# **IMPLEMENTATION**

#### TRAIL DETAILS & STANDARDS

Typical trail cross-sections and intersections are provided in the plan. There will be three main trail types: greenway trails, street-based trails, and natural surface trails.

• Greenway Trail - Refers to a ten-foot wide, paved multi-use trail, typically located in a natural, or green setting. Where feasible, such trails will feature a 5-foot wide strip of rubberized surface for pedestrians.

• Street Based Trail - Where greenway trails are not feasible, sidewalks and bicycle-friendly roadways are recommended as 'street based' trails, in order to preserve overall connectivity. These types of trail provide local residents with safe routes to connect to and from separate trail heads and other destinations not served by greenway trails.

• Natural Surface Trail - Refers to an unpaved trail, ranging in character from an eighteen inch-wide foot path to a ten foot-wide mulched trail.

#### WAYFINDING & SIGNAGE

A comprehensive system of signage is required throughout the project to ensure that information is provided to trail users regarding the safe and appropriate use of all facilities, both on-road & offroad. It is essential that the future trail network be signed seamlessly with other alternative transportation routes, such as designated bicycle routes, historic and/ or cultural walking tours, and wherever possible, bus routes and the proposed Greenlink Bus Rapid Transit.

#### THE REGULATORY FRAMEWORK

Suggested changes to the City of Greenville Code of Ordinances include adding the following text regarding greenways in adopted plans:

"In any case in which a greenway is indicated on an adopted plan of the City of Greenville as being located on lands proposed for development, such greenway shall be dedicated and developed."

This requirement should be inserted into Chapter 19 Land Development Regulations, Article II, Subdivision Regulations, Division 4: Required Improvements, as a new section entitled, "Sec. 19-72. Greenways". This division of the code already outlines provisions for sidewalks, streets, and other required improvements; greenways should be no different in this respect, and should be dedicated upon development.

#### **KEY RECOMMENDATIONS**

- Adopt this Plan.
- Designate a Greenway and Trail Coordinator.
- Expand role of Bicycle and Pedestrian Action Committee (BPAC) to include greenways and trails.
- Market the greenway system.
- Place signage where appropriate to increase visibility of system.
- Secure and commit funding.
- Begin work on Top Priority Projects.
- Begin acquiring land and easements.
- Ensure that trail planning is integrated with other planning efforts.
- Develop and implement education, encouragement, and awareness programs.
- Adopt a 'Complete the Streets' policy.
- Evaluate and update this plan as needed.



Main trail types shown below (clockwise from top): Greenway Trail, Street Based Trail, and Natural Surface Trail







For more information about existing and future trails in the city visit: http://www.greatergreenville.com/city\_services/trails.asp or contact: Greenville Parks and Recreation Department 864-467-4350





# EXECUTIVE SUMMARY

The purpose of the Greenville Trails & Greenways Master Plan is to develop a framework for building an integrated system of pathways that will link residents to the outdoors. The future network will provide residents with close-to-home and close-to-work access to bicycle and pedestrian trails that connect to the City's most popular destinations. The trails and greenways will serve transportation and recreation needs and help to encourage quality, sustainable economic growth.

Trails and greenways provide a variety of benefits that will ultimately affect the sustainability of the City's economic, environmental, and social health. These benefits include:

- Creating value and generating economic activity
- Improving bicycle and pedestrian transportation

- active living

Based on public input, extensive fieldwork, research into related planning efforts, and a thorough analysis of aerial photographs, elevation contours and parcel data, the trails and greenways plan consists of the following:

- trail system.

# city of greenville, south carolina

• Improving health through

- Clear skies, clean rivers, and protected wildlife
- Protecting people and
- property from flood damage Enhancing cultural awareness and community density

• It will build upon the existing trail network along the Reedy River, which will become the spine of the future city-wide

The network will connect major destinations and serve as an opportunity for alternative transportation as well as recreation.

• While the plan is limited to the city limits, opportunities will exist for regional connections in the Upstate Area. Destinations include Travelers Rest, Taylors, Greer, Easley, Mauldin, and Spartanburg.

The Swamp Rabbit Forum was established in 2006 to create a shared vision and coordinate efforts to achieve the development of the greenway along the Reedy River, its tributaries and other spur opportunities. In the long-term, the group will consider initiating conversations with landowners along the former Swamp Rabbit rail line in extending this trail to the north to Jones Gap.

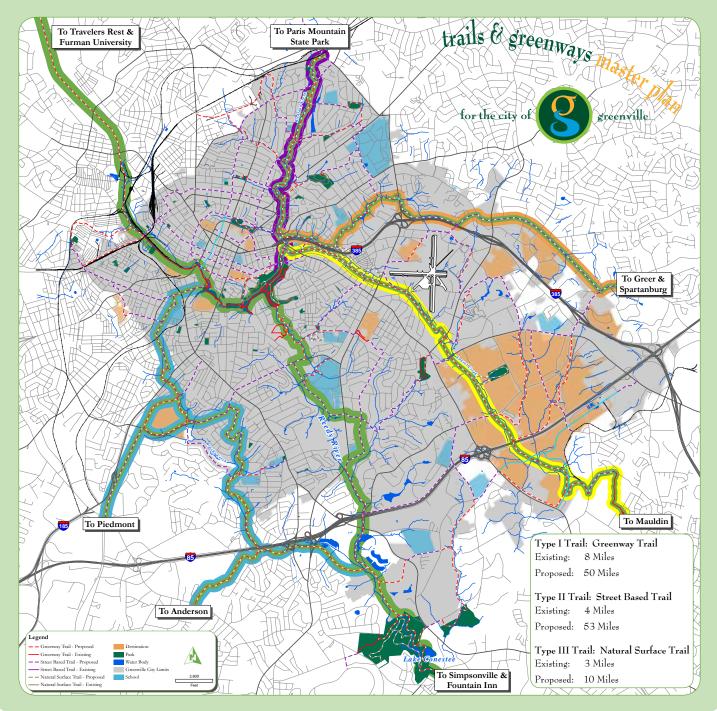
The components of the plan are explained in further detail on the following pages.

# ESTABLISHING A GOAL: QUALITY OF LIFE

Given the benefits of trails and greenways outlined in the • Stimulate economic growth through increases in real previous section, some of the goals of the trail network include the following:

- Offer area residents a viable choice to walk or bike for their local trips,
- Provide opportunities for improving the personal health and fitness of individuals.
- property value and tourism,
- Enhance and protect the environmental quality of open spaces and creek and river corridors, and
  Conserve and tell the story of local culture, history,
  - and heritage through interpretive trials and signage.

TRAIL The proposed trail network is based on a 'hub & spokes' model, where parks and other **NETWORK** In proposed train network is based on a nub & spokes model, where parks and other popular destinations serve as 'hubs', and the trails that connect them serve as 'spokes'. For a more detailed map, refer to the complete plan.



# PRIMARY TRAIL & GREENWAY PLAN CORRIDORS:

#### REEDY RIVER GREENWAY

This segment of the trail network is the primary greenway corridor. It acts as a north-south connector, linking Travelers Rest and Simpsonville to Greenville's downtown. The trail consists of several components: the existing CSX Trail, Reedy River Trail, and Downtown Connector.

#### BRUSHY CREEK GREENWAY

This secondary greenway links downtown with the southwest corner of Greenville, and connects with Anderson using street-based (i.e. wide sidewalks and bicycle-friendly streets) trails. Major destinations along the trail segment include Mills Mill, St. Francis Hospital, and the Baseball Stadium.

#### RICHLAND GREENWAY

This branch connects downtown and the Reedy River Greenway to north Greenville and beyond. Destination points include Bob Jones University, Timmons Park, Park Avenue Gym and the War Museum. An on-street trail ties this segment of the trail system to Paris Mountain State Park.

#### GATEWAY GREENWAY

This east-west corridor connects the downtown to eastern Greenville. Destinations include Roper Mountain Science Center, the Carolina First Center. It will also connect Greenville to the region, to Greer and Spartanburg.

along E. North St to Timmons Park and over to the Pleasantburg/Haywood Rd area." (Public Comment, June 2007)

#### GREENLINK GREENWAY

Following Laurel Creek and an abandoned rail line, this trail segment connects the Reedy River Greenway from downtown to University Center, the Pleasantburg Commercial Corridor, Verdae, Carolina First Center, Clemson ICAR Campus, and beyond to Mauldin.



"I know a trail from Downtown to Travelers Rest area would be nice for those who cycle in TR, Marietta and north of there. It would be a safer way to get north of Greenville without having to use the busy roads." (Public Comment, June 2007)



"A ribbon of connectivity throughout Greenville City and County should be priority to continue to make Greenville a quality area it live in. Having developers dedicate ribbons of land to greenways and liner parks is step in build the future." (Public Comment, June 2007)



" I am thrilled to see that Greenville is finally creating a long overdue greenway and trails plan. The city government should support this initiative as it will further cement Greenville's quality of life and enhance the health and fitness of it's citizens. " (Public Comment, June 2007)



"I would love to see access spread outward, from downtown, in most directions....towards Augusta St....up Wade Hampton, into Taylors/Greer...



#### trails & greenways master plan

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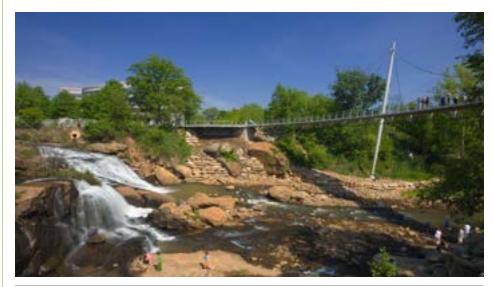
# 1.0 Introduction

# 1.1 Project Purpose

In December 2006, the City of Greenville commissioned Greenways Incorporated and Arbor Engineering to prepare a Trails and Greenways Master Plan. The purpose of this plan is to develop a framework for building an integrated system of pathways that will link residents to the outdoors. The future network will provide residents with close-to-home and close-to-work access to bicycle and pedestrian trails that connect to the City's most popular destinations. The trails and greenways will serve transportation and recreation needs and help to encourage quality, sustainable economic growth. Building upon existing planning efforts and existing facilities, this Master Plan contains detailed trail corridor recommendations and guidelines, which together form this comprehensive network.

# 1.2 The Planning Process

The planning process started with the collection and analysis of existing plans and Geographic Information Systems (GIS) data. A kick-off meeting between city staff and the project consultants established the initial work plan, which consisted of identifying major opportunities and constraints for trails and greenways throughout the City. Next, draft recommendations were presented to the public for review, including opportunities for residents to speak directly with City staff and project consultants about any concerns, comments, or ideas for the plan. In addition to comments received during the public workshop, public input was also collected through an online survey, which gathered specific information related to trail use in the City of Greenville.



Reedy Falls & Liberty Bridge: the signature features of Greenville's existing trail system.

The Bicycle and Pedestrian Advisory Committee also reviewed the Plan's recommendations and helped determine how the Plan could best serve the interests of the City as a whole. Final presentations concluded the effort with recommendations to officially adopt the Plan.

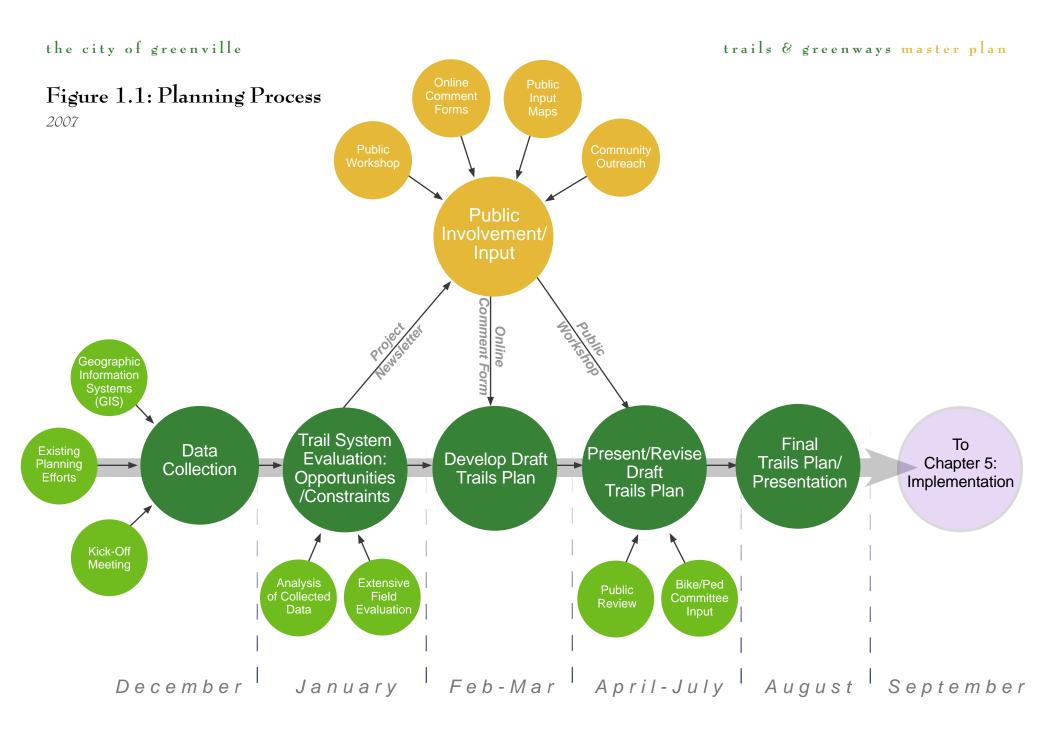
# 1.3 Benefits of Trails

Trails and greenways provide a variety of benefits that will ultimately affect the sustainability of the City of Greenville's economic, environmental, and social health. These benefits include:

- Creating Value and Generating Economic Activity
- Bicycle and Pedestrian Transportation
- Improving Health through Active Living Clear Skies, Clean Rivers, and Protected Wildlife Protecting People and Property from Flood Damage
- Enhancing Cultural Awareness and Community Identity

#### chapter one

#### introduction



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Numerous studies have made the positive link between trails and their benefits abundantly clear. The degree to which a particular type of benefit is realized depends largely upon the nature of the greenway and trail system being implemented. Although the City of Greenville Comprehensive Trails Plan is primarily focused on trails for recreation and transportation, many conservation-related benefits still apply. The sections below describe how trails and greenways create these opportunities in general, while offering some examples of how each benefit could be realized in Greenville. A list of resources is provided at the end of the chapter for more information.

#### Creating Value and Generating Economic Activity

A fully developed trail network will bring economic benefits to the City of Greenville, including raising real property values and increasing tourism and recreation-related revenues.

There are many examples, both nationally and locally, that affirm the positive connection between greenspace and property values (1). Residential properties will realize a greater gain in value the closer they are located to trails and greenspace. According to a 2002 survey of recent home buyers by the National Association of Home Realtors and the National Association of Home Builders, trails ranked as the second most important community amenity out of a list of 18 choices (2). Additionally, the study found that 'trail availability' outranked 16 other options including security, ball fields, golf courses, parks, and access to shopping or business centers. Findings from the Trust for Public Land's *Economic Benefits of Parks and Open Space*, and the Rails-to-Trails Conservancy's *Economic Benefits of Trails and Greenways* (listed in the right-hand column) illustrate how this value is realized in property value across the country.

#### trails & greenways master plan Trails and Greenways Increase Real Property Values

- Apex, NC: The Shepard's Vineyard housing development added \$5,000 to the price of 40 homes adjacent to the regional greenway – and those homes were still the first to sell (3).

- Front Royal, VA: A developer who donated a 50-footwide, seven-mile-long easement along a popular trail sold all 50 parcels bordering the trail in only four months.

- Salem, OR: land adjacent to a greenbelt was found to be worth about \$1,200 an acre more than land only 1000 feet away.

- Oakland, CA: A three-mile greenbelt around Lake Merritt, near the city center, was found to add \$41 million to surrounding property values.

- Seattle, WA: Homes bordering the 12-mile Burke-Gilman trail sold for 6 percent more than other houses of comparable size.

- Brown County, WI: Lots adjacent to the Mountain Bay Trail sold faster for an average of 9 percent more than similar property not located next to the trail.

- Dayton, OH: Five percent of the selling price of homes near the Cox Arboretum and park was attributable to the proximity of that openspace.

These examples show how valuable greenways can be as an amenity to nearby residents. Next, some quotes from experts in the field of real estate development reflect similar findings:

chapter one

"Homes that front on significant greenway space are easier to sell and do often generate premiums of 5% or more than comparable homes internal to the neighborhood." (Bill Gartland, Vice President, Crosland, 2006 - Crosland is one of the Southeast's leading diversified real estate companies)

"Almost every high end development of note that I have seen is pushing some form of nature trails or natural preserve, which is a huge change from the old way of doing things...I think it is hard to quantify the economics of greenways/nature preserves, except that people seem to want them. We may be coming to a point where people expect them in communities, especially over a certain price point." (Maggie Collister, 2006 - Collister coordinates market research and maintains an extensive competitive market database for The Littlejohn Group, a real estate analysis firm with wide-ranging experience throughout the Southeast)

Also, from the nearby Charlotte region:

"There clearly is a substantial jump in property values as a result of the implementation of this greenway program...so much so that almost every elected official has claimed some degree of credit for its development." (Tommy Norman, President, NORCOM Development, 2006 – Referring to greenway development in the Greater Charlotte Area)

#### Trail Tourism Creates Economic Impacts

Tourism and recreation-related revenues from trails and greenways come in several forms. Trails and greenways create opportunities in construction and maintenance, recreation rentals (such as bicycles, kayaks, and canoes), recreation services (such as shuttle buses and guided tours), historic preservation, restaurants and lodging. Tourism is currently ranked the number one economic force in the world. chapter one

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- The Outer Banks, NC: Bicycling is estimated to have an annual economic impact of \$60 million and 1,407 jobs supported from the 40,800 visitors for whom bicycling was an important reason for choosing to vacation in the area. The annual return on bicycle facility development in the Outer Banks is approximately nine times higher than the initial investment (4).

- Damascus, VA: At the Virginia Creeper Trail, a 34-mile trail in southwestern Virginia, locals and non-locals spend approximately \$2.5 million annually related to their recreation visits. Of this amount, non-local visitors spend about \$1.2 million directly in the Washington and Grayson County economies (5).

- Morgantown, WV: The 45-mile Mon River trail system is credited by the Convention and Visitors Bureau for revitalizing an entire district of the city, with a reported \$200 million in private investment as a direct result of the trail (6).



Trail users support local businesses, such as this cafe in Downtown Greenville.

- Tallahassee, FL: The Florida Department of Environmental Protection Office of Greenways & Trails estimate an economic benefit of \$2.2 million annually from the 16-mile St. Marks Trail (8).

- San Antonio, TX: Riverwalk Park, created for \$425,000, has surpassed the Alamo as the most popular attraction for the city's \$3.5-billion tourism industry (7).

- Pittsburgh, PA: Mayor Tom Murphy credits trail construction for contributing significantly to a dramatic downtown revitalization.

- Allegheny Passage, PA: The direct economic impact of the trail exceeded \$14 million a year, encouraging the development of several new businesses and a rise in property values in the first trailhead town.

- Leadville, CO: In the months following the opening of the Mineral Belt Trail, the city reported a 19 percent increase in sales tax revenues.

- Dallas, TX: The 20-mile Mineral Wells to Weatherford Trail attracts 300,000 people annually and generates local revenues of \$2 million.

Some of the trail examples above feature unparalleled natural landscapes that contribute to the impressive figures they generate. Greenville's trail network will feature many unique landscapes that rival these examples, in some cases surpassing them. The City of Greenville should aim to attract similar economic benefits as those noted above, especially considering that Falls Park at the Reedy River is already so successful.

#### trails & greenways master plan

## Bicycle and Pedestrian Transportation

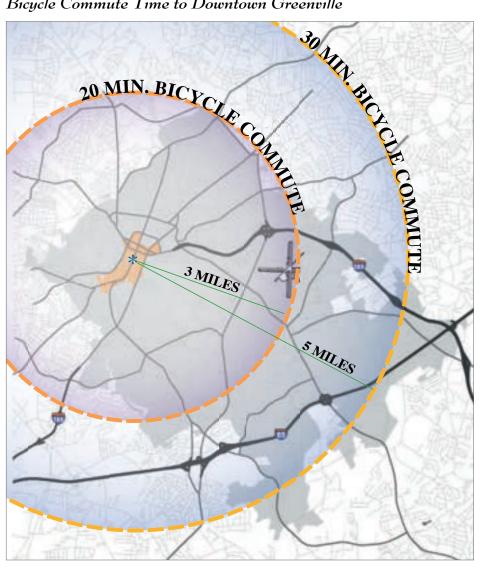
The sprawling nature of many land development patterns often leaves residents and visitors with no choice but to drive, even for short trips. In fact, two-thirds of all trips we make are for a distance of five miles or less. Surveys by the Federal Highway Administration show that Americans are willing to walk as far as two miles to a destination and bicycle as far as five miles. A complete trail network, as part of Greenville's local transportation system, will offer effective transportation alternatives by connecting homes, workplaces, schools, parks, downtown, and cultural attractions.

In the City of Greenville, the trail network will provide alternative transportation links that are currently unavailable. Residents who live in subdivisions outside of downtown will be able to walk or bike downtown for work, or simply for recreation. Residents will be able to circulate through the city in a safe, efficient, and fun way: walking or biking. Residents will be able to move freely along trail corridors without paying increasingly high gas prices and sitting in evergrowing automobile traffic. Last but not least, regional connectivity through alternative transportation could be achieved once the trail network is seamlessly connected to destinations in Greenville County and the region as a whole. (See 1-6 for approximate commute times to downtown Greenville)

#### Improving Health through Active Living

Greenville's trail network will contribute to the overall health of residents by offering people attractive, safe, accessible places to bike, walk, hike, jog, skate, and possibly places to enjoy water-based trails. In short, the trails network will create better opportunities for active lifestyles.

#### the city of greenville Bicycle Commute Time to Downtown Greenville



Average approximate commute time to Downtown Greenville from 3 and 5 miles out (According to the League of American Bicyclists, the average bicycle riding speed is 10 mph). Depending on the directness of the route, actual travel time may be longer.

## trails & greenways master plan



Greenville trail-users, staying active in Cleveland Park.

The design of our communities—including towns, subdivisions, transportation systems, parks, trails and other public recreational facilities—affects people's ability to reach the recommended 30 minutes each day of moderately intense physical activity (60 minutes for youth). According to the Centers for Disease Control and Prevention (CDC), "Physical inactivity causes numerous physical and mental health problems, is responsible for an estimated 200,000 deaths per year, and contributes to the obesity epidemic"(9).

In identifying a solution, the CDC determined that by creating and improving places in our communities to be physically active, there could be a 25 percent increase in the percentage of people who exercise at least three times a week (10). This is significant considering that for people who are inactive, even small increases in physical

activity can bring measurable health benefits (11). Additionally, as people become more physically active outdoors, they make connections with their neighbors that contribute to the health of their community.

Many public agencies are teaming up with foundations, universities, and private companies to launch a new kind of health campaign that focuses on improving people's options instead of reforming their behavior. A 2005 Newsweek Magazine feature, Designing Heart-Healthy Communities, cites the goals of such programs (italics added): "The goals range from updating restaurant menus to restoring mass transit, but the most visible efforts focus on making the built environment more conducive to walking and cycling." (12) Clearly, the connection between health and trails is becoming common knowledge. The Rails-to-Trails Conservancy puts it simply: "Individuals must choose to exercise, but communities can make that choice easier."

## Clear Skies, Clean Rivers, and Protected Wildlife

There are a multitude of environmental benefits from trails, greenways, and open spaces that help to protect the essential functions performed by natural ecosystems. Greenways protect and link fragmented habitat and provide opportunities for protecting plant and animal species. Trails and greenways reduce air pollution by two significant means: first, they provide enjoyable and safe alternatives to the automobile, which reduces the burning of fossil fuels; second, they protect large areas of plants that create oxygen and filter air pollutants such as ozone, sulfur dioxide, carbon monoxide and airborne particles of heavy metal. Greenways improve water quality by creating a natural buffer zone that protects streams, rivers and lakes,

#### trails & greenways master plan

preventing soil erosion and filtering pollution caused by agricultural and road runoff.

As an educational tool, trail signage can be designed to inform trailusers about water quality issues particular to each main corridor (along the Reedy River, Richland Creek, Laurel Creek, and Brushy Creek) and their surrounding land uses. Such signs could also include tips on how to improve water quality. Similarly, a greenway can serve as a hands-on environmental classroom for people of all ages to experience natural landscapes, furthering environmental awareness.



Trail signage can be designed to further awareness around issues of health and the environment, such as these signs at Linky Stone Park.

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#### Protecting People and Property from Flood Damage

The protection of open spaces associated with trail and greenway development often also protects natural floodplains along rivers and streams. According to the Federal Emergency Management Agency (FEMA), the implementation of floodplain ordinances is estimated to prevent \$1.1 billion in flood damages annually. By restoring developed floodplains to their natural state and by limiting development within the floodplain, many riverside communities are preventing potential flood damages and related costs (13). This aspect of greenway development is particularly relevant to the City of Greenville and Greenville County, as indicated by recent local newspaper headlines: "Residents seek solutions to devastating floods" (The Greenville News, February 11, 2007). The article reported that, "As part of an unusual county effort to buy some flood-marred homes from residents and cut off water-logged roads, the county and state plan to jointly add new cul-de-sacs and eliminate a bridge in the Lake Fairfield area." Such actions are in response to devastating floods near Pleasantburg Drive and East North Street. Protecting flood prone corridors as greenways could have prevented this extra cost to taxpayers.

#### Enhancing Cultural Awareness and Community Identity

Greenways can serve as connections to our heritage by preserving historic places and by providing access to them. They provide a sense of place and an understanding of past events by drawing the public to historic and cultural sites. Trails often provide access to historic features such as battlegrounds, bridges, buildings, and canals that otherwise would be difficult to access or interpret. For example, in the late 1960s, the South Carolina Department of Parks, Recreation &



A historic view of Reedy Falls from the Greenville County Historical Society website.

Tourism (SCPRT) partnered with the South Carolina Department of Archives and History on a program to develop a series of historic trail routes across the state (auto routes connecting a series of historic points of interest). Although the program is no longer in existence, the research and information collected is still of use to trail advocates researching the history of trail or greenway corridors throughout South Carolina.

Furthermore, Greenville has its own unique history, and its own historic features and destinations. The Greenville County Historical Society sponsors programs, publications, and exhibitions pertaining to the history and culture of the region, and therefore could be of great assistance when naming trails and designing trail features in a historical and cultural context. By recognizing, honoring, and connecting these features through the trail network, the combined result could serve as a major asset to the region.

# the city of greenville 1.4 Vision and Goals

The vision for the City of Greenville's future trail network is derived from local residents and city staff. Input was gathered via meetings, workshops, written comment forms, and an online opinion form. A fundamental part of that vision is that the trail network will contribute to the overall quality of life throughout the City of Greenville. Given the benefits of trails and greenways outlined in the previous section, specific visions and goals of the Trails and Greenways Master Plan for Greenville include the following:

• Develop a safe and interconnected city-wide network of trail facilities that link together destinations and people, both locally and regionally.

• Improve the quality of life in Greenville, by developing a trail network that provides facilities and programs designed to expand and encourage active recreation, community strength, and alternative transportation.

- Enhance, protect, and preserve the environmental quality of open space, waterways and wildlife habitats.
- Stimulate economic growth through increases in tourism and real property value, by developing a city-wide trail network.
- Conserve and tell the story of local culture, history, and heritage through interpretive trails and signage.

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## Chapter 1 Footnotes

1 American Planning Association. (2002). How Cities Use Parks for Economic Development.

2 National Association of Realtors and National Association of Home Builders. (2002). Consumer's Survey on Smart Choices for Home Buyers.

3 Rails to Trails Conservancy. (2005). Economic Benefits of Trails and Greenways.

4 NCDOT and ITRE. (2006). Bikeways to Prosperity: Assessing the Economic Impact of Bicycle Facilities.

5 Virginia Department of Conservation. (2004). The Virginia Creeper Trail: An Assessment of User Demographics, Preferences, and Economics.

6 Rails to Trails. (Danzer, 2006). Trails and Tourism.

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8 Rails to Trails. (Danzer, 2006). Trails and Tourism.

9 U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (1996). Physical Activity and Health: A Report of the Surgeon General.

10 U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (2002). Guide to Community Preventive Services.

11 Rails-to-Trails Conservancy. (2006) Health and Wellness Benefits.

12 Newsweek Magazine. (10/3/2005). Designing Heart-Healthy Communities.

13 Federal Emergency Management Agency. (2005) Building Stronger: State and Local Mitigation Planning.

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#### trails & greenways master plan

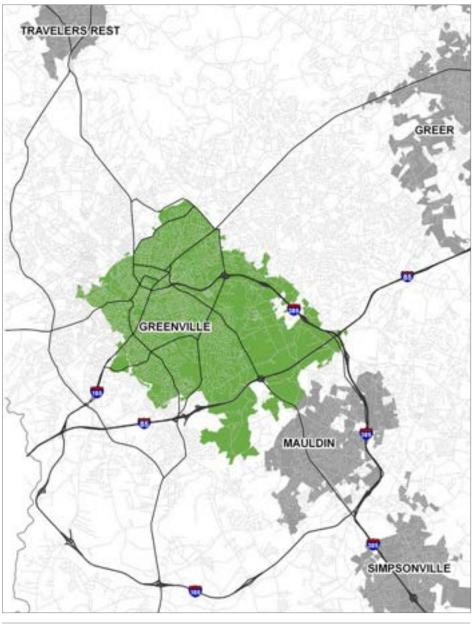
# 2.0 Existing Environment

# 2.1 Introduction

This chapter describes existing conditions in the City of Greenville in order to inform the planning process of trail and greenway development. Land use and population density are examined within the study area; popular destinations are studied in relationship to existing trails; current planning efforts, such as the recently completed Parks Master Plan, are reviewed for their influence on trail and greenway development; and finally, information about existing public attitudes, concerns, and priorities are summarized from the public input process.

# 2.2 Study Area

The City of Greenville is the fifth largest city in the state of South Carolina, the home of the county seat of Greenville County, and the largest city in the Greenville-Spartanburg-Anderson Metropolitan Area. Greenville is the main city of "The Upstate", an 8-county region of South Carolina located between Atlanta and Charlotte. Greenville is located approximately halfway between them along Interstate I-85, and its metropolitan area is further serviced by I-385 and I-185. Locally, the Greenville Transit Authority (GTA) operates a bus service in and around the city. Presently, the GTA bus fleet is not equipped with bicycle racks, has a limited service area and lacks readily available route maps for users.

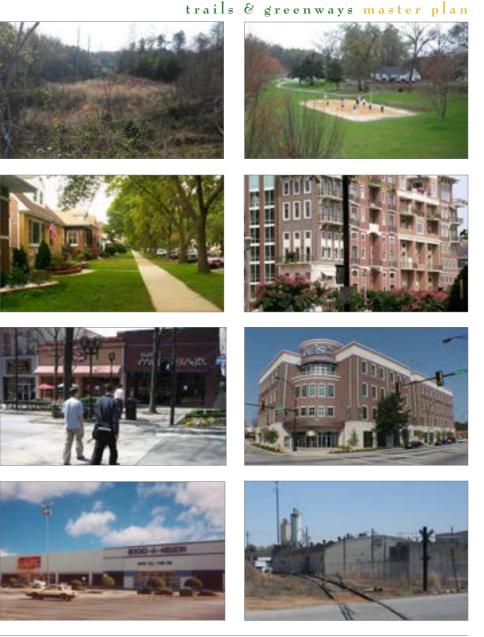


Above: Study Area Context Map, with the study area (City of Greenville) shown in green.

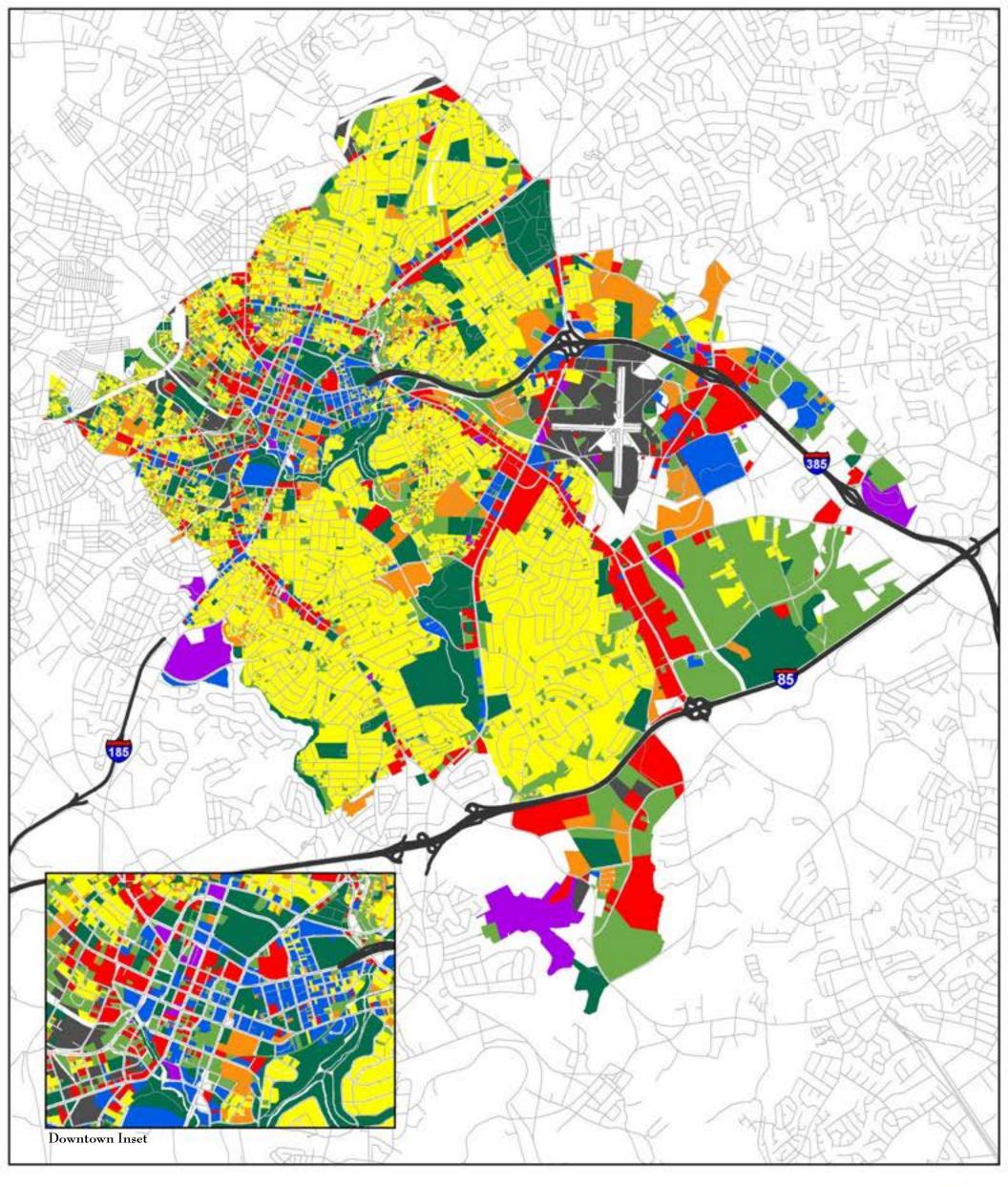
Although the study area for the Trails and Greenways Master Plan is bound by the city limits, efforts to tie the system into the surrounding region are strongly encouraged (see section 3.5, Regional Trail Opportunities, for more information on regional connections). As of the 2000 census, the city had a population of 56,000, an urbanized area population of 300,000, and a metropolitan population of nearly 1 million people. As of 2007, the population rate is growing not only downtown and within the city limits but also within the County, which was mostly rural in the past.

## Land Use

The following Land Use Map (on page 2-3) shows how land is used throughout the city. The areas in blue show how offices are generally concentrated downtown with several pockets off of Interstate 3-85 and Pleasantburg Drive. Commercial uses, such as retail, 'big box' stores, and other shopping destinations can be identified in red along Main Street, throughout downtown, and along several major roadway corridors, including Augusta Street, Wade Hampton Blvd., Pleasantburg Drive, and Laurens Road. The predominant areas in yellow signify residential areas, with patches of orange signifying higher density residential areas. Greenville's residential areas are separated by commercial corridors, the Reedy River Corridor, and Interstate 3-85. Green areas on the Land Use Map signify parks, open spaces and schools, some of which can be seen forming a rough corridor along the Reedy River. The images at right are examples of the land use types that are described above and depicted below.



Land use type examples (from left to right, top to bottom): Undeveloped Land; Parks/Open Space; Low Density Residential; High Density Residential; Mixed Use; Office; Commercial; Industrial/Warehouse.



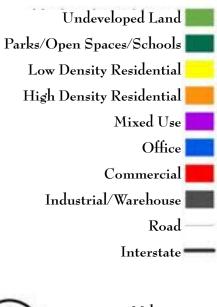


trails & greenways master plan

# Existing Environment: Land Use

Data sources: The City and County of Greenville, South Carolina

2-3







chapter two

#### trails & greenways master plan

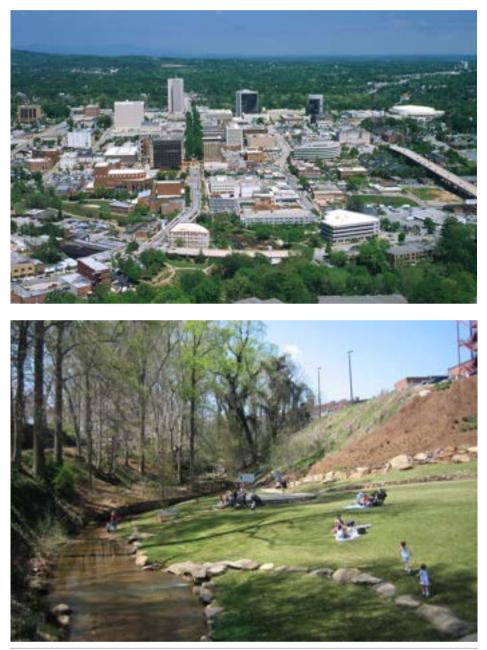
#### Population Density

The Population Density Map (page 2-4) shows the city limits in orange and the city's density ranging from dark green (representing high-density areas) to clear/white (representing low density areas). As of the 2000 census, the population density was roughly 2000 people per square mile, with approximately 27,000 housing units, at an average density of 1,000 units per square mile. Much of the concentration in population density for 2000 was within a 2 to 3 mile radius of Downtown Greenville, roughly bound by the City limits to the north and west, and Pleasantburg Drive to the South and East. Although there appears to be low density in the Downtown area (see inset map), much redevelopment since the 2000 census has added growth to this area, as is true in regard to the current growth in the City's southeastern areas.

## 2.3 Existing Destinations

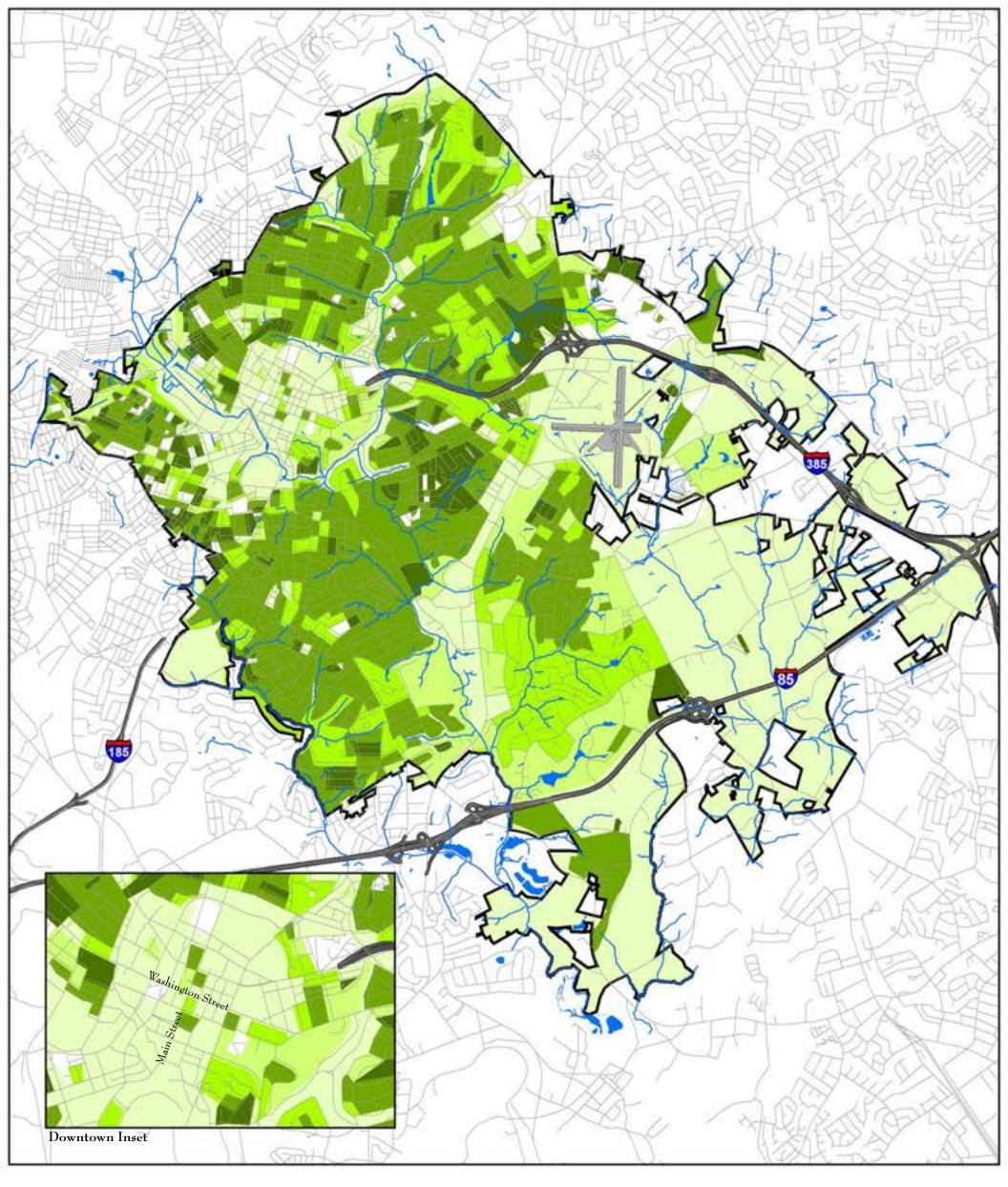
The City of Greenville contains a variety of destination points, ranging from an expansive array of parks and cultural sites to schools and regional employment centers. Due to the relative compactness of development in Greenville, often times distances between destinations are not far and can be suitable for bicycle and pedestrian commuting (See bicycle commuter map on page 1-6). Destinations are identified as places an individual could or conceivably would want to bicycle or walk to if adequate facilities existed. The Trip Attractors and Existing Trails Map (page 2-5) illustrates destination points identified for Greenville.

