



# CONNECT SouthPittsburg

Framework Plan  
April 2022



## Acknowledgments

### **Prepared for South Pittsburg Area Revitalization Quest (SPARQ)**

Walker Henley | Vice President

### **Prepared by WMWA Landscape Architects**

Thomas Brown | Project Manager

Hayden Hammons | Project Designer

Matt Whitaker | Principal-in-Charge

### **Steering Committee**

Ashley Gates | Regional Planner, Southeast Tennessee Development District

Alison Bullock | Community Planner, National Park Service

Brad Collett | Associate Professor, University of Tennessee Department of Plant Sciences; Faculty, University of Tennessee School of Landscape Architecture; and Director, Tennessee RiverLine

Daniel Carter | Visiting Assistant Professor of Environmental Studies, the University of the South

Dustin Toothman | Planning and Design Manager, Tennessee RiverLine

Farah Hudson | South Pittsburg Resident

Annise Henson | Product Owner, UNUM

Kelly Ware | Healthy Development Coordinator, Tennessee Department of Health

Mckenzie Morgan | South Pittsburg Resident

Toby Headrick | Board Member, South Pittsburg Parks and Recreation

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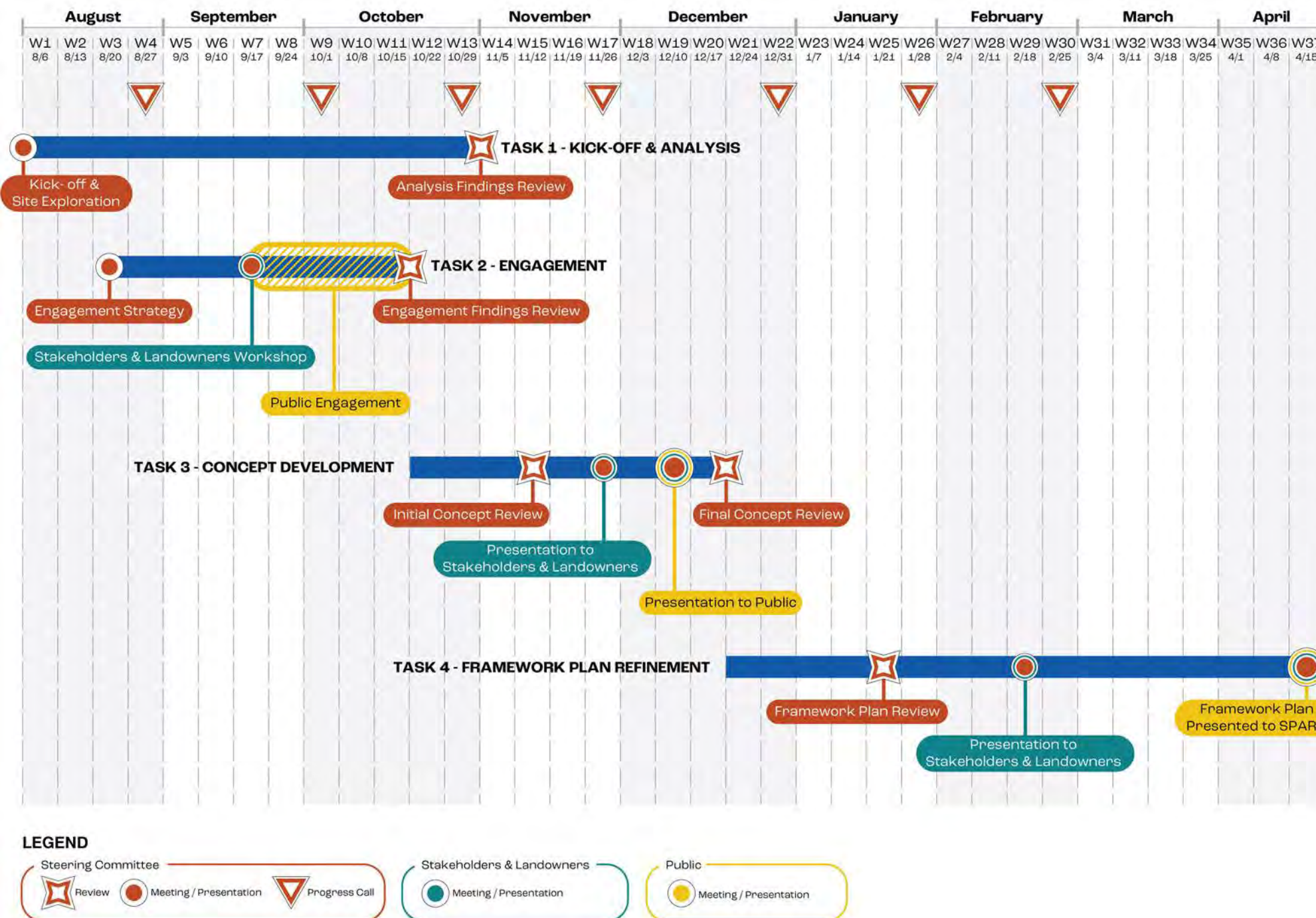
## Project Overview

The effort to connect South Pittsburg to the Tennessee River has been driven by the citizens of South Pittsburg as part of efforts to enhance the city through beautification, economic development, marketing, and events. The South Pittsburg Area Revitalization Quest (SPARQ) was founded in 2019 to spearhead these efforts by leveraging collaboration with city government, local business leaders, non-profits, and corporate partners. Since its inception, the organization has advocated for a unified community strategy.

The initial thrust for this Framework Plan was led by SPARQ in 2020, when South Pittsburg became part of the Tennessee RiverLine initiative upon being chosen to enroll in the Tennessee River Towns Program. The Tennessee RiverLine Partnership is a diverse consortium of Tennessee River advocates from across the Tennessee River Valley and beyond who are committed to building a shared vision for the Tennessee RiverLine: North America's next great regional trail system. During the application process, SPARQ identified the city's desire to improve and create community space that would stimulate economic development and offer opportunities for recreation and gathering. The preliminary idea of establishing a riverfront park in South Pittsburg was a vision being pursued by a local business leader and philanthropist. SPARQ joined the effort and began turning a great idea into an actionable plan.

The Tennessee RiverLine has been an active supporter of the Framework Plan and the efforts of SPARQ. With the Tennessee RiverLine's support, SPARQ submitted a grant request to the Tennessee Department of Health's "Healthy Built Environments Program" to fund the Framework Plan. The grant request proposed development of a plan for a riverfront park and city-wide bicycle and pedestrian network to provide access to the Tennessee River for all citizens of South Pittsburg, promote healthy lifestyles, and catalyze new economic development and entrepreneurship opportunities.

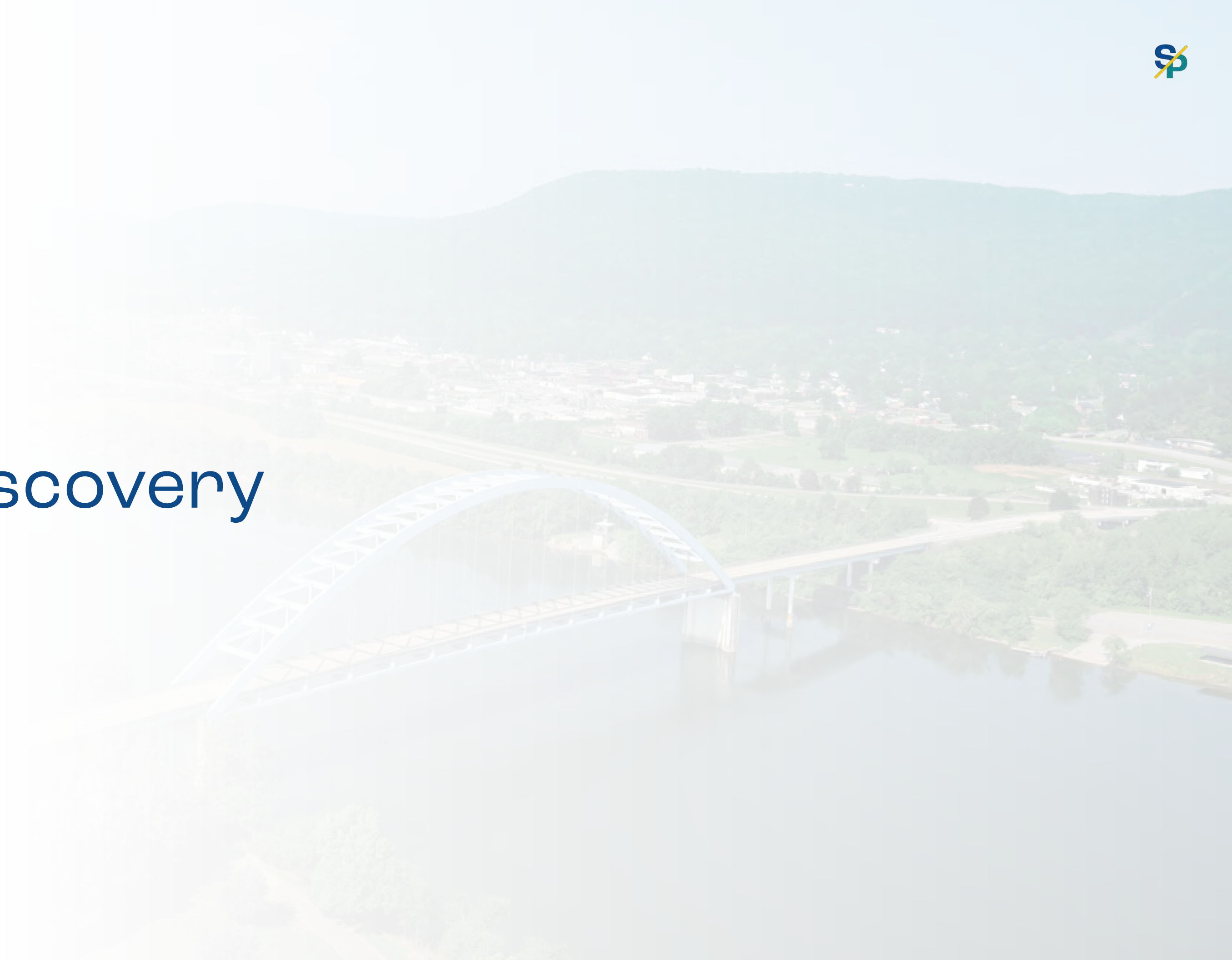
WMWA Landscape Architects in Chattanooga, Tennessee, supported SPARQ and the Tennessee RiverLine in the grant process and visioning for a framework plan. The grant was awarded in 2020 and WMWA began work on the Framework Plan in 2021 by engaging stakeholders and the South Pittsburg community. The Framework Plan that follows documents the results of engagement, the design process, and a preferred design for the park, bicycle and pedestrian network, and other amenities.







# 1. Discovery



## South Pittsburg

South Pittsburg and the Tennessee River were home to the Cherokee and other indigenous societies for centuries before European settlement in the nineteenth century. Archaeological evidence found at nearby Russell Cave National Monument suggests prehistoric settlement at least 10,000 years ago. Following the removal of Cherokee, westward-migrating settlers arrived in South Pittsburg in the 1830s. The settlers converted the fertile Tennessee River valley to farmland and planted the slopes along the mountains with peach and apple orchards. In the 1860s, this land was a key site for both the Union and Confederate forces during the Civil War. Most of the farmland was purchased in 1873 by investors who were looking to the region to establish coal and iron industries, and they named the new factory town South Pittsburg.

One of those investors was Joseph Lodge, who moved to South Pittsburg in 1877. Lodge founded the Blacklock Foundry in 1896 as a manufacturer of a variety of cast iron products. The foundry was renamed as Lodge Cast Iron in 1910 and has become a prominent part of the city's identity.

In 1996, to promote civic engagement and stimulate local businesses, a group of citizens capitalized on Lodge's brand and organized the first National Cornbread Festival. The festival has become one of the most important cultural and economic events for South Pittsburg.

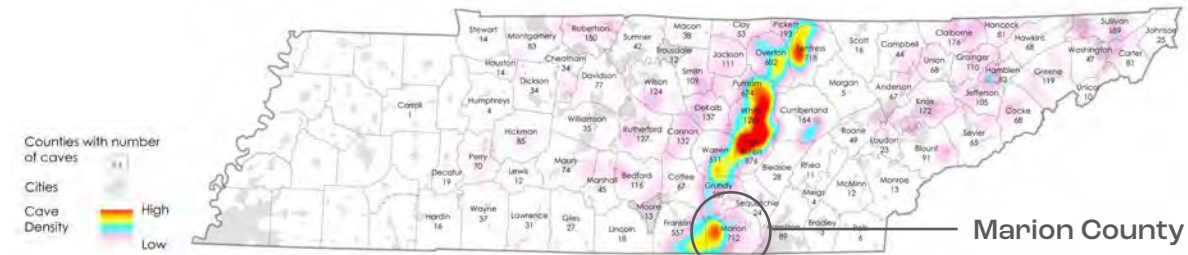
## Natural History

Physiographic regions organize landscapes that share common climates, underlying geologies, and the habitats that result from these commonalities. South Pittsburg is located within Appalachian Highlands physiographic region and situated between the Cumberland Plateau and the Valley and Ridge sections.

The region's geology is dominated by an abundance of karst landscape underlain with soluble limestone bedrock formed by remnant calcium carbonate and algae deposits on ancient sea floors, resulting in a large number of caves and sinkholes. Additionally, South Pittsburg's situation between the Tennessee River floodplain and the Cumberland escarpment contributes to the diversity of birds and other terrestrial flora and fauna.

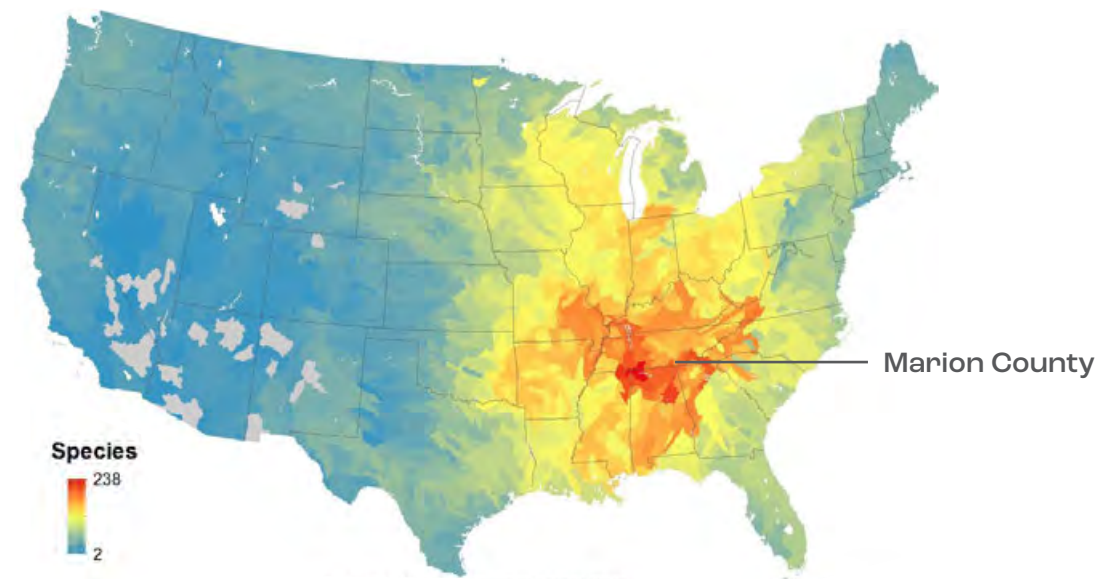
All of these factors and others, such as the extent of the last glacial front, work together to result in some of the highest diversity in the country for aquatic and tree species.

The Tennessee River is an iconic part of South Pittsburg's history. The River provided sustenance for early inhabitants, historically and into modern day it provides water for industry, however, more and more the Tennessee River is a recreational and scenic resource for much of its 652 miles. The River is a destination for nature watching, fishing, boating, hiking, and water sports.



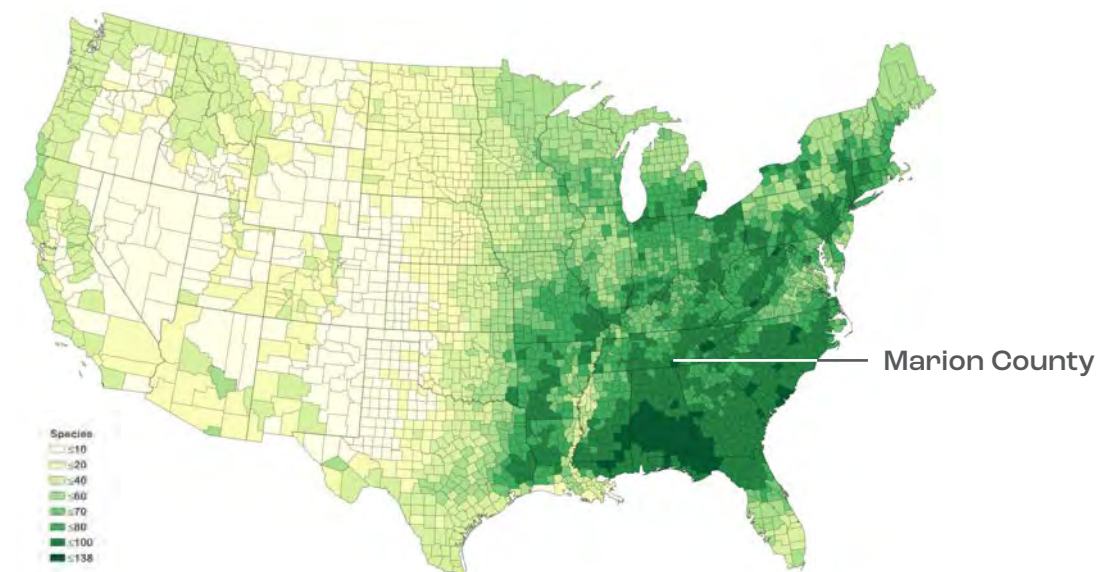
**Cave Density of Tennessee**

Source: Chuck Sutherland from Tennessee Cave Survey data



**Fish Diversity in the United States**

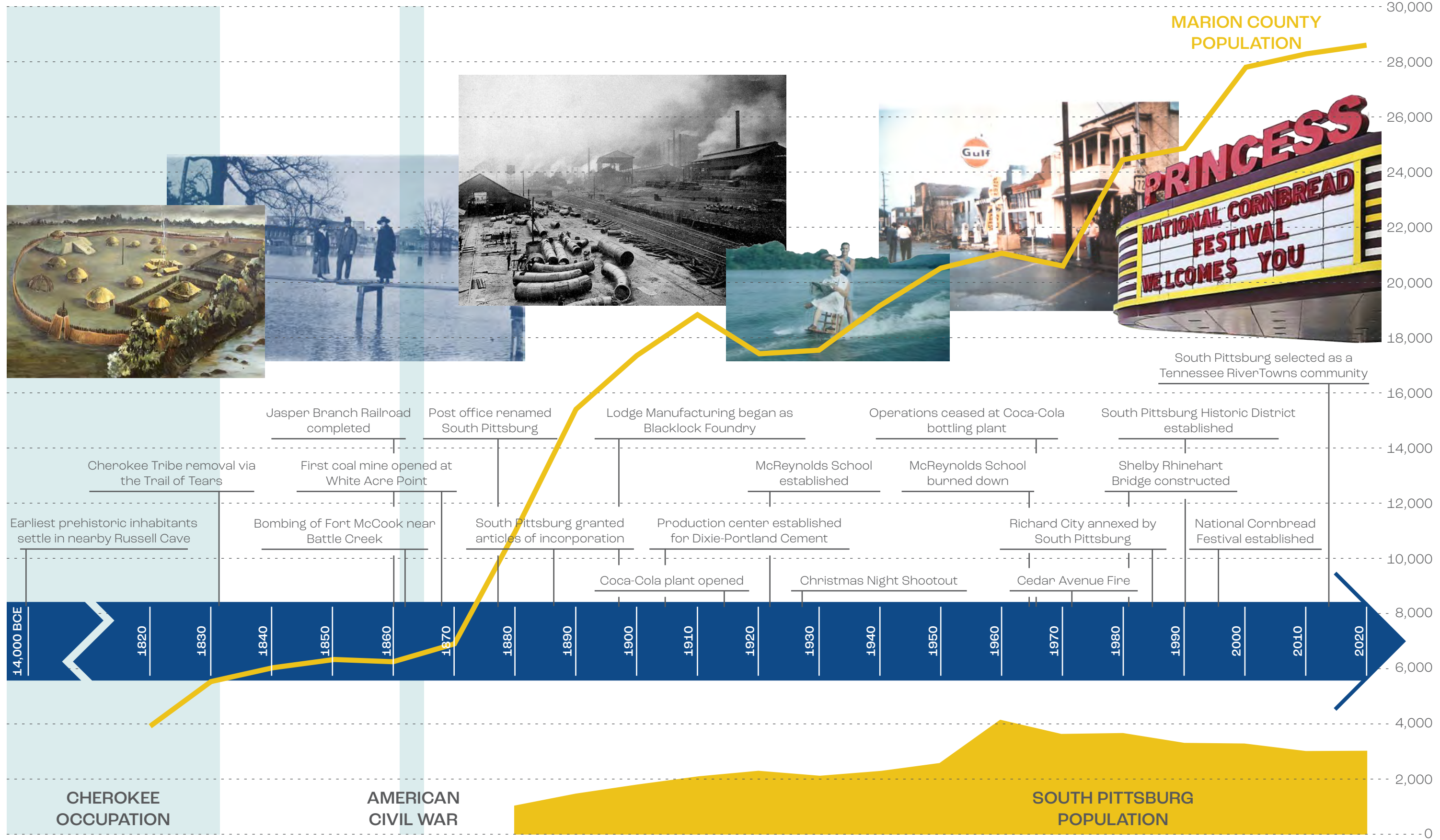
Source: Clinton Jenkins (Biodiversity Mapping) from NatureServe data



**Tree Diversity in the United States**

Source: Vivid Maps from US Forest Service data





### Regional Destinations

This map highlights several regional destinations around South Pittsburg. These features are grouped into three categories: employment, natural, and recreation. Increased connectivity to these destinations would provide substantial health and quality of life benefits to the residents of South Pittsburg.

#### Employment



- 1 Walmart
- 2 Mueller Specialty Valve
- 3 Valmont Utility
- 4 Jasper Industrial Park
- 5 TVA Nickajack Dam

#### Natural



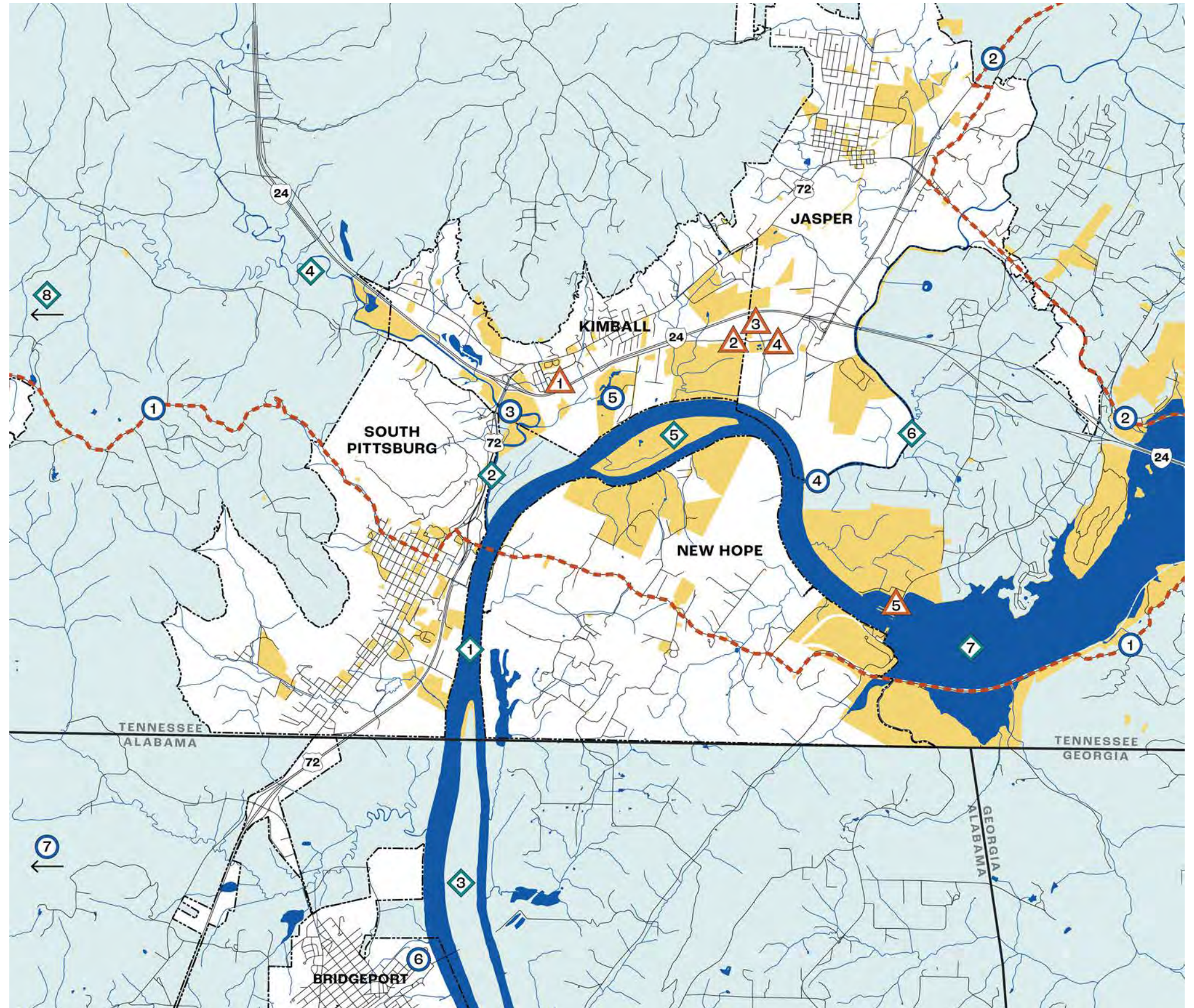
- 1 Tennessee River
- 2 Battle Creek
- 3 Long Island
- 4 Sweetens Cove
- 5 Burns Island
- 6 Sequatchie River
- 7 Nickajack Lake
- 8 Franklin State Forest

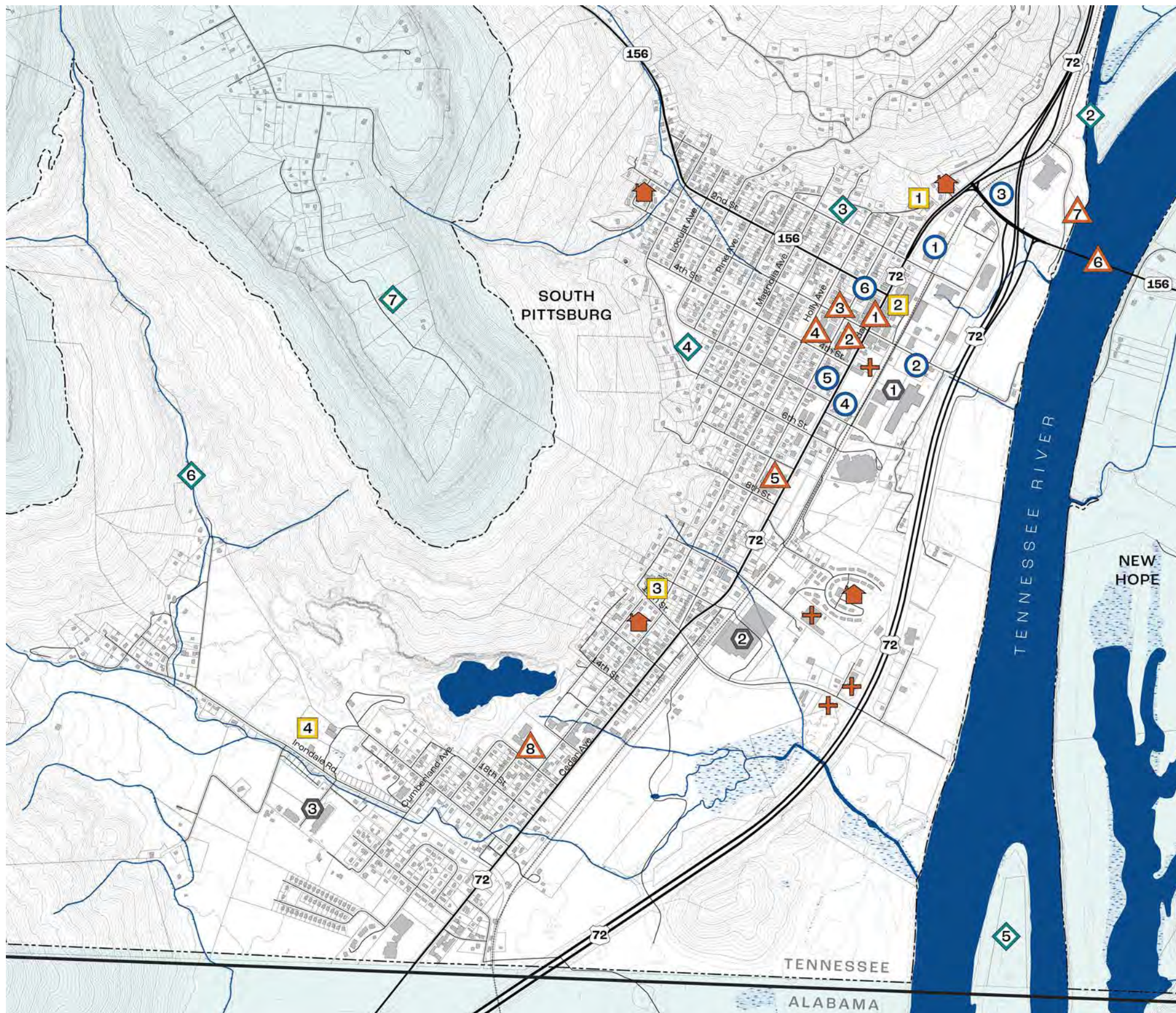
#### Recreation



- 1 Memphis-to-Chattanooga TDOT State Bike Route (Future Designation)
- 2 Fall Creek Falls TDOT State Bike Route (Future Designation)
- 3 TVA Battle Creek Boat Launch
- 4 Sequatchie River Blueway at Tennessee River
- 5 Kimball Park
- 6 Bridgeport Pedestrian Bridge and Depot Museum
- 7 Russell Cave National Monument

Public Land

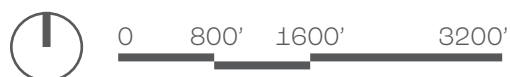




## City Destinations

This map displays destinations within the city of South Pittsburg. Destinations are organized into five groups: civic, commercial, historic, natural and parks, and employment. Providing connectivity to these locations is also important to the health and quality of life of residents.

<b>Civic</b>	<b>Historic</b>
<ul style="list-style-type: none"> <li>1 Cedar Avenue District</li> <li>2 Post Office</li> <li>3 City Hall</li> <li>4 South Pittsburg Elementary</li> <li>5 South Pittsburg High School</li> <li>6 Shelby Rhinehart Bridge</li> <li>7 Municipal Park / Boat Ramp</li> <li>8 Richard Hardy Memorial School</li> </ul>	<ul style="list-style-type: none"> <li>1 McReynolds School</li> <li>2 Princess Theater</li> <li>3 Old South Pittsburg Hospital</li> <li>4 Penn-Dixie Cement Plant</li> </ul>
<b>Commercial</b>	<b>Natural and Parks</b>
<ul style="list-style-type: none"> <li>1 Foodland</li> <li>2 Lodge Factory Store</li> <li>3 Sonic Drive-Thru</li> <li>4 Dollar General</li> <li>5 Dragging Canoe Coffee</li> <li>6 Dixie Freeze Ice Cream</li> </ul>	<ul style="list-style-type: none"> <li>1 Tennessee River</li> <li>2 Battle Creek</li> <li>3 Moore Park</li> <li>4 Loyd Park</li> <li>5 Long Island</li> <li>6 Poplar Spring Branch</li> <li>7 Surrounding Mountains</li> </ul>
<b>Employment</b>	
<ul style="list-style-type: none"> <li>1 Lodge Manufacturing</li> <li>2 Shaw Industries</li> <li>3 U.S. Stove</li> </ul>	

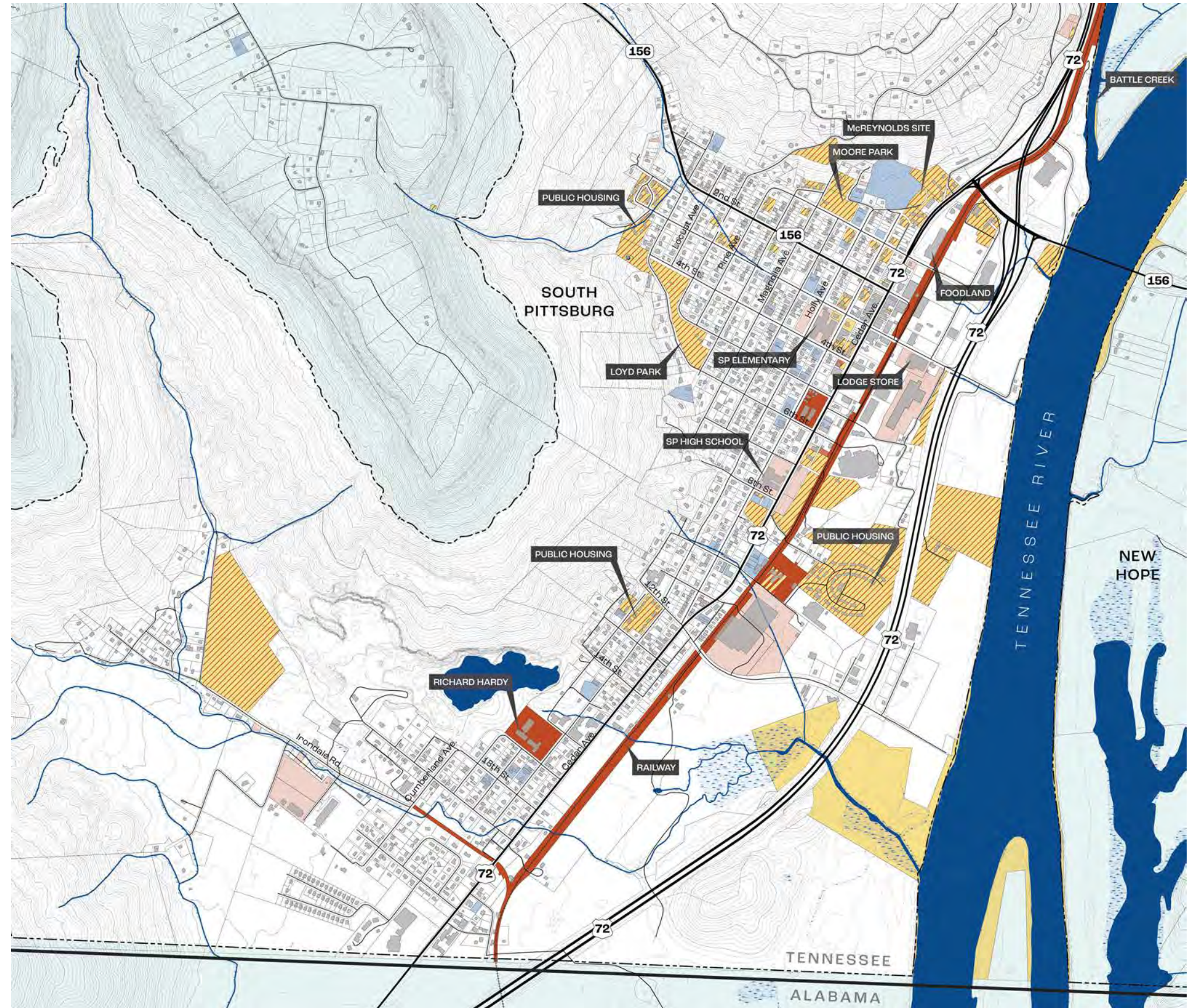


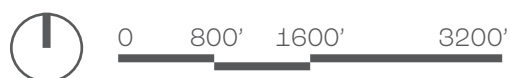
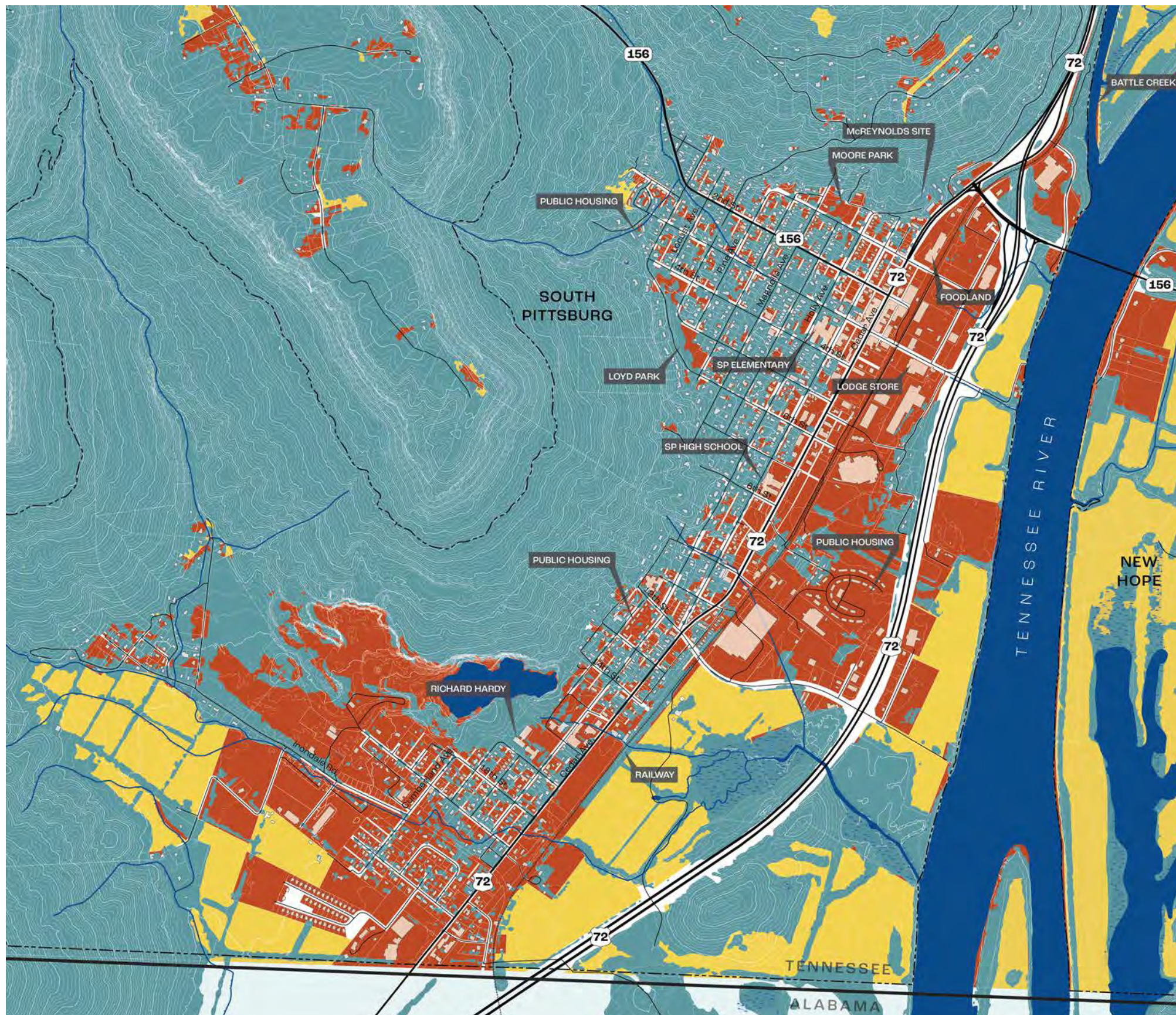
### Land Ownership

The adjacent map shows property ownership in three general categories: government, religious institutions, and other properties of interest. These landowners represent the most likely partners for future park and multi-modal facilities.

A primary objective of the Framework Plan is to improve access to the Tennessee River. However, there are currently only three publicly owned properties along the river. The southernmost parcel is owned by TVA and is zoned for Sensitive Resource Management in their Guntersville Reservoir Land Management Plan. To protect significant cultural, ecological, visual, and wetland resources, high intensity, recreational use is not permitted on this property. The City owns two parcels adjacent to the Tennessee River. The central parcel is partly occupied by South Pittsburg’s wastewater treatment plant, and the northernmost property is a relatively small plot with an existing water intake facility.

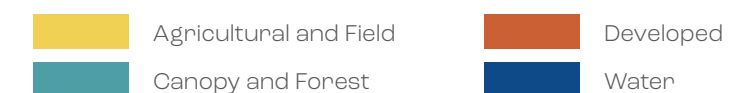
The bicycle and pedestrian network will use the public right-of-way where permitted. However, the rail corridor owned by Ironhorse offers a unique opportunity to connect to Jasper, Kimball, and Bridgeport. The corridor’s low traffic volume makes it an ideal candidate for a “rails-with-trails” greenway. Additionally, there are other landowners whose goals align with those of the project, and their properties offer opportunities to improve connectivity.





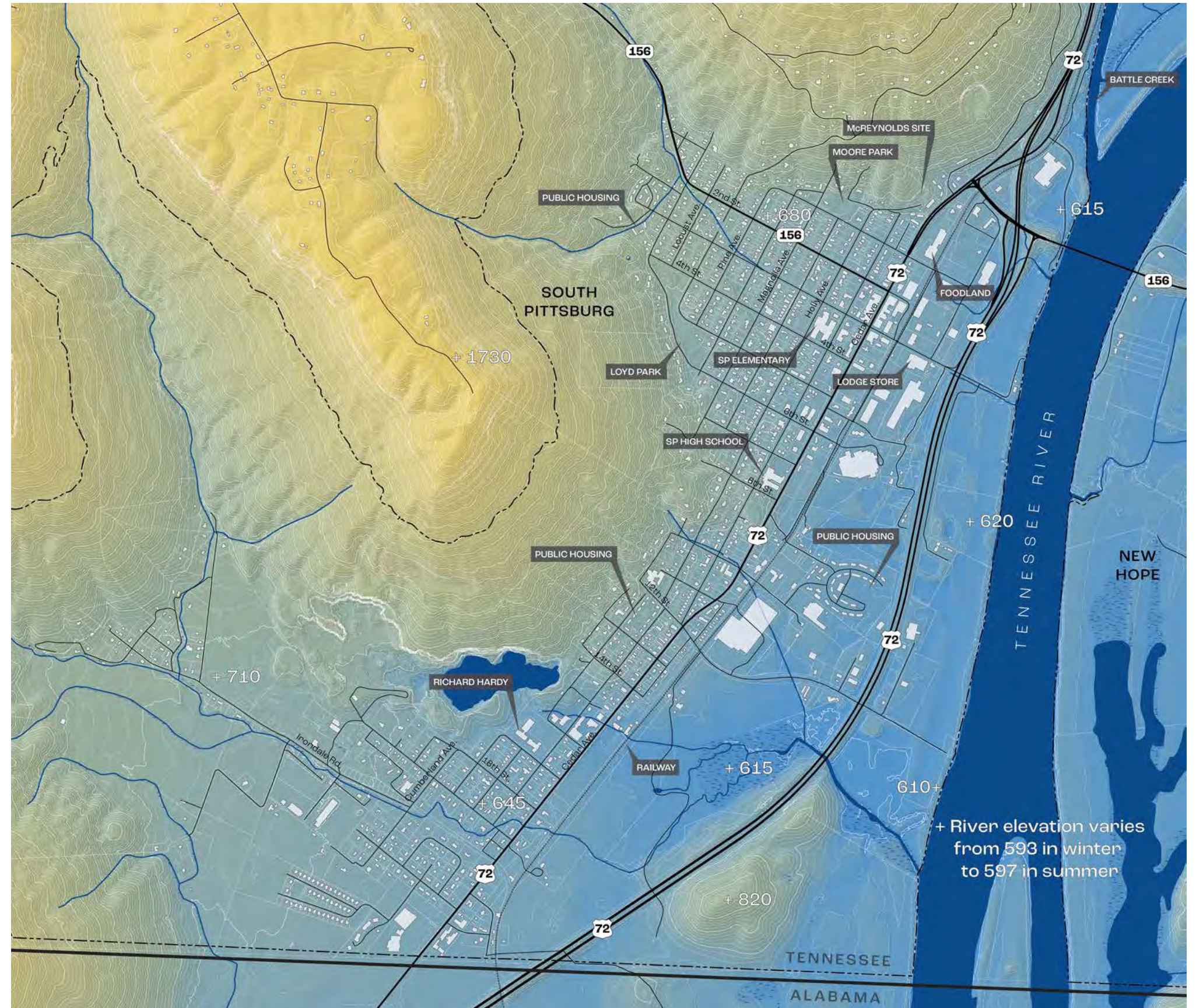
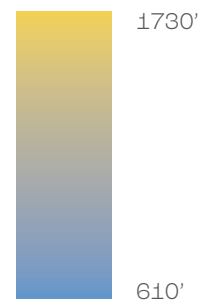
### Land Cover

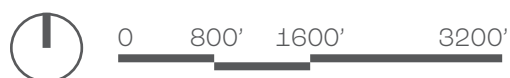
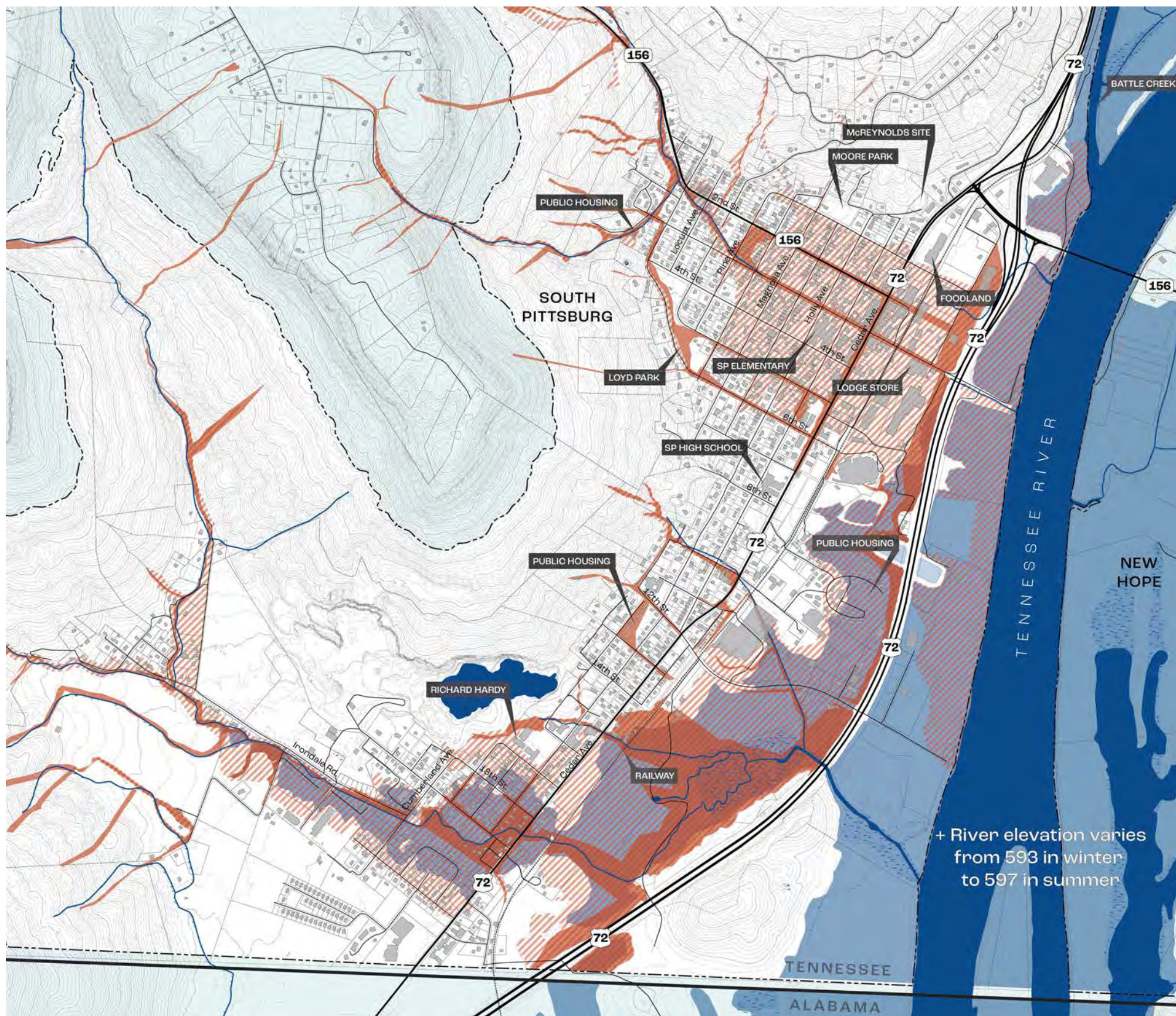
Land cover patterns often reveal a richer narrative underlying how humans have negotiated and organized the landscape. This map identifies three land cover categories: agricultural and field, canopy and forest, and developed. The Tennessee River and the densely vegetated slopes surrounding the northern and western edges of the city are crucial to South Pittsburg's scenic beauty. The River and slopes have helped contain development to a more compact and centralized footprint. Most residential areas have maintained some tree canopy, however, manufacturing and agricultural land uses have resulted in the removal of most tree cover in the city and along the Tennessee River.



### Elevation

South Pittsburg rests within a dynamic physiographic region. Over a short distance, the city possesses over 1,000 feet of elevation change, which creates spectacular vistas and a unique opportunity to enjoy the river, slopes, and ridges from a single vantage point. At the human scale, these features are experienced in the flat floodplain, the residential rolling hills, and the rugged slopes, which offer a diversity of experiences and several degrees of difficulty for pedestrian and bicycle routes.





## Hydrology

The topography described on the previous page is directly related to the area's hydrology, which is characterized by the numerous brooks and creeks that drain the ridges and slopes and move water across the city towards the Tennessee River. One of the major characteristics of the Tennessee Valley Authority (TVA) system of dams and reservoirs is its ability to limit flood damage from the river. The hydrology of South Pittsburg and its location between the slopes and river, however, pose a separate flood risk. As rapid, high rainfall events have increased, local floods have increased as well when the city's storm infrastructure has been overwhelmed by high runoff volumes from the surrounding slopes.

The flooding patterns also reveal the damming effect of US Highway 72. Because the 72 bypass around the city was elevated to raise the roadbed above the 100 year flood, the design effectively created a dam separating the city from the river. With a limited number of bridges constructed to allow the city to drain, the current conditions have proven to be inadequate for high rain events.

Flooding generally follows two of the city's primary creeks, Poplar Springs Branch and Haley's Cove Branch. Poplar Springs runs through Richard City and has a series of associated wetlands near the Tennessee River. Haley's Cove follows Highway 156 into downtown South Pittsburg, where it is channelized and covered before daylighting east of US 72.

Located just north of South Pittsburg, Battle Creek drains more than 430 square miles and offers more than five miles of navigable water through TVA property with multiple wetlands and riparian habitats.



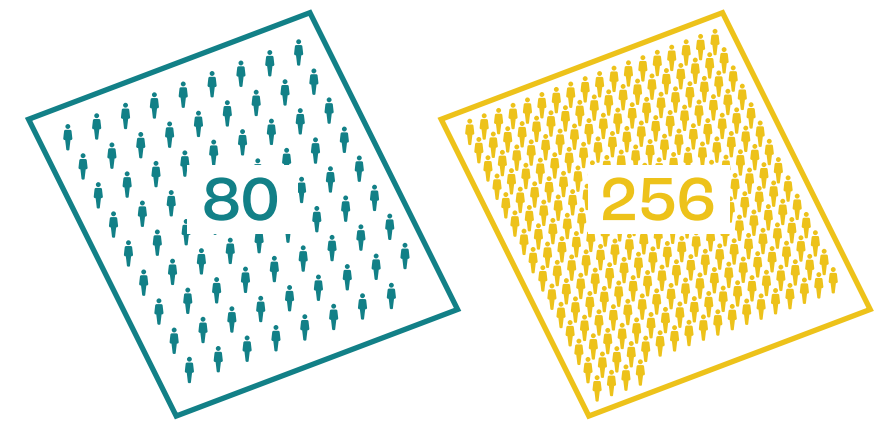
Number of Residents per Park



National Average

South Pittsburg

Number of Residents per Acre of Park



National Average

South Pittsburg

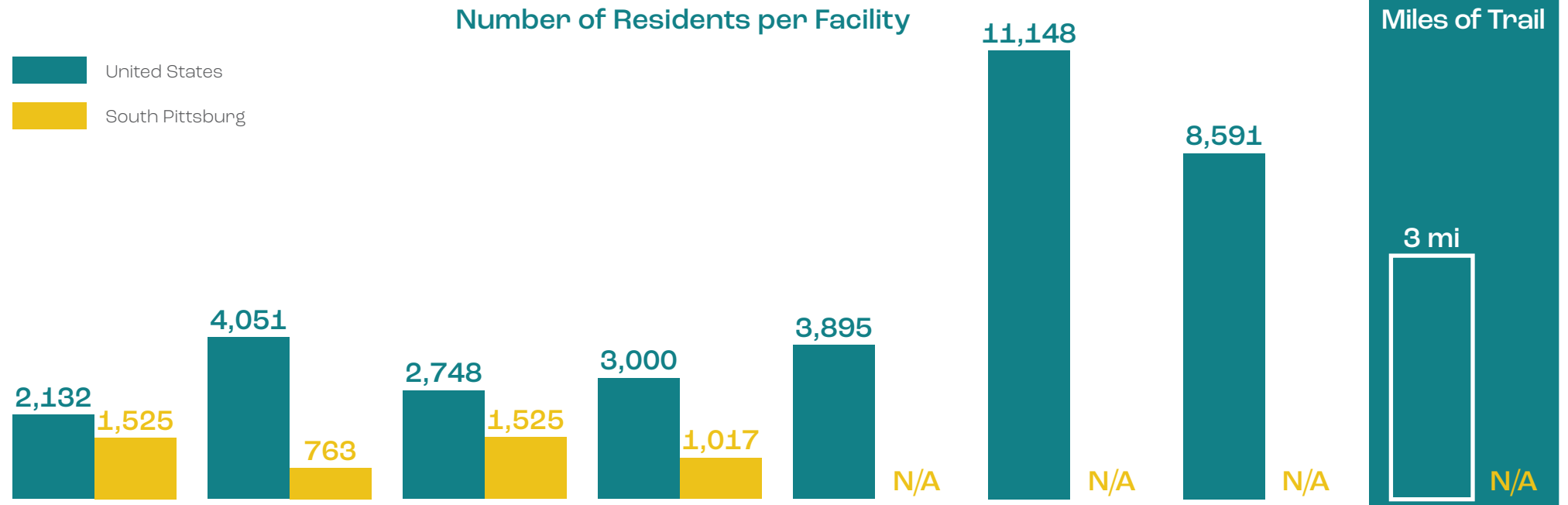
Parks Scorecard

According to the National Recreation and Park Association, most municipalities with populations comparable to South Pittsburg provide the following amenities: playgrounds, basketball courts, tennis courts, baseball and softball fields, rectangular sports fields, dog parks, swimming pools, and trails. South Pittsburg currently offers five of these amenities.

In 2018, the city updated its parks and recreation master plan and established priority projects for the next five years. The plan calls for the development of a greenway, a multi-use sports field, an indoor recreation facility, and general renovations to the city's existing park facilities.

Additionally, South Pittsburg's parks are also undersized. While other cities have an average of 80 residents per park, South Pittsburg is over triple that figure, providing an acre for every 256 residents. Adding 26 acres of parkland would reach the national average for similarly-sized cities.

Number of Residents per Facility



Playgrounds

Basketball Court

Tennis Court

Baseball/Softball Field

Rectangular Sports Field

Dog Park

Swimming Pool

Greenway / Trails

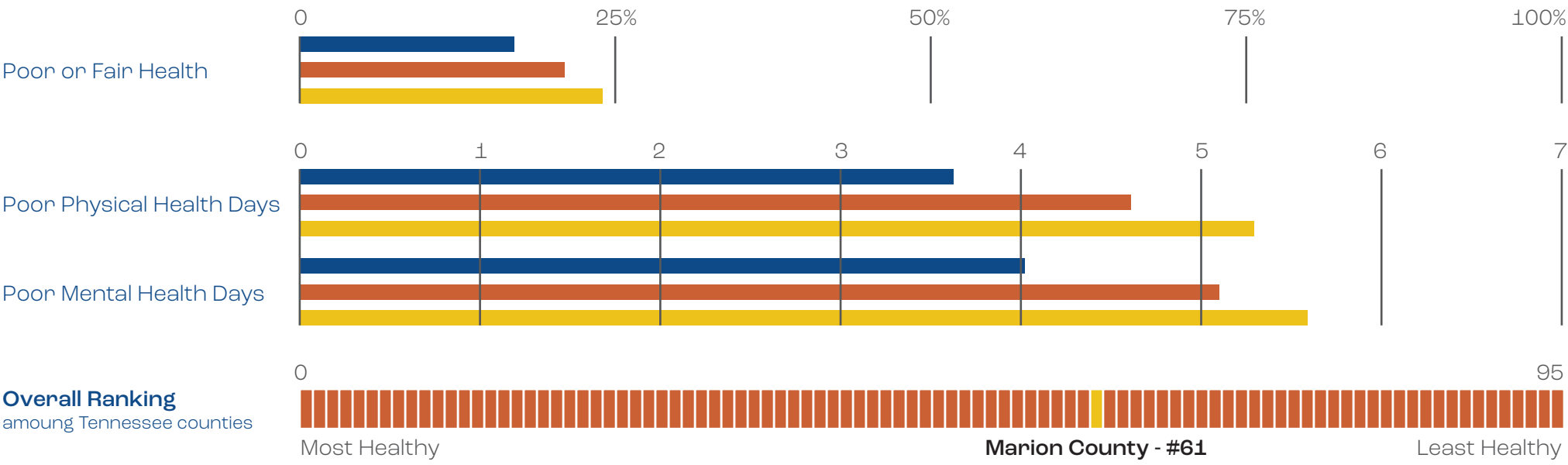
Most Popular Outdoor Recreation Facilities

according to 2021 National Recreation and Park Association Agency Review

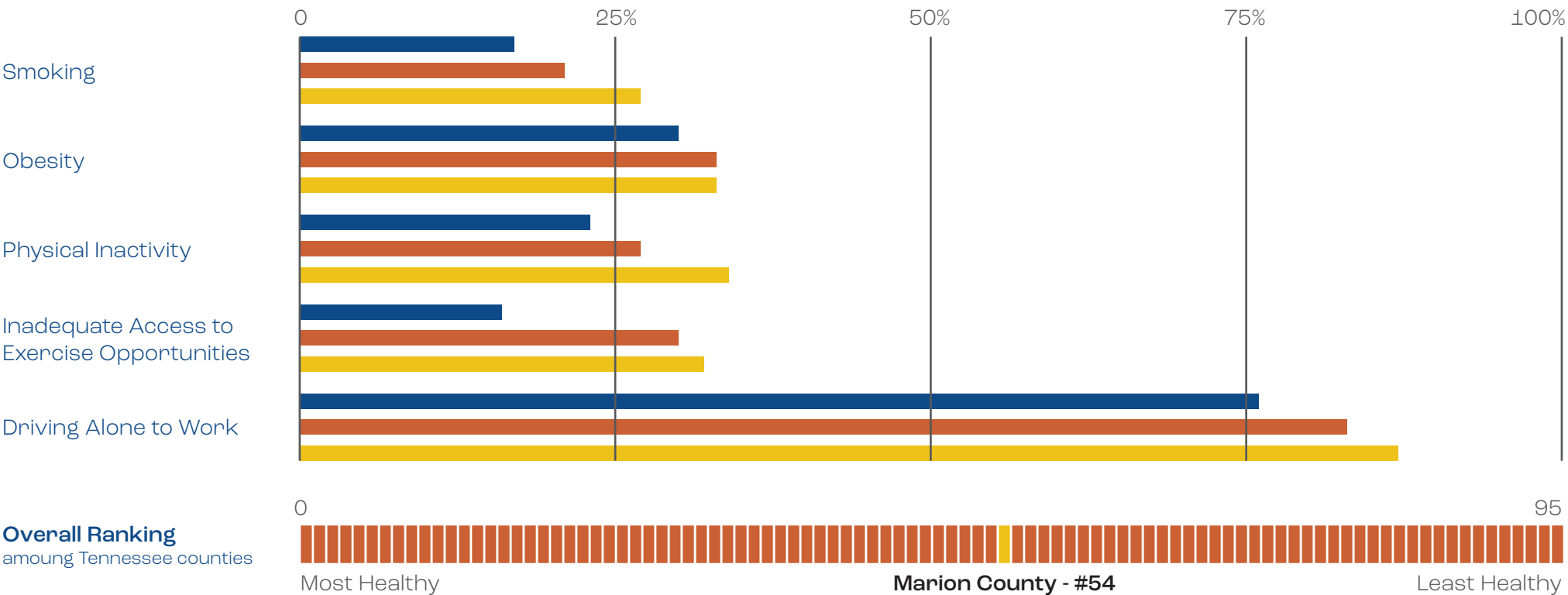




# Health Outcomes



# Health Factors

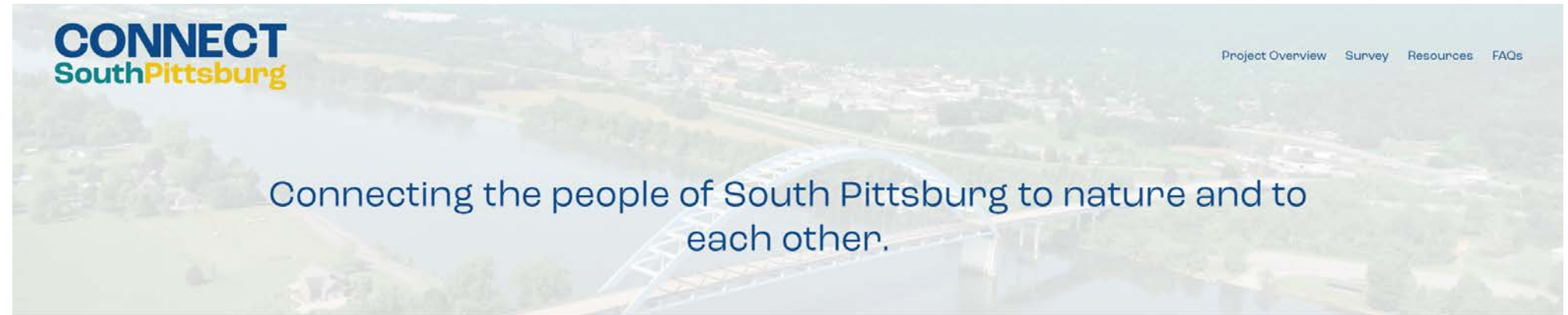


## Public Health Scorecard

Tennessee is below the national average in health outcomes (length and quality of life) and health factors (predictor of future community health), with Marion in the bottom half of all Tennessee counties. Many of these outcomes and factors are influenced by access to public space and alternative transportation options.

Public parks, walkable communities, and diverse recreational programs improve public health. Studies have shown that improved access to parks increases how often people exercise, which reduces stress, blood pressure, and obesity. Cities that invest in safer infrastructure for pedestrians and cyclists have also seen less heart disease, diabetes, depression, and certain cancers.





CONNECT South Pittsburg will provide a framework for a regional River Park and Bicycle/Pedestrian Network that celebrates the cultural and natural resources of South Pittsburg.

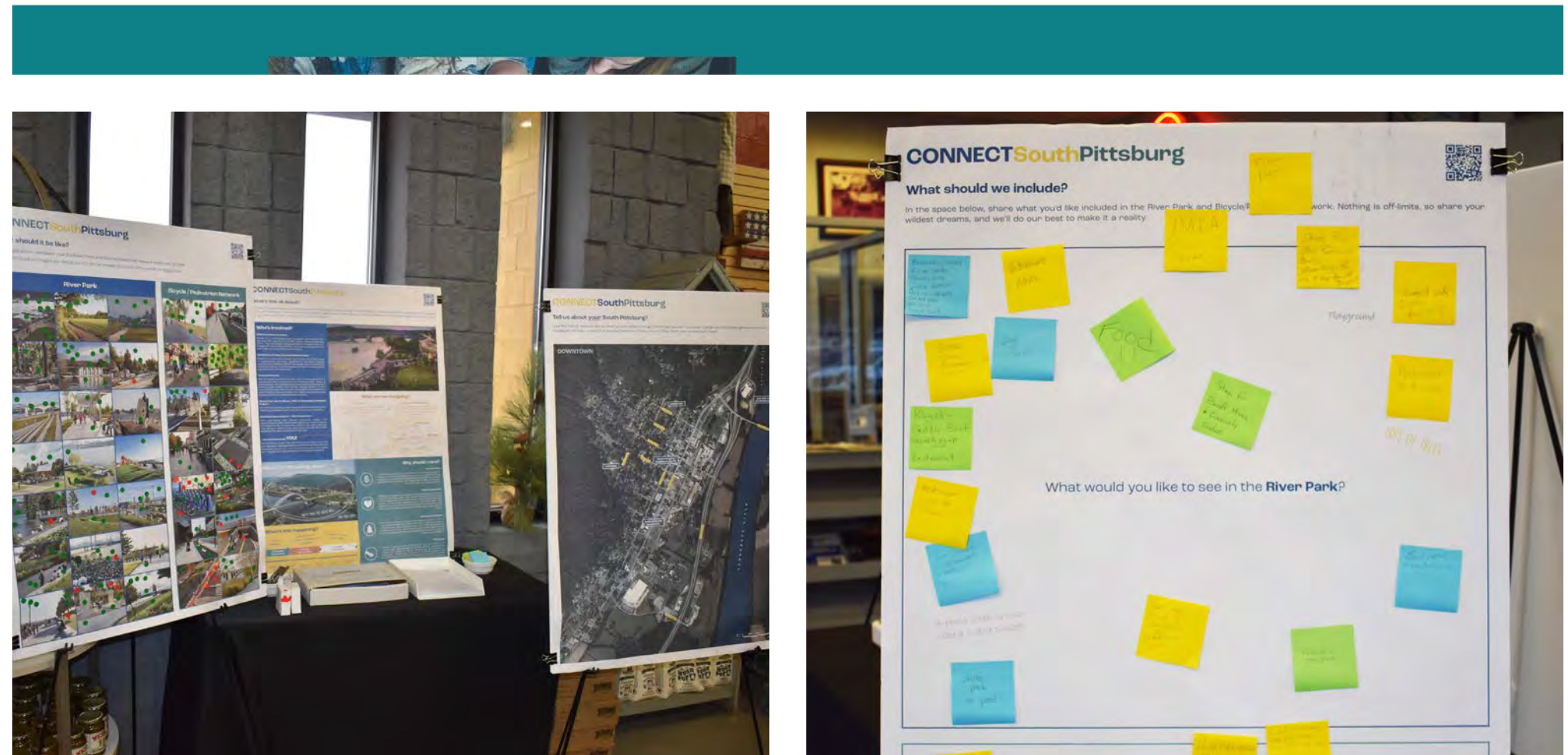
Project Overview

## Engagement Strategy

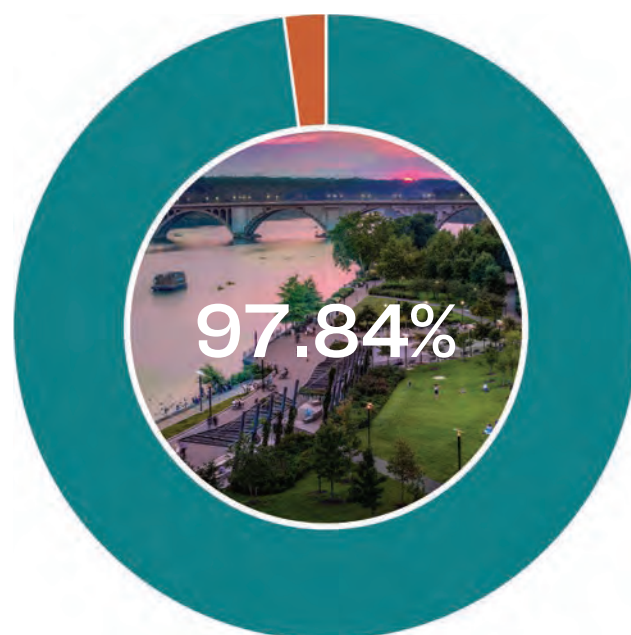
WMWA led a series of engagement exercises with stakeholders and the community to establish a vision for the project. The engagement strategy primarily included online and mailed surveys, digital presentations, and engagement “outposts” located at popular destinations throughout South Pittsburg. The engagement strategy considered work schedules, access to transportation, access to internet, and community demographics to provide a diversity of opportunities for all residents and stakeholders to share their thoughts.

WMWA created the CONNECT South Pittsburg website, which functions as an online platform for viewing project information, accessing the online survey, and exploring additional resources related to the project. Additionally, traditional paper surveys were mailed to residents that asked for demographic information and prompted responders to offer their opinions on the state of South Pittsburg’s existing public spaces. Participants submitted over 370 online and paper surveys during the engagement process.

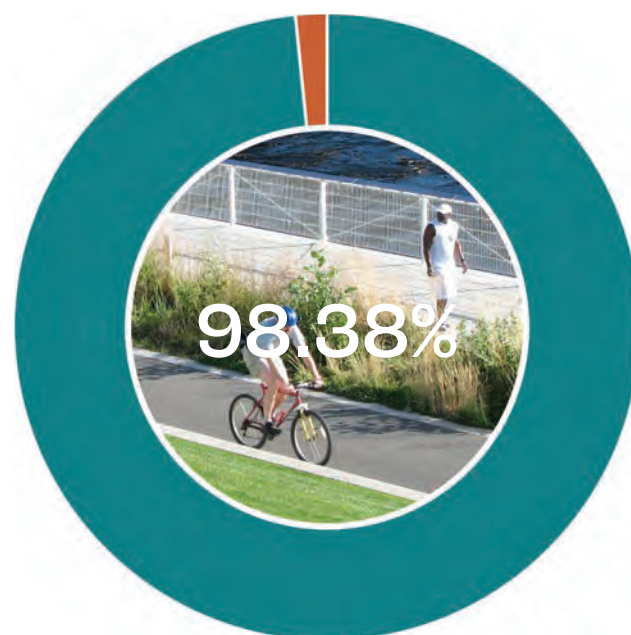
The engagement “outposts” consisted of photo boards located around South Pittsburg to gauge people’s aesthetic preferences and help establish a visual style for the project. Participants voted on images they found favorable or unfavorable using red and green dots. Additionally, people were asked to write their dreams and aspirations for South Pittsburg’s river park and bicycle and pedestrian network on post-it notes. Each participant was encouraged to think big and to consider the full potential of these networks.



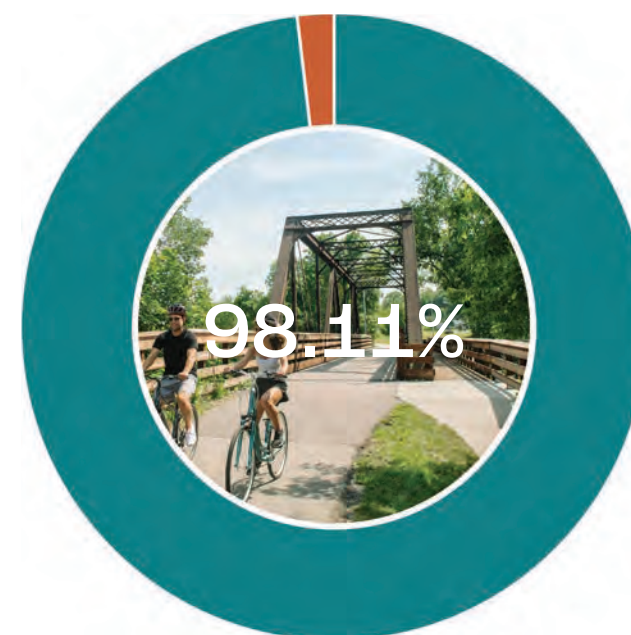
Do you support the development of a River Park along the Tennessee River?



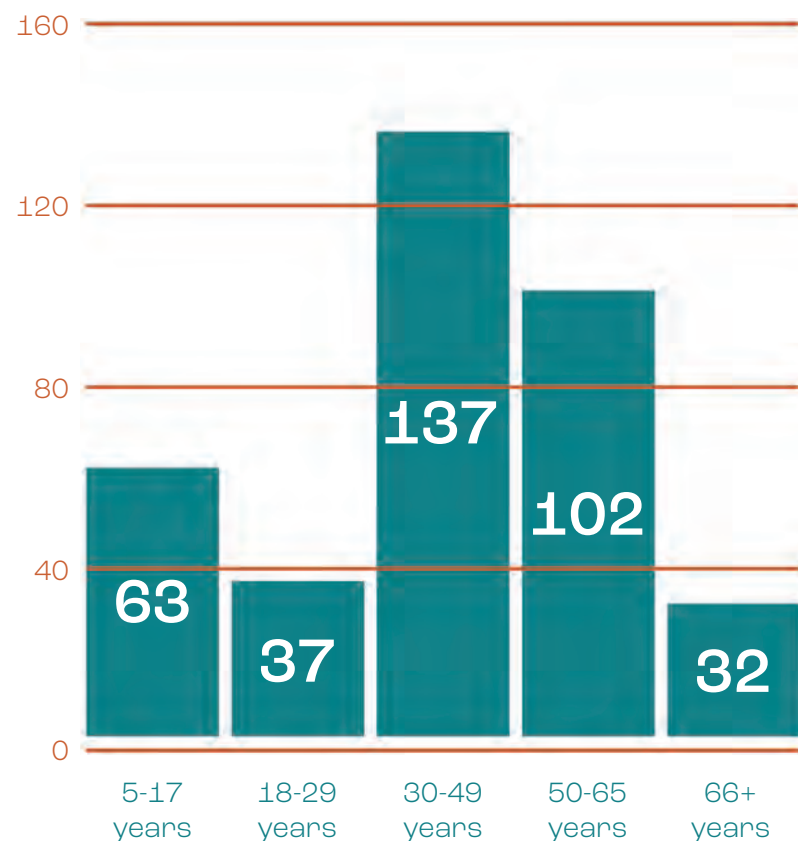
Do you support the development of safer bicycle and pedestrian paths in South Pittsburg?



Would you like to have bicycle and pedestrian access to the Tennessee River from South Pittsburg?



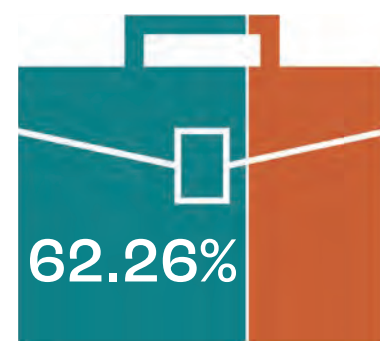
What is your age?



Do you live in Marion County?



Do you work in Marion County?

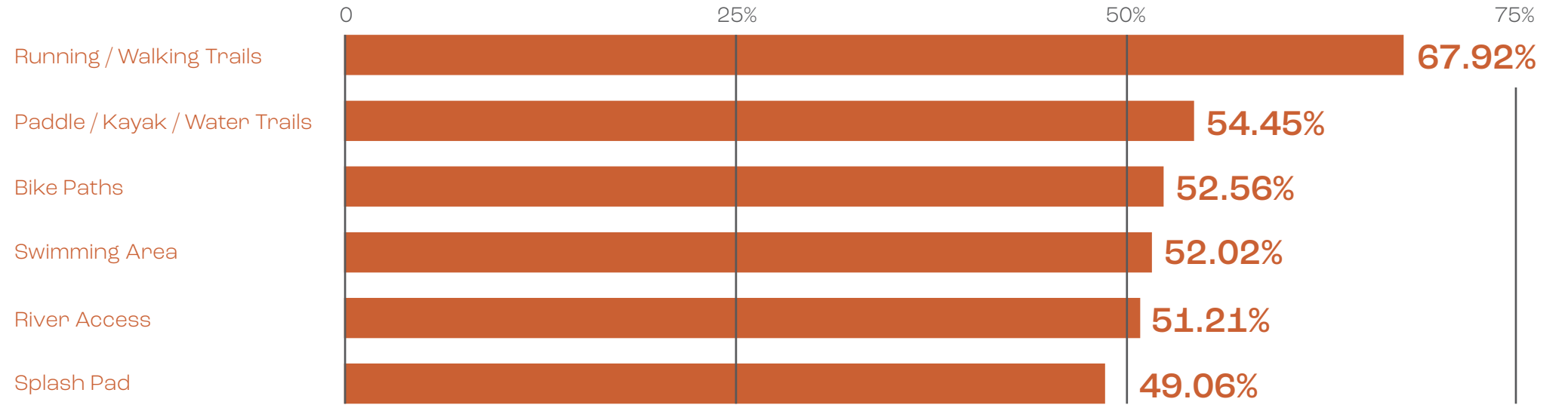


### Survey Statistics

The results of the surveys indicate that 90% of participants live in Marion County, and most worked in the South Pittsburg area. Most participants (64%) were between 30 and 65, and only one group (66+) had less than 10% participation. Survey takers showed overwhelming support for a river park and improved bicycle and pedestrian network. Residents have validated these findings by anecdotally expressing their approval of the project in conversations with SPARQ, the steering committee, and the design team.

■ Yes
 ■ No

Which outdoor facilities would you like to have access to or improved in South Pittsburg?



Popular Write-In Responses



Outdoor Facilities

When participants were asked to which outdoor facilities they would like improved access, the most popular response was running and hiking trails. However, most survey takers thought five of the six presented options needed improved access, highlighting widespread recognition of the needs and opportunities to enhance South Pittsburg’s outdoor recreation amenities. Residents also proposed some of their own recommendations. Many write-in responses focused on creating unique recreational opportunities not offered by typical facilities like playgrounds and community pools. Skate parks, zip-line courses, bouldering walls, and spaces for gardening were popular responses. Flexible spaces that could accommodate various activities and events, such as community pavilions and gardens, were also common. Participants also wanted more dedicated, off-leash areas for their dogs.

### Which recreation activities are you currently involved in (within the past 12 months)?

#### Popular Write-In Responses



Archery



Rock Climbing



Disk Golf



Swimming



Gaming



Skateboarding



Gardening



Karate



Painting / Art

Walking / Running



Boating / Fishing



Paddling / Kayaking / SUPing



Biking



Yoga / Fitness Class



Team Sports

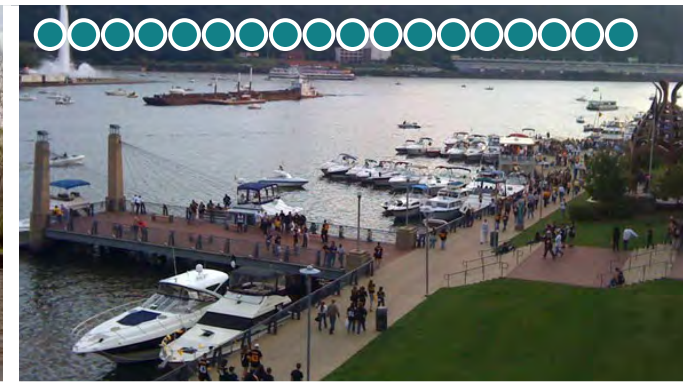


#### Recreational Activities

Two of the three most popular recreational activities among survey participants were water-related. South Pittsburg's proximity to the Tennessee River encourages boating, fishing, and paddling, all of which are popular to residents. These trends reinforce the persistent requests for better river access. Development of the river park will accommodate these uses and provide support amenities that improve convenience and encourage casual users and beginners to participate.

Team sports were also a common response. Previous city studies and the parks analysis for this project identified a lack of space for these activities. The framework plan will prioritize a multi-purpose field to allow for more robust team sports programming in the city.

Most Favorable



Visual Preference

In general, people responded well to photos that showed engagement with the river and comfortable, welcoming spaces. Shady, highly-activated spaces with high-quality materials and thoughtful detailing consistently scored the highest. Participants responded less favorably to artificial materials, bold designs, and highly specialized spaces. Skate parks photos were the most divisive, receiving the most unfavorable votes while being the second-most favorable image. This scenario is not uncommon, especially when an image demonstrates a highly polarizing activity. The city should consider creating a skate park because of its popularity; however, it should identify a location that would not be inconvenient to residents who may find skate parks unpleasant.

● Favorable ● Unfavorable

Least Favorable / Conflicting





### Post-It Feedback

The adjacent notes represent some of the responses that were received during the engagement process. They represent a diverse collection of hopes and concerns about South Pittsburg's public spaces.

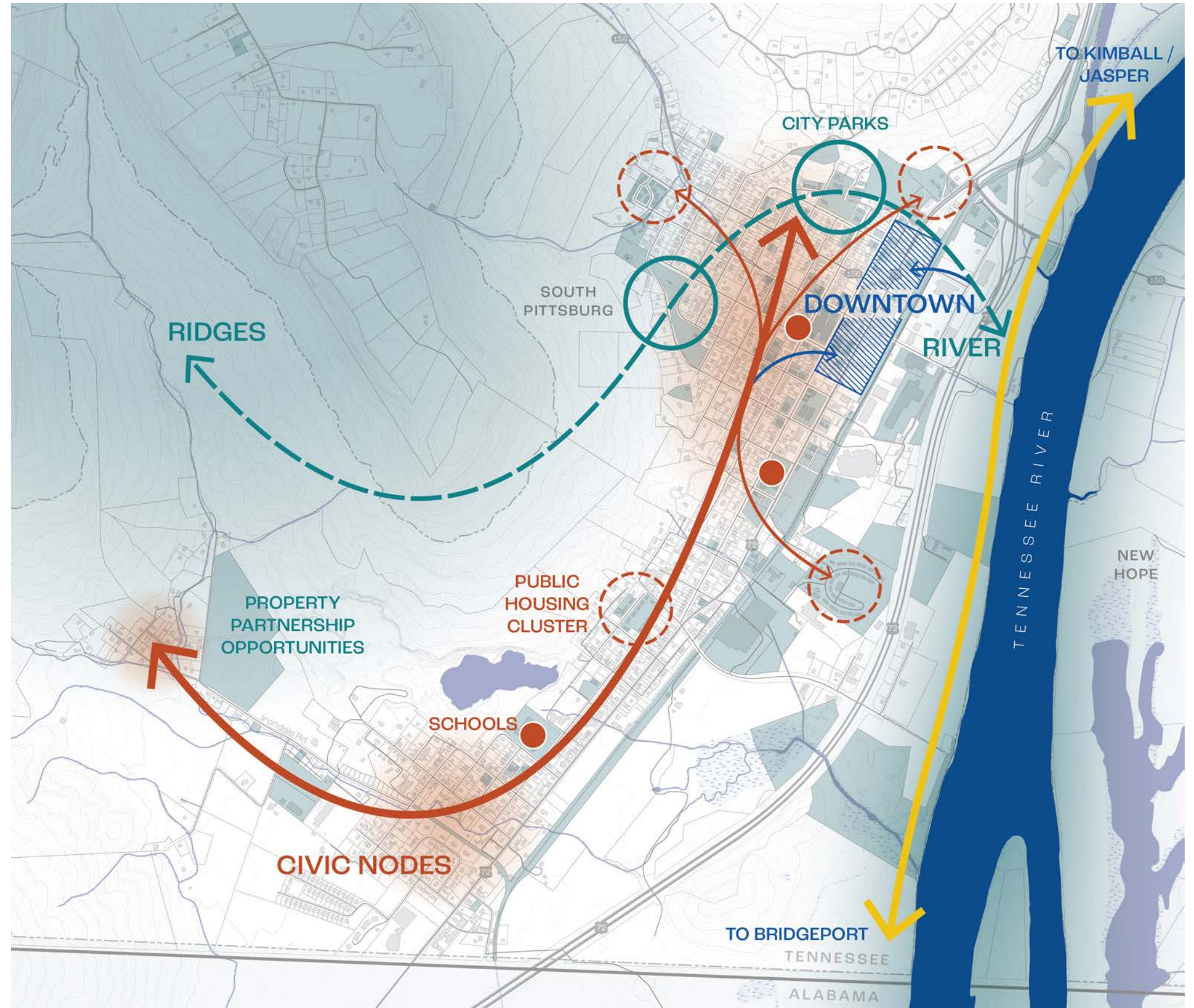






## 2. Concept Development



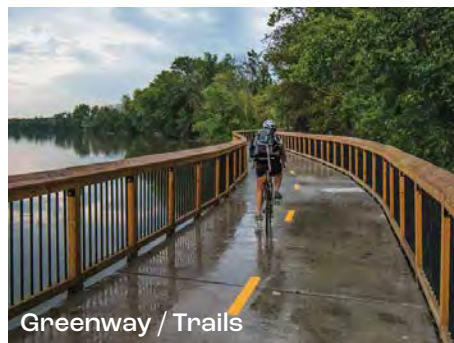


### Opportunities Diagram

As the first step in the conceptual development process, it is essential to establish a series of guiding principles that respond to the lessons learned during the site analysis and community engagement phases and ultimately inform the direction of the design. The corresponding diagram illustrates the overlapping, city-wide systems informing the framework plan's approach. Firstly, the design unites several civic entities along a central spine that moves from downtown South Pittsburg to Richard City. Secondly, the framework plan aims to connect people with the diverse natural features and city parks between the ridges and the river. Lastly, this plan creates an opportunity for people to directly engage with the Tennessee River and imagines a greater connection to several regional destinations beyond South Pittsburg.

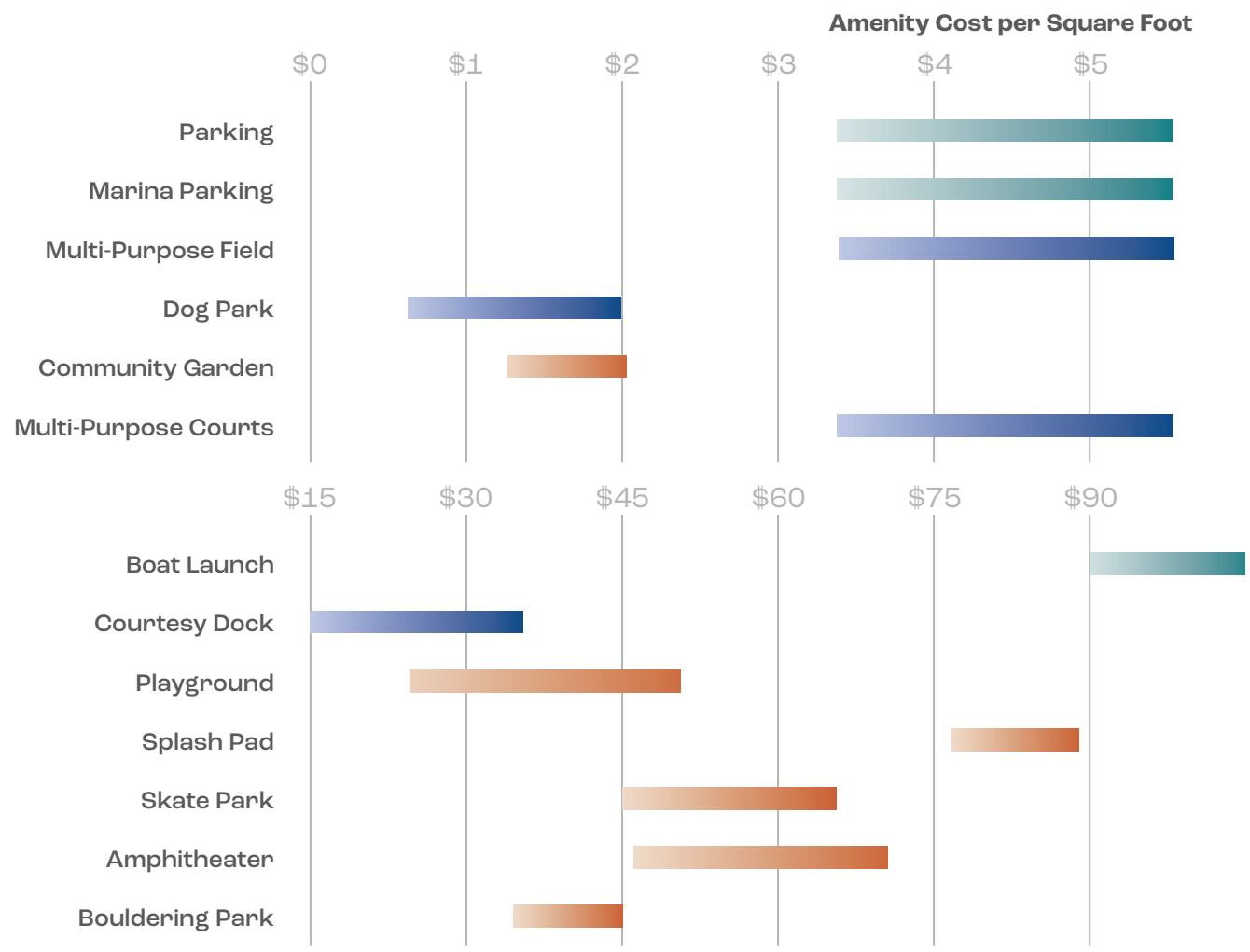
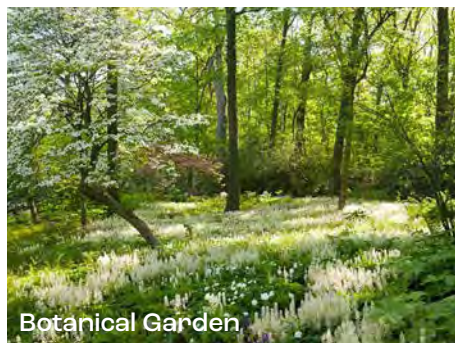


Community Desired Programming



National Trend Programming

Additional Program Recommendations



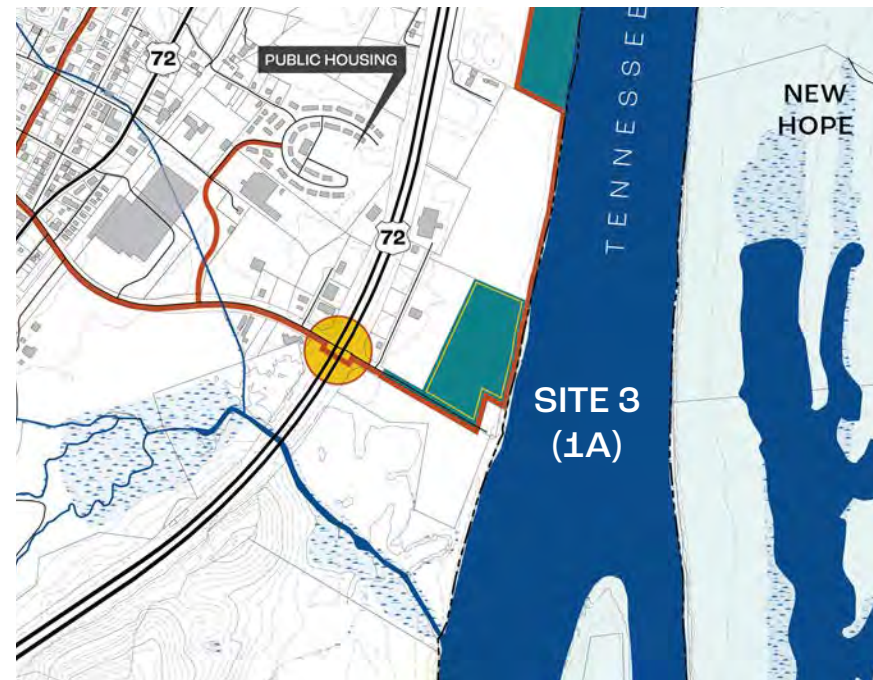
**Programming Opportunities**

A second consideration underlying the conceptual development of the framework and river park plans focuses on the favorable programming opportunities for these systems. The adjacent graphic contains several examples of those programming opportunities supported by the survey respondents, those that are popular across the United States, and those that are recommended based on the comparative size of South Pittsburg. Additionally, this graphic offers an approximate cost per square foot estimate for each amenity.

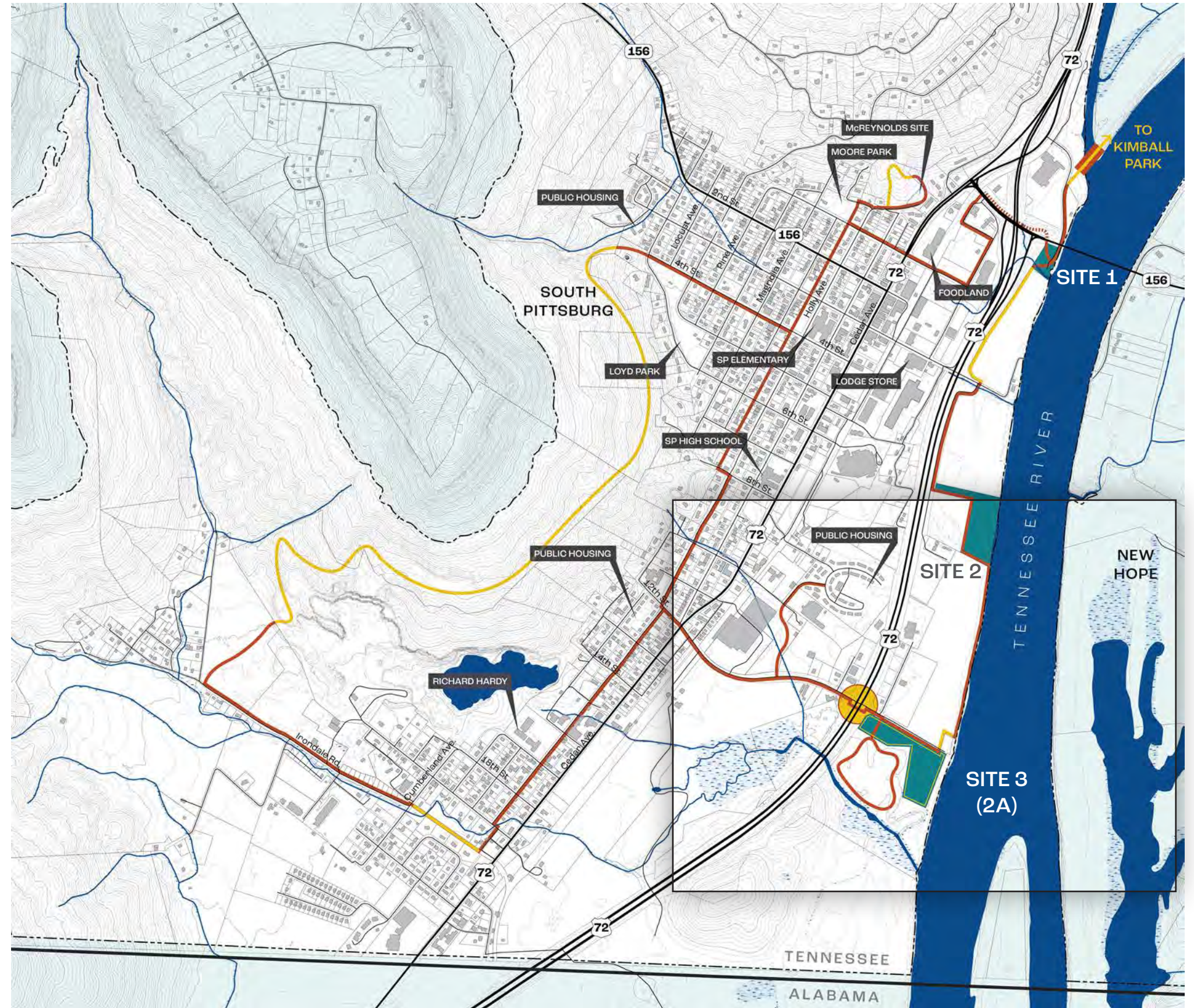
Based on the opportunities diagram and programming opportunities exercises, WMWA developed three options for the configuration of the bicycle and pedestrian network and the river park. The design team was challenged to organize three different options that prioritized a specific approach. The following three options highlight this process.

### Option 1A/2A

The first option features a distributed approach in which the river park's programming is located at three sites along the Tennessee River. Access to the sites is made possible by an underpass crossing located at 12th Street and Highway 72. The underpass creates a crossing option that is safer than an at-grade route and alleviates localized flooding associated with Poplar Spring Branch. Connectivity between the river park sites is accomplished by a bicycle and pedestrian path that terminates south of Site 3 and extends north beyond Site 1 and toward Kimball Park. Option A aligns most of the city-wide connectivity network along the alleyways and offers a long, woodland trail highlighted in yellow.



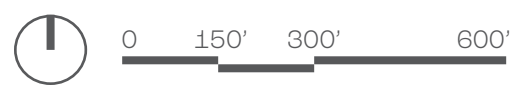
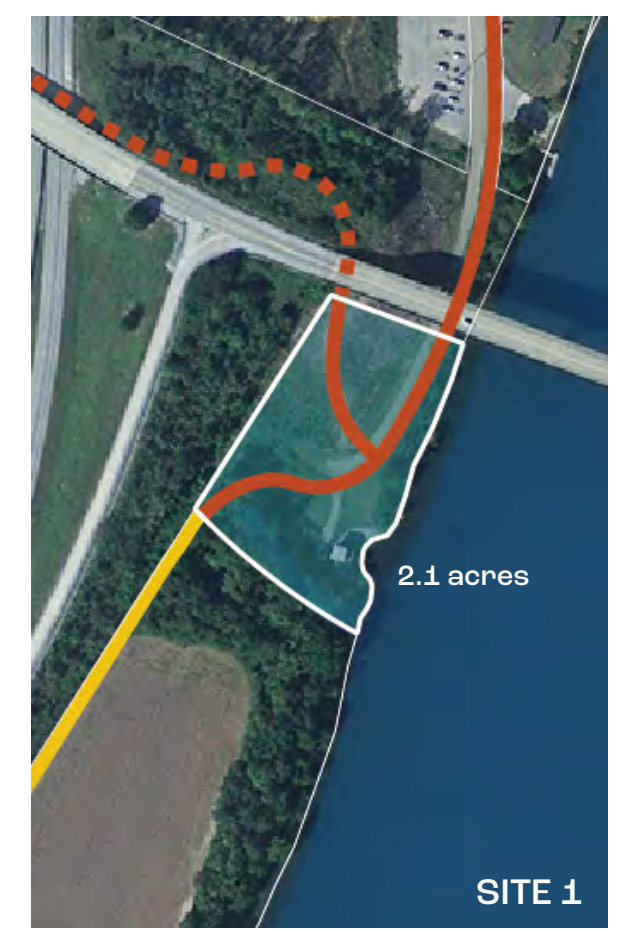
- River Park Site - Private Property
- River Park Site - Public Property
- Bicycle / Pedestrian Path - Public Property
- Bicycle / Pedestrian Path - TDOT Property
- Bicycle / Pedestrian Path - Private Property
- Underpass





The graphics below represent the amenity spaces considered for the three design options. They are drawn to scale and offer an opportunity to consider how these elements might fit within the various sites.

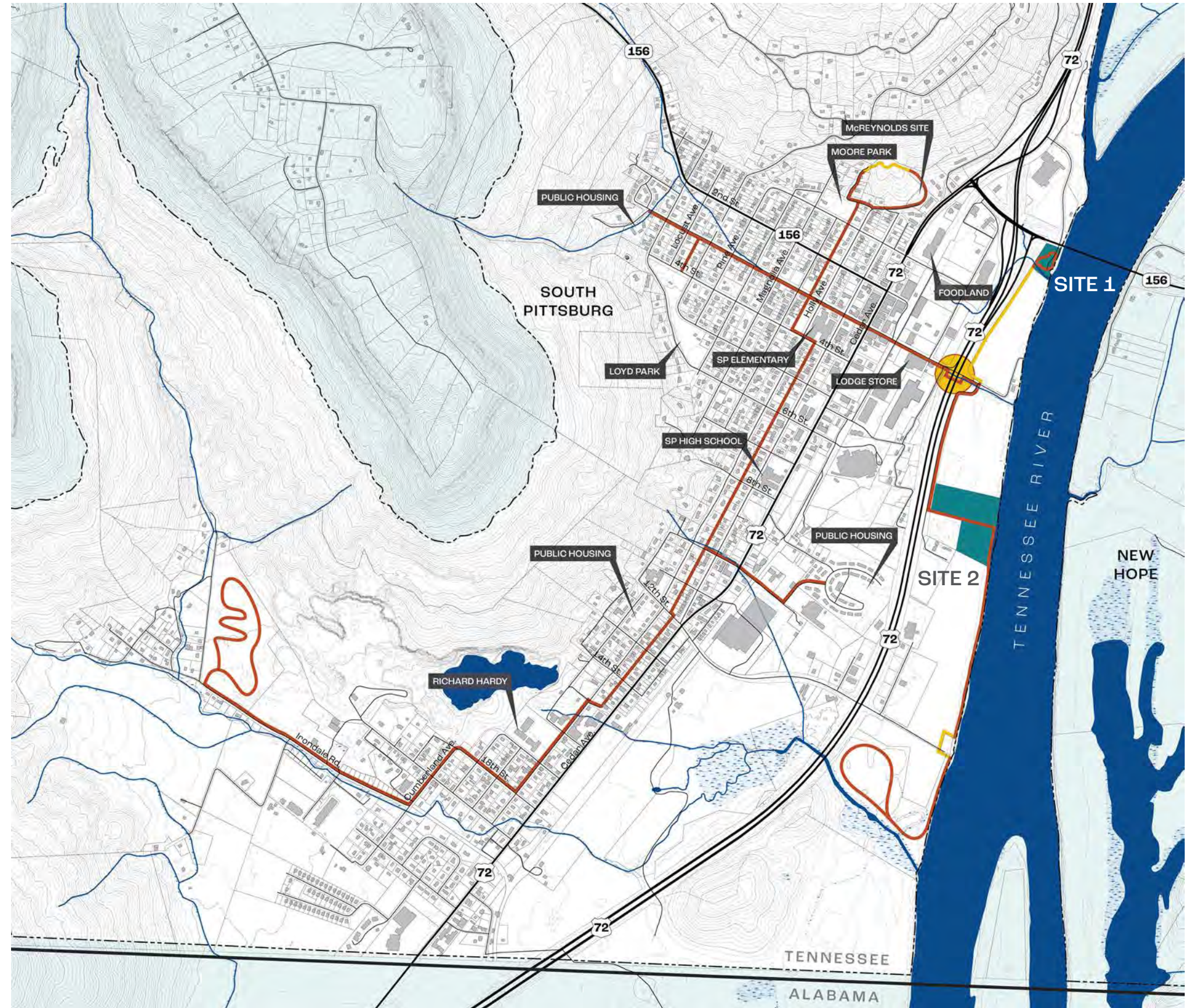
<b>Parking</b> 30 spaces	<b>Parking</b> 100 spaces	<b>Boat Launch</b> 6 lanes	<b>Courtesy Dock</b> 300'	<b>Multi-Purpose Field</b> 400' x 265'	<b>Dog Park</b> 1 acre	<b>Marina Parking</b> 200 rigs
<b>Playground</b> 10,000 SF	<b>Splash Pad</b> 4,500 SF	<b>Skate Park</b> 10,000 SF	<b>Community Garden</b> 7,000 SF	<b>Multi-Purpose Courts</b> 3 courts	<b>Amphitheater</b> 500 seats	<b>Bouldering Park</b> 8,500 SF



### Option B

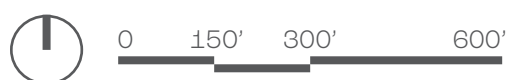
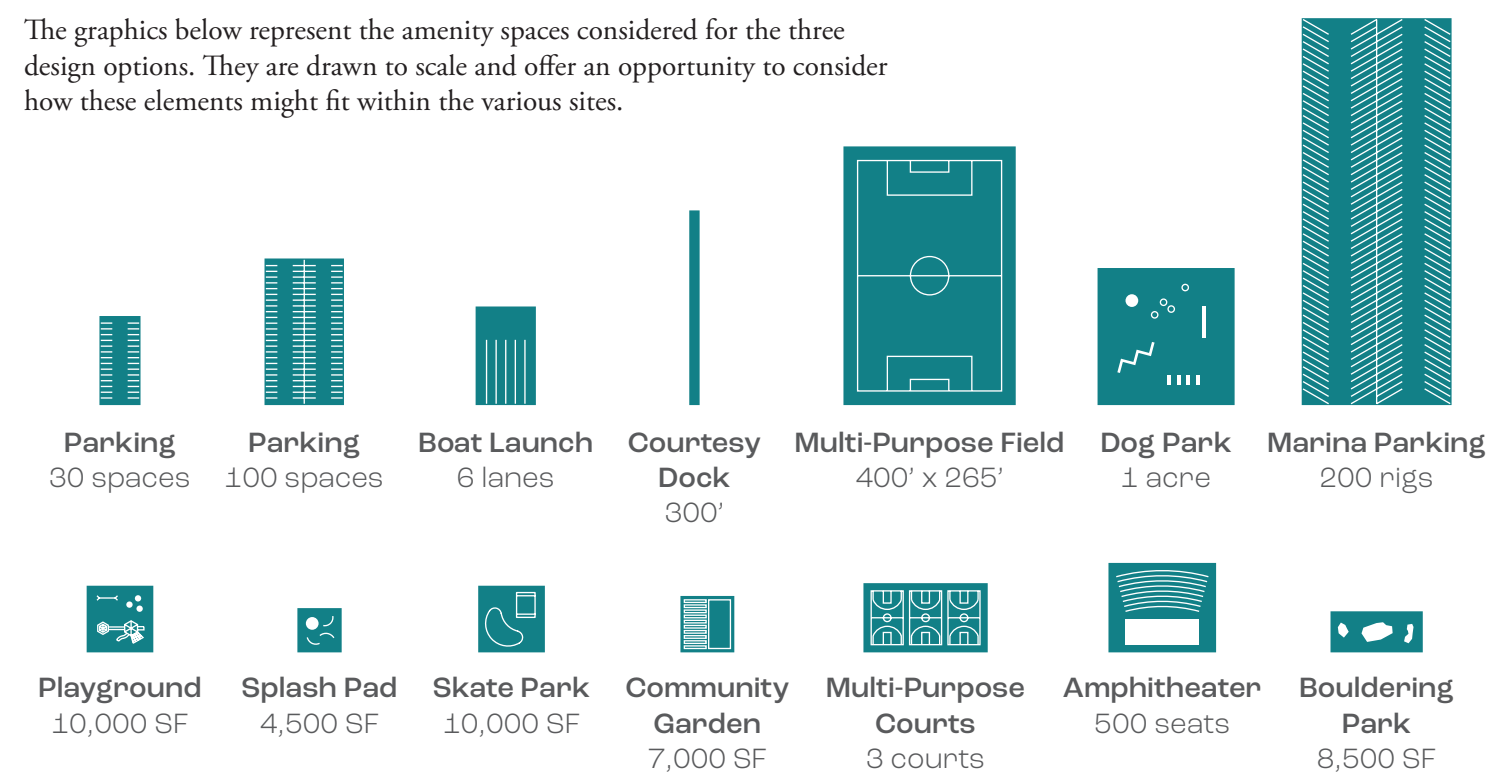
The second option prioritizes the incorporation of city-owned property and organizes the river park programming into a more concentrated footprint. Similar to Option A, this option proposes an underpass crossing at 3rd Street. This location is much more convenient for downtown users and less advantageous for those who are coming from Richard City. Connectivity between the river park sites is accomplished by a bicycle and pedestrian path that terminates to the south at the TVA-owned property along Poplar Spring Branch and to the north at Site 1. Like Option A, this option proposes that the city-wide connectivity network align with the alleyways; however, it suggests that the system utilize the critical east-to-west roads to move users from the residential nodes to the central spine. Additionally, this option makes an explicit effort to connecting this network with the four public housing units in South Pittsburg.

- River Park Site - Private Property
- Bicycle / Pedestrian Path - Public Property
- Bicycle / Pedestrian Path - Private Property
- Underpass





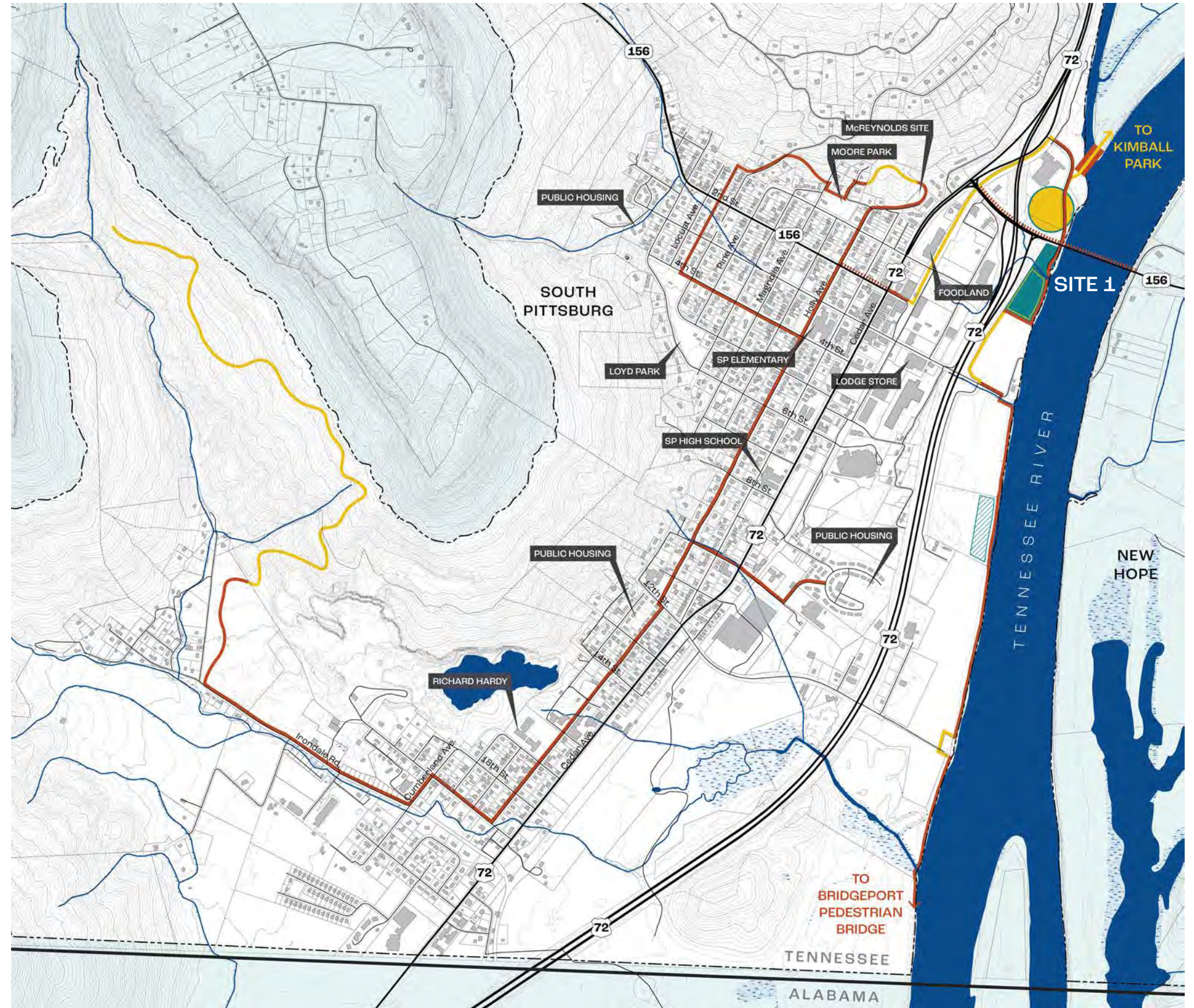
The graphics below represent the amenity spaces considered for the three design options. They are drawn to scale and offer an opportunity to consider how these elements might fit within the various sites.



### Option C

The third option explores the possibility of a trails-with-rails design approach to offer a potentially less expensive solution to crossing Highway 72. Of the three options, Option C proposes the most consolidated footprint for the river park, which is located at Site 1 just south of the Shelby A. Rhinehart Memorial Bridge. To accomplish this configuration, this option proposes a land swap with private landowners to consolidate park programming with the existing parcel. Like Options A and B, this option uses the city's alleyways; however, Option C is much more regionally-focused in its approach. This plan highlights the connections beyond South Pittsburg to Kimball Park to the north and the Bridgeport Pedestrian Bridge to the south. Additionally, the bicycle and pedestrian network connects to the state-wide bicycle network via the Rhinehart Memorial Bridge.

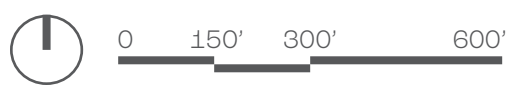
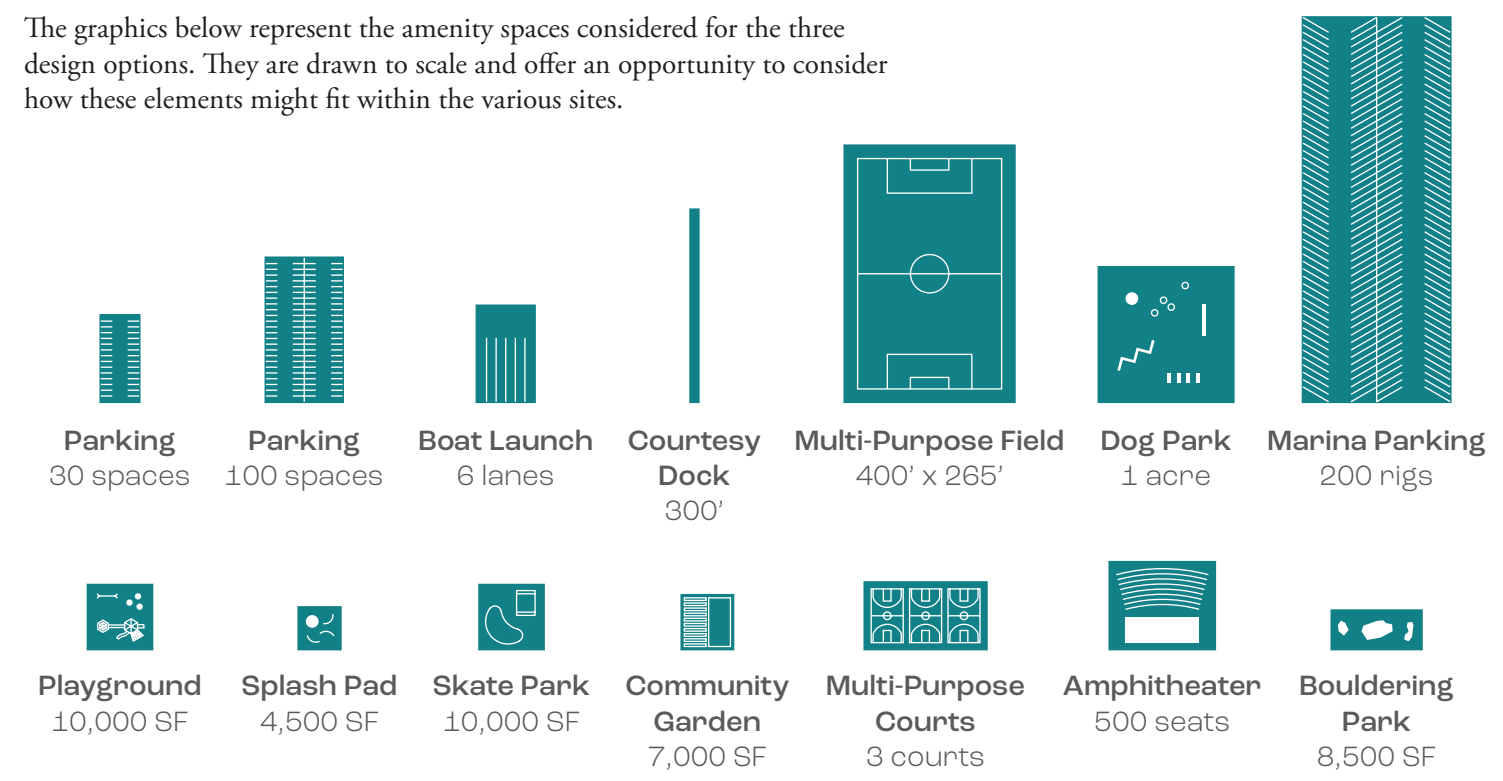
- River Park Site - Private Property
- River Park Site - Public Property
- Land Swap Property
- Bicycle / Pedestrian Path - Public Property
- Bicycle / Pedestrian Path - TDOT Property
- Bicycle / Pedestrian Path - Private Property
- Private Boat Launch
- Bridge - Existing Battle Creek Pylons







The graphics below represent the amenity spaces considered for the three design options. They are drawn to scale and offer an opportunity to consider how these elements might fit within the various sites.







# 3. Design Recommendations



### Proposed Bicycle and Pedestrian Network

The three design options were presented to the steering committee, private landowners and stakeholders, TVA, TDOT, Ironhorse Resources, and other entities to elicit comments and feedback. Those meetings were foundational to the design process, as the realistic constraints uncovered in those conversations directed the spatial configuration of the final iteration of the bicycle and pedestrian network.

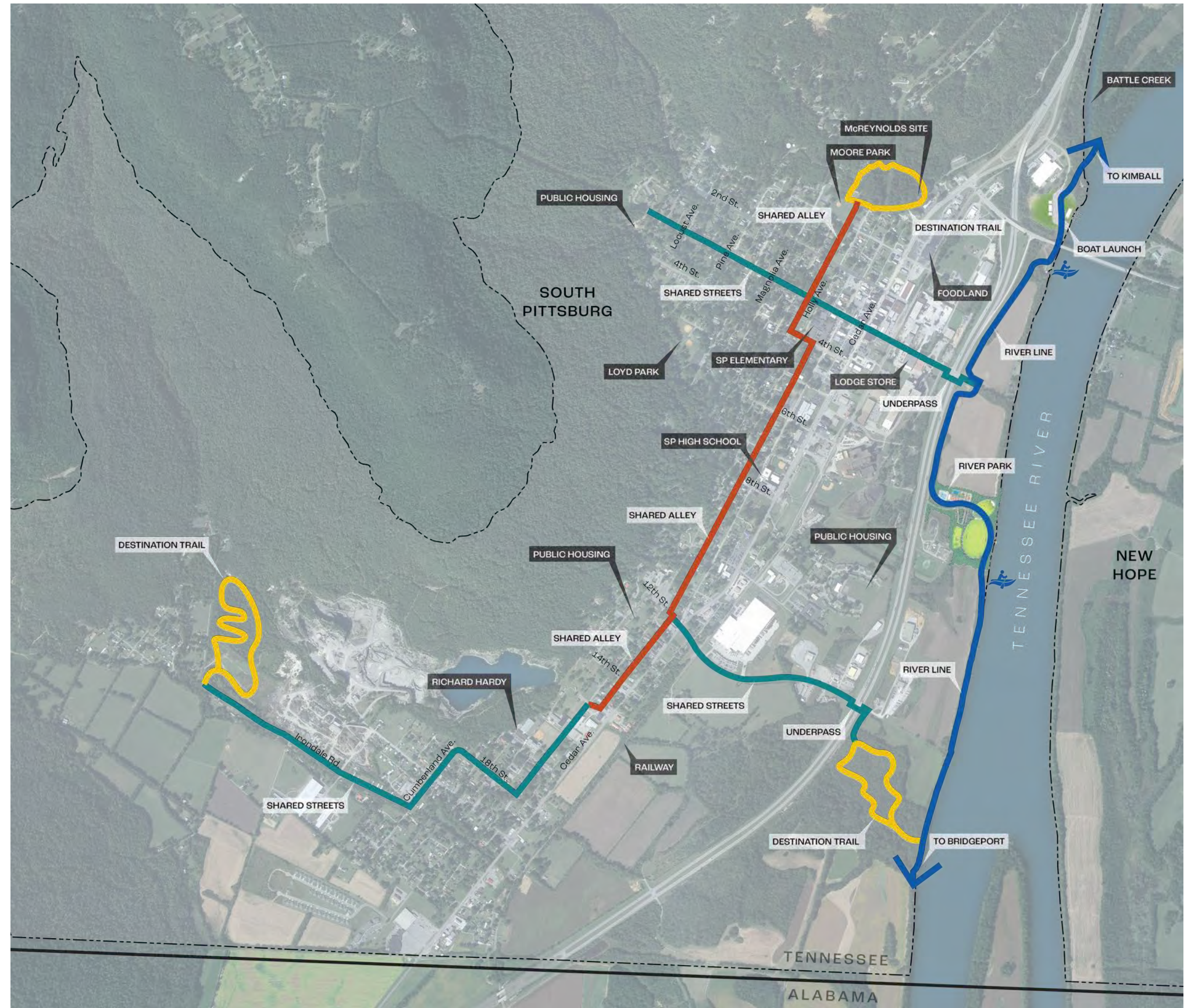
The proposed bicycle and pedestrian network is made up of three main components: a Shared Alley for urban connectivity running SW to NE, the RiverLine running in the same direction along the River, and two Separated Shared Use Paths running NW to SE that link the first two. A fourth component is comprised of three Destination Trails located at the City Cemetery, the TVA wetland, and city-owned property west of the Vulcan Materials Company site. The proposed network is intended to maximize equitable circulation and destination access for South Pittsburg residents.

The Shared Alley option acts as a main connectivity spine for the city and can be implemented with minimal costs and relatively quickly. The two NW to SE Separated Shared Use Paths include underpasses at US Highway 72 to both provide for separated pedestrian crossing of the highway. Additionally, in extreme rain events, these tunneled routes will function as an outlet for trapped stormwater to move beyond the highway and towards the river. The RiverLine is envisioned as a shared use greenway that links users to the Tennessee River, a River Park, and paddling launches. In the future, the RiverLine will also link the city to destinations to the north and south of South Pittsburg.

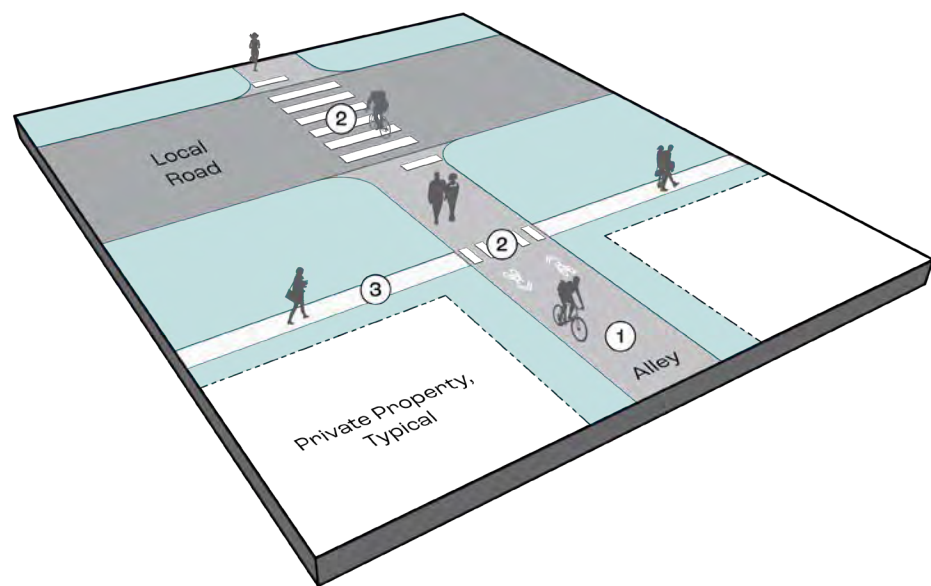
As the city grows and funds become available, more connections can be added using the Shared Alley, Separated Shared Use Path, or when space or funds are limited, the Complete Street option.

Lastly, this plan locates a future boat launch and small marina located to the north of the Shelby A. Rhinehart Memorial Bridge. This amenity will be funded from private sources.

- Shared Alley
- Shared Street
- RiverLine
- Destination Trail
-  Paddling Launch



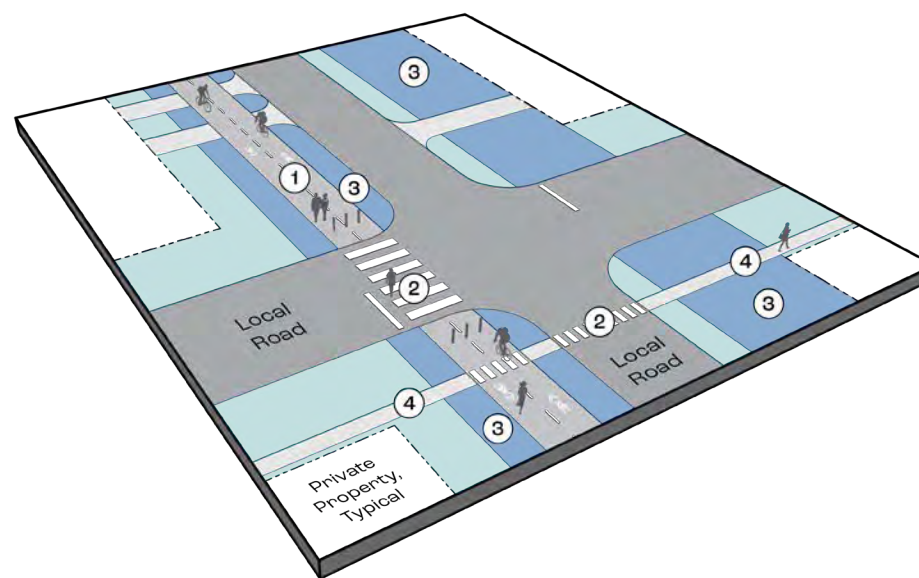
## Bicycle and Pedestrian Network Typologies



- ① Shared Use Path
- ② Improved Crosswalks
- ③ Existing Sidewalk

### Shared Alley

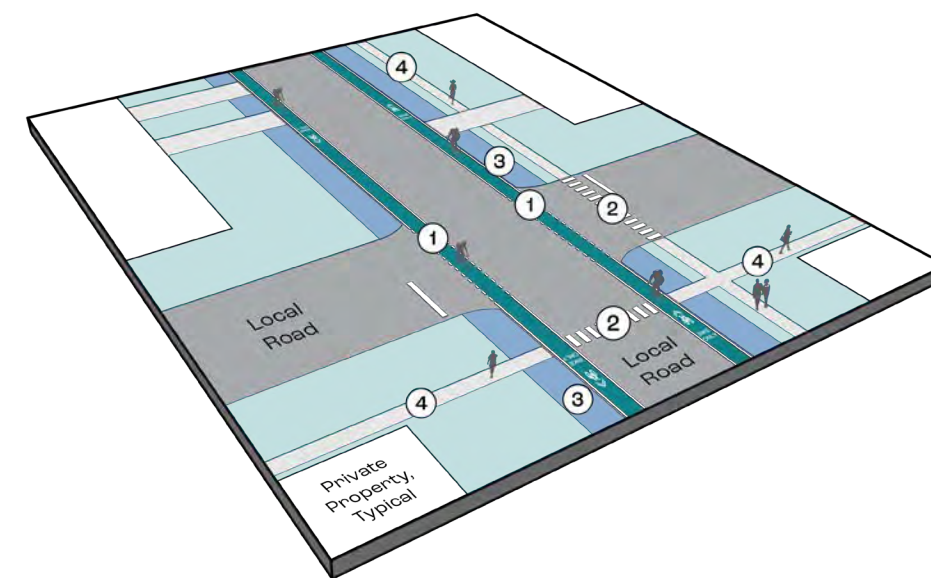
The primary spine of the connectivity network utilizes existing alleyways as a shared route between pedestrians, bicyclists, and low speed vehicular traffic. This typology includes pavement markings, signage, and added crosswalks to indicate shared use.



- ① Separated Shared Use Path
- ② Improved Crosswalks
- ③ Green Infrastructure
- ④ Existing Sidewalk

### Separated Shared Use Path

Connecting the Shared Alleys to the RiverLine, this typology would be utilized along 3rd and 12th Streets where the existing right-of-way easily accommodates a separate shared path and green infrastructure measures to treat, slow, and absorb stormwater. This typology requires more intensive construction with a new path, improved crosswalks, and the green infrastructure interventions.



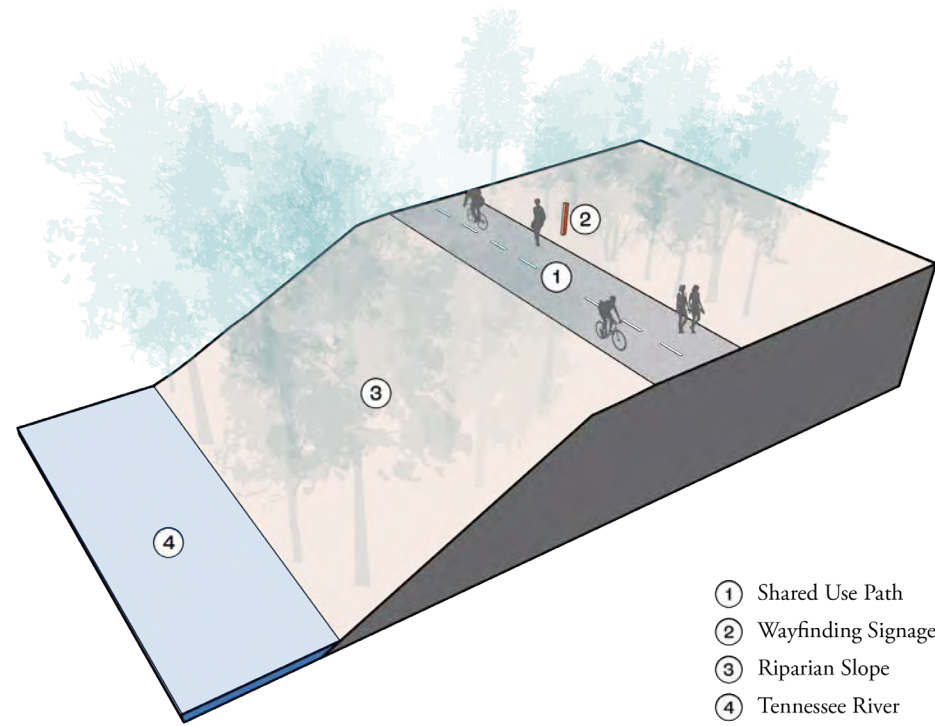
- ① Bike Lane
- ② Improved Crosswalks
- ③ Green Infrastructure
- ④ Existing Sidewalk

### Complete Street

This typology offers an alternative approach where available space or funds might prohibit the installation of Separated Shared Use Paths.

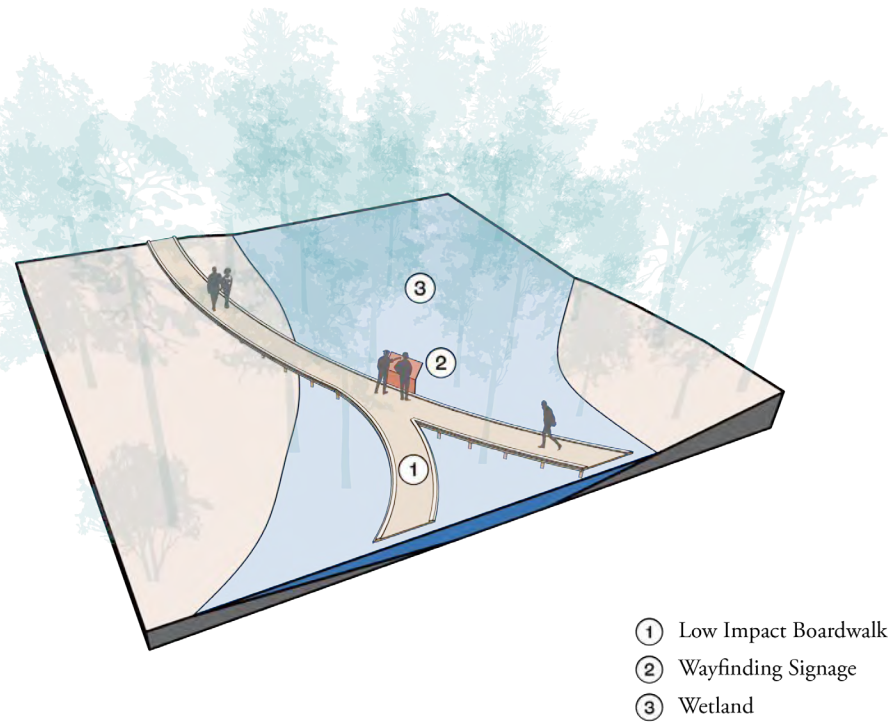


## Bicycle and Pedestrian Network Typologies



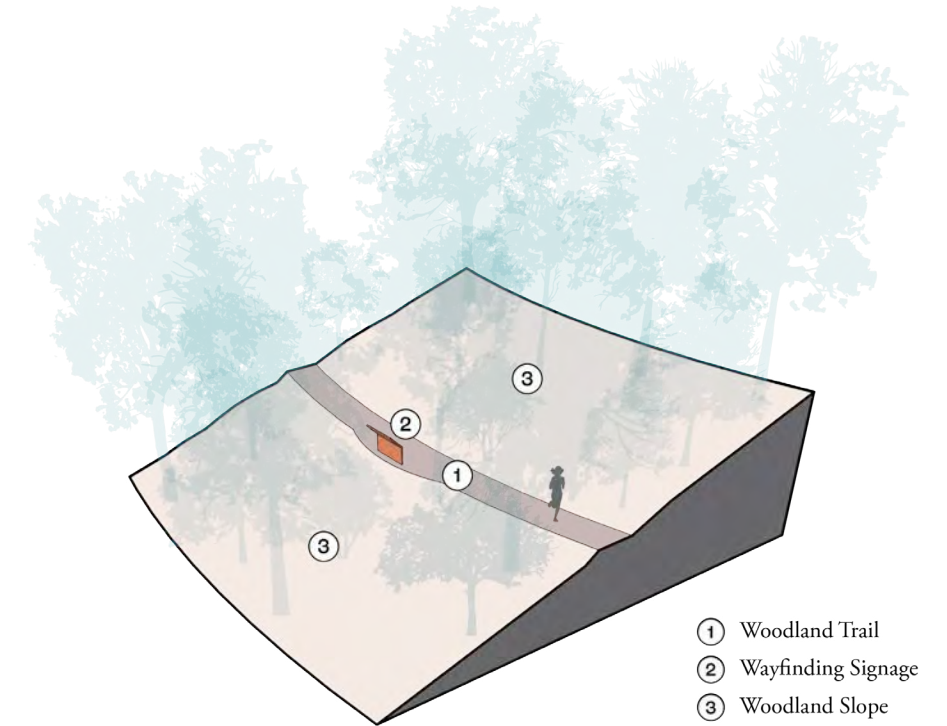
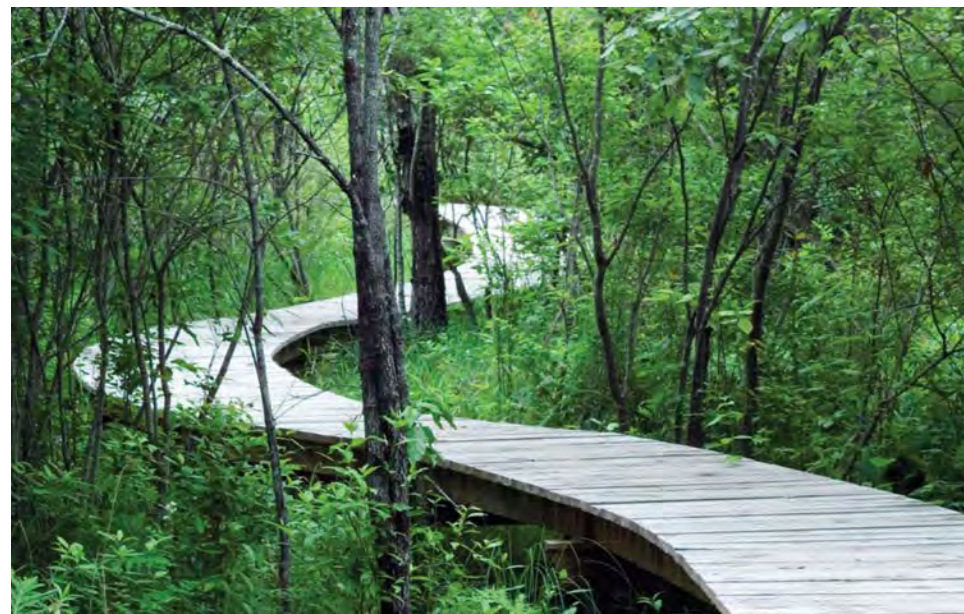
### RiverLine

The RiverLine typology features a shared use path that parallels the Tennessee River. The path is located at the top of the riparian slope and includes way-finding signage and could include educational waysides that provide information on the river's cultural and natural history.



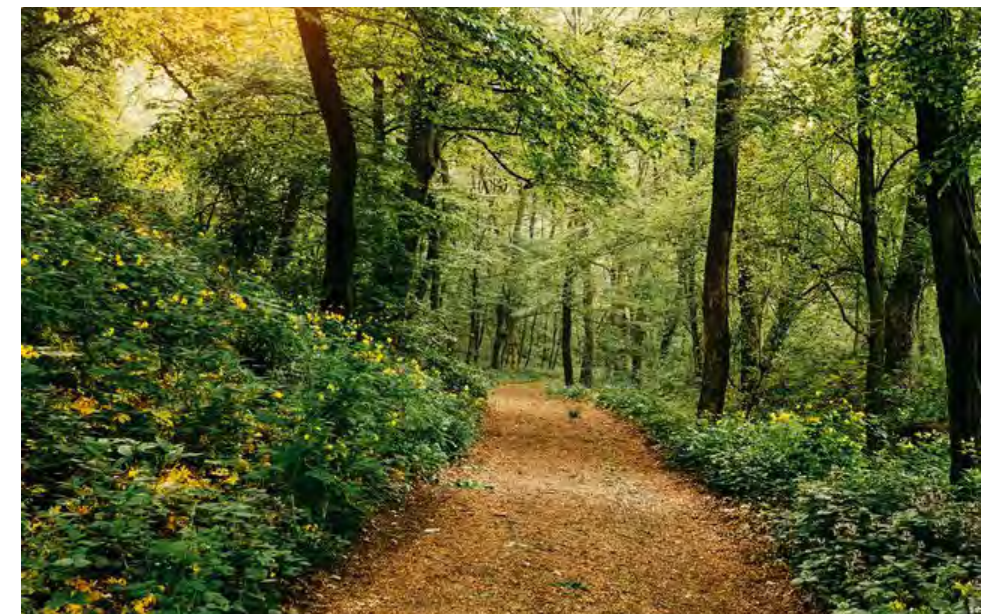
### Wetland Boardwalk

The wetland boardwalk typology uses a low-impact method for path construction in sensitive areas. This typology would be used in the TVA Sensitive Resource Management Zone and other areas. Way-finding and education signage would be included.

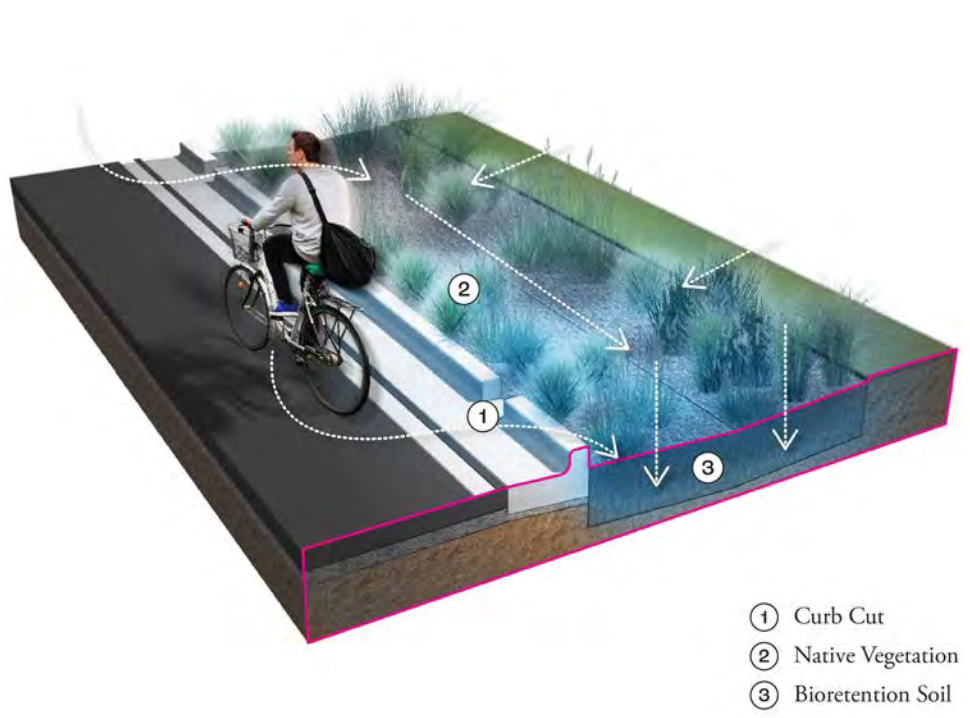


### Low Impact Trail

The woodland trail typology would be utilized at the city cemetery and at the Woodland Hiking Trail located on 39 acres of city-owned property in Richard City. Way-finding and education signage would be included.

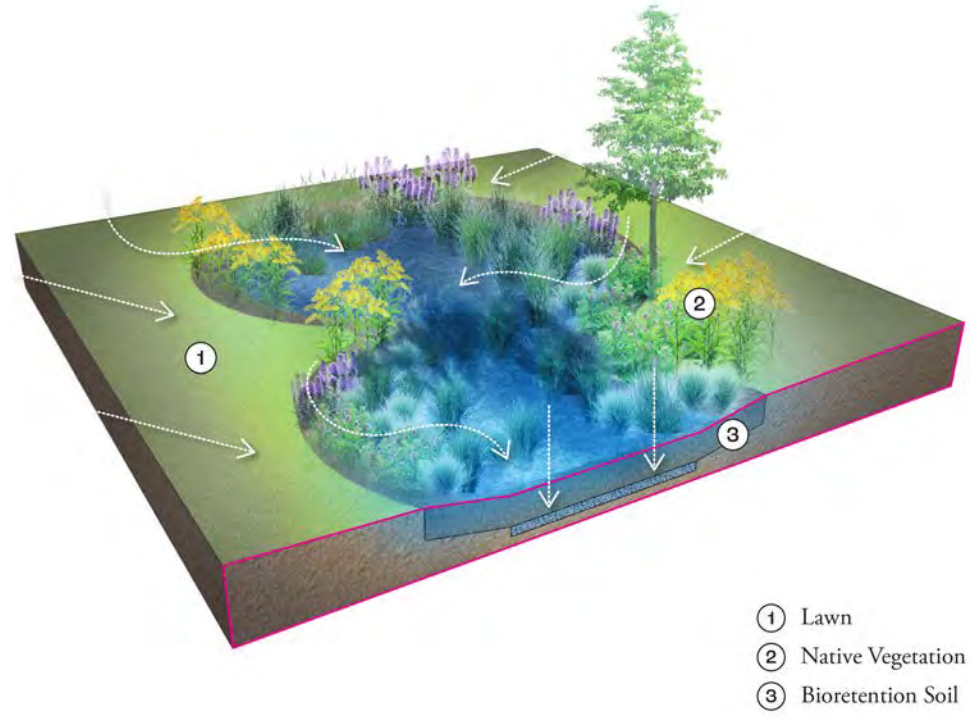


# Green Infrastructure Typologies



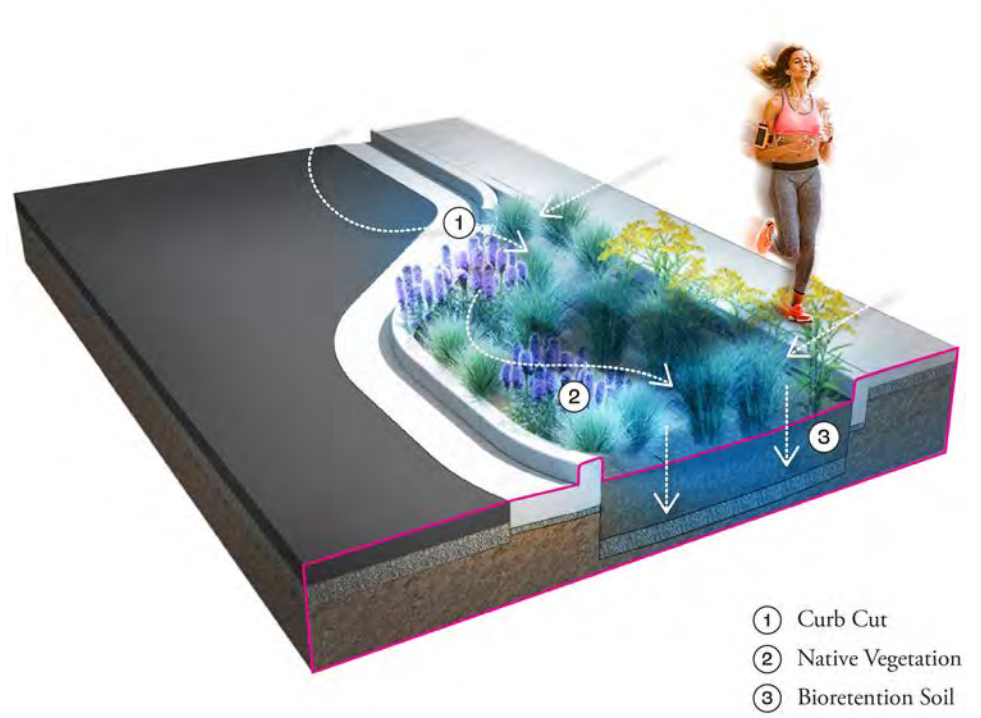
**Vegetated Swale**

Vegetated swales are shallow, linear channels that slow down stormwater run-off and allow stormwater to infiltrate into the ground. This low-cost strategy can fit in tight spaces and is useful at intercepting run-off along roadways as well as creating buffers and screens. This strategy has moderate maintenance requirements.



**Rain Garden**

Rain gardens are shallow, depressed areas that collect stormwater and allow it to slowly return to the ground. These systems are highly adaptable and can be different shapes and sizes depending upon where they are used. Rain gardens are relatively inexpensive. This strategy has moderate maintenance requirements.



**Curb Bump-Out**

Curb bump-outs are planted curb extensions that slow down run-off, allowing stormwater to infiltrate into the ground. Because new curbs must be built, this intervention costs more than other strategies and can only be used where there is sufficient space in the roadway. This strategy has moderate maintenance requirements.



## River Park Plan

The proposed new River Park is situated on 16 acres of city-owned land east of Highway 72 and the Water Works & Sewage System facility. Park amenities include those identified during community engagement as most desired by residents. The proposed RiverLine greenway runs through the center of the future park linking it to the new bicycle and pedestrian network and vehicular access is provided from Willow Avenue via Ferry Road. Parking for seventy-six cars is centrally located and provides access to the park and the RiverLine.

The River Park is loosely organized into three nodes of similar activities. The first offers a variety of activities for kids and adults and is located along the northern park boundary. This node contains a swimming pool, multi-purpose court, plaza, two playgrounds, bouldering park, and passive recreation green. The second node features an event lawn, pavilion, and shaded grove and provides flexible space for concerts, movies, festivals, and other community events. The last node includes a dog park, multi-purpose field, fitness circuit, and fishing pier.

The various green spaces between park elements provides for treatment of all stormwater run-off associated with the park development and potentially additional run-off from Willow Avenue and US Highway 72. These site elements have been arranged to avoid structures above the gas pipeline running through the site, to minimize conflict with the 100-year floodplain, and to limit the need for fill in the floodplain. Room for future expansion at the Water Works has been accommodated based on conversations with the utility.

A water quality buffer will be created or increased along most of the Tennessee River. Use of native plants will increase ecological health through greater plant diversity and increased tree canopy in the buffer and throughout the park.

- 1 RiverLine
- 2 Entry Drive
- 3 Parking
- 4 Swimming Pool
- 5 Pool House
- 6 Multi-purpose Court
- 7 Plaza
- 8 Playground
- 9 Bouldering Park
- 10 Green Space
- 11 Event Lawn
- 12 Pavilion
- 13 Sitting Grove
- 14 Dog Park
- 15 Multi-purpose Field
- 16 Fitness Circuit
- 17 Fishing Pier
- 18 Future Circular Clarifier







Lodge Point

South Pittsburg High School

South Pittsburg Elementary School

City Hall

Highway 72

Water Works & Sewage System

Lodge Manufacturing

RiverLine

Swimming Pool

Multi-use Court

Dog Park

Playground and  
Bouldering Parks

Multi-purpose Field

Event Lawn

RiverLine

Tennessee River

### River Park Bird's Eye

The proposed new River Park is situated on 16 acres of city-owned land east of Highway 72 and the Water Works & Sewage System facility. This image highlights the location of and relationship between the park's major program features.



RiverLine

Tennessee River

Multi-purpose Field

### Multi-purpose Field

The River Park's multi-purpose field offers a large, flexible green space for individual exercise and organized team sports. The size of the multi-purpose field offers ample space for overlapping activities and can be configured to meet several standardized sport's field dimensions.



Whitacre Point

Playground

Multi-purpose Court

Playground

Bouldering Park

### Playground and Bouldering Parks

The River Park's playground and bouldering parks provide active recreation opportunities for all ages. Ample seating and shade trees surround each element and offer a comfortable option for rest and observation.



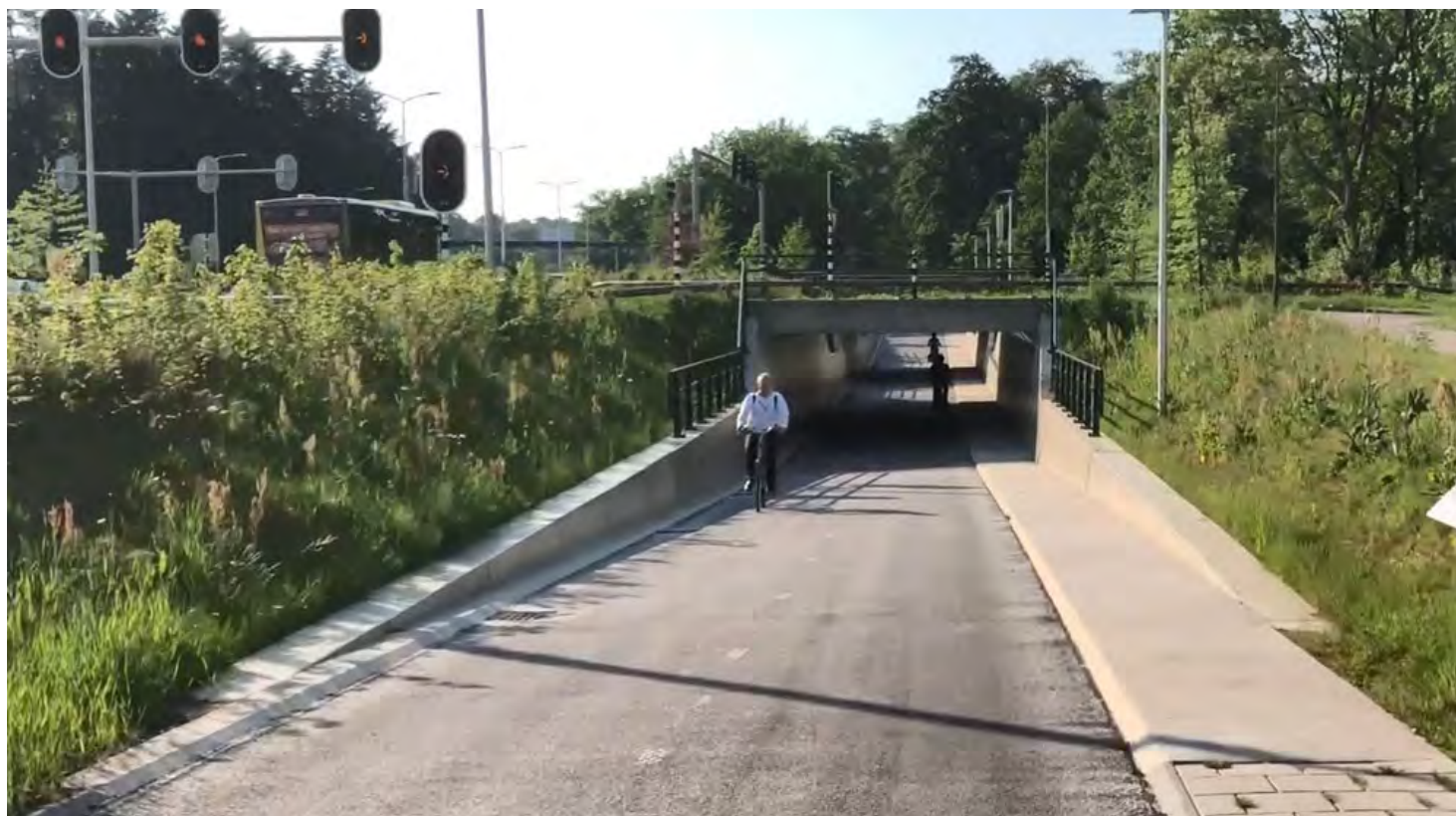
RiverLine

Paddling Launch

Tennessee River

### Paddling Launch

As part of the bicycle and pedestrian network, the plan proposes two locations for future paddling launches. These amenities will better connect South Pittsburg's residents with the Tennessee River and will attract paddling enthusiasts from around the region.



Examples of Underpasses, Floating Docks, and Fishing Piers



Examples of Multi-purpose Courts and Swimming Pools



Examples of Playgrounds and Bouldering Parks



Examples of Event Lawns, Multi-purpose Fields, and Sitting Groves





Examples of Bicycle and Pedestrian Paths and Green Infrastructure





# 4. Implementation Strategies



## Implementation Strategies

Implementation of the Framework Plan will require years of planning and fundraising from multiple sources. This effort will be best accomplished in manageable pieces and with a coalition of partners. To that end, the nature of this plan promotes a flexible approach to implementation. In some cases, certain elements are dependent upon a precise sequence, whereas other features can be independently implemented.

For example, the Destination Trails are the most dependent in that they must be connected to the greater network for pedestrian and vehicular access or parking must be provided if not connected to the network. The opposite is true for the Highway 72 Underpasses. While much of the system can be sequenced as funds and interest align, safe connectivity between the city and the river will be limited to vehicles without at least one of the underpasses.

Beyond these considerations, the remaining components of the plan can be constructed at any point. Because each element will not generate the same enthusiasm or benefit, the decision matrix should consider these realities along with available funding and other community drivers in prioritizing the eventual order of implementation.

One significant opportunity that could make a very attractive initial project is the Shared Alley because most of the infrastructure already exists, which limits the required funding. Additionally, the footprint of this component stretches through most of the city and creates an immediate benefit with a limited investment.

If fully realized, the River Park is likely the single most expensive element, followed by the RiverLine, Highway 72 Underpasses, Shared Streets, and Destination Trails. Order of magnitude cost data is provided below, however, actual construction cost will depend on the final design of each element. The unit costs below are based on previous built projects.

	Shared Alley Conversion - 8,200 linear feet at \$70 per LF= <b>\$574,000</b>
	Highway 72 Underpasses - \$1,000,000 - \$4,000,000 each= <b>\$2,000,000 - \$8,000,000</b>
	RiverLine - 2.2 miles at \$1,500,000 per mile= <b>\$3,240,000</b>
	Shared Streets - 3 miles at \$750,000 per mile= <b>\$2,250,000</b>
	Destination Trails - 9,240 linear feet at \$20 per LF= <b>\$184,800</b>
	River Park - Pool and Play Area: 70,000 ft <sup>2</sup> at \$60 per ft <sup>2</sup> = <b>\$4,200,000</b> - Pavilion: 2,500 ft <sup>2</sup> at \$150 per ft <sup>2</sup> = <b>\$375,000</b> - Landscape: 625,000 ft <sup>2</sup> at \$5 per ft <sup>2</sup> = <b>\$3,125,000</b>
	Boat Launch= <b>Private funding</b>

