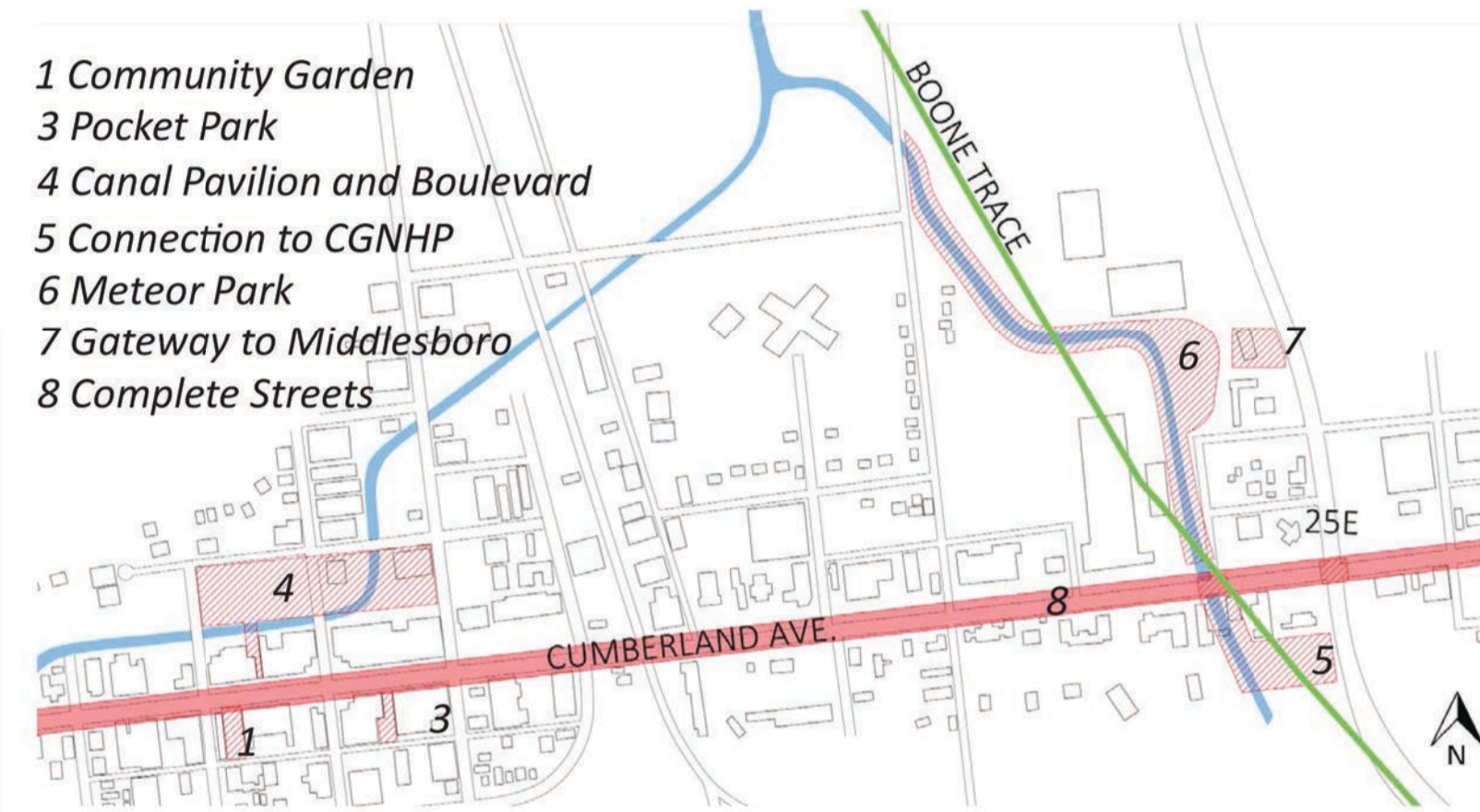


MIDDLESBORO, KENTUCKY

Abstract

The downtown team's analysis concluded that the city of Middlesboro can be improved by revitalizing vacant and underutilized property as well as making connections to the Boone Trace and linking to the Canal Walk and Greenway. Our suggestions intend to bring people together and to create a strong framework for a more livable city.



Figures 1: Downtown Areas of Interest



Figure 2a: Community Garden with raised planters and educational stations

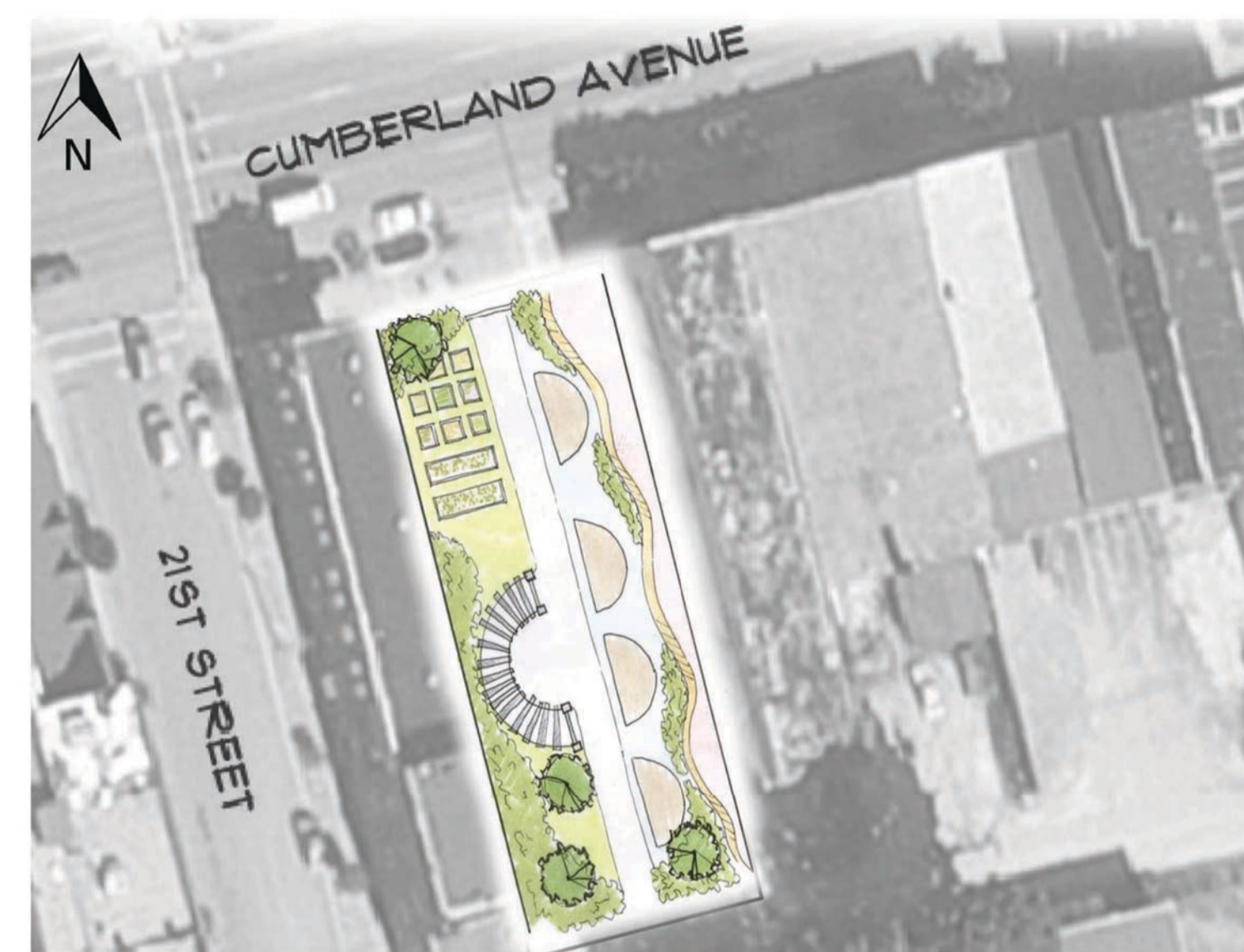


Figure 2b: Community Garden Plan

Community Garden

Community gardens increase social bonds within the community members and provide means of fresh food for residents. Youth and adults alike can take part in educational work stations, learning about the benefits and importance of sustainability, all while producing food for the community (Figures 2a & 2b).

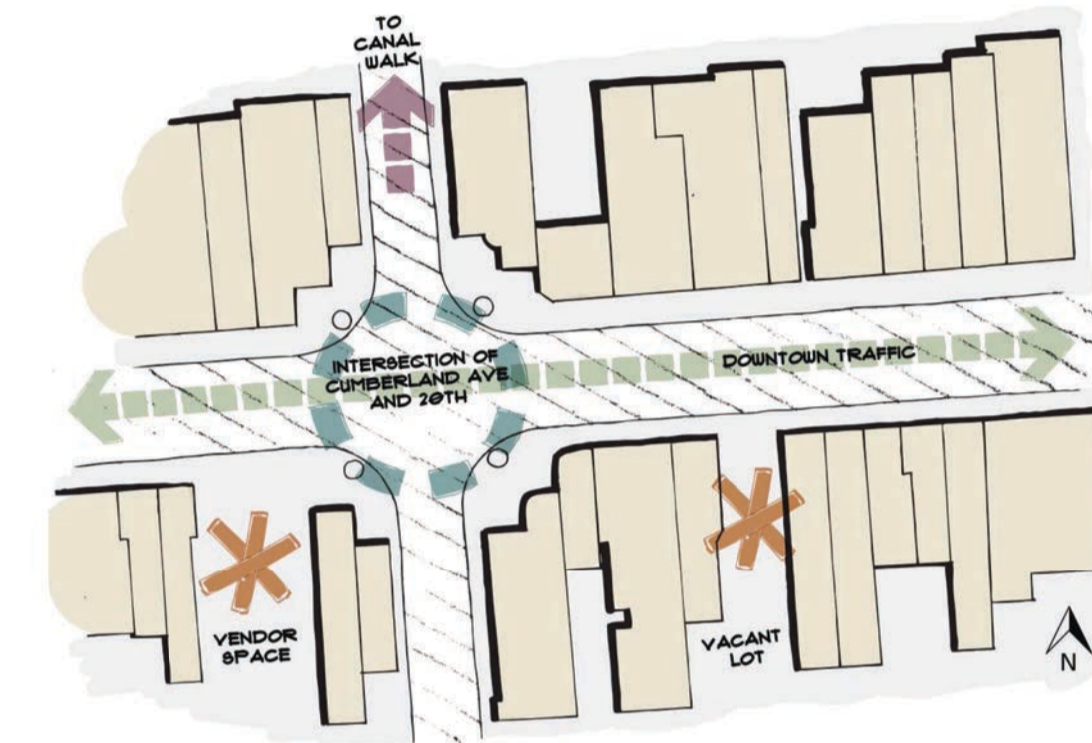


Figure 3: Downtown Analysis

Pocket Park

Utilizing small abandoned lots for green space is a great way to increase socialization opportunities. Creating a building facade at the front of this lot will be a unique feature while increasing building continuity along Cumberland Avenue (Figures 4a & 4b).



Figure 4a: Proposed facade at pocket park

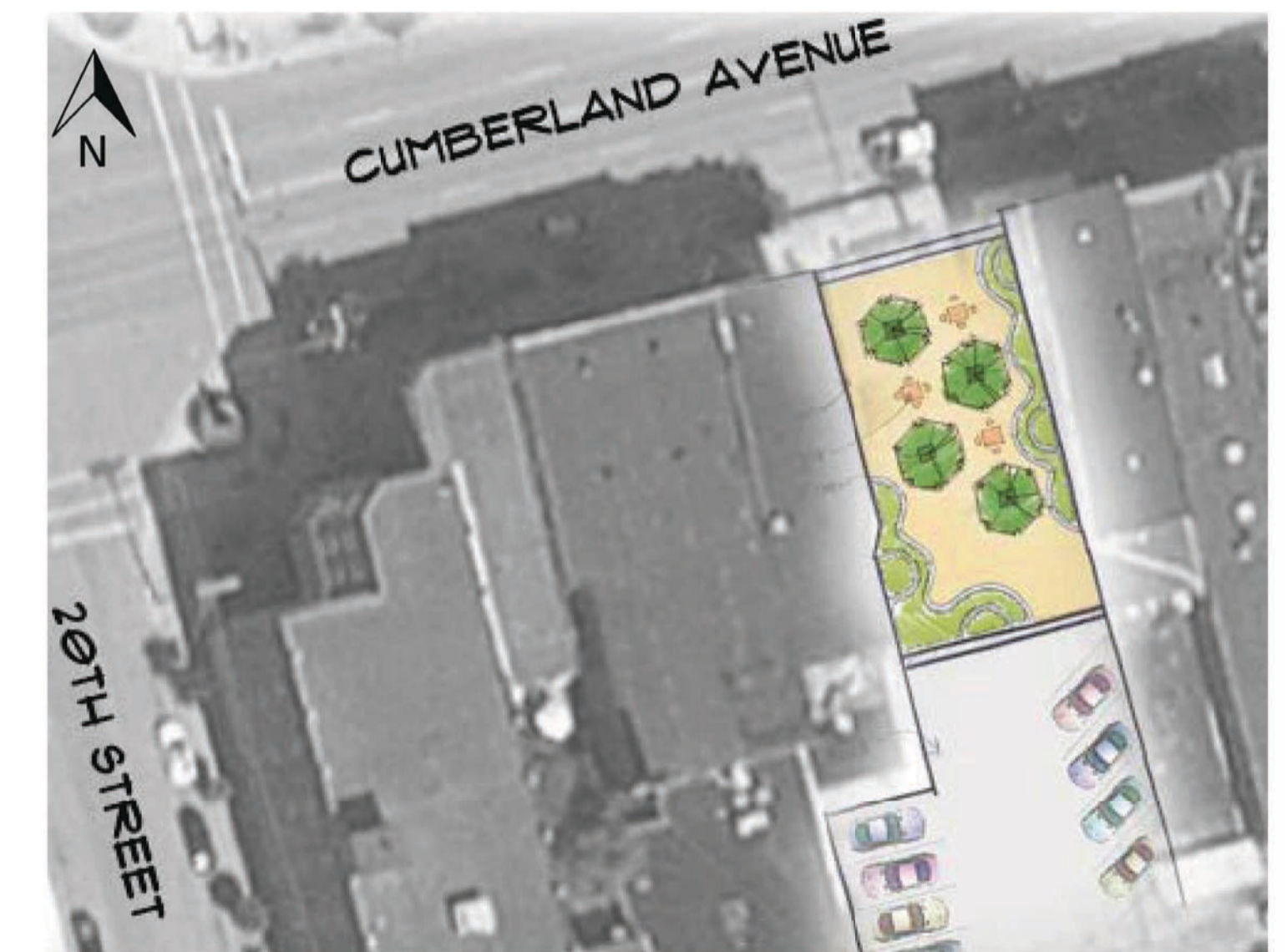


Figure 4b: Pocket Park Plan

Canal Pavilion and Boulevard

The Canal Pavilion will provide a space for events while directly connecting people to the water. Open back lots of buildings facing Cumberland Avenue could become possible cafe and business space, supporting the local economy. The proposed design would strengthen canal walkways and provide ample seating space for the community.

Adjacent to the Canal Pavilion is the Canal Boulevard which will connect the Pavilion to the other side of the canal. Stepped amphitheatre seating and a friendly pedestrian boulevard completes the canal walk venue downtown (Figures 5a & 5b).



Figure 5a: From analysis we learned this area could be improved with event space

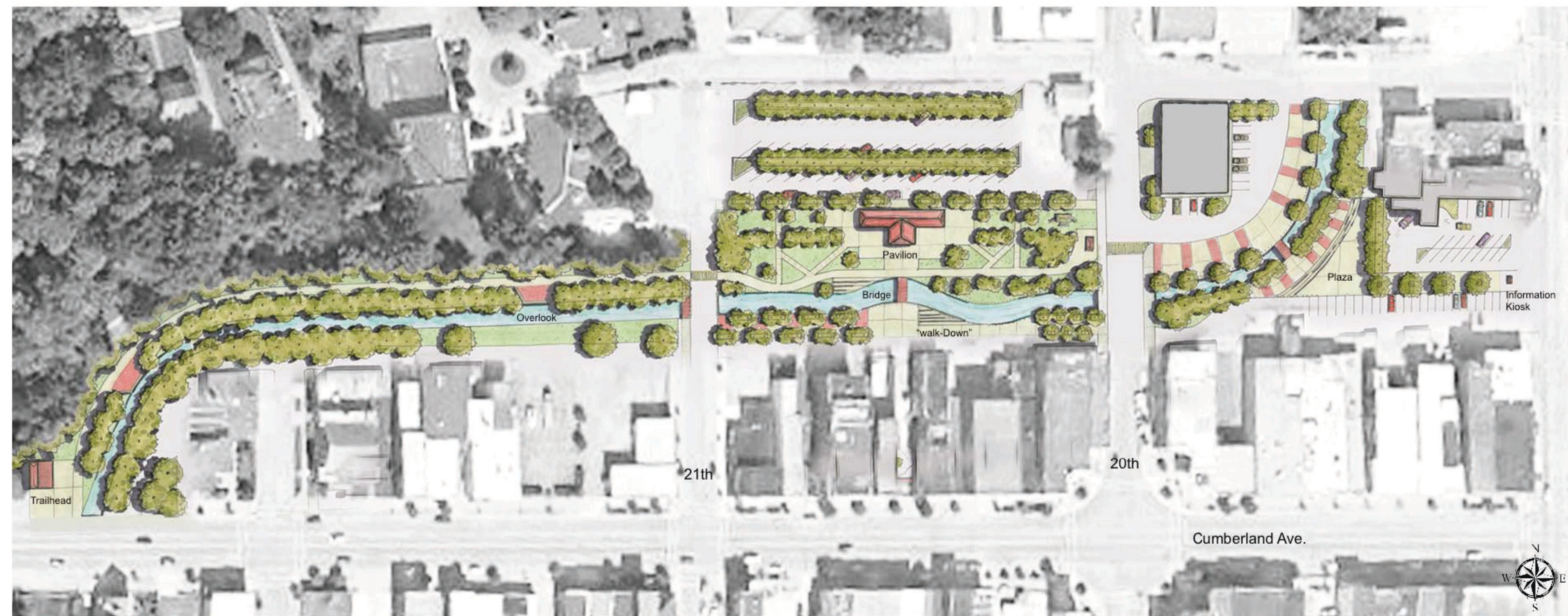


Figure 5b: Proposed Canal Pavilion and Boulevard Master Plan

MIDDLESBORO, KENTUCKY

Potential Connections to CGNHP

These conceptual plans highlight the connection needs between Boone Trace, Cumberland Gap National Historic Park, and downtown Middlesboro. There lacks a strong connection of these areas currently, so we felt this needed to be explored. Developing signs and creating a welcoming entrance will offer opportunities for users to interact with the trails and discover the historic significance of Boone Trace at the marked intersections with the canal. Public open space behind the Shell station on US 25E and the space behind KFC have great potential for physical activity and drawing tourism into Middlesboro.



Figure 1: Conceptual Connections into CGNHP

Connection into CGNHP

Here is a potential design for the connection into the park behind KFC. We felt this access point was strongly needed into the park to increase safety and comfort for pedestrians.



Figure 2: Proposed Connection To CGNHP

Gateway To Middlesboro

A scenic entrance into Middlesboro offers the opportunity to draw people into the town. This can be achieved by creating a focal point at the beginning of Cumberland Avenue. Visitors passing through 12th Street will be drawn in by this attraction.



Figure 3: Gateway to Middlesboro Design



Figure 4: Existing Conditions of Gateway

Meteor Park

Transforming this vacant lot into a unique feature allows the opportunity to draw people into the city of Middlesboro. This will help to unite the community, all while providing new spaces for local business is one way to help the city prosper.



Figure 5: Meteor Park Design



Figure 6: Existing Conditions of Meteor Park

Complete Streets

Complete streets accommodate pedestrians, cyclists, vehicular traffic and allow universal access. This allows for people of all ages and those with disabilities equal access. Implementing complete streets along main thoroughfares will increase greenery and improve aesthetics and also make it safer to use. Slower traffic and limiting the amount of roadway crossed, allow for improved safety.

Residential

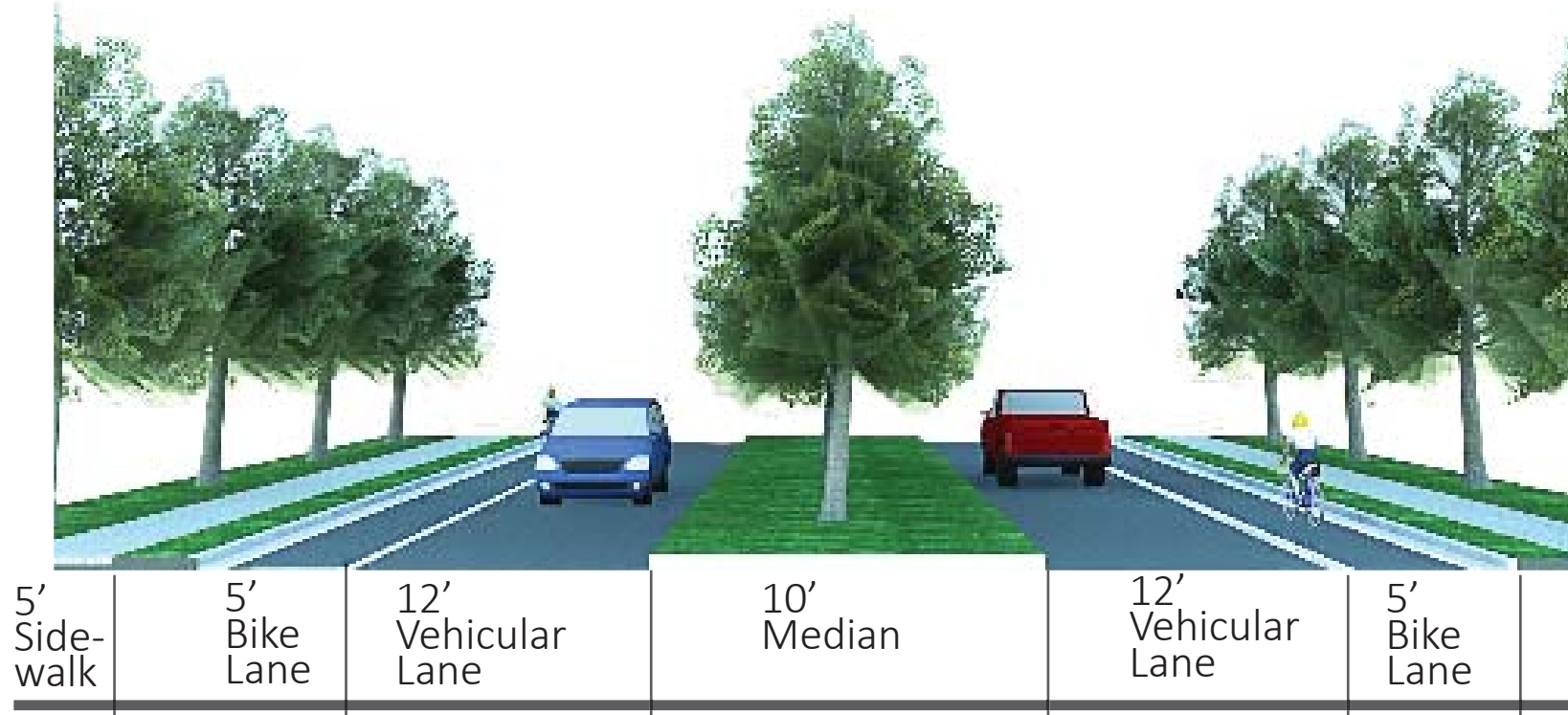


Figure 7: Residential Portion Design

Retail

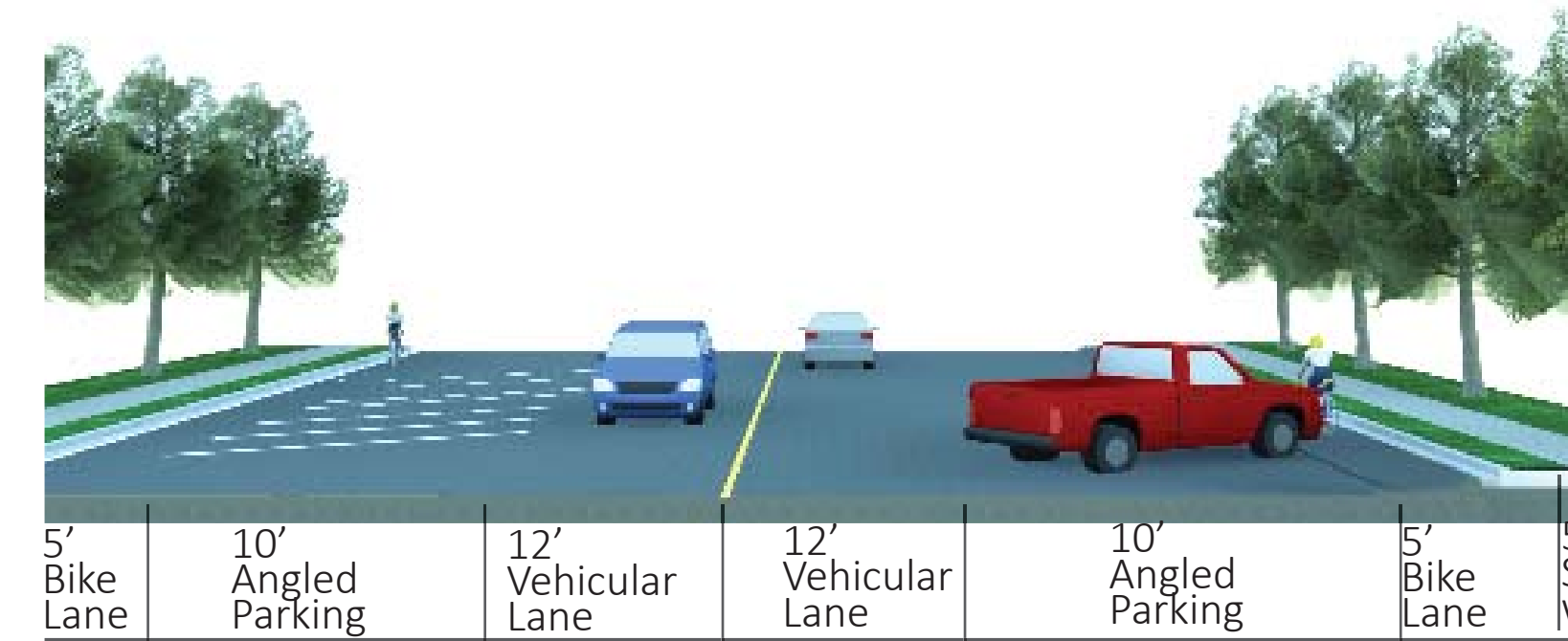


Figure 8: Retail Portion Design

Industrial

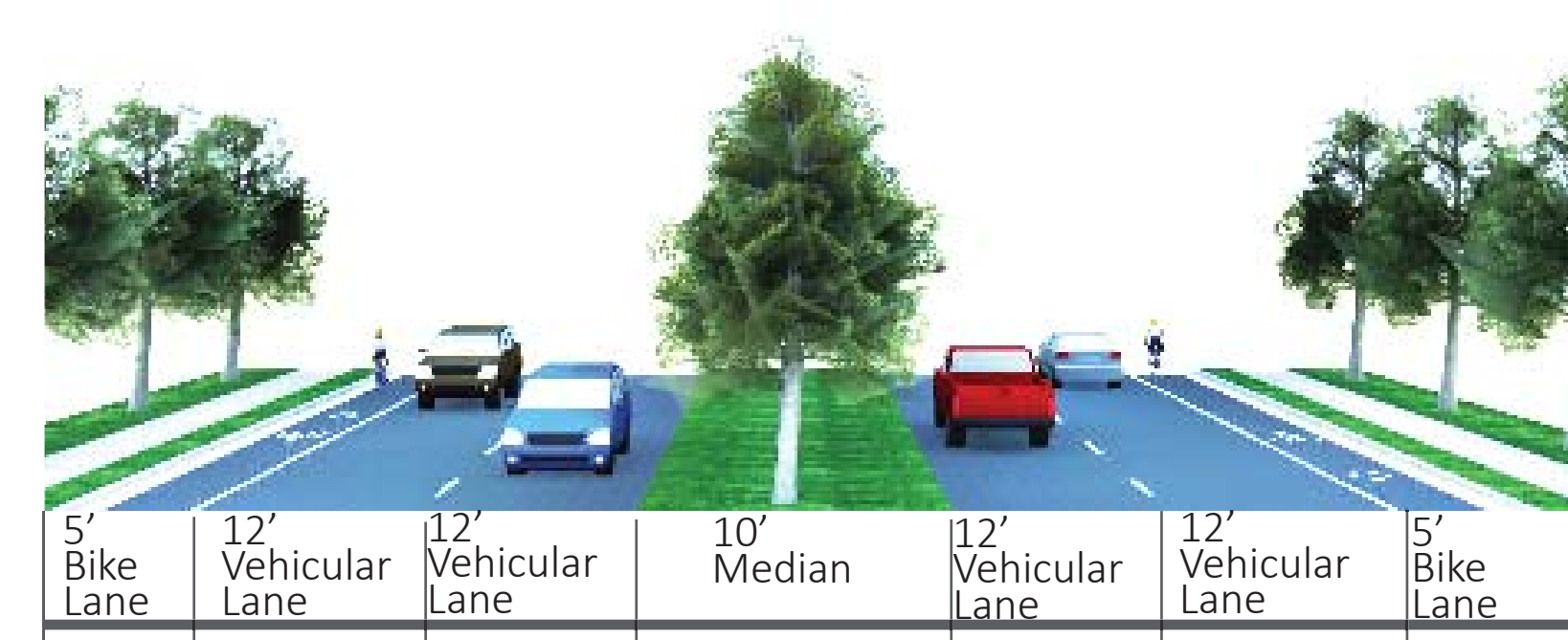


Figure 9: Industrial Portion Design

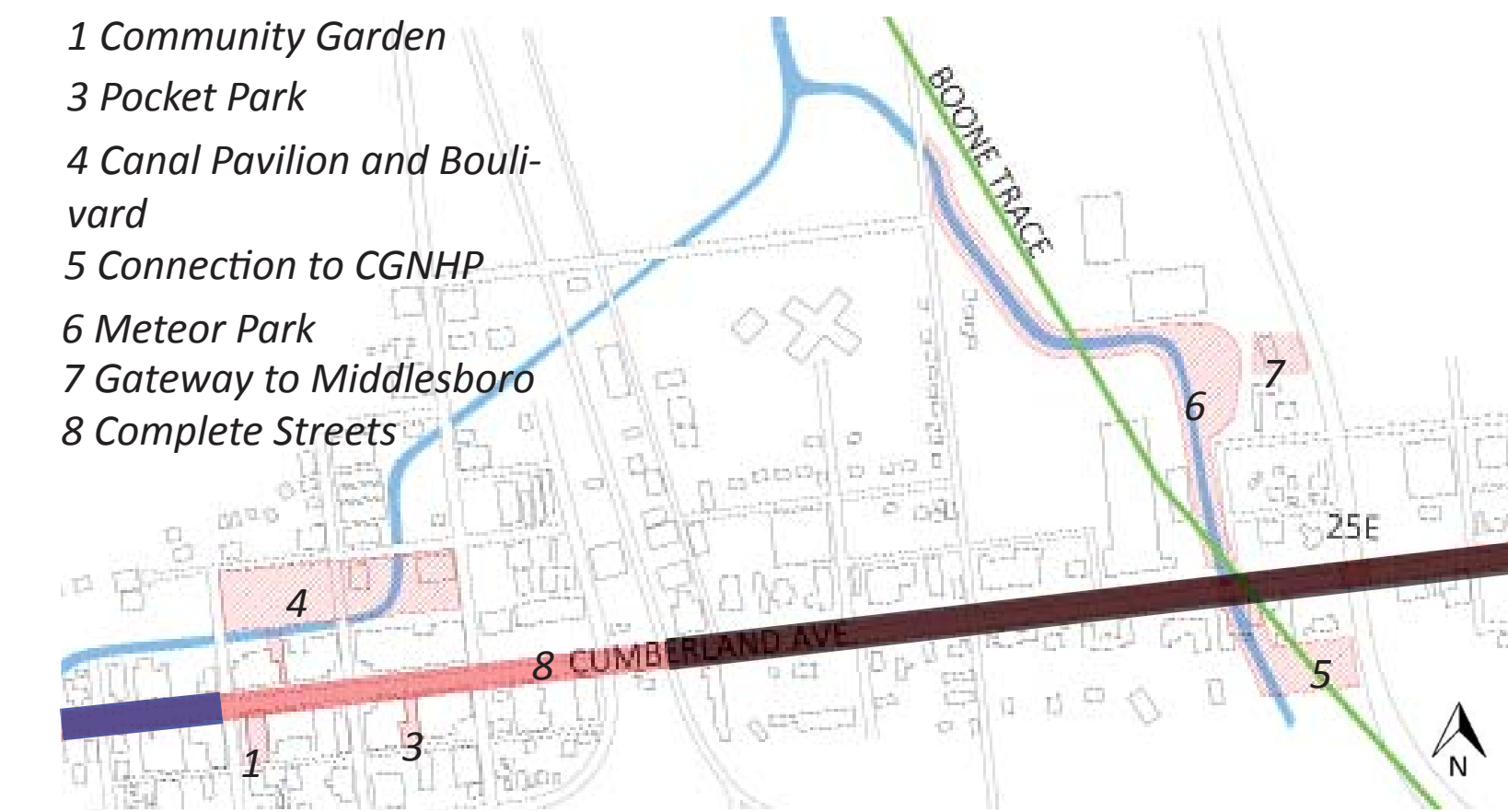


Figure 10: Context Map

Residential Portion

This shows the implementation along the residential portion of Cumberland Avenue. The vehicular traffic down is one lane in each direction. It also has provided bike lanes and a vegetated median. There will be breaks in the median to allow for turning at intersections. This decrease of traversable roadway will allow for increased safety.

Retail Portion

This shows the implementation of the Retail portion of Cumberland Avenue. Vehicular traffic is down to one lane in each direction. The difference is that it will allow for angled street parking along the street. Parking is a vital part for retail to be successful so keeping parking was a major concern. Bike lanes are also implemented as well.

Industrial Portion

This shows the implementation of the Industrial portion of Cumberland Avenue. Vehicular traffic is maintained at two lanes for each direction of traffic. This is to help manage the heavy industrial trucks that will need access into areas. It still provides the same comfort to pedestrians and cyclists just as the other portions do.

Canal

The Middlesboro Canal, originally constructed in 1938, stretches 2.7 miles long, and serves as the city's main drainage-way. Over time, the Canal and the adjacent land have been converted to improve recreational and interactive experiences. The portion of the Canal that will be proposed for redevelopment will span from the intersection of 22nd Street and Cumberland Avenue to Hollywood Drive, where the proposed greenway meets the canal. Based on the current conditions of the Canal and surrounding area, several issues will be addressed. The Canal Walk is not used often because it lacks excitement and intrigue to the citizens of Middlesboro. The Canal Walk serves a very limited purpose to the local community and surrounding areas.

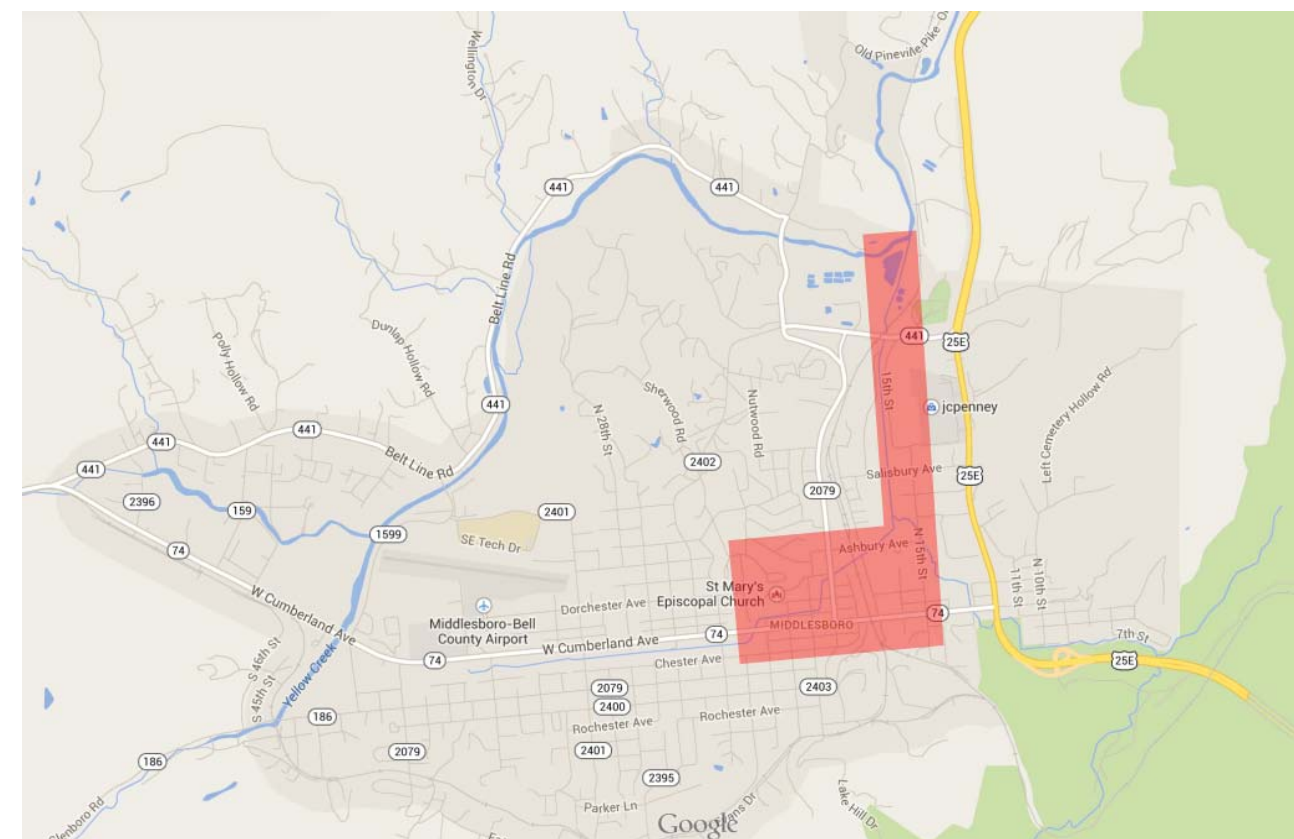


Figure 1: Middleboro (Canal Walk section highlighted in red) (Map Source: Google Maps, 2014)

Daniel Boone Connection

Sports Park

Link

Entrance to the Canal Walk

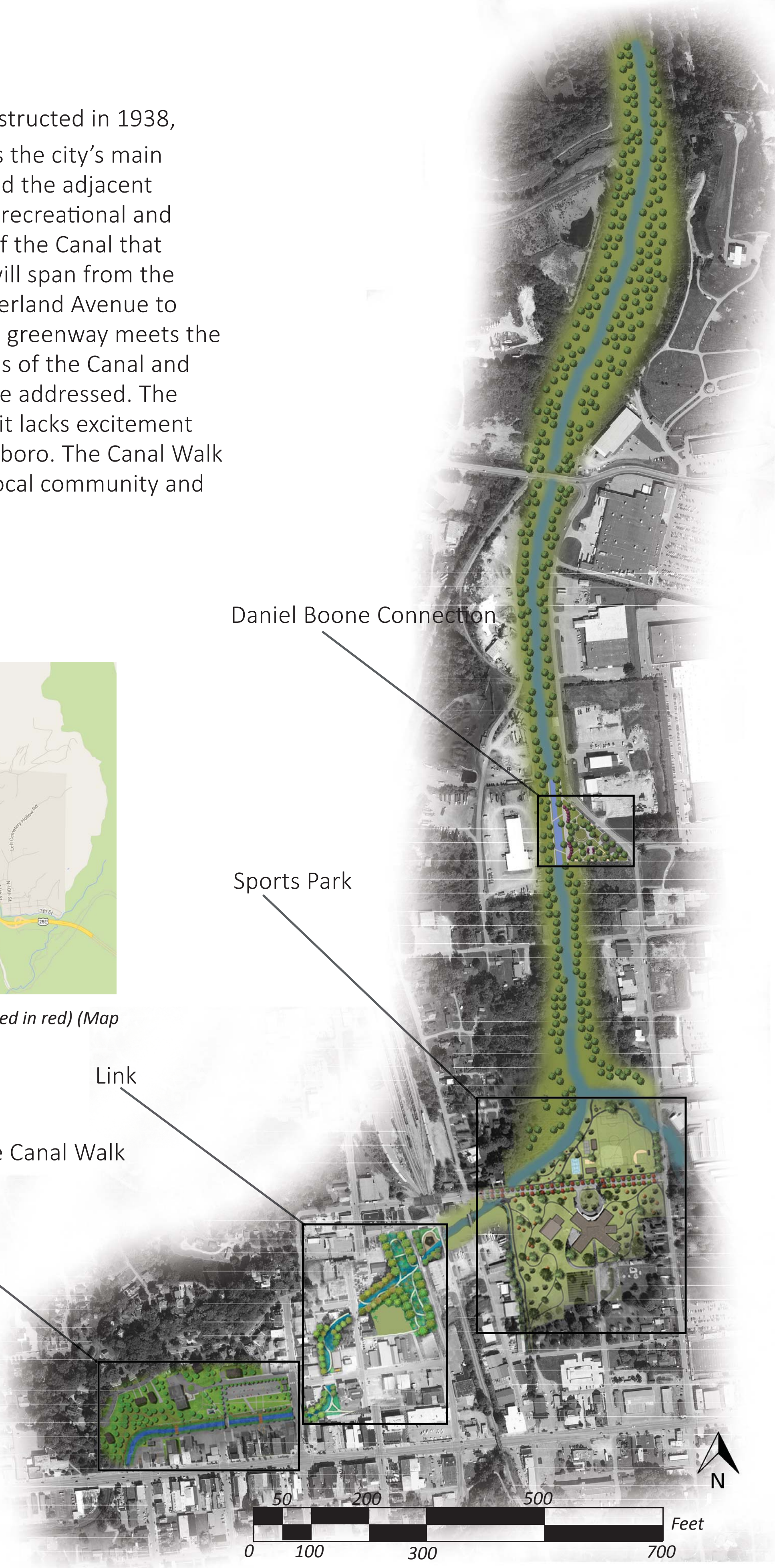


Figure 2: Canal Walk Master Plan (Image Source: Google Maps, 2014)

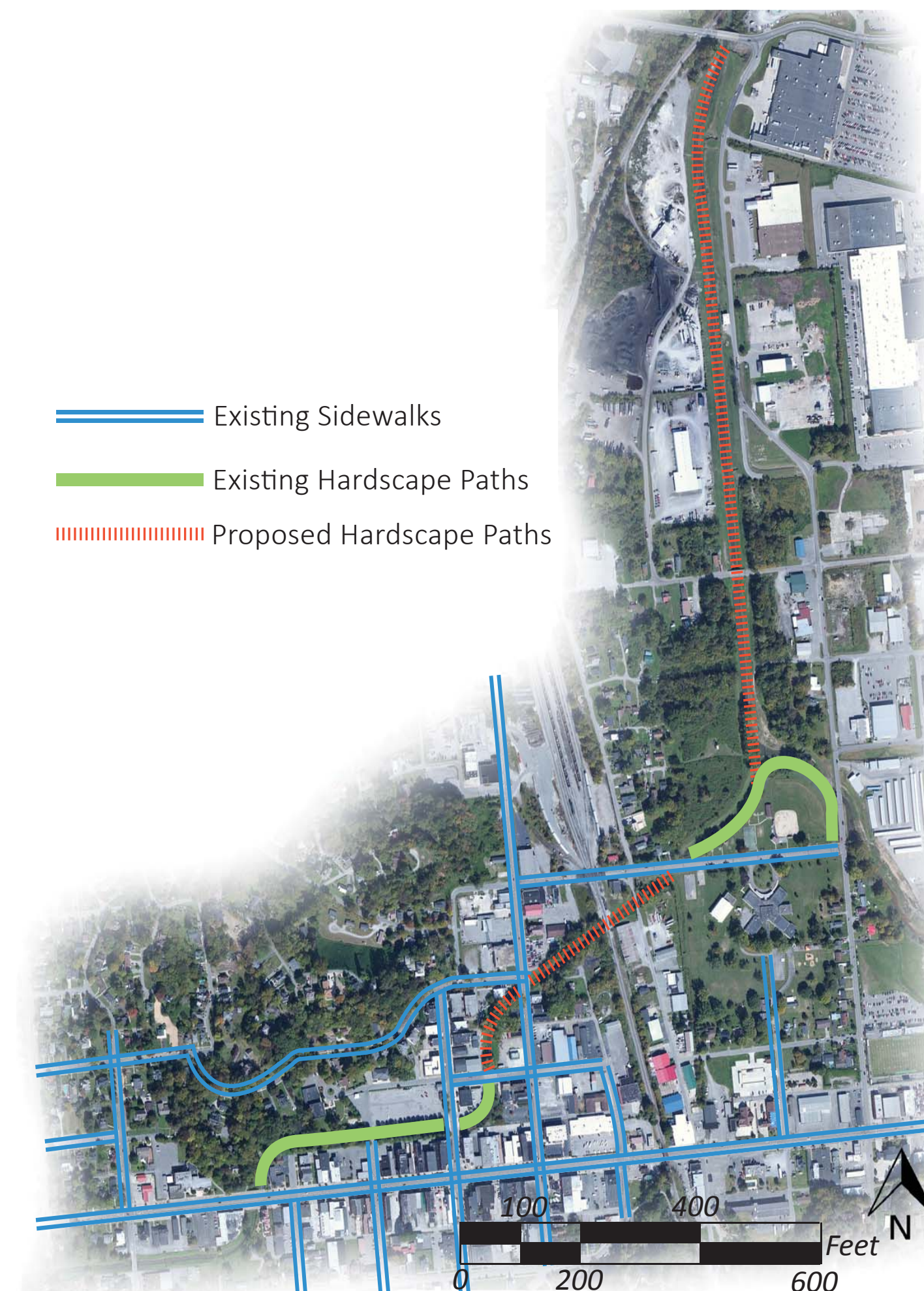


Figure 3: Hardscape Areas (Image Source: Google Maps, 2014)

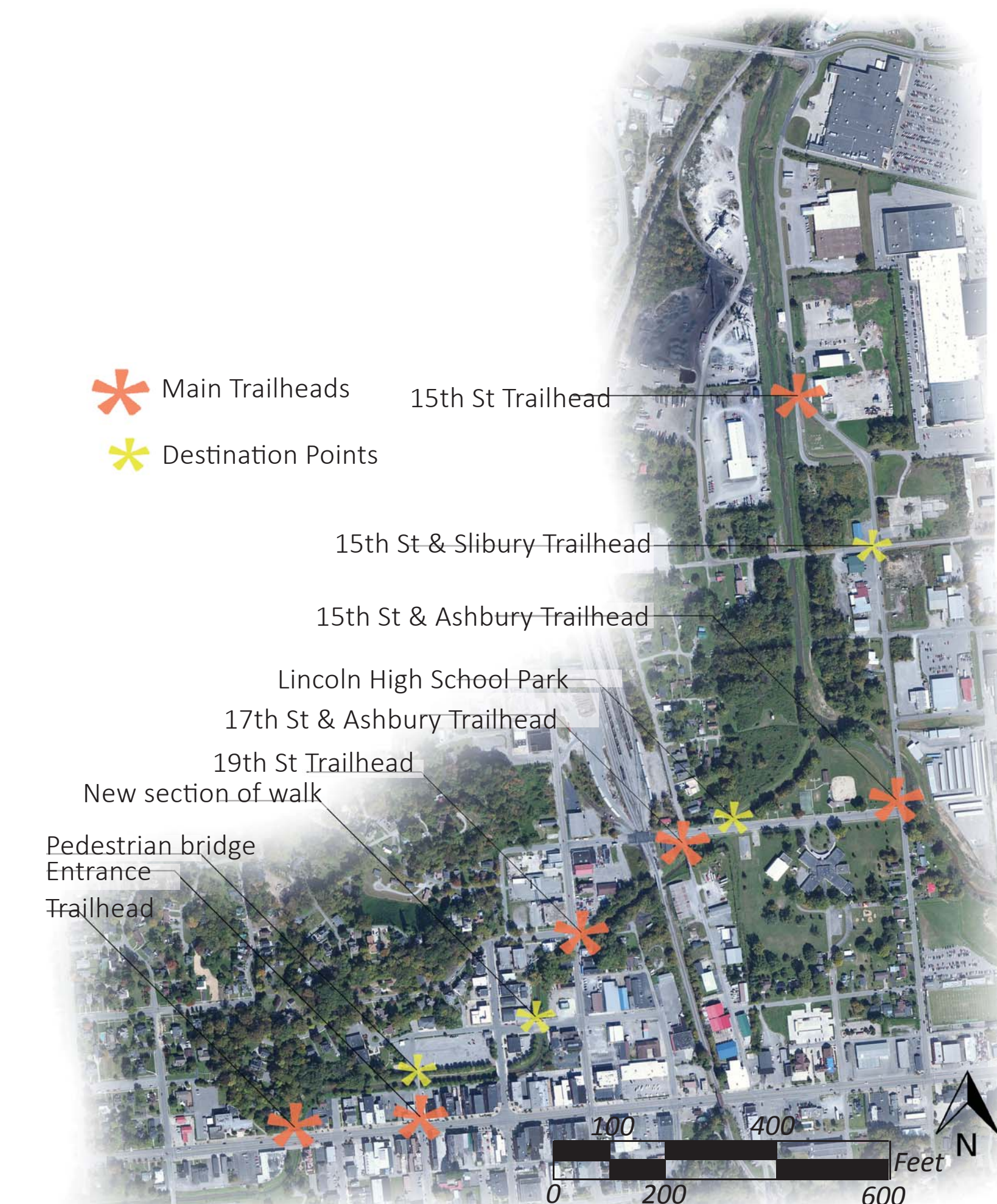


Figure 4: Potential Trailheads and Destination Points (Image Source: Google Maps, 2014)

Entrance to the Canal Walk Option 1

Entrance to the Canal Walk Option 1 design idea focuses on public interaction with the canal. The public green space offers place for people to gather, with the bridge leading downtown through a pocket park. The bridge and stairs down to the canal should insure health safe play with the water. For events this site could be transformed to a pedestrian site.



Figure 5: Looking across the Bridge to Downtown

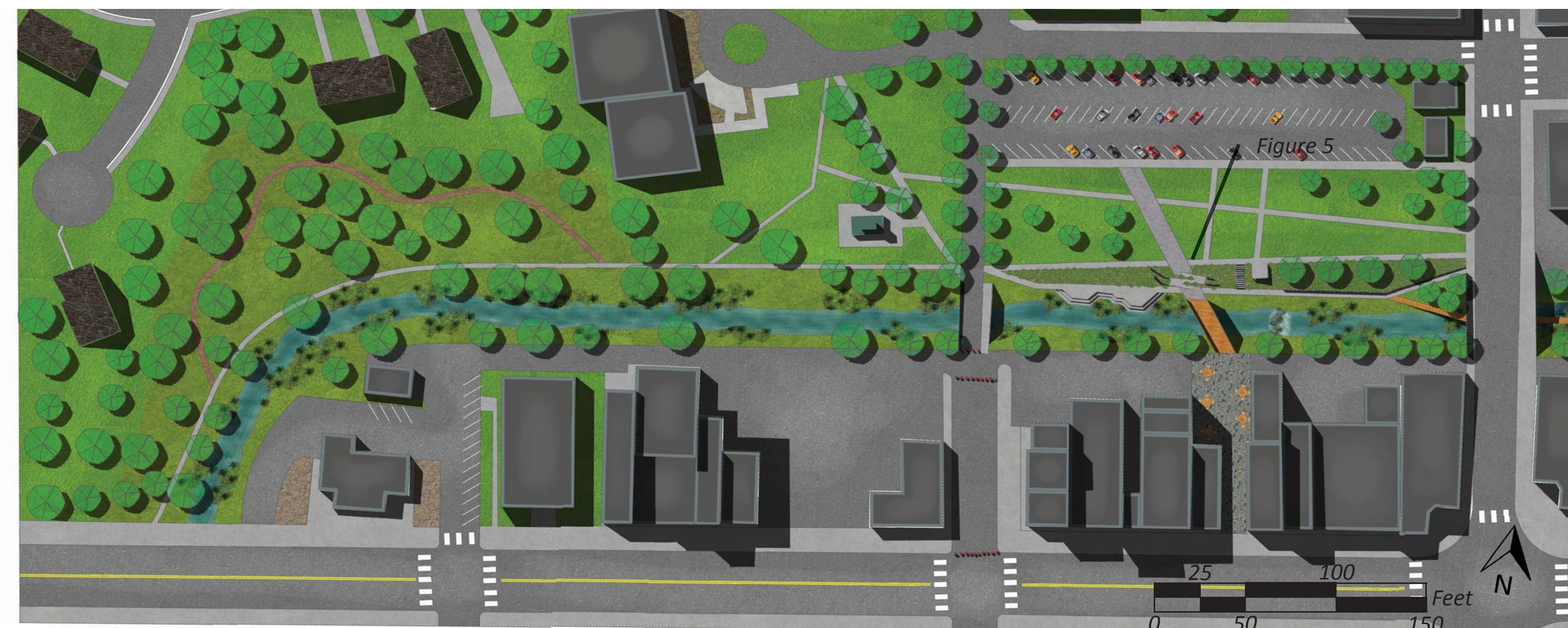


Figure 6: Entrance to the Canal Walk Option 1 Plan

Entrance to the Canal Walk Option 2

Entrance to the Canal Walk Option 2 design idea is more focused on the canal's current condition. The goal of this design is to reduce surface run off by designing more vegetated areas around the canal. There is a green buffer zone which uses filters to clean the water and also filtrate as much as it could to lower the amount of surface water going into the canal.



Figure 1: Perspective of the Canal and Walkway



Figure 2: Entrance to the Canal Walk Option 2 Plan (Images Source: Google Maps, 2014)

Sports Park



Figure 5: Plan View of the Sports Park (Image Source: Google Maps, 2014)

The Sports Park is vital to the success of the Canal Walk and Middlesboro as a potential trail town. It combines various activities that are appropriate for residents and tourists for all ages. Within the site you will find fitness stations, athletic fields, public arboretum, and a trail/nature center that will inform visitors of places of exploration. See figure 6 for a detailed view of the Cumberland Avenue trail connection.



Figure 6: Cumberland Avenue Trail Connection

Link

The Link is a key part of the proposed master plan for the Canal Walk because it is the connector between the downtown entrance and the rest of the canal. It features educational areas such as a detention basin and wetlands, where visitors may be taught about water management practices. Along with the aquatic aspect of the site, there is a pavilion area and a large recreational lawn which will be used for community events and leisure activities. Before the connection is made to the "Sports Park". There is a rest area for visitors that will feature informational maps.



Figure 4: View of the Trolley Pavillion and the Canal



Figure 3: Plan View of the Link (Image Source: Google Maps, 2014)

Daniel Boone Connection



Figure 7: Plan View of the Daniel Boone Connection (Image Source: Google Maps, 2014)

The Daniel Boone Connection includes 6 fitness stations integrated along the outer edge of the site. Event space/ amphitheater is centralized in the design. This is the main focus of the site and can be used for concerts, fitness classes and independent recreational uses. There is a picnic area as well as horseshoe pits for users. Stream restoration and other activities will also happen along the water as part of educational functions.



Figure 8: Looking at the Grass Amphitheater

Middlesboro Greenway

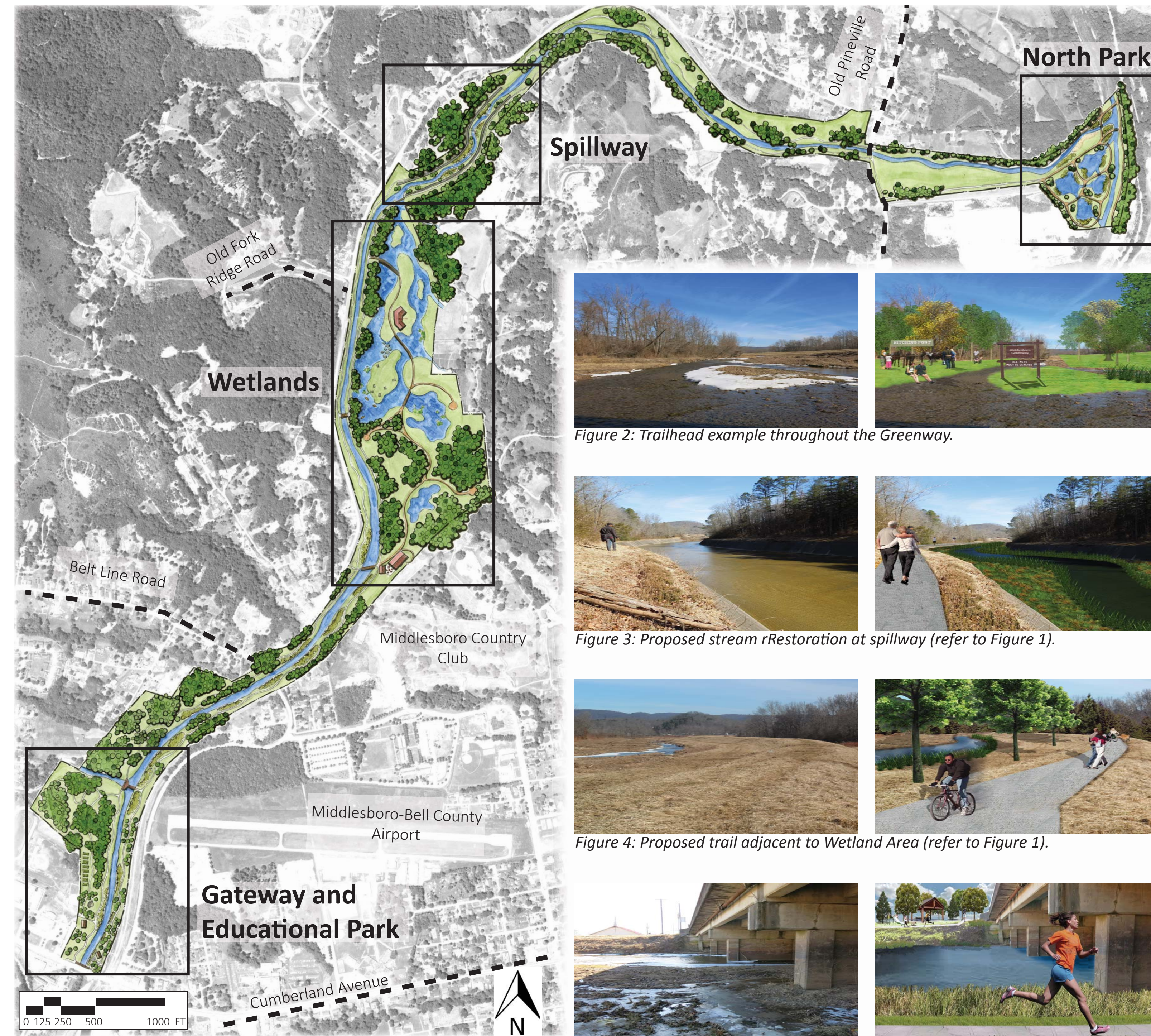


Figure 1: Illustrative Plan for Middlesboro Greenway. (Imagery Source: Kentucky Geography Network, 2014)

Abstract

The Middlesboro Greenway site is located north-west of the city and follows the Yellow Creek. In response to the 1936 and 1938 Flood Control Act, the Army Corps of Engineers began a flood risk management project composed of a diversion channel, that spans a quarter mile, and a five mile levee system along Yellow Creek. The flood management project from 1938 diverts Bennett's Fork around the City of Middlesboro where it intersects with the Yellow Creek (Army Corps of Engineers, 2012). The Greenway has great potential to be a recreational corridor with a series of trails, parks, and opportunities to interact with the water. Additionally, restoration and revitalization of the waterway is vital in order for the full potential of the project to be achieved.

Reference:
 Army Corps of Engineers. (2012, August). Middleboro Cumberland River Basin, KY [Fact Sheet]. Retrieved January 20, 2014 from <http://www.lrn.usace.army.mil/Media/FactSheets/FactSheetArticleView/tabid/6992/Article/7413/middleboro-cumberland-river-basin-ky.aspx>



Figure 2: Trailhead example throughout the Greenway.

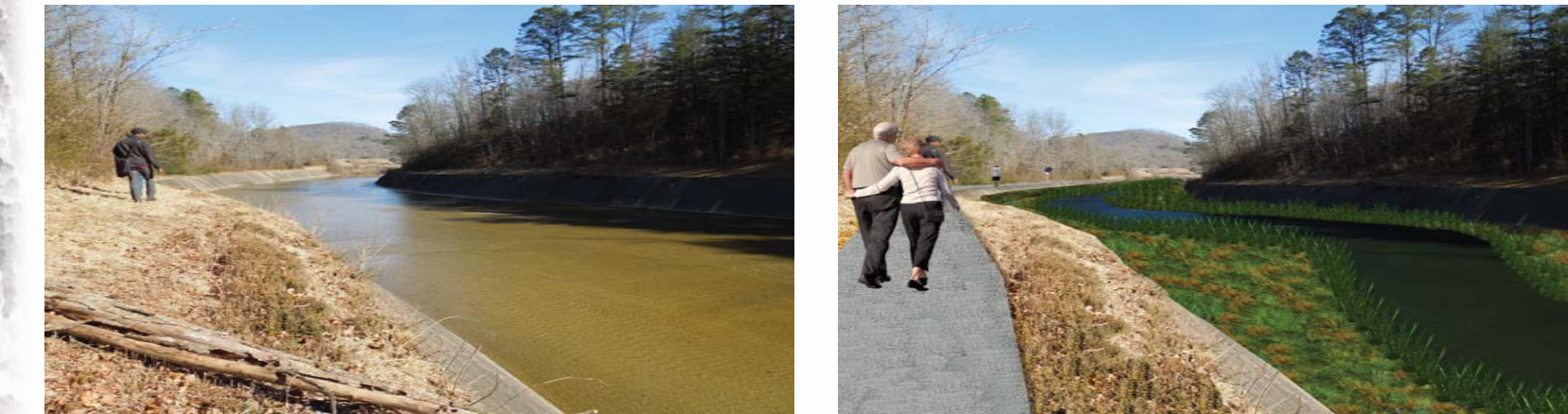


Figure 3: Proposed stream restoration at spillway (refer to Figure 1).



Figure 4: Proposed trail adjacent to Wetland Area (refer to Figure 1).



Figure 5: Proposed entryway to Greenway at Cumberland Avenue (refer to Figure 1).

Gateway and Educational Park

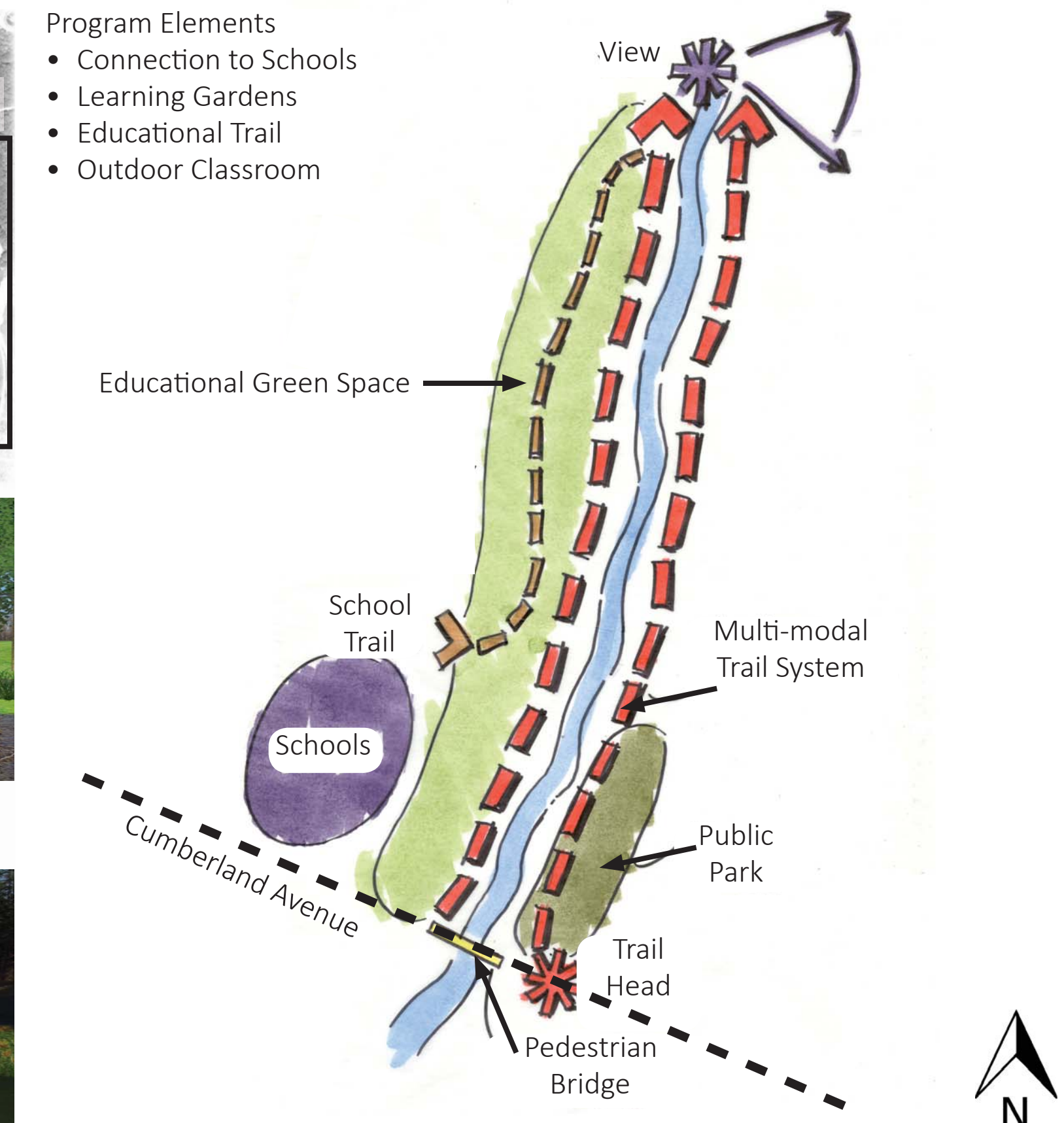


Figure 6: Conceptual Diagram for The Gateway and Educational Park.

Wetlands

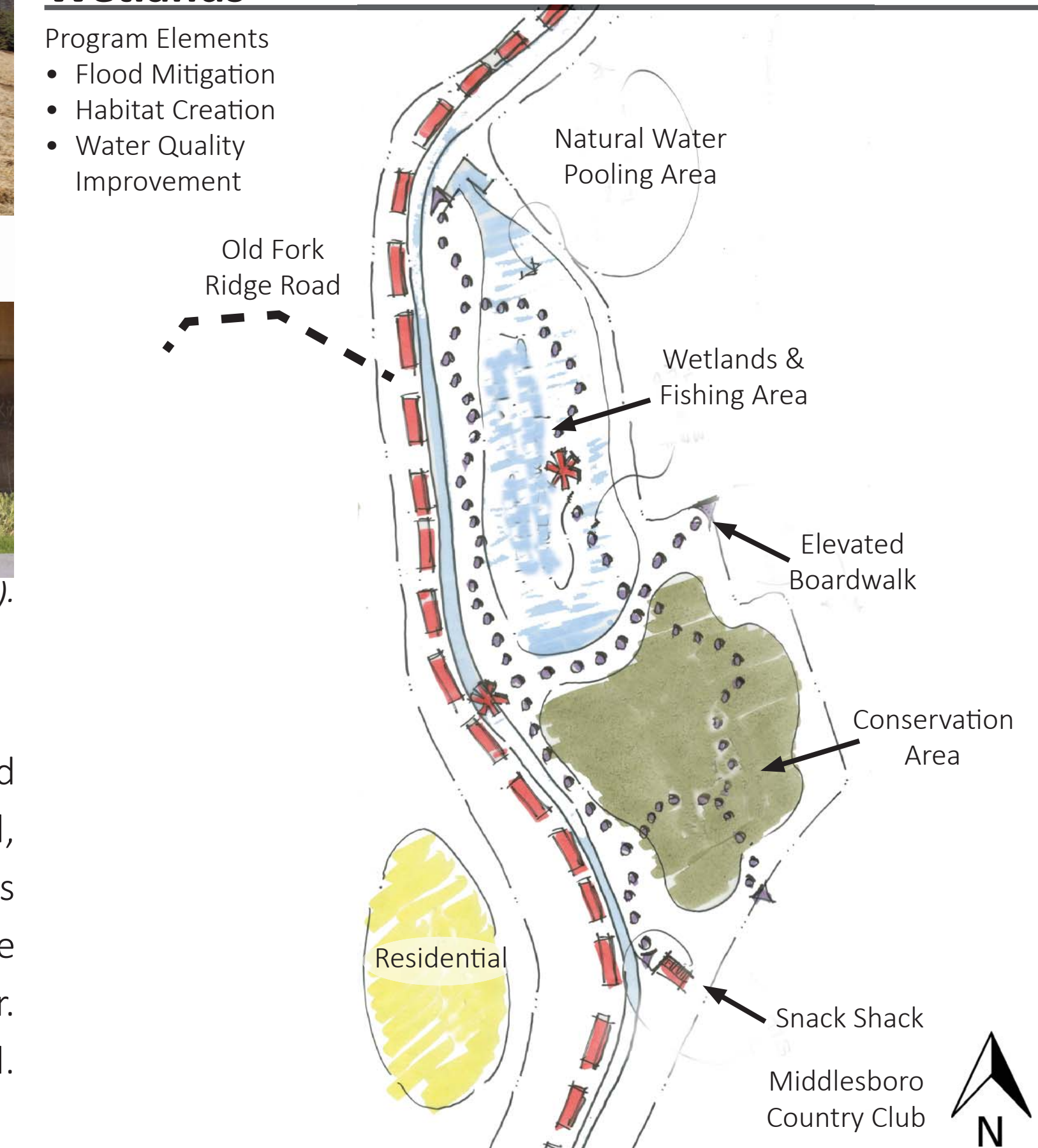


Figure 8: Conceptual Diagram for Wetland Area.



Figure 7: Illustrative Plan for The Gateway and Educational Park. (Imagery Source: Kentucky Geography Network, 2014)

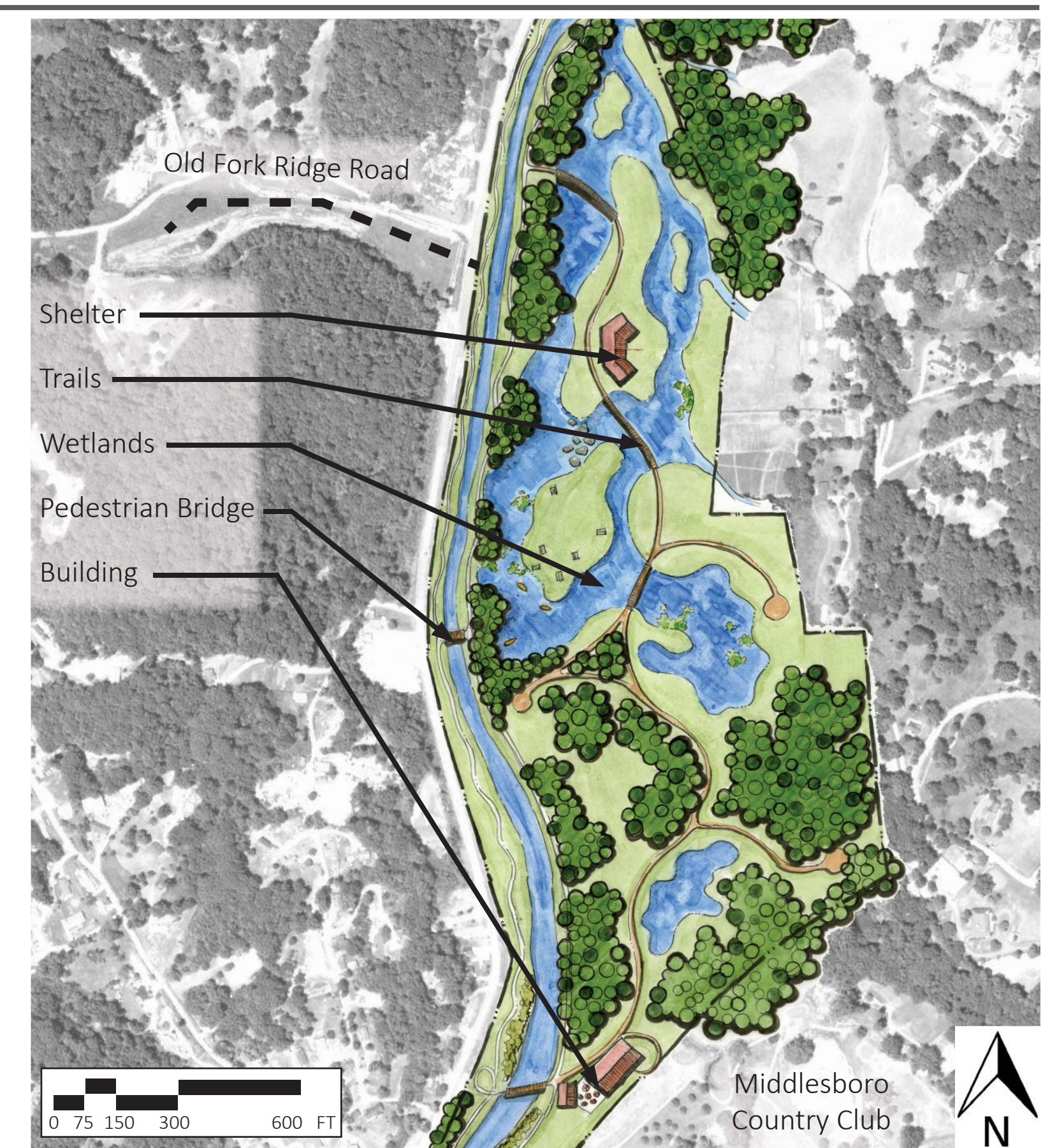


Figure 9: Illustrative Plan for Wetland Area. (Imagery Source: Kentucky Geography Network, 2014)

Trail Connections from Greenway



Figure 1: Trail Connectivity Map. Additional trails are proposed in connection with the Greenway. Further trail connections from the Greenway can better connect adjoining neighborhoods with areas of interest along the Greenway and downtown Middlesboro. By promoting pedestrian activity throughout the city, increased connectivity could foster local businesses as well as improve overall health of the community. (Imagery Source: Kentucky Geography Network, 2014)

North Park

- Program Elements
- Entrance to Greenway
 - Connection To Canal Walk
 - Water Quality Improvement

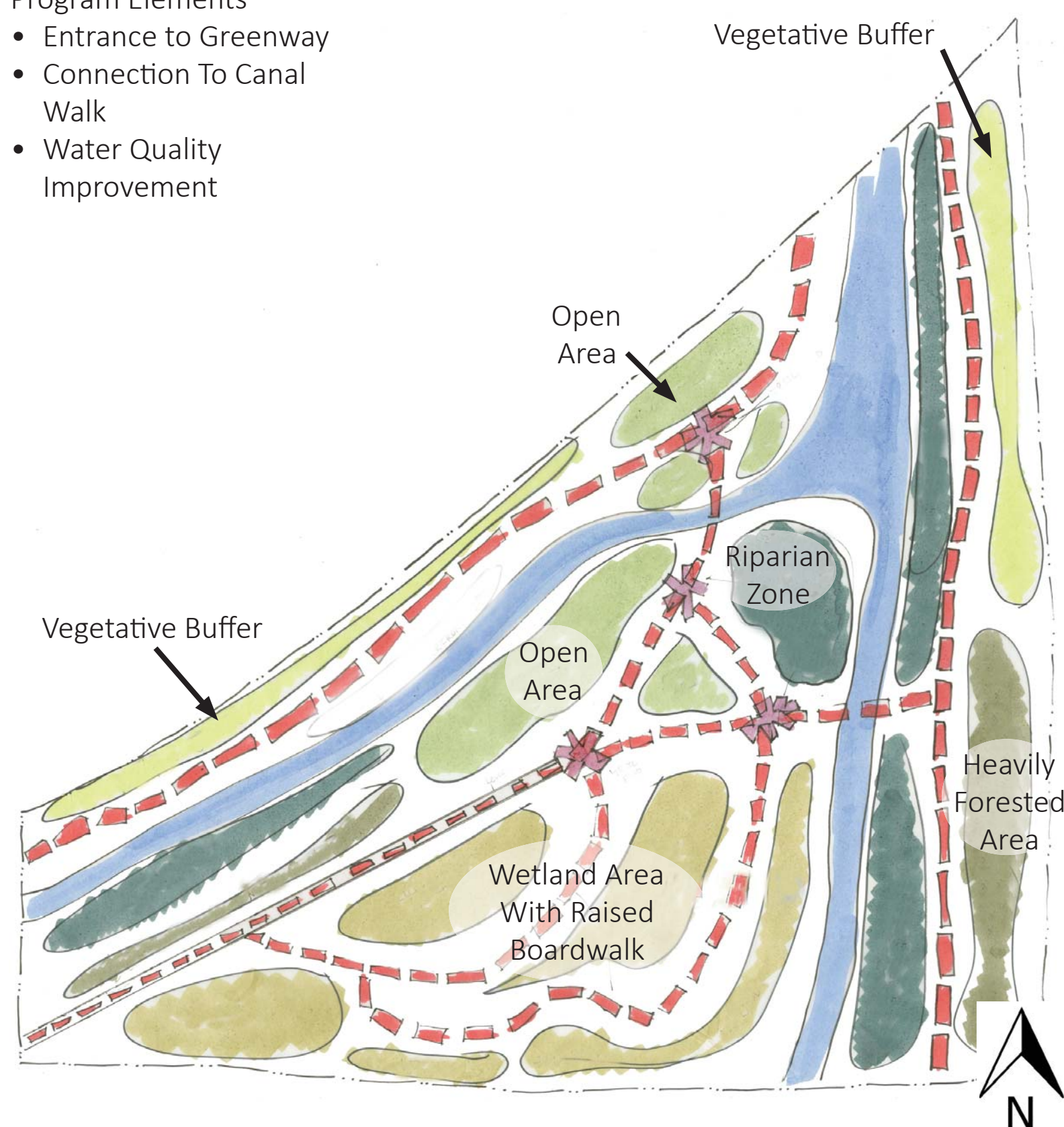


Figure 2: Conceptual Diagram for North Park.



Figure 3: Illustrative Plan for North Park. (Imagery Source: Kentucky Geography Network, 2014)

Destinations Adjacent to Greenway

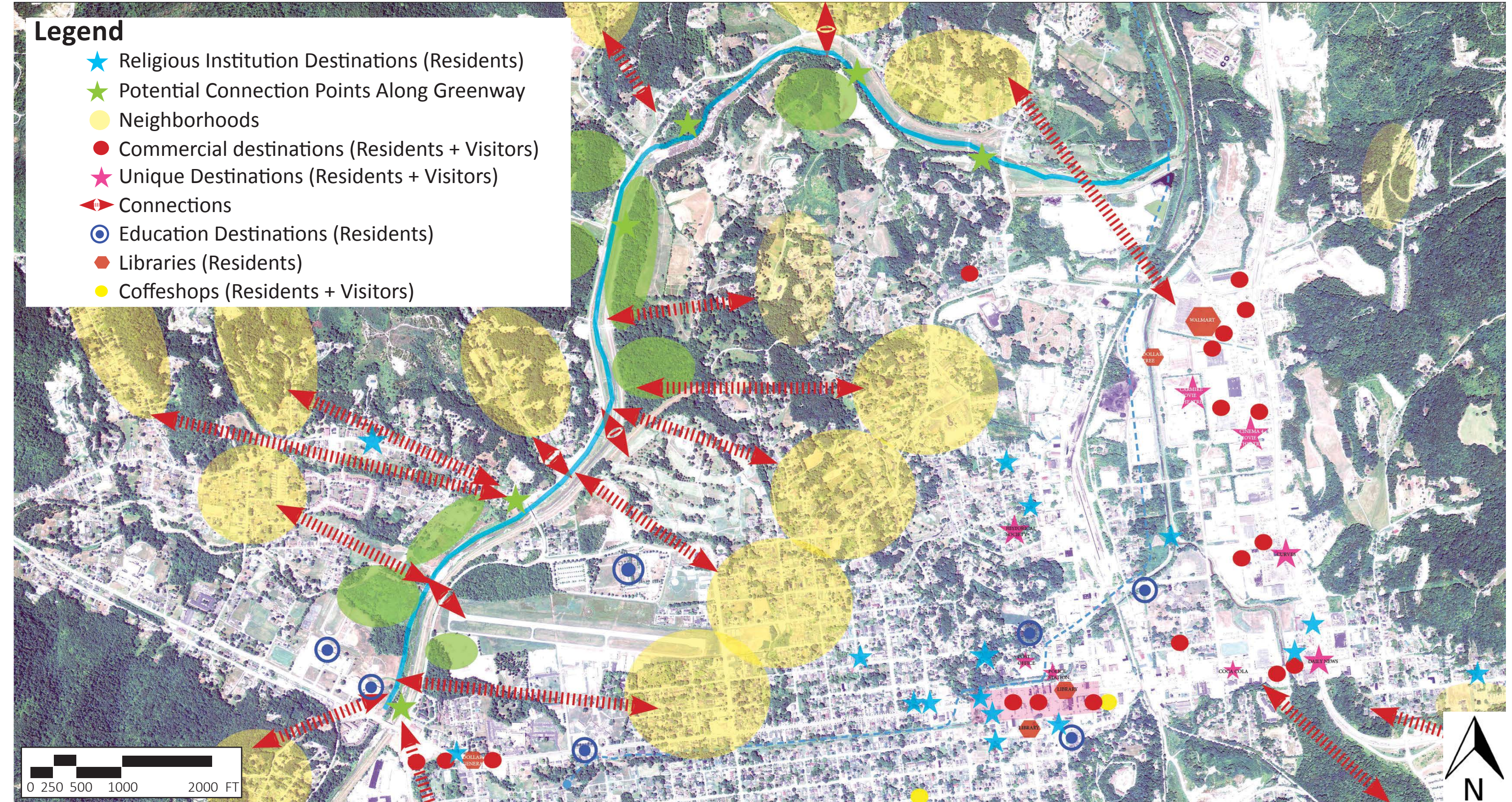


Figure 4: Destinations Map. Locations of various destination points and attractions for both residents and visitors and their relationship with the Greenway. Indicates potential access points to the Greenway in relation to existing origin and destination points for people of Middlesboro. (Imagery Source: Kentucky Geography Network, 2014)

Spillway

- Program Elements
- Stream Naturalization
 - Habitat Creation
 - Water Quality Improvement
 - Educational Component

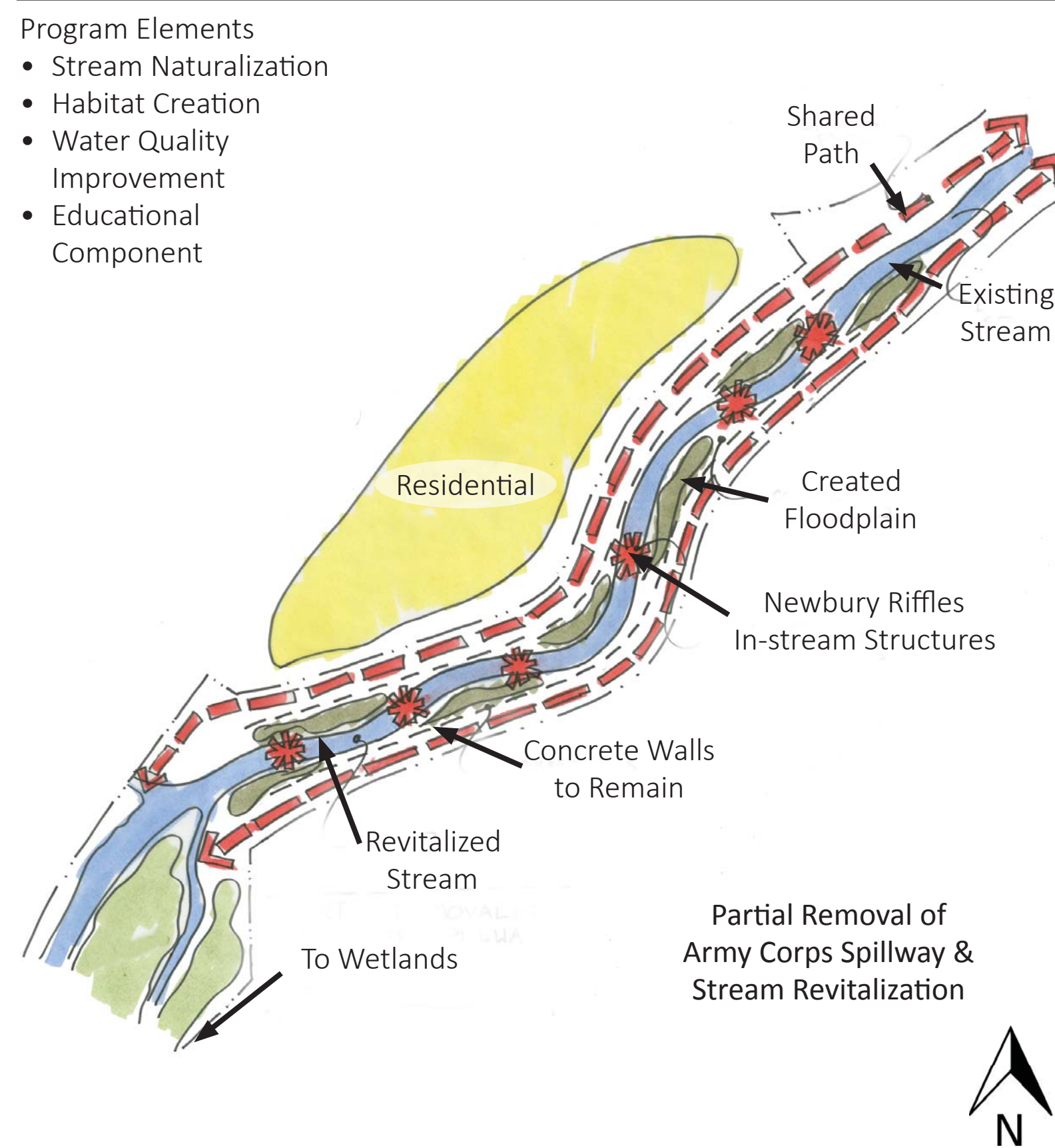


Figure 5: Conceptual Diagram for the Spillway.

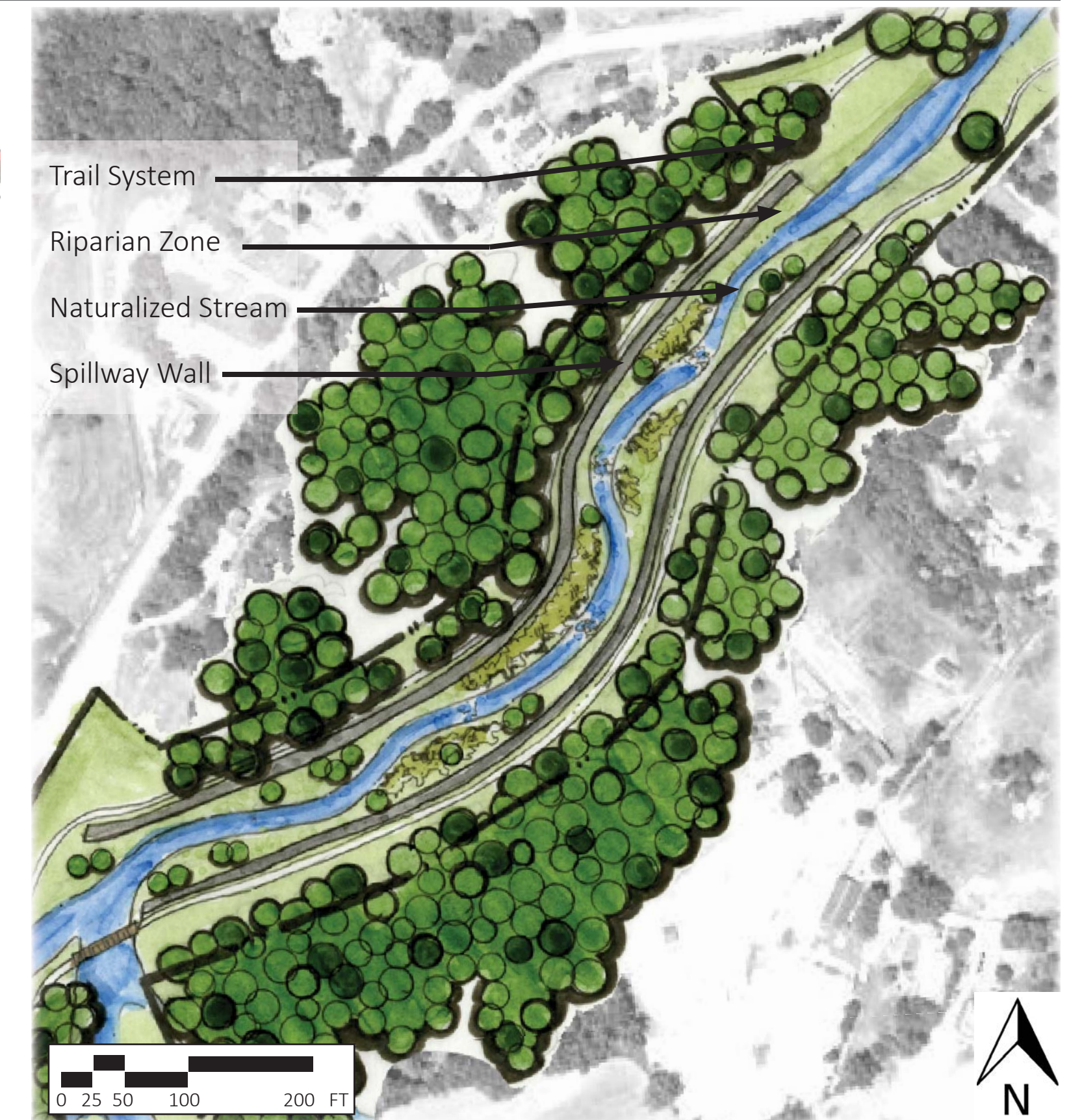


Figure 6: Illustrative Plan for the Spillway. (Imagery Source: Kentucky Geography Network, 2014)

Wayfinding

Wayfinding is the ability to use signage, landmarks, pathways, and ecological cues to aid visitors, who are visiting for the first time, with navigating and improving the experience of a site without uncertainty. These cues should be well planned, clearly connected, and aesthetically enjoyable; creating an encouraging first impression and a sense of security, comfort, and well-being. Successful wayfinding involves memory and a learning process so that the information given may be understood, organized, and remembered (Passini, 1992).

Existing Wayfinding Elements and Conditions

There are many different types of signs varying in color, size, and form in and around Middlesboro. Also, there is no consistency with the spelling of the city name, Middlesboro/ Middlesborough. A decent number of the existing signs are in very rough condition whether they are rusty, dirty, chipped, vandalized, or bent (Figures 1 & 4). There are many areas along the potential Downtown, Greenway, and Canal Walk trails that need new wayfinding elements that, currently, may not have any at all. Some areas are in need of larger signs while other signs are hidden behind thick vegetation. These signs need to be more visible all around so that visitors may be better directed around town and the surrounding trail systems.



Figure 1: Existing conditions of signs.

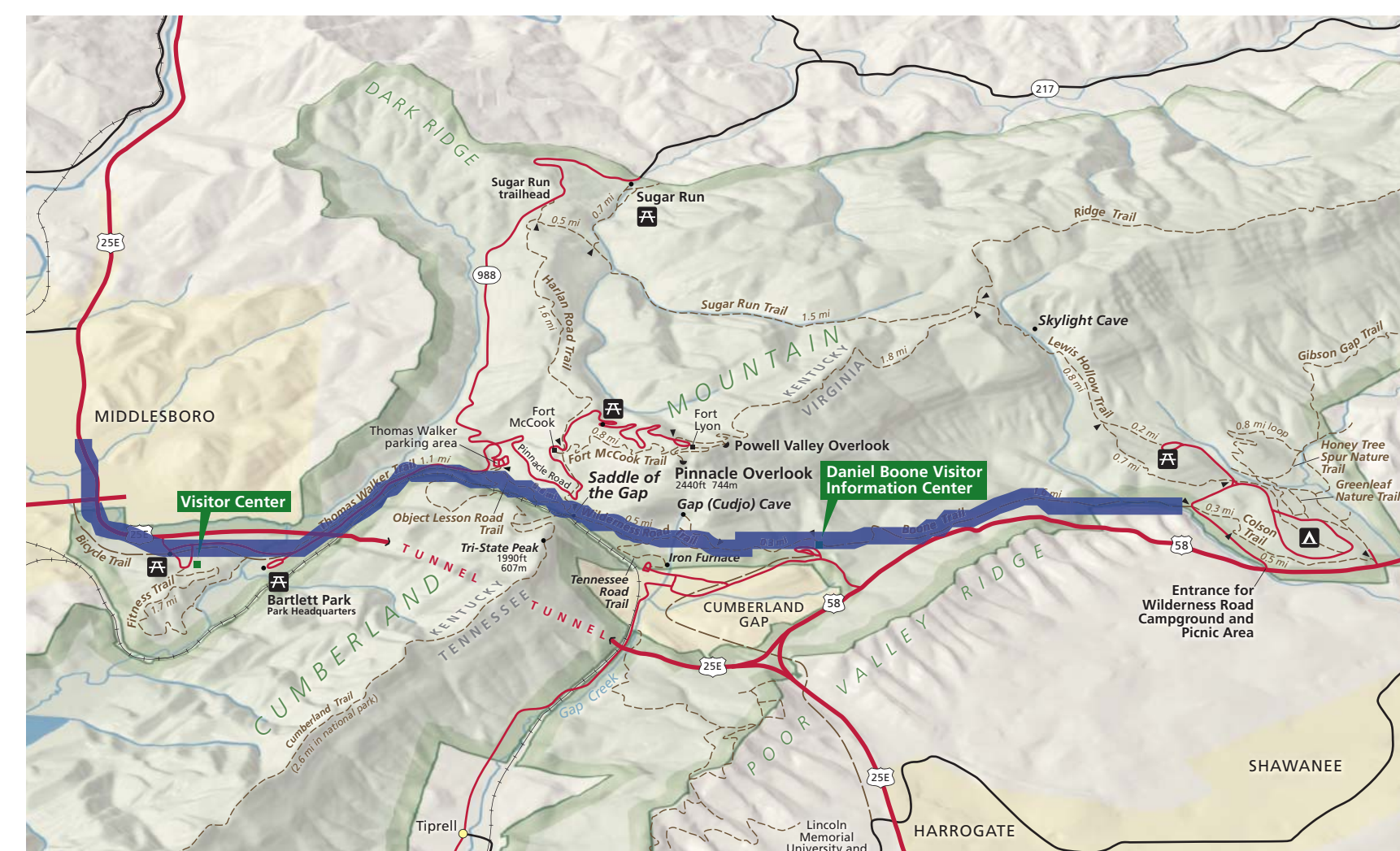


Figure 2: Inconsistent naming of Boone Trace after Daniel Boone Visitor Center. Highlighted area shows how route goes through Middlesboro. (Map Source: <http://www.nps.gov/cuga/planyourvisit/upload/CUGAmap2.pdf>)

Middlesboro Wayfinding System

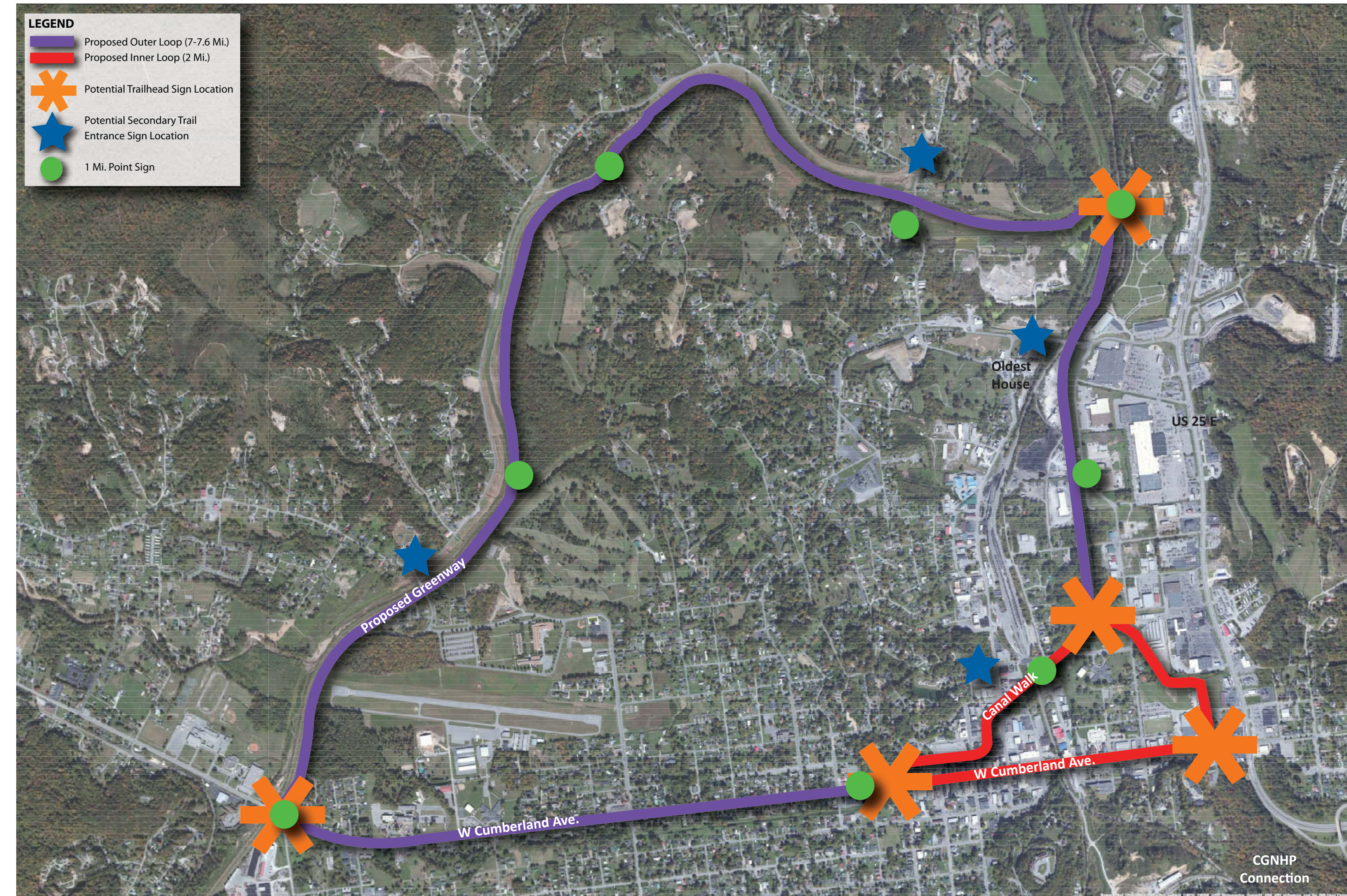


Figure 3: Trailhead sign locations, entryway signage, and mile markers are located at major connecting points along the proposed trails of Downtown, the Greenway, and the Canal Walk. (Image Source: Kentucky Geography Network, 2014)

Existing Signs

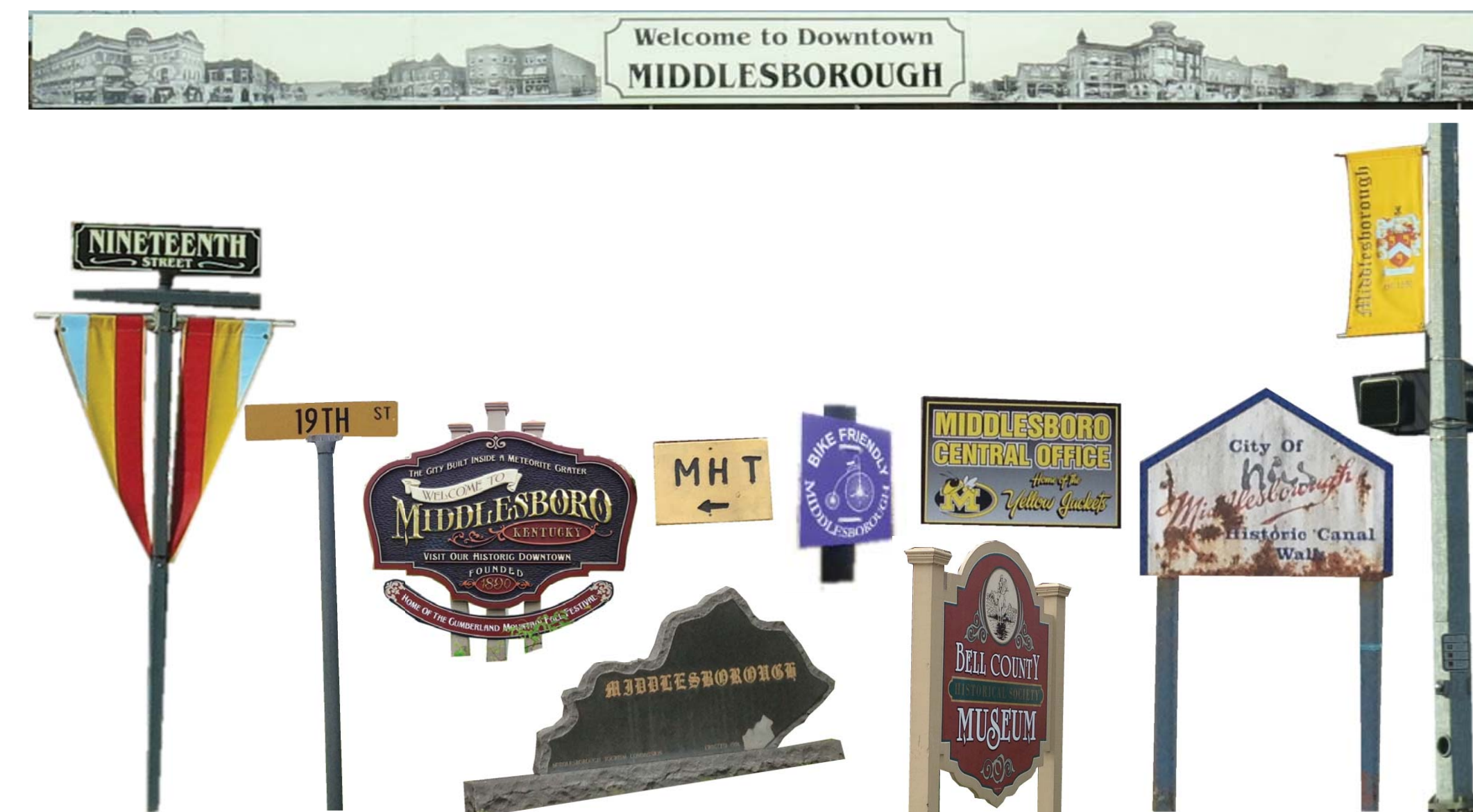


Figure 4: Inconsistent shapes, colors, forms, and size of signs in Middlesboro.

Potential Signs



Figure 5: Potential wayfinding around town. (Adapted from Adams, 2008; City of Madison, n.d.; Van Dam, 2011)

Sign Design Elements



Figure 6: Potential sign designs for the Canal Walk, Greenway, and Downtown based on proposed design elements.