Presently, trail users frequent areas along the Reedy River Corridor due to the high concentration of destination points and ease of access



Downtown Greenville & Falls Park along the Reedy River are popular destinations.

#### existing conditions







trails & greenways master plan

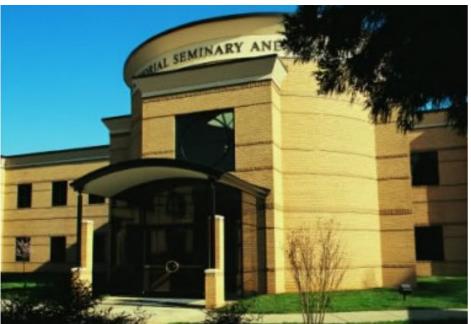
# Existing Environment: Population Density

Data sources: The City and County of Greenville, South Carolina United States Census Bureau 2000 Census

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#### trails & greenways master plan





Destinations such as Clemson University's ICAR Campus & Bob Jones University currently do not have adequate bicycle or pedestrian connections to downtown.

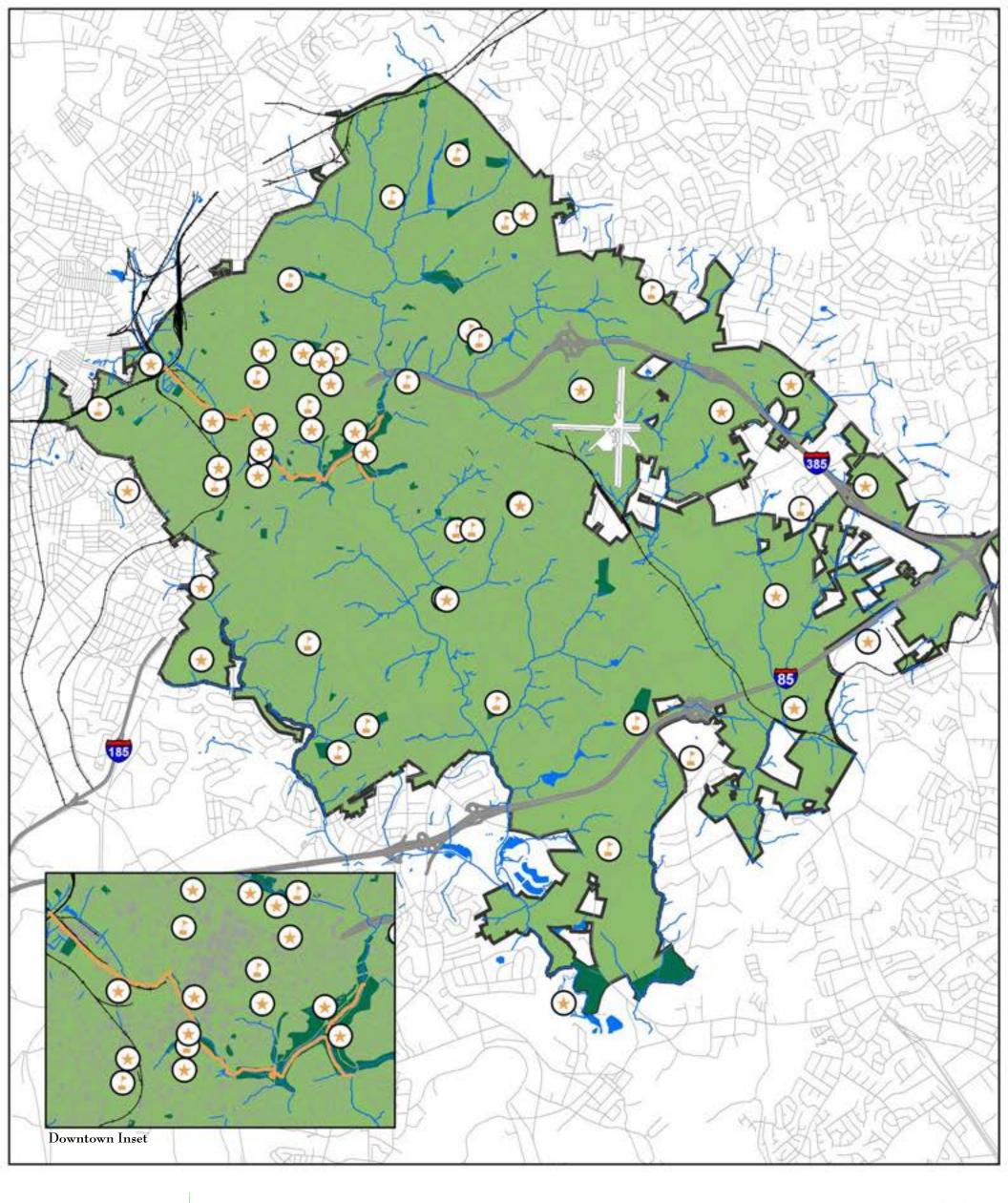
from the existing trail system. Individuals who wish to travel to points such as Clemson University's ICAR or Bob Jones University, which are not presently serviced by the existing trail system, generally must rely on motorized transport to reach their destinations. Expanding Greenville's trail system will promote increased levels of recreation and will provide facilities that encourage alternative forms of transportation to destination points across the city.

# 2.4 Existing Trail Network

Greenville's existing trail system is concentrated along the Reedy River Corridor, from Willard Street in East Greenville south to Woodland Way in Cleveland Park. The Reedy River Trail and the CSX Rail Trail form two flagship segments of the spine of the future city-wide trail system. Additionally, the Fernwood Nature Trail provides a serene walk through the woods flanking the south end of Cleveland Park. These facilities link many destination points along the Reedy River but presently do not connect to surrounding and distant areas of Greenville.

Several smaller trails exist in other more isolated areas of Greenville. Grower Estates Park contains a loop walking trail that flanks the park's athletic fields, while Timmons Park presents a short dirt mountain bicycle trail for beginner to advanced riders. Additionally a large paved loop trail exists on the Fluor Daniel property, just east of the Downtown Airport. While these facilities provide localized recreation opportunities, each is a destination of its own and is presently not linked or easily accessible from other areas of Greenville.

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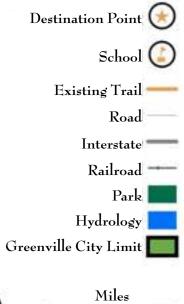
trails & greenways master plan

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# Existing Environment: Trip Attractors & Existing Trails

Data sources: The City and County of Greenville, South Carolina

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0

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#### trails & greenways master plan

#### Existing Level of Service

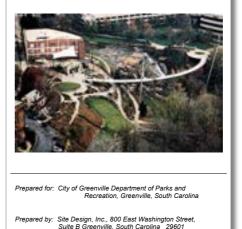
While many individuals think of trails simply as recreation facilities, many bicycle and pedestrian commuters rely on trails as safe and efficient links to schools and places of employment. Presently only five of Greenville's schools lie within a half mile proximity of the existing trail system and only a total of ten schools lie within a mile of the trail system (Level of Service Map, page 2-6). This leaves approximately twelve more schools, including Bob Jones University and Greenville Technical College, outside of a realistic trail service area. Additionally, large and expanding employment centers to the south and east of Greenville are presently not served by trail facilities. Providing an expanded and connected network of trail facilities will encourage citizens of Greenville to utilize alternative means of transportation to reach their destinations.

# 2.5 Existing Planning Efforts

Numerous plans, guidelines, and strategies have addressed areas related to trails and greenways in the City of Greenville. They have addressed improvements to existing parks and facilities, and have made suggestions for new parks, trails, and other facilities. All of these documents represent important efforts, provide valuable insight and background, and have influenced the development of this plan.

The following plans are reviewed and summarized below only as they relate to existing conditions and future needs for trails and greenways within the City of Greenville. For further information, please consult the reviewed document in its entirety.

#### Five Year Parks Facilities Master Plan 2006-2011

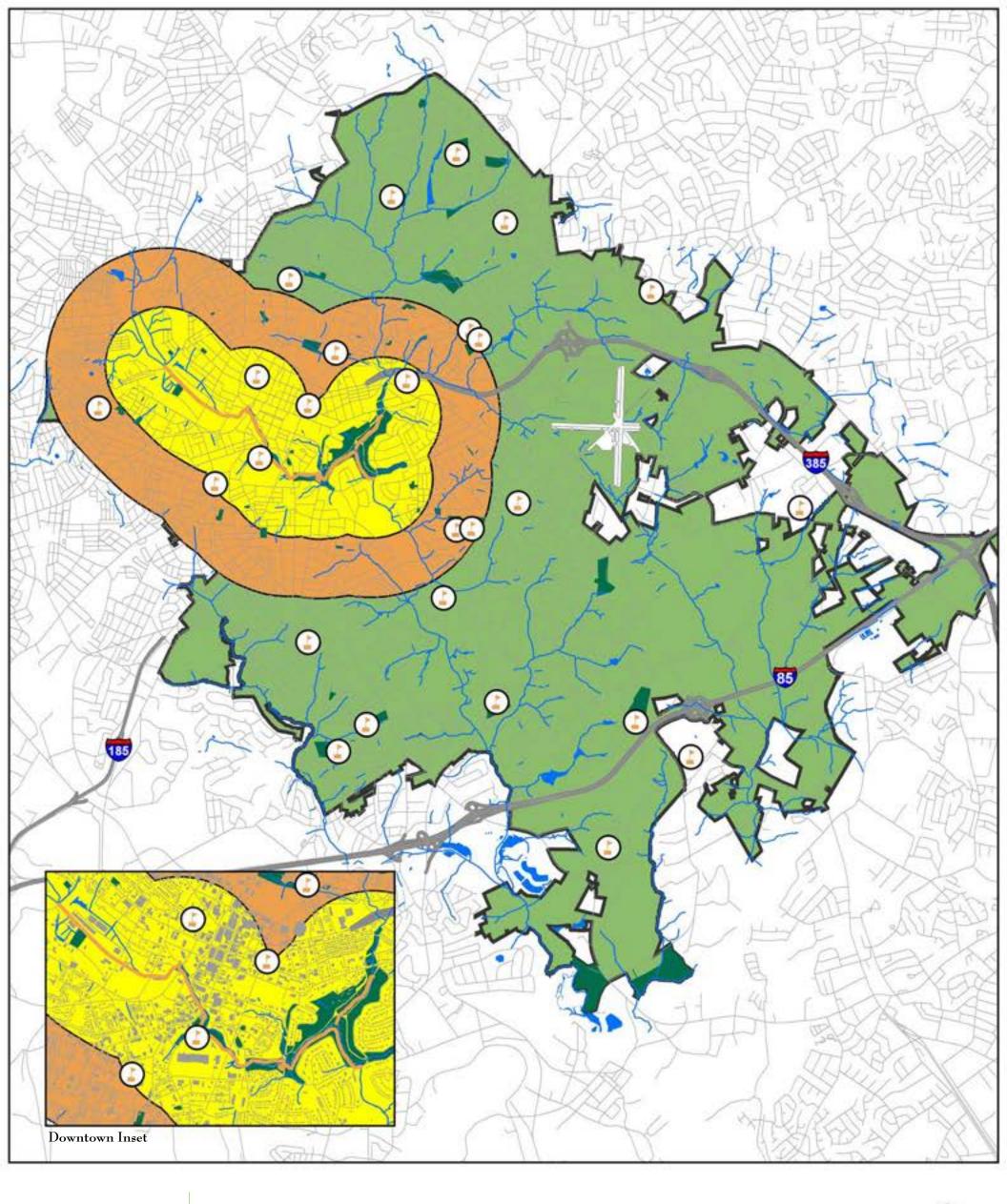


The City of Greenville's 2006-2011 Parks Facilities Master Plan is a valuable resource for identifying opportunities and priorities for future greenway and trail development.

## The 2006-2011 Parks Facilities Master Plan

Through the Plan's needs assessment process, the City Parks and Recreation Department identified "more walking and cycling trails" as the top major way to improve the Parks and Recreation System, as rated by the public. The Plan states that, "While there exists a need for additional active recreation facilities, a greater emphasis on passive recreation facilities is needed. Pathways and trails are particularly important. Greenway connections are very important and need to be developed." (Parks Master Plan, p. 8)

The following items from the 2006-2011 Parks Master Plan should help to guide the development of the Trails and Greenways Plan:







trails & greenways master plan

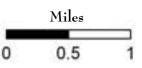
# Existing Environment: Level of Service

Data sources: The City and County of Greenville, South Carolina



School Existing Trail — Half-mile Trail Proximity One-mile Trail Proximity Road Interstate Park Hydrology Greenville City Limit





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#### trails & greenways master plan

- Out of the five priorities currently accepted by the Mayor, Council and staff, the top one is: "Build a bikeway-trailgreenway system along the Reedy River."
- The Kroc Center, the school/park program, and the Greenville Hospital System's Life Centers, were identified as partnerships to be explored to help meet citywide needs.
- Plans for Cleveland Park West (Meadowbrook Park) are being developed, which will provide a major citywide park along the Reedy River.
- The central and west side areas of the city are well served by parks, however, the east side is lacking in major citywide/ regional parks and neighborhood parks/playgrounds.
- The idea of a wellness center located in the city (at the Greenville Tech site) is well received.
- Establish a "greenbelt" around the downtown consisting of a continuous park setting through Cleveland Park, Falls Park, McPherson Park and Main Street.

Section 4.1 of the 2006-2011 Parks Master Plan, entitled, "Increase Walking-Cycling Trails", states "the trail system along the Reedy River will form the spine of the trail network. Linkages from other trails and the proposed bicycle lanes will provide the ribs of the overall walking-bicycling trail system." Specifically, the following routes were identified:

• Complete the trail from Cleveland Park to Greenville Technical College.

- Complete the CSX trail from Linky Stone Park to the western city limits.
- Link Cleveland and McPherson Parks along Park Avenue and Stone Avenue.
- Link McPherson and Falls Parks along Main Street.
- Link Cleveland & Timmons Parks along Richland Creek.
- Link the proposed Gateway Park to Cleveland Park.
- Link the Twin Lakes area to Cleveland Park along the Richland Creek sewer line.
- Link the Wenwood Soccer complex to the proposed Lake Conestee Nature Preserve and the Old City Landfill Park.
- Link the future ICAR Park to the park and open space in Verdae.

By completing a greenway trail system along the Reedy River both Greenville County and the City of Mauldin could attach to the trail system. New park additions to be pursued in the future, according to the Parks Plan, include:

1. The Lake Conestee Nature Preserve

2. ICAR Park – a park developed for the public and employees of ICAR companies

3. Verdae Park – neighborhood park facilities and greenway trails

#### trails & greenways master plan

- 4. Gateway Park between Lowndes Hill Rd. and I-385
- 5. McAlister Square Park a neighborhood park in the Parkins Mill Road area
- 6. Greenville TEC Park Park facilities at GTC would cut our park deficiencies.
- 7. South Park Park facilities at the old landfill would cut our park deficiencies.
- 8. Aquatic/Wellness Center The lack of swimming facilities is a major deficiency.
- 9. Skate Park This is a deficiency in our park system.
- 10. Meadowbrook Park (the Cleveland Park West concept)

## Beautifying and Improving Greenville, South Carolina, 1907

This report presents recommendations for improving the quality of life in Greenville. Specific recommendations center around the following:

- Providing every citizen with equal access to clean air, untainted water, legitimate recreation, wide shaded streets, parks, and playgrounds.
- Construction of a park system with a network of connecting "parkways"
- Creating a ring of green parks and public spaces around Downtown Greenville

• Stresses the importance of recreation facilities in and around schools, to provide "the vital necessity of a proper school life physically as well as intellectually."

- Illustrates how park land greatly increases adjacent property and is valuable to the public.
- Recommends "the taking and preserving of the Reedy River and its banks for a park....."

#### The Reedy River Greenway Plan, 1978

This was the first concept plan for a greenway from Greenville Tech to Long Creek.

#### The Greenway, 1984

This plan focused on the downtown Greenville area, linking Main Street and adjacent parks, including Falls Park, Cleveland Park, and McPherson Park.

## The City of Greenville Urban Recreation Recovery Study, 1986

This report identifies the opportunity to create a park along the Reedy River connecting the west Greenville floodplain, downtown Greenville, Falls Park, Cleveland Park, Greenville Tech, the old city landfill, Lake Conestee, and Municipal Stadium. Several recommendations of the plan were:

- Complete the Cleveland Park and Falls Park master plan.
- Conduct an assessment and impact study to determine the feasibility of linking the sites listed above.
- Develop a master plan for the river corridor, to be implemented in phases.

#### trails & greenways master plan

The Greenville Area Parks and Leisure Service Plan, 1990

The plan recommends developing the Reedy River corridor between West Greenville and Municipal Stadium, including:

- Rehabilitating Lake Conestee to serve as the southeast anchor of the corridor
- Developing the West Greenville floodplain as the northern anchor of the corridor.
- Developing an urban forest/passive park on the Green Forest Undeveloped Land.

#### City of Greenville Parks and Recreation Survey, 1996

This telephone survey of 500 city residents identifies the most important recreation facility to be walking/jogging/fitness/bicycle paths. The third most important was open space. Walking paths were also identified as the facility that people would like to see improved the most.

#### Reedy River Corridor Vision Plan, 1999

This plan focused on the Reedy River corridor in the downtown Greenville area. It's intent was to "achieve the development of the Corridor as a high-quality destination for business, residential, recreational and visitor interests." The plan covered the Reedy River through Cleveland Park, Falls Park, and the proposed Cleveland Park West. Some of the principles established for improving of the river corridor were:

- Maintain public access and parkland along the river
- Create a series of unique and connected focal points and destinations along the river
- Link the corridor to adjacent areas and regional attractions
- Simplify the visual landscape. (Cover above-grade sewer lines, reduce high-maintenance plantings)
- Improve water quality of the river.

*The Greenville Parks Master Plan Strategies 2000-2005 (1999)* This plan gives the goal of a continuous greenway from Travelers Rest to Mauldin and Simpsonville. It states, "the Reedy River corridor has the opportunity to become the centerpiece of Greenville's entire park system." The plan recommends:

• Taking advantage of any opportunity to acquire land or easements along the greenway and make connections to other nearby attractions, such as Cleveland Park West, downtown Greenville, Falls Park, Cleveland Park, Greenville Tech, Municipal Stadium, Lake Conestee, and the Wenwood Soccer Complex.

• Building a connection between Greenville Tech and Cleveland Park along the proposed sewer line to be built by the WCRSA in 2000-2001.

• Looking at options for extending the greenway around the Greenville Country Club.

• Working with property owners along the river to overcome any potential resistance and educate them on the benefit of a greenway system.

• Connection to Furman University along the abandoned rail line north of the city.

#### The Reedy River Master Plan, Clemson University, 2000

This report was prepared to serve as a guide for developing the 16mile stretch of the Reedy River corridor between Travelers Rest and Lake Conestee. The master plan outlines a network of trails along the river, sites for recreation and economic development, and proposed land uses along the river.

The report encourages first creating trails on public owned land wherever possible, including public right of way, public properties, and utility easements. The second area to take advantage of is semipublic land, such as the Greenville YMCA, Conestee Foundation, and churches. Finally, private properties may be used were necessary, but will involve acquiring the property or an easement to use it. Maps were created to show possible routing of the trail network, beginning with portions that are immediately available, to areas where some type of land purchase, or easement will have to be worked out.

Several key recreational sites to be connected to the trail network include:

- The North Greenville YMCA in Travelers Rest
- The Salvation Army Boys and Girls Club
- Mayberry Park (Cleveland Park West)
- The old city landfill, north of Lake Conestee
- Lake Conestee and Municipal Stadium site.

#### trails & greenways master plan

Proposed real estate developments that can also tie into the trails are:

- Travelers Rest High School
- Properties surrounding Mayberry Park
- Amtrak Station
- Mills
- Downtown mixed use sites

Other areas important to link to the trail network are public properties such as parks, civic buildings, schools, and churches.

## The Bike Network Concept Plan, 2005

This concept plan was developed by the Greenville Spinners Bicycle Club and was presented to Greenville City Council in December, 2005. Long-term goals for cycling in Greenville include:

• To create an integrated bicycle transportation network across the City of Greenville.



Blue lanes at intersections & bike racks downtown are just some of the proposals in the Bike Network Concept Plan.

- To make cycling more accessible so that a wide range of people will feel safe on the streets again
- To promote cycling as a core element of Greenville's identity as a city and as a region.

In order to achieve these goals, the plan contains the following, more specific proposals that relate most directly to the Trails and Greenways Master Plan:

• We propose that the city adopt an integrated framework for Greenville's cycling infrastructure that makes use of a range of components similar to [multi-use greenways, bicycle boulevards, urban bicycle corridors, basic bicycle streets, & designated neighborhood routes].

• We propose that the city allocate the funds necessary to implement most of Phase One in 2006 [The Downtown Bike Beltway, The Cultural Connector, The Ballpark Link, The Max Heller Greenway, The Neighborhood Network].

•We propose that the city develop a long-range budget and timeline for implementing a network city-wide.

•We propose that the city mark all bike lane intersection crossings with blue paint or equivalent.

•We propose that the city install additional bike racks and initiate a bike locker pilot project [bike racks are proposed along N. Main Street in downtown, and a bike locker is proposed at Richardson Street & Buncombe St].

Most of these key proposals have been incorporated into the Trails and Greenways Master Plan.

#### trails & greenways master plan Neighborhood Sidewalk Targeted Expansion Program (NSTEP), 1999

In 1997, the City of Greenville solicited residents to determine the level of satisfaction that they felt about city services. The goal was to gain a better understanding of the needs and wants of Greenville. Residents echoed an overwhelming sense of dissatisfaction with the state of sidewalks and lack of connectivity. As a result of this consistent request, the Department of Public Works began to catalog the status of existing sidewalks to identify areas of concern.

Subsequently, the *Sidewalk Management Status Report* recommended that a commission of citizens be appointed to monitor sidewalk conditions across the city. The NSTEP committee met in 1999 to determine potential sidewalk project locations, developed a project priority system, attend to design issues, coordinate departmental issues and seek out supplemental funding sources.



Sidewalk construction on Green Avenue existing environment

chapter two

# 3.0 Proposed Network

# 3.1 Introduction

The purpose of this chapter is to provide written and visual descriptions of the proposed trail network. The network was developed through extensive fieldwork, research into related planning efforts, and a thorough GIS analysis of aerial photographs, elevation contours and parcel data. Input from the City staff and the public workshop helped to further shape and guide these recommendations.

# 3.2 Trail Types

The proposed network is made up of several different types of trails and are divided in to the following three categories:

> Type I Trail: Greenway Trail Type II Trail: Street Based Trail Type III Trail: Natural Surface Trail

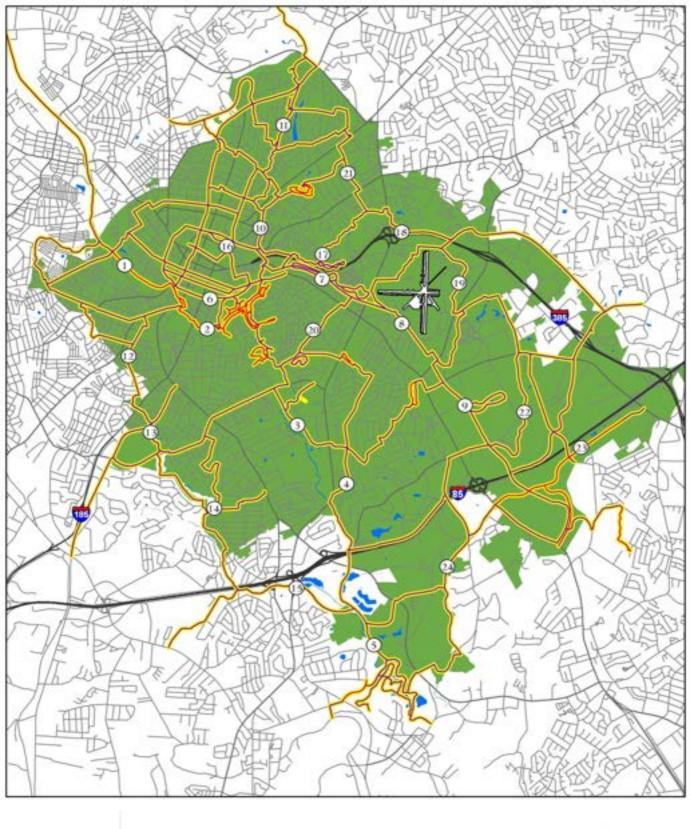
The most predominant and preferred type of trail recommended is the greenway trail. Street based trails are included to complete links in the trail network where a typical greenway trail is not possible, connect major trail corridors to the proposed regional bicycle network, and to connect destinations on a more local level. Natural surface trails are primarily located inside destinations, such as parks. Brief descriptions are provided below. For a more detailed description, please refer to Chapter 4, Design Guidelines.

# Type I Trail: Greenway Trail

For the purposes of this report, a *greenway trail* will refer to a eight to twelve-foot wide, paved multi-use trail, typically located in a natural, or *green* setting. Where feasible, such trails will feature a 5-foot wide strip of rubberized surface for pedestrians. This type of trail is recommended for areas expecting frequent and heavy use. Such areas could include high-density residential settings, or along routes that connect popular destinations. Since the City of Greenville is a fastgrowing area, most recommended trails within its borders fall into this category.



Greenway Trail Reedy Creek Trail - Raleigh, NC

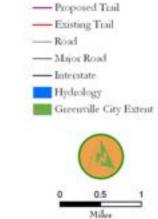






# Overall Trail Network & Cut-Sheet Guide

Total Network Distance: S Miles of Existing Greenway Trails 50 Miles of Proposed Greenway Trails 4 Miles of Existing Street Based Trails 53 Miles of Proposed Street Based Trails 3 Miles of Existing Natural Surface Trails 10 Miles of Proposed Natural Surface Trails 128 Miles Total



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#### the city of greenville



Street Based Trail: Striped Bicycle Lane and Sidewalk

#### Type II Trail: Street Based Trail

Some sidewalks and bicycle-friendly roadways are recommended as routes in order to preserve overall network connectivity (where offroad trails are not feasible). Such portions of trail are referred to as street-based trails or *on-road* routes, providing trail users and local residents with safe routes to connect to and from separate trailheads. On-road routes typically feature sidewalks (with a 5' minimum width) and where necessary and feasible, bike lanes (with a 4' minimum width of pavement coupled with 1' of gutter pan or 5' where there is no gutter present).

If a street-based trail has adequate right-of-way and infrequent cross streets and driveways, a *sidepath* can be used. Sidepaths have similar characteristics to paved greenways, only they are located along roadways rather than natural corridors.

# Type III Trail: Natural Surface Trail

A *natural surface trail* refers to an unpaved trail, ranging in character from an eighteen inch-wide foot path to a ten foot-wide mulched trail. This type of trail could be used in environmentally sensitive areas, in areas where the typical paved cross-section cannot fit, or in areas where frequent use is unexpected or undesirable.



Natural Surface Trail: Dirt or Mulched Foot Path

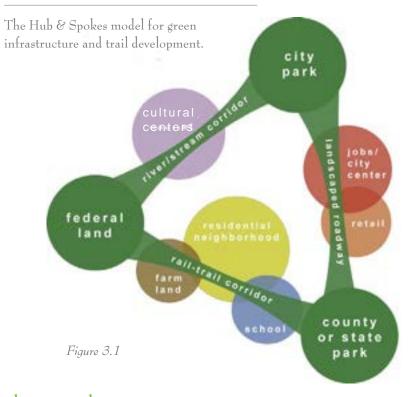
\*Note: An important element of the proposed trail network includes wayfinding and signage. For more information on this aspect of trail development, please refer to Chapter 4, Design Guidelines.

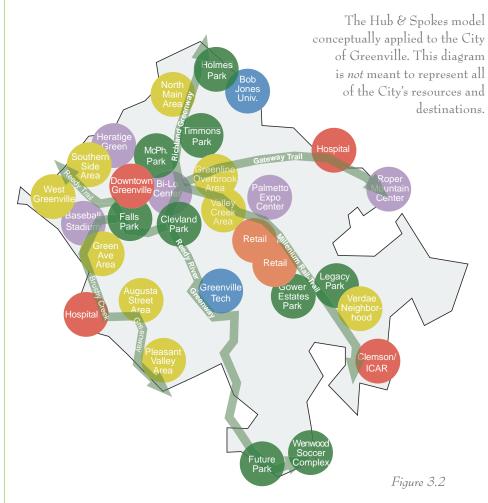
#### chapter three

#### trails & greenways master plan

# 3.3 Proposed Trail Network

The proposed trail network is based on a 'hub & spokes' model, where parks and other popular destinations serve as 'hubs', and the trails that connect them serve as 'spokes' (see below). In Greenville's network, five main trail corridors roughly follow the Reedy River, Brushy Creek, Richland Creek, I-385 and the city's main railroad corridor, herein referred to as the GreenLink Corridor. These five main corridors are made up of twenty-four individual trail segments. The Overall Map (page 3-9) provides a guide to the proposed network of trails for Greenville, with the individual segments labeled for reference.



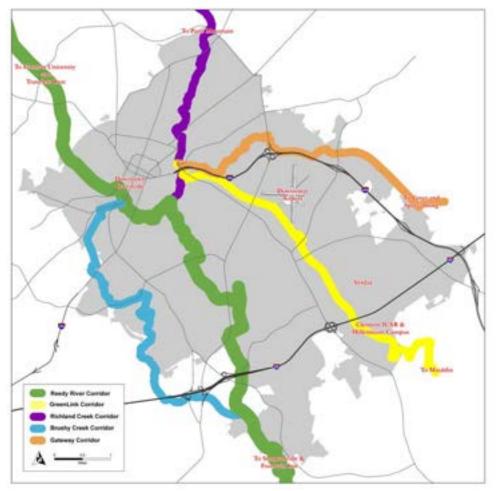


Progressing from the conceptual 'hub & spokes' models, significant GIS analysis and mapping generated five major trail corridors (Figure 3.3). These five major trail corridors form the foundation of Greenville's proposed trail network. After identifying the major trail corridors, extensive fieldwork was coupled with staff and public input to determine specific trail routing and proposed alignments in

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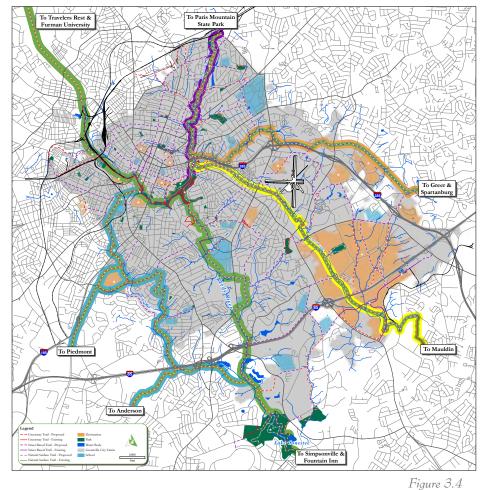
#### the city of greenville

each corridor. By identifying and locating destination points, such as schools, parks, major employment areas, and cultural sites, the five major greenway corridors were then connected together (Figure 3.4), forming the comprehensive proposed trail network for the City of Greenville.



Greenville's five major trail corridors

Figure 3.3



Greenville's Proposed Comprehensive Trails and Greenways Network

#### chapter three

#### proposed network

#### trails & greenways master plan

## the city of greenville

# 3.4 Photo Montages

The images on the following pages show existing conditions along selected trail corridors and illustrate potential trail facilities and/or improvements.



Existing Conditions: Sewer corridor along the north side of I-385, near Lowndes Hill Road



Potential: Segment of the Gateway Greenway, along the north side of I-385, near Lowndes Hill Road

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#### trails & greenways master plan



Existing Conditions: Sewer easement along Brushy Creek, near Pacific Ave.



Existing Conditions: Sewer easement along Reedy River, near Woodland Ave.



Potential: Brushy Creek Greenway chapter three



Potential: Reedy River Greenway

proposed network



Existing Conditions: Intersection of Pleasantburg Drive and Cleveland Street



Potential: Improvements of the intersection of Pleasantburg Drive and Cleveland Street as part of the Reedy River Greenway

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#### trails & greenways master plan

## the city of greenville 3.5 Individual Trail Cut-Sheets

Each of the proposed major trail segments are described on the following pages, with maps, text and photos that outline the routing, nearby destinations, and proposed connections for each trail.



Winter Stroll in Falls Park



Enjoying the Reedy River



Spring afternoon in Falls Park

#### chapter three

### the city of greenville 1: CSX Trail reedy river corridor

Start: City Limits End: Academy Street/Linky Stone Park Est. Distance: 1.2 miles

#### Route Description:

From the Greenville city limits (just north of the Salvation Army), follow the trail southeast past Mayberry Park to Linky Stone Park.

#### Nearby Destinations:

Salvation Army Boys and Girls Club, New Town Park, West Washington Park, Mayberry Park, Kroc Center, Walker Park, West Greenville Community Center, St. Mary's Catholic School, Linky Stone Park, Peace Center for Performing Arts, & Downtown Greenville.

#### Connecting Trails:

- Existing Trails at Reedy Falls Park, connecting to the Peace Center for Performing Arts, Main Street, and Cleveland Park.
- Existing Bike lanes on River Street, connecting to Main Street.
- Proposed on-road trail along Richardson Street, connecting to McPherson Park.
- Proposed on-road trail along Broad Street, connecting to the BI-LO Center and the GreenLink Greenway.

#### trails & greenways master plan



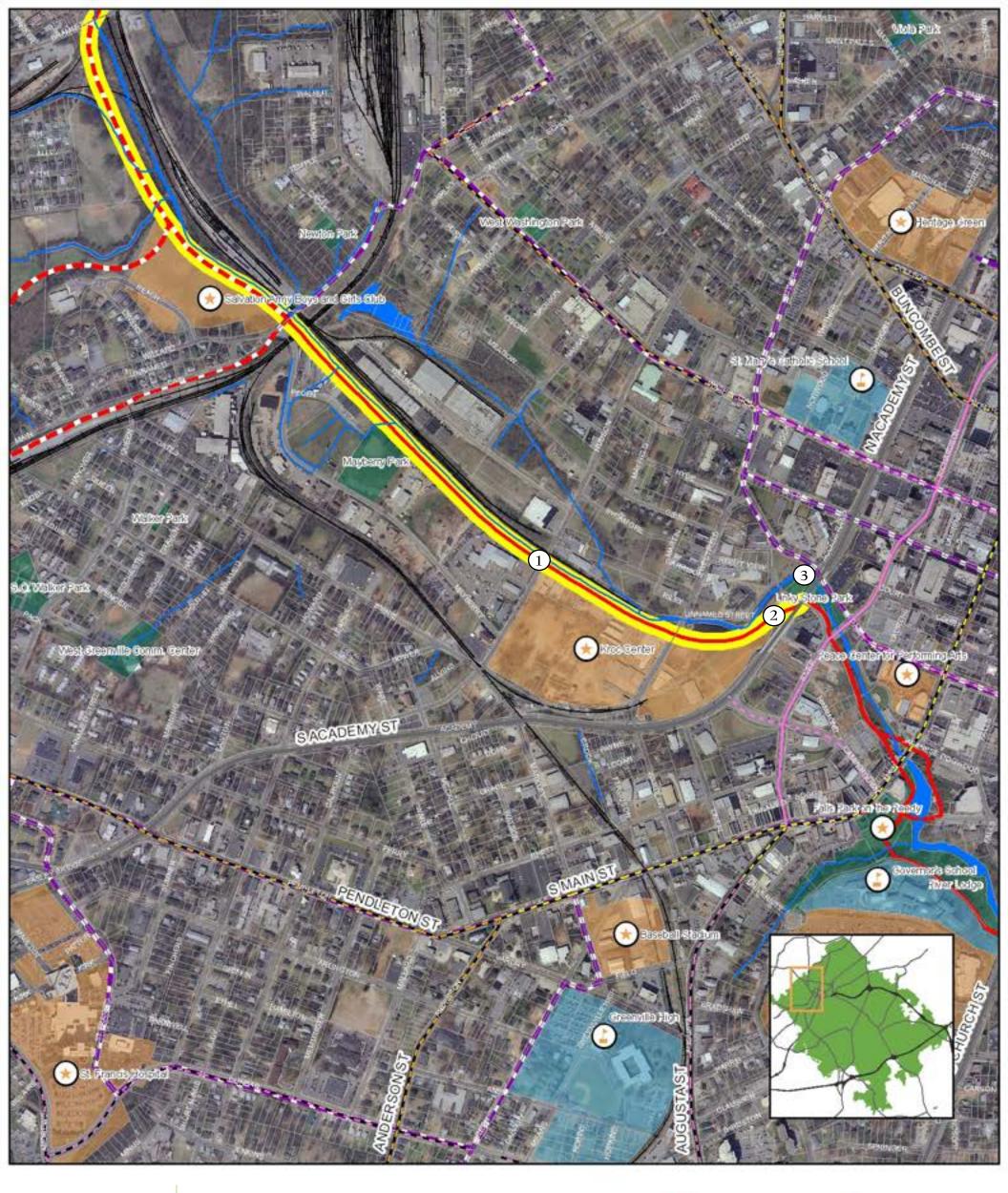
Rail Trail crosswalk.



Trail approaching Linky Stone Park.



Trail at Linky Stone Park.





trails & greenways **master plan** 

chapter three

1: CSX Trail reedy river corridor

Trail Type: Greenway Trail Status: Existing

Data sources: The City and County of Greenville, South Carolina

	Featured Trail Segment	$\bigcirc$	
	Greenway Trail - Proposed	Destination Poin	٤.
_	Greenway Teal - Existing	School	
	Street Based Trail - Proposed		
_	Street Based Trail - Existing	Road	
	Natural Surface Trail - Proposed	- Major Road	
_	Natural Surface Trail - Existing	laterstate	
_	Pike Lane Existing	Raileoad	
	Bike Lane Proposed	Destination	
	Bike Lane Restripe	School	
	Wide Outside Lane Existing	Park	
	Wide Outside Lane Proposed	Water Body	
	Wide Outside Lane Restripe	Greenville City E:	ste
_	Paved Shoulder 4' Existing		
	Paved Shoulder 4' Proposed		
_	Paved Shoulder 2' Existing		
	Paved Shoulder 2' Proposed		
	Share the Road		

### 2: Reedy River Trail reedy river corridor

Start: Linky Stone Park End: Woodland Way Est. Distance: 2.0 miles

#### **Route Description:**

From Linky Stone Park, follow existing trail past Main Street & Reedy Falls Park to Cleveland Park. At Cleveland Park, follow the Reedy River south.

#### Nearby Destinations:

Linky Stone Park, Peace Center for Performing Arts, Downtown Greenville, Reedy Falls Park. Governor's School, River Lodge, Sue Simpson Garden, Shaw Garden, Rock Garden, Cleveland Park, Greenville Zoo, Christ Church Episcopal School, Kroc Center & the BI-LO Center.

#### Connecting Trails:

- The CSX Trail, connecting to the Salvation Army Boys and Girls Club, Mayberry Park, and future regional trails in Greenville County.
- Existing Bike lanes on River Street, connecting to Main Street.
- Proposed on-road trail along Richardson Street, connecting to McPherson Park.
- Proposed on-road trail along Broad Street, connecting to the BI-LO Center and the GreenLink Greenway.
- Proposed West End Trail (on-road), connecting to the Baseball Stadium, Greenville High, and the north end of Brushy Creek Trail.

#### trails & greenways master plan



Reedy River Trail.



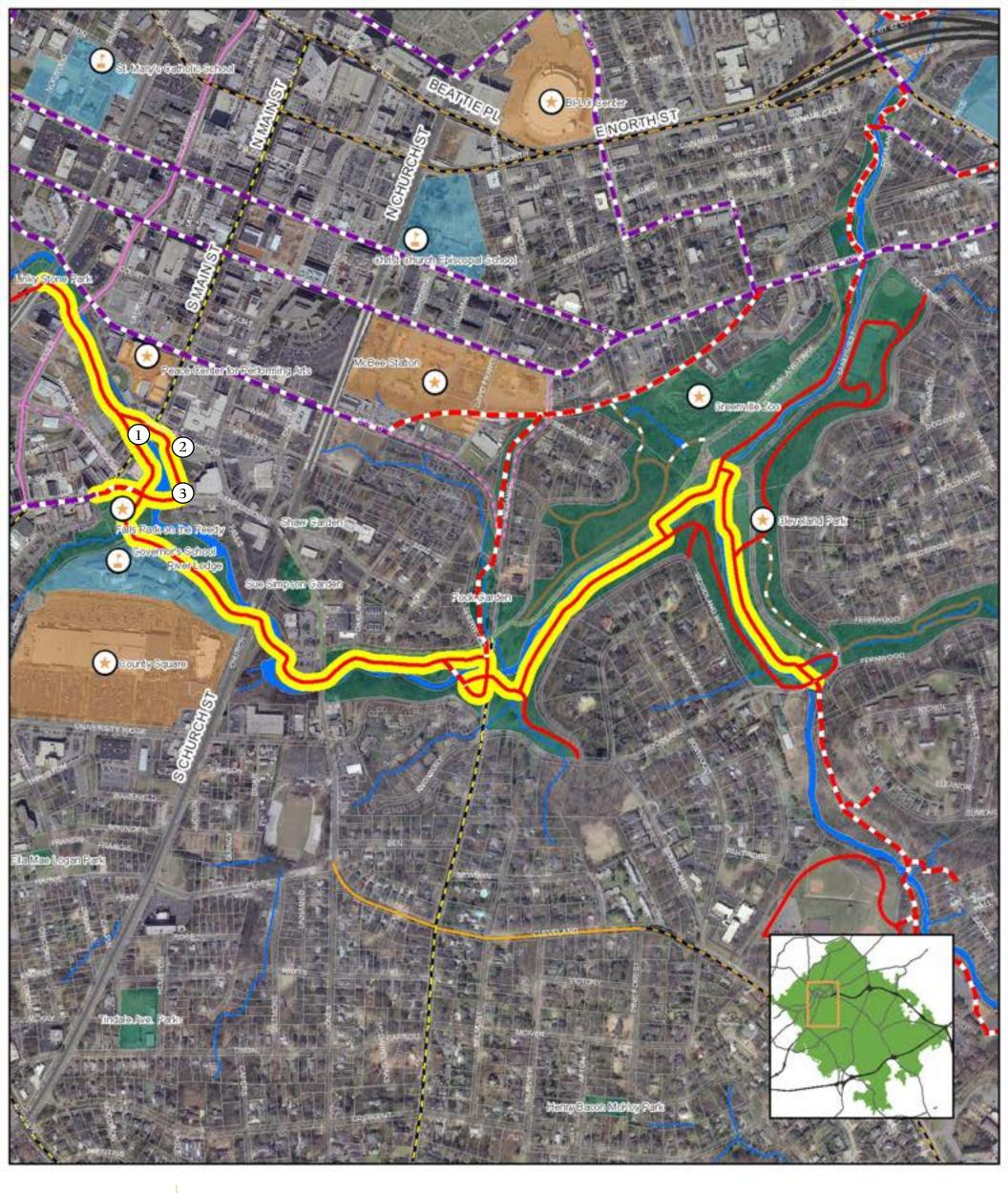
Trail approaching Liberty Bridge.



A school trip to Falls Park.

#### chapter three

#### proposed network





trails & greenways **master plan** 

chapter three

2: Reedy River Trail

Trail Type: Greenway Trail Status: Existing

Data sources: The City and County of Greenville, South Carolina

	Featured Trail Segment	$\bigcirc$	
	Greenway Trail - Proposed	O Destin	stion Point
-	Greenway Teal - Existing	School	
	Street Based Trail - Proposed	- Road	
_	Street Based Trail - Existing		
	Natural Surface Trail - Proposed	- Major R	
_	Natural Surface Trail - Existing	- Interstat	53 C
_	Pake Lone Existing	Railroad	1
	Bike Lane Proposed	Destina	tion
	Bike Lane Restripe	School.	
_	Wide Outside Lane Existing	Park	
	Wide Outside Lane Proposed	Water B	22 - Contractor ( ) - Cont
	Wide Outside Lane Restripe	Greenvi	lle City Exter
-	Paved Shoulder 4' Existing	-	
••	Paved Shoulder 4' Proposed		
_	Paved Shoulder 2' Existing		
	Paved Shoulder 2' Proposed		
	Share the Road		
	0	500	1,000

#### trails & greenways master plan

### **3: Reedy River Trail at G'ville Tech** reedy river corridor

Start: Cleveland Park/Woodland Way End: S. Pleasantburg Drive Est. Distance: 2.2 miles

#### Route Description:

From Cleveland Park, follow the trail south along the Reedy River, past Faris Road, to Greenville Technical College. At the College, follow Cleveland Street south to S. Plesantburg Drive.

#### Nearby Destinations:

Cleveland Park, Nicholtown Community Center, Nicholtown Cemetery, Sliding Rock Creek Park, Beck Middle School, University Center, & Greenville Technical College.

#### Connecting Trails:

- Trails in Cleveland park, connecting to Falls park and Downtown Greenville.
- Fernwood Nature Trails adjacent to Cleveland Park
- Proposed trail to Sliding Rock Creek Park & the GreenLink Greenway.
- Proposed on-road trail along portions of E. Faris Road and Cleveland Street, connecting to the Brushy Creek Corridor.
- Wide outside lane restripe on S. Pleasantburg Drive, connecting to the University Center and Sara Collins Elementary.
- Reedy River Trail South, to Sara Collins Elementary & the Conestee Lake area.



Fernwood Nature Trail.



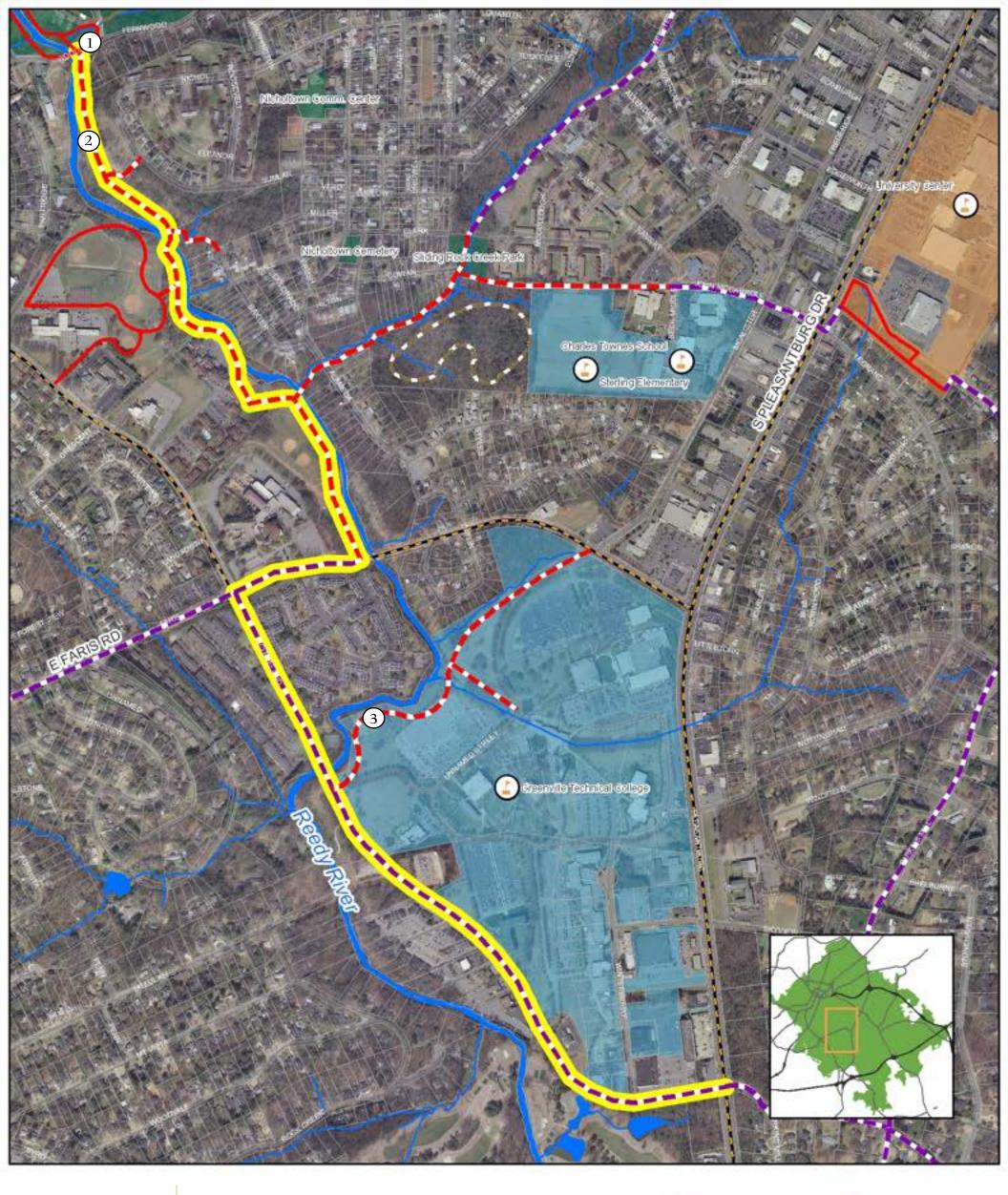
Sewer easement along the Reedy River, south of Woodland Way.



Greenville Tech open space along the Reedy River.

#### chapter three

#### proposed network





trails & greenways **master plan** 

### **3: Reedy River Trail at Greenville Tech** *reedy river corridor*

**Trail Type:** Greenway Trail & Street Based Trail **Status:** Proposed

eenville Tech Bike Lane Existing Bike Lane Restripe Wile Outside Lane Existing Bike Lane Existing Bike Lane Existing Bike Lane Existing Bike Lane Restripe Bike Lane Existing

- -- Wide Outside Lane Proposed
- ----- Wide Outside Lane Restripe
- Paved Shoulder 4' Existing
- -- Paved Shoulder 4' Proposed
- Paved Shoulder 2' Existing
- - Paved Shoulder 2' Proposed
- ---- Share the Road





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chapter three

Data sources: The City and County of Greenville, South Carolina

Feet

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#### trails & greenways master plan

### 4: Reedy River Trail South reedy river corridor

Start: S. Pleasantburg Drive End: 1-85 Est. Distance: 1.7 miles

#### **Route Description:**

From S. Plesantburg Drive at Greenville Technical College, follow Cleveland Street east to Parkins Mill Road, then head south to Sara Collins Elementary. From Sara Collins, continue south, back to the Reedy River. Follow the river corridor to Interstate 85.

#### Nearby Destinations:

University Center, Greenville Technical College, and Sara Collins Elementary, and the Lake Conestee area.

#### Connecting Trails:

- The Reedy River Trail at Greenville Tech, connecting to Cleveland Park and Downtown Greenville.
- Wide outside lane restripe on S. Pleasantburg Drive, connecting the University Center, Greenville Technical College, and Sara Collins Elementary.
- Proposed on-road trail along Cleveland Ext./Harrison Road, connecting to the GreenLink Greenway Corridor.
- Proposed on-road trail along E. Parkins mill Road, connecting to J.L. Mann High School and the GreenLink Greenway Corridor.
- Proposed Bike Lanes on Parkins Mill Road
- The Reedy River Trail at Lake Conestee

#### chapter three



Intersection of Cleveland Street and S. Pleasantburg Drive.



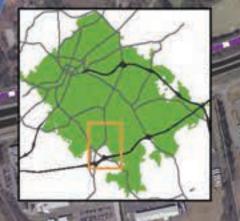
Parkins Mill Road.



Sara Collins Elementary School.

#### proposed network

Note: Trails that are not yet constructed are conceptual in nature. As design funds become available, the city will solicit public input on specific routes.



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chapter three

# 4: Reedy River Trail South

collins Elementers

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Trail Type: Street Based & Greenway Trail Status: Proposed

Data sources: The City and County of Greenville, South Carolina



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### 5: Reedy River Trail at Lake Conestee reedy river corridor

Start: I-85 End: Conestee Lake Est. Distance: 2.8 miles

#### **Route Description:**

From the Reedy River corridor at Interstate 85, continue south, past the Greenville Municipal Stadium, to Conestee Lake.

#### Nearby Destinations:

Lake Conestee, the Greenville Municipal Stadium, and the Wenwood Soccer Complex, and the Christ Church Episcopal School.

#### Connecting Trails:

- The Reedy River Trail South, connecting to Greenville Technical College, Sara Collins Elementary, and trails north to Downtown.
- 'Brushy to Reedy Trail' branching west off of the Reedy River
- Wide outside lane restripe on Mauldin Road, connecting S. Pleasantburg Drive, the Reedy River Corridor, the Municipal Stadium, and the Wenwood Soccer Complex
- Proposed trail, branching east of the river, connecting to Cavalier Drive & Christ Church Episcopal School.
- Proposed on-road trail along Cavalier Drive, connecting to the Wenwood Trail.
- Proposed trail, branching southwest of the river, connecting to future Greenville County trails.
- Wenwood Trail, connecting to the ICAR Campus.

#### trails & greenways master plan



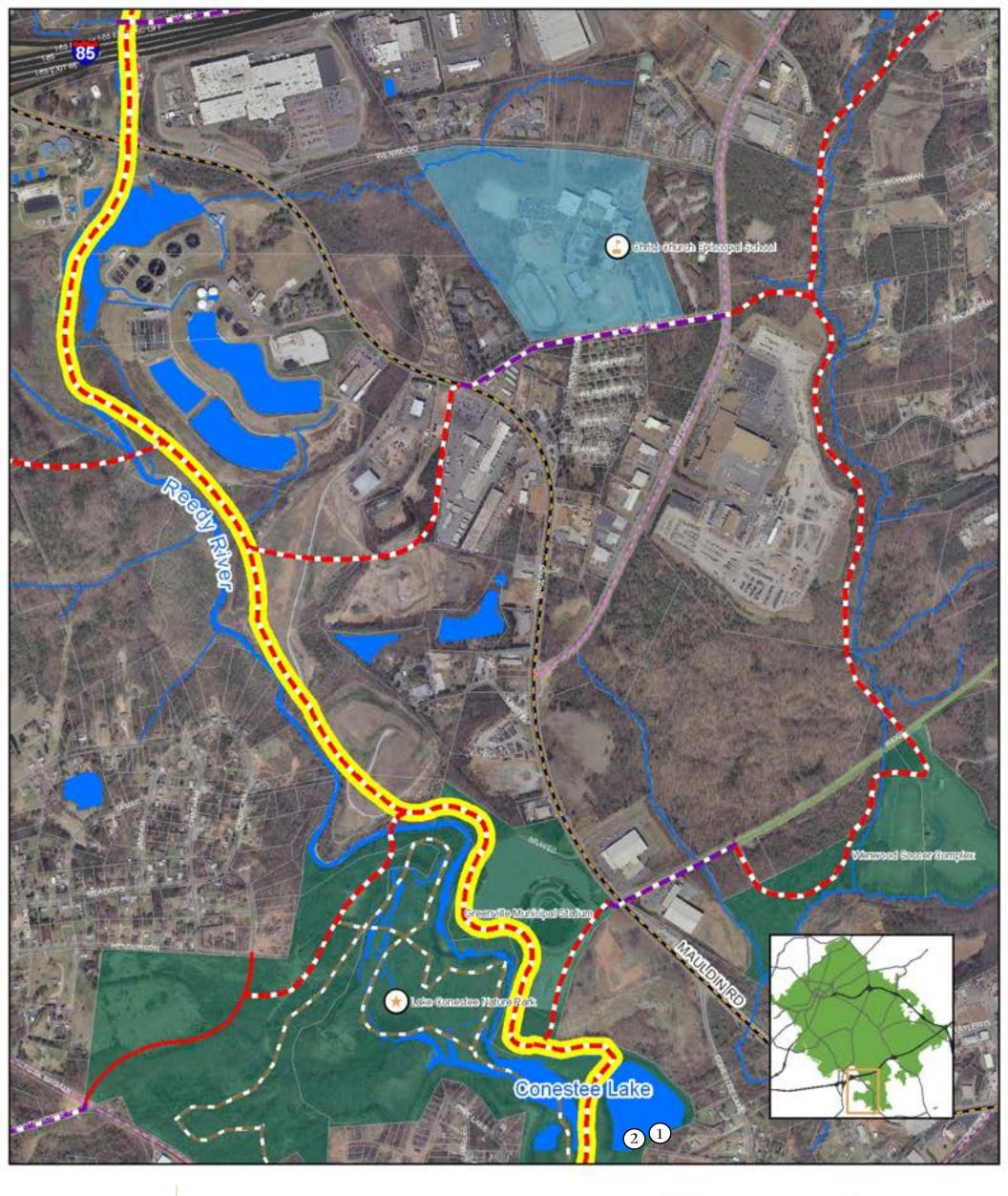
Falls and mill near Lake Conestee.



Lake Conestee.

#### chapter three

#### proposed network





trails & greenways master plan

chapter three

5: Reedy River Trail at Conestee Lake reedy river corridor

Trail Type: Greenway Trail Status: Proposed

Data sources: The City and County of Greenville, South Carolina

	Featured Trail Segment	
	Greenway Trail - Proposed	Destination Point
-	Greenway Teal - Existing	School
	Street Based Trail - Proposed	- Road
-	Street Based Trail - Existing	
-	Natural Surface Teal - Proposed	- Major Road
-	Natural Surface Trail - Existing	laterstate
_	Pike Lane Existing	Railroad
	Bike Lane Proposed	Destination
-	Bike Lane Restripe	School
_	Wide Outside Lane Existing	Park
	Wide Outside Lane Proposed	Water Body
	Wide Outside Lane Restripe	Greenville City Exte
2	Paved Shoulder 4' Existing	
	Paved Shoulder 4' Proposed	
_	Paved Shoulder 2' Existing	
	Paved Shoulder 2' Proposed	
	Share the Road	

#### trails & greenways master plan

### 6: Downtown Connector reedy river corridor

Start: Linky Stone Park End: Cleveland Park Est. Distance: 1.5 miles (both spurs)

#### **Route Description:**

From Linky Stone Park, follow on-road trail along Broad Street heading east. Shortly after passing S. Church St., connect with the abandoned rail corridor. Follow the corridor to McBee Avenue, where it connects with the northern end of Cleveland Park and the beginning of the GreenLink Greenway. A spur trail along McDaniel Ave connects to the Rock Garden & Cleveland Park.

#### Nearby Destinations:

Linky Stone Park, Peace Center for Performing Arts, Downtown Greenville, Reedy Falls Park. Governor's School, River Lodge, Sue Simpson Garden, Shaw Garden, Rock Garden, Cleveland Park, Greenville Zoo, Christ Church Episcopal School, & the BI-LO Center.

#### Connecting Trails:

•The CSX Trail, connecting to the Salvation Army Boys and Girls Club, Mayberry Park, and future regional trails in Greenville County.

- Trails at Reedy Falls Park
- The GreenLink corridor, connecting to Verdae & ICAR.
- Proposed on-road trail connecting to the BI-LO Center.
- Bike lanes on River Street, connecting to Main Street.
- Proposed bike lanes along Washington St.
- 'Share the Road' route along Main Street.
- Proposed on-road trail along Richardson Street, connecting to McPherson Park.



McBee Station under construction along the proposed corridor.

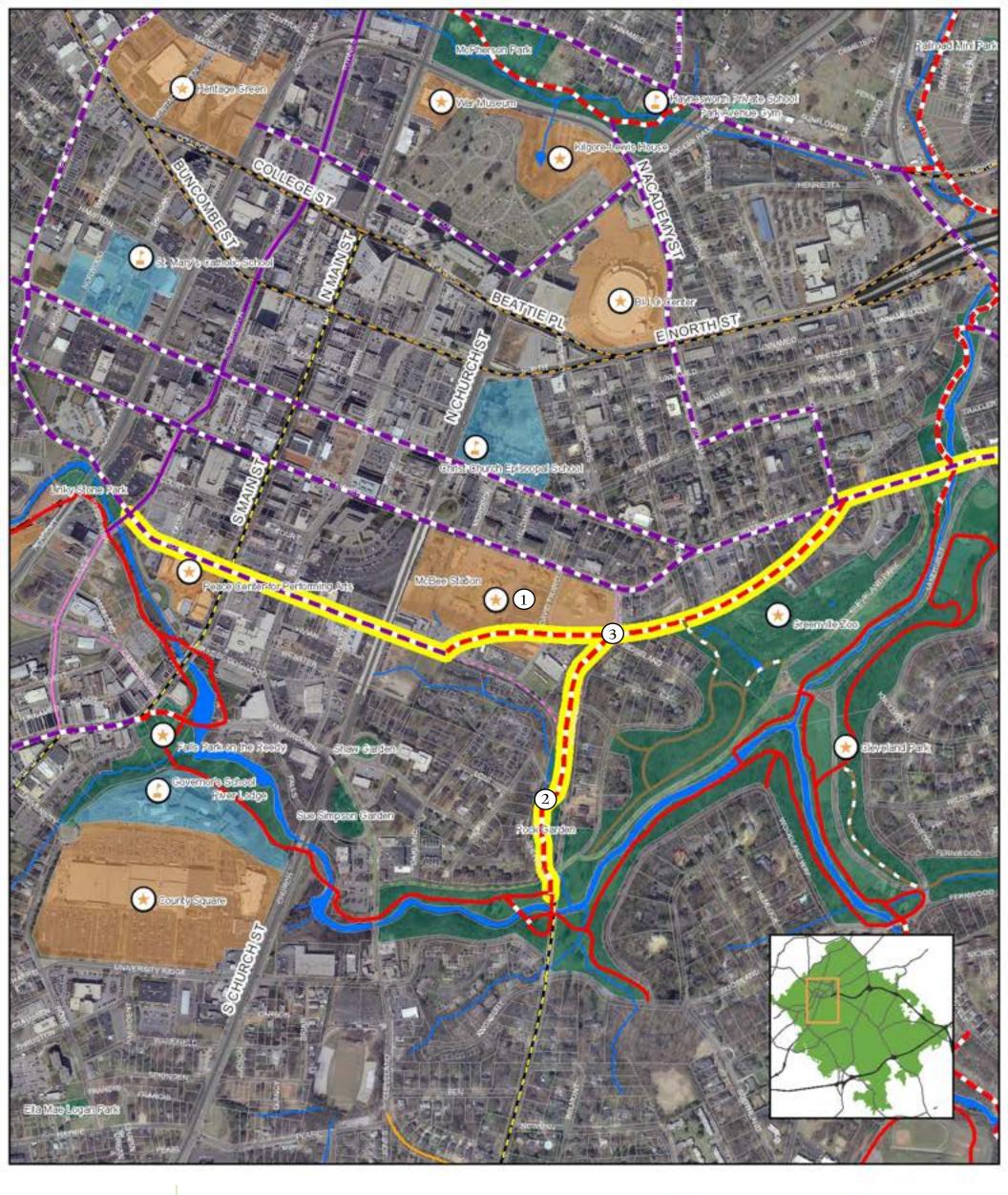


Rock Garden Park.



McDaniel Avenue bridge over abandoned rail/future trail corridor.

#### chapter three





trails & greenways **master plan** 

### 6: Downtown Connector reedy river corridor

**Trail Type:** Greenway Trail & Street Based Trail **Status:** Proposed

Featured Trail Segment Destination Point -- Greenway Trail - Proposed School ---- Greenway Teal - Existing -- Street Based Trail - Proposed - Road Street Based Trail - Existing - Major Road -- Natural Surface Teal - Proposed laterstate - Natural Surface Trail - Existing --- Railroad - Bike Lane Existing Destination - - Bike Lane Proposed School. - Bike Lane Restripe Park. ----- Wide Outside Lane Existing Water Body -- Wide Outside Lane Proposed Greenville City Extent ---- Wide Outside Lane Restripe - Paved Shoulder 4' Existing - Paved Shoulder 4' Proposed - Paved Shoulder 2' Existing - - Paved Shoulder 2' Proposed

---- Share the Road



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chapter three

Data sources: The City and County of Greenville, South Carolina

### 7: GreenLink Greenway rail-trail corridor

Start: Richland Way & Ebaugh Ave End: Pleasantburg Drive Est. Distance: 1.4 miles

#### **Route Description:**

From Richland Way & Ebaugh Ave, follow onroad trail along Ebaugh to Traxler. Follow old rail corridor across Laurens Road east towards Hillside Drive (near Overbrook Child Development Center). The beginning of the rail corridor at Hillside Drive could be used as a trailhead with parking and other minor improvements. Follow the rail corridor southeast for approximately 1.2 miles to Pleasantburg Drive. Along this stretch, entry and exit points could be provided to allow access from nearby neighborhoods.

#### Nearby Destinations:

Cleveland Park, Overbrook Child Development Center, Laurens Road Commercial Corridor, University Center.

#### Connecting Trails:

- Trails in the Reedy River Corridor.
- Trails in the Richland Creek Corridor.
- The GreenLink Corridor, connecting to Verdae & ICAR
- The Downtown Connector Trail
- Proposed on-road trail along Eastan St & Webster, connecting to Sliding Rock Creek Park and the Reedy River.
- Wide outside lane restripes along Laurens Road & Pleasantburg Drive.
- Proposed on-road trail along Hillside Dr, over 385, connecting to the Gateway Corridor.

#### trails & greenways master plan



Ebaugh Road, connecting Cleveland Park to the GreenLink Corridor.



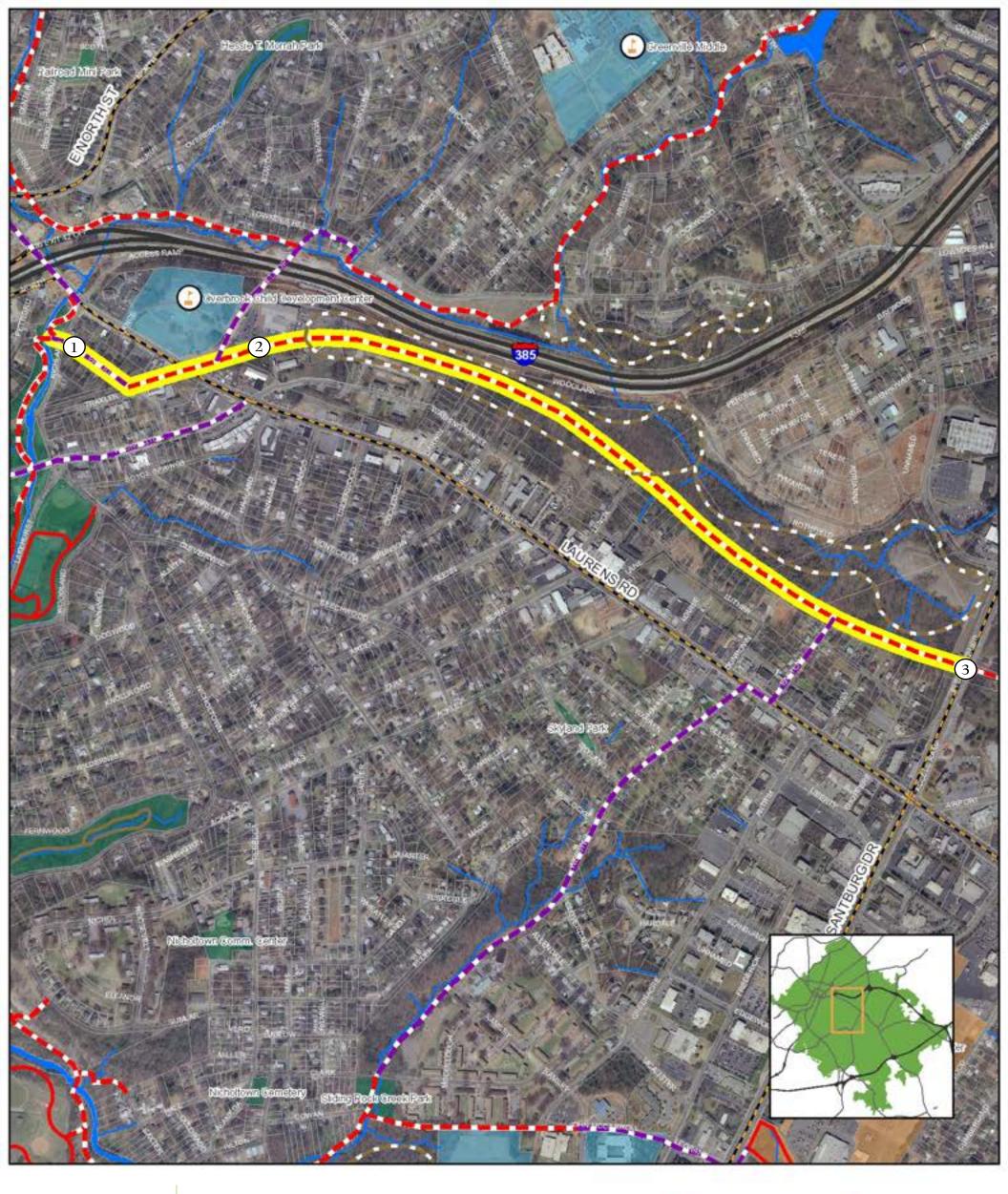
Old rail corridor near Hillside Drive.



Sidewalk along the Pleasantburg Road bridge, over the rail corridor.

#### chapter three

#### proposed network





trails & greenways **master plan** 

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### 7: GreenLink Greenway rail-trail corridor

Trail Type: Greenway Trail Status: Proposed

Data sources: The City and County of Greenville, South Carolina

	Featured Trail Segment	$\bigcirc$	04203-007
	Greenway Trail - Proposed	Destination	a Point
_	Greenway Teal - Existing	School	
	Street Based Trail - Proposed		
_	Street Based Trail - Existing	- Road	
	Natural Surface Teal - Peoposed	- Major Road	
_	Natural Surface Trail - Existing	laterstate	
_	Pike Lane Existing	Raileoad	
	Bike Lane Proposed	Destination	
-	Bike Lane Restripe	School.	
_	Wide Outside Lane Existing	Park	
	Wide Outside Lane Proposed	Water Body	
	Wide Outside Lane Restripe	Greenville	City Extent
_	Paved Shoulder 4' Existing		
••	Paved Shoulder 4' Proposed		
_	Paved Shoulder 2' Existing		
	Paved Shoulder 2' Proposed		
-	Share the Road		
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#### trails & greenways master plan

### 8: GreenLink Greenway rail-trail corridor

Start: Pleasantburg Drive End: Woodruff Road Est. Distance: 1.6 miles

#### **Route Description:**

Starting at the rail-trail underpass at Pleasantburg Drive (with plenty of space for clearance - see right), follow the rail corridor southeast to for 3/4 mile towards Haywood Road. Due to heavy traffic volume and the long crossing distance at Haywood Road (4 lanes, plus a turn lane), the trail should be routed behind and around the nearby buildings to Halton Road. A pedestrian activated signal and other pedestrian improvements could be installed at the Haywood Road/ Halton Road Intersection Follow the trail back to the RR corridor and continue south for 1/4 mile to Woodruff Road.

#### Nearby Destinations:

University Center, Laurens Road Commercial Corridor, Pleasantburg Commercial Corridor, the Expo Center, Gower Estates Park, & the Verdae Development.

#### Connecting Trails:

- The GreenLink Greenway towards Downtown to the north and Verdae/ICAR to the south.
- The Laurel Creek trail, connecting to the Expo Center & the Gateway Trails.
- Wide outside lane restripes along Pleasantburg Drive, Haywood Rd., Halton Rd. & Laurens Road
- Bike lane restripe along Woodruff Road.
- Proposed on-road trail along Keith Drive, connecting to the Expo Center & the Laurel Creek trail.
- Proposed trail to Gower Estates Park, continuing on-road southwest to the Reedy River Corridor.

chapter three

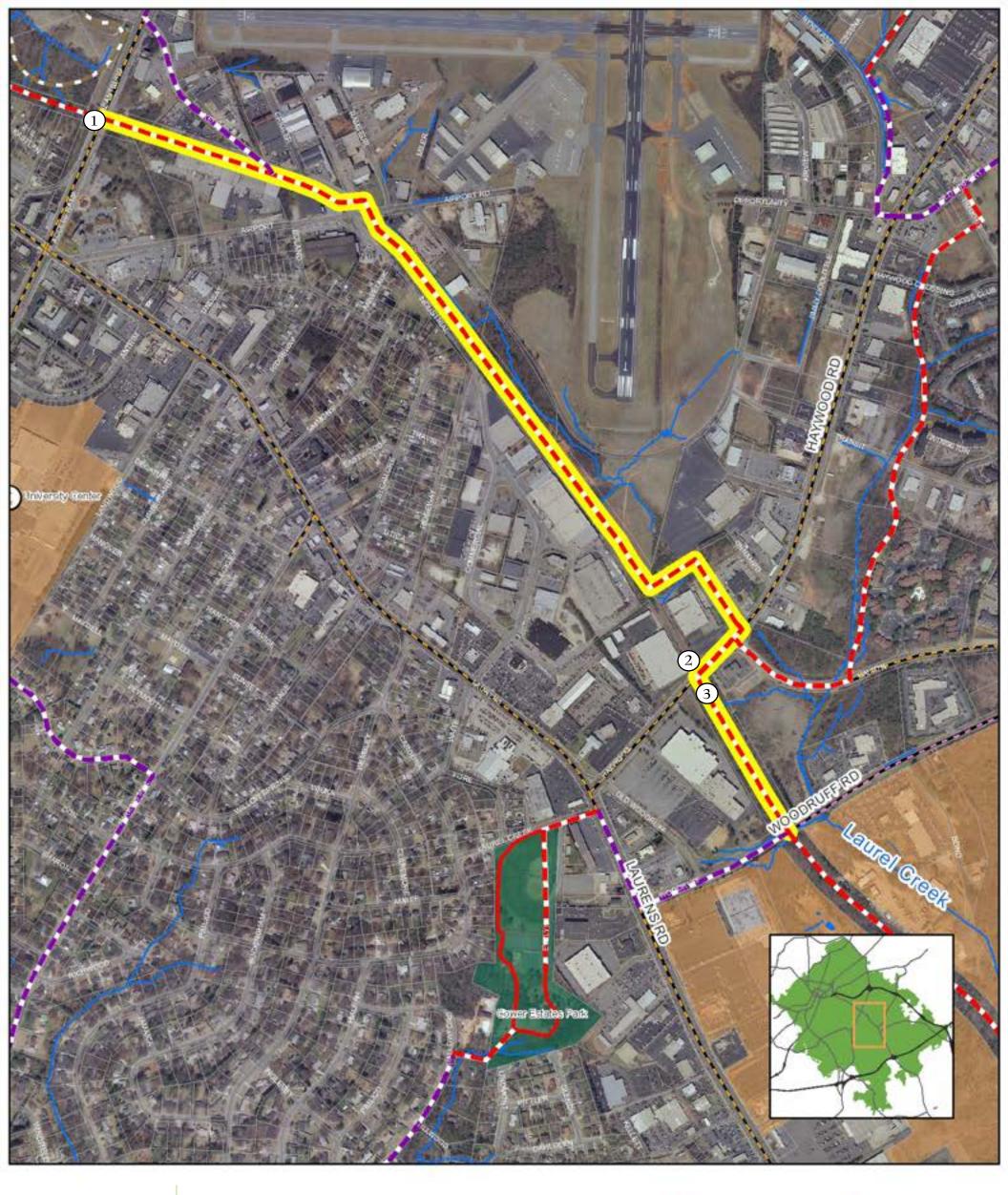


Clearance underneath the Pleasantburg Road bridge.



Rail corridor at Haywood Road, looking north (left) and south (right).

#### proposed network





trails & greenways **master plan** 

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### 8: GreenLink Greenway rail-trail corridor

Trail Type: Greenway Trail Status: Proposed

Data sources: The City and County of Greenville, South Carolina

Featured Trail Segment Greenway Trail - Proposed Greenway Trail - Existing Street Based Trail - Proposed Street Based Trail - Proposed Natural Surface Trail - Proposed Natural Surface Trail - Existing Hike Lane Existing	Destination Point School Road Major Road Interstate 
Bike Lane Proposed     Bike Lane Restripe     Wide Outside Lane Existing     Wide Outside Lane Proposed     Wide Outside Lane Restripe     Paved Shoolder 4' Existing	Destination School Park Water Body Greenville City Extent
<ul> <li>Paved Shoulder 4' Proposed</li> <li>Paved Shoulder 2' Existing</li> <li>Paved Shoulder 2' Proposed</li> <li>Share the Road</li> </ul>	
0	500 1,000

### 9: GreenLink Greenway rail-trail corridor

Start: Woodruff Road End: Millennium Blvd Est. Distance: 1.8 miles

#### **Route Description:**

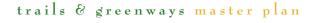
From Woodruff Road, continue south along the rail corridor to Verdae Blvd. As the Verdae property develops, connections to the trail should be made to the future Hollingsworth Legacy Park. At Verdae Blvd, the trail may have to cross 4 lanes of traffic with a center lane. If a bike/ped bridge is cost-prohibitive, then two other options should be considered. One is having a landscaped median with a pedestrian refuge island, including high-visibility crosswalks and a pedestrian activated caution signal (to warn drivers to slow down). Another option is to route the trail to Bonaventure Circle intersection. From Verdae Blvd, continue south to Millennium Blvd.

#### Nearby Destinations:

The Verdae Development, Hollingsworth Legacy Park, J.L. Mann High School, & the Clemson ICAR Campus.

#### Connecting Trails:

- The GreenLink Greenway, towards Downtown to the north.
- The Verdae Trails to the east.
- The ICAR Connector Trail, to South Financial Headquarters.
- The Wenwood Trail, connecting to the Reedy River Corridor
- Proposed trail to Gower Estates Park, continuing on-road southwest to the Reedy River Corridor.
- The Laurel Creek trail, to the Expo Center & Gateway Trails.
- Wide outside lane restripes along Laurens Road
- Bike lane restripe along Woodruff Road.
- Proposed on-road trail and bike lane restripe along Verdae Blvd, connecting to J.L. Mann High School to the west and Verdae points of interest to the east.



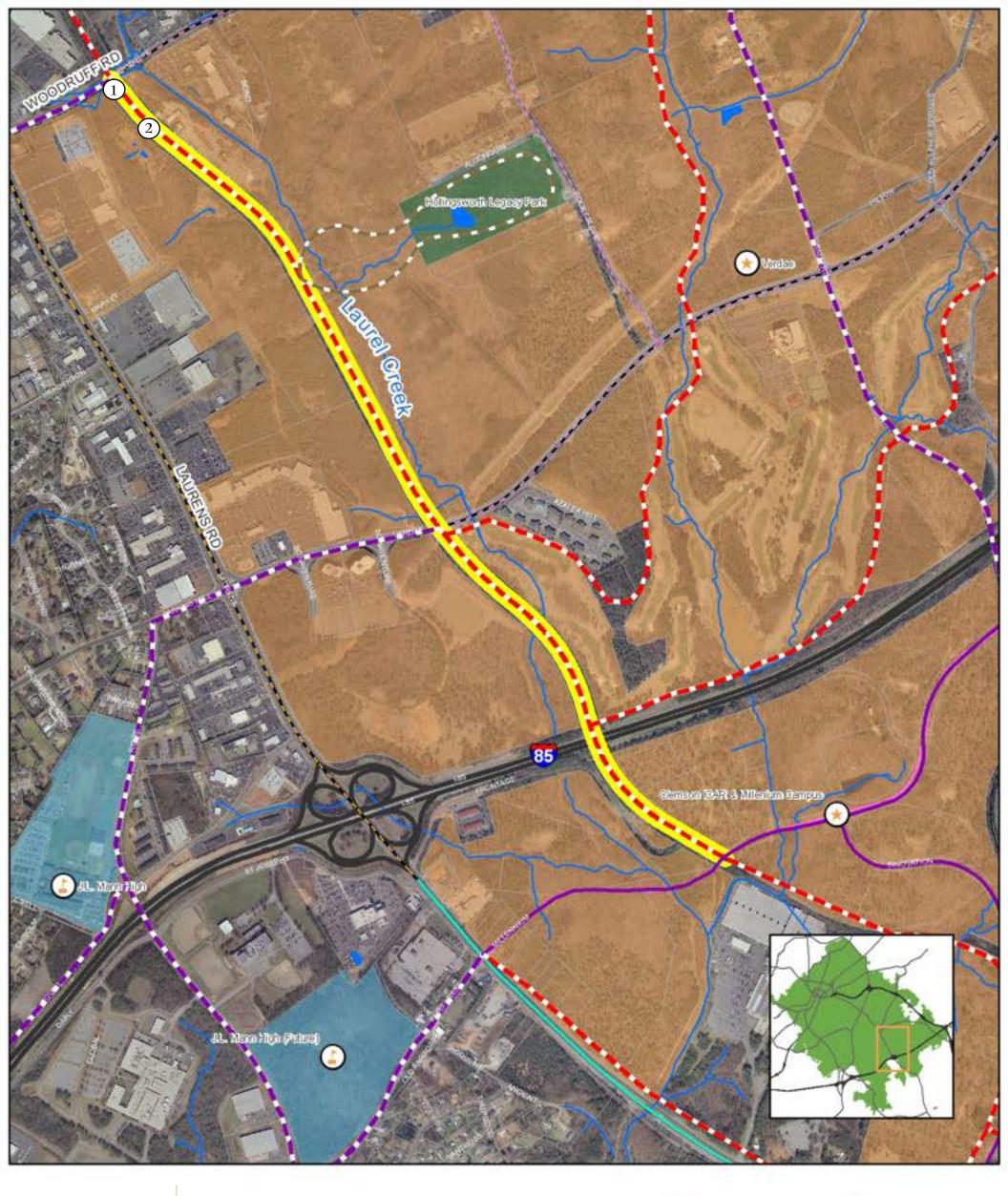


Rail corridor at Woodruff Road, looking north at new bridge construction.



Rail corridor at Woodruff Road, looking south.

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trails & greenways master plan

### 9: GreenLink Greenway rail-trail corridor

Trail Type: Greenway Trail Status: Proposed

chapter three Data sources: The City and County of Greenville, South Carolina

Whe Outstate Line Restripe     Paved Shoulder 4' Proposed     Paved Shoulder 2' Existing     Paved Shoulder 2' Proposed	Featured Trail Segment	$\bigcirc$
<ul> <li>Street Based Trail - Proposed</li> <li>Street Based Trail - Existing</li> <li>Natural Surface Trail - Proposed</li> <li>Natural Surface Trail - Proposed</li> <li>Bike Lane Existing</li> <li>Bike Lane Proposed</li> <li>Bike Lane Restripe</li> <li>Wide Outside Lane Existing</li> <li>Bike Lane Restripe</li> <li>Wide Outside Lane Restripe</li> <li>Paved Shoulder 4' Existing</li> <li>Paved Shoulder 2' Existing</li> <li>Paved Shoulder 2' Proposed</li> <li>Paved Shoulder 2' Proposed</li> </ul>	Greenway Trail - Proposed	<ul> <li>Destination Point</li> </ul>
<ul> <li>Street Based Trail - Proposed</li> <li>Street Based Trail - Existing</li> <li>Natural Surface Trail - Proposed</li> <li>Natural Surface Trail - Existing</li> <li>Bike Lane Existing</li> <li>Bike Lane Proposed</li> <li>Bike Lane Restripe</li> <li>Wide Outside Lane Existing</li> <li>Wide Outside Lane Restripe</li> <li>Paved Shoulder 4' Existing</li> <li>Paved Shoulder 2' Existing</li> <li>Paved Shoulder 2' Proposed</li> <li>Paved Shoulder 2' Proposed</li> </ul>	Greenway Teal - Existing	
<ul> <li>Street Based Teal - Existing</li> <li>Natural Surface Teal - Proposed</li> <li>Natural Surface Teal - Existing</li> <li>Bike Lane Existing</li> <li>Bike Lane Proposed</li> <li>Bike Lane Restripe</li> <li>Wide Outside Lane Existing</li> <li>Wide Outside Lane Restripe</li> <li>Wide Outside Lane Restripe</li> <li>Paved Shoulder 4' Proposed</li> <li>Paved Shoulder 2' Existing</li> <li>Paved Shoulder 2' Proposed</li> <li>Paved Shoulder 2' Proposed</li> </ul>	Street Based Trail - Proposed	
<ul> <li>Natural Surface Trail - Proposed</li> <li>Natural Surface Trail - Existing</li> <li>Bike Lane Existing</li> <li>Bike Lane Proposed</li> <li>Bike Lane Restripe</li> <li>Wide Outside Lane Existing</li> <li>Wide Outside Lane Restripe</li> <li>Wide Outside Lane Restripe</li> <li>Paved Shoulder 4' Proposed</li> <li>Paved Shoulder 2' Existing</li> <li>Paved Shoulder 2' Proposed</li> </ul>	Street Based Trail - Existing	(1033) (A. 1997)
<ul> <li>Natural Surface Trail - Existing</li> <li>Bike Lane Existing</li> <li>Bike Lane Proposed</li> <li>Bike Lane Restripe</li> <li>Wide Outside Lane Existing</li> <li>Wide Outside Lane Restripe</li> <li>Wide Outside Lane Restripe</li> <li>Paved Shoulder 4' Proposed</li> <li>Paved Shoulder 2' Existing</li> <li>Paved Shoulder 2' Proposed</li> </ul>	Natural Surface Trail - Proposed	
<ul> <li>Bike Lane Existing</li> <li>Bike Lane Proposed</li> <li>Bike Lane Restripe</li> <li>Wide Outside Lane Existing</li> <li>Wide Outside Lane Proposed</li> <li>Wide Outside Lane Restripe</li> <li>Paved Shoulder 4' Proposed</li> <li>Paved Shoulder 2' Existing</li> <li>Paved Shoulder 2' Proposed</li> </ul>	- Natural Surface Trail - Existing	
<ul> <li>Bike Lane Proposed</li> <li>Bike Lane Restripe</li> <li>Wide Outside Lane Existing</li> <li>Wide Outside Lane Proposed</li> <li>Wide Outside Lane Restripe</li> <li>Paved Shoulder 4' Existing</li> <li>Paved Shoulder 2' Existing</li> <li>Paved Shoulder 2' Proposed</li> </ul>	- Pike Lane Existing	
<ul> <li>Bike Lane Restripe</li> <li>Wide Outside Lane Existing</li> <li>Wide Outside Lane Proposed</li> <li>Wide Outside Lane Restripe</li> <li>Paved Shoulder 4' Existing</li> <li>Paved Shoulder 4' Proposed</li> <li>Paved Shoulder 2' Existing</li> <li>Paved Shoulder 2' Proposed</li> </ul>	- Bike Lane Proposed	
<ul> <li>Wide Outside Lane Existing</li> <li>Wide Outside Lane Proposed</li> <li>Wide Outside Lane Restripe</li> <li>Paved Shoulder 4' Existing</li> <li>Paved Shoulder 4' Proposed</li> <li>Paved Shoulder 2' Existing</li> <li>Paved Shoulder 2' Proposed</li> </ul>	- Bike Lane Restripe	
Wide Outside Lane Proposed  Wide Outside Lane Restripe  Paved Shoulder 4' Existing  Paved Shoulder 2' Existing  Paved Shoulder 2' Existing  Paved Shoulder 2' Proposed		Park
<ul> <li>Wide Outside Lane Restripe</li> <li>Paved Shoulder 4' Existing</li> <li>Paved Shoulder 4' Proposed</li> <li>Paved Shoulder 2' Existing</li> <li>Paved Shoulder 2' Proposed</li> </ul>	- Wide Outside Lane Proposed	Water Body
Paved Shoulder 4 Existing     Paved Shoulder 4 Proposed     Paved Shoulder 2 Existing     Paved Shoulder 2 Proposed	- Wide Outside Lane Restripe	Greenville City Exter
Paved Shoulder 2' Existing     Paved Shoulder 2' Proposed	- Paved Shoulder 4' Existing	
- Paved Shoulder 2' Existing - Paved Shoulder 2' Proposed	<ul> <li>Paved Shoulder 4' Proposed</li> </ul>	
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Share the Road	Paved Shoulder 2' Proposed	
	- Share the Road	
	0	500 1.000
0 500 1.000	2	
		Feet

### 10: Richland Trail South richland creek corridor

Start: Cleveland Park End: Mohawk Drive Est. Distance: 1.3 miles

Route Description:

The trail begins northern corner of Cleveland Park and extends north from existing trails in the park. The trail should follow the west side of Richland Creek from Cleveland Park, under Washington Street to an existing pedestrian bridge near Ebaugh Street. In Cleveland Park, the trail travels north under Washington Street, utilizing a large culvert under the west end of the bridge over Richland Creek. From Ebaugh Street the trail transitions to an on-road environment and should follow Laurens Road to Interstate 385. Trail routing should utilize the upgraded pedestrian crossings located on the west side of Laurens Road under Interstate 385. As the trail approaches North Avenue, the McPherson Park Connector Trail extends to the west along Park Avenue and the Gateway Trail extends to the east. The Richland Creek Trail crosses Stone Avenue and returns to an off-road environment. The trail continues north utilizing a sewer corridor that flanks Richland Creek between Terrace Drive and Stone Avenue. Near Mt. Zion Street, the trail corridor turns west and crosses Wade Hampton Boulevard and a trail connects to Timmons Park via Hellams Community Center. From Wade Hampton Boulevard the main trail extends north, following Richland Creek to the intersection of Mohawk Drive and Chick Springs Road. From this point a neighborhood connector spur extends to the northwest, while the Richland Creek Trail continues north.

#### Nearby Destinations:

Cleveland Park, Greenville Zoo, Timmons Park, North Main Park, Railroad Mini Park, Overbrook Child Development Center, Hellams Community Center, & Haynesworth Private School

#### Connecting Trails:

- Proposed Richland Creek Trail North to Summit Drive Elem.
- Proposed GreenLink Greenway to Clemson ICAR
- Proposed Gateway Trail to Carolina First Center
- Proposed McPherson Park Connector Trail
- Proposed Downtown Connector Trail
- Proposed North Main Park Connector Trail
- Proposed Timmons Park Connector Trail

• Proposed on-road bicycle facilities on Laurens Road, North Street & Chick Springs Road



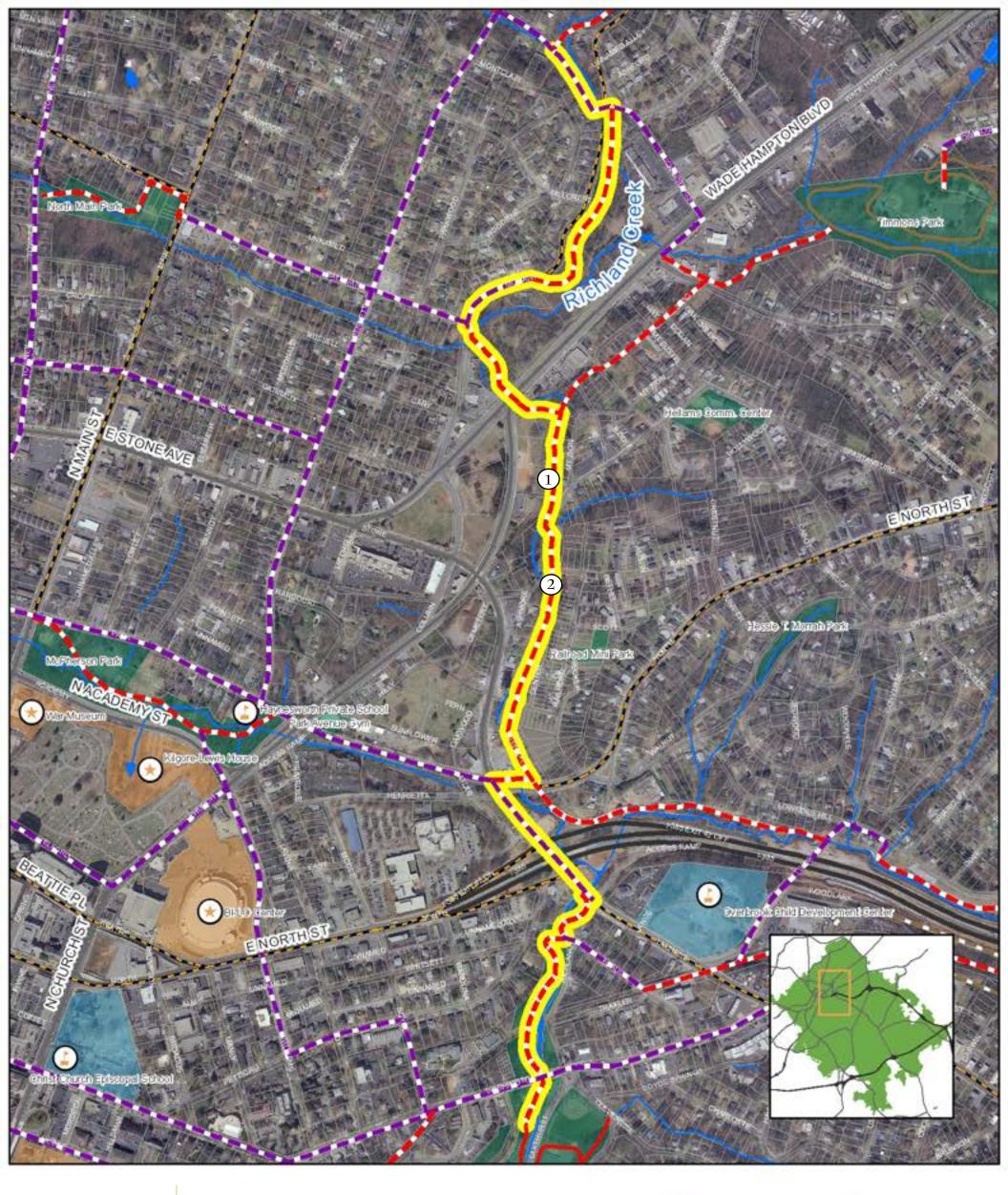
Sewer easement along Richland Creek, between Wade Hampton Blvd and Spartanburg St.



Sewer easement along Richland Creek, between Spartanburg Street and Hilly Street.

#### chapter three

#### proposed network





trails & greenways master plan 10: Richland Trail South richland creek corridor

**Trail Type:** Greenway Trail & Street Based Trail **Status:** Proposed

Featured Trail Segment Destination Point -- Greenway Trail - Proposed School Greenway Teal - Existing -- Street Based Trail - Proposed - Road Street Based Trail - Existing - Major Road -- Natural Surface Teal - Proposed laterstate - Natural Surface Trail - Existing --- Railroad - Bike Lane Existing Destination - - Bike Lane Proposed School. - Bike Lane Restripe Park ----- Wide Outside Lane Existing Water Body -- Wide Outside Lane Proposed ---- Wide Outside Lane Restripe - Paved Shoulder 4' Existing - Paved Shoulder 4' Proposed

- Paved Shoulder 2' Existing
- - Paved Shoulder 2' Proposed

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---- Share the Road



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chapter three

Data sources: The City and County of Greenville, South Carolina

#### trails & greenways master plan

### 11: Richland Trail North richland creek corridor

Start: Mohawk Drive End: N. Pleasantburg Drive Est. Distance: 1.7 miles

#### **Route Description:**

The trail begins at the intersection of Mohawk Drive and Chick Springs Road and follows along Richland Creek to Poinsettia Place. After crossing Poinsettia Place, the trail continues north on the east side of Richland Creek following a sewer corridor to Rutherford Road. After crossing Rutherford Road, the trail continues by following Richland Creek north to Croftstone Park. A connection from the city trail network to future regional trails exists at the northern end of the Richland Creek Trail. Connecting the trail from Croftstone Park to North Pleasantburg Road via a sewer corridor behind the BI-LO grocery store can provide a potential link to destinations north of Greenville and beyond.

#### Nearby Destinations:

Timmons Park, Holmes Park, Croftstone Park, University Park, Summit Drive Elementary, & League Middle School

#### Connecting Trails:

- Proposed Richland Creek Trail South to Cleveland Park
- Proposed Holmes Park Connector Loop to Bob Jones University
- Proposed Summit Drive Connector Trail
- Proposed Timmons Park Connector Trail
- Proposed on-road bicycle facilities on North Pleasantburg Drive
- Proposed on-road bicycle facilities on Rutherford Road
- Proposed on-road bicycle facilities on Chick Springs Road

#### chapter three



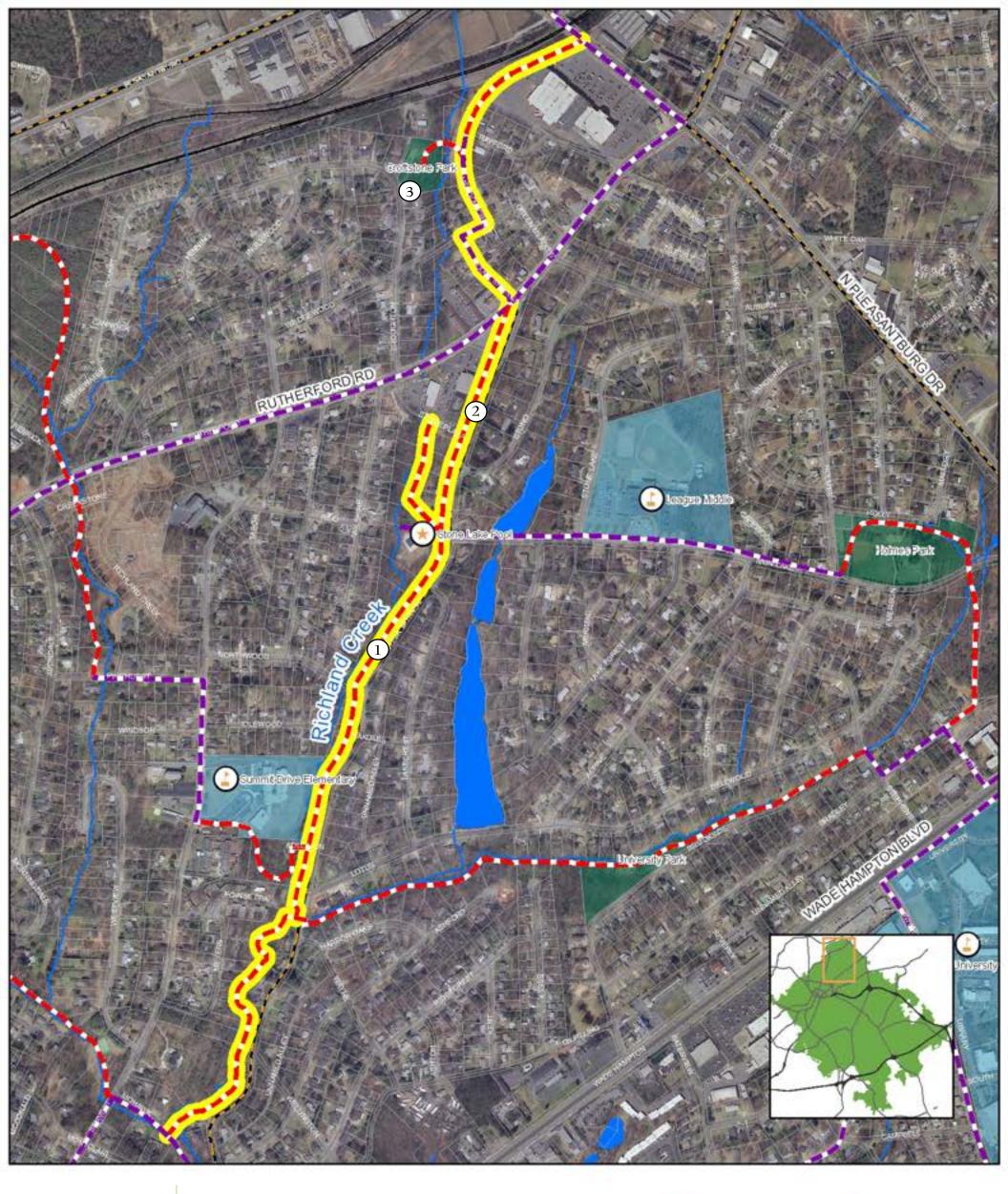
Sewer corridor along Richland Creek and Chick Springs Road.



Cyclist on Chick Springs Road, near the proposed trail.



Croftstone Park.





trails & greenways **master plan**  11: Richland Trail North richland creek corridor

Trail Type: Greenway Trail Status: Proposed

chapter three Data sources: The City and County of Greenville, South Carolina

	Featured Trial Segment	$\bigcirc$		
	Greenway Trail - Proposed	O De	stinution P	sist
_	Greenway Teal - Existing	0.	loor	
	Street Based Trail - Proposed	1000		
_	Street Based Trail - Existing	- Ros		
	Natural Surface Trail - Proposed		or Road	
_	Natural Surface Trail - Existing		ritate	
_	Pike Lone Existing	- Rail	2020.000	
	Bike Lane Proposed		tination	
-	Bike Lane Restripe	Sch	lool	
_	Wide Outside Lane Existing	Pad	k	
	Wide Outside Lane Proposed		er Body	
	Wide Outside Lane Restripe	Gee	enville City	Exter
_	Paved Shoulder 4' Existing			
••	Paved Shoulder 4' Proposed	(		
_	Paved Shoulder 2' Existing		PA)	
	Paved Shoulder 2' Proposed			
-	Share the Road			
	0	500		1.00

#### trails & greenways master plan

### 12: West End Trail brushy creek corridor

Start: Reedy Falls Park End: Mills Avenue Est. Distance: 1.8 miles

#### **Route Description:**

From Reedy Falls Park, follow on-road trail along South Main Street to the Baseball Stadium. Use sidewalks and the "Share-the-Road" system for bikes. From the Baseball Stadium, follow Green Avenue past Greenville High School, cross Dunbar Street, and continue to Guess Road. From the Green Ave./Guess Rd. intersection, head south over the RR tracks to the Mills Mill Complex. As an on-street connector, the sidewalks on Guess Road will need to be upgraded. The RR crossing will require special attention for the general safety of cyclists and pedestrians. Once at Mills Mill, this on-road connector could transition to an off-road trail behind the Mills Mill parking lot (along the Brushy Creek and the parallel sewer easement), to Mills Avenue.

#### Nearby Destinations:

Downtown Greenville, Falls Park, Baseball Stadium, Butler Community Center, Greenville High School, & Mills Mill.

#### Connecting Trails:

- Trails in the Brushy Creek Corridor.
- Trails in the Reedy River Corridor
- Bike lanes on River Street, connecting to Linky Stone Park.
- Proposed wide outside lane restripes on Main Street, Pendleton Street, & Anderson Street.
- Proposed bike lane on Camperdown Road.
- Bike Lane Restripe on Dunbar Street



Sidewalk along Green Avenue

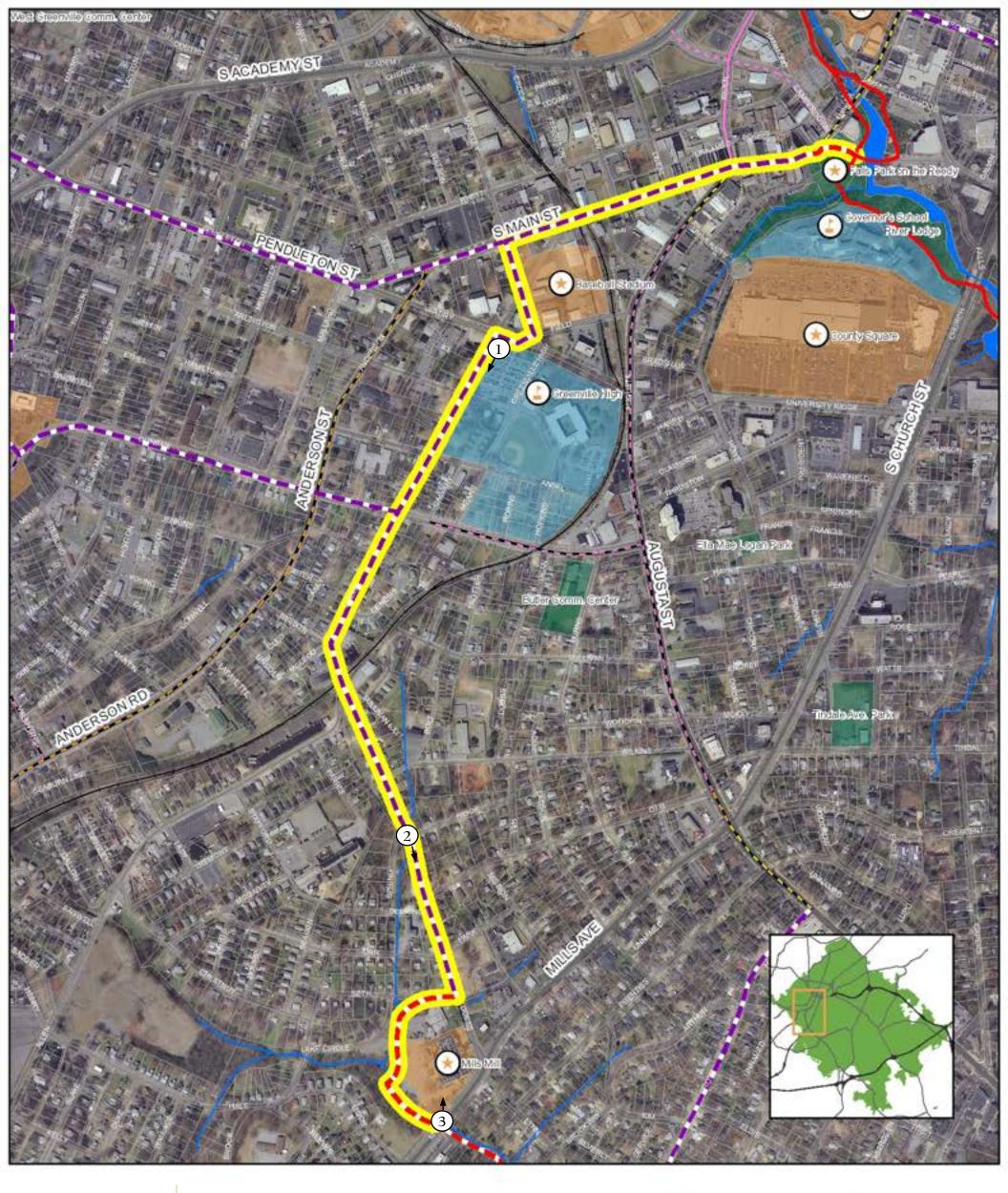


Guess Road.





#### chapter three





trails & greenways master plan

### 12: West End Trail brushy creek corridor

**Trail Type:** Street Based Trail & Greenway Trail **Status:** Proposed

Destination Point Featured Trail Segment -- Greenway Trail - Proposed School ---- Greenway Teal - Existing -- Street Based Trail - Proposed - Road Street Based Trail - Existing - Major Road -- Natural Surface Teal - Proposed - Interstate - Natural Surface Trail - Existing --- Railroad - Bike Lane Existing Destination - - Bike Lane Proposed School. - Bike Lane Restripe Park ----- Wide Outside Lane Existing Water Body -- Wide Outside Lane Proposed Greenville City Extent ---- Wide Outside Lane Restripe - Paved Shoulder 4' Existing - Paved Shoulder 4' Proposed - Paved Shoulder 2' Existing - - Paved Shoulder 2' Proposed ---- Share the Road

chapter three

Data sources: The City and County of Greenville, South Carolina

500 Feet 1,000

#### trails & greenways master plan

### 13: Brushy Creek Trail North brushy creek corridor

Start: Mills Avenue End: W. Faris Road Est. Distance: 0.8 miles

#### Route Description:

From Mills Avenue, follow Brushy Creek to Grove Road. Cross Grove Road at the Hawthorne intersection. In order to continue to Faris Road, a partnership could be established between the City of Greenville and the Greenville Hospital System, based on the relationship between trails, active living and health.

#### Nearby Destinations:

Mills Mill, the Greenville Hospital System, the Augusta Commercial Corridor, & August Circle Elementary.

#### Connecting Trails:

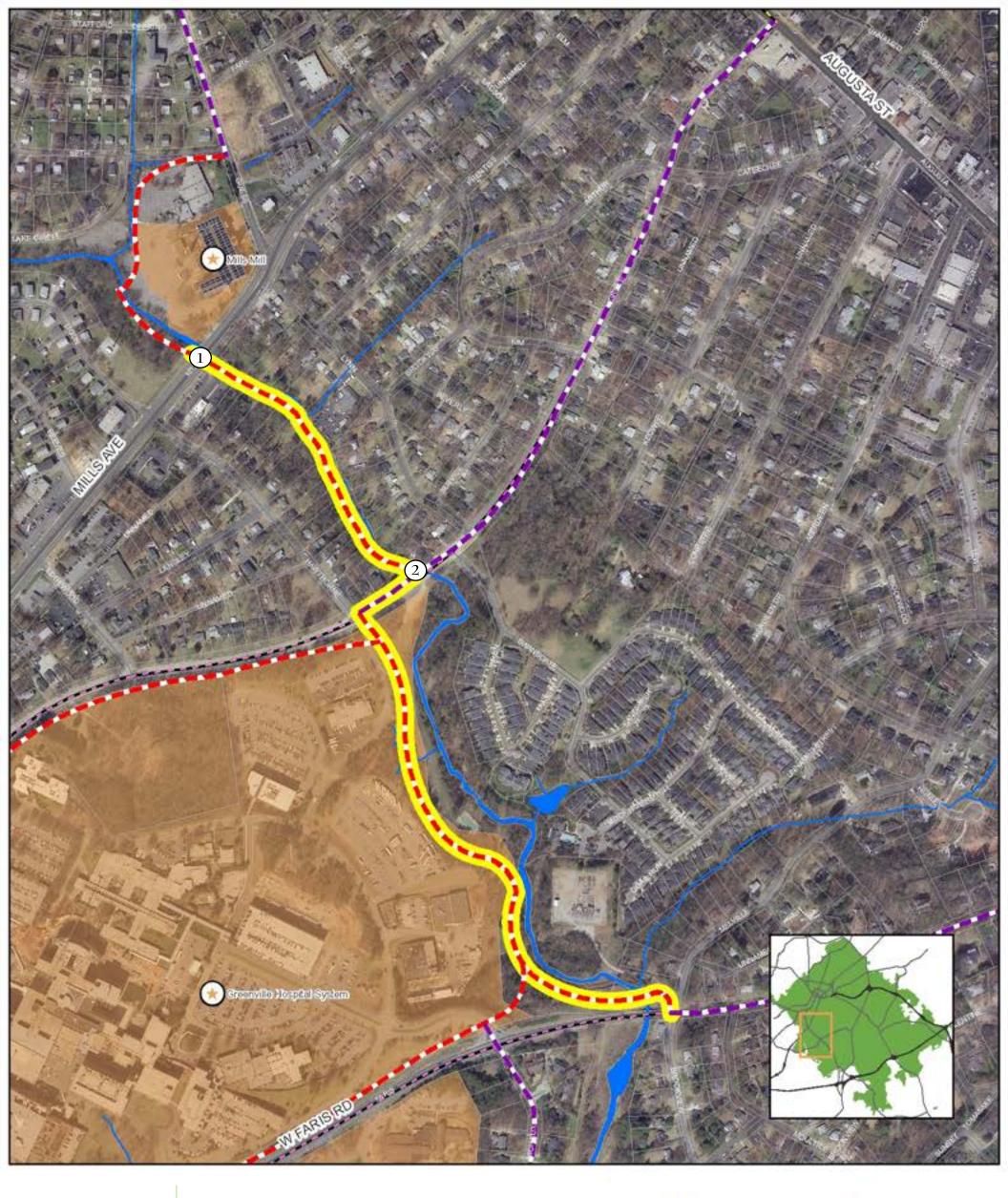
- The West End Connector to the north, connecting to Downtown Greenville, Greenville High, the Baseball Stadium & the Reedy River Corridor.
- Trails in the Brushy Creek Corridor, south to Lake Conestee.
- Bike lane restripes along Grove Road & Faris Road, connecting to the Augusta Commercial Corridor & Augusta Circle Elementary.



Brushy Creek near Mills Avenue.



Brushy Creek Corridor near W. Faris Road.





trails & greenways master plan

13: Brushy Creek Trail North brushy creek corridor

Trail Type: Greenway Trail & Street Based Trail Status: Proposed

Destination Point Featured Trail Segment -- Greenway Trail - Proposed School ---- Greenway Teal - Existing -- Street Based Trail - Proposed - Road Street Based Trail - Existing - Major Road -- Natural Surface Teal - Proposed laterstate - Natural Surface Trail - Existing --- Raileoad - Bike Lane Existing - - Bike Lane Proposed - Bike Lane Restripe ----- Wide Outside Lane Existing -- Wide Outside Lane Proposed ---- Wide Outside Lane Restripe - Paved Shoulder 4' Existing - Paved Shoulder 4' Proposed

- Paved Shoulder 2' Existing
- - Paved Shoulder 2' Proposed
- ---- Share the Road





chapter three

Data sources: The City and County of Greenville, South Carolina

#### trails & greenways master plan

### 14: Brushy Creek Trail South brushy creek corridor

Start: Faris Road End: I-85 Est. Distance: 3.2 miles

#### **Route Description:**

From Bushy Creek at Faris Road, follow Faris Road sidewalks and future bike lanes east and cross at the Winyah Street intersection (this intersection has existing sidewalks on both sides and connects directly to Augusta Circle Elementary). Use sidewalks & the sharedroad environment past the school to Waccamaw Avenue, then around Meyers Drive, and then south along Rockwood Drive. Off of Rockwood Drive, there is a utility road that can provide access back to the offroad trail system (through an easement running along the golf course.) Follow easement to Penrose/Chapman Road. Access across Chapman Road will likely be at-grade, but should be evaluated further in the field. From Chapman Road, follow easement corridors south to the city limits near Prosperity Avenue. From Prosperity Avenue, the Brushy Creek Greenway could link into a future city-county trail connection, going underneath Interstate 85.

#### Nearby Destinations:

The Greenville Hospital System, the Augusta Commercial Corridor, August Circle Elementary, Rockwood Park, Blythe Elementary, Kiwanis Park, & Hughs Middle School.

#### Connecting Trails:

- The Brushy Creek Corridor, to the north, connecting to downtown destinations.
- The Brushy to Reedy Trail, connecting to both the Reedy Corridor Trails and the Rail-Trail Corridor.
- Bike lane restripes along Faris Road, connecting to the Augusta Commercial Corridor.



Rockwood Avenue



Sewer easement near Pacific Avenue.



Brushy Creek Corridor, near Prosperity Avenue.

#### chapter three





trails & greenways master plan 14: Brushy Creek Trail South brushy creek corridor

**Trail Type:** Greenway Trail & Street Based Trail **Status:** Proposed

Destination Point Featured Trail Segment -- Greenway Trail - Proposed School - Greenway Teal - Existing -- Street Based Trail - Proposed - Road Street Based Trail - Existing - Major Road -- Natural Surface Teal - Proposed laterstate - Natural Surface Trail - Existing --- Railroad - Bike Lane Existing Destination - - Bike Lane Proposed School. - Bike Lane Restripe Park. ----- Wide Outside Lane Existing Water Body -- Wide Outside Lane Proposed Greenville City Extent ---- Wide Outside Lane Restripe - Paved Shoulder 4' Existing - Paved Shoulder 4' Proposed - Paved Shoulder 2' Existing - - Paved Shoulder 2' Proposed --- Share the Road

> 0 500 1,000 Feet

chapter three

Data sources: The City and County of Greenville, South Carolina

#### trails & greenways master plan

### 15: Brushy to Reedy Trail brushy creek corridor

Start: Interstate 85 End: Reedy River Est. Distance: 1.6 miles

Route Description: From Interstate 85, follow Brushy Creek east to the Reedy River.

#### Nearby Destinations:

Hughs Middle School, Lake Conestee, the Greenville Municipal Stadium, and the Wenwood Soccer Complex.

#### Connecting Trails:

- The Brushy Creek Corridor, to the north, connecting to downtown destinations, the hospital system, and schools.
- Trails in the Reedy River Corridor, connecting to Greenville Tech, the ICAR campus, and the GreenLink Greenway Corridor.
- Wide outside lane restripe on Augusta Road.



I-85 bridge over Brushy Creek.



S. Pleasant burg Drive Bridge over Brushy Creek.





trails & greenways master plan

chapter three

15: Brushy to Reedy Trail brushy creek corridor

Trail Type: Greenway Trail Status: Proposed

Data sources: The City and County of Greenville, South Carolina

	Featured Trail Segment	0
	Greenway Trail - Proposed	Destination Point
	Greenway Teal - Existing Street Based Teal - Proposed	School
-	Street Based Teal - Existing Natural Surface Teal - Proposed	Road Major Road
-	Natural Surface Trail - Existing Bike Lane Existing	Raileoad
	Bike Lane Proposed Bike Lane Restripe	Destination School
	Wide Outside Lane Existing Wide Outside Lane Proposed	Water Body
-	Wide Outside Lane Restripe Paved Shoulder 4' Existing	Greenville City Extent
	Paved Shoulder 4' Proposed Paved Shoulder 2' Existing	A
	Paved Shoulder 2' Proposed Share the Road	
	0	500 1,000

#### trails & greenways master plan

### 16: McPherson Connector gateway corridor

Start: North Main Street End: E. Stone Avenue and Washington Street Est. Distance: 1.5 miles (both spurs)

#### **Route Description:**

• Starting from Richardson Street, head east to McPherson Park. At North Main Street, follow existing trail and Park View Road east through the park and connect to E. Park Avenue through the Church Street underpass. Heading east, this path would then tie into sidewalk approaching the intersection of E. Park Avenue and E. Stone Avenue (a pedestrian activated signal and high visibility crosswalks would help provide a connection across the intersection).

• Another on-road portion of this trail connect McPherson Park to Cleveland Park along Academy Street.

#### Nearby Destinations:

McPherson Park, War Museum, Kilgore-Lewis House, Haynesworth Private School, Park Avenue Gym, the BI-LO Center, Downtown Greenville, Christ Church Episcopal School, Cleveland Park, Cleveland Zoo, Overbrook Child Development Center, & Heritage Green.

#### Connecting Trails:

- Trails in the Gateway Corridor.
- Trails in the Reedy River Corridor.
- Trails in the Richland Creek Corridor.
- The GreenLink Greenway Corridor
- The Downtown Connector Trail
- Proposed on-road trail along Richardson St., connecting to Downtown and Falls Park.
- Wide outside lane restripes along N. Main (connecting to North Main Park) & along E North Street (to E. North Elementary).
- Proposed bike lane along Park Avenue





McPherson Park.

Church St. underpass with sidewalk.

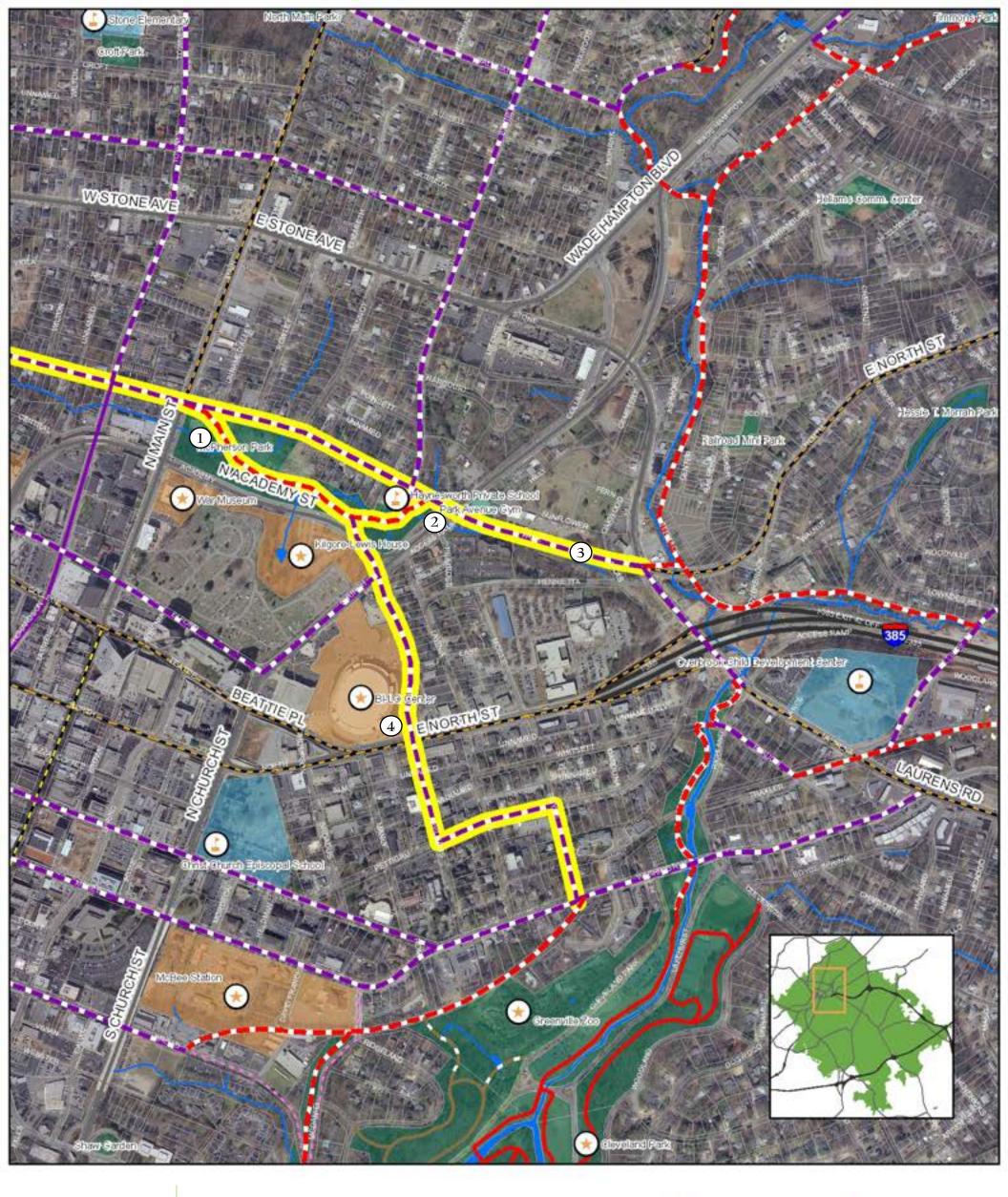


Landscaped office park along E. Park Avenue.



BI-LO Center.

#### chapter three





trails & greenways **master plan** 

### 16: McPherson Connector gateway corridor

**Trail Type:** Greenway Trail & Street Based Trail **Status:** Proposed

Featured Trail Segment Destination Point -- Greenway Trail - Proposed School Greenway Teal - Existing -- Street Based Trail - Proposed - Road Street Based Trail - Existing - Major Road -- Natural Surface Teal - Proposed laterstate - Natural Surface Trail - Existing --- Railroad - Bike Lane Existing Destination - - Bike Lane Proposed School. - Bike Lane Restripe Park ----- Wide Outside Lane Existing Water Body -- Wide Outside Lane Proposed Greenville City Extent ---- Wide Outside Lane Restripe - Paved Shoulder 4' Existing - Paved Shoulder 4' Proposed - Paved Shoulder 2' Existing - - Paved Shoulder 2' Proposed ---- Share the Road

> 0 500 1,000 Feet

chapter three

Data sources: The City and County of Greenville, South Carolina

#### trails & greenways master plan

### 17: Gateway Trail West gateway corridor

Start: E. Stone Avenue End: Arbutus Trail Est. Distance: 1.0 miles

#### Route Description:

From Stone Avenue the trail crosses Richland Creek and extends east along the north side of Interstate 385, utilizing a utility corridor. The off-road trail continues to Hillside Drive and briefly joins Lowndes Hill Road then returns to the utility corridor. Near Arbutus Trail, the trail crosses Lowndes Hill Road and continues north.

#### Nearby Destinations:

Cleveland Park, Greenville Zoo, Hessie T. Morrah Park, Overbrook Child Development Center, East North Street Elementary, Historic Overbrook neighborhood & Greenville Middle School

#### Connecting Trails:

- Proposed Richland Creek Trail, connecting to Cleveland Park and Greenville Zoo
- Proposed Gateway Trail East, connecting to the Carolina First Center and Downtown Airport
- Proposed McPherson Park Connector Trail, connecting to McPherson Park
- Proposed on-road bicycle facilities Hillside Drive, connecting to the GreenLink Greenway
- Proposed on-road bicycle facilities East North Street, connecting to Bob Jones University



Sewer and power line easement along Lowndes Hill Road (looking west).



Sewer and power line easement along Lowndes Hill Road (looking east).





trails & greenways master plan

chapter three

### 17: Gateway Trail West gateway corridor

Trail Type: Greenway Trail Status: Proposed

Data sources: The City and County of Greenville, South Carolina

Featured Trail Segment	Destination Point
Greenway Trail - Proposed	C Destanción roan
Greenway Teal - Existing	School
Street Based Teal - Proposed	- Road
Street Based Trail - Existing	
Natural Surface Trail - Proposed	- Major Road
- Natural Surface Trail - Existing	- Interstate
- Bike Lane Existing	Raileoad
Bike Lane Proposed	Destination
- Bike Lane Restripe	School
	Park Park
Wide Outside Lane Proposed	Water Body
Wide Outside Lane Restripe	Greenville City Extent
- Paved Shoulder 4' Existing	-
<ul> <li>Paved Shoulder 4' Proposed</li> </ul>	
- Paved Shoulder 2' Existing	
Paved Shoulder 2' Proposed	
Share the Road	
	500 1.000
0	500 1,000

### 18: Gateway Trail East gateway corridor

Start: Lowndes Hill Road End: Villa Road & Lowndes Hill Road Est. Distance: 2.3 miles

#### **Route Description:**

From Lowndes Hills Road (near Arbutus Trail) the trail extends northwest along a stream and utility corridor towards Greenville Middle School. The trail continues by crossing Lockwood Avenue and Keith Drive respectively before linking to a large utility corridor that parallels the south sides of Erskine Street and Fisher Drive. The trail corridor intersects North Pleasantburg Drive and transitions into an on-road environment following Villa Drive east along Interstate 385.

#### Nearby Destinations:

East North Street Elementary, Greenville Middle School, Bob Jones University, Carolina First Center, & Downtown Airport

#### Connecting Trails:

- Proposed Bob Jones Connector Trail
- Proposed Gateway Trail West, connecting to the Richland Creek Trail
- Proposed Laurel Creek Trail, connecting to Haywood Mall and GreenLink Greenway
- Proposed Carolina First Center Spur Trail

#### trails & greenways master plan



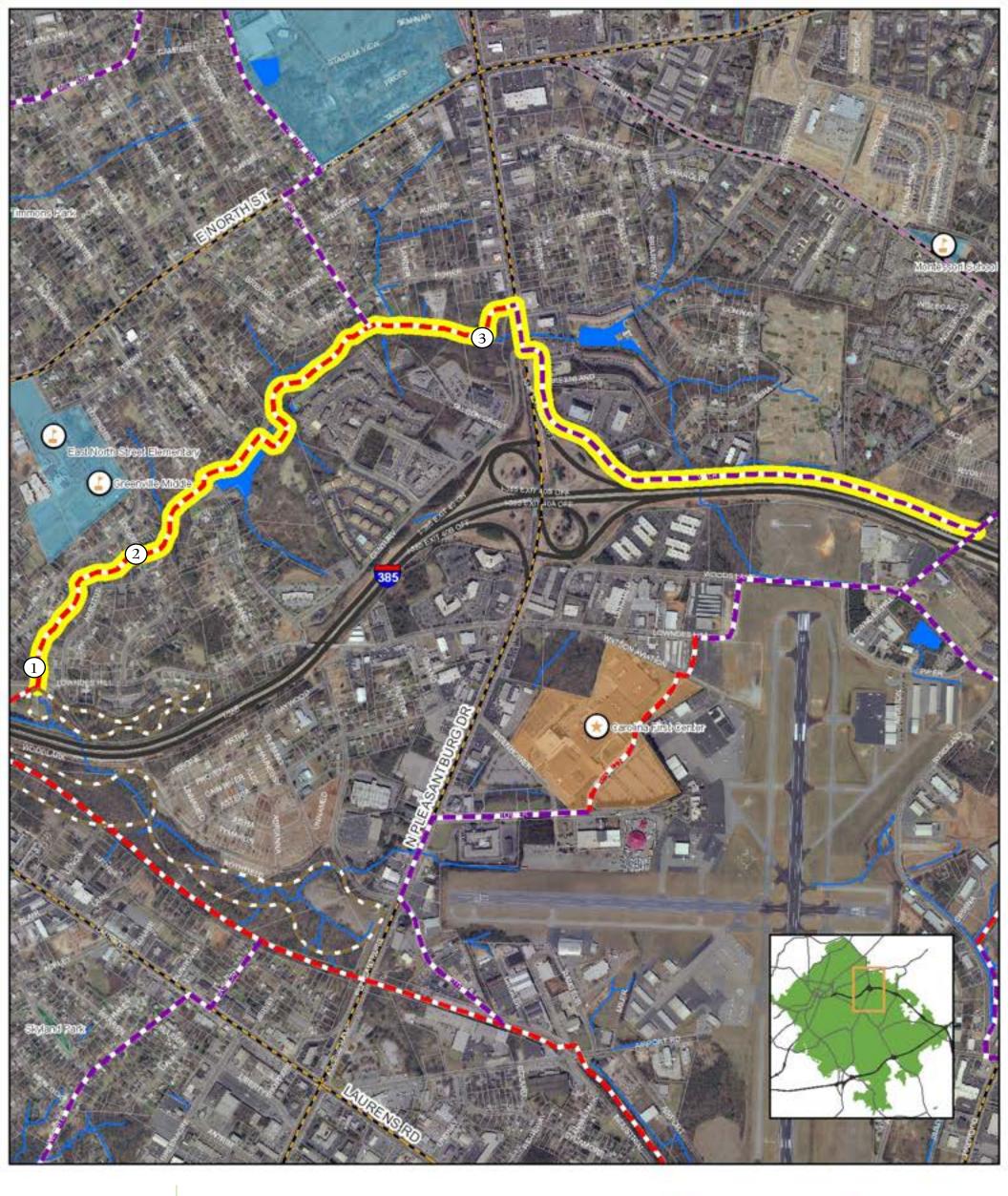
Looking north into sewer and power line easements from Lowndes Hill Road.



Easement at Lockwood Avenue, looking west.



Proposed trail corridor west of N. Pleasantburg Drive.





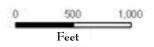
trails & greenways master plan

### 18: Gateway Trail East gateway corridor

**Trail Type:** Greenway Trail & Street Based Trail **Status:** Proposed

Destination Point Featured Trail Segment -- Greenway Trail - Proposed School ---- Greenway Teal - Existing -- Street Based Trail - Proposed - Road Street Based Trail - Existing - Major Road -- Natural Surface Teal - Proposed laterstate - Natural Surface Trail - Existing ---- Raileoad - Bike Lane Existing Destination - - Bike Lane Proposed School. - Bike Lane Restripe Park ----- Wide Outside Lane Existing Water Body -- Wide Outside Lane Proposed Greenville City Extent ---- Wide Outside Lane Restripe - Paved Shoulder 4' Existing - Paved Shoulder 4' Proposed - Paved Shoulder 2' Existing - - Paved Shoulder 2' Proposed

---- Share the Road



chapter three

Data sources: The City and County of Greenville, South Carolina

## 19: Laurel Creek Trail rail-trail corridor

Start: Lowndes Hill Road & Woods Lake Road End: Haywood Road & Millennium Rail Trail Est. Distance: 2.2 miles

#### Route Description:

As Villa Drive curves to the north, the proposed trail turns south and crosses Interstate 385 via a bicycle and pedestrian bridge that links to Lowndes Hill Road at Woods Lake Road. To the west, a spur trail wraps around the Downtown Airport and links to the Carolina First Center, via Woods Lake Road, Lowndes Hill Road and Exposition Drive. The Laurel Creek mainline follows Woods Lake Road from Lowndes Hill Road to Congaree Road. The trail then turns south and parallels Laurel Creek to Byrdland Drive. From Byrdland Drive, the trail crosses Haywood Road and follows Old Airport Road to Timmons Drive. From Timmons Drive the trail rejoins Laurel Creek and continues south to Halton Road, utilizing a sewer corridor. At Halton Road the trail links to the GreenLink Greenway.

#### Nearby Destinations:

Carolina First Center, Downtown Airport, and Haywood Mall

#### Connecting Trails:

- Existing Fluor Daniel trails, connecting to business park
- Proposed Gateway Trail to Downtown Greenville
- Proposed GreenLink Greenway to Clemson ICAR
- Proposed on-road bicycle facilities on Haywood Road to Haywood Mall
- Proposed on-road bicycle facilities on Halton Road

#### trails & greenways master plan



Sidepath opportunity along Woods Lake Road.



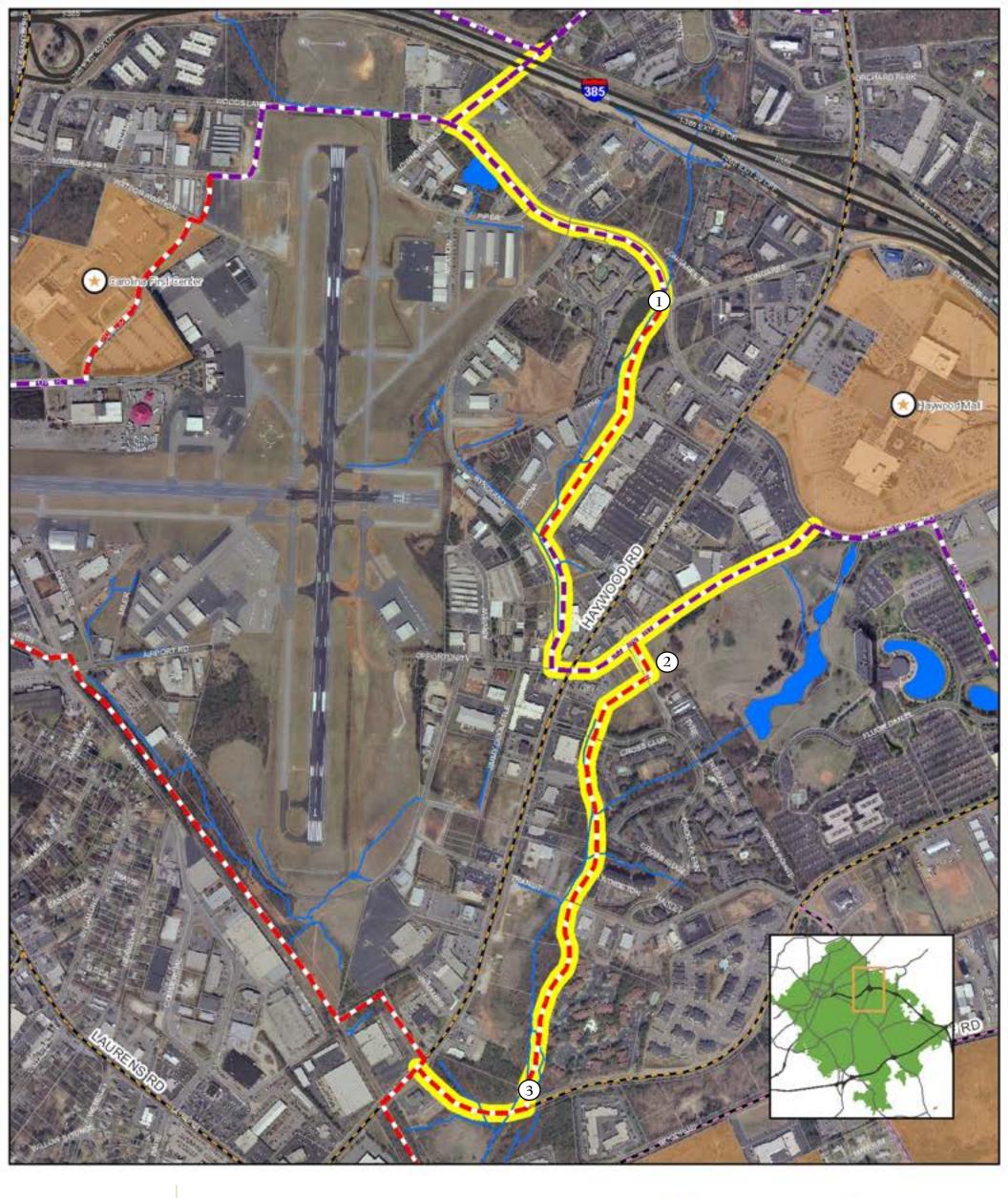
Existing office park trails near Old Airport Road.



Easement at Hallton Road, looking north.

#### chapter three

#### proposed network





trails & greenways master plan 19: Laurel Creek Trail rail-trail corridor

**Trail Type:** Greenway Trail & Street Based Trail **Status:** Proposed

Destination Point Featured Trail Segment -- Greenway Trail - Proposed School ---- Greenway Teal - Existing -- Street Based Trail - Proposed - Road Street Based Trail - Existing - Major Road -- Natural Surface Teal - Proposed laterstate - Natural Surface Trail - Existing ---- Raileoad - Bike Lane Existing Destination - - Bike Lane Proposed School. - Bike Lane Restripe Park ----- Wide Outside Lane Existing Water Body -- Wide Outside Lane Proposed Greenville City Extent ---- Wide Outside Lane Restripe - Paved Shoulder 4' Existing - Paved Shoulder 4' Proposed

- Paved Shoulder 2' Existing

- - Paved Shoulder 2' Proposed
- ---- Share the Road



0 500 1,000 Feet

chapter three

Data sources: The City and County of Greenville, South Carolina

## 20: Sliding Rock Trail reedy river corridor

Start: Reedy River near Alameda Street End: Millennium Rail-Trail and Eastlan Drive Est. Distance: *1.3 miles* 

#### **Route Description:**

From the Reedy River, the trail crosses Alameda Street and connects to Sliding Rock Creek Park along a stream corridor. From Sliding Rock Creek Park the off-road trail continues northwest along the stream corridor and then transitions to the on-road environment along Webster Road. After crossing Laurens Road, the trail connects to the GreenLink Greenway via Eastlan Drive.

#### Nearby Destinations

Sliding Rock Creek Park, Skyland Park, Nicholtown Community Center, Beck Middle School, University Center, & Greenville Tech

#### Connecting Trails:

- Proposed Reedy River Trail to Cleveland Park and Greenville Tech
- Proposed GreenLink Greenway to Downtown and Clemson ICAR
- Proposed on-road bicycle facilities on Laurens Road



Sliding Rock Park



Easement near Elder Avenue





trails & greenways **master plan**  20: Sliding Rock Trail reedy river corridor

**Trail Type:** Greenway Trail & Street Based Trail **Status:** Proposed

Destination Point Featured Trail Segment -- Greenway Trail - Proposed School Greenway Teal - Existing -- Street Based Trail - Proposed - Road Street Based Trail - Existing - Major Road -- Natural Surface Teal - Proposed laterstate - Natural Surface Trail - Existing --- Railroad - Bike Lane Existing Destination - - Bike Lane Proposed School. - Bike Lane Restripe Park. ----- Wide Outside Lane Existing Water Body -- Wide Outside Lane Proposed Greenville City Extent ---- Wide Outside Lane Restripe - Paved Shoulder 4' Existing - Paved Shoulder 4' Proposed - Paved Shoulder 2' Existing - - Paved Shoulder 2' Proposed ---- Share the Road

chapter three

Data sources: The City and County of Greenville, South Carolina

500 Feet 1,000

#### trails & greenways master plan

## 21: Bob Jones Connector gateway corridor

Start: Holmes Park End: Gateway Greenway & Griffen Drive Est. Distance: 1.3 miles

#### Route Description:

From Holmes Park, the trail crosses Twin Lake Road and continues offroad to Bradley Boulevard. At Bradley Boulevard, the trail transitions to the on-road environment connecting to Bob Jones University via Ruth Lane. After crossing Wade Hampton Boulevard, the trail flanks the northwest edge of Bob Jones University to White Oak Drive. The on-road trail continues along White Oak Drive to East North Street. Next the trail connects to the Gateway Park Greenway via Griffen Drive.

#### Nearby Destinations:

Bob Jones University, Holmes Park, & University Park

#### Connecting Trails:

- Proposed Richland Creek Trail Spurs
- Proposed Gateway Park Trail to Carolina First Center
- Proposed on-road bicycle facilities on East North Street



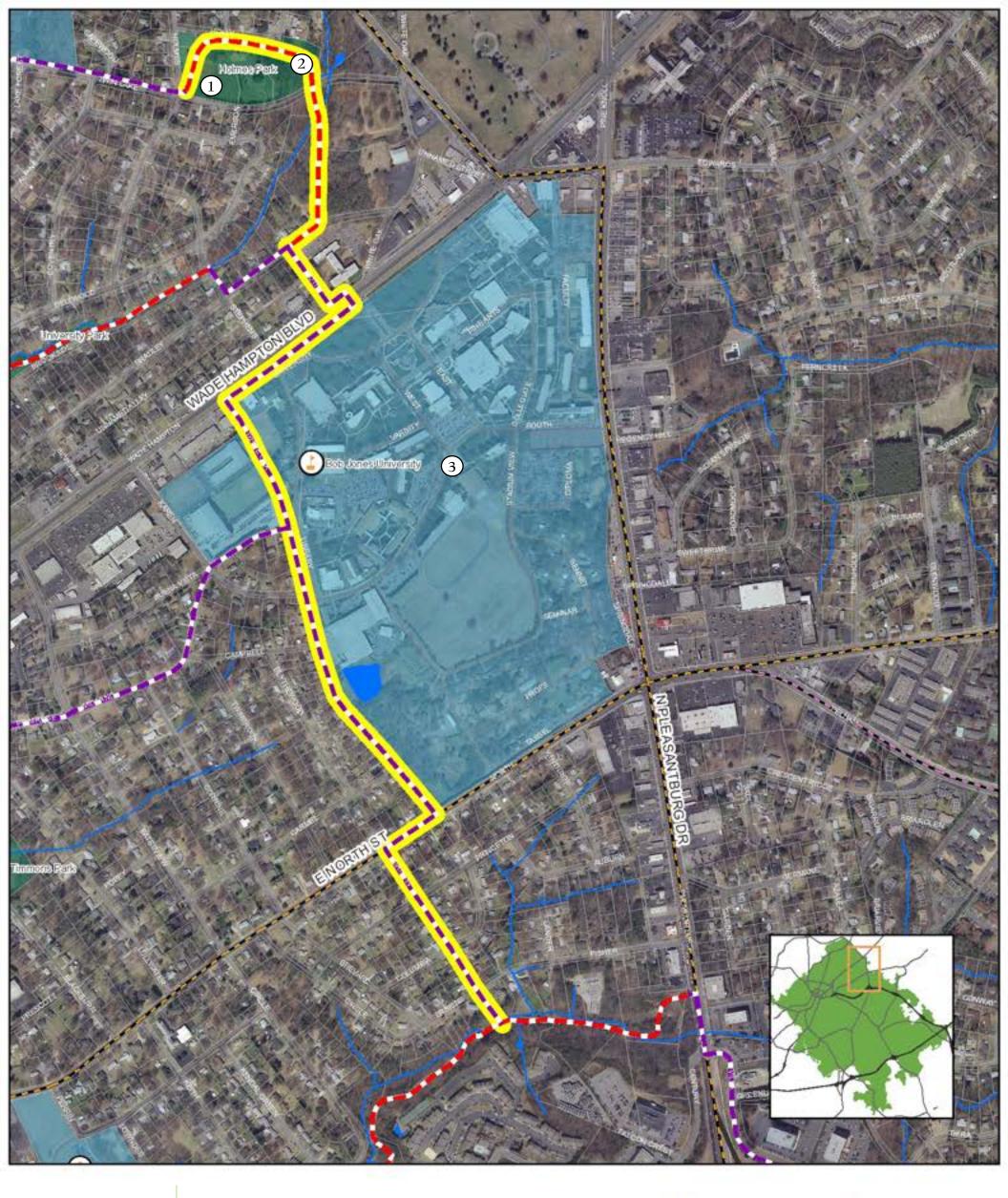
Holmes Park.



Trail at Holmes Park.



Athletic Facility at Bob Jones University.





trails & greenways master plan 21: Bob Jones Connector gateway corridor

**Trail Type:** Greenway Trail & Street Based Trail **Status:** Proposed

Destination Point Featured Trail Segment -- Greenway Trail - Proposed School ---- Greenway Teal - Existing -- Street Based Trail - Proposed - Road Street Based Trail - Existing - Major Road -- Natural Surface Teal - Proposed laterstate - Natural Surface Trail - Existing ---- Raileoad - Bike Lane Existing Destination - - Bike Lane Proposed School. - Bike Lane Restripe Park ----- Wide Outside Lane Existing Water Body -- Wide Outside Lane Proposed Greenville City Extent ---- Wide Outside Lane Restripe - Paved Shoulder 4' Existing - Paved Shoulder 4' Proposed - Paved Shoulder 2' Existing - - Paved Shoulder 2' Proposed ---- Share the Road

> 500 1,000 Feet

chapter three

Data sources: The City and County of Greenville, South Carolina

## 22: Verdae Trails rail-trail corridor

Start: GreenLink Greenway End: Haywood Mall & Roper Mountain Science Center Est. Distance: 4.9 miles (both trails)

#### Route Description:

The routing of the Verdae trails are described conceptually in this report, based on the development's master plan.

Verdae West: From Verdae Blvd, follow the edge of the existing golf course south of Verdae, then cross Verdae near Rocky Slope Road. Follow the tributary north to Woodruff Road near the intersection of Mall Connector Road. Continue north to the existing trails at Flour Daniel Business Park.

Verdae East: From the rail corridor underpass at I-85 (along the proposed GreenLink Greenway), head east along the north side of I-85, south of the golf course. Continue northeast along the tributary, crossing Salters Road, ending at Woodruff Road. From Woodruff, on-road options could be explored further to cross 3-85 to the Roper Mountain Science Center.

#### Nearby Destinations:

Verdae Development, Hollingsworth Legacy Park, J.L. Mann High School, Roper Mountain, South Financial, Clemson ICAR Campus.

#### Connecting Trails:

- GreenLink Greenway, towards Downtown (north) & ICAR (south).
- The Flour Daniel Business Park Trails
- Proposed bike lanes on Salters Rd & Rocky Slope
- Bike lane restripe & on-road trail along Woodruff Road.
- Proposed on-road trail and bike lane restripe along Verdae Blvd, to J.L. Mann High School (west) and Verdae points of interest (east).
- Wide outside lane restripe on Walton Rd.

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Laurel Creek tributary from Verdae Blvd, looking south, through the golf course.



Rail corridor underpass at I-85.



The Verdae Master Plan.





trails & greenways master plan

chapter three

22: Verdae Trails rail-trail corridor

Trail Type: Greenway Trail Status: Proposed

Data sources: The City and County of Greenville, South Carolina



Feet

#### trails & greenways master plan

## 23: ICAR Connector Trail rail-trail corridor

Start: *Ridge Road* End: *Woodruff Road* Est. Distance: 2.8 miles

#### **Route Description:**

The trail begins on Carolina Point Parkway and extends through the South Financial Headquarters utilizing future bicycle lanes and sidewalks. After crossing Old Sulphur Springs Road, the trail continues through the Clemson ICAR to Laurens Road. After crossing Laurens Road the trail continues along Fairforest Way to Ridge Road.

#### Nearby **Destinations**:

Clemson ICAR, Millennium Campus and South Financial Headquarters.

#### Connecting Trails:

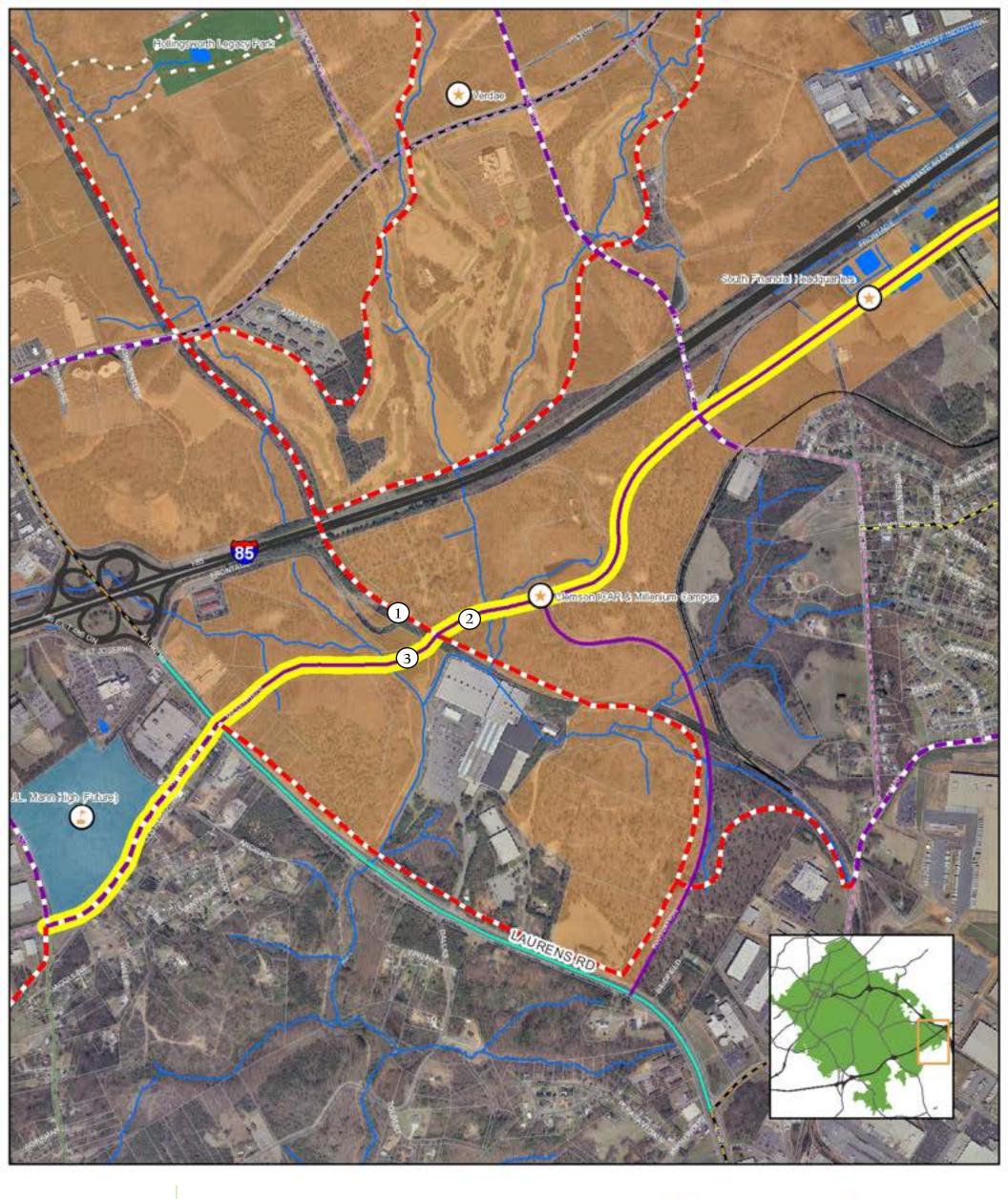
- Existing Bicycle Lanes on Millennium Drive to South Financial
- Proposed GreenLink Greenway
- Proposed Wenwood Trail
- Proposed ICAR Campus Trail Loop
- Proposed on-road bicycle facilities on Carolina Point Road
- Proposed on-road bicycle facilities on Laurens Road
- Proposed on-road bicycle facilities on Innovation Drive
- Proposed on-road bicycle facilities on Old Sulphur Springs Road
- Proposed on-road bicycle facilities on Fairforest Way



Rail corridor south of Interstate 85.



Bike lane & sidewalk on Millennium Drive; in the ICAR Campus.



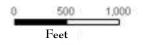


trails & greenways master plan

## 23: ICAR Connector Trail rail-trail corridor

Trail Type: Street Based Trail Status: Proposed

Destination Point Featured Trail Segment -- Greenway Trail - Proposed School ---- Greenway Teal - Existing -- Street Based Trail - Proposed - Road Street Based Trail - Existing - Major Road -- Natural Surface Teal - Proposed laterstate - Natural Surface Teal - Existing ---- Raileoad - Bike Lane Existing Destination - - Bike Lane Proposed School. - Bike Lane Restripe Park ----- Wide Outside Lane Existing Water Body -- Wide Outside Lane Proposed Greenville City Extent ---- Wide Outside Lane Restripe - Paved Shoulder 4' Existing - Paved Shoulder 4' Proposed - Paved Shoulder 2' Existing - - Paved Shoulder 2' Proposed ---- Share the Road



chapter three Data sources: The City and County of Greenville, South Carolina

## 24: Wenwood Trail reedy river corridor

Start: Reedy River End: Ridge Road & Fairforest Way Est. Distance: 2.7 miles

#### **Route Description:**

The trail begins at the intersection of Ridge Road and Fairforest Way and extends southwest along a stream corridor to Cavalier Road. The main trail continues south to the Wenwood Soccer Complex, while a spur extends across Fairforest Way along Cavalier Road passed Christ Church Episcopal Church to Mauldin Road. The spur trail crosses Mauldin Road and connects to the Reedy River via an off-road trail. The main line trail connects to Ridge Road near the Wenwood Soccer Complex, crosses into the Greenville Municipal Stadium and links to the Reedy River Corridor.

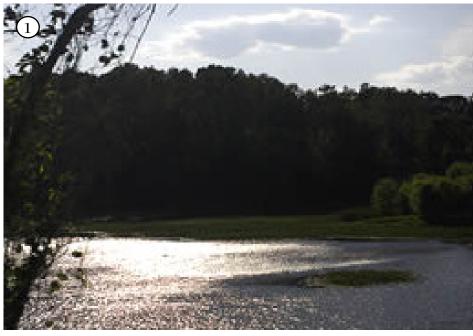
#### Nearby Destinations:

Wenwood Soccer Complex, Lake Conestee, Greenville Municipal Stadium, & Christ Church Episcopal School

#### Connecting Trails:

- Proposed Reedy River Trail Extension
- Proposed ICAR Connector Trail
- Proposed on-road bicycle facilities on Ridge Road
- Proposed on-road bicycle facilities on Mauldin Road
- Proposed on-road bicycle facilities on Fairforest Way

#### trails & greenways master plan



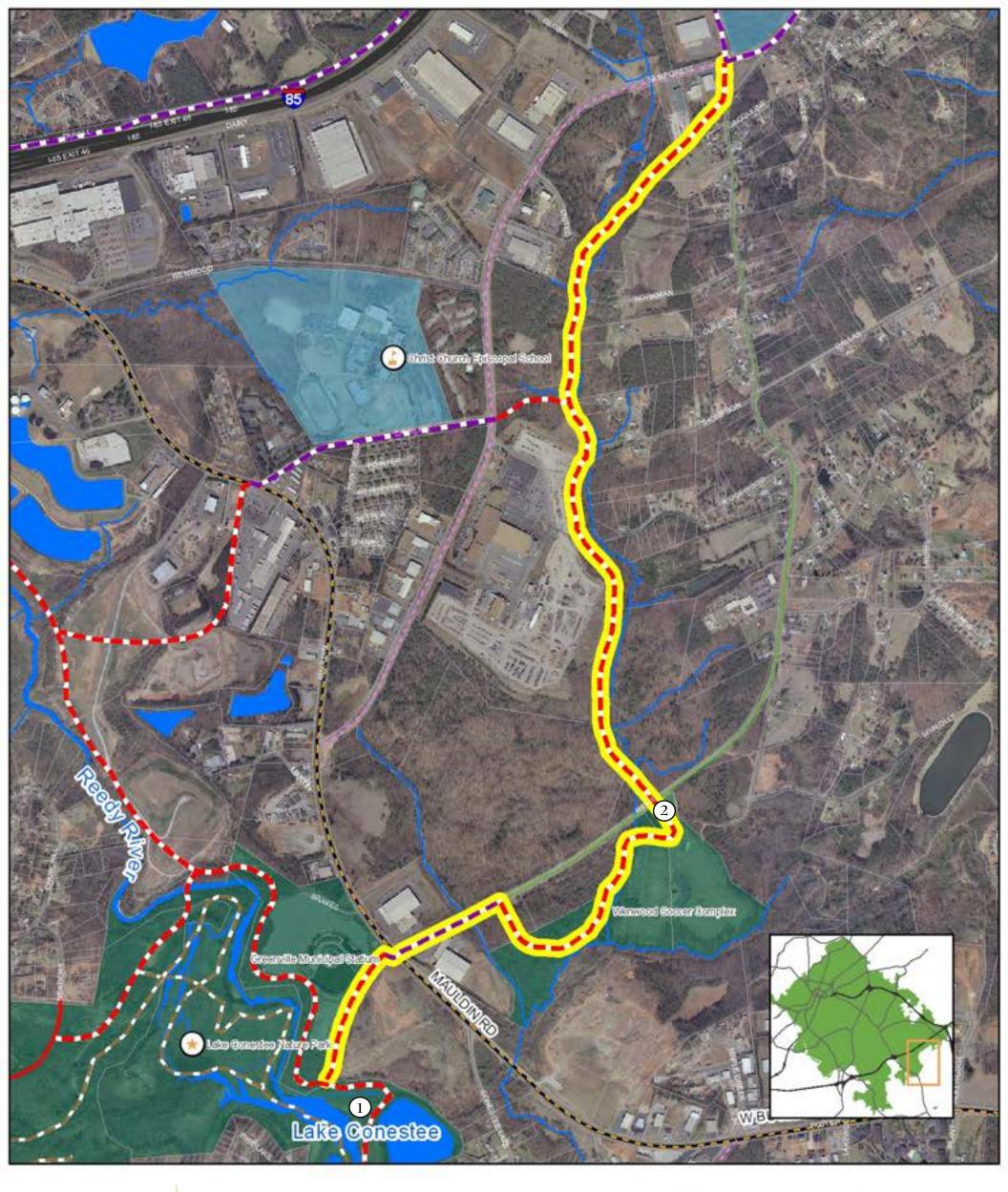
Lake Conestee.



Entrance to Wenwood Soccer Complex.

#### chapter three

#### proposed network





trails & greenways master plan

## 24: Wenwood Trail reedy river corridor

Trail Type: Street Based Trail Status: Proposed

Destination Point Featured Trail Segment -- Greenway Trail - Proposed 🙆 <sub>School</sub> - Greenway Teal - Existing -- Street Based Trail - Proposed - Road Street Based Trail - Existing - Major Road -- Natural Surface Teal - Proposed - Interstate - Natural Surface Trail - Existing ---- Raileoad - Bike Lane Existing Destination - - Bike Lane Proposed School. - Bike Lane Restripe Park ---- Wide Outside Lane Existing Water Body -- Wide Outside Lane Proposed Greenville City Extent ---- Wide Outside Lane Restripe - Paved Shoulder 4' Existing - Paved Shoulder 4' Proposed - Paved Shoulder 2' Existing - - Paved Shoulder 2' Proposed ---- Share the Road

> 0 500 1,000 Feet

chapter three

Data sources: The City and County of Greenville, South Carolina

### the city of greenville 3.6 Regional Trail Opportunities

The City of Greenville and its partners should seek future opportunities to connect to regional trails and trip attractors throughout the area. Greenville's proximity to the Blue Ridge Mountains, rapidlydeveloping areas in the Upstate region, Furman University, Paris Mountain State Park, and other areas enable the City to look outside its borders to link with neighboring communities and become a component of a regional network. As development continues in outlying portions of Greenville, the City should work together with Greenville County, other surrounding counties, neighboring communities, and landowners to fill in gaps and link their respective trail and greenway networks. The City should also consider connections to Travelers Rest, Taylors, Greer, Easley, Mauldin, Spartanburg and Clemson.

Regional connections would benefit the citizens of Greenville by offering long distance alternative transportation and recreation benefits. Additionally, citizens throughout the region would enjoy access to Greenville providing an economic benefit to the City.

The South Carolina State Trails Plan (2002) recommends an interconnected trail system throughout the State, connecting longdistance trails, towns, and parks. The Plan also recommends improving statewide coordination. It will be beneficial for the City of Greenville to maintain a close relationship with the South Carolina Department of Parks, Recreation and Tourism, the Palmetto Conservation Foundation, and surrounding counties, communities, and organizations. This will enable greater access to resources, updated trails databases, and regional trail efforts.

#### trails & greenways master plan

Upon evaluation of existing planning efforts and significant trip attractors, a conceptual network of regional connections has been identified for the Greenville area. Several of the conceptual routes identified have been provided by Upstate Forever, the Swamp Rabbit Forum, and the Bike Network Concept Plan. Specific connection opportunities are discussed briefly below followed by a list of organizations that can provide information, cooperation, guidance, and assistance in connecting Greenville regionally.

#### The Reedy River

The Reedy River is one of the major greenway spines traveling through the Greenville area and represents a tremendous, continuous, regional greenway opportunity. The river's headwaters are in Travelers Rest and the river makes its way southward through Greenville to Lake Greenwood as part of the Saluda-Reedy Watershed. The Friends of the Reedy River are working to protect this resource, restore areas, and establish trails and park space. Sections of trail exist along the Reedy River including the Downtown Greenville Reedy River Falls Park and the Lake Conestee trails system. Initial planning and discussion is ongoing between Naturaland Trust and its partners to connect and fill gaps of the Reedy River Greenway from Travelers Rest through Furman University and Greenville to Conestee along the Reedy River.

The Swamp Rabbit Forum has also been established, having its inaugural meeting in November of 2006. It is composed of people who are involved in some aspect of park and trail work along the 20-mile Reedy River corridor stretch from Lake Conestee to Travelers Rest. It exists to establish a shared vision and to coordinate

chapter three

efforts to achieve the development of the greenway along the Reedy River, its tributaries and other spur opportunities. Its goal is "to create a variety of recreational and transportation opportunities for [its] region's citizens, thereby creating economic opportunities and improving [the] quality of life." In the very long-term, this group will consider initiating conversations with landowners along the former Swamp Rabbit rail line in extending this trail to the north, extending to Jones Gap.

The City of Greenville should remain part of this exciting forum and discussion because this is the most active and important regional corridor.



Entrance to Paris Mountain State Park

#### trails & greenways master plan

#### Paris Mountain State Park

Paris Mountain State Park is over 1,500 acres and only four miles north of the City of Greenville. It features hiking, biking, fishing, camping, and paddling opportunities. Because of its very close proximity to Greenville, a connection from the future citywide greenway system would be an excellent recreational linkage. There is preliminary discussion within the Swamp Rabbit Forum to connect off the Reedy River spine into the back side of the park, a section where only a couple landowners would be affected.

#### Furman University

Furman University is the oldest and largest private institution in the State of South Carolina. It sits just on the northern outskirts of Greenville and supports almost 3,000 undergraduates. Connecting the Greenville greenway system to Furman would provide a means for students and faculty to commute to/from campus and travel to destinations within Greenville. An opportunity exists along the Reedy River and this is being explored by the Swamp Rabbit Forum.

#### Palmetto Trail

The Palmetto Trail is a statewide trail, running from the foothills of the Appalachians to the Atlantic Ocean. Many portions are being used today (225 miles complete) and when finished, the trail will extend 425 miles, becoming the backbone of the State network. It runs through the City of Spartanburg and the northern portions of Greenville County. The City of Greenville, with the surrounding communities, should pursue the development of a spur that would connect the people of Greenville to the statewide system. The best

#### trails & greenways master plan

#### the city of greenville

potential option now is the Swamp Rabbit rail line mentioned previously north of Travelers Rest. Negotiations with landowners and a long-term commitment to determining a trail alignment will be necessary to make this a reality.

#### Mountain Bridge Wilderness Area

Nearly 10,000 acres, the Mountain Bridge Wilderness Area includes both Caesars Head State Park and Jones Gap State Parks. Caesars Head State Park is one of the most popular state parks in the State. Located in northern Greenville County, this wilderness area features scenic vistas, waterfalls, and significant hiking opportunities. It is 37 miles north of Greenville, making this a longer-distance and more long-term trail connection opportunity.

#### Table Rock State Park

At over 3,000 acres, Table Rock State Park is 30 miles to the northwest of Greenville. The Table Rock Mountain is at the edge of the Blue Ridge Escarpment with trails leading to its pinnacle. The State Park features beautiful scenery, waterfalls, and camping, hiking, paddling, fishing opportunities. Because of its longer distance to Greenville, this is a more long-term connection opportunity.

#### Organizations and Agencies List

South Carolina Department of Parks, Recreation & Tourism Palmetto Conservation Foundation South Carolina Dept. of Conservation & Natural Resources Friends of the Reedy River Saluda-Reedy Watershed Consortium Naturaland Trust Appalachian Council of Governments Upstate Forever Nature Conservancy Conestee Foundation Greater Travelers Rest Community Forum Greenville County Economic Development Corporation Paris Mountain State Park Greenville Forward Furman University



A view from Paris Mountain

## the city of greenville 4.0 Design Guidelines

## 4.1 Introduction

This chapter provides guidelines to both public and private entities for the future development of the Greenville Trail Network. The guidelines noted herein are based on the best practices in use throughout the United States, as well as accepted national standards for greenway facilities.

The guidelines should be used with the understanding that each greenway is unique and that design adjustments will be necessary in certain situations in order to achieve the best results. Each segment should be evaluated on a case-by-case basis, in consultation with local or state bicycle and pedestrian coordinators, a qualified engineer and a landscape architect.

Facility design is a broad topic that covers many issues. This section provides guidelines for typical greenway facilities and is not a substitute for more thorough design and engineering work. For more in-depth information and design development standards, the following publications should be consulted:

*Greenways: A Guide to Planning, Design and Development* Published by Island Press, 1993 Authors: Charles A. Flink and Robert Searns

#### *Trails for the Twenty-First Century* Published by Island Press, 2nd ed. 2001. Authors: Charles A. Flink, Robert Searns, Kristine Olka chapter four

*Guide to the Development of Bicycle Facilities* Updated in 1999 by the American Association of State Highway Transportation Officials (AASHTO).

#### Manual on Uniform Traffic Control Devices (MUTCD)

Updated in 2000. Published by the U. S. Department of Transportation, Washington, DC

#### *Universal Access to Outdoor Recreation: A Design Guide* Published by PLAE, Inc., Berkeley, CA, 1993

In all cases, the recommended guidelines in this report meet or exceed national standards. Should these national standards be revised in the future and result in discrepancies with this chapter, the national standards should prevail for all design decisions.

#### ADA Requirements

The Americans with Disabilities Act requires that portions of the Greenville Trail Network be accessible to persons with varying motor skills and abilities. Perhaps the best way to comprehend the importance of ADA is to understand that most of us, at some time in our life, will experience a temporary disability which will affect the way in which we make use of outdoor resources. ADA benefits all Americans by making the outdoor environment more accessible.

#### Recycled Materials

The consultant recommends the use of recycled waste materials and products in the construction of all signage for the project. Recycled waste materials offer design versatility, often have a long life span, and require less long-term maintenance than similar products constructed from natural materials. Recycled plastic lumber and or concrete can be used for the construction of posts and poles, and recycled aluminum can be used for signs.

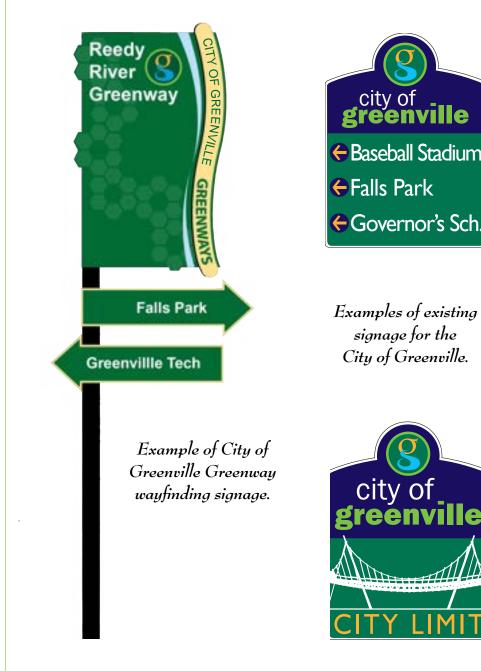
## 4.2 Wayfinding and Signage

A comprehensive system of signage is required throughout the project to ensure that information is provided to trail users regarding the safe and appropriate use of all facilities, both on-road & off-road. It is essential that the future trail network be signed seamlessly with other alternative transportation routes, such as designated bicycle routes, historic and/or cultural walking tours, and wherever possible, bus routes and the proposed Greenlink Bus Rapid Transit.

Signage includes post- or pole-mounted signs and pavement striping. Signage is further divided into information signs, directional signs, regulatory signs and warning signs. Trail signage should be developed to conform to the (2001) Manual on Uniform Traffic Control Devices and the American Association of State Highway Transportation Official Guide for the Development of Bicycle Facilities.

## 4.3 Trail Details & Standards

The graphics on pages 4-4 to 4-12 depict typical trail details and on-road guidelines. They are provided as examples only, and are not intended as substitutes for professional, site-specific design and engineering work. chapter four



## the city of greenville Wayfinding and Signage

wayinnanng ana Sign	uge		
Trail Identity Logo	East Coast	Description The Greenville Trail Network logo should be used to aid in reinforcing the trail's identity. Additionally, local trail logos, such as the Reedy River Trail should compliment all Greenville Trail Network signage. Signage should be simple, direct, and easy to identify.	<i>Recommendations</i> A skilled graphic designer should be consulted when generating the design for local trail logos. Logos should be used as a consistent element throughout the length of the trail.
Directional Signage		The Greenville Trail Network logo can be attached to various street furniture to mark a neighborhood connector trail or to direct motorists and pedestrians to a formal trailhead. The Greenville Trail Network Logo should be attached to a variety of pedestrian level signage throughout the trail.	The basic signage should consist of the Greenville Trail Network logo and a directional arrow. Additional site specific information may be included such as distance to trailhead and/or specific trail name. To be viewed by a vehicle, the bottom of the sign should be mounted no lower than 10' above the ground. At the minimum, however, it can be mounted to a tree to mark the trail.
Educational Signage		This is a large educational or interpretive sign that is placed at the trailhead. These should include information about the trail that is easy to read and comprehend.	As part of the trailhead, the overall design of this type of sign is the first experience most visitors will have with the trail. The design and information this sign communicates will establish the trail identity and help to create a more unified, pleasurable experience.
Trail Bollards		Trail bollards are distance markers placed at set intervals. These let folks know where they are on the trail as well as provide important information to those who may be vigorously tracking their exercising.	Typically these are constructed of either weather treated or stained wood although other materials may be selected. The Greenville Trail Network logo may be included on these bollards as shown.
chapter four		4-3	design guidelines

## Type I Trail: Greenway Trail









chapter four

#### trails & greenways master plan

## Type II Trail: Street Based Trail

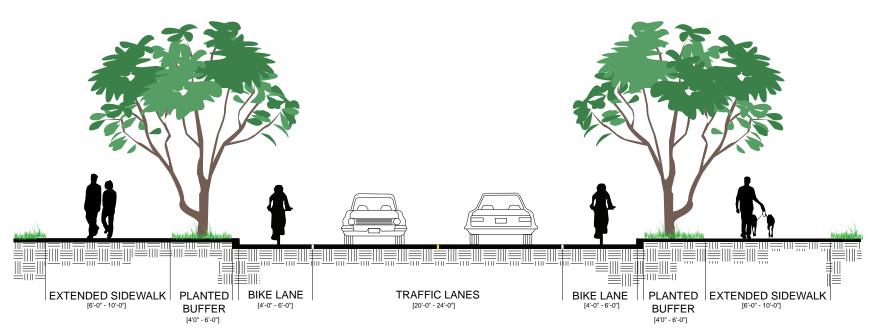




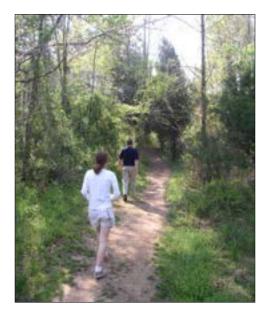
Figure 4 (b)



chapter four

#### trails & greenways master plan

## Type III Trail: Natural Surface Trail





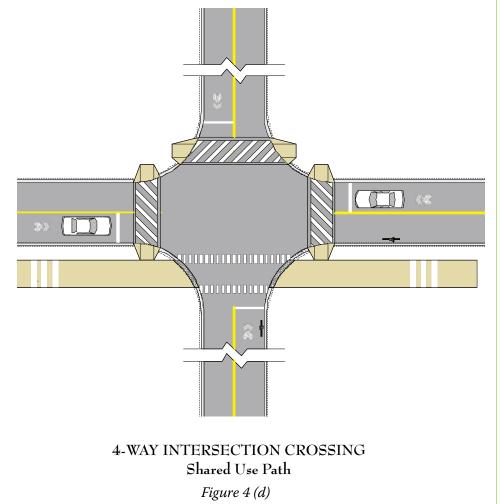


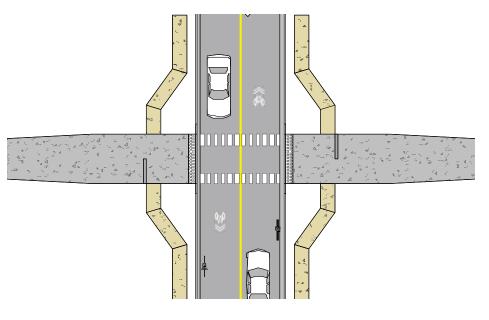
chapter four

#### trails & greenways master plan

## Trail Intersections

Trail intersections are important in making the trail system continuous. The following illustrations give examples of different intersection scenarios. For more detailed information on trail intersections, refer to Appendix D.

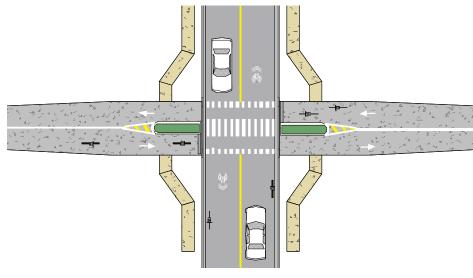




MID-BLOCK INTERSECTION Shared Use Path with Sidewalks *Figure 4 (e)* 



chapter four

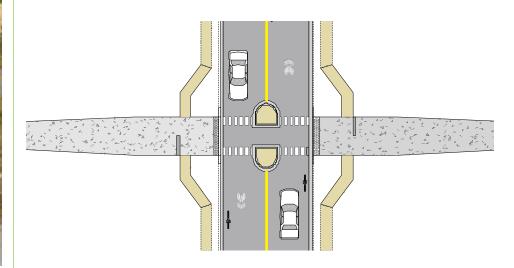


MIDBLOCK CROSSING Shared Use Path with Sidewalks and Medians *Figure 4 (f)* 





MEDIAN REFUGE Shared Use Path with Sidewalks *Figure 4 (g)* 

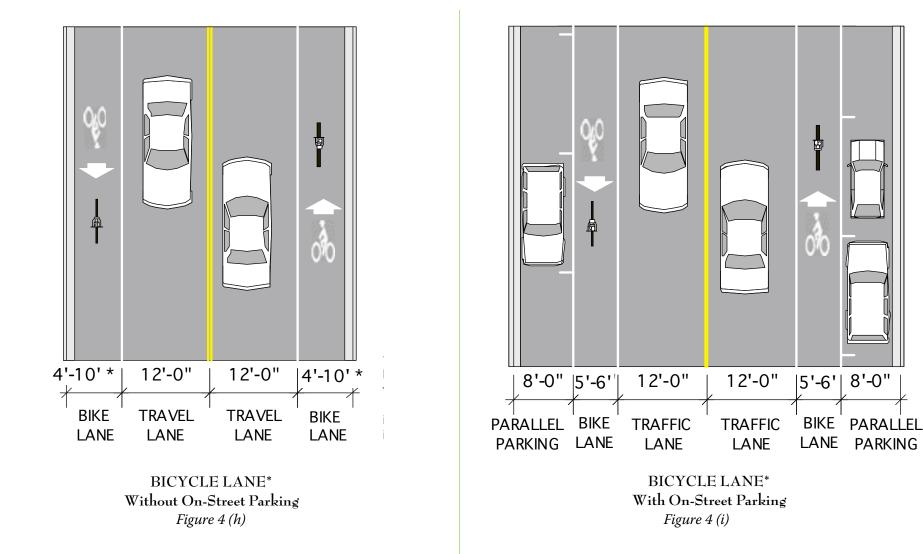


chapter four

#### trails & greenways master plan

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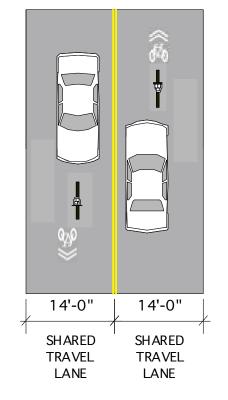
## **On Road Bicycle Facilities**



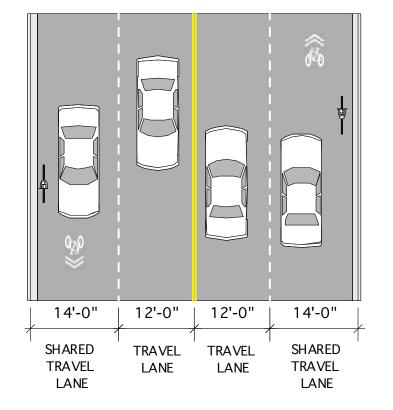
\* NOTE: Use 4'-0" bike lane if speed limit is < 50 mph or truck volume is < 5%. Use 6'-0" bike lane if speed limit is > 50 mph or truck volume is > 5%.

8'-0"

#### trails & greenways master plan



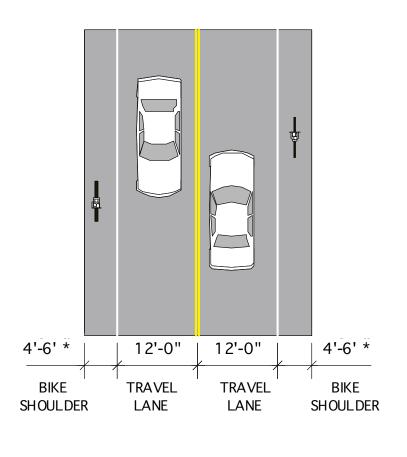
SHARED ROADWAY Figure 4 (j)



FOUR LANE SHARED ROADWAY Figure 4 (k)

chapter four

#### trails & greenways master plan



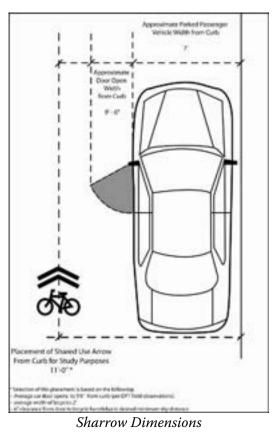
#### ROADWAY WITH BIKE SHOULDER Figure 4 (l)

\* NOTE: Use 4'-0" to 6'-0" bike shoulder if speed limit is < 50 mph or truck volume is < 5%. Use 8'-0" to 10'-0" bike shoulder if speed limit is > 50 mph and truck volume is > 5%.

## Bicycle Route "Sharrow" Stencil

Some U.S. cities have created a bicycle shared lane arrow (or "sharrow" stencil for use on designated on-road bicycle facilities where lanes are too narrow for striping designated bike lanes. The stencil can serve a number of purposes, such as making motorists aware of bicycles potentially traveling in their lane, showing bicyclists the appropriate direction of travel, and, with proper placement, reminding bicyclists to bike further from parked cars to prevent "dooring" collisions. Traditionally "sharrow" markings are used on roadways with on-street parallel parking. See figure at right for placement guidelines.

Denver and San Francisco have effectively used this treatment for several years. Other cities, such as Portland, Los Angeles, Gainesville, Cambridge, Oakland, Paris, Brisbane, Zurich, and Buenos Aires have begun to utilize this new treatment as well. The "sharrow" treatment is currently being considered for inclusion in the MUTCD, however local municipalities are encouraged to establish pilot programs on locally owned/maintained roadways.





Sharrow installed on Market Street, San Francisco

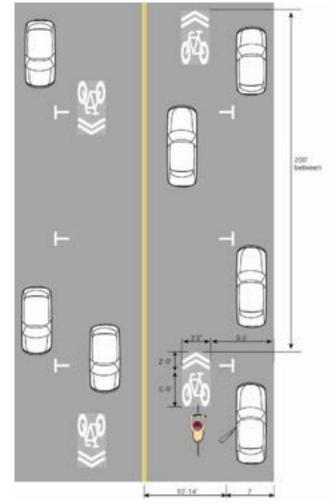
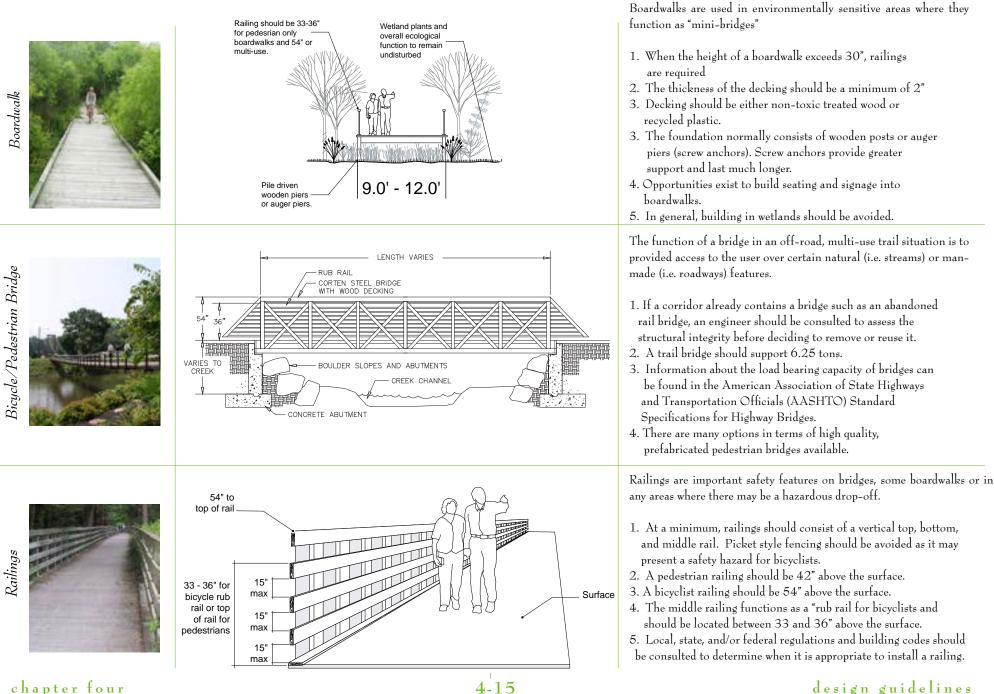


Figure 4 (m)

### the city of greenville 4.4 Ancillary Trail Facilities and Amenities

		Description	Recommendations
Benches		There are a wide variety of benches to choose from in terms of style and materials. The illustrated bench is a custom design that reflects the industrial feel of the warehouse district it is found in. Material selection should be based on the desired design theme as well as cost.	Due to a wide range of users, all benches should have a back rest. A bench should normally be 16 - 20" above ground with sturdy handrails on either side. The seating depth should be 18-20" and the length should vary between 60 - 90".
Other Seating		Other more informal seating opportunities may exist along a trail or near a parking area where other furniture like a picnic table may be appropriate.	This type of furniture can be triangulated with cooking facilities, and a trash receptacle.
Lighting	Pole Lighting Bollard Lighting	There are two basic types of suggested lighting illustrated: Pole lighting and Bollard lighting. Pole lighting is typically employed in high use areas such as an esplanade or where a trail meets a parking lot or other urbanized area. The bollards can be used to guide individuals along a trail to a specific location.	In general lighting is not appropriate for off-road trails where there is little or no development. A licensed and qualified lighting expert should be consulted before making any lighting design decisions. Doing so should reduce up-front fixed costs as well as long-term energy costs.
c h a p	oter four	4-13	design guidelines

	Description	Recommendations
Trash Receptacles	Trash receptacles should be constructed of a suitable material to withstand the harsh elements of the outdoor environment. Additionally trash receptacles should ensure that litter is contained securely preventing contamination or spillage into the surrounding environment.	Trash receptacles should be placed along the trail and at all trailheads. Adequate trash receptacles will combat littering and preserve the natural environment for all trail users.
Bicycle Racks	There are many types of bike racks available however the two recommended methods are to secure a bike in an enclosed storage, or to lock it to a rack as illustrated here.	A bike rack is recommended as the most inexpensive way to secure a bicycle. An enclosed structure with rented keys is appropriate only in very high bicycle use situations. As illustrated, bike racks can be designed to reinforce a particular design theme.
Vegetation Buffer	A vegetated buffer is used to separate the trail not only for floodplain protection and noise from the road, but also to screen the trail from nearby homes.	Buffer areas should be planted according to the plant community appropriate for Greenville and the surrounding region. Consult the South Carolina Native Plants Society for a comprehensive collection of information about native plant species in the state: www.scnps.org



## the city of greenville 5.0 Implementation

#### 5.1 Overview

The Greenville Comprehensive Trails Plan is an ambitious and progressive initiative requiring the concerted efforts of local government, private sector organizations, business and industry, civic groups, and community residents. The text in this chapter describes how the City of Greenville can turn the vision of a connected, integrated greenway and trail system into a reality. It defines some of the most important actions that will need to be undertaken along with a phasing plan for development. Specifically, this chapter contains action steps, project prioritization and phasing, cost estimates, program and policy recommendations, an evaluation and monitoring process, and methods for greenway acquisition. Funding resources are listed in Appendix A.



Reedy River Trail in Falls Park chapter 5

### 5.2 Action Steps

A plan of action is needed to guide the development of the greenway and trail network. The following is a listing of immediate actions and action steps that should be undertaken to quickly and efficiently bring greenway and trail facility development online. These action steps may occur simultaneously. The key steps are:

1) Adopt this Plan. This should be considered the first step in implementation for the City of Greenville. Furthermore, this Plan should also be included as an element of the Comprehensive Plan Update. Through adoption of this document, the community is able to shape local (and sometimes regional) decisions so that they fit with the goals and recommendations of this Plan.

2) Designate a Greenway and Trail Coordinator for the City. This person should be responsible for overseeing and championing the implementation of this Plan. The Coordinator is a necessary position because of the large and variable amounts of functions and duties. The Coordinator would:

- Seek funding sources and write grants
- Develop public relations programs and lead promotional efforts related to the Greenway and trails program

#### trails & greenways master plan

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- Provide for event planning and execution, public education, informational mapping, reports, proposals and correspondence related to the Greenway
- Interpret and address enforcement of local and state regulations as they relate to the greenway and trail system
- Address annexations, site plans, and plats for development projects
- Listen to the community's needs and requests
- Update the Plan as necessary
- Maintain existing and proposed GIS trail layer
- Integrate on-road bicycle and pedestrian improvements with the greenway network
- Address land acquisition
- Oversee design of capital projects
- Build momentum for the overall network
- Conduct evaluation and monitoring process
- Remain connected and integrated with surrounding counties, regional systems, and groups such as the Swamp Rabbit Forum

Currently Greenville does not have a Bicycle, Pedestrian, or Greenway Coordinator. This new position could temporarily serve to coordinate all three topics. It should be noted that the Greenville County Recreation District recently created a Coordinator position who could also assist early on in this effort. In the longer term, it may be necessary to develop separate positions for bicycle, pedestrian, and greenway facilities depending on growth, demand, City dedication, and an increase in duties.

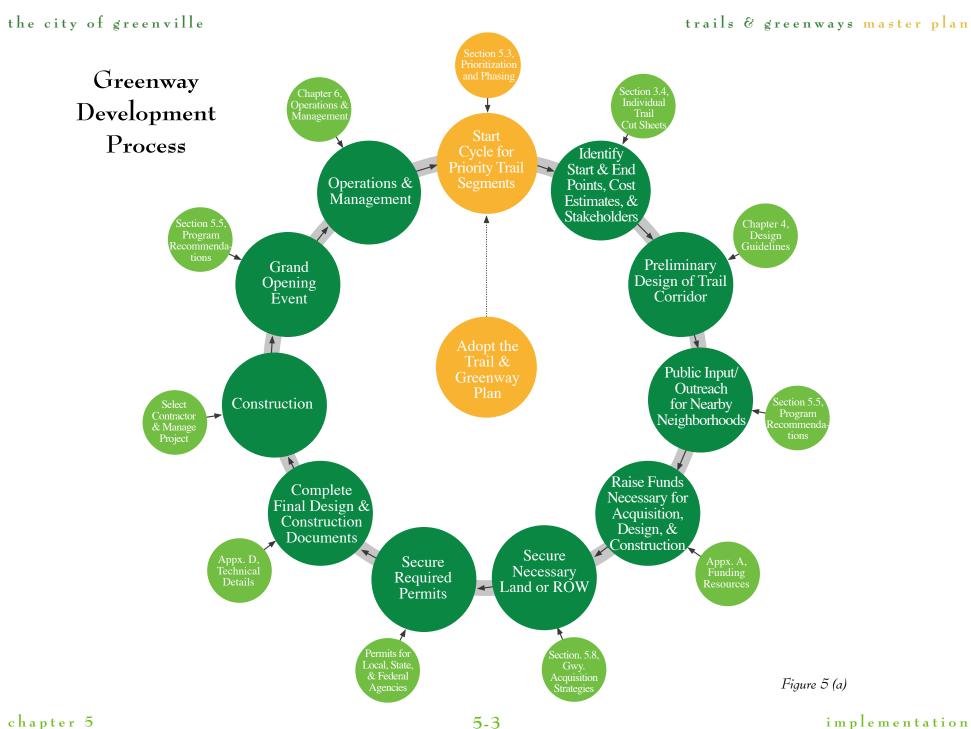
3) Expand role of Bicycle Pedestrian Action Committee (BPAC) to include Greenways and Trails. This organization would assist the chapter 5 5-2



Reedy River Trail

Greenway and Trail Coordinator in driving the implementation and integration of this Plan and the recommended greenway network. The Committee would assist the Coordinator in his/her tasks and consist of representatives from different local government agencies, private sector, local advocacy groups, and citizen groups. Currently, the BPAC (Bicycle Pedestrian Action Committee) exists to confront bicycle and pedestrian issues. This group meets monthly and is working on small projects to build momentum. Over time, if growth continues and demand expands, a separate Greenway and Trail Committee could form as an offshoot of the BPAC.

4) Market the Greenway system. First, a brochure should be developed that describes the current trail system. Second, a greenway and trail specific website should be developed inside the City of Greenville implementation



chapter 5

5-3

website, providing up-to-date information about greenway facility development, event programming, and operations. This website could offer an opportunity for comment and feedback. Third, the City of Greenville should work with local media to promote trail development as it occurs. Fourth, the City of Greenville should work with local groups to provide support for building and maintaining trails, and sponsoring marketing and promotion events. An example would be the South Financial Group, Michelin, or other large community companies and organizations.

5) Place signage where appropriate to increase visibility of system. Currently, wayfinding signage is not comprehensive in Greenville. Existing and future bicycle and pedestrian routes and trails should have signage and kiosks to promote the system, increase visibility, and improve user-friendliness.

6) Secure and commit funding necessary to undertake the short term, top priority projects and develop a long term funding strategy to allow continued development and maintenance of the overall system. Explore alternate funding sources from federal, state, and local sources and means (See Appendix A).

7) Begin working on the top priority projects listed and described in section 5.3. This will build momentum and focus attention on high priority areas. [A chart showing the process from planned trail to an on-ground reality will be included in the final draft]

8) *Begin acquiring land and easements* necessary to complete priority greenway segments and provide connections between systems where there are gaps (See section 5.6)

#### trails & greenways master plan

9) Ensure that greenway planning is integrated with other transportation planning and funding efforts at the state and local level, taking advantage of all transportation improvement projects, as well as with long range and current land use, economic development, parks and recreation, environmental, and community planning.

10) Develop and implement education, encouragement, and awareness programs such as public events, which can be used to announce new trails and upcoming projects and be a source of revenue (See section 5.5). These should also include community-wide efforts and sessions to educate property owners about the benefits of greenways.



School group visiting Falls Park

#### chapter 5

#### implementation

11) Develop and adopt a "Complete the Streets" policy that incorporates appropriate facilities for all modes of transportation in roadway design. "Complete Streets" are roadways that are properly designed to accommodate the needs for all users. Bicyclists, pedestrians, motorists, and bus riders of all ages and abilities are able to safely travel along a "complete street". (www.completethestreets.org)

12) Evaluate and update the trails and greenways plan as necessary to accommodate the needs of the City of Greenville as it grows and to ensure that new priorities are attended to.

## 5.3 Prioritization and Phasing of Trail Projects

The entire integrated system was described in Chapter 3. However, the system will be developed incrementally. This section describes how the recommended facilities in the greenway network are prioritized.



Trail Maintenance in Falls Park

#### trails & greenways master plan

Projects were prioritized by the facility segment's ability to provide connectivity, serve underserved areas, and improve safety in areas of concern. Routes suggested in previous planning efforts and by heavy public recommendation were also given higher priority. The major spines of the greenway network, including the Reedy River, received high priority due to their momentum and capabilities to form a world-class greenway system on their own.

Greenways and trails have been divided into three phases. The short term phase is 0-7 years; medium term phase is 7-15 years; long term phase is 15-25 years. A list of top priority action items has been pulled out of the first phase segments. Development efforts should occur within 0-3 years for these top priority, early-action items. These projects are specific improvements that will facilitate an immediate increase in connectivity, access, safety, and promotion of the network. Phasing for all greenway and trail facilities in the network are shown on the Phasing Map (*Under Development*).

#### 5.3.1 Top Priority Projects

Trails in the Reedy River Corridor have been continuously identified as priorities in past panning efforts and already have much of the design work completed. These trails are proposed to be implemented within the first three years after the plan is adopted. Completing these segments will take advantage of some of the most promising trail opportunities that the City of Greenville has to offer and will facilitate an immediate increase in connectivity, access, and safety. The locations of only these top priority segments are shown on the Top-Priority Projects Map (Map 5.2).

The Top Priority Projects include the following segments and cover approximately 6.7 miles:

- 1) Reedy River Trail at Greenville Tech 2.2 miles from Cleveland Park to S. Pleasantburg Drive.
- 2) Reedy River Trail South 1.7 miles from S. Pleasantburg Drive to Interstate 85.
- 3) Reedy River Trail at Lake Conestee 2.8 miles from Interstate 85 to Lake Conestee.

These projects are intended to build community support and momentum for the continued implementation of the network.

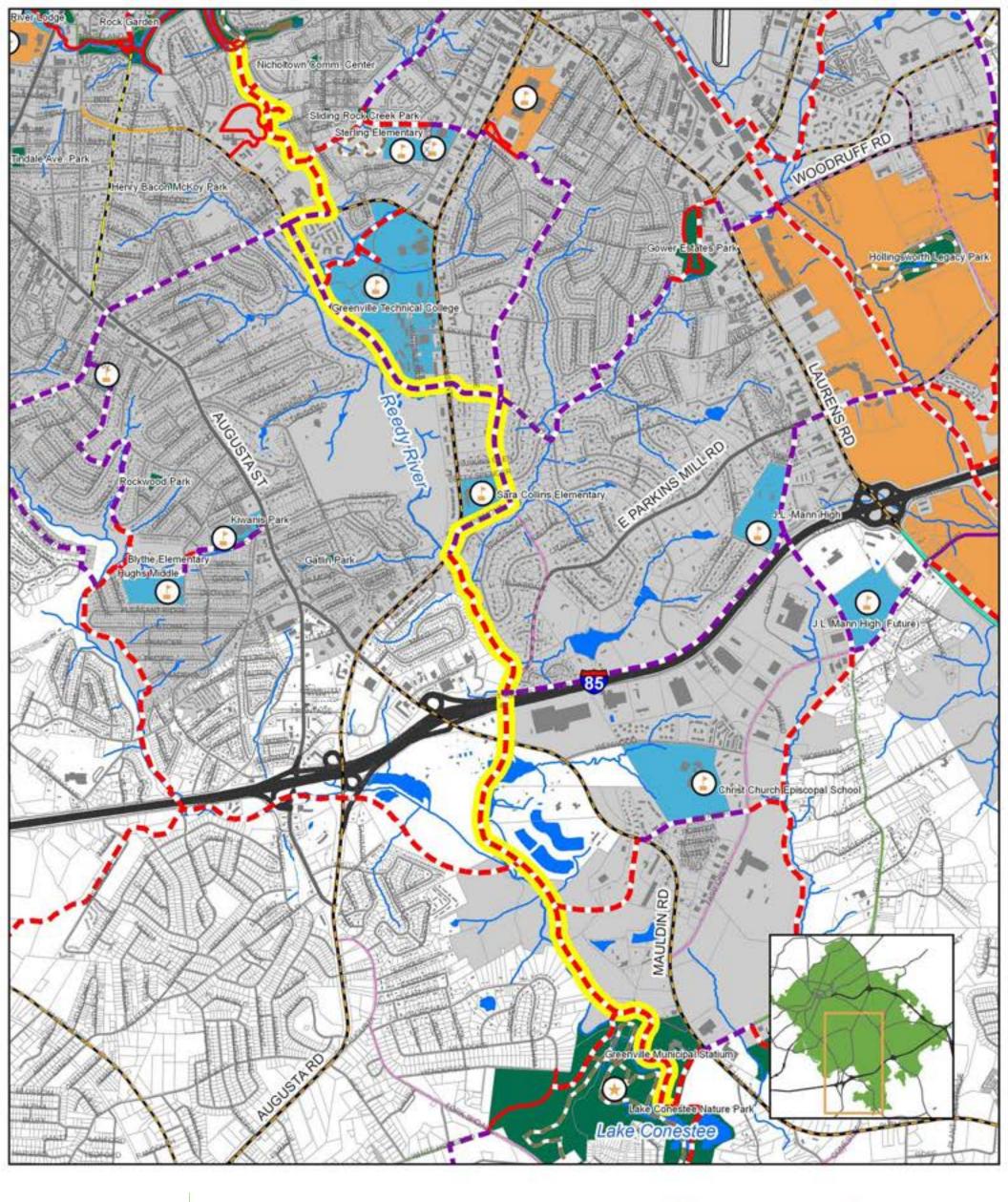
## 5.4 Trail Facility Cost Estimates

The following cost estimates include construction costs (top right) and amenity costs (page 5-6). For annual maintenance cost estimates, please refer to Chapter 6, page 6-11. Estimates were gathered from many sources, including recent trail building efforts in both North Carolina and South Carolina, local sales representatives, and review by local engineers.

These estimate calculators can be used as an implementation tool. When a proposed trail segment is selected to move forward to design and development, these charts can be used to give an estimate of costs so that the proper amount of funding is acquired and/or set aside for project completion.

Example Trail Construction Cost Estimates 2007					
Item	Unit Price	Unit			
Common Excavation	\$25.00	Per Cubic Yard			
Mass Rock Excavation	\$200.00	Per Cubic Yard			
Finish Grading	\$5.00	Per Square Yard			
Clearing and Grubbing	\$200.00	Per 1000 Square Feet			
Grassing	\$50.00	Per 1000 Square Feet			
Chain Link Fence 4' High	\$8.00	Per Linear Foot			
Chain Link Fence Gate 4' High	\$250.00	Each			
Chain Link Fence 6' High	\$12.00	Per Linear Foot			
Chain Link Fence Gate 6' High	\$400.00	Each			
15" Reinforced Concrete Pipe	\$25.00	Per Linear Foot - Installed			
36" Reinforced Concrete Pipe	\$40.00	Per Linear Foot - Installed			
15" HDPE Storm Drain	\$25.00	Per Linear Foot - Installed			
Rip Rap, 12" Diameter	\$50.00	Per Ton			
Silt Fence	\$2.00	Per Linear Foot			
Sediment Tubes	\$1.50	Per Linear Foot			
Concrete Sidewalk 4" Think	\$50.00	Per Square Yard			
Asphalt Paving	\$14.00	Per Square Yard			
Rubberized Asphalt	\$57.60	Per Square Yard			
2' Wide Gravel Shoulder Both	\$6.00	Per Linear Foot			
Sides					
14' Wide Boardwalk	\$280.00	Per Linear Foot			
Bicycle/Pedestrian Bridge	\$1,000.00	Per Linear Foot			

Figure 5(b).





#### trails & greenways master plan

#### chapter five

# Top Priority Trail: the reedy river corridor

Data sources: The City and County of Greenville, South Carolina

#### Featured Trail Segment Destination Point -- Greenway Trail - Proposed School ---- Greenway Teal - Existing -- Street Based Trail - Proposed - Road ----- Street Based Trail - Existing - Major Road -- Natural Surface Teal - Proposed laterstate - Natural Surface Trail - Existing --- Railroad - Bike Lane Existing Destination - - Bike Lane Proposed School. - Bike Lane Restripe Park ----- Wide Outside Lane Existing Water Body -- Wide Outside Lane Proposed Greenville City Extent ---- Wide Outside Lane Restripe - Paved Shoulder 4' Existing - Paved Shoulder 4' Proposed - Paved Shoulder 2' Existing - - Paved Shoulder 2' Proposed ---- Share the Road 0.25

0,5

Miles

Example Trail Amenity Cost Estimates 2007					
Item	Unit Price	Unit			
On Road Facility					
Bicycle Arrow Pavement Marking Thermo- plastic	\$60.00	Each			
Crosswalks	\$500.00	Each			
Utilities					
Solar Powered Light	\$5,400.00	Each			
Solar Powered Pole	\$1,300.00	Each			
Emergency Phones	\$2,500.00	Each			
Signage					
Mile Markers	\$200.00	Each			
Trail and Street Regulatory/Warning Signs	\$200.00	Each			
Directional Signs	\$200.00	Each			
Educational Signs	\$300.00	Each			
Site Amenities					
Benches	\$400.00	Each			
Bicycle Rack (9 Bicycles)	\$400.00	Each			
Drinking Fountain (with pet fountain)	\$2,000.00	Each			
Picnic Tables	\$500.00	Each			
Trash Receptacles (32 gallon, steel)	\$250.00	Each			
Bollards	\$300.00	Each			
Trailhead Parking (10 car lot)	\$20,000.00	Each			
Trailhead Parking (20 car lot)	\$50,000.00	Each			

Figure 5(c).

# 5.5 Program Recommendations

Once greenway and trail facilities are in place, continued support for and use of these facilities are increased through programs. A number of programs and events are possible for the Greenville greenway and

#### trails & greenways master plan

trail system. Public events can serve several purposes: 1) educate the public as to the existence of a greenway and share future goals and objectives for its development and operation; 2) encourage local residents to exercise and use alternative forms of transportation; 3) promote goodwill and community spirit through events, bringing people together; and 4) generate revenue from greenway events that could help offset costs associated with facility development and operation. The City of Greenville should work its local partners from both private and public sectors to sponsor, host, and/or operate events within the greenway environment. Potential partners include:

- •Safe Kids Upstate http://www.safekidsupstate.org
- Greenville Forward http://www.greenvilleforward.com
- •Leadership Greenville http://www.leadgreenville.org
- Chamber of Commerce http://www.greenvillechamber.org
- •Upstate Forever http://www.upstateforever.org
- Friends of the Reedy http://www.friendsofthereedyriver.org
- Palmetto Cycling Coalition http://www.pccsc.net
- Palmetto Conservation http://palmettoconservation.org
- Sierra Club (Greenville chapter) http://southcarolina. sierraclub.org/williambartram

The following is a list of common greenway programs, events, and activities throughout the country that the City of Greenville should consider in addition to ongoing programs:

- •Reedy River Paddlefest and 5K Trail Run (ongoing)
- •Safe Kids Upstate (local group funded and sponsored by Children's Hospital, Michelin, and others; conduct bicycle rodeos) (ongoing)

# the city of greenville

- Walks for charity (Examples include March of Dimes Walk, Crop Walk)
- Earth Day (April)
- Bike-to-Work Days and Walk-to-Work Days
- Greenway Clean-up Days
- National Trails Day (June)
- Music Festivals
- Holiday events (Fourth of July, Memorial Day)
- Bicycle and road races
- Walking School Buses
- Bike rodeos
- Interpretive Trails and Guided Nature Tours
- Safe Routes to School (http://www.dot.state.sc.us/ community/saferoutes.shtml)
- Community Gardens
- Art Events
- Bicycle Rentals
- Bike Racks on Buses
- Environmental programs (stream clean-ups, tree plantings, etc)
- Adopt-a-Trail
- Public health programs, promotions, and incentives

Finally, the Partners for Active Living, in Spartanburg, SC, is an excellent model for an organization in Greenville, SC. This group is a successful advocate and promoter of active, pedestrian and bicyclist environments. It provides and/or supports a wide array of bicycle and pedestrian educational and encouragement programs in the area. See http://active-living.org/ for more information.

# 5.6 Policy Recommendations

Existing land development and roadway design policies have a significant effect on pedestrian and bicycle transportation and recreation in the City of Greenville. The existing policies should be strengthened to improve accommodations for non-motorized transportation and recreation facilities.

Suggested changes to the *City of Greenville Code of Ordinances* include adding the following text regarding greenways in adopted plans:

"In any case in which a greenway is indicated on an adopted plan of the City of Greenville as being located on lands proposed for development, such greenway shall be dedicated and developed."

This requirement should be inserted into *Chapter 19 Land Development Regulations, Article II, Subdivision Regulations, Division 4: Required Improvements,* as a new section entitled, "*Sec.19-72. Greenways*". This division of the code already outlines provisions for sidewalks, streets, and other required improvements; greenways should be no different in this respect, and should be dedicated upon development.

Also in *Division 4: Required Improvements*, the section on floodways provides that parking lots can be built within the floodway fringe. This should also be true of paved greenway trails. Trails do not impede the flow of water, and furthermore, they can be designed with pervious surfaces so as not to contribute to runoff. Finally, trails provide access to flood prone areas so that these lands can be better managed to reduce hazards and improve stormwater flow.

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In Chapter 36 Streets Sidewalks and Other Public Spaces, Article IV, Right-of-Way Management and Utility Usage, Sec. 36-112, Coordination and planning(c), the following is stated regarding right-of-ways, utilities, and planning:

"Providers of public utilities and the city shall meet as needed, and at least once each year, to review the utility's master plans and the city's repaving and capital improvement plans in order to coordinate the work to be done by both parties in the public rights-of-way. At each annual meeting, which shall be organized by the public works director, parties shall review these plans for the ensuing four-year period and develop a work schedule to maximize the efficiency of all parties and to minimize the frequency with which pavement cuts are made...Reasonable changes suggested by the city shall be incorporated into the utility's plans."

The Greenway and Trail Coordinator (see page 5-1) should attend such meetings to coordinate planning efforts and be proactive in advocating for the mutual benefit of trails in utility corridors (improved access to service utilities, etc.). The Public Works Director should be informed and updated about desired greenway trail routing and the potential for coordinating greenway trails with existing or planned utility corridors.

# 5.7 Evaluation and Monitoring

The City of Greenville should work with local communities and advocacy organizations to establish performance measures to benchmark progress towards achieving the goals of this Plan. These performance measures should be stated in an official report within one to two years after the Plan is adopted. This report should discuss chapter 5 5 opportunities that are created through performance measures, such as the ability to track trends in pedestrian and bicycle use and safety over time, present accurate information on pedestrian and bicycle facility use to policy makers, cite accurate inventories of the quantity and quality of facilities during planning and analysis tasks, and understand the characteristics and needs of pedestrians and bicyclists in the community. The report should also discuss challenges, such as the cost of data collection and reporting, accuracy of data, and how to establish realistic performance targets for pedestrian and bicycle improvements.

Baseline data should be collected as soon as the performance measures are established. The performance measures can address the following aspects of pedestrian and bicycle transportation and recreation in the Greenville area:

- Safety. Measures of pedestrian/bicycle crashes or injuries.
- Usage. Measures of how many people are bicycling and walking on on-road and off-road facilities.
- *Facilities*. Measures of how many pedestrian and bicycle facilities are available and the quality of these facilities.
- *Education/Enforcement*. Measures of the number of people educated or number of people ticketed as a part of a bicycle and pedestrian safety campaign.
- *Institutionalization*. Measures of the total budget spent on bicycle, pedestrian, and greenway projects and programs or the number of municipal employees receiving bicycle facility design training.
- *Cost.* Measures of the total cost of pedestrian and bicycle facilities per mile or per user.

When establishing performance measures, the City of Greenville should consider utilizing data that can be collected cost-effectively and be reported at regular intervals, such as in a performance measures report that is published every two to three years. As the process of collecting and reporting pedestrian, bicycle, and greenway data is repeated over time, it will become more efficient.

It will also be a responsibility of BPAC and/or a Greenway and Trails Committee to evaluate and monitor the existing and recommended network over the next 10-20 years. The Committee should review process and progress and evolve and adapt as needed. Land use, transportation, development, and the overall landscape will continue to change as Greenville grows, resulting in a dynamic urban area. Also, new opportunities or input from an on-going monitoring and evaluation process may emerge, leading to the need to adapt and update the recommendations of this Plan.

# 5.8 Greenway Acquisition Strategies

A number of methods should be pursued for the overall implementation and acquisition, of the greenway and trail network. Because the majority of greenways and trails exist in an off-road environment, the acquisition of land or easements becomes a critical part of the implementation process. The recommended alignment of greenways in this Plan follows publicly-owned land where possible, but in most cases, an acquisition strategy will have to be implemented in areas of privately-owned land.

There are several resources and strategies that can aid in the acquisition process. Enlisting the support of a local land trust could

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help broker land protection arrangements between private landowners and the City of Greenville. Providing educational material to local landowners and developers about the benefits of greenways and land/ easement donations is also an excellent means to stimulate greenway acquisition.

The following sections detail a list of specific strategies, including the formation of partnerships and a toolbox of acquisition options.

# 5.8.1 Partnerships

The City of Greenville should pursue partnerships with land trusts and land managers to make more effective use of its land acquisition funds and strategies. The following offers recommendations on how these partnerships could be strengthened

### Land Trusts

Land trust and non-profit organizations, such as the Naturaland Trust, Upstate Forever, and Friends of the Reedy, to name just three, are valuable partners for the City of Greenville, when it comes to acquiring land and rights-of-way for greenways. These groups can work directly with landowners and conduct their business in private so that sensitive land transactions are handled in an appropriate manner. Once the transaction has occurred, the land trust will usually convey the acquired land or easement to a public agency, in this case the City of Greenville, for permanent stewardship and ownership.

### Private Land Managers

Another possible partnership that could be strengthened would be with the utility companies that manage land throughout the Greenville

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area. Electric utility companies have long recognized the value of partnering with local communities, non-profit trail organizations and private land owners to permit their rights-of-way to be used for trail development. This has occurred all over the United States and throughout Carolinas. In 1987, a special report was prepared and published jointly by American Trails, Inc. and the Edison Electric Institute, entitled, *Trails on Electric Utility Lands: A Model of Public-Private Partnership*. The report features examples where trails and electric utility companies share the right-of-way. Some of the trails included in the report are the Calumet Trail, Foothills Trail, Illinois Prairie Path, Interurban Trail and Puget Power, Redmond Trail, Mason Dixon Trail and the Washington and Old Dominion Trail.

Natural gas companies, whose pipelines traverse the United States, have also allowed their rights-of-way to be used for trail development. This cooperative spirit may have been modified a bit since the events of September 11, 2001, however, there are plenty of examples throughout North and South Carolina and the nation where shared rights-of-way exist. Again, a publication entitled "*Greenways, Wildlife and Natural Gas Pipeline Corridors: New Partnerships for Multiple Use,*" written by Keith G. Hay, and published in 1994 by the Conservation Fund, Arlington, VA, chronicles the success of this partnership. Some key excerpts from the book:

• Although 82% of the [gas transmission companies] companies reported that they had never had a liability suit filed by a recreational user of a ROW (right-of-way) corridor, concern over expensive lawsuits prevails. Each of the 13 companies that reported a liability suit were contacted to determine the nature of the liability action. In every lawsuit filed except one (a logging accident crossing a Right-of-Way (ROW)), the plaintiff was driving either an ATV or a snowmobile on the ROW. All ATV drivers were trespassing.

• Potential partnerships with public groups should be viewed very positively and companies should be prepared to do some grassroots legwork with these groups. Many companies have found such efforts have paid off in facilitating the issuance of permits and increasing public support for projects. Such initiatives are highly recommended.

• Potential public interest partners have well-developed avenues for publicizing their cooperative ventures with utilities. Companies would be well advised to take advantage of these opportunities to promote the positive aspects of these associations.

• Benefits to the utility. Eastern Trail shares its corridor with the following utility companies: Granite State Gas Transmission Company, Northern Utilities Natural Gas, Central Maine Power, Verizon and Biddeford, Scarborough Sanitation District and Saco Water Company.

• "Partnerships on greenways like the Eastern Trail provide utility companies with an uninterrupted, easily accessible, stretch of land that is relatively free from disturbance. The safe and efficient operation of utilities can be enhanced by the protective eyes and ears of trail users and advocates, who can report improper trail use and other situations that involve utility equipment."

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Greenville should actively update and maintain relationships with private utility and land managers to ensure that the communitywide greenway and trail system can be accommodated within these rights-of-way. The City will need to demonstrate to these companies that maintenance will be addressed, liability will be reduced and minimized and access to utility needs will be provided.

# 5.8.2 Greenway Acquisition Tools

The following menu of tools describes various methods of acquisition that can be used by landowners, land conservation organizations, and the City of Greenville to acquire greenway lands. Regulatory measures, land management techniques, and acquisition/donation methods are described.

### Government Regulation

Regulation is defined as the government's ability to control the use and development of land through legislative powers. Regulatory methods help shape the use of land without transferring or selling the land. The following types of development ordinances are regulatory tools that can meet the challenges of projected suburban growth and development as well as conserve and protect greenway resources.

*Exactions:* An exaction is a condition of development approval that requires development to provide or contribute to the financing of public facilities at their own expense. For example, a developer may be required to build a greenway on-site as a condition of developing a certain number of units because the development will create the need for new parks or will harm existing parks due to overuse. This mechanism can be used to protect or preserve greenway lands, which

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are then donated to the City of Greenville. Consideration should be given to include greenway development in future exaction programs. Most commonly, exactions are in the form of mandatory dedications of lands for parks and infrastructure, fees in lieu of mandatory dedication, or impact fees.

*Mandatory Dedication*: This is a type of exaction where subdivision regulations require a developer to dedicate or donate improved land to the public interest. A dedication may involve the fee simple title to the land, an easement, or some other property interest. Sometimes, the construction of an improvement itself is required such as a park or greenway.

*Fee-in-Lieu*: An exaction can take the form of a fee-in-lieu of mandatory dedication. It can also complement negotiated dedications (described below). Based on the density of development, this program allows a developer the alternative of paying money for the development/protection of open space and greenways in lieu of dedicating greenway and park lands. Payments are made representing the value of the site or improvement that would have been dedicated or provided. This allows local governments to pool fees from various subdivisions to finance facilities like parks and greenways. This money can be used to implement greenway management programs or acquire additional open space.

*Impact Fee*: A final type of exaction, an impact fee can fund a broader range of facilities that serve the public interest. They are commonly imposed on a per unit rather than a build out basis, making them more flexible and keeping developers from having to pay large up

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front costs. These do not have to be directly tied to any requirements for improvements or dedications of land. They can be more easily applied to off-site improvements.

Growth Management Measures (Concurrency): Concurrency-based development approaches to growth management simply limit development to areas with adequate public infrastructure. This helps regulate urban sprawl, provides for quality of life in new development, and can help protect open space. In the famous case with the Town of Ramapo (1972), the Town initiated a zoning ordinance making the issue of a development permit contingent on the presence of public facilities such as utilities and parks. This was upheld in Court and initiated a wave of slow-growth management programs nationwide. This type of growth management can take the form of an adequate public facilities ordinance.

*Transfer of Development Rights:* These can provide greater zoning entitlement to property owners with limited development rights who purchase additional rights from other property owners. They can be the exchange of zoning privileges from areas with low population needs, such as farmland, to areas of high population needs, such as downtown areas. These transfers allow for the preservation of open spaces and historic landmarks, while giving urban areas a chance to expand and experience continued growth. It does require state enabling legislation and is a fairly complicated program to establish and administer.

*Performance Zoning:* Performance zoning is zoning based on standards that establish minimum requirements or maximum limits

on the effects or characteristics of a use. This is often used for the mixing of different uses to minimize incompatibility and improve the quality of development. For example, how a commercial use is designed and functions determines whether it could be allowed next to a residential area or connected to a greenway.

Incentive Zoning (Dedication/Density Transfers): Also known as incentive zoning, this mechanism allows greenways to be dedicated for density transfers on development of a property. The potential for improving or subdividing part or all of a parcel can be expressed in dwelling unit equivalents or other measures of development density or intensity. Known as density transfers, these dwelling unit equivalents may be relocated to other portions of the same parcel or to contiguous land that is part of a common development plan. Dedicated density transfers can also be conveyed to subsequent holders if properly noted as transfer deeds.

*Conservation Zoning:* This mechanism recognizes the problem of reconciling different, potentially incompatible land uses by preserving natural areas, open spaces, waterways, and/or greenways that function as buffers or transition zones. It can also be called buffer or transition zoning. This type of zoning, for example, can protect waterways by creating buffer zones where no development can take place. Care must be taken to ensure that the use of this mechanism is reasonable and will not destroy the value of a property.

*Overlay Zoning:* An overlay zone and its regulations are established in addition to the zoning classification and regulations already in place. These are commonly used to protect natural or cultural features such

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as historic areas, unique terrain features, scenic vistas, agricultural areas, wetlands, stream corridors, and wildlife areas.

*Negotiated Dedications:* This type of mechanism allows municipalities to negotiate with landowners for certain parcels of land that are deemed beneficial to the protection and preservation of specific stream corridors. This type of mechanism can also be exercised through dedication of greenway lands when a parcel is subdivided. Such dedications would be proportionate to the relationship between the impact of the subdivision on community services and the percentage of land required for dedication-as defined by the US Supreme Court in Dolan v Tigard.

*Reservation of Land:* This type of mechanism does not involve any transfer of property rights but simply constitutes an obligation to keep property free from development for a stated period of time. Reservations are normally subject to a specified period of time, such as 6 or 12 months. At the end of this period, if an agreement has not already been reached to transfer certain property rights, the reservation expires.

*Planned Unit Development:* A planned unit development allows a mixture of uses. It also allows for flexibility in density and dimensional requirements, making clustered housing and common open space along with addressing environmental conditions a possibility. It emphasizes more planning and can allow for open space and greenway development and connectivity.

Cluster Development: Cluster development refers to a type of development with generally smaller lots and homes close to one chapter 5 another. Clustering can allow for more units on smaller acreages of land, allowing for larger percentages of the property to be used for open space and greenways.

*Urban Growth Boundary:* This is the demarcation of the limit of urban infrastructure (water and sewer extensions). It can help limit sprawl and encourages more compact development. It typically requires strong countywide cooperation.

#### Land Management

Management is a method of conserving the resources of a specific greenway parcel by an established set of policies called management plans for publicly owned greenway land or through easements with private property owners. Property owners who grant easements retain all rights to the property except those which have been described in the terms of the easement. The property owner is responsible for all taxes associated with the property, less the value of the easement granted. Easements are generally restricted to certain portions of the property, although in certain cases an easement can be applied to an entire parcel of land. Easements are transferable through title transactions, thus the easement remains in effect perpetually.

*Management Plans:* The purpose of a management plan is to establish legally binding contracts which define the specific use, treatment, and protection for publicly owned greenway lands. Management plans should identify valuable resources; determine compatible uses for the parcel; determine administrative needs of the parcel, such as maintenance, security, and funding requirements; and recommend short-term and long-term action plans for the treatment and protection of greenway lands.

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*Conservation Easement:* This type of easement generally establishes permanent limits on the use and development of land to protect the natural resources of that land. When public access to the easement is desired, a clause defining the conditions of public access can be added to the terms of the easement. Dedicated conservation easements can qualify for both federal income tax deductions and state tax credits. Tax deductions are allowed by the Federal government for donations of certain conservation easements. The donation may reduce the donor's taxable income.

*Preservation Easement:* This type of easement is intended to protect the historical integrity of a structure or important elements in the landscape by sound management practices. When public access to the easement is desired, a clause defining the conditions of public access can be added to the terms of the easement. Preservation easements may qualify for the same federal income tax deductions and state tax credits as conservation easements.

*Public Access Easements:* This type of easement grants public access to a specific parcel of property when a conservation or preservation easement is not necessary. The conditions of use are defined in the terms of the public access easement.

#### Acquisition

Acquisition requires land to be donated or purchased by a government body, public agency, greenway manager, or qualified conservation organization. Donation or Tax Incentives: In this type of acquisition, a government body, public agency, or qualified conservation organization agrees to receive the full title or a conservation easement to a parcel of land at no cost or at a "bargain sale" rate. The donor is then eligible to receive a federal tax deduction of up to 30 to 50 percent of their adjusted gross income. Additionally, North Carolina offers a tax credit of up to 25 percent of the property's fair market value (up to \$5000). Any portion of the fair market value not used for tax credits may be deducted as a charitable contribution. Also, property owners may be able to avoid any inheritance taxes, capital gains taxes, and recurring property taxes.

*Fee Simple Purchase:* This is a common method of acquisition where a local government agency or private greenway manager purchases property outright. Fee simple ownership conveys full title to the land and the entire "bundle" of property rights including the right to possess land, to exclude others, to use land, and to alienate or sell land.

*Easement Purchase:* This type of acquisition is the fee simple purchase of an easement. Full title to the land is not purchased, only those rights granted in the easement agreement. Therefore the easement purchase price is less that the full title value.

*Purchase / Lease Back:* A local government agency or private greenway organization can purchase a piece of land and then lease it back to the seller for a specified period of time. This lease may contain restrictions regarding the development and use of the property.

Bargain Sale: A property owner can sell property at a price less than the appraised fair market value of the land. Sometimes the seller can derive the same benefits as if the property were donated. Bargain Sale is attractive to sellers when the seller wants cash for the property, the seller paid a low cash price and thus is not liable for high capital gains tax, and/or the seller has a fairly high current income and could benefit from the donation of the property as an income tax deduction.

Installment Sale: An installment sale is a sale of property at a gain where at least one payment is to be received after the tax year in which the sale occurs. These are valuable tools to help sellers defer capital gains tax. This provides a potentially attractive option when purchasing land for open space from a possible seller.

Option / First Right of Refusal: A local government agency or private organization establishes an agreement with a public agency or private property owner to provide the right of first refusal on a parcel of land that is scheduled to be sold. This form of agreement can be used in conjunction with other techniques, such as an easement to protect the land in the short-term. An option would provide the agency with sufficient time to obtain capital to purchase the property or successfully negotiate some other means of conserving the greenway resource.

Purchase of Development Rights: A voluntary purchase of development rights involves purchasing the development rights from a private property owner at a fair market value. The landowner retains all ownership rights under current use, but exchanges the rights to develop the property for cash payment.

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Land Banking: Land banking involves land acquisition in advance of expanding urbanization. The price of an open space parcel prior to development pressures is more affordable to a jurisdiction seeking to preserve open space. A City or County might use this technique to develop a greenbelt or preserve key open space or agricultural tracts. The jurisdiction should have a definite public purpose for a land banking project.

Condemnation: The practice of condemning private land for use as a greenway is viewed as a last resort policy. Using condemnation to acquire property or property rights can be avoided if private and public support for the greenway program is present. Condemnation is seldom used for the purpose of dealing with an unwilling property owner. In most cases, condemnation has been exercised when there has been an absentee property ownership, when the title of the property is not clear, or when it becomes apparent that obtaining the consent for purchase would be difficult because there are numerous heirs located in other parts of the United States or different countries.

Eminent Domain: The right of exercising eminent domain should be done so with caution by the community and only if the following conditions exist: 1) the property is valued by the community as an environmentally sensitive parcel of land, significant natural resource, or critical parcel of land, and as such has been defined by the community as irreplaceable property; 2) written scientific justification for the community's claim about the property's value has been prepared and offered to the property owner; 3) all efforts to negotiate with the property owner for the management, regulation, and acquisition of the property have been exhausted and that the property owner has been given reasonable and fair offers of compensation and

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has rejected all offers; and 4) due to the ownership of the property, the timeframe for negotiating the acquisition of the property will be unreasonable, and in the interest of pursuing a cost effective method for acquiring the property, the community has deemed it necessary to exercise eminent domain.



Friendly reminder to protect one of Greenville's greatest assets

implementation

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# 6.0 Operations & Maintenance

# 6.1 Overview

Operations and maintenance refers to specific day-to-day tasks and programs performed to assure resources and facilities are kept in good usable condition. This begins with sound design, durable components, and a comprehensive management plan. A management plan should be embraced by the entities responsible for maintaining the greenway and trail network, at the beginning of the implementation process. In addition, community groups, residents, business owners, developers and other stakeholders should be engaged in the long term stewardship of the resources preserved and enhanced by this plan as discussed later in this chapter.

#### 6.1.1 Guiding Principles for Effective Operations and Maintenance

The Greenville greenway and trail system should be viewed and maintained as a public resource. Indeed it will become infrastructure similar to the street system or utility networks, serving the community for generations to come. The following guiding principles will help assure the preservation of a first class system:

- Good maintenance begins with sound planning and design
- Foremost, protect life, property and the environment
- Promote and maintain a quality outdoor recreation and transportation experience
- Develop a management plan that is reviewed and updated annually with tasks, operational policies, standards, and routine and remedial maintenance goals
- Maintain quality control and conduct regular inspections

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- Include field crews, police and fire/rescue personnel in both the design review and on-going management process
- Maintain an effective, responsive public feedback system and promote public participation
- Be a good neighbor to adjacent properties
- Operate a cost-effective program with sustainable funding sources

# 6.1.2 Resource Stewardship and Enhancement

A well-managed greenway and trail system is critical to the longterm success of this Plan. This includes stewardship, the oversight of resources, and operations and maintenance. This includes such activities as monitoring the condition of greenway and ancillary facilities; monitoring the impact of growth on greenway facilities; and long-term application of policies—such as land-use and development measures—in accordance with the objectives of this plan. Stewardship might range from cleaning up litter to assuring that a project does not visually scar the surrounding landscape.

The stewardship process must consider both private sector—such as land subdivision and development—and public sector activities such as the construction of roads and utilities. In pursuit of this, coordination among agencies at the local, regional, state, and federal level is vital to assure that these activities are supportive of the plan and complementary to each other. Long term stewardship also calls for the enduring commitment of agency staff, elected officials and concerned citizens all working together. This suggests the need for a shared community vision and value system centered on the protection of greenway, trail, bicycle, pedestrian, and outdoor recreational resources. This plan and similar plans can help coordinate and guide that action.

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# 6.2 Routine and Remedial Operations

The following task lists describe the general routine and remedial operations responsibilities for all network facilities.

#### 6.2.1 Routine Operations Defined

Routine operations refer to the daily activities required to oversee a greenway and trail system.

#### Task: Systematic risk management assessment

Safety is central to all maintenance operations, and is the single most important greenway, trail, bicycle, and pedestrian facility maintenance concern. The City of Greenville should implement a safety program that includes the following preventative measures.

• Schedule and document inspections to determine the amount of use, location, age, type of construction, and condition of railings, bridges, trail surfaces, signage, etc. Follow-up with the appropriate corrective measures in a timely manner.

• Evaluate and remove all obstacles or objects that could impede facility usage such as debris, rumble strips, etc. and provide solutions such as alternative routing, removal of obstacle, etc.

• Implement a data base management system, a Crime Tracking System, with police for tracking the specific locations and circumstances of all incidents, such as vandalism, and create a safety follow-up task force to address any problems that develop.

• Implement an emergency response protocol working with law enforcement, EMS agencies, and fire department that includes

mapping of access points, design of trails and access roads (to accommodate up to 6.5 tons), and an "address system" such as mile markers to identify locations for all off-road greenway facilities. On-road facilities should make use of the existing street names and adjacent property addresses. Where appropriate, 911 emergency phones should be installed in remote areas. Each local emergency response office/unit should have an up-to-date map of all City greenway and trail facilities.

#### Task: Inter-agency design review

Coordination between and commitment of agencies responsible for greenway and trail facilities is crucial to complete the following routine maintenance tasks. In addition to department managers, planners, designers and engineers, police and fire/rescue, and field maintenance personnel should be consulted in the design and review process. The creation of a Greenway Committee (recommended in Chapter 5-Implementation) is recommended to carry out the following tasks.

- Establish a coordinating committee with representatives from each of the participating agencies and stakeholders
- Identify an entity to provide on-going oversight, coordination, and leadership for the overall network

• Review critical public and private sector projects that might impact the greenway, bicycle, and pedestrian projects as they come on line

• Pursue grants and cooperative agreements

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• Monitor operations and maintenance and other advocacy functions now and over the years to come.

• Review accident and crime reports and take the necessary upfront actions, on a case by case basis, to assure that greenway, bicycle, and pedestrian facilities do not deteriorate due to safety concerns, crime, or from fear of criminal activity

#### Task: Accurate and Organized Record Keeping

Good record-keeping techniques are essential to a comprehensive operations and maintenance program. This information can be used to eliminate overlap or gaps in maintenance services provided, identify levels of use, and prioritize management needs.

- Daily activities
- Schedule of routine (and remedial) maintenance tasks
- Hazards, incidents, safety issues observed and action taken
- Inspection reports
- Annual maintenance budget, pursuing various funding sources
- Projected costs for subsequent years (short-term, medium term, and long-term) to reflect on project prioritization as shown in Chapter 5: Prioritization of Trail Projects
- Internal working database for existing, planned, or proposed projects for greenway and trail system

# 6.2.2 Remedial Operations Defined

Remedial operations refer to activities required to sustain the quality of the greenway and trail network.

### Task: Program Development

- Update informational signage (rules and regulations) to communicate proper usage of all network facility types
- Update directional signage to integrate greenway, bicycle, and pedestrian systems and as new projects are implemented

• Update user maps to reflect any additions or changes to the systems or overall network and also reference the connections between greenway, bicycle, and pedestrian facilities

# Task: General Operations

- Provide contact information and institute an agency response for facility users to report questions, comments, concerns, or complaints regarding the network, and a feedback phone number and Web address
- Continue to provide and establish new public education and citizen participation programs for network users See Chapter 5: Program Recommendations
- Pursue development of an easy to use management manual and training program and incorporate it into existing and new maintenance programs and procedures within the participating agencies

# 6.3 Routine and Remedial Maintenance

The following task lists describe the general routine and remedial maintenance responsibilities for all greenway and trail facilities. To complement this text, Table 6(a) illustrates maintenance recommendations.

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	Maintenance of Trail Facilities								
		Natural Surface Trail	Natural Surface Trail Paved Multi-Use Trail On Road Bicycle and Pedestrian Facilities		Recommendations				
Routine	Routine Maintenance Activities								
Facility Maintenance	Sweeping	N/A	2 times / year	See Table 6(b)	Paved facilities will be swept by machine or spot sweeping of bad areas will be swept by hand or with blowers. Some trails require a combination of methods. Transition areas between unpaved and paved facilities will require extra attention to remove potentially hazardous debris from the paved surfaces.				
Facility I	Trash Removal	2-4 times / year	6 times / year	Sidepaths 6 times / year or See Table 6(b)	This includes removing ground debris. Emptying trash containers is discussed in Table 6(b). Volunteers should be utilized for this task, such as Adopt-a-trail programs.				
ment	Tree and Shrub Trimming and Pruning	Spring and Fall and as needed, such as after a storm to maintain 8' high and 6'-8' wide clearance	Spring and Fall and as needed, such as after a storm to maintain 10' high (12' high for equestrian) and 12'-14' wide clearance	Spring and Fall and as needed, such as after a storm to maintain 10' high and 2'-14' wide clearance (depending on the facility type)	Tree and shrub trimming and pruning should be performed to the City's specifications and should be scheduled according to species type. This service will be performed for the safety of trail users, to maintain safe use of all facilities, without physical obstacles, such as low hanging tree limbs and visual obstructions, such as limited line of sight.				
Vegetation Management	Mowing of Vegetation	N/A	30 times / year	30 times / year	Vegetation along trail corridors should be mowed on a regularly scheduled basis.				
etation	Mulching and Edging	Once/year or as needed	N/A	N/A	Nature trails may require mulch in some areas to maintain a usable trail surface. Edging to prevent encroachment of grass.vegetation on trail is also needed.				
Vege	Invasive Species Control	Once / year and as needed in problem areas	Once / year and as needed in problem areas	As scheduled for routine maintenance of adjacent roadway	Vegetation, weed and pest management plans should be put into place to control invasive species and protect endangered plant and animal species and preserve wetlands, riparian buffers, and other resources of special natural, cultural or urban infrastructure value.				
Remedia	al Maintenance Activities								
Ļ	Replenish gravel, mulch, or other surface materials	once / year and as needed	N/A	N/A					
Facility Repair or Replacement	Repaint/Restripe/Stain	N/A	N/A	N/A					
icility ⊺ Repla	Replace asphalt or concrete	N/A	10-12 years	10-12 years					
Fa	Remove encroaching debris along paved trail/sidewalk edges	As needed	As needed	Edging-As needed					

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lent	Regrade to prevent or eliminate low spots and drainage issues	Only if absolutely necessary	As needed	Responsibility of City Department as part of remedial maintenance of the adjacent roadway	
Facility Repair or Replacement	Addition or repair of culverts, bridges, boardwalks, retaining walls, etc. to prevent or eliminate drainage/erosion issues	N/A	30 years or As needed	30 years or As needed	
Facility Re	Reroute trail, if necessary, to avoid environmentally sensitive or overused areas, safety issues, or construction projects	As needed	As needed	Responsibility of City Department with input from Committee to reroute bicycle and pedestrian facilities if the adjacent roadway is rerouted or closed	
aintenance	Remove leaf litter	N/A	As needed	As needed by Department for sidepaths. See Table 6(b)	Prioritize removal by the most heavily used facilities and geographic location. Limited development trails should be emphasized as natural environments and warnings should be posted that hazardous conditions may exist with the changing seasons.
Seasonal Maintenance	Remove snow and ice	N/A	As needed	As needed by Department for sidepaths. See Table 6(b)	Prioritize removal by the most heavily used facilities, such as commuter routes, and geographic location. Limited development trails should be emphasized as natural environments and warnings should be posted that hazardous conditions may exist with the changing seasons.
itrol	Plant vegetation, such as trees and shrubs	As needed to prevent erosion and introduce native plant materials into the landscape	As needed to prevent erosion or as landscape features during the installation of a trail	Responsibility of Department	
Habitat Enhancement and Control	Take preventative measures to protect the landscape from the wildlife	As needed	As needed	As needed	
abitat Enhance	Apply herbicide to eliminate any problem areas	As needed to discourage growth of invasive or problem species, such as poison ivy, kudzu		As needed to discourage growth of invasive or problem species, such as poison ivy, kudzu	
Ï	Apply herbicide to maintain edges and prevent encroaching vegetation, such as along trails and sidewalks	N/A	As needed	As needed	

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Table 6(b) below lays out maintenance tasks for facilities such as pedestrian signals, crosswalks, bicycle lanes, and roadway shoulders. These types of pedestrian and bicycle facilities are provided within the roadway right-of-way and should be maintained by either the South Carolina Department of Transportation (SCDOT) or the City of Greenville Public Works Department. A Greenville staff member should be designated as the main contact for the maintenance of pedestrian and bicycle facilities in the roadway right-of-way. This staff member should coordinate with the appropriate departments to conduct maintenance activities in the field. Funding for an ongoing maintenance program should be included in the City's or County's operating budget or Capital Improvements Program.

Note that the schedule is intended to provide general guidance for routine and remedial maintenance activities. The frequency of pedestrian and bicycle facility maintenance within the roadway rightof-way will vary. Maintenance needs will depend upon many factors, including pavement surface type, the use of paint or thermoplastic for markings, and traffic volumes. The City of Greenville Public Works Department and SCDOT should make immediate repairs to any on-road pedestrian and bicycle facilities that are damaged or have hazardous conditions. The Greenville staff member in charge of maintenance should set up a free maintenance hotline for people to provide information about spot maintenance needs in the urban area.

Facilities Within Roadway Rights-of-Way City of Greenville & South Carolina DOT					
Task	TaskFrequencyComments				
Regular inspection	2 times per year	Includes all on-road bikeways, identify needed repairs of pavement signs, markings, etc			
Shoulder and bike lane sweeping	2 times per year	All roadways with bicycle facilities			
Shoulder and bike lane repairs	As needed	Repair of road surface, including potholes, cracks, or other problems on bicycle facilities			
Median island and curb extension repairs	As needed	Repair of curb and gutters, removal of debris			
Shoulder and bike lane resurfacing	During regular roadway repaving	Ensure that pavement width is maintained or increased during repaving projects			
Debris removal from shoulders	As needed	Remove debris from roadway shoulders and bike lanes such as limbs, silt, and broken glass			
Snow and ice removal	As needed	Plow snow off of roadway shoulders and bike lanes, and require property owners to shovel sidewalks			

Maintenance of Pedestrian and Bicycle

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Pedestrian signals	As needed	Replace burned out or broken pedestrian signal heads; adjust pedestrian signal timing to accommodate MUTCD standard pedestrian walking speed
Signs and markings	As needed	Repair or replace pedestrian and bicycle warning signs, bicycle route signs, crosswalk markings, bicycle lane markings, and any other similar facilities identified during inspections
Vegetation control	During regular roadway	Mow grass and trim limbs and shrubs 2 feet back from sidewalk edge
Litter removal Figure 6(b)	6 times per year	Could be done with volunteers

### 6.3.1 Routine Maintenance Defined

Routine maintenance refers to the day-to-day regimen of litter pickup, trash and debris removal, weed and dust control, trail sweeping, sign replacement, tree and shrub trimming, and other regularly scheduled activities. Routine maintenance also includes minor repairs and replacements such as fixing cracks and potholes or repairing a broken hand railing.

The following tasks should be performed on a regular basis to keep all network facilities in good, usable condition. Maintenance tasks should be conducted more frequently for greenway, bike, and pedestrian facilities where use is the most concentrated. Methods such as pedestrian and bicycle counts, sketch plan analysis methods for estimating pedestrian and bicycle demand, public survey results, and public meeting comments, such as the results found in Appendix B, can be used to determine which resources are the most heavily used and may require the most maintenance attention. The frequency of required maintenance tasks should be established as new facilities are implemented and should be reviewed and updated annually to reflect any changes in usage, safety issues, etc.

# Task: Facility Maintenance

Basic housekeeping of greenway and trail facilities will ensure that the network is clean and functional and will also improve the life of each facility. Volunteer efforts should be utilized in the performance of this maintenance task.

- Sweeping
- Trash removal

# Task: Vegetation Management

To maintain a high quality network, regular attention should be given to the surrounding landscape, both natural and man-made. This not only improves the aesthetic quality of the network but also improves the users' sense of safety, as well.

- Tree and shrub trimming and pruning
- Mowing of vegetation
- Mulching and edging
- Invasive species control

# 6.3.2 Remedial Maintenance Defined

Remedial Maintenance refers to correcting significant defects in the network, as well as repairing, replacing or restoring major components that have been destroyed, damaged, or significantly deteriorated from operations & management

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normal usage and old age. Some items ("minor repairs") may occur on a five to ten year cycle such as repainting, seal coating asphalt pavement or replacing signage. Major reconstruction items will occur over a longer period or after an event such as a flood. Examples of major reconstruction remedial maintenance include stabilization of a severely eroded hillside, repaving a trail surface or a street used for biking, or replacing a footbridge. Remedial maintenance should be part of a long-term capital improvement plan.

The following tasks should be performed on an as needed basis to keep network facilities in good, usable condition. Table 6(c) depicts the average life of each facility type, as well as general ancillary facilities, with normal wear and tear. The repair or replacement of existing facilities should be reflected in a projected budget for future maintenance costs.

Longevity of Facilities				
Mulch	2-3 years			
Granular stone	7-10 years			
Asphalt	7-15 years			
Concrete	20 + years			
Boardwalk	7-10 years			
Bridge/Underpass/ Tunnel	100 + years			

Table O(c).

# Task: Facility Repair or Replacement

All facilities will require repair or replacement at one time or another. The time between observation and repair/replacement will depend on whether the needed repair is deemed a hazard, to what degree the needed repair will affect the safety of the user, and whether the needed repair can be performed by an in-house maintenance crew or if it is so extensive that the needed repair must be done by outside entities or replaced completely. Some repairs are minor, such as repainting or resurfacing bicycle lanes and can be done in conjunction with other capital projects, such as repaying the adjacent street.

- Replenish gravel, mulch, or other materials
- Repaint/restripe/stain
- Repave/seal
- Replace asphalt or concrete
- Remove encroaching debris along paved trail/sidewalk edges
- Regrade to prevent or eliminate low spots and drainage issues
- Add culverts, bridges, boardwalks, retaining walls, etc. to prevent or eliminate drainage/erosion issues
- Reroute trail, if necessary, to avoid environmentally sensitive or overused areas and any safety issues

# Task: Seasonal Maintenance

Seasonal tasks should be performed as needed. When conditions cannot be improved to provide for safe use, the facility should be closed to prevent the risk of injury to facility users. Designated maintenance crews will remove leaf debris, snow, and ice, etc. from all network facilities as soon as possible. Leaf debris is potentially hazardous when wet and special attention should be given to facilities

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with heavier usage. Ice control and removal of ice build-up is a continual factor because of the freeze-thaw cycle. Ice control is most important on grade changes and curves. Ice can be removed or gravel/ ice melt applied. After the ice is gone, leftover gravel should be swept as soon as possible.

- Remove leaf litter from network facilities, via raking, blowing, mulching, etc. as needed to sustain the safe usability of all network facilities and prevent any storm water drainage and/or erosion issues
- Remove snow and ice from network facilities, via shoveling, picking, salt, sand, etc. as soon as possible after storm

# Task: Habitat Enhancement and Control

Habitat enhancement and control can improve aesthetics, help prevent erosion, and provide for wildlife habitat. Habitat control involves mitigation of damage caused by wildlife.

- Plant vegetation, such as trees and shrubs
- Take preventative measures to protect landscape features from wildlife, such as installing fencing around sensitive or newly planted plant materials
- Apply herbicide to eliminate any problem plant species, such as poison ivy or kudzu, etc.
- Apply herbicide to maintain facility edges and prevent encroaching vegetation, such as along trails and sidewalks
- Deterinteraction between facility users and facility inhabitants, such as feeding the wildlife, etc.

# 6.4 Administration and Jurisdictional Responsibilities

# 6.4.1 Operation Responsibilities by Department

City of Greenville Parks and Recreation Department

Duties for the Park and Recreation Department would include carrying out the recommendations from this Plan, applying for funding, maintaining softscape trails and conducting routine maintenance of hardscape trails, and overseeing the safety and operations of all greenway facilities. Staff should also conduct tasks such as updating and publishing new maps, creating and updating GIS layers of all greenway facilities, proposing future alternative routes, and working with adjacent communities/counties to coordinate linkages. The Greenway Coordinator and/or staff should also play a role in education and encouragement programs.

### Greenville MPO

# (GPATS - Greenville-Pickens Area Transportation Study)

Representatives from the City and/or County of Greenville should take on the responsibilities of "Pedestrian Coordinator" and "Bicycle Coordinator." This is discussed in Chapter 5 - Implementation. These duties would include carrying out recommendations from this Plan, applying for funding, overseeing planning, design, and construction of the pedestrian and bicycle systems, and coordinating with the Greenway Coordinator and local and regional jurisdictions and SCDOT. These coordinators should work with other MPO staff to conduct tasks such as updating and publishing new local bicycle maps, creating and updating GIS layers of all bicycle facilities,

coordinating education, enforcement, and encouragement programs, monitoring the use and safety of pedestrian and bicycle facilities, proposing future alternative routes, and working with adjacent communities and regional organizations to coordinate pedestrian and bikeway linkages.

### Public Works Department / Engineering

The Public Works and/or Engineering Director should continue to oversee the construction and remedial maintenance of all hardscape trail, bicycle, and pedestrian facilities. One member of the City of Greenville should handle facility development and construction (including posting bicycle route signs) among his/her other responsibilities.

### South Carolina Department of Transportation (SCDOT)

SCDOT should continue to design and build on-road facilities along with maintaining all pedestrian and bicycle facilities within the roadway rights-of-way that are owned by the state (with the exception of sidewalks on local streets). This includes paved shoulders, bicycle lanes, crosswalks, pedestrian signals, and sidewalks on main roadways. The City of Greenville should work with SCDOT to develop a schedule for routine maintenance and a means of identifying locations for spot maintenance improvements.

### Police Department

All local police officers should go through training courses so that they are up to date with the most current laws governing bicyclists and pedestrians in South Carolina. Specific laws can be found here: http://www.dot.state.sc.us/getting/pdfs/bike\_laws.pdf.

# Volunteers

Services from volunteers, student labor, and seniors, or donations of material and equipment may be provided in-kind, to offset construction and maintenance costs. Formalized maintenance agreements, such as adopt-a-trail/greenway or adopt-a-highway can be used to provide a regulated service agreement with volunteers. Other efforts and projects can be coordinated as needed with senior class projects, scout projects, interested organizations, clubs or a neighborhood's community service to provide for the basic needs of the proposed networks. Advantages of utilizing volunteers include reduced or donated planning and construction costs, community pride and personal connections to the City's greenway, bicycle, and pedestrian networks.

# 6.4.2 Maintenance Responsibilities by Facility Type

Maintenance responsibility will continue to be with the Parks and Recreation Department and the Public Works Department depending on the type of facility to be maintained and whether or not it is routine or remedial. A number of other jurisdictions and entities, homeowner associations, and business groups will also have roles in maintaining specific facilities in the pedestrian, bicycle, and greenway networks. It will be helpful to create a citizen's group that could ultimately play an important role in coordinating and advocacy (See stewardship discussion, Section 6.1.2). A recommended maintenance schedule is included in Tables 6(a) and 6(b) for each system.

# Nature Trail

These spaces would be maintained by City Parks and Recreation crews or by homeowner associations where appropriate, for dedicated areas added into the system by new development.

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#### Greenway Trail

The City Parks and Recreation and Public Works Departments will continue to be the key agencies in the maintenance of facilities along roads, utility corridors, and stream corridors. The Parks and Recreation Department, or where appropriate, homeowners associations, should conduct routine maintenance of greenways. Public Works should be responsible for remedial maintenance of hardscape components.

### On-road Bicycle Facilities

This system should be maintained by the City Public Works Department, SCDOT, and patrolled by the City Police Department. A key to continued success will be the establishment and acceptance of bicycle facility operations and maintenance guidelines and proper training of both supervisory and field personnel regarding on-road bicycle facility upkeep. There should also be interagency coordination and user feedback protocols that assure timely response to citizen complaints and suggestions, including a website and toll-free hotline for pedestrian and bicycle maintenance requests. Bicycle route signs and bicycle racks should also be maintained by SCDOT, depending on the types and locations of facilities.

# Pedestrian Facilities (On-road sidewalk/sidepath)

Within the City of Greenville, major sidewalk repairs are made by the Public Works Department. Routine sidewalk maintenance should also be performed by the adjacent property owners and tenants, as prescribed by city ordinances. This may include individual owners, business and resident associations and special districts, as applicable. In suburban and rural areas outside the City, sidewalks on main roadways should be maintained by SCDOT and sidewalks on residential streets should be maintained by property owners. **chapter 6** 

# Trailheads and Feature Areas

These areas are to be maintained by the Public Works and Parks and Recreation Department or the respective homeowners associations if appropriate.

# Other Ancillary Facilities

Special furnishings and amenities such as benches and signage will be the responsibility of the appropriate jurisdictional entity such as the Public Works and Parks and Recreation Departments.

# 6.4.3 Administrative and Jurisdictional Recommendations

Actions to implement the following administrative and jurisdictional recommendations are described below. Collaboration between off-road greenways and on-road bicycle and pedestrian facility development should occur between the Greenway Committee and/or BPAC (discussed in Chapter 5 - Implementation), City Parks and Recreation, and the Transportation Planning Division.

#### Greenway

Currently, the Park and Recreation Department is responsible for 452 acres of parkland, including the majority of greenway planning, operations, and maintenance. However, funding can be increased to assist in these efforts. In order to increase the revenue generated for operations and maintenance of greenway facilities, the following actions are recommended.

# Action: Develop a non-profit group or coalition for greenways.

The following is an example list of the duties associated with the Friends of the Little Tennessee River Greenway in Macon County, 6-11 operations & management

NC. Friends of the Greenway (FROGs) assist Macon County in the management and development of the Little Tennessee River Greenway in a number of ways:

- Serve the public through the acquisition, restoration, protection, and enhancement of the natural resources.
- Integrate public recreational, historical, and cultural facilities with compatible commercial interest adjoining the Greenway.
- Develop an informational center and educational materials to enhance awareness of environmental and historical value of the Greenway.
- Assist local government in funding through grants, donations, leasing of concessions, and special events.
- Maintain a board and committees that fairly represent a diversity of interests in the community

The City of Greenville should work to establish a "Friends of the Greenways" organization that can help to advocate for and promote the full development of the community-wide greenway system. Friends groups can help to raise awareness and funds for greenway facility development and operation. The mission of these groups can be very simple, for example, the Friends of the Grand Forks Greenway has the following mission:

"The Friends of the Greenway is a volunteer community grass-roots effort to support the development of the Red River and Red Lake River corridors that exist between the Army Corps of Engineers Flood Protection Project within the cities of Grand Forks, ND and East Grand Forks, MN."

Typically, Friends of the Greenway will assist the City with promoting and advocating for the Greenway System. They can sponsor events that raise funds for the system. They can host community forums and meetings that increase awareness. They can sponsor events, such as hikes and races, which encourage residents of the community to use the greenways more often. Many Friends organizations operate under a non-profit, 501c3 status so that they can receive contributions from individuals and private sector groups.

Action: Hire and train new greenway maintenance crew personnel

• To maintain greenway facilities as described in Table 6(b), Greenway Routine and Remedial Maintenance Tasks

The Parks and Recreation and Public Works Department scurrently maintain recreational and trail facilities. Maintenance responsibilities include mowing, weed eating, repair of storm damage, blowing trails, removing leaves, rail painting, installing drainage, pesticide application (with license), etc. To improve maintenance standards for greenway facilities and predict future maintenance needs, the consultant recommends one maintenance crew person for every 15 miles of trail in need of maintenance. As additional mileage is added to the system, staff should be added in part time or full time positions to accommodate greater maintenance needs.

# 6.5 Cost of the Operations & Maintenance Program

Annual operations and maintenance costs vary, depending upon the facility to be maintained, level of use, location, and standard of maintenance. Operations and maintenance budgets should take into account routine and remedial maintenance over the life cycle of the improvements and on-going administrative costs for the operations and maintenance program. Table 6(d) provides an overview of approximate costs for basic bicycle, pedestrian and greenway trail operations and maintenance services. The estimates include field labor, materials, equipment and administrative costs.

Annual Maintenance Costs			
Description/Activity	Frequency	Costs	
Drainage Maintenance	4x/year	\$750	
Sweeping/Blowing Trails	20x/year	\$1500	
Pick Up & Trash Removal	20x/year	\$1500	
Weed Control	10x/year	\$1250	
Mowing - 3 foot safe zone	20x/year	\$1800	
Minor Repairs	Annual	\$750	
Maintenance and Supplies	Annual	\$500	
Equipment fuel and repairs	Annual	\$1000	
Total Maintenance - One Mile		\$9050	

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6.5.1 Routine Operations and Maintenance Costs

While actual costs will vary depending upon a number of factors, such as future availability of water and labor rates, the estimates can provide a general idea of potential operations and maintenance obligations. Following are typical annual costs for key components:

#### Nature Trails

Annual maintenance costs range from nominal to \$2,000 per mile/ year depending on usage and level of development. East Bay Regional Park District has estimated \$1,000 per mile/year. Volunteers may absorb all or part of this function.

# Greenway Trails

Crew sizes tend to range from 0.5 to 5 full time employees (FTE's) per 10 miles of off-street trail. This plan recommends at least one FTE per 15 miles of trail. Annual routine maintenance costs may range from less than \$3,000 to over \$7,000 per mile. Routine cleanup and monitoring of facility conditions should be handled by volunteers and maintenance crews.

# On-road Bicycle Facilities

It is assumed that the current City of Greenville Public Works Department and SCDOT Maintenance Division will be able to maintain the on-roadway bicycle facility system. Some provision should be made however for fifteen regular inspections per year, to include minor repair or replacement of signs, vegetation grooming and other items that an inspector could remedy in the field. Additional attention should be paid to any potholes or other pavement damage. Some additional sweeping will be required where bicycle lanes and wider shoulders are provided along roads.

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#### Pedestrian Facilities (On Road Sidewalk/Sidepath)

In the City of Greenville, the Public Works Department maintains sidewalk facilities. Local property owners or Homeowner Associations (HOAs) should be responsible for routine maintenance of sidewalks with the City responsible for more significant repairs. Crosswalks, pedestrian signals, curb ramps, median crossing islands, and other pedestrian facilities should be maintained by Public Works and SCDOT, depending on right-of-way ownership. It is recommended that SCDOT maintain all sidewalks on SCDOT rights of way. Maintaining these pedestrian facilities is an important part of maintaining the complete right of way for all users. SCDOT should maintain sidewalks and pedestrian crossing facilities on major roadways in areas outside of the City of Greenville. Cracks, surface defects, tree root damage, and other problems should be identified on a regular basis and fixed to ensure that sidewalks remain accessible to all types of pedestrians.

#### 6.5.2 Remedial Operations and Maintenance Costs

#### Nature Trails

For purposes of this study, remedial work on non-paved trails will be assumed to be negligible, since volunteers may accomplish much of this work. There may be some administrative costs associated with this.

#### Greenway Trails

A 10-to-12-year life is assumed for asphalt and crushed fine trails after which an overlay may be required. A complete resurfacing after 20-25 years is anticipated. Concrete is assumed to last twice as long. Bridges, tunnels, retaining walls and other heavy infrastructure are assumed to have a 100-year life or longer.

# On-road Bicycle Facilities

Remedial work for on-road bicycle facilities includes asphalt repaving (5' on either side of the street for a two-way bike route, total 10' width) along with curb and gutter, sewer-grate and manhole repair. Pothole and crack repair are considered routine. Pavement markings, such as bicycle lane lines, bicycle stencil markings, and edgelines should be re-installed when other roadway pavement markings are improved. Since this work is done as part of the current street maintenance regime the cost is assumed to be covered.

### Pedestrian Facilities (On Road Sidewalk/Sidepath)

Sidewalks should be constructed with concrete, which requires replacement in 50 to 75 years. A rough cost estimate for a linear mile of concrete sidewalk could be provided by the City's Public Works Department, including the base material, concrete, and construction work. Costs for design and Right-of-Way (ROW)/easement purchases should also be considered.

# 6.6 Funding the Operations & Maintenance Program

Identifying funding sources, creating funding sources and sustaining reliable funding over the long term is critical to the overall success of operations and maintenance and, ultimately, the success and growth of the Greenville greenway and trail network. Several types of funding

sources can be identified and a combination of these might offer the best solutions. The following are potential sources for operations and maintenance. Appendix D identifies funding sources for project design and implementation.

# Budget Allocations to Current Agency Programs

These are funds coming directly from existing agency and department programs as part of annual budget contributions. Typically this is the base revenue source for operations and management.

# Multi-Objective Partnerships

Most trails serve multiple public and private benefits including access for floodway and ditch upkeep, utility access, street maintenance, and enhancement of adjacent private properties. This may pose a number of opportunities for task sharing and cost sharing among the various beneficiaries, particularly with respect to storm drainage management along river, creek, and wetland corridors.

# In-Kind Services

In-kind services involve people, such as volunteers, youth and student labor, and seniors to provide routine maintenance practices to network facilities. In-kind services may also include donations of material and equipment. Another consideration is the adopt-atrail program, which works with service clubs, scouts, school groups, businesses and others. Adopt-a-trail programs should include credit signage and written agreements with the adopting group.

### Trust Fund

Working in partnership with a Friends of the Greenway group, the City of Greenville may be able to establish a Greenway Trust

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Fund. This Trust Fund would be a dedicated source of funding that supports the operation and management of portions of the greenway system. The Friends of the Greenways would work with a private financial institution to set up an investment account or work with a local foundation to establish an endowment. Contributions to the fund would be solicited from greenway advocates, businesses, civic groups, and other foundations. The goal would be to establish a capital account that would earn interest and use the interest monies to support greenway maintenance and operations. Special events could be held whose sole purpose is to raise capital money for the Trust Fund. A trust fund can also be used in the acquisition of highpriority properties that may be lost if not acquired by private sector initiative.

*Example: The Mountains-to-Sound Greenway Legacy Fund, Washington* - The Mountains to Sound Greenway Legacy Fund is an endowment fund managed by The Seattle Foundation. Its purpose is the protection of the Mountains to Sound Greenway, for the public good, in perpetuity. It will be used to support restoration, enhancement, education and advocacy programs of the Mountains to Sound Greenway Trust. Currently we have a goal of raising \$1 million for the Greenway Legacy Fund by July 2006. This will kick off a multi-year endowment fund campaign with a goal to raise \$5 million.

### Revenue from Programming

The City of Greenville should also work with a Friends of the Greenway to capture and direct fees and revenues that are derived from greenway events and activities into an account that can be dedicated to operating and managing the greenway system. Revenues

could be used to support the Greenway Trust Fund. As defined in Chapter 5, there are numerous opportunities to program greenway lands and facilities for activities that can generate revenues. The City of Greenville should work actively, and in partnership with a Friends of the Greenway organization, to define events that can occur throughout the calendar year, and determine which of these events has the capability of generating revenues that support operations and management of the greenway. Grand Forks, North Dakota has demonstrated that a properly operated greenway can generate upwards of \$250,000 in direct revenues annually for use in off setting the cost of operations and maintenance costs.

# 6.7 Operations and Maintenance Resources for Conflict Resolution

- Plan, design, and manage to reduce conflicts among users, with adjacent properties including: reckless and unsafe behavior; incompatible uses; trespassing; disturbances and adverse environmental impacts
- Recognize the different goals of different users, such as equestrians and bicyclists, and separate where feasible
- Provide user education through signage, patrol, volunteers, brochures, and media
- Provide adequate trail mileage and bicycle, pedestrian, and greenway acreage to accommodate user populations
- Solicitinput from user groups by providing contact information to report problems and responding promptly and effectively to complaints, concerns, or suggestions

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• Monitor, document, and log problem areas and address problems through design and management

• Promote trail etiquette

• Educate bicyclists and hikers on how to pass horses using subdued voice cues rather than bells, horns, or sudden loud noise that might startle a horse

• Avoid excessive regulatory signage

• Employ temporary closure of facilities when conditions dictate or for resource recovery

- Maintain facilities as specified in this chapter
- Distribute or publish a maintenance schedule
- Respond to illegal or disturbing activity quickly



Greenville Bicycle Patrol

#### trails & greenways master plan

# A. Funding Resources

# A.1 Introduction

Implementing the recommendations of this plan will require a combination of funding sources that include local, state, federal, and private money. Fortunately, the benefits of protected greenways, bicycle facilities, and pedestrian facilities are many and varied. This allows programs in Greenville to access money earmarked for a variety of purposes including water quality, hazard mitigation, recreation, air quality, alternate transportation, wildlife protection, community health, and economic development. Competition is almost always stiff for state and federal funds, so it becomes imperative that local governments work together to create multijurisdictional partnerships and to develop their own local sources of funding. These sources can then be used to leverage outside assistance. The long term success of this plan will almost certainly depend on the dedication of a local revenue stream for greenways.

It is important that Greenville fully evaluate its available options and develop a funding strategy that can meet community needs, maximize local resources, and leverage outside funding. Financing will be needed to administer the continued planning and implementation process, acquire parcels or easements, and manage and maintain facilities.

It is advised that the City of Greenville pursue a variety of funding options. Below is a list of some of the greenway funding opportunities

that have typically been pursued by other communities. Creative planning and consistent monitoring of funding options will likely turn up new opportunities not listed here.

# A.2 National and Federal Funding Sources

Most federal programs provide block grants directly to states through funding formulas. For example, if a South Carolina community wants funding to support a transportation initiative, they would contact the South Carolina Department of Transportation and not the US Department of Transportation to obtain a grant. Despite the fact that it is rare for a local community to obtain a funding grant directly from a federal agency, it is relevant to list the current status of federal programs and the amount of funding that is available to South Carolina through these programs.

# Surface Transportation Act (SAFETEA LU)

For the past 15 years, the Surface Transportation Act has been the largest single source of funding for the development of greenway, pedestrian and bikeway projects. Prior to 1990, the nation, as a whole, spent approximately \$25 million on building community-based bicycle and pedestrian projects, with the vast majority of this money spent in one state. Since the passage of ISTEA, funding has been increased dramatically for bicycle, pedestrian and greenway projects, with total spending north of \$5 billion. SAFETEA-LU will more than double the total amount of funding for bicycle/pedestrian/trail projects as compared to its predecessor TEA-21, with approximately \$800 million available each year.

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There are many programs within SAFETEA-LU that deserve mention. The authorizing legislation is complicated and robust. The following provides a summary of how this federal funding can be used to support certain elements of the Greenville Comprehensive Trails Master Plan.

### 1) Surface Transportation Program (STP)

This is the largest single program within the legislation from a funding point of view, with \$32.5 billion committed over the next five years. Of particular interest to greenway enthusiasts, 10 percent of the funding within this program is set aside for Transportation Enhancements (TE) activities. Historically, a little more than half of the TE funds have been used nationally to support bicycle/pedestrian/ trail projects. So nationally, it is projected that \$1.625 billion will be spent on these projects under SAFETEA-LU.

# 2) Congestion Mitigation and Air Quality (CMAQ)

Under SAFETEA-LU, approximately \$8.6 billion has been set aside. Historically, about five percent of these funds have been used to support bicycle/pedestrian/trail projects. This would equal about \$430 million under SAFETEA-LU. The Greenville region will most likely remain a non-attainment area throughout the life of SAFETEA, and that makes it a very eligible community for this type of funding. The Birmingham, AL, metro region, for example, used all of its CMAQ allocation one year to fund a regional bicycle, pedestrian and trails study, which subsequently identified projects that were funded for development.

# 3) Highway Safety Improvement Program (HSIP)

SAFETEA-LU funds this program at \$5 billion over four years. Historically, bicycle and pedestrian projects have accounted for one percent of this program, or about \$50 million under SAFETEA-LU. Some of the eligible uses of these funds would include traffic calming, bicycle and pedestrian safety improvements, and installation of crossing signs. This is not a huge source of funding, but one that could be used to fund elements of a project.

# 4) Recreational Trails Program (RTP)

The Recreational Trails Program is specifically set up to fund both motorized and non-motorized trail development. Under SAFTEA-LU funding is established at \$370 million for the five-year term of the legislation. At least 30% of these funds must be spent on nonmotorized trails, or \$110 million. South Carolina operates a grant program to distribute to this funding to local governments.

### 5) Scenic Byways

The National Scenic Byway program has not traditionally been a good source of funding for bicycle/pedestrian/trail projects. The total amount of funding available nationally is \$175 million under SAFETA-LU. Historically only 2 percent of these funds have been used to support bicycle and pedestrian improvements.

# 6) Safe Routes to School Program (SR2S)

A new program under SAFETEA-LU is the Safe Routes to School (SR2S) program, with \$612 million in funding during the term of the legislation. This is an excellent new program, that within South

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Carolina can be paired with a variety of health and wellness programs, to increase funding for access to the outdoors for children. Each state will receive no less than \$1 million in funding, with 10% to 30% of the funds allocated to non-infrastructure activities.

### 7) High Priority Projects

Under SAFETEA-LU more than 5,091 transportation projects were earmarked by Congress for development, with a total value in excess of \$3 billion.

# Land and Water Conservation Fund (LWCF)

The Land and Water Conservation Fund is the largest source of federal money for park, wildlife, and open space land acquisition. The program's funding comes primarily from offshore oil and gas drilling receipts, with an authorized expenditure of \$900 million each year. However, Congress generally appropriates only a fraction of this amount. The program provides up to 50 percent of the cost of a project, with the balance of the funds paid by states or municipalities. These funds can be used for outdoor recreation projects, including acquisition, renovation, and development. Projects require a 50 percent match.

For 2006, Congress has appropriated \$30 million for state assistance, which is a about 1/3 of the financial support in 2005. This program is administered by the South Carolina Department of Parks, Recreation and Tourism. The amount of money available through this program within South Carolina is less than \$1 million.

# Environmental Protection Agency (EPA)

The EPA funds a program that enables communities to clean up polluted properties. Grant funding considers the following factors:

- Needy communities fare better in competition
- High unemployment rates, high poverty rates, loss of jobs population, minority or other sensitive populations. Include demographic statistics.
- Mention any unusually high health concerns in the area. Can any of these be tied to the site(s)?
- Present the environmental, economic, social and health impacts of brownfields on the community
- Environmental Justice concerns
- Focus on the environmental and health impacts of your project.

# Community Block Development Grant Program (HUD-CBDG)

The U.S. Department of Housing and Urban Development (HUD) offersfinancial grants to communities for neighborhood revitalization, economic development, and improvements to community facilities and services, especially in low and moderate-income areas. Several communities have used HUD funds to develop greenways, including the Boulding Branch Greenway in High Point, North Carolina. Grants from this program range from \$50,000 to \$200,000 and are either made to municipalities or non-profits. There is no formal application process.

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# A.3 Overview of State Funding Sources

The most direct source of public-sector funding for the City of Greenville can come from state agencies. Generally, these funds are made available to local governments based on grant-in-aid formulas. The single most important key to obtaining state grant funding is for local governments to have adopted plans for greenway, bicycle, pedestrian or trail systems in place prior to making an application for funding. This report summarizes the programs that most often have been used to support greenway, bicycle and pedestrian development. A brief description of the program is provided followed by a list of current funding levels and information necessary to obtain grant forms to access the funds.

## South Carolina Conservation Bank

The goal of the South Carolina Conservation Bank is to improve the quality of life in South Carolina through the conservation of significant natural resource lands, wetlands, historical properties, and archeological sites. The Act is funded by placing twenty-five cents out of each one dollar thirty-five cents of the Documentary Deed Stamp recording fee into a trust for the Conservation Bank to carry out the Act. Funding began in July 2004. Landowners who wish to participate may sell property outright or sell conservation easements and retain traditional use of the land. Only willing landowners will participate in this program. No one can be forced to sell land or provide easements. With an increasingly mobile society,

State of South Carolina Funding Sources					
Funding Source Grant*		FY 2006	FY2007	FY2008	FY2009
SCDOT STIP**		\$5,000	\$5,000	\$5,000	\$5,000
SCDOT SR2S Program		\$750	\$750	\$750	\$750
SCDOT Enhancements Program		\$15,000	\$15,000	\$15,000	\$15,000
SC Bicycle/Pedestrian Program		\$2,000	\$2,000	\$2,000	\$2,000
SC Recreational Trails Program		\$12,000	\$12,000	\$12,000	\$12,000
SC Recreation Land Trust Fund		\$1,000	\$1,000	\$1,000	\$1,000
Parks Recreation Development Fund		\$1,000	\$1,000	\$1,000	\$1,000
SC Conservation Bank		\$5,000	\$5,000	\$5,000	\$5,000
*in thousands					
**estimate of funds for bike/ped projects		\$41,750	\$41,750	\$41,750	\$41,750

Table A (1)

Please Note: The table above lists the total funding available for the entire State of South Carolina.

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South Carolina has an exceptionally high quality of life, but in order to attract the next generation of growth, the State's quality of life must be protected by securing important landscapes. Funding from the Bank can be used to:

- Protect significant natural resource areas and wildlife habitats
- Protect water quality
- Maintain the State's forest lands
- Protect farmlands, especially family farms
- Protect and enhance the State's natural beauty
- Protect and enhance significant historical and archaeological sites
- Enhance public access for outdoor recreation and preserve traditional uses such as hunting, fishing, and other types of outdoor recreation.

Funding of proposals is based on the amount of funding available and the priority of the proposals as set by the Conservation Bank Board in accordance with the statutory criteria. Non-acceptance of a proposal does not mean it is not a good proposal, nor does non-acceptance under one budget cycle preclude a proposal from being re-submitted. Proposals go through a two-stage process of implementation. Web site: http://sccbank.sc.gov. E-mail: DavantM@dnr.sc.gov.

# South Carolina Department of Transportation – SAFETEA

The South Carolina DOT manages the implementation of all transportation programs and improvements throughout the state. SCDOT produces a Transportation Improvement Program (STIP). The STIP is a comprehensive report listing the various types of projects in which work activity is planned within the next five years. The report details the funding of each project and the work phase for each project in the appropriate year. The present STIP includes the fiscal years 2005 - 2007. It is produced and printed every two years as part of the SAFETEA federal requirement. For the purpose of greenway, bicycle, pedestrian and trail projects. The following funding has been defined within SAFETEA-LU for the SCDOT. The description of each program is provided under the Federal Sources SAFETEA description.

- STP \$551 million
- CMAQ \$43 million
- HSIP \$128 million

# SR2S Program

Funding for the Safe Routes to School Program comes from the STIP. In South Carolina the contact person for the SR2S program is: Tesa Griffin, Interim Point of Contact, Liaison for Transportation Programs, South Carolina Department of Transportation.

Post Office Box 191 Columbia, South Carolina 29202-0191 Phone: 803-737-0013 Fax: 803-737-5011 E-mail: griffintp@scdot.org

#### South Carolina DOT Pedestrian and Bicycle Program

The South Carolina Department of Transportation is committed to meeting the on-going challenge of providing better and safer accommodations for people who choose to walk or cycle. This effort is coordinated by the agency's Pedestrian and Bicycle Program. Early in 2002, SCDOT Executive Director Elizabeth Mabry launched a 'new initiative' to establish partnerships to provide more facilities for bicycling and walking in South Carolina. A Bicycle and Pedestrian Infrastructure Advisory Committee was formed in June 2002, composed of representatives of the private sector, the General Assembly, other state agencies, and walking and cycling advocacy groups. Since 1992, the SCDOT Commission has elected to allocate a portion of available funds for the Transportation Enhancement Program. The program facilitates and provides a greater opportunity for local governments to collaborate with the agency to pursue a broad range of non-traditional transportation related activities such as bicycle and pedestrian facilities, streetscaping, scenic and landscaping programs, and historic preservation.

There is no specific financial information available for the program.

The contact person is Pedestrian and Bicycle: Tom Dodds, Pedestrian & Bicycle Coordinator, South Carolina Dept of Transportation, PO Box 191, Columbia SC 29202-0191. (803)737-1052. E-mail: doddsdt@scdot.org

#### South Carolina DOT Recreational Trails Program

The Recreational Trails Program is a federally funded grant program to build or improve trails across South Carolina. This is a

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reimbursable grant program requiring a 20% match. RTP funds are available to state, federal and local government agencies or qualified private organizations. The minimum grant amount is \$10,000 with a maximum of \$100,000. Final appropriations for this program are not currently available, although the amount is expected to be approximately \$700,000. South Carolina will receive a total of \$5.5 million through SAFETEA-LU to fund this program for Fiscal Years 2004 to 2009. It is not clear when applications are due for the grant.

The contact person is Pedestrian and Bicycle: Tom Dodds, Pedestrian & Bicycle Coordinator, South Carolina Dept of Transportation, PO Box 191, Columbia SC 29202-0191. (803)737-1052. E-mail: doddsdt@scdot.org

### South Carolina Recreation Land Trust Fund Grants

The Recreation Land Trust Fund Grant (RELT) is a state-funded grant program specifically for the purpose of acquiring property for public recreation. It requires a 50% match and is a reimbursable grant. RELT funds are available only for local or state agencies. The maximum you can apply for is \$25,000, unless your project is determined to have regional or statewide significance, in which case you may be eligible for up to \$100,000. Final appropriations for this program are not currently available, although the amount is expected to be approximately \$250,000.

The Recreation Land Trust Fund grant is one of four that provides technical assistance and administers grant programs for development of public recreational opportunities throughout the state. All grant

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programs administered by this office are reimbursable funds from various sources with specific qualifications and restrictions as described below. Annual Grant Cycle:

- Can only be used for the acquisition of land for the purpose of public recreation
- Applications graded utilizing Open Project Selection Process (OPSP) reviewed by a grading team
- This is a 50-50 match program
- Eligible governmental entities are notified and letters of intent are solicited in December
- Applications are then mailed to those who respond and the application deadline is in March.

Contact: SC Department of Parks, Recreation & Tourism, 1205 Pendleton St., Room 505 Columbia SC 29201. E-mail: recreationgrants@scprt.com. Web site: www.discoversouthcarolina. com/agency/grantslandtrust.asp.

# South Carolina Parks and Recreation Development Fund

The Park & Recreation Development Fund grant is one of four that provides technical assistance and administers grant programs for development of public recreational opportunities throughout the state. All grant programs administered by this office are reimbursable funds from various sources with specific qualifications and restrictions as described below. Monthly Grant Cycle:

•Non-competitive program available to eligible local governmental entities within each county area for development of new public recreation facilities or enhancement/renovations to existing facilities

- Projects need endorsement of majority weighted vote factor of County Legislative Delegation Members
- This is an 80-20 match program
- Application Deadline is the 10th of each month Eligible Entities notified of new Allocation amounts each July.

Contact: SC Department of Parks, Recreation & Tourism, 1205 Pendleton St., Room 505 Columbia SC 29201. E-mail: recreationgrants@scprt.com. Web site: www.discoversouthcarolina. com/agency/grantslandtrust.asp.

# South Carolina National Heritage Corridor Grant Program

The SC National Heritage Corridor, through a public, private partnership with the SCDepartment of Parks, Recreation and Tourism, will provide opportunities for communities and organizations to conserve and develop their historical, cultural, and natural assets so they many contribute to the sustainable economic revitalization of the Heritage Corridor. It is the mission of the South Carolina National Heritage Corridor to promote development in the areas of conservation and preservation; education and interpretation; and

nature-based recreation while serving economic development.

• Economic Development Projects should have the potential for providing economic opportunities related to heritage tourism through public and private partnerships.

• Conservation and Preservation Projects must help conserve the historical, cultural, and natural assets of the South Carolina National Heritage Corridor.

• Education and Interpretation Projects should increase public awareness and appreciation of the historical, cultural, and natural assets of the South Carolina National Heritage Corridor.

• Nature-Based Recreation Projects should enhance the potential of natural areas to provide environmental opportunities for nature-based tourism.

Developing, implementing, and maintaining a successful heritage tourism attraction is a long-term, complex process and involves many features. In order to assist communities and organizations in preparing a program that will benefit the existing residents and attract visitors to the area, grants will be made available in the following two categories. Applicants may submit grant proposals in multiple grant cycles, however total grant awards may not exceed \$60,000 per location. Grant applicants must provide a dollar for dollar, 50/50 reimbursable cash match to the grant request. For example, if the total proposed project budget is \$20,000, the organization may request \$10,000 in grant funds and must provide an additional cash match of \$10,000. This match must come from funds other than federal money, such as state, local, and/or private funds. Each

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grant applicant must demonstrate a dollar-for-dollar cash match and provide legible invoices or receipts for all project expenses before payment will be distributed. It will also be necessary to submit copies of cancelled checks (front and back) to earn reimbursement. Partial reimbursement may be given for grants exceeding \$2,500 before the project is completed, according to an agreed upon payment schedule.

Funds may be used for technical assistance including but not limited to feasibility studies (engineering, architecture and marketing); interpretation, museum exhibits, marketing, displays based on historical research and artifacts, conservation and preservation, agricultural heritage programs, interpretive programs, and naturebased recreation. Projects that directly impact the visitor experience and that demonstrate a high degree of sustainability will be given greater consideration. Support will be considered for cultural, ethnic, arts and recreation programs to the extent that they highlight the themes of the SCNHC.

Intent to Apply Applications are Due: April 3 and September 3. Awards occur on May 15 and October 15. All applications must be received by 5:00 P.M. on or before the due date by the SCNHC Grants Manager. In the event the deadline falls on a weekend, the grants must be received by the following Monday at noon. Web site: www.sc-heritagecorridor.org/html/grantprogram.htm. E-mail: DHarris@scprt.com.

## A.4 Local Government Funding Sources

The City of Greenville should create independent, local funding sources to be used to match federal and state grants for greenway development. The following provides a list of funding options that each of the local governments should consider for future greenbelts acquisition and facility development.

#### Bonds/Loans

Bonds have been a very popular way for communities across the country to finance their open space and greenway projects. A number of bond options are listed below. Contracting with a private consultant to assist with this program may be advisable. Since bonds rely on the support of the voting population, an education and awareness program should be implemented prior to any vote.

## Revenue Bonds

Revenue bonds are bonds that are secured by a pledge of the revenues from a certain local government activity. The entity issuing bonds, pledges to generate sufficient revenue annually to cover the program's operating costs, plus meet the annual debt service requirements (principal and interest payment). Revenue bonds are not constrained by the debt ceilings of general obligation bonds, but they are generally more expensive than general obligation bonds.

## General Obligation Bonds

Local governments generally are able to issue general obligation (G.O.) bonds that are secured by the full faith and credit of the entity. In this case, the local government issuing the bonds pledges

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to raise its property taxes, or use any other sources of revenue, to generate sufficient revenues to make the debt service payments on the bonds. A general obligation pledge is stronger than a revenue pledge, and thus may carry a lower interest rate than a revenue bond. Frequently, when local governments issue G.O. bonds for public enterprise improvements, the public enterprise will make the debt service payments on the G.O. bonds with revenues generated through the public entity's rates and charges. However, if those rate revenues are insufficient to make the debt payment, the local government is obligated to raise taxes or use other sources of revenue to make the payments. G.O. bonds distribute the costs of open space acquisition and make funds available for immediate purchases. Voter approval is required.

## Special Assessment Bonds

Special assessment bonds are secured by a lien on the property that benefits by the improvements funded with the special assessment bond proceeds. Debt service payments on these bonds are funded through annual assessments to the property owners in the assessment area.

## State Revolving Fund (SRF) Loans

Initially funded with federal and state money, and continued by funds generated by repayment of earlier loans, State Revolving Funds (SRFs) provide low-interest loans for local governments to fund water pollution control and water supply related projects including many watershed management activities. These loans typically require a revenue pledge, like a revenue bond, but carry a below market interest rate and limited term for debt repayment (20 years).

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#### Taxes

A number of taxes provide direct or indirect funding for the operations of local governments. Some of them are:

## Sales Tax

Local governments that choose to exercise the local option sales tax (all counties currently do), use the tax revenues to provide funding for a wide variety of projects and activities. Any increase in the sales tax, even if applying to a single county, must gain approval of the state legislature.

## Property Tax

Property taxes generally support a significant portion of a local government activities. However, the revenues from property taxes can also be used to pay debt service on general obligation bonds issued to finance open space system acquisitions. Because of limits imposed on tax rates, use of property taxes to fund open space could limit the county's or a municipality's ability to raise funds for other activities. Property taxes can provide a steady stream of financing while broadly distributing the tax burden. In other parts of the country, this mechanism has been popular with voters as long as the increase is restricted to parks and open space. Note, other public agencies compete vigorously for these funds, and taxpayers are generally concerned about high property tax rates.

## Excise Taxes

Excise taxes are taxes on specific goods and services. These taxes require special legislation and the use of the funds generated through the tax are limited to specific uses. Examples include lodging, food, and beverage taxes that generate funds for promotion of tourism, and the gas tax that generates revenues for transportation related activities.

## Fees and Service Charges

Several fee options that have been used by other local governments are listed here:

## Stormwater Utility Fees

Stormwater charges are typically based on an estimate of the amount of impervious surface on a user's property. Impervious surfaces (such as rooftops and paved areas) increase both the amount and rate of stormwater runoff compared to natural conditions. Such surfaces cause runoff that directly or indirectly discharges into public storm drainage facilities and creates a need for stormwater management services. Thus, users with more impervious surface are charged more for stormwater service than users with less impervious surface.

The rates, fees, and charges collected for stormwater management services may not exceed the costs incurred to provide these services. The costs that may be recovered through the stormwater rates, fees, and charges includes any costs necessary to assure that all aspects of stormwater quality and quantity are managed in accordance with federal and state laws, regulations, and rules. Open space may be purchased with stormwater fees, if the property in question is used to mitigate floodwater or filter pollutants.

#### Impact Fees

Impact fees, which are also known as capital contributions, facilities fees, or system development charges, are typically collected from developers or property owners at the time of building permit issuance to pay for capital improvements that provide capacity to serve new growth. The intent of these fees is to avoid burdening existing customers with the costs of providing capacity to serve new growth ("growth pays its own way"). Park and greenway impact fees are designed to reflect the costs incurred to provide sufficient capacity in the system to meet the additional open space needs of a growing community. These charges are set in a fee schedule applied uniformly to all new development. Communities that institute impact fees must develop a sound financial model that enables policy makers to justify fee levels for different user groups, and to ensure that revenues generated meet (but do not exceed) the needs of development. Factors used to determine an appropriate impact fee amount can include: lot size, number of occupants, and types of subdivision improvements.

Pursuing park and greenway impact fees will require enabling legislation to authorize the collection of the fees.

## In-Lieu-Of Fees

As an alternative to requiring developers to dedicate on-site open space that would serve their development, some communities provide a choice of paying a front-end charge for off-site open space protection. Payment is generally a condition of development approval and recovers the cost of the off-site greenway land acquisition or the development's proportionate share of the cost of a regional parcel serving a larger area. Some communities prefer in-lieuof fees. This alternative allows community staff to purchase land worthy of protection rather than accept marginal land that meets the quantitative requirements of a developer dedication but falls a bit short of qualitative interests.

# A.5 Other Local Options

#### Local Capital Improvements Program

In communities that can afford it a yearly appropriation for greenway and trail development in the capital improvements program is another option. In Raleigh, for example, the greenways system has been developed over many years through a dedicated source of annual funding that has ranged from \$100,000 to \$500,000, administered through the Parks and Recreation Department.

#### Local Trail Sponsors

A sponsorship program for trail amenities allows smaller donations to be received from both individuals and businesses. Cash donations could be placed into a trust fund to be accessed for certain construction or acquisition projects associated with the greenways and open space system. Some recognition of the donors is appropriate and can be accomplished through the placement of a plaque, the naming of a trail segment, and/or special recognition at an opening ceremony. Types of gifts other than cash could include donations of services, equipment, labor, or reduced costs for supplies.

## Volunteer Work

It is expected that many citizens will be excited about the development of a greenway corridor or a new park or canoe access point. Individual volunteers from the community can be brought together with groups of volunteers form church groups, civic groups, scout troops and environmental groups to work on greenway development on special community workdays. Volunteers can also be used for fund-raising, maintenance, and programming needs.

## Private Foundations and Corporations

Many communities have solicited greenway funding assistance from private foundations and other conservation-minded benefactors. Below are examples of private funding opportunities available in South Carolina.

## Foundation for the Carolinas

Established in 1958, the Foundation for the Carolinas is the one of the largest community foundations in the South. The foundation's Web site features information for potential donors; program information, guidelines, and deadlines; listings of senior management and board members; an electronic form for requesting copies of the foundation's publications; and contact information. Web site: http://www.fftc.org/

## American Greenways Eastman Kodak Awards

The Conservation Fund's American Greenways Program has teamed with the Eastman Kodak Corporation and the National Geographic Society to award small grants (\$250 to \$2,000) to stimulate the planning, design and development of greenways. These grants can be used for activities such as mapping, conducting ecological assessments,

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surveying land, holding conferences, developing brochures, producing interpretive displays, incorporating land trusts, and building trails. Grants cannot be used for academic research, institutional support, lobbying or political activities. For more information visit The Conservation Fund's website at: www.conservationfund.org.

## Bank of America Charitable Foundation, Inc.

The Bank of America Charitable Foundation is one of the largest in the nation. The primary grants program is called Neighborhood Excellence, which seeks to identify critical issues in local communities. Another program that applies to greenways is the Community Development Programs, and specifically the Program Related Investments. This program targets low and moderate income communities and serves to encourage entrepreneurial business development. Vist the web site for more information: www.bankofamerica.com/foundation.

## Duke Energy Foundation

At the core of our commitment to the community is The Duke Energy Foundation. Funded by Duke Energy shareholders, this nonprofit organization makes charitable grants to selected non-profits or governmental subdivisions. Each annual grant must have:

- An internal Duke Energy business "sponsor"
- A clear business reason for making the contribution

One of three categories is 'Community Vitality, Health and Human Services', generally managed through federated campaigns (e.g. United Way). This includes environmental conservation, education, research, community leadership development, and targeted arts giving. Web site: www.duke-energy.com.

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#### National Trails Fund

American Hiking Society created the National Trails Fund in 1998, the only privately supported national grants program providing funding to grassroots organizations working toward establishing, protecting and maintaining foot trails in America. 73 million people enjoy foot trails annually, yet many of our favorite trails need major repairs due to a \$200 million backlog of badly needed maintenance. National Trails Fund grants help give local organizations the resources they need to secure access, volunteers, tools and materials to protect America's cherished public trails. For 2005, American Hiking distributed over \$40,000 in grants thanks to the generous support of Cascade Designs and L.L.Bean, the program's Charter Sponsors. To date, American Hiking has granted more than \$240,000 to 56 different trail projects across the U.S. for land acquisition, constituency building campaigns, and traditional trail work projects. Awards range from \$500 to \$10,000 per project. What types of projects will American Hiking Society consider? Securing trail lands, including acquisition of trails and trail corridors, and the costs associated with acquiring conservation easements. Building and maintaining trails which will result in visible and substantial ease of access, improved hiker safety, and/or avoidance of environmental damage. Constituency building surrounding specific trail projects - including volunteer recruitment and support. The application deadline to be considered for a 2006 National Trails Fund grant is November 1, 2005 (postmark date). Grants will be awarded in March 2006. Web site: www.americanhiking.org/alliance/fund.html.

#### Ducks Unlimited, Inc. South Carolina Conservation Programs

In South Carolina, Ducks Unlimited's wetland conservation program continues to grow and gain popularity, especially land protection. We are finding and responding to excellent opportunities for wetland conservation on both private and public lands. Our habitat conservation priorities continue to be the protection, restoration, and enhancement of coastal, forested and riverine wetlands. Collectively, these programs have benefited in the conservation of over 119,000 acres of various wetland habitats since conservation activities began for South Carolina in 1989. The following is a summary of the activities and accomplishments of the DU South Carolina Conservation Program for the period July 1, 2004 through June 30, 2005.

#### South Carolina Public Lands

To date there are 21 completed projects that have conserved over 26,000 wetland acres on public lands throughout the state. Projects completed in FY05 include the Pee Dee Research and Education Center, which enhanced 100 acres of wetland habitat on Dargan's Pond. Partners included DU, several major donors, Clemson University, and USDA Natural Resources Conservation Service. Additionally, DU partnered on a NAWCA grant with the South Carolina Audubon Society to acquire 2,443 acres along the Edisto River (Berkeley County). DU provided the value of two donated conservation easements as match. Also, DU continued its support of the Governor's Wood Duck Box Program organized by the SC DNR and the Historic Ricefields Association. DU has contributed over \$31,000 to this project since 2004. Construction on the

Broad River Wildlife Management Area project (50 acres), which was to be completed in FY05, has been delayed due to flooding and will not be completed until FY06. Future projects include enhancement of 701 wetland acres on Cape Romain NWR and 100 acres of wetlands on Santee NWR. Informational requests on public land projects should be referred to Dale James, Regional Biologist (djames@ducks.org) or Craig LeSchack, Director of Conservation Programs (cleschack@ducks.org) at (843) 745-9110.

#### The Conservation Alliance

The Conservation Alliance is a non-profit organization of outdoor businesses whose collective annual membership dues support grassroots citizen-action groups and their efforts to protect wild and natural areas. One hundred percent of its member companies' dues go directly to diverse, local community groups across the nation - groups like Southern Utah Wilderness Alliance, Alliance for the Wild Rockies, The Greater Yellowstone Coalition, the South Yuba River Citizens' League, RESTORE: The North Woods and the Sinkyone Wilderness Council (a Native American-owned/operated wilderness park). For these groups, who seek to protect the last great wild lands and waterways from resource extraction and commercial development, the Alliance's grants are substantial in size (about \$35,000 each), and have often made the difference between success and defeat. Since its inception in 1989, The Conservation Alliance has contributed \$4,775,059 to grassroots environmental groups across the nation, and its member companies are proud of the results: To date the groups funded have saved over 34 million acres of wild lands and 14 dams have been either prevented or removed-all through grassroots community efforts.

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The Conservation Alliance is a unique funding source for grassroots environmental groups. It is the only environmental grantmaker whose funds come from a potent yet largely untapped constituency for protection of ecosystems - the non-motorized outdoor recreation industry and its customers. This industry has great incentive to protect the places in which people use the clothing, hiking boots, tents and backpacks it sells. The industry is also uniquely positioned to educate outdoor enthusiasts about threats to wild places, and engage them to take action. Finally, when it comes to decision-makers - especially those in the Forest Service, National Park Service, and Bureau of Land Management, this industry has clout - an important tool that small advocacy groups can wield.

The Conservation Alliance Funding Criteria: The Project should be focused primarily on direct citizen action to protect and enhance our natural resources for recreation. We're not looking for mainstream education or scientific research projects, but rather for active campaigns. All projects should be quantifiable, with specific goals, objectives and action plans and should include a measure for evaluating success. The project should have a good chance for closure or significant measurable results over a fairly short term (one to two years). Funding emphasis may not be on general operating expenses or staff payroll.

Web site: www.conservationalliance.com/index.m. E-mail: john@co nservationalliance.com.

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# B. Glossary

**AASHTO** – American Association of State Highway and Transportation Officials: a nonprofit, nonpartisan association representing highway and transportation departments of all transportation modes in the 50 states, the District of Columbia and Puerto Rico.

"A" Cyclist – a term generally used to describe experienced or advanced bicyclists that are comfortable in all cycling environments, even busy roadways that lack bicycle facilities. "A" Cyclists will typically bicycle in any condition, whether hospitable or not.

ADA – American Disabilities Act of 1991: The Act gives civil rights protections to individuals with disabilities including equal opportunities in public accommodations, employment, transportation, state and local government services, and telecommunications.

Advance Stop lines - applies to a stop line placed prior to a crosswalk or bicycle box, to either prevent motor vehicle encroachment, or to improve visibility. It plays an important safety role especially in multi-lane roads.

Alternative Transportation Network – a connected system for travel using transportation other than private cars, such as walking, bicycling, rollerblading, carpooling and transit

**Bargain Sale** – the sale of a property at less than the fair market value. The difference between a bargain sale price and fair market value often qualifies as a tax-deductible charitable contribution. Commonly used to acquire land or easements for greenways or multi-use paths.

**"B" Cyclist** – a term generally used to describe intermediate level cyclists, who bicycle for reasons ranging from recreation and fitness riding to commuting. "B" cyclists typically prefer on-street bicycle facilities, such as bicycle lanes and paved shoulder.

**Bicycle** – Every vehicle propelled solely by human power upon which any person may ride, having two tandem wheels, except scooters and similar devices. The term "bicycle" in this document also includes three and four-wheeled human-powered vehicles, but not tricycles for children.

**Bicycle Activated Detector Loop** – sensors installed in the roadway at intersections that trigger a change in a traffic signal. They allow cyclists to remain in the travel lane and avoid maneuvering to the side of the road to trigger a push button.

**Bicycle Box** – a box painted on a roadway at an intersection that allows bicyclists to move to the front of the line in traffic. Generally a bicycle lane allows cyclists to pass stopped motor vehicle traffic and enter the bicycle box. The bicycle box is located between the intersection and front of the motor vehicle stop line. Bicycle boxes increase awareness of cyclists in the roadway environment and provide the opportunity to cross intersections before motor vehicles.

appendix b

glossary

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Bicycle Facilities – a general term denoting improvements and provisions made by public agencies to accommodