

NORCROSS

LCI GREENWAY CONCEPT STUDY





Table of Contents

1.0 Introduction

2.0 Existing Conditions Evaluation

- 2.1 Previous Bicycle-Pedestrian Studies and Concurrent Projects
- 2.2 Opportunities and Constraints for Trail Development
- 2.3 System Evaluation for Watershed Improvements
- 2.4 Site Analysis Mapping

3.0 Concept Development

- 3.1 Typical Sections
- 3.2 Concept Plans

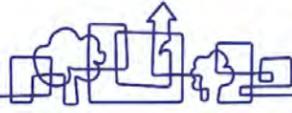
4.0 Watershed / Stormwater Improvement Recommendations

- 4.1 Typical Stormwater BMP Descriptions
- 4.2 Stormwater BMP Recommendations
- 4.3 Stormwater BMP Costs

5.0 Greenway Recommendations

- 5.1 Recommended Greenway Network Plan
- 5.2 Project Prioritization and Greenway Costs
- 5.3 Priority 1 Alignment

6.0 Public Involvement



1.0 Introduction

The *City of Norcross LCI Greenway Concept Plan* integrates regional stormwater improvements with a proposed bicycle and pedestrian network for the south side of Norcross. This innovative vision has the potential to provide exceptional community benefits including: improved connectivity between neighborhoods and community destinations, greater recreational opportunities, reduced automobile traffic congestion, increased economic vitality, and better public and environmental health. Additionally, the co-development of these improvements would provide better economic value, as many development costs would be shared and there would be more funding opportunities available.

The City of Norcross was awarded a Livable Centers Initiative (LCI) grant to help fund the planning of this vision. The study area is roughly defined by: South Peachtree Road (northern limit), Beaver Ruin Road (eastern limit), Brook Hollow Parkway (southern limit), and Jimmy Carter Boulevard (western limit). This study area also falls within the Beaver Ruin Creek watershed. The following report summarizes the study; it includes four components: an existing conditions evaluation, concept development, watershed / stormwater improvement recommendations, greenway recommendations, and an overview of the public involvement process.



FIGURE 1.01 GREENWAYS PROVIDE EXCEPTIONAL COMMUNITY BENEFITS



2.0 Existing Conditions Evaluation

2.1 Previous Bicycle-Pedestrian Studies and Concurrent Projects

The evaluation of existing conditions begins with the review of previous City of Norcross and Gwinnett County studies that provide recommendations for the development of bicycle and pedestrian infrastructure. The *Norcross LCI Greenway Concept Study* refines and builds upon the recommendations made in these previous studies. Below is a summary of those studies:

	<p>Gwinnett County Open Space & Greenway Master Plan Update (2014)</p> <p>This document is a master plan for a 386 mile county wide greenway network. The proposed greenways are classified as either Tier I Greenways or Tier II Greenways. Tier I Greenways are higher priority and require any new developments along the proposed greenway to provide an easement or construct a portion of the greenway. Tier II Greenways do not place any requirements on new developments. The plan includes three greenway segments that are within the Norcross LCI Greenway study area:</p> <ul style="list-style-type: none"> • A greenway along the east-west running Georgia Power transmission corridor. This greenway is a segment of a larger trail that begins at Button Gwinnett Drive (west of Norcross) and continues to Gwinnett Place Mall (east of Norcross). The trail segment through Norcross is categorized as a Tier II Greenway. • A greenway along Beaver Ruin Creek from Everglades Trail (at the Georgia Power transmission easement) to Brook Hollow Parkway. This is classified as a Tier II Greenway. • A greenway along the tributary of Beaver Ruin Creek that begins at Norcross Tucker Road and ends at Beaver Ruin Creek. This is classified as a Tier II Greenway. 		<p>City of Norcross – Town Center Plan LCI (2011)</p> <p>The <i>City of Norcross – Town Center Plan LCI Plan</i> provides recommendations to revitalize and redevelop the City of Norcross’ historic downtown. The plan includes recommendations for bicycle/pedestrian connectivity projects, including:</p> <ul style="list-style-type: none"> • Multi-use trail along Mitchell Road from Academy Street to Price Place • Multi-use trail along Price Place from Mitchell Road to Beaver Ruin Road • Bike lane along South Peachtree Street from Buford Highway to Carlyle Street
	<p>Summerour Middle School Safe Routes to School Travel Plan (2012)</p> <p>The <i>Summerour Middle School Safe Routes to School Travel Plan</i> provides recommendations for bicycle and pedestrian connectivity between Summerour Middle School and the surrounding neighborhoods. The recommendations include:</p> <ul style="list-style-type: none"> • Sidewalks along Price Place from Mitchell Road to Beaver Ruin Road • A multi-use trail along the east side of Mitchell Road from Buford Highway to Brook Hollow Parkway • A multi-use trail along the south side of Beaver Ruin Road from Buford Highway to Indian Trail • A pedestrian actuated signalized crossing at Everglades Trail and Mitchell Road 		<p>Beaver Ruin Road Multi-Use Trail (currently under design)</p> <p>Construction plans are in development for a 10’ wide multi-use trail along the south side of Beaver Ruin Road from Price Place to Indian Trail-Lilburn Road. This project was initially identified in the <i>Summerour Middle School Safe Routes to School Travel Plan</i> and then later received federal funding for construction.</p>
	<p>City of Norcross – Parks Master Plan (2011)</p> <p>The <i>City of Norcross - Parks Master Plan</i> provides recommendations for park and trail improvements within the City of Norcross. Recommendations are made based upon community input and National Recreation and Parks Association standards. Recommendations associated with bicycle and pedestrian connectivity include:</p> <ul style="list-style-type: none"> • Proposed recreational trail along Mitchell Road from Cemetery Field to the Beaver Ruin Greenspace (City/County owned parcels along Beaver Ruin Creek south of Everglades Trail) • Proposed recreation trail from Beaver Ruin Greenspace to Pinnacle Park • Recreation trail along Beaver Ruin Creek tributary to Beaver Ruin Greenspace • Greenway along the Georgia Power transmission easement 		<p>Pinnacle Park Master Plan (2014)</p> <p>The City of Norcross recently acquired property around an existing lake within the Pinnacle Center office development. The Pinnacle Park Master Plan proposes the following park elements for the newly acquired property: trails, a canoe launch, a ropes course, and a connection to the future Norcross LCI Greenway.</p>



2.2 Opportunities and Constraints for Trail Development

An understanding of the project area's opportunities and constraints is critical for determining the locations of future greenway locations. Opportunities and constraints were identified through in-field analysis and review of GIS and aerial photography.

Opportunities:

Residential Areas

The majority of the study area is made up of single family neighborhoods (see Figure 2.01); however there are also significant zones of multi-family housing along Beaver Ruin Road and Brook Hollow Parkway. These residential areas are a potentially significant source of bicycle and pedestrian users, and their connectivity to the greenway is one of the keys to the success of this plan.

Destinations

Connectivity to destinations, is an important goal of this project. The greenway should connect to commuter destinations (employment centers, schools, and commercial areas) and to recreational amenities (parks, trails, and scenic areas). The study area's most significant destinations include:

- Parks: Several parks lie within the study area, including Lillian Webb Park, Cemetery Field, and Pinnacle Park (see Figure 2.02). Two parks are located just outside of the study area: Best Friend Park on Jimmy Carter and the future Beaver Ruin Park between Satellite Boulevard and Interstate 85.
- Schools: The study area includes two public schools (Summerour Middle School and Norcross Elementary School) and two private schools (Victory World Christian School, Country Brook Montessori School). Summerour Middle School is the largest of the schools with an attendance of 1,400 students and Norcross Elementary is the second largest with almost 1,100 students.
- Historic Downtown Norcross: The commercial district on the north side of the study area offers restaurants and shopping destinations.
- The Norcross City Hall: this civic center is located two blocks away from the historic downtown, and is a potentially significant commuter destination.
- Pinnacle Center: The large office park on the southeast edge of the study area is a potentially significant employment center.
- Trails: The Beaver Ruin Road Multi-Use Trail (which is currently in design and has funding for construction) will be an important link to improve bicycle-pedestrian connectivity within the City. Additionally, the "Norcross to Lilburn Multi-use Trail" along Indian Trail Road is in the early planning stages along Indian Trail.

Corridors

Utility corridors and stream corridors offer potential for greenway routing. These corridors provide uninterrupted routes with very little vehicular conflicts; however there are potential private ownership issues within some of these corridors.

- Powerline Easements: A significant transmission corridor runs roughly east-west through the project area (see Figure 2.03). This corridor was targeted in the *Gwinnett County Open Space & Greenway Master Plan Update (2014)* and the *City of Norcross Parks Master Plan (2011)* as a potential trail route. The corridor provides connectivity to Best Friend Park and the future Beaver Ruin Park on Satellite Boulevard. A smaller north-south power easement, located east of Mitchell Road also provides some potential for multi-use trail development; however the sections of the north south easement that are actively used by landowners offer less potential.
- Stream Corridors: Beaver Ruin Creek and its tributary provide good trail potential. The stream corridor south of Everglades Trail provides the best potential due to larger corridor widths and public ownership.
- The Mitchell Road Corridor: Mitchell Road provides access to many residential areas, and is a primary route for children walking and biking to Summerour Middle School. Mitchell Road is a 24' wide two lane road with a 35 mile per hour speed limit. Right of way widths vary from 60' to 80', although most sections are 80' wide.

Public Land

The City of Norcross and Gwinnett County own large sections of the Beaver Ruin Creek Corridor, south of Everglades Trail, and along the Beaver Ruin Creek Tributary that runs to Norcross Tucker Road. Additional public land includes Cemetery Field (see Figure 2.04) and Pinnacle Park which are both owned by the City of Norcross.



FIGURE 2.01 NORCROSS RESIDENTIAL AREA



FIGURE 2.02 DESTINATION - PINNACLE PARK



FIGURE 2.03 POWERLINE EASEMENT



FIGURE 2.04 PUBLIC LAND - CEMETERY FIELD



Constraints

- **Private Land Ownership:** The power easement corridors are all within private ownership. The Beaver Run Creek Corridor, north of Everglades Trail is privately owned, except for the Cemetery Field parcel (see Figure 2.06). The use of private land for greenway infrastructure could be minimized through leveraging public land where possible.
- **Flood Zones:** Greenway alignments within flood zones can have significant maintenance issues: flood waters may periodically inundate the trail and deposit mud and debris on the trail surfaces, or in extreme situations, may completely wash away the pavement. Flood zones are heavily regulated by both local and federal agencies, which restrict quantities of fill material and the types of structures that can be placed within the floodplains and floodways (see Figure 2.05). Greenways within flood zones are common, but they need to be properly designed.
- **Wetlands:** Wetlands can be considered both an opportunity and a constraint for trail planning (see Figure 2.07). They are typically scenic areas that rank high among user experience and offer potential for environmental education. However, wetlands are also specialized ecosystems that are sensitive to disturbance and are heavily regulated by the United States Army Corps of Engineers. Greenway routing through wetland areas does not need to be avoided, but should be done carefully and deliberately to maximize user experience and minimize disturbance.
- **Utilities:** Utility infrastructure, particularly utility poles, located within road right of way are potential conflicts for greenway routing (see Figure 2.08). If existing utilities cannot be avoided, relocations of these utilities would be necessary; the relocation of utilities is an expensive and time consuming process.
- **Georgia Power Substation on Norcross Tucker Road:** The substation spans the width of the transmission easement, which limits the easement’s potential as a greenway corridor (see Figure 2.09). The greenway alignment would need to diverge from the easement to avoid impacting the substation.



FIGURE 2.06 PRIVATE LAND OWNERSHIP



FIGURE 2.07 WETLANDS

FIGURE 2.05 STUDY AREA FLOODPLAIN MAP

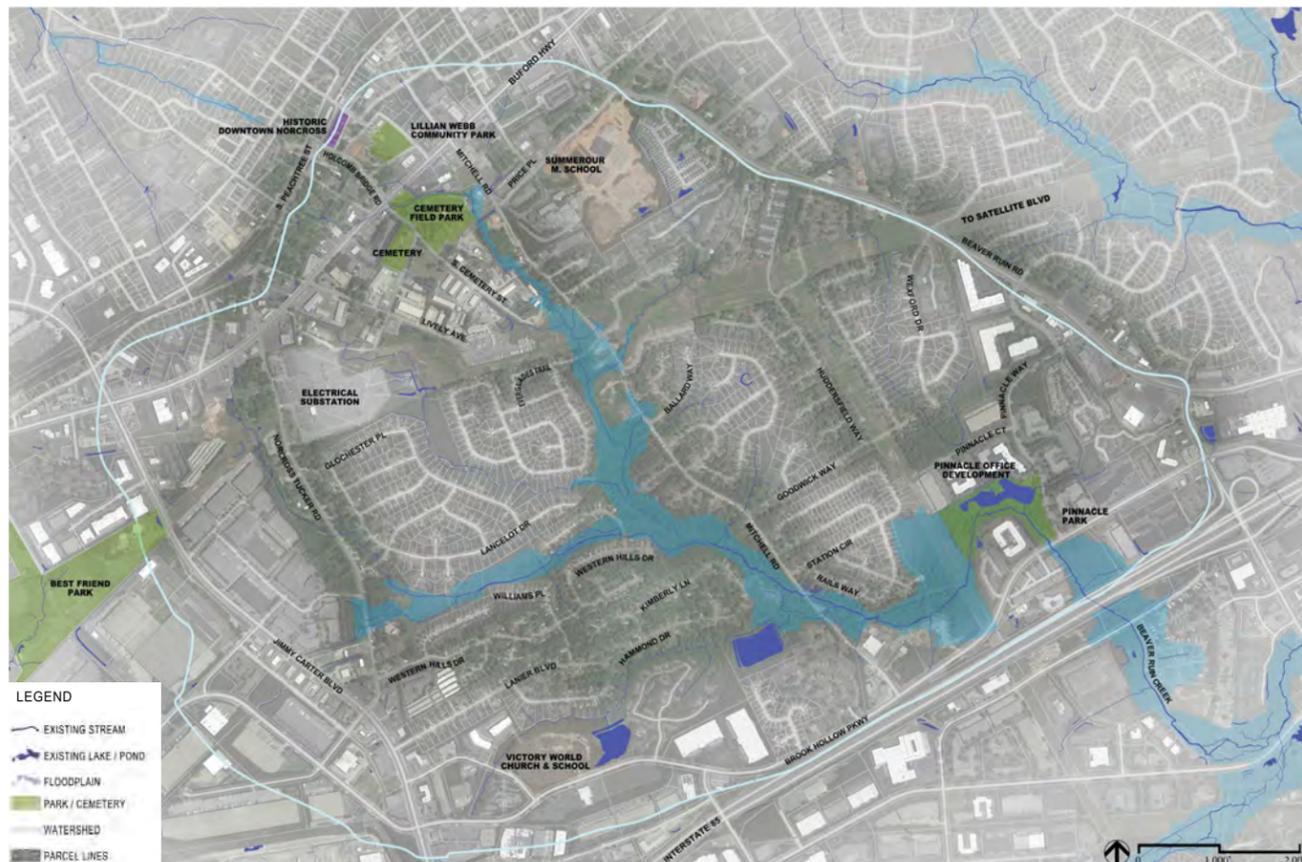


FIGURE 2.08 UTILITIES



FIGURE 2.09 GEORGIA POWER SUBSTATION



2.3 System Evaluation for Watershed Improvements

The Beaver Ruin Creek Watershed is located within the jurisdiction of the City of Norcross and Gwinnett County. The watershed includes significant existing development that has occurred over several decades with varying development regulations. The watershed contains a well-protected stream network that is within property owned by the City. Other significant elements include existing stormwater management facilities created to control water quantity and quality from developed land (see Figure 2.10).



FIGURE 2.10 BEAVER RUIN CREEK

Regulatory Overview

The Beaver Ruin Creek Watershed is part of the City of Norcross's Municipal Separate Storm Sewer System (MS4) jurisdiction. The City holds an MS4 permit to manage and maintain the stormwater system under federal and state regulations that focus on water quality protection using minimum control measures (MCMs) such as public involvement, public awareness, construction site runoff control, post-construction runoff control, illicit discharge detection and elimination, and good housekeeping for municipal operations. This provides opportunities to manage new development and effect public behavior to prevent degradation of the streams and public waters within the watershed. In addition, existing impaired streams are subjected to regulations targeted at improving streams and wetlands suffering from past development. The Beaver Ruin Creek is under a total maximum daily load (TMDL) requirement that requires communities to initiate practices to reduce the pollutant loading that is currently present through the use of stormwater best management practices (BMPs). Furthermore, new developments are subject to the control of runoff to address peak rate of discharge (i.e. detention regulations) as well as water quality treatment of runoff from impervious areas. These regulations therefore impose a sense of opportunity for both communities and developers to collaborate on solving watershed restoration issues.

Site Visit and Document Review

Site visits (see Figure 2.11) and reviews of existing information provided by the City of Norcross and Gwinnett County were conducted to help understand the extent and general condition of the watershed and specifically the stormwater system (with an emphasis on the natural drainage system). The maps provided in this document illustrate the network of natural drainage channels along with locations of existing stormwater management facilities (structural BMPs). The watershed stormwater system can be summarized as follows:

- 25,100 LF of natural streams
- 68 known BMPs established for water quantity detention
 - o Dry Detention basins
 - o Wet Ponds
- Approximately 25% of the watershed previously developed



FIGURE 2.11 SITE VISIT



Observations from the site visit concluded the following opportunities and constraints for the development of stormwater BMPs within the study area:

Opportunities for the development of stormwater BMPs

- Stream restoration and bank stabilization opportunities are available along many of the natural stream corridors where land is available
- Existing BMPs are strategically located that could allow for expansion and/or enhancement to provide added capacity or a water quality treatment component. The City is currently underway with improvements to the existing wet pond in the Pinnacle Park (see Figure 2.12).
- Open space is available to site new BMPs that would aid in reducing stream bank stress causing erosion, but also provide water quality benefit to support TMDL initiatives, as well as develop water quality “credit” for future development in the watershed. The City and County own most of the land adjacent to Beaver Ruin Creek and the tributary that runs through the Western Hills Subdivision

Constraints for the development of stormwater BMPs

- Streambank erosion throughout a majority of the streams and channel incision have created a disconnection from the floodplain, movement of the stream into private property, and loss of stream and floodplain vegetation (see Figure 2.13).
- Encroachment of existing development in select areas has caused frequent potential flooding of structures
- A failed detention basin (serving Pinnacle Point Drive apartments), includes a riser control structure that has failed and an outlet pipe that has been partially removed
- Topography at west end of tributary (near Norcross-Tucker Road) is steep along the stream thereby making it difficult to create offline storage (see Figure 2.14).

2.4 Site Analysis Mapping

A Site Analysis Map was developed to graphically represent the opportunities, constraints, and general existing conditions within the study area (see Figure 2.15). The map illustrates potential trail corridors that had been identified within previous studies, major destinations, potential stormwater BMP locations, and floodplain information. This map was presented at the initial public meeting to help introduce the project to the public. A detailed description of that meeting can be found in Chapter 5.



FIGURE 2.12 WET POND IN PINNACLE PARK



FIGURE 2.13 STREAMBANK EROSION



FIGURE 2.14 STEEP TOPOGRAPHY ALONG TRIBUTARY

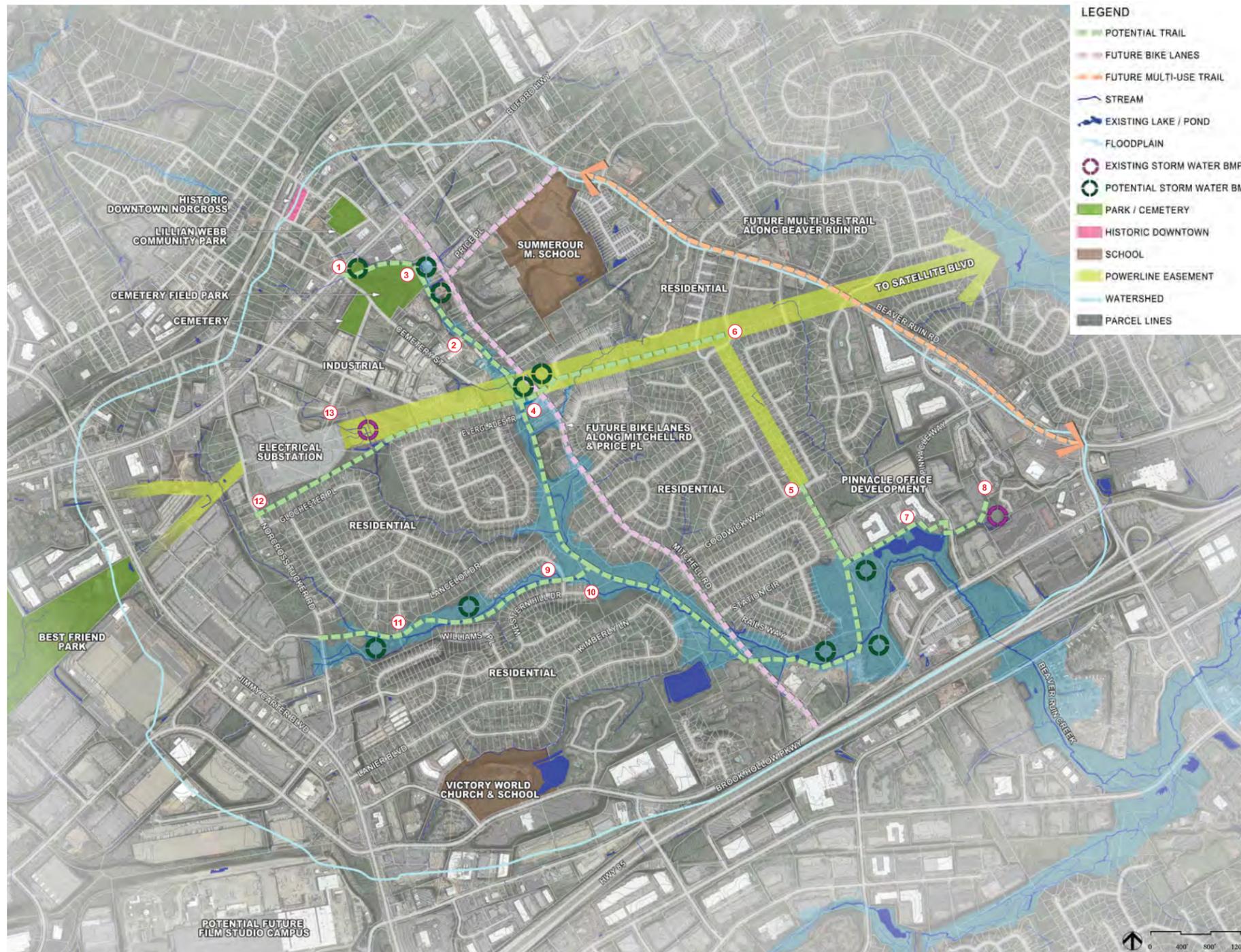


FIGURE 2.15
SITE ANALYSIS MAP



NORCROSS LCI GREENWAY STUDY SITE ANALYSIS





3.0 Concept Development

Concept development began once the existing conditions assessment was complete. The concepts were developed based on initial public comment, input from City of Norcross staff, and analysis of the study area.

3.1 Typical Sections

The following typical sections are snapshots of the various greenway facilities that are proposed within the Concept Plans. Four different typical sections would occur: Multi-use trail adjacent to road (sidepath), off-road multi-use trail within natural area, off-road multi-use trail within power easement, and sharrow (road with special shared bike/automobile lane pavement markings) with an adjacent sidewalk. These sections illustrate the typical character of the bicycle/pedestrian facility by showing context & setting, path width, and offsets. Please note that these typical sections are keyed into the Concept Plans using the following colors:

- ■ ■ ■ ■ Red: sidepath
- ■ ■ ■ ■ Dark brown: off-road multi-use trail within natural area
- ■ ■ ■ ■ Light brown: off-road multi-use trail within power easement
- ■ ■ ■ ■ Orange: sharrow with an adjacent sidewalk

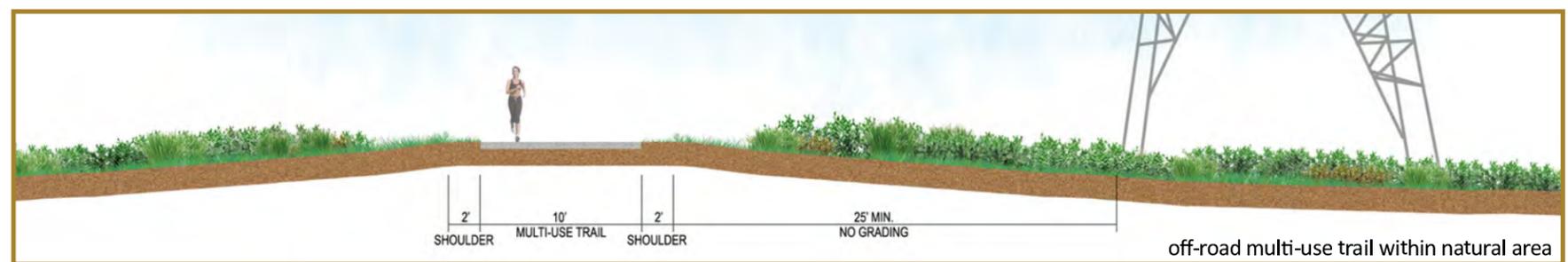
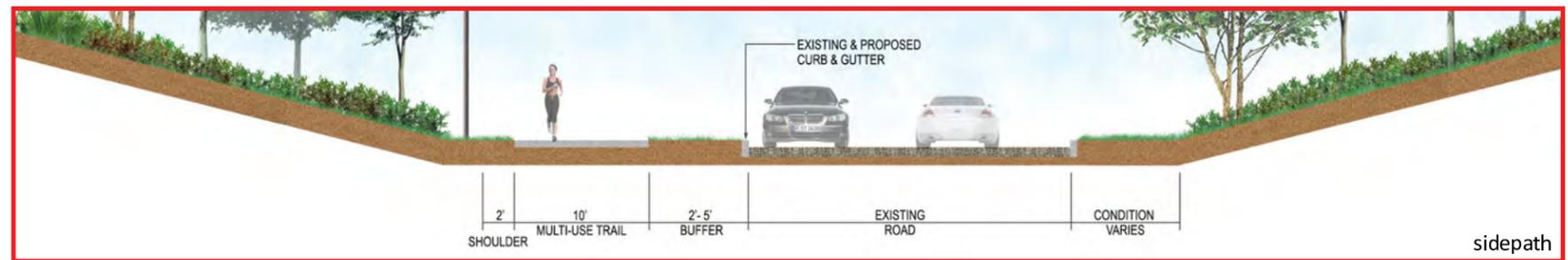


FIGURE 3.01 - 3.04 TYPICAL SECTIONS



3.2 Concept Plans

The two concept plans utilize a variety of trail types to provide an interconnected network of routes throughout the study area. This interconnected network of facilities connects the neighborhoods to significant destinations, such as Downtown Norcross, Cemetery Field, Pinnacle Center, and the future Beaver Ruin Road Multi-use Trail.

The following criteria were used to determine the two concept routes:

- Type of path system – sidepath, off-road multi-use trail, sidewalk, and sharrow
- Safety issues – number of driveway crossings, major road crossing conditions, posted speed limit, and traffic volume of adjacent roadways
- User experience – scenic value, noise issues, and generally whether it would be an enjoyable route for cyclists and pedestrians
- Cost considerations – potential costly engineering issues such as extreme topography, utility conflicts, the need for traffic signalization, or the need for new bridges
- Taking advantage of study area opportunities – connectivity to destinations and population centers; available rights of way; and barrier crossing locations
- Avoiding study area constraints – utilities, private land ownership, wetlands, and topography
- Route diversity – selection of routes to achieve two distinct options

The two concept plans are presented on the next two pages (see Figures 3.05 and 3.06) and a summary matrix (to the right) compares how the two plans address key trail planning criteria (See Table 3.01)

TABLE 3.01 CONCEPT SUMMARY MATRIX

CRITERIA	CONCEPT 1	CONCEPT 2
LENGTH	10.59 Miles	7.8 Miles
CONNECTIVITY	Provides connectivity to major destinations and all neighborhoods. Includes sidewalks/sharrows within neighborhoods to provide interconnectivity between network segments.	Provides connectivity to major destinations and most neighborhoods. Does not provide as much interconnectivity between the network segments as Concept 1.
COST	More expensive than Concept 2 because it is a larger system with more routes, and because there are more segments within natural areas which are more expensive to construct.	Less expensive than Concept 1 because it is a shorter system with fewer routes, and because more segments are located along roadways, which are less expensive to construct.
USER EXPERIENCE	Provides more routes within natural areas, which have enhanced user experience	Most routes are adjacent to roadways which provide reduced user experience
INTEGRATION OF STORMWATER BMPS	Integrates most proposed stormwater BMPs with trail routes. Integrates stream restoration along Beaver Ruin Creek, west of Mitchell Road.	Integrates many of the proposed stormwater BMPs with trail routes, but does not integrate the stream restoration and BMPs along Beaver Ruin Creek (west of Mitchell Road)
RIGHT-OF WAY	Most of the routes along roadways and natural areas are owned by either the City or County; however there are a few areas where strips of right of way acquisition may be required; land within Georgia Power Easement will require acquisition.	Most of the routes along roadways and natural areas are owned by either the City or County; however there are a few areas where strips of right of way acquisition may be required; land within Georgia Power Easement will require acquisition.

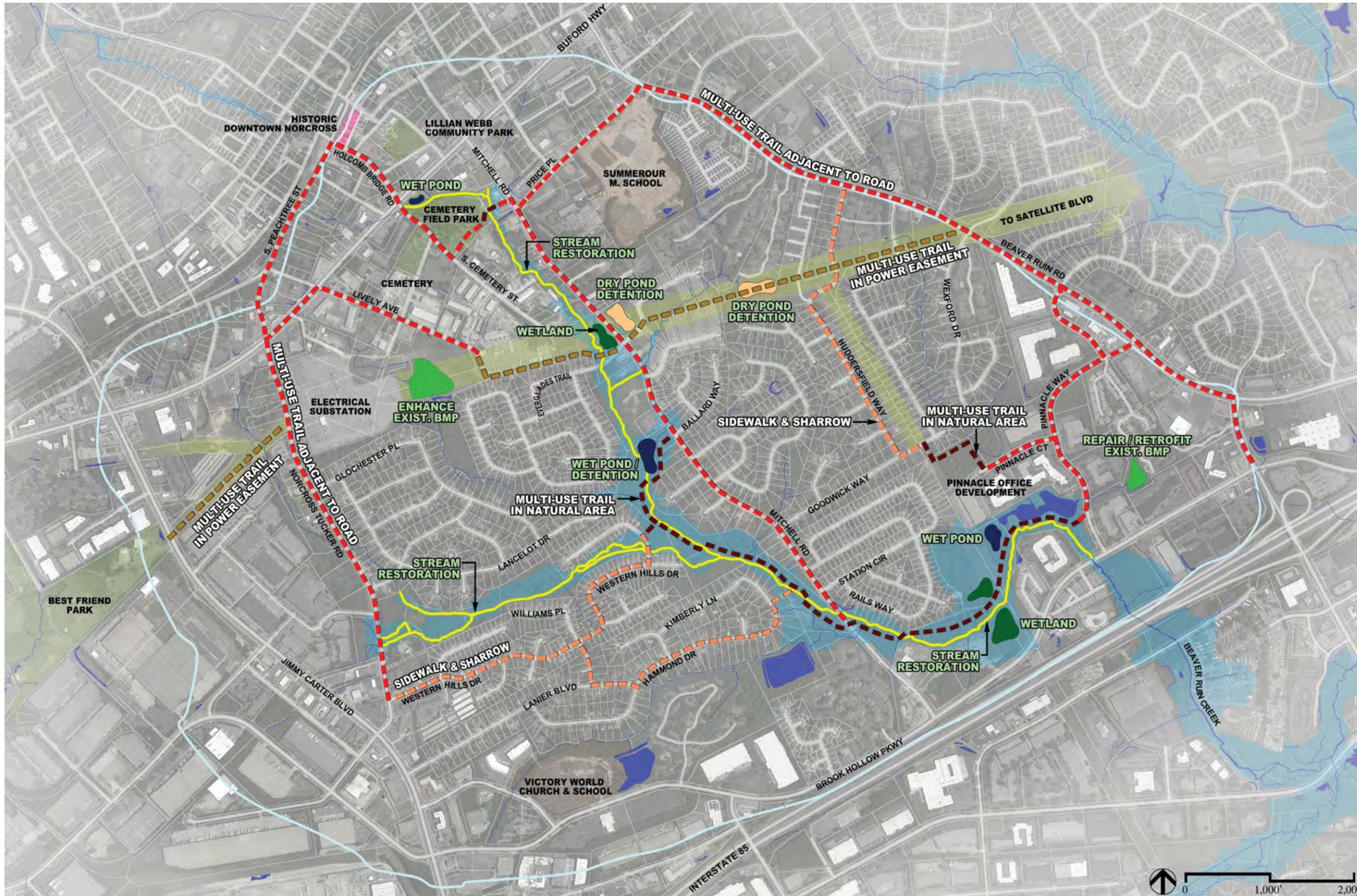


FIGURE 3.05
CONCEPT PLAN 1

LEGEND

- - - MULTI-USE TRAIL ADJACENT TO ROAD
- - - MULTI-USE TRAIL IN NATURAL AREA
- - - MULTI-USE TRAIL IN POWER EASEMENT
- - - SIDEWALK & SHARROWS
- EXISTING STREAM
- EXISTING LAKE / POND
- FLOODPLAIN
- EXISTING BMP, DRY DETENTION
- PROPOSE BMP DRY POND DETENTION BASIN
- PROPOSED WETLAND
- PROPOSED WET POND
- STREAM RESTORATION
- PARK / CEMETERY
- HISTORIC DOWNTOWN
- SCHOOL
- POWERLINE EASEMENT
- WATERSHED
- PARCEL LINES

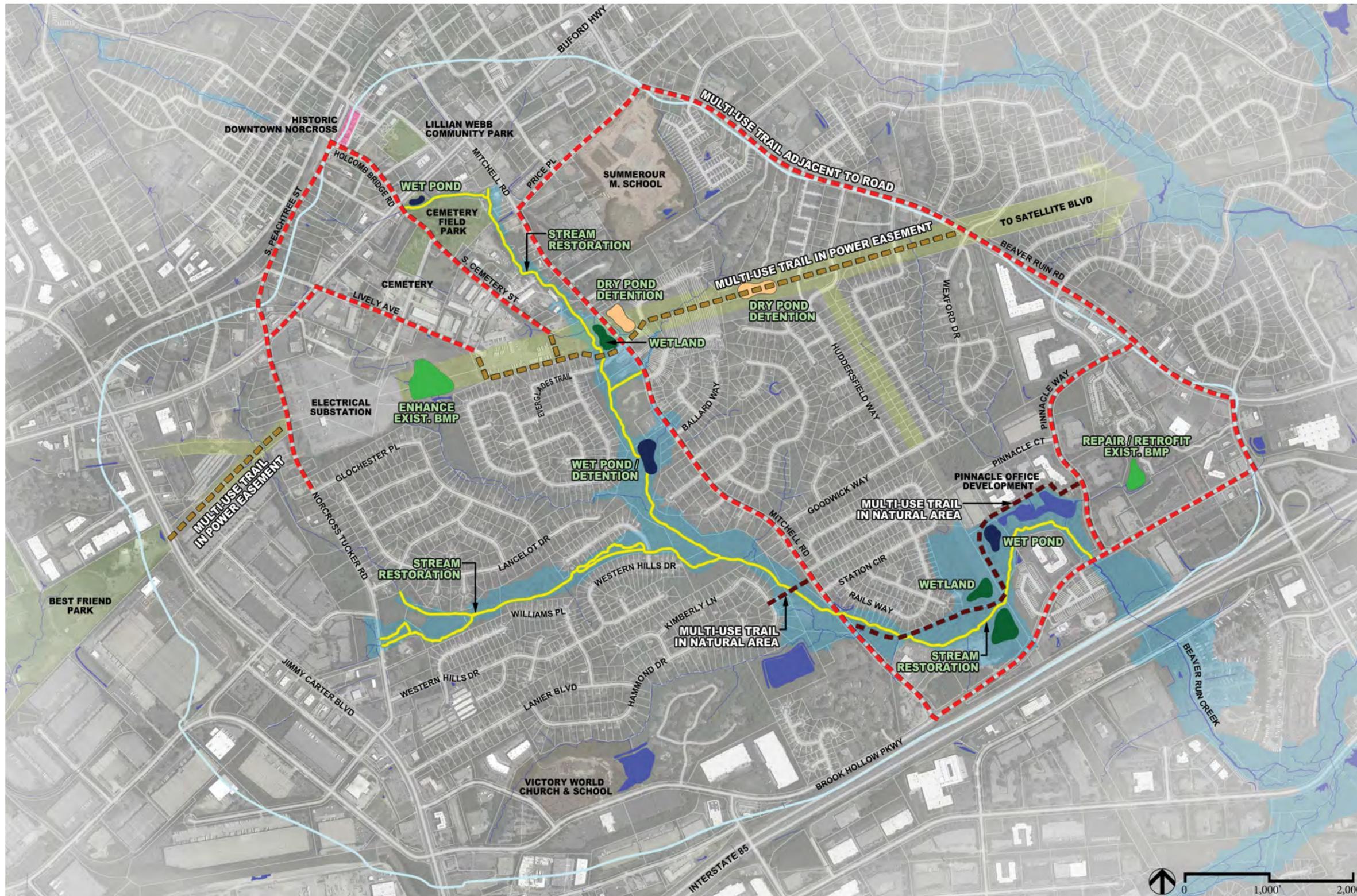


FIGURE 3.06
CONCEPT PLAN 2





4.0 Watershed/Stormwater Improvement Recommendations

Watershed water quality has become an important element in defining community quality of life along with economic vitality, and recreation opportunities. Recent environmental regulations are placing more emphasis on creating a sustainable watershed by focusing on development controls and community-based initiatives that serve to comply with regional objectives. Communities are seeing a nexus occurring by combining initiatives to serve multiple benefits such as recreational and watershed enhancements.

The goals for the City of Norcross related to a collaborative effort between greenway initiatives and watershed management are as follows:

- Reduce flooding of private and public lands
- Improve water quality of receiving streams and water bodies
- Decrease erosion of stream channels
- Increase biodiversity
- Meet State and Federal requirements imposed on Norcross

4.1 Typical Stormwater BMP Descriptions

Watershed/Stormwater improvement opportunities are characterized by type of facility and the beneficial use that it provides to the watershed. Various structural BMPs are identified due to their location within the watershed to address runoff from developed or potentially developable land, as well as the terrain and its proximity to existing streams and wetlands that will provide a source of water for its function. Stream restoration opportunities are identified to serve a more holistic watershed approach as well as to halt current erosion of property.

BMP Opportunities

- **Extended Dry Detention Basins** – These facilities are well known and have been used for decades as a means to slow down the water prior to the stormwater runoff leaving a development. These BMPs consist of an area that is normally dry, but fills with water and appears as a pond during wet weather events. The runoff is temporarily captured and detained for a period to reduce the rate of runoff. This BMP minimizes downstream flooding, and streambank erosion, but does not significantly improve water quality as the water is not “held” for longer than typically 24 hours (see Figure 4.01).
- **Wet Ponds** – These facilities are BMPs that hold water permanently and act as ponds or lakes during dry periods. During wet weather events, the pond depth will increase, additional area immediately around the pond will flood to allow additional water to be stored above the normal pond elevation. These devices provide some detention for flood and erosion control, but also provide significant water quality enhancement (if designed appropriately). They are usually limited in providing much detention as wetland plants are

not tolerant to high depths of water storage for extended periods of time. An aesthetic element is also prevalent with these facilities as they are more pleasing to communities (see Figure 4.02).

- **Wetlands** – These facilities are generally found as natural wetlands where the terrain is flat, and the area receives frequent inundation due to topography and/or the connection it has with a nearby stream. Wetlands constructed as a BMP will have an engineered element to them to allow more water to be stored over time to provide added water quality treatment. They are usually limited in providing much detention as wetland plants are not tolerant to high depths of water storage for extended periods of time. An aesthetic element is also prevalent with these facilities as they are more moderately pleasing and can provide an educational element to observe wildlife and a diverse ecosystem (see Figure 4.03).
- **Infiltration BMPs** – Commonly known as rain gardens, or bioretention basins, these facilities serve to intercept the initial runoff from development that is carrying the majority of the pollutants and infiltrate the water downward through material that will filter the pollutants. As such, these facilities are highly effective for water quality treatment, however are limited in peak runoff control (or detention), due to limitations in storage depth. They can be, if planted appropriately, highly attractive facilities (see Figure 4.04).



FIGURE 4.01 EXTENDED DRY DETENTION



FIGURE 4.02 WET POND



FIGURE 4.03 WETLAND



Stream Restoration

Stream restoration in an urban setting is the practice of establishing a natural stream in a manner that is stable and resistant to the forces created by urban runoff from a developed watershed, but supports vegetation as its primary ground cover (as opposed to concrete rip rap for bank stabilization). Restoration of urban streams also target the connection of the main stream channel with the adjacent land or floodplains to allow for higher storm events (that carry larger runoff and thereby high erosive forces) to dissipate the energy by discharging flow onto the floodplain. Depending on the land use, extent of development near the stream corridor, and the ability to create this floodplain connection, nearby land may experience some increase flood depths with stream restoration during extreme rain events. Natural channel restoration enhances habitat and water chemistry while protecting property from further erosion and loss of use. As such, streams become more desirable, attractive, and property values are protected if not improved as a result of stream restoration (see Figure 4.05).

4.2 Stormwater BMP Recommendations

Watershed/Stormwater improvements identified and recommended as part of this master plan consist of improvements that will benefit the watershed as a whole and the receiving streams within Norcross and downstream, as well as protect public and private property from additional degradation as a result of urbanization. The location of these recommendations compliment the recreational objectives identified as part of the greenway system analysis.

Environmental restoration/enhancement through stream restoration has been identified throughout the watershed as illustrated on Figure 4.06. Two main tributaries and the main Beaver Ruin Creek provide the backbone of the natural system that receives the majority of the runoff from this watershed. Protecting these corridors achieves the majority of the City's goals for a holistic watershed management strategy. The majority of the land occupied by these streams are owned by the City, reducing one of the major hurdles with urban stream restoration (that of obtaining sufficient land for adequate restoration activities for construction and long-term maintenance).

Watershed management through BMP enhancement and expansion supports all of the City's goals for stormwater management. Existing BMPs are shown on Figure 4.06. for recommended retrofits and/or repairs to improve water quality, and to aid in reducing stream erosion and downstream flooding. Additional sites are shown for the installation of new BMPs that will achieve control and treatment from existing development (a strategy to support TMDL regulations) as well as the potential to provide capacity for control and treatment of future development (should new or redeveloped property be limited with land for BMPs).

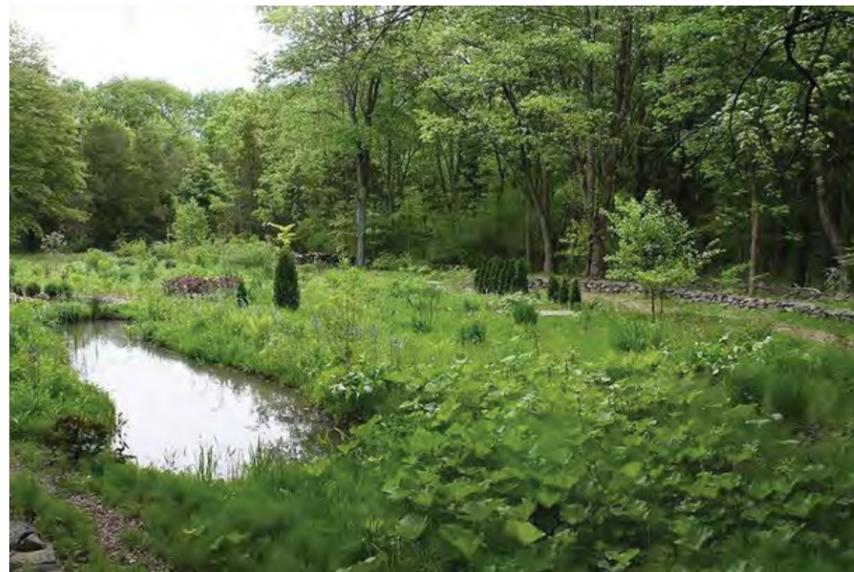


FIGURE 4.04 INFILTRATION BMP

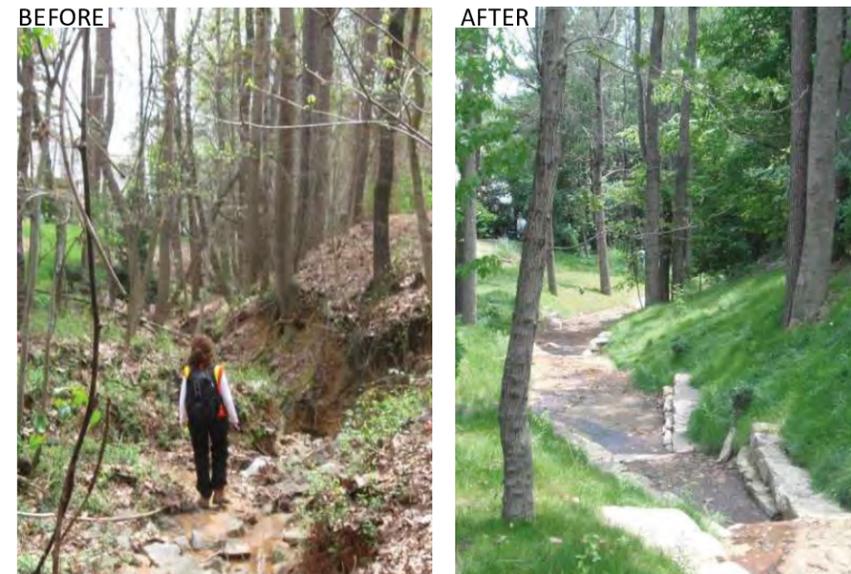


FIGURE 4.05 STREAM RESTORATION
Photos courtesy of Gwinnett County

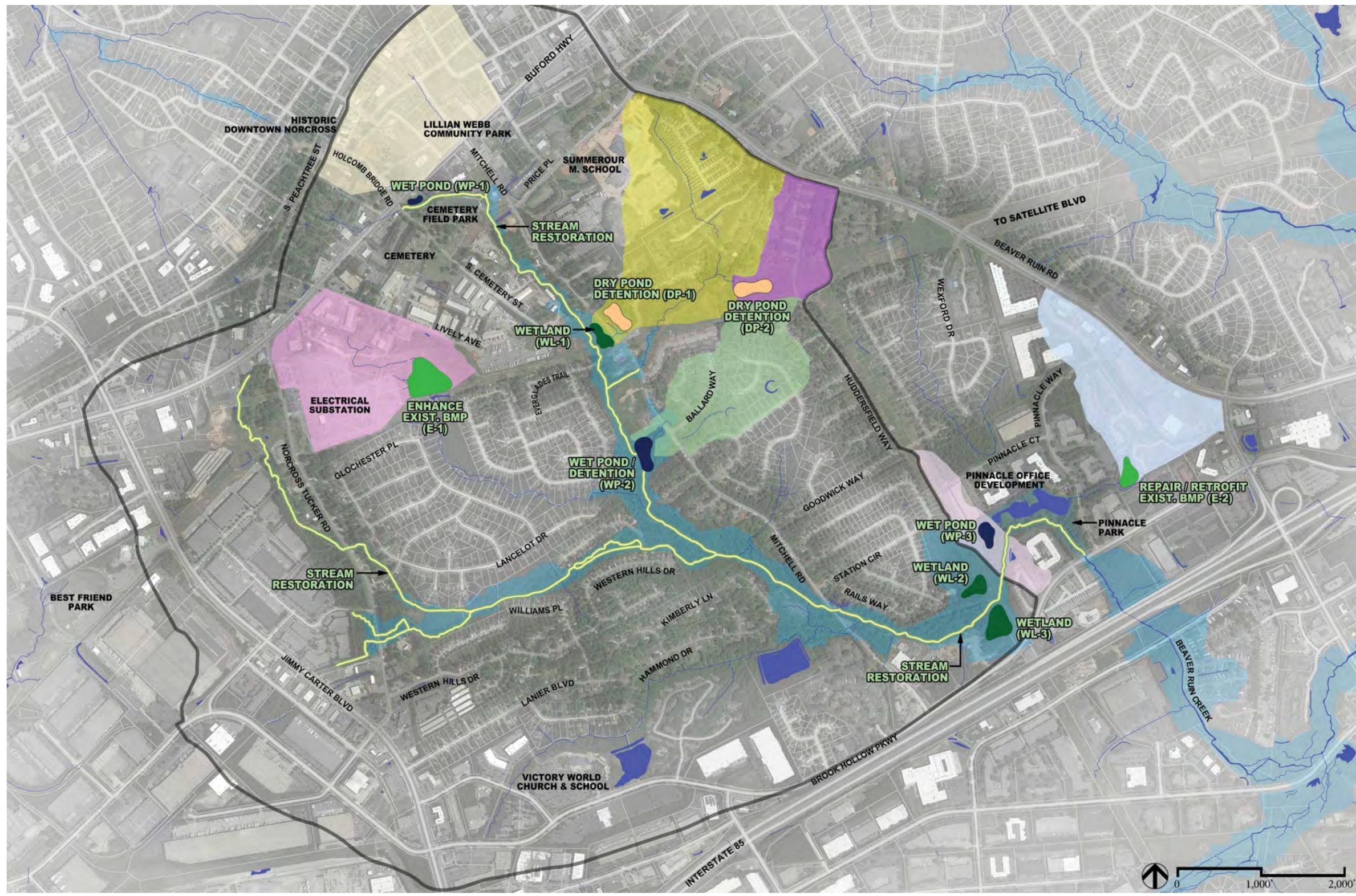
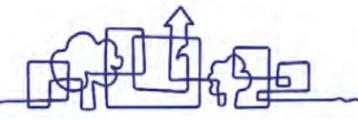


FIGURE 4.06 STORMWATER BMP RECOMMENDATIONS





Preliminary site reconnaissance as part of this master plan effort identified potential BMP sites. These locations and the BMPs potential size are illustrated on Figure 4.06. A desktop analysis was performed to examine possible storage potential that could be available for the BMP's contributing drainage area. The findings from this analysis are conceptual in nature, and must be validated through additional field investigation and engineering analysis prior to using this information in formulating policies or deciding on development credits. The table to the below (Table 4.01) summarizes the BMPs along with storage projections for use in determining impervious acreage treated by the facility. Several assumptions were made to formulate these findings:

- Existing BMPs have 30-50% available new capacity for treatment and detention storage
- BMPs adjacent to a stream are not located inline on the stream but has the ability to receive water from the stream during wet weather events for capture, control, and treatment.
- Dry detention ponds provide 2-3 feet of treatment depth, and additional 3 feet for detention storage
- Wet ponds provide 1-2 feet of treatment depth, and additional 3 feet for detention storage.
- Wetlands provide 1 feet of treatment depth, and additional 2 feet for detention storage.
- Existing BMPs are Dry Detention Basins.
- Impervious area calculation based on 1.2" of rainfall for water quality capture

TABLE 4.01 STORMWATER BMP SUMMARIES

Stormwater Facility ID	Contributing Area (ac)	Surface Area of Facility (sf)	Type of Facility	Potential Available Treatment Storage (cf)	Potential Available Detention Storage (cf)	Total Storage (CF)	Potential Available Treatable Impervious Area for New Development (AC)
DP-2	26	60,800	Dry Pond	121,600	182,400	304,000	26***
E-1*	59	171,400	Existing BMP	154,260	154,260	308,520	35
E-2*	50	36,800	Existing BMP	33,120	33,120	66,240	8
WP-1	70	14,000	Wet Pond	28,000	42,000	70,000	6
WP-2	49	65,800	Wet Pond	131,600	197,400	329,000	30
WP-3	18	44,000	Wet Pond	66,000	132,000	198,000	15
DP-1	99	44,200	Dry Pond	132,600	132,600	265,200	30
WL-1		45,700	Wetland	45,700	91,400	137,100	10
WL-2**	1418	47,400	Wetland	47,400	94,800	142,200	11
WL-3**		93,200	Wetland	93,200	186,400	279,600	21
Total				853,480	1,246,380	2,099,860	168

4.3 Stormwater BMP Costs

Order of magnitude costs are provided in Table 4.02 below. These estimates are based upon typical square foot or linear foot cost per BMP category improvement type. These costs are solely for construction and do not include design, utility, or right of way costs.

TABLE 4.02 STORMWATER BMP COSTS

Stormwater Facility ID	Type of Facility	Size	Typical Unit Cost	Approximate Construction Cost
DP-2	Dry Pond	1.4 AC	\$25,000 per acre	\$35,000
E-1	Existing BMP	3.9 AC	\$25,000 per acre	\$100,000
E-2	Existing BMP	.8 AC	\$25,000 per acre	\$21,000
WP-1	Wet Pond	.3 AC	\$50,000 per acre	\$17,000
WP-2	Wet Pond	1.5 AC	\$50,000 per acre	\$75,000
WP-3	Wet Pond	1.0 AC	\$50,000 per acre	\$50,000
DP-1	Dry Pond	1.0 AC	\$25,000 per acre	\$25,000
WL-1	Wetland	1.1 AC	\$50,000 per acre	\$55,000
WL-2	Wetland	1.1 AC	\$50,000 per acre	\$55,000
WL-3	Wetland	2.1 AC	\$50,000 per acre	\$110,000
Stream Restoration	Stream Restoration	25,100 lf	\$350 per linear foot	\$8,785,000
Total				\$9,328,000



5.0 Greenway Recommendations

The final step of the planning process was the consolidation and refinement of the two concept plans to create a recommended greenway plan. This chapter presents the overall greenway network plan, a prioritization plan, and ends with a detailed description of the Priority 1 Alignment.

5.1 Recommended Greenway Network Plan

The final plan provides a comprehensive network of bicycle and pedestrian facilities, totaling 9.5 miles that improve mobility options for the City of Norcross. The network consists of a variety of facilities, including off-road multi-use trails (3.8 miles), sidepaths (3.3 miles), and sidewalks/sharrows (2.4 miles).

The central spine of the greenway system is a north/south route that primarily follows Mitchell Road, but also connects to Downtown Norcross (at Holcomb Bridge Road) and Pinnacle Center (at Beaver Ruin Road and Pinnacle Way). Several spurs trails and connective sidewalk/sharrow routes provide additional connectivity between the neighborhoods and the greenway's central spine.

Greenway Network Segment Descriptions

The Recommended Greenway Plan (see Figure 5.01) has been subdivided into segments and described below.

Segment 1 : Downtown Norcross to Beaver Ruin Road/Pinnacle Way (The Primary Alignment)

Length: 3.39 Miles

Corridors: Holcomb Bridge Road, S. Cemetery Street, Georgia Power Easement (adjacent to the cemetery), Cemetery Field Entry Drive, Mitchell Road, Sewer Easement adjacent to Beaver Ruin Creek, Pinnacle Park, Pinnacle Way

Connectivity: This would be the central spine of the trail system. It connects downtown Norcross, Cemetery Field, multiple residential neighborhoods, Pinnacle Park greenspace, and the Pinnacle Center office development. A spur trail along Mitchell Road extends south to the Pinnacle Pointe townhome development.

Trail Type: Most of the route would be a sidepath, although there would be a .75 mile section, between Mitchell and Pinnacle Way, that would be an off road multi-use trail that would follow Beaver Ruin Creek and the pond at Pinnacle Park.

Segment 2: Price Place from Mitchell Road to Beaver Ruin Road

Length: 0.38 Miles

Corridors: Price Place

Connectivity: Provides connectivity to Summerour Middle School from Mitchell Road and from the Beaver Ruin Road Multi-Use Trail.

Trail Type: Sidepath

Segment 3: Georgia Power Easement from Mitchell Road to Beaver Ruin Road

Length: 0.80 Miles

Corridors: Georgia Power Easement.

Connectivity: This segment provides an east-west route that provides a connection from Mitchell Road to the Beaver Ruin

Road Trail. A future trail extension along the power easement to the east would provide a connection to the Beaver Ruin Park Greenspace, a Gwinnett County owned property on Satellite Boulevard.

Trail Type: The segment is an off-road multi-use trail within the power easement.

Segment 4: Buford Highway/S. Cemetery Street Intersection to Norcross Tucker Road/Western Hills Drive Intersection

Length: 1.29 Miles

Corridors: Buford Highway, Norcross Tucker Road

Connectivity: Provides a connection between downtown the residential communities adjacent to Norcross Tucker Road and the primary trail alignment at South Cemetery Street and Buford Highway.

Trail Type: Sidepath

Segment 5: Georgia Power Easement from Best Friend Park to Norcross Tucker Road

Length: 0.35 Miles

Corridors: Georgia Power easement

Connectivity: Provides connectivity between Norcross Tucker Road and Best Friend Park.

Trail Type: Off-road multi-use trail within a power easement

Segment 6: Western Hills/Springdale Estates

Length: 1.45 Miles

Corridors: Western Hills Drive, Williams Place, Anamanda Close, Lanier Boulevard, and Hammond Drive

Connectivity: Provides connectivity within the Western Hills/Springdale Estate neighborhood from Norcross Tucker Road to the proposed Segment 7 along Beaver Ruin Creek .

Trail Type: Sidewalks with shared lane marking (Sharrow)

Segment 7: Beaver Ruin Creek (west of Mitchell Road) from Everglades Trail to Station Circle

Length: 1.03 Miles

Corridors: Beaver Ruin Creek

Connectivity: Provides a route to and through city and county owned greenspace along Beaver Ruin Creek. It also provides spur connections to Hammond Drive and Western Hills Drive which provides connectivity between the Western Hills/Springdale Estates residential areas and the primary alignment (Segment 1)

Trail Type: Off-road multi-use trail within a natural area.

Segment 8: Beaver Ruin Road/Huddersfield Way to Pinnacle Court/Pinnacle Way

Length: 1.10 Miles

Corridors: Huddersfield Way, Georgia Power easement, and Pinnacle Court

Connectivity: Provides a link between the residential areas along Huddersfield Way to the Beaver Ruin Road Multi-Use Trail and the Pinnacle Center office development.

Trail Types: Sidewalk and sharrow, off road multi-use trail within power easement, off road multi-use trail within a natural area, and a sidepath.

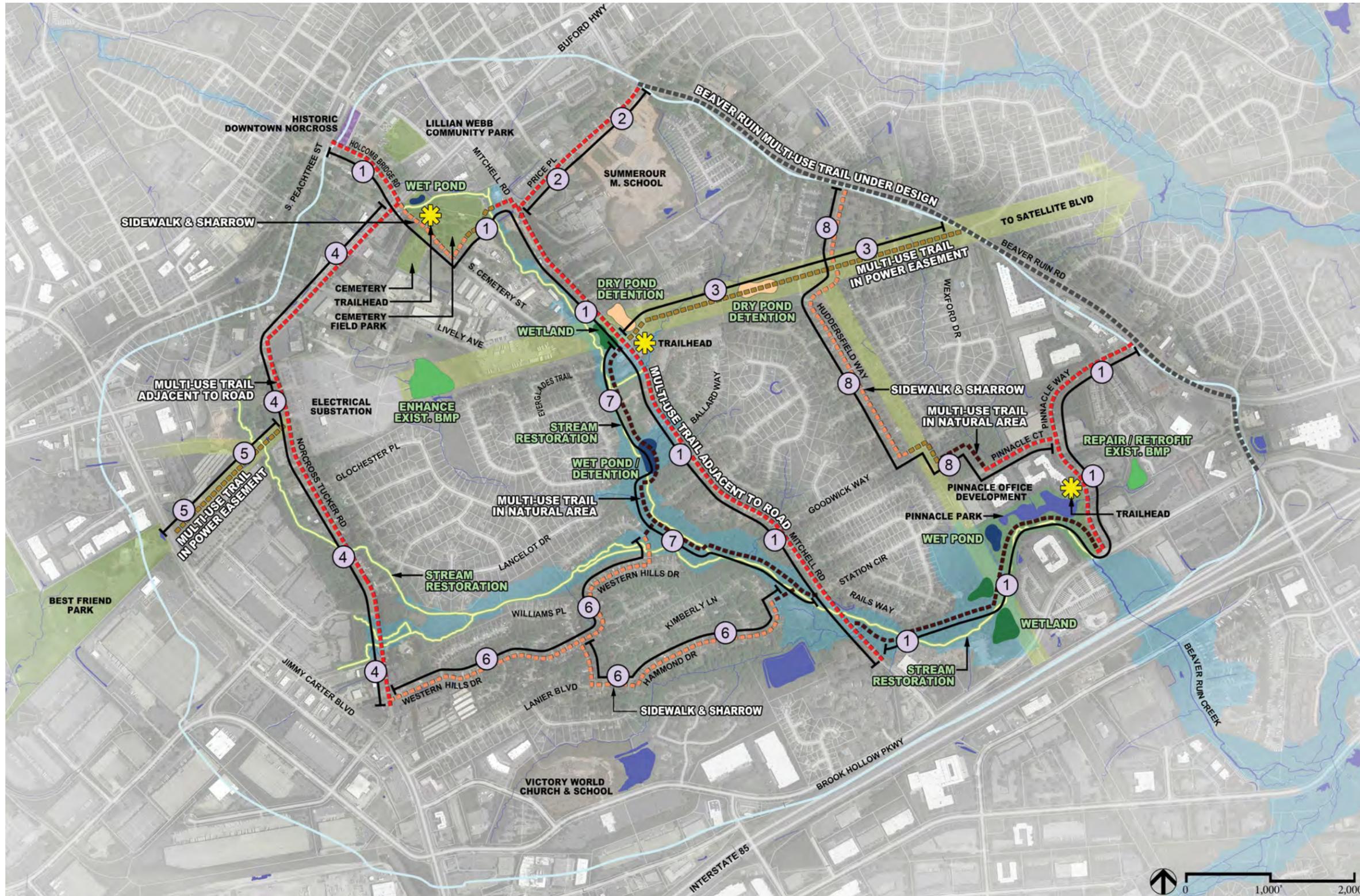


FIGURE 5.01 GREENWAY NETWORK MAP

- LEGEND**
- MULTI-USE TRAIL ADJACENT TO ROAD
 - MULTI-USE TRAIL IN NATURAL AREA
 - MULTI-USE TRAIL IN POWER EASEMENT
 - SIDEWALK & SHARROWS
 - EXISTING STREAM
 - EXISTING LAKE / POND
 - FLOODPLAIN
 - EXISTING BMP, DRY DETENTION
 - PROPOSE BMP
 - DRY POND DETENTION BASIN
 - PROPOSED WETLAND
 - PROPOSED WET POND
 - STREAM RESTORATION
 - PARK / CEMETERY
 - HISTORIC DOWNTOWN
 - SCHOOL
 - POWERLINE EASEMENT
 - WATERSHED
 - PARCEL LINES



Greenway Network Summary

The recommended alignment was developed to achieve the following criteria:

Mobility and Connectivity: The greenway network would connect the residential communities within the study area to significant destinations, including schools, parks, employment centers, and commercial districts. Because it connects to a mixture of destinations, the greenway network would be a transportation route as well as a recreational amenity for the City. Below is a list of primary destinations that are accessible by the proposed greenway network:

- Summerour Middle School
- Employment Centers: Pinnacle Center, Norcross City Hall
- Commercial Districts: Downtown Norcross, Buford Highway, Beaver Ruin Road
- Parks/Trails: Cemetery Field, Pinnacle Park, Beaver Ruin Road Multi-use Trail (currently under design)

User Experience: The greenway network would pass through forests, wetlands, residential neighborhoods, and commercial districts; the greenway network would take advantage of existing corridors, often paralleling roadways, power easements, and Beaver Ruin Creek. Approximately 40% of the proposed facilities are off-road multi-use trails, which provide the highest user experience.

Safety: The recommended plan would minimize conflicts between path users and vehicles by avoiding corridors with significant driveway crossings and heavy traffic and by maximizing the use of multi-use trails, rather than bike lanes. Sidewalks and sharrows are proposed where extensive driveways (along low volume, low speed roadways) make sidewalks and sharrows a safer alternative to a mixed-use trail.

Right of Way Acquisition: A significant portion of the recommended alignment utilizes existing road right of way, City of Norcross parkland, and publicly owned land along Beaver Ruin Creek to minimize the need for right of way acquisition. The primary locations where right of way acquisition would be necessary are the segments within the Georgia Power easements, which are privately owned, but typically not being actively used by the private land owners.

Integration of Stormwater BMPs: All proposed stormwater BMPs would be easily accessed and viewed from the greenway network. These elements would be potential points of interest for greenway users that provide scenic and educational opportunities. The stormwater and greenway facilities could be developed together to share costs and provide multiple community benefits.

5.2 Project Prioritization and Greenway Costs

Project Prioritization

The proposed greenways are classified as Priority 1, Priority 2, or Priority 3 (see Figure 5.02). Priority was given based upon connectivity potential, logical termini, user experience, and cost considerations.

The Priority 1 segments provides a central spine with logical termini at downtown Norcross and Pinnacle Center/Beaver Ruin Road. The Priority 1 segments also includes a sidepath along Price Place that would provide connectivity to Summerour Middle School. When fully installed, this segment, would connect to the Beaver Ruin Road Multi-use Trail in two locations, providing a continuous 4.8 mile loop. This greenway would be easily accessible by the residential communities along Mitchell Road and provide key connectivity to Downtown Norcross, Cemetery Field, Summerour Middle School, Pinnacle Park, Pinnacle Center, and (as mentioned above) the future Beaver Ruin Road Multi-use Trail. The Priority 1 alignment is detailed in section 5.3.

The Priority 2 segments would improve upon the greenway network connectivity by tying in residential areas west of Mitchell Road to the Priority 1 alignment and by connecting the residential areas around Hudersfield Lane to Pinnacle Center. Additional alignments along Beaver Ruin Creek are also included in Priority 2 sections, which would provide an increased recreational value to the system.

The Priority 3 segments complete the network by providing an east/west connection using the Georgia Power easement and an additional north/south connection along Norcross Tucker Road. Additionally, sharrows with adjacent sidewalks within the neighborhoods would provide enhanced interconnectivity of segments.

Order of Magnitude Costs

Order of magnitude costs are provided below. These estimates are based upon typical per-mile costs for the four different categories of trail facilities. The estimates include design, construction, and right of way costs.

Greenway Facilities

Typical Cost Assumptions

Sidepath: \$1,500,000 per linear mile

Off-road multi-use trail in natural areas: \$1,800,000 per linear mile

Off-road multi-use trail in power easement: \$1,250,000 per linear mile

Sidewalk and sharrow: \$800,000 per linear mile

Based Upon these assumptions, the greenway network cost per priority level is as follows:

Priority 1 Greenway Network Segments: \$5,450,500

Priority 2 Greenway Network Segments: \$2,750,000

Priority 3 Greenway Network Segments: \$5,100,00



5.3 Priority 1 Alignment

The following section breaks the Priority 1 Alignment into six segments. Notes, keyed into the maps, discuss important aspects of the Priority 1 Alignment including geographical context, opportunities, constraints, crossing locations, and storm-water BMP opportunities.

Map 1

1. The alignment would begin in Historic Downtown Norcross at the intersection of Skin Alley and Holcomb Bridge Road. Bicycle parking would be required in this location. This commercial, cultural, and civic district is a major destination within the study area.
2. The alignment would follow the east side of Holcomb Bridge Road through an area that is currently under redevelopment. Much of this segment includes 9' wide sidewalks with 5' wide furniture strip, which could be used as a sidepath.
3. The alignment would cross Buford Highway at an existing signalized intersection. A streetscape project, currently "under design" will provide intersection improvements and a median on Buford Highway. Additional signalization upgrades may be required to create a safe trail crossing in this location.
4. An urban park that would feature a wet pond stormwater BMP is proposed at the corner of Buford Highway and S. Cemetery Street. The park would serve as a gateway feature for the City of Norcross along Buford Highway and a destination for the trail. The parking lot for Cemetery Field could provide a trailhead for the greenway and parking for the park. The pond could provide some detention for flood and erosion control, but could also provide significant water quality enhancement. The wet pond would have an approximate .3 acre surface area and a 70 acre watershed. (REFERENCE THE PARK IMAGE?)
5. The alignment would continue southeast along S. Cemetery Street as a sidewalk and sharrow, which is appropriate in this location due to the narrow road width, limited right of way, proximity to the cemetery, and low traffic volume.
6. The alignment would follow a powerline easement as an off-road multi-use trail from the S. Cemetery Street towards the Cemetery Field parking lot on Mitchell Road. Topography is steep in this location; significant grading, and potentially walls would be required to achieve slopes less than 5%.
7. The alignment would follow the edge of the Cemetery Field parking lot and entrance drive to Mitchell Road as a sidepath. The crossing of Beaver Ruin Creek would require a pedestrian bridge or extension of the existing culvert.
8. Stream restoration is recommended along Beaver Ruin Creek throughout the study area. This restoration is intended to enhance habitat and water chemistry while reducing streambank erosion.



FIGURE 5.03 SKIN ALLEY AT HOLCOMB BRIDGE ROAD



FIGURE 5.04 HOLCOMB BRIDGE ROAD



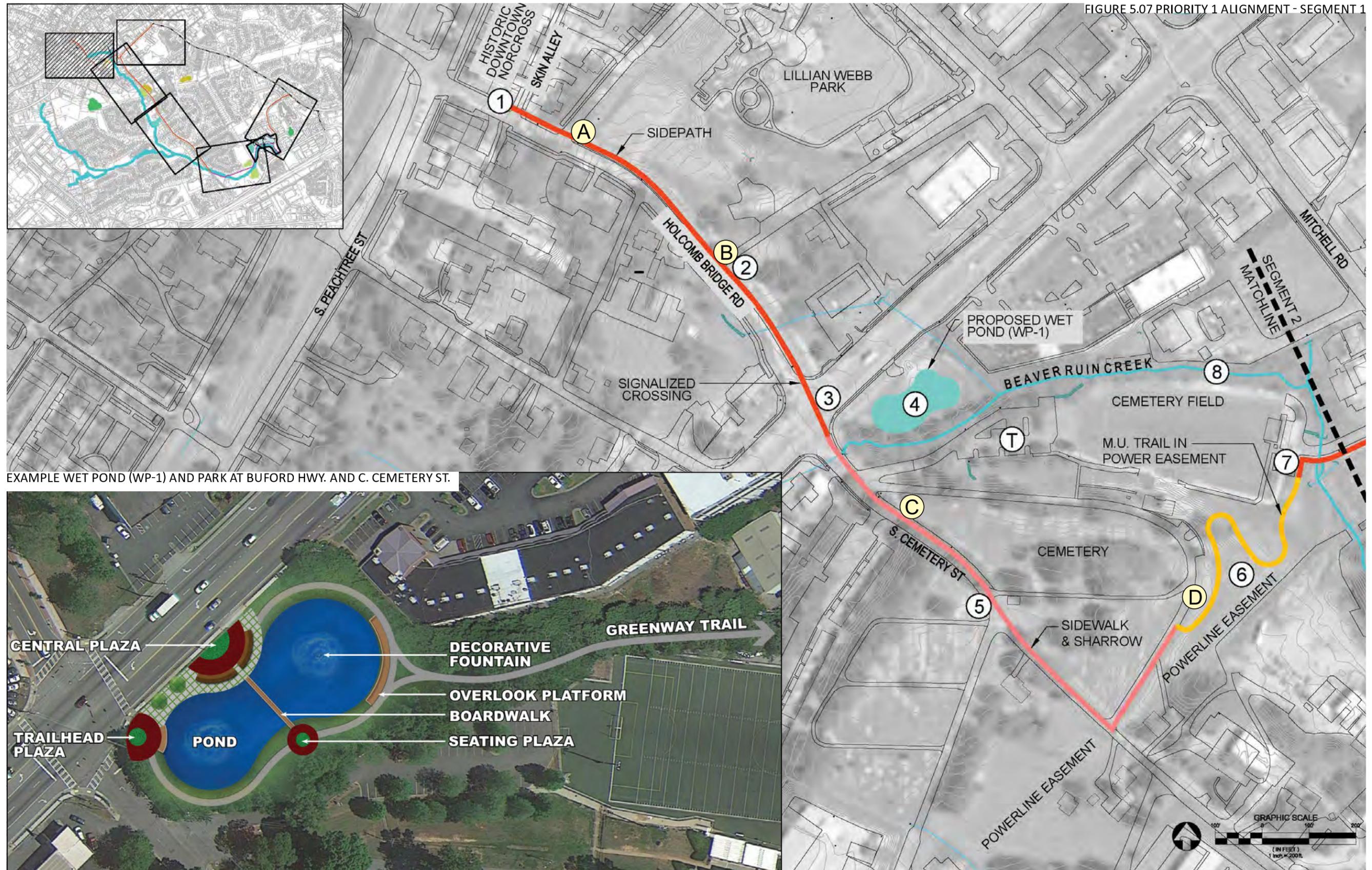
FIGURE 5.05 S. CEMETERY STREET



FIGURE 5.06 POWERLINE EASEMENT AT CEMETERY



FIGURE 5.07 PRIORITY 1 ALIGNMENT - SEGMENT 1



EXAMPLE WET POND (WP-1) AND PARK AT BUFORD HWY. AND C. CEMETERY ST.



Map 2

1. The alignment would follow the west side of Mitchell Road, as a sidepath, to the existing crosswalk at Price Place.
2. The trail would cross to the east side of Mitchell Road at Price Place. This is an existing signalized intersection but may require additional signalization improvements to accommodate a greenway crossing. This is an important crossing because it is a major pedestrian route for children that walk and bicycle to Summerour Middle School.
3. A spur alignment would follow the east side of Price Place as a sidepath, and provide a direct connection to Summerour Middle School.
4. The alignment would follow the east side of Mitchell Road as a sidepath. The east side is preferable to the west side due to increased connectivity potential, fewer driveway conflicts, and fewer utility pole conflicts. Small retaining walls may be required along the back of the trail.
5. A dry detention stormwater BMP would be located adjacent to the trail within the powerline easement. The dry detention could provide an overlook opportunity along the alignment. The dry detention pond would have an approximate 1 acre surface area and a 99 acre watershed. The detention pond is intended to minimize downstream flooding and streambank erosion.
6. A constructed wetland stormwater BMP would be located on the west side of Mitchell Road, also within the powerline easement. The wetland would have an approximate 1 acre surface area and a 99 acre watershed. The constructed wetland is intended to provide water quality treatment.
7. Stream restoration is recommended along Beaver Ruin Creek throughout the study area. This restoration is intended to enhance habitat and water chemistry while reducing streambank erosion.



FIGURE 5.08 MITCHELL ROAD AND PRICE PLACE



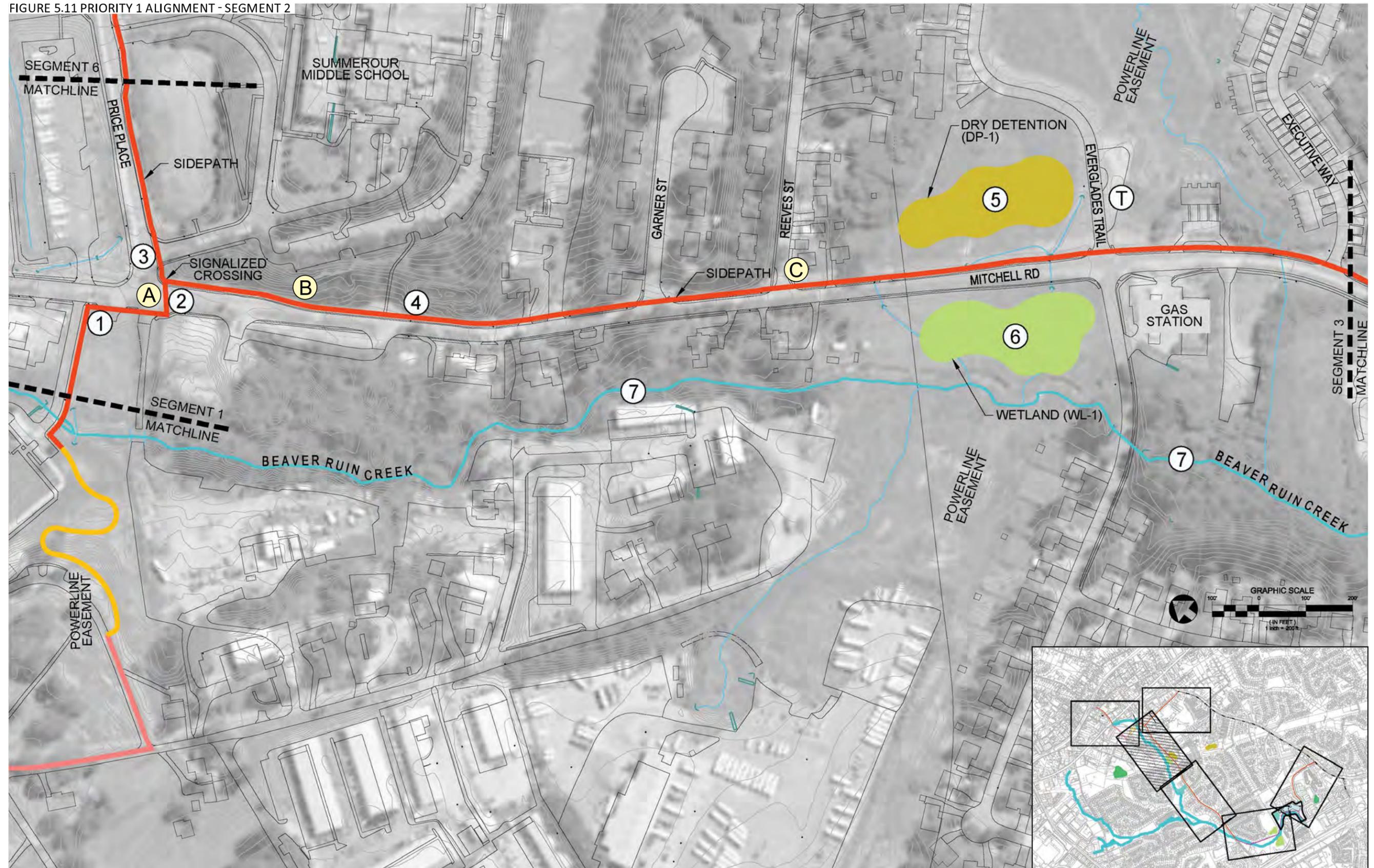
FIGURE 5.09 MITCHELL ROAD

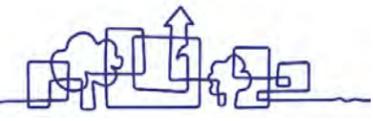


FIGURE 5.10 MITCHELL ROAD



FIGURE 5.11 PRIORITY 1 ALIGNMENT - SEGMENT 2





Map 3

1. The alignment would cross several closely spaced driveways, south of Everglades Trail. Safety provisions along the trail would need to be incorporated in this location to identify these vehicular crossings.
2. The alignment would continue to follow the east side of Mitchell Road as a sidepath. The east side is preferable to the west side due to increased connectivity potential, fewer driveway conflicts, and fewer utility pole conflicts. Small retaining walls may be required along the back of the trail.
3. A wet pond stormwater BMP is proposed on the west side of Mitchell Road, within the Gwinnett County owned greenspace adjacent to Beaver Ruin Creek. The wet pond could be a scenic amenity that would be visible from Mitchell Road. The wet pond would have an approximate 1.5 acre surface area and a 49 acre watershed. The pond would provide some detention for flood and erosion control, but would also provide significant water quality enhancement.
4. In order to achieve a 10' sidepath width and a 2' wide buffer, an existing retaining wall (approximately 300' long and up to 5' tall) would need to be removed and a replaced with a new wall that is offset further from the road. The new wall would be taller and longer. This wall would be located between Goodwick Way and Rails Way.
5. Stream restoration is recommended along Beaver Ruin Creek and its tributary throughout the study area. This restoration is intended to enhance habitat and water chemistry while reducing streambank erosion.



FIGURE 5.12 MITCHELL ROAD AT DRIVEWAY CROSSING



FIGURE 5.13 MITCHELL ROAD AT BALLARD WAY



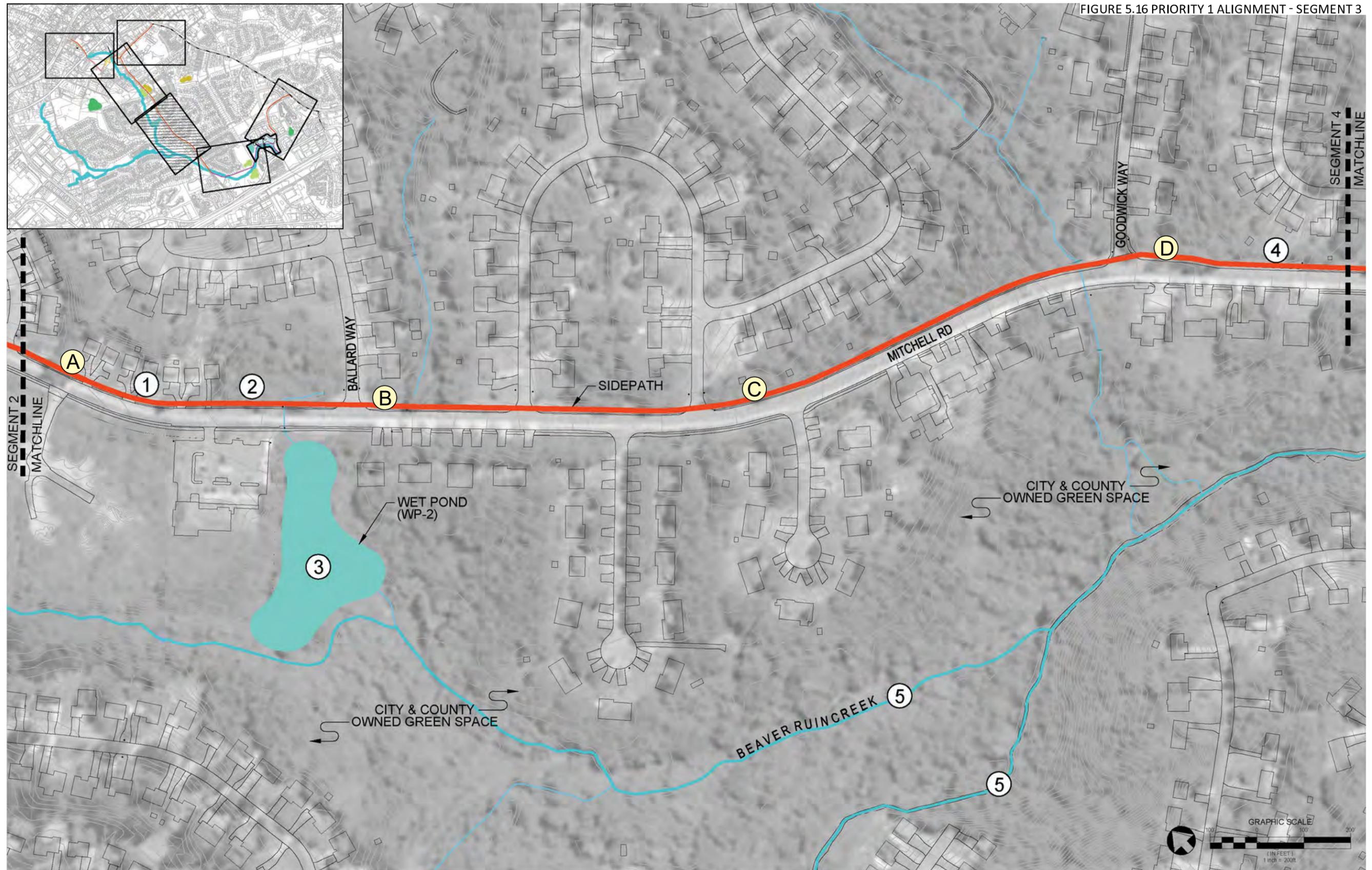
FIGURE 5.14 MITCHELL ROAD AT CHARMAINE BEND



FIGURE 5.15 MITCHELL ROAD AT RETAINING WALL



FIGURE 5.16 PRIORITY 1 ALIGNMENT - SEGMENT 3





Map 4

1. The alignment would continue to follow the east side of Mitchell Road as a sidepath. The east side is preferable to the west side due to increased connectivity potential, fewer driveway conflicts, and fewer utility pole conflicts. Small retaining walls may be required along the back of the trail.
2. The crossing of Beaver Ruin Creek and a tributary may require a pedestrian bridge or adjustment to the existing culverts.
3. The trail would follow a cleared sewer easement on the south side of Beaver Ruin Creek as an off-road multi-use trail.
4. A pedestrian bridge would be required to cross to the north side of the creek.
5. The alignment would continue to follow the sewer easement, as an off-road multi-use trail, through floodplain forest on the north side of Beaver Ruin Creek.
6. The alignment would cross through a powerline easement.
7. A constructed wetland stormwater BMP would be located on the north side of the trail, and could be a scenic amenity for this segment of trail as well as provide water quality treatment. The wetland would have an approximate 1 acre surface area and over a 1000 acre watershed
8. A constructed wetland stormwater BMP would be located on the south side of Beaver Ruin Creek. Although this wetland would not be directly accessible from the trail, it could provide scenic views from the trail as well as from Brook Hollow Parkway. The wetland would have an approximate 1 acre surface area and over a 1000 acre watershed.
9. A wet pond stormwater BMP would be located to the north of the trail, and west of the existing pond in Pinnacle Park. The proposed pond would be a scenic amenity for the trail as well as the park. The wet pond would have an approximate 1.5 acre surface area and an 18 acre watershed. The pond would provide some detention for flood and erosion control, but would also provide significant water quality enhancement.
10. The trail would tie into the trail network of Pinnacle Park, following the south side of the existing pond as an off-road multi-use trail.
11. Stream restoration is recommended along Beaver Ruin Creek throughout the study area. This restoration is intended to enhance habitat and water chemistry while reducing streambank erosion.



FIGURE 5.17 MITCHELL ROAD AT STATION CIRCLE



FIGURE 5.18 MITCHELL ROAD AT BEAVER RUIN CREEK



FIGURE 5.19 MITCHELL ROAD AT SEWER EASEMENT



FIGURE 5.20 POWERLINE EASEMENT AT BROOK HOLLOW PARKWAY



FIGURE 5.21 PRIORITY 1 ALIGNMENT - SEGMENT 4





Map 5

1. A pedestrian bridge would be required to cross over a small stream that feeds the existing pond.
2. The alignment would continue along the east side of Beaver Ruin Creek, as an off-road multi-use trail through Pinnacle Park
3. The alignment would ramp up to the intersection of Brook Hollow Parkway and Pinnacle Way. This section may require walls and significant grading. This intersection provides an opportunity to develop a gateway plaza due to its highly visible location.
4. The alignment would follow the west and north side of Pinnacle Way as a sidepath. Pinnacle Way is a two lane road with a center turn lane and 5' wide sidewalks. In several locations, retaining walls may be required due to steep topography and narrow shoulder widths.
5. Pinnacle Park and its associated parking could be developed as a trailhead for the greenway.
6. The alignment would provide a direct connection to the Pinnacle Center office development, a potentially significant employment center and destination for commuting trail users.
7. The alignment would provide a direct connection to Pinnacle Pointe, a dense townhome development.
8. The alignment would terminate at Beaver Ruin Road and connect to the Beaver Ruin Road Multi-use Trail, which is currently under design. This intersection would provide another opportunity for a gateway plaza due to its prominent location.



FIGURE 5.22 BROOK HOLLOW PARKWAY AT PINNACLE WAY



FIGURE 5.23 PINNACLE CENTER



FIGURE 5.24 PINNACLE WAY

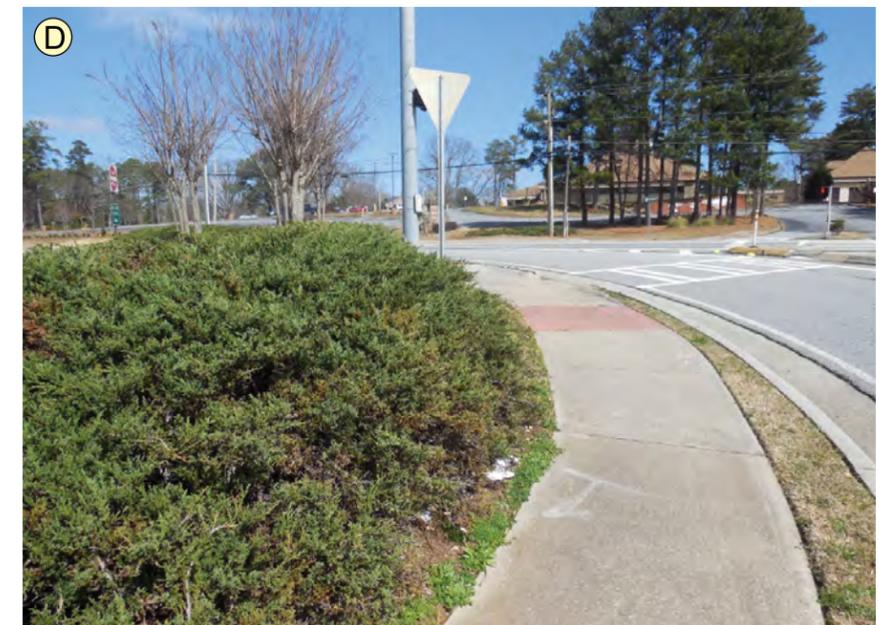


FIGURE 5.25 PINNACLE WAY AT BEAVER RUIN ROAD



FIGURE 5.26 PRIORITY 1 ALIGNMENT - SEGMENT 5





Map 6

1. The alignment would follow the southeast side of Price Place as a 10' wide sidepath with a 2' buffer from the road.
2. The width of the sidepath would need to be reduced at the baseball field, which has concrete bleachers that encroach into the proposed path alignment.
3. The school entry drive/greenway interface would require signage and marking to create a safe crossing condition.
4. Summerour Middle School is a significant destination within the study area and would be directly accessible by greenway.
5. The alignment would terminate at Beaver Ruin Road and connect to the Beaver Ruin Road Multi-use Trail, which is currently under design.



FIGURE 5.27 PRICE PLACE AT BASEBALL FIELD



FIGURE 5.28 PRICE PLACE AT SCHOOL ENTRY DRIVE



FIGURE 5.29 PRICE PLACE AT BEAVER RUIN ROAD



FIGURE 5.30 PRIORITY 1 ALIGNMENT - SEGMENT 6





6.0 Public Involvement

Public input was gathered through a web-based survey and a series of three public meetings. This public input strategy provided a way to reach a wide variety of participants at each critical step of the plan development process.

Web based Survey

A 6-question, web-based public survey was online for 10 weeks, beginning September 21, 2015 and ending on November 30, 2015. The survey was accessible through the City's homepage, and a total of 73 surveys were completed. The survey responses provided a snapshot of the public support for a greenway system, what types of facilities would be desired, and how they would use the greenway. Observations of key survey responses are provided below.



FIGURE 6.01 PUBLIC MEETING (SEPTEMBER 30, 2015)

Public Meetings

Public meetings were conducted to provide the general public with the opportunity to provide input on plan development. Public meetings were held at the beginning, middle and end of the project, allowing the public to provide input at all stages of plan development. Summaries of the meetings are provided below. Additional public meeting information can be found in the Appendix.

Public Meeting (September 30, 2015)

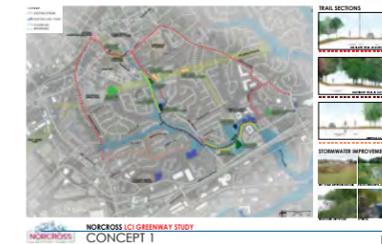
The initial public meeting was held at Norcross City Hall with approximately 32 people in attendance. The purpose of the meeting was twofold 1) to inform the community of the proposed project (its goals, purpose, and scope); and 2) to gather initial public input regarding path routes to consider, routes to avoid, and key opportunities and constraints within the study area. The format of the meeting was workshop style and attendees joined tables with project consultants to identify preferences for trail amenities and locations. A site analysis drawing was included at each table to aid the discussions.

Public Meeting (November 18, 2015)

The second public meeting was held at the Norcross Community Center Hall with approximately 27 people in attendance. The purpose of the meeting was to present concept plans and gain input on the positives and negatives of each plan. The two concepts included both greenway and stormwater recommendations. The meeting was divided into two parts – a formal presentation followed by an open house style workshop where the public and project consultants (set up at three different tables) were able to discuss the two concepts in detail.

Public Meeting (January 21, 2016)

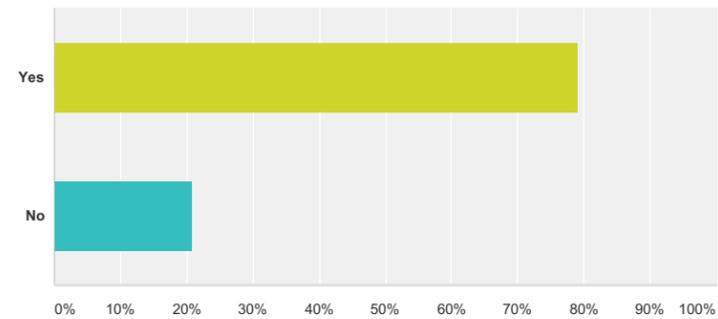
The third public meeting was held at the Norcross Community Center Hall with approximately 20 people in attendance. The purpose of the meeting was to present a pre-final concept plan and gain public input on the plan before it became final. The pre-final plan included both greenway and stormwater recommendations. The meeting was divided into two parts – a formal presentation followed by an open house style workshop where the public and project consultants (set up at three different tables) were able to discuss the pre-final plan in detail.





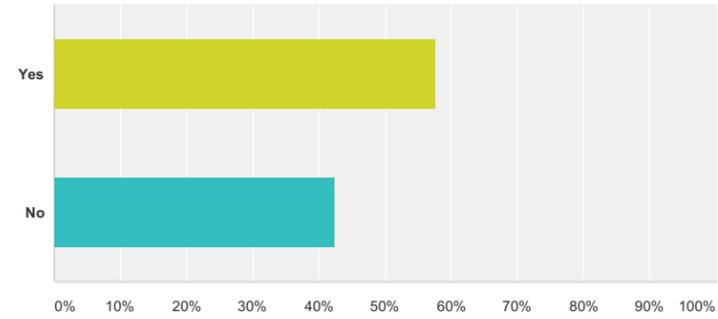
Q1 Would you support a greenway trail through the City of Norcross that connects neighborhoods and destinations such as schools and shopping areas?

Answered: 72 Skipped: 1



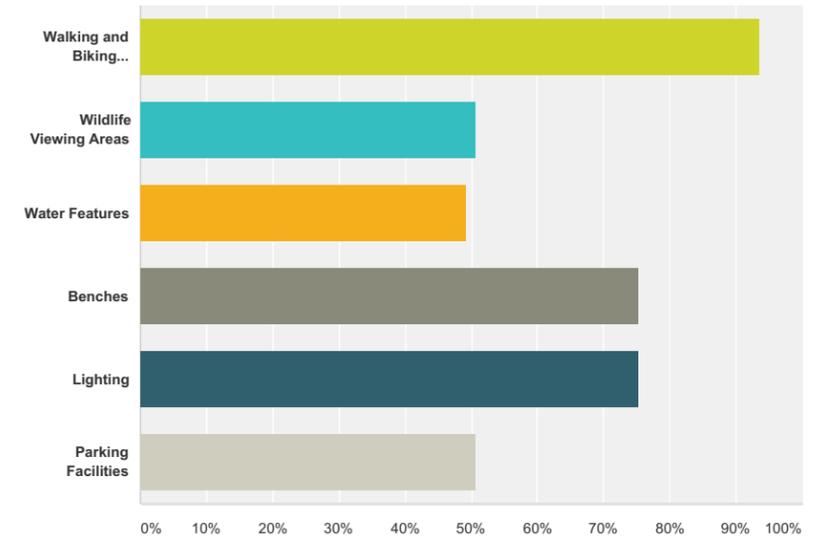
Q2 Do you currently use any other greenway trails or paths?

Answered: 73 Skipped: 0



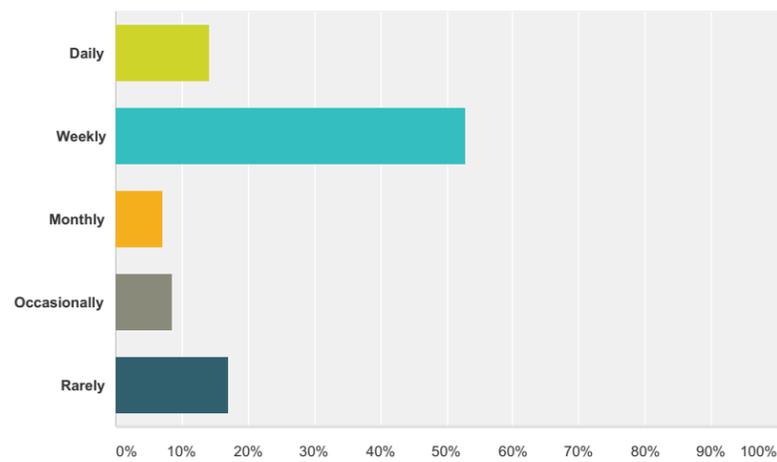
Q3 What types of facilities would you like to see within a greenway trail? (Check all that apply.)

Answered: 61 Skipped: 12



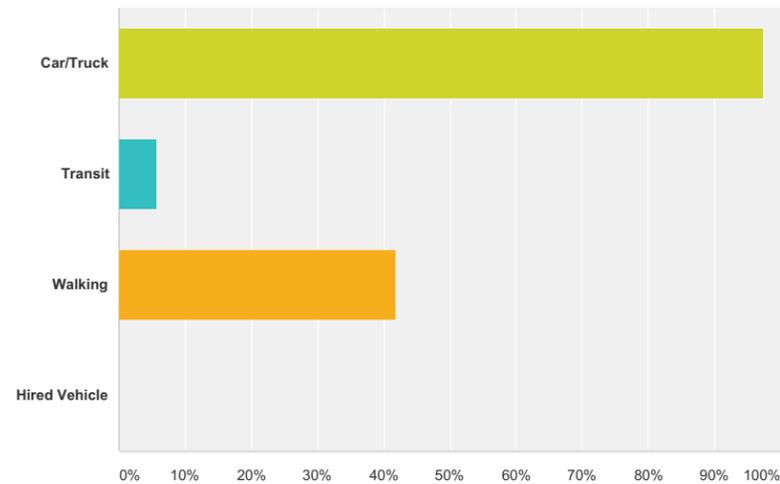
Q4 How often would you use a greenway trail and facilities?

Answered: 70 Skipped: 3



Q5 In your daily routine, what types of transportation options do you use?

Answered: 72 Skipped: 1



Q6 If available, would you walk/bike to: (check all that apply)

Answered: 57 Skipped: 16

