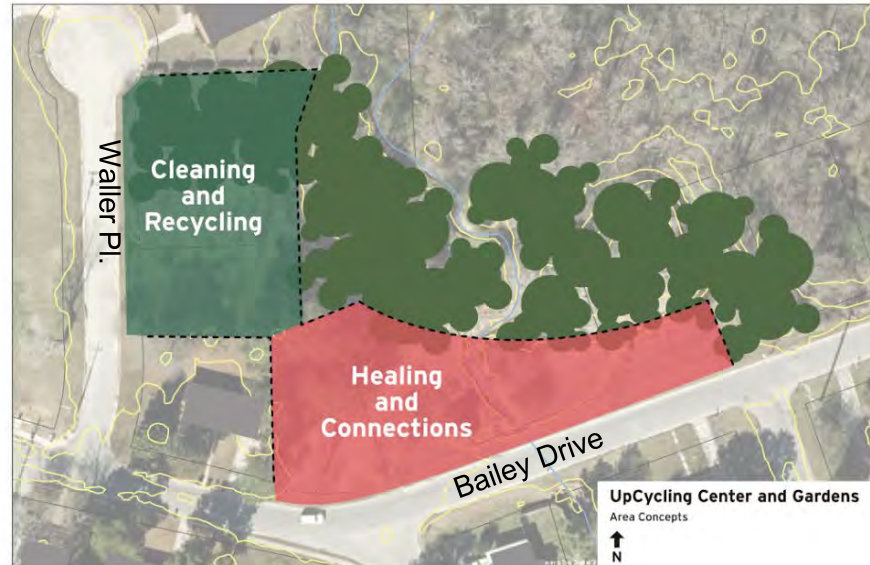
UPCYCLING VOLUNTEER

Volunteers can assist with sorting and organizing recycled materials dropped off at the Center and help with programming.

UPCYCLING SEMINARS

Seminars offer local residents, students, etc the opportunity to learn new skills and information from professionals.

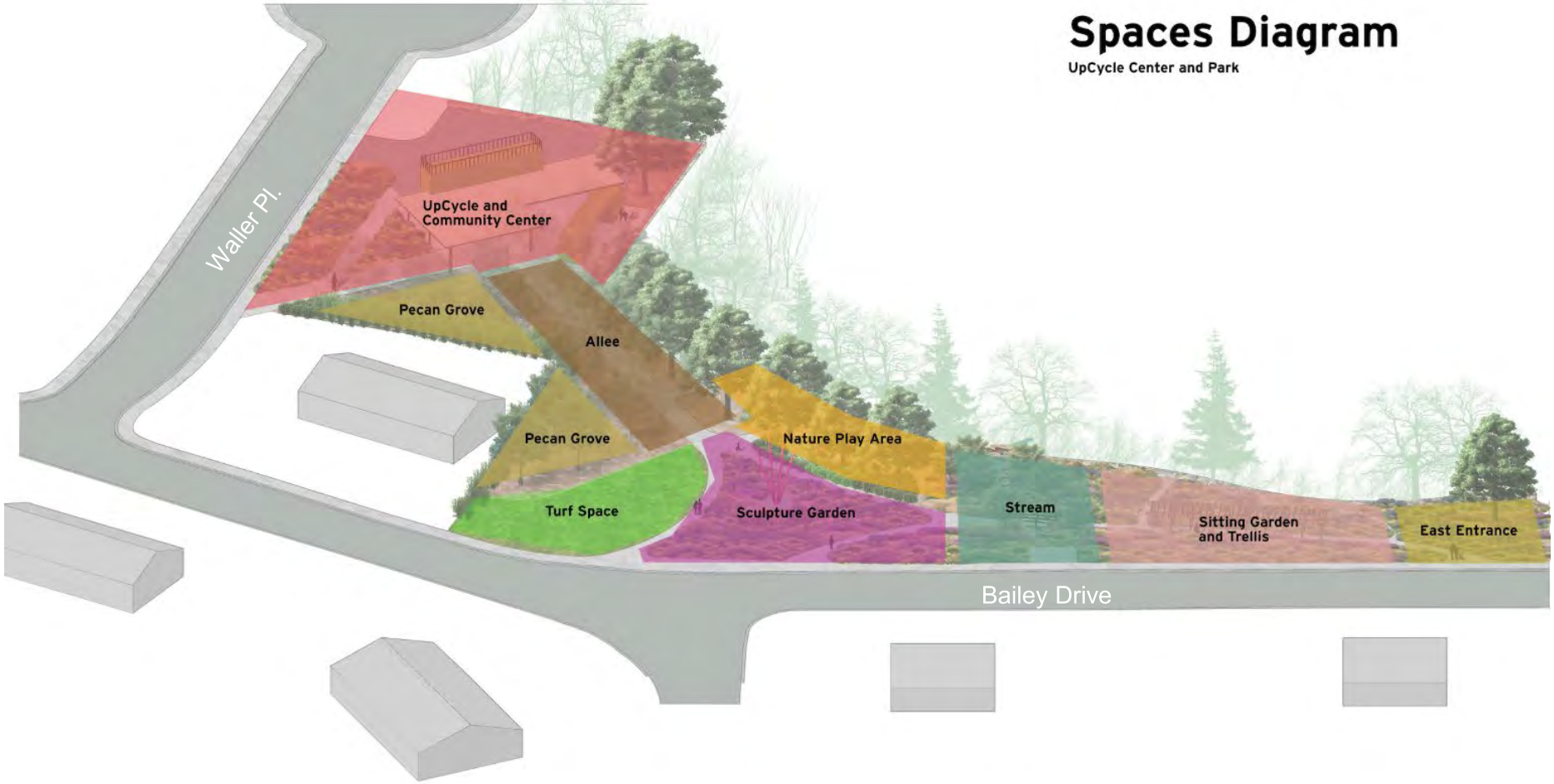
Site Selection and Concepts





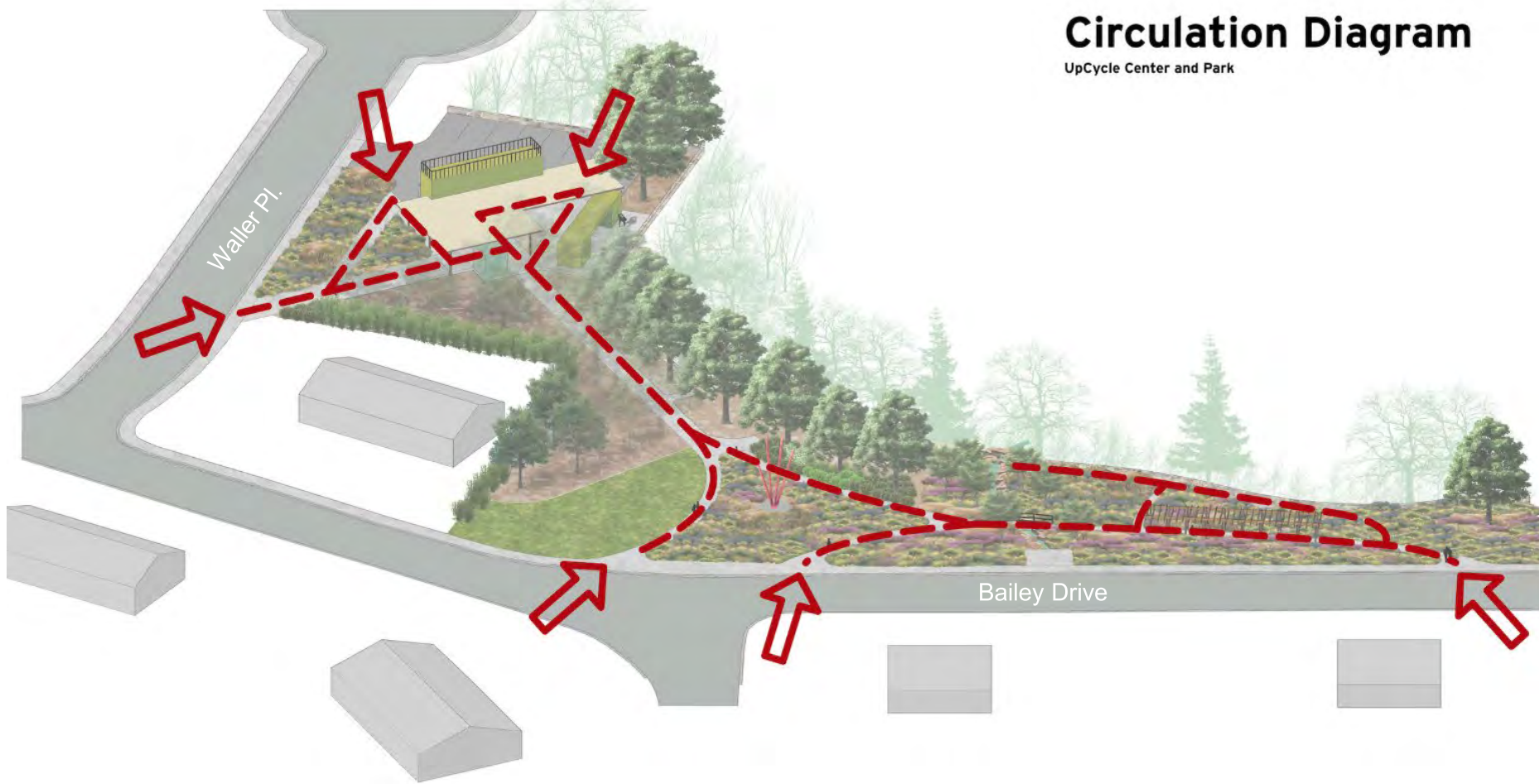
Spaces Diagram

UpCycle Center and Park



Circulation Diagram


UpCycle Center and Park




Design Components

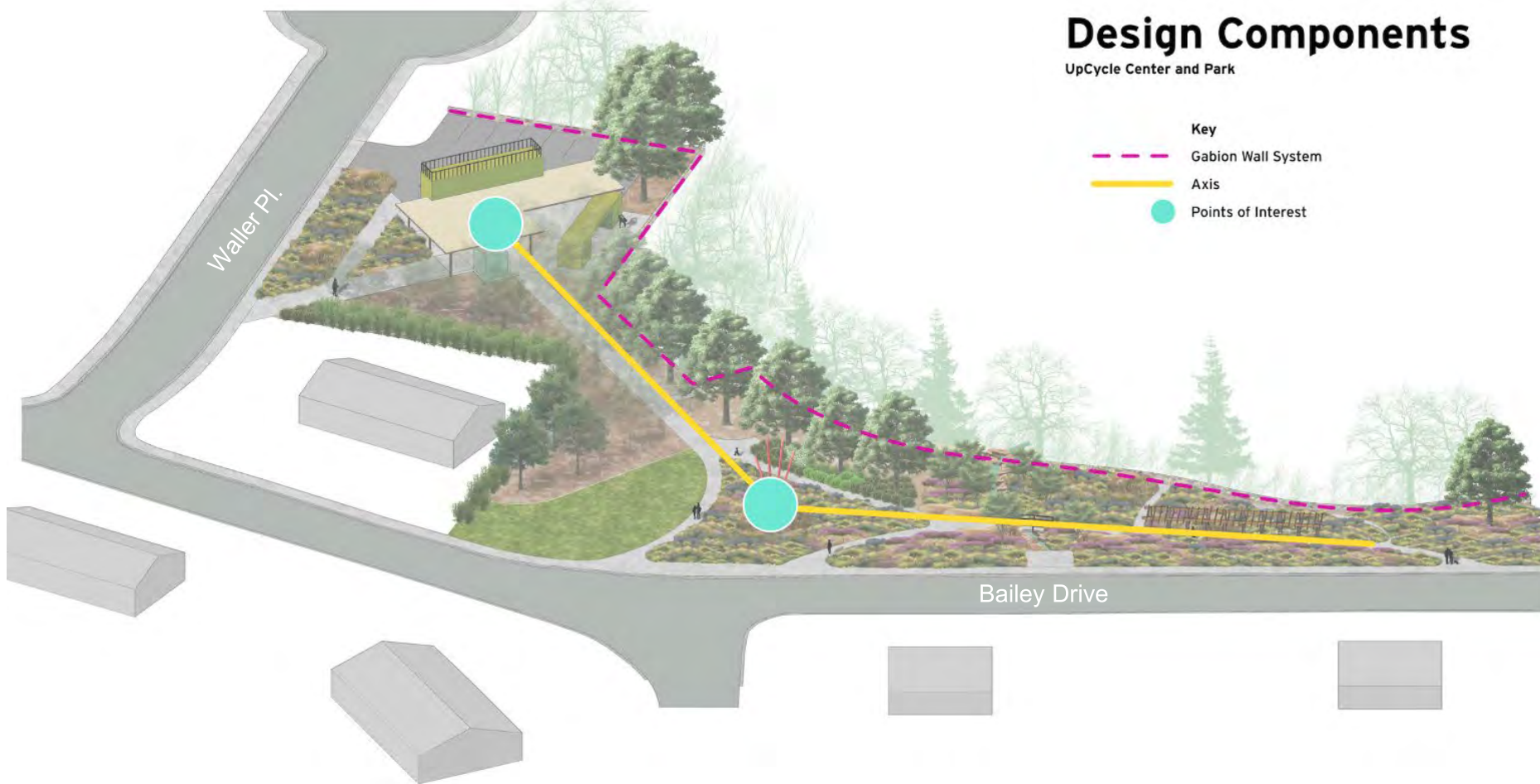
UpCycle Center and Park

Key

 Gabion Wall System

 Axis

 Points of Interest





UpCycling Center

Tree-lined Path

Nature Play Area

Sculpture Mound

Sidewalk

UpCycling Center and Park

North East Facing

Scale: 1:20





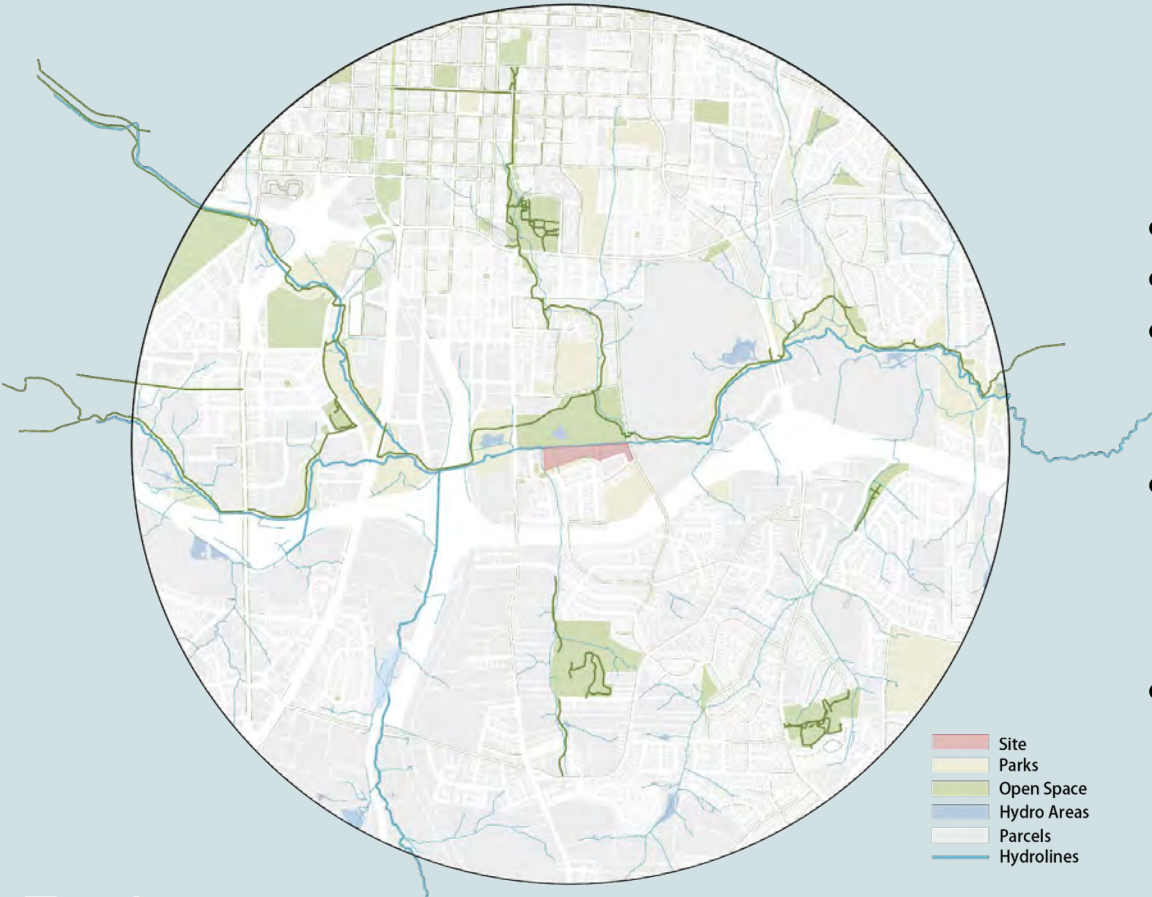
Close to the Wetland

Wetland Activity Space Design

LAR 502.002 LA Studio

Xinyi Liu (Sylvia)

CONTEXT MAP

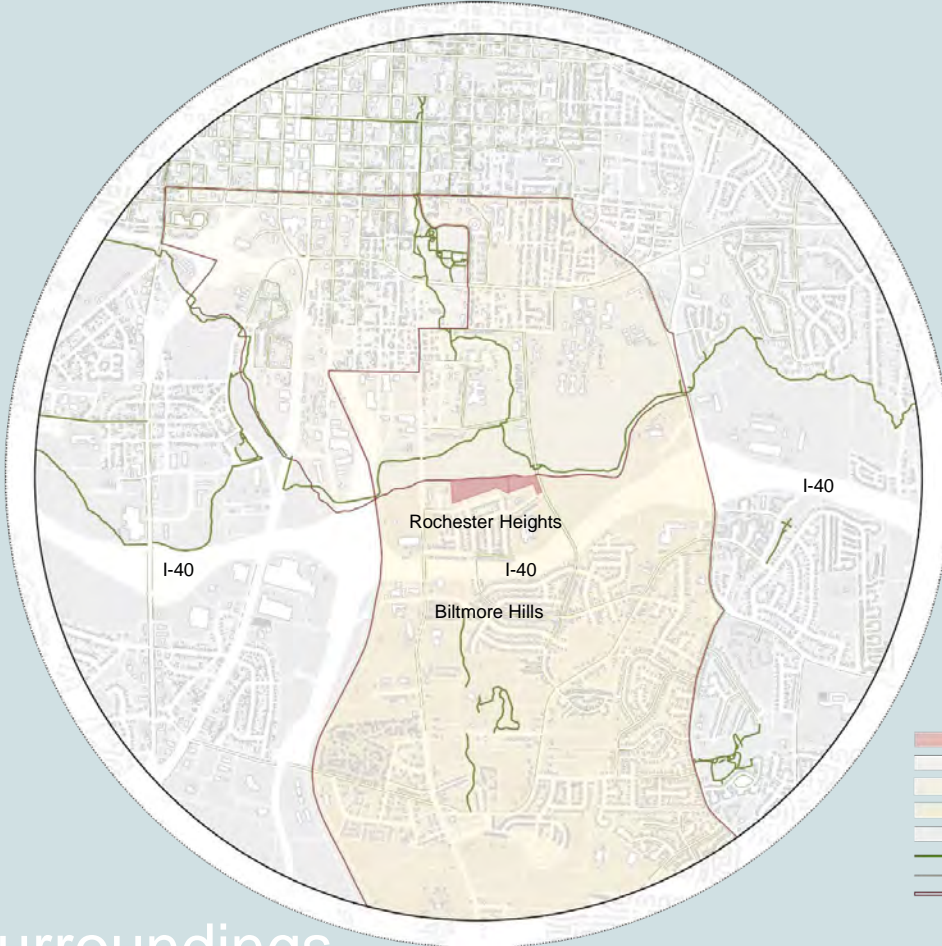


- Site
- Parks
- Open Space
- Hydro Areas
- Parcels
- Hydrolines

- Southeast of Downtown Raleigh
- South of the Walnut Creek
- Along Rochester Heights Edge and Connected to State Street
- Parks and Open Space: FRAGMENTATION
- SITE: Centralized Green Space

Environment

CONTEXT MAP



- Cannage Middle School
- Walnut Creek Wetland Park Center
- Cypress Marsh
- Church Southeast Swamp
- St Ambrose Episcopal Church
- Fuller Elementary School

- Site
- Census Block
- Census Block 508
- Census Block 521.01
- Parcels
- Greenways
- Sidewalks
- Blocks Outlines

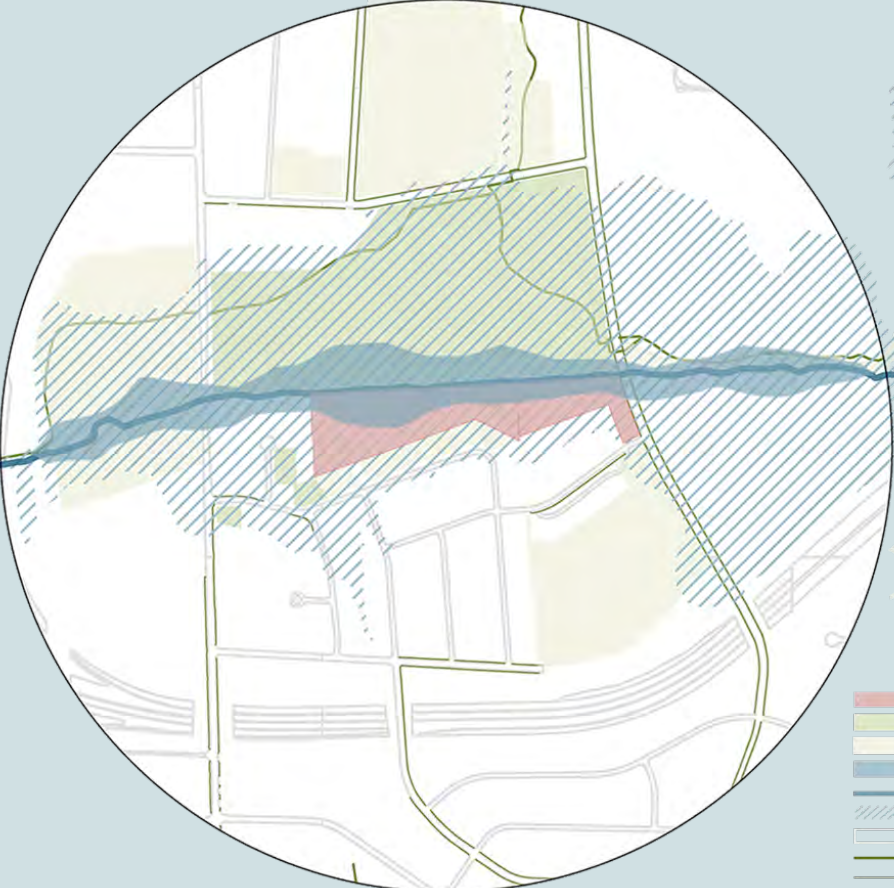
Wetland: Ecological Benefits
Communities, Schools and Churches

Major Population:
Age: 18-64
Householder: Married Couples

Outdoor Activity Space

Surroundings

CONTEXT MAP



Hurricane Fran, 1996

Hurricane Florence and Tropical Storm Michael, 2018

Measures to Deal With the Flood

- Site
- Parks
- Open Space
- Floodway
- Walnut Creek
- 0.2% or 1% Chance Floodplain
- Roads & Streets
- Greenways
- Sidewalks

Floodplains

GOALS

- Support current residents and reduce displacement
- Intergenerational engagement
- Community programs and festival
- Neighborhood access to Walnut Creek and Wetland Park
- Improved stream banks and reduced flooding
- More resilient and healthy community

**Serve the Communities
and Schools**



**Have some effect on the
Ecological Management**

DESIGN STRATEGY

ACTIVITY SPACE

&

STORMWATER
MANAGEMENT

ACTIVITY SPACE

Boardwalks and platforms along Rochester Heights edge, connects to State Street:

Outdoor gathering and exercise space.
Educational programs.
People have access to wetlands and nature.

Boardwalks:
About 2000 feet in length
8 feet in width



Walnut Creek

State Street

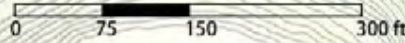
Bailey Dr

Baоз Rd

Rochester Heights

St Ambrose Episcopal Church
Parking Lot

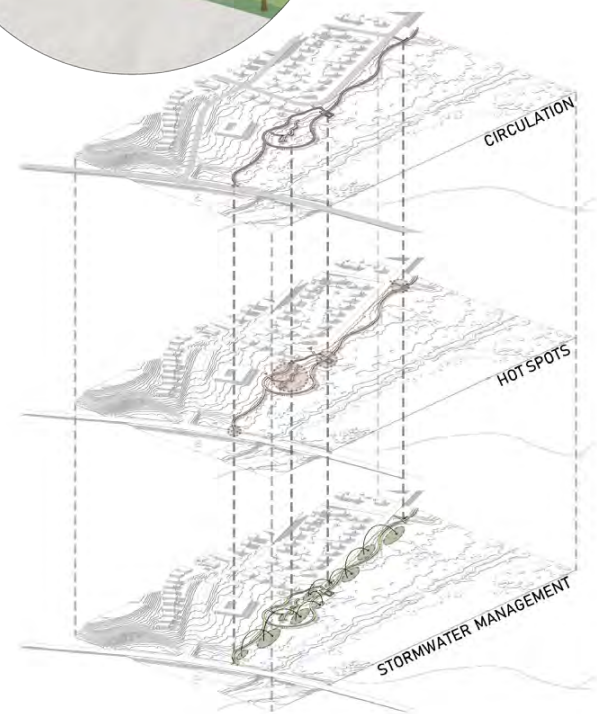
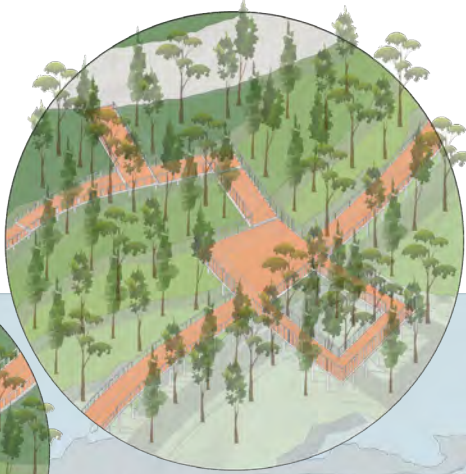
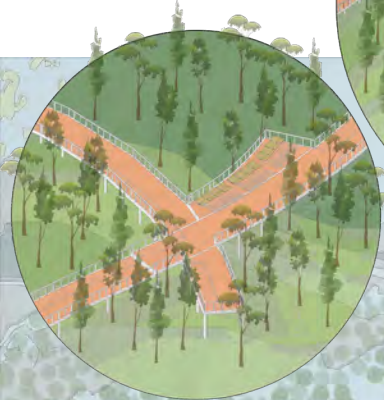
Parking Lot



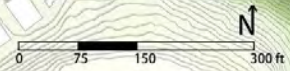
Four Entrances

Four Platforms

ACTIVITY SPACE



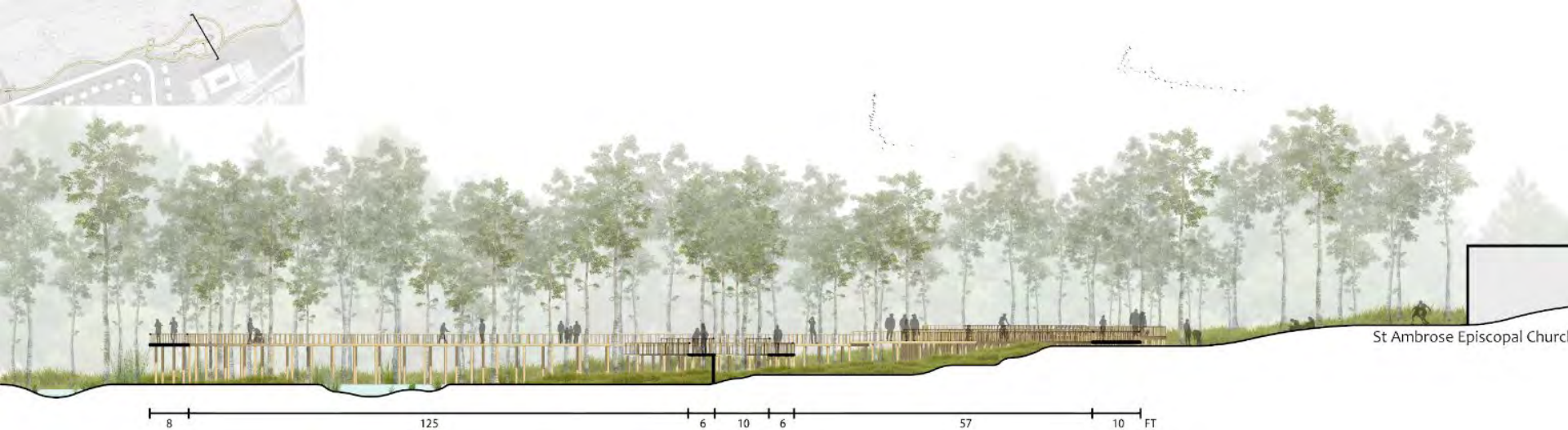
Master Plan



ACTIVITY SPACE SECTION

General Lowing Contours and the Extension of Boardwalks and Platform

Scenery Changes:
Open to Closed
Dry Grassland to Wetland



St Ambrose Episcopal Church

Platform: Major Gathering and Distributing Area

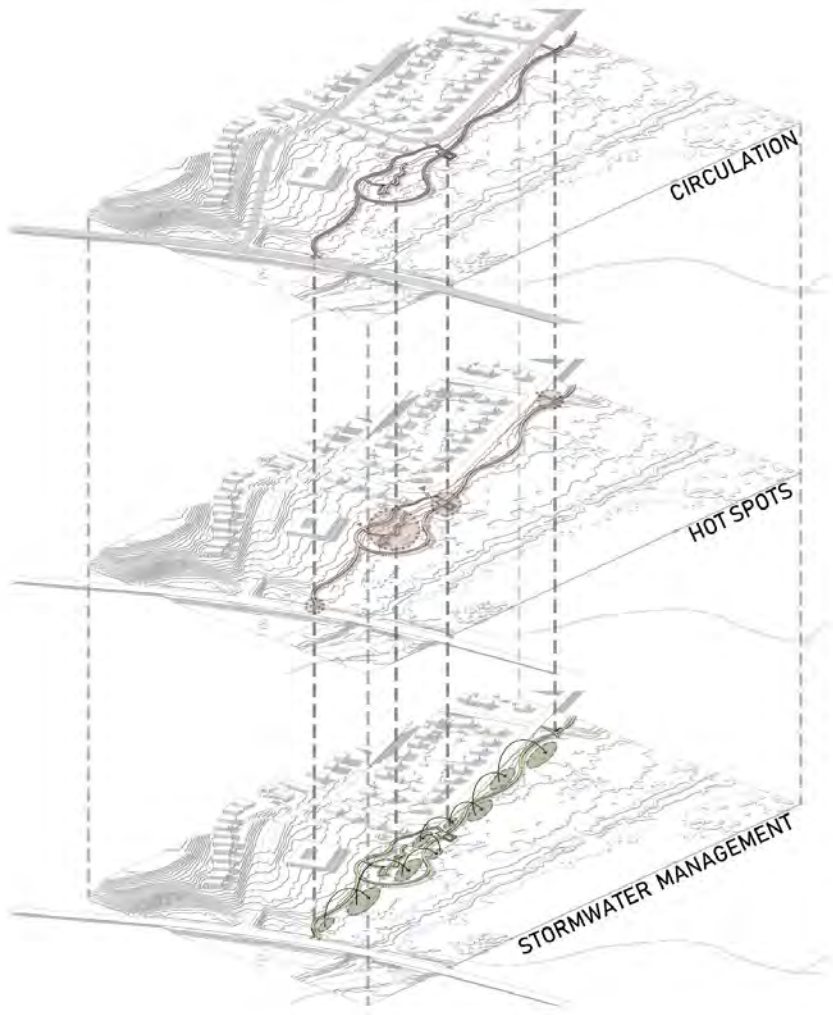
A Circular Boardwalk that Goes Deep into the Wetland Forest

Be Close to the Wetland



ACTIVITY SPACE PERSPECTIVE





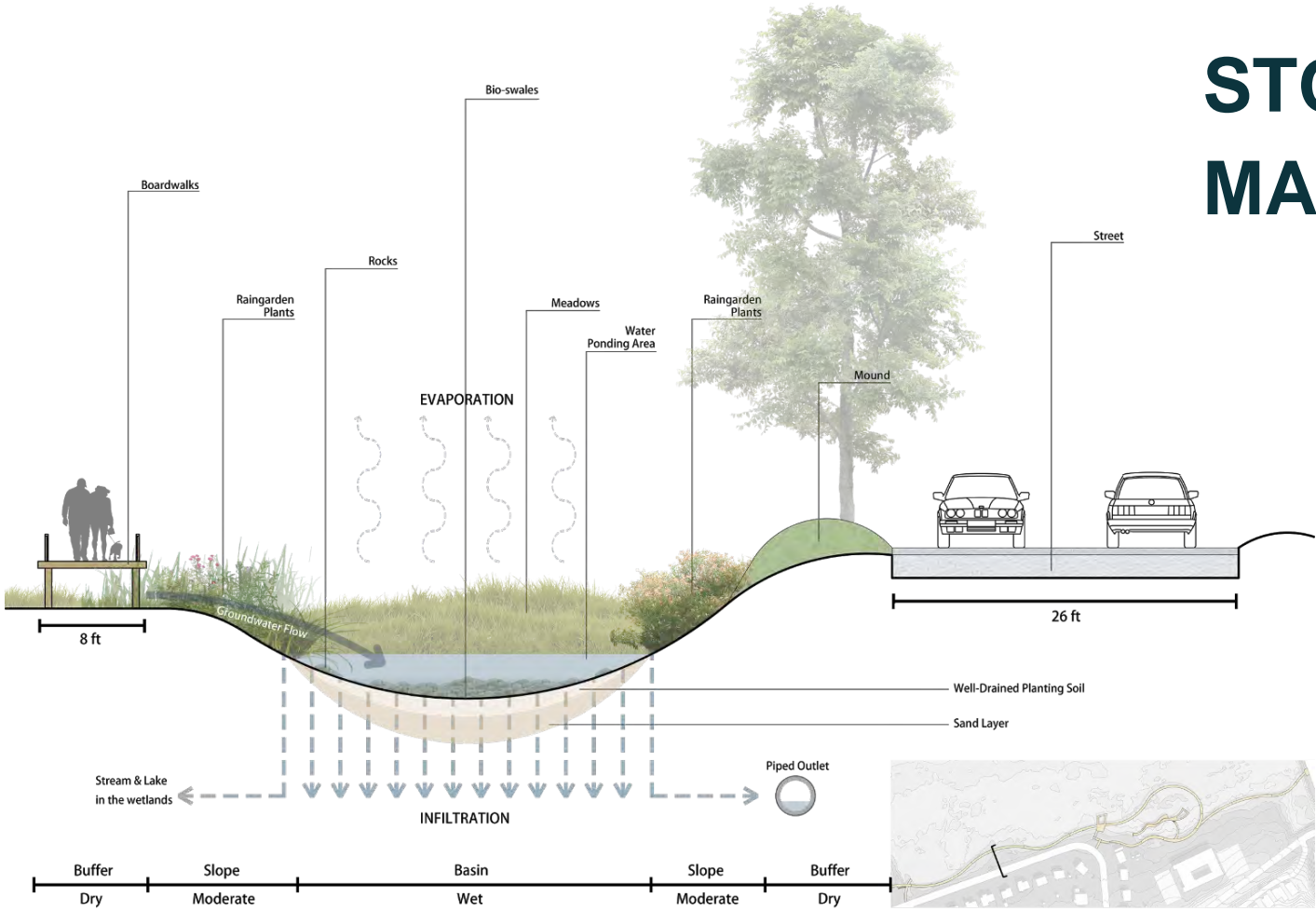
STORMWATER MANAGEMENT

BIOSWALES



RETENTION BASINS

STORMWATER MANAGEMENT



Bioswales:
 Shallow
 Covered with Vegetation

Guide Runoff
 Slow the Flow
 Reduce the Pollution

Retention Basins:
 Low-lying
 Layers: rock, sand, soil
 Rainwater Garden Plants

Collect Runoff
 Infiltration
 Go into Pipes
 Remove the Pollution

THANK YOU



COMMUNICATION

WALNUT CREEK

SAVE THE CREEK

Parks with Purpose

Shuang Wu

WETLAND

SUSTAINABLE

Site Photos



POLLUTION



DUMPING



SIDEWALK?



Carnage
Middle
School



Greenway

Walnut Creek Wetland Park

State Street

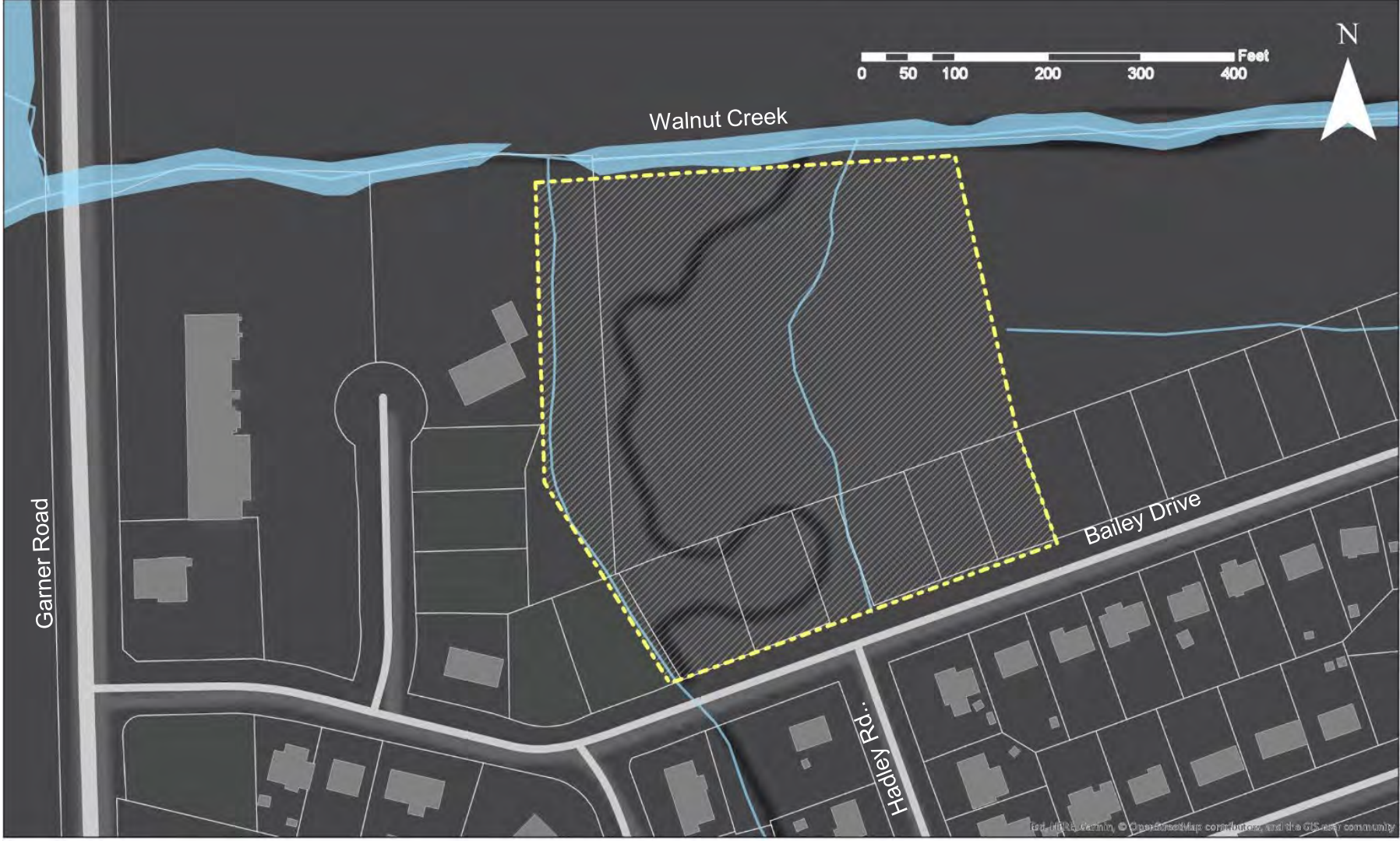
Garner Road

Walnut Creek

Bailey Drive

Haley Rd.

Fuller
Elementary



Walnut Creek

Garner Road

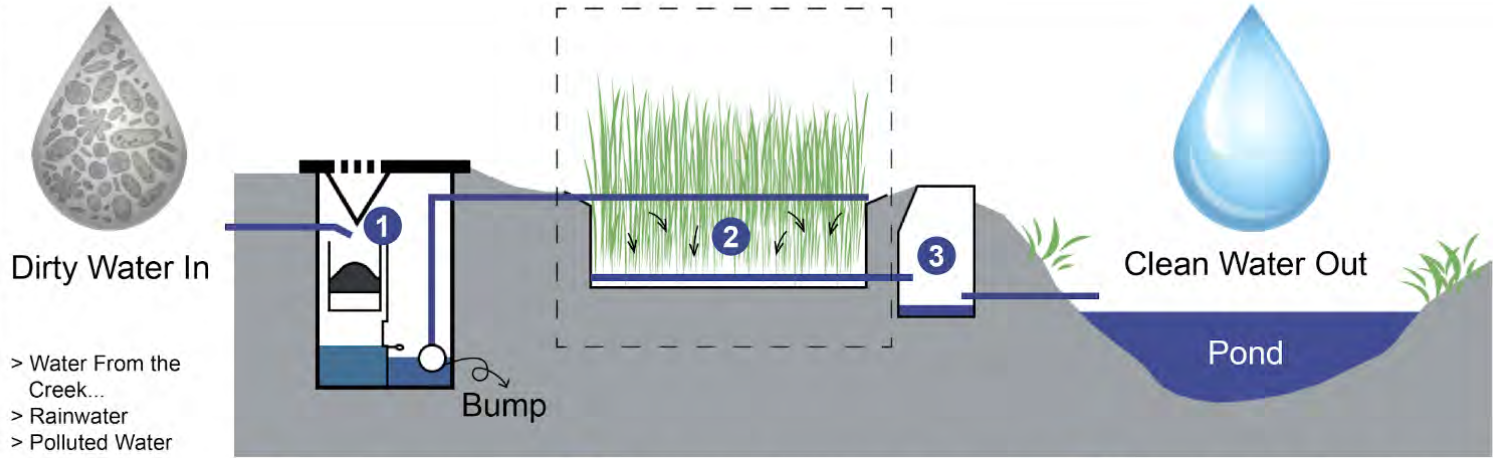
Bailey Drive

Halley Rd...

0 50 100 200 300 400 Feet



Water Quality

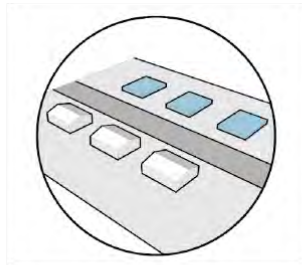


1 Pre Treatment

2 Wetland (Reed Bed Filter)

3 Control Box (Distribution)

+



"Historical Building"

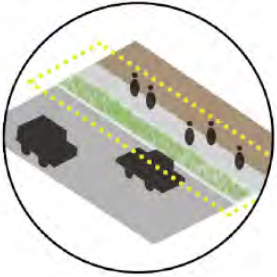


Education



Nature Playground

Safety



Sidewalks



Lights



From



Solar PV System

Communication Hub for Residents

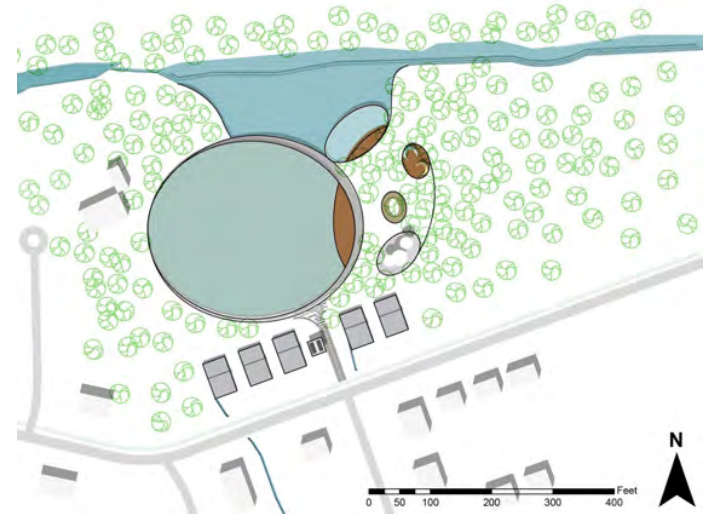
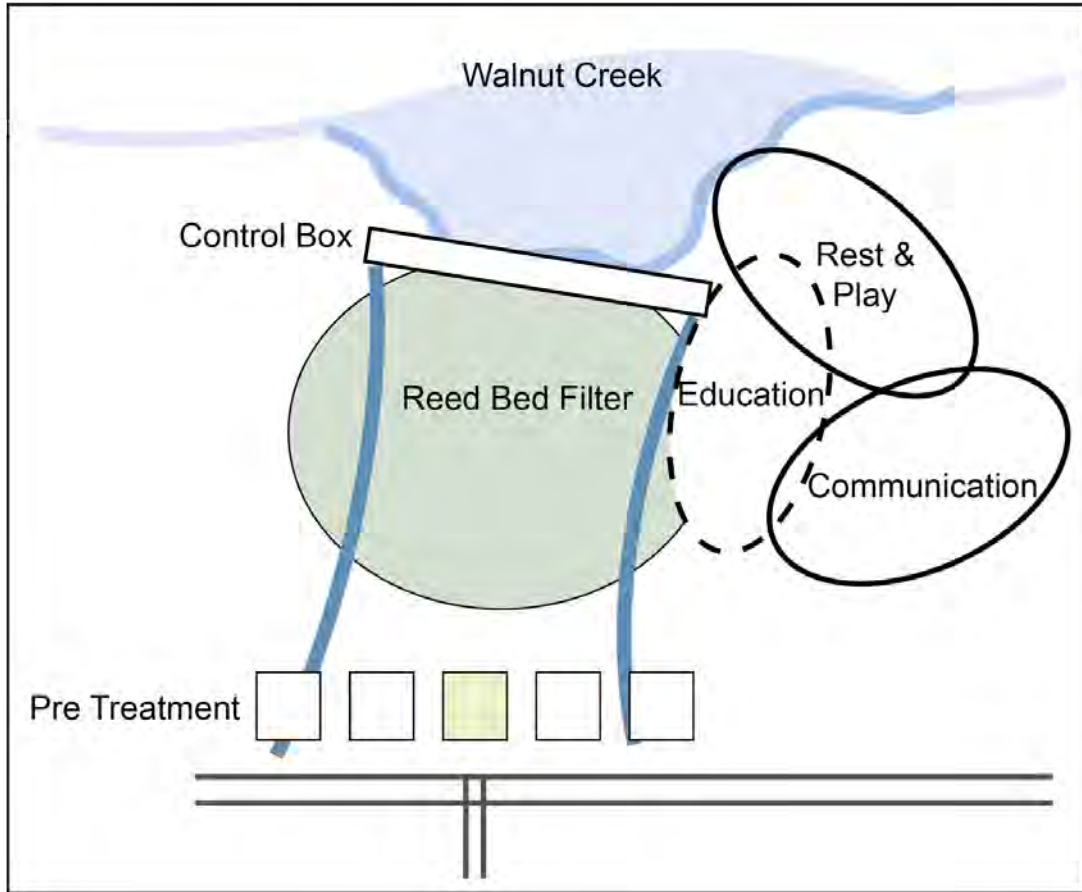
> Information Island

> Children's corner

> Outdoor Gathering Space

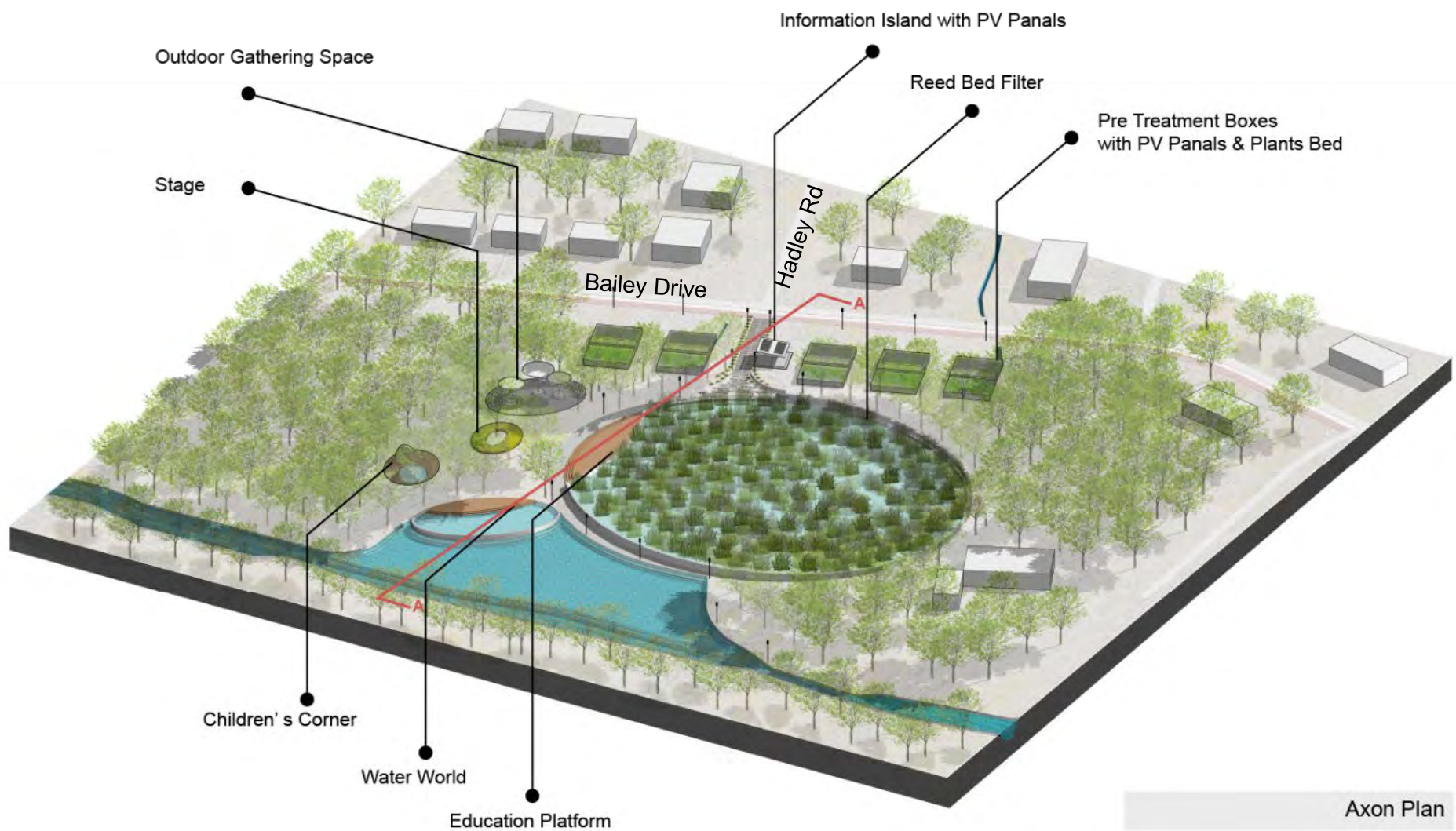
> Water World

Concept Diagram





Entrance (Information Island)



Outdoor Gathering Space

Stage

Information Island with PV Panels

Reed Bed Filter

Pre Treatment Boxes with PV Panels & Plants Bed

Bailey Drive

Hadley Rd

Children's Corner

Water World

Education Platform

Axon Plan

Sitting Area near Reed Bed Filter

Solar Panel System

- Collect solar energy on day time
- Provide energy at night



Day

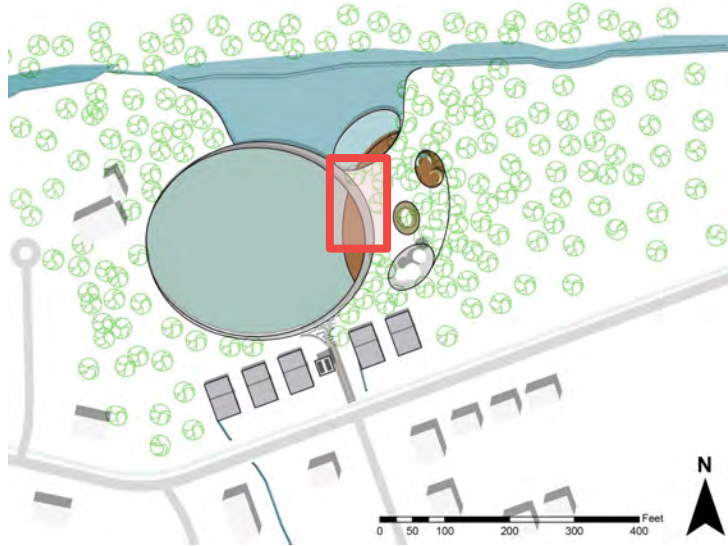


Night

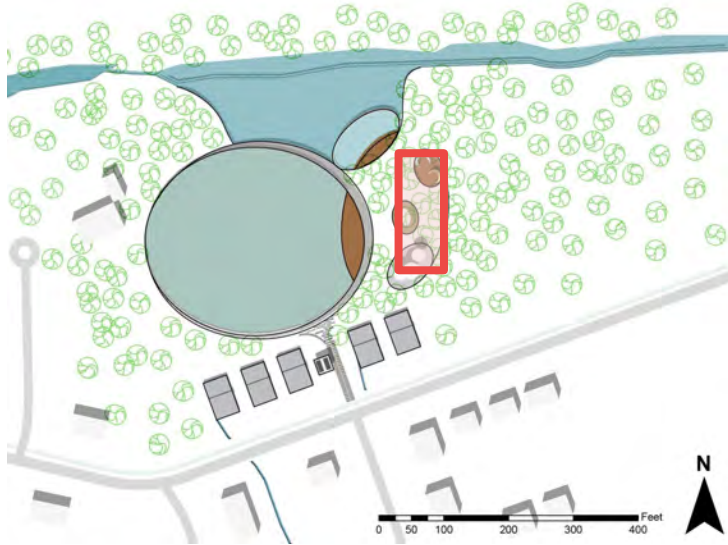


Education

Wetland
Water Protection



Communication



Native plants provide shading in summer



Summer



Winter



COMMUNICATION

WALNUT CREEK

WETLAND

SUSTAINABLE

Thank You

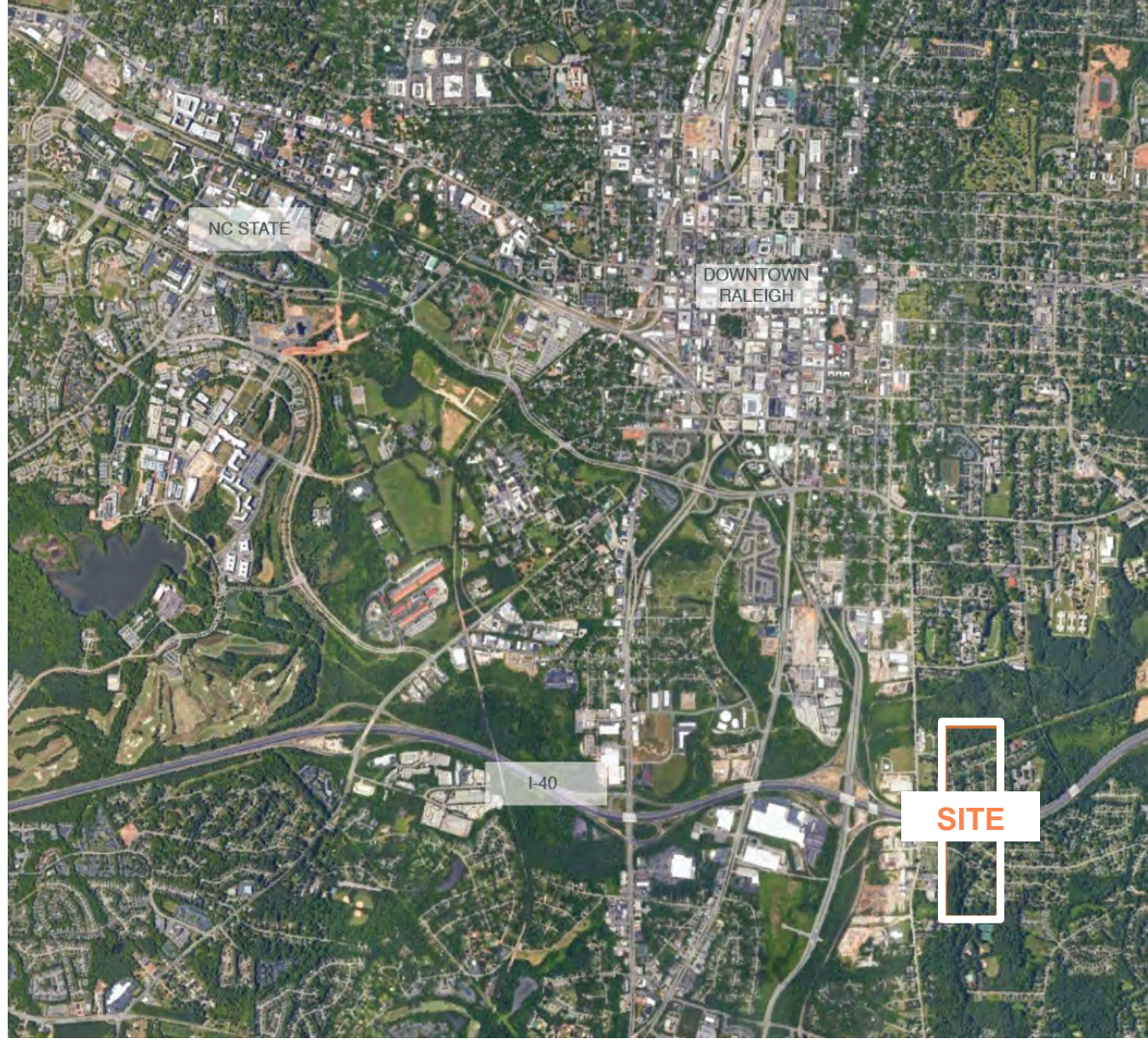
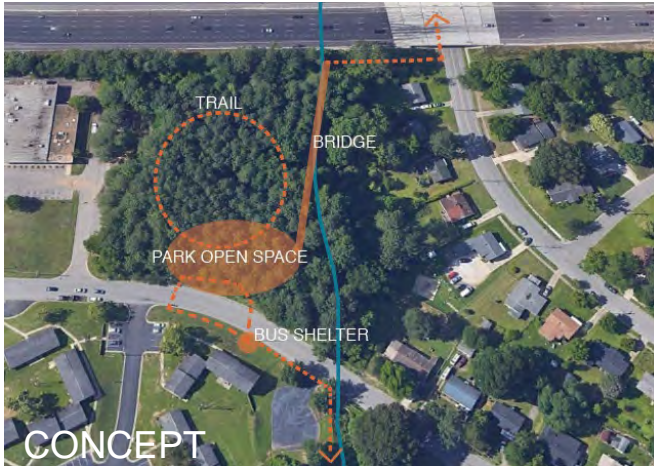
Little Creek Trail and Rochester Park Project

Eva Pratt

CONTEXT MAP & SITE LOCATION

SITE REQUIREMENTS:

- SOUTH OF WALNUT CREEK
- ALIGNS WITH PWP PRIORITY AREAS
- ACCESSIBLE TO ROCHESTER HEIGHTS AND BILTMORE HILLS
- NEAR WATER



PROJECT GOALS

TO RECONNECT THE ROCHESTER HEIGHTS AND BILTMORE HILLS NEIGHBORHOODS

TO CREATE A SPACE FOR GATHERING AND PLAY

TO PROMOTE HEALTHY EXERCISE

TO PROVIDE VISUAL ACCESS TO THE CREEK

TO INCREASE NEIGHBORHOOD WALKABILITY



PROJECT FEATURES

PEDESTRIAN LANE AND SIDEWALKS

MURAL

NATURE PLAY AREA

PARK SHELTERS

OUTDOOR EATING SPACE

CREEK OVERLOOK BRIDGE

LITTLE CREEK TRAIL

EXERCISE STATIONS

BUS SHELTERS



PEDESTRIAN LANE



MURAL



ROCHESTER PARK



LITTLE CREEK TRAIL



PROJECT FEATURES

PEDESTRIAN LANE AND SIDEWALKS

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EXERCISE STATIONS

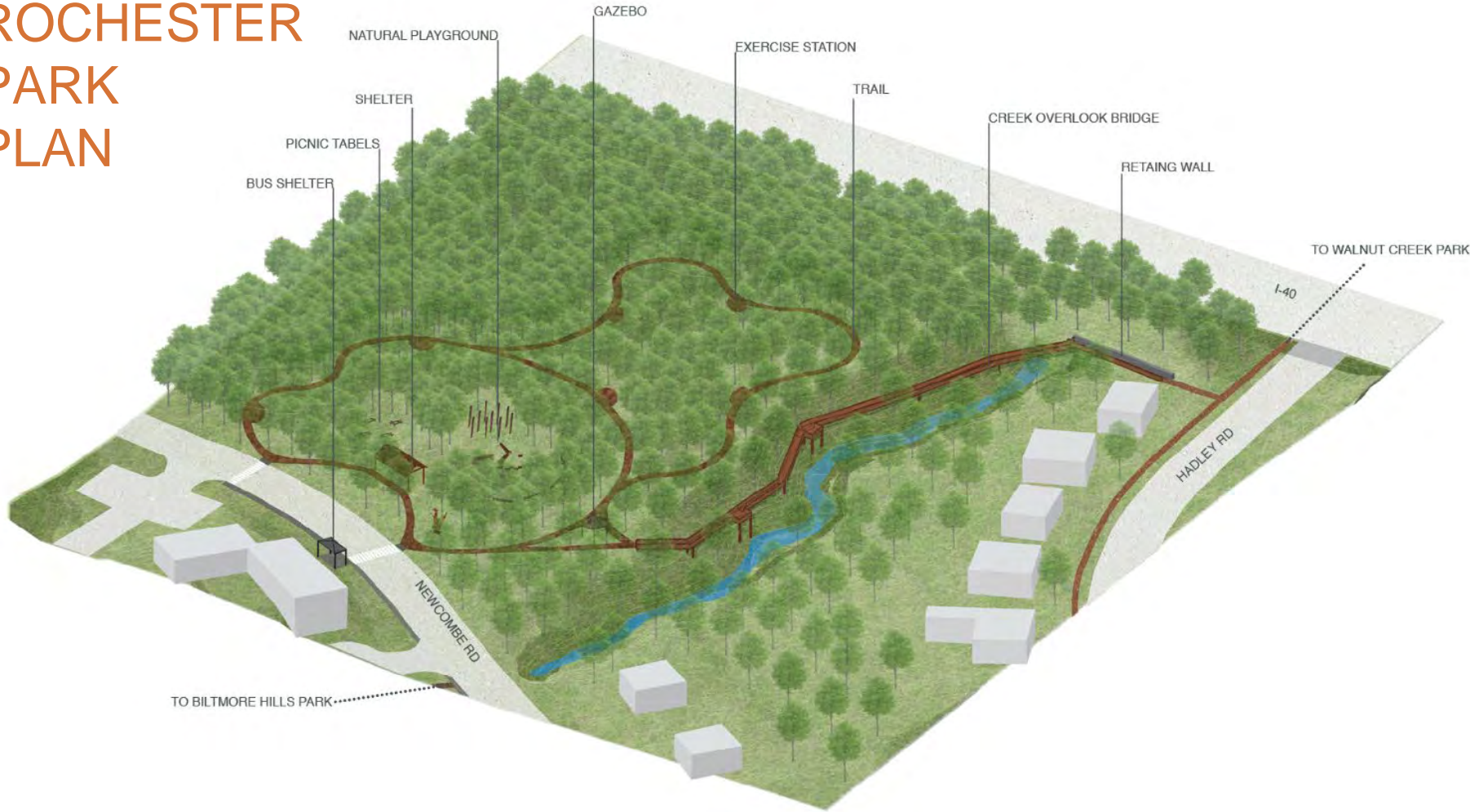
BUS SHELTERS



LITTLE CREEK TRAIL



ROCHESTER PARK PLAN



ROCHESTER PARK SECTION



CUT LINE



Thank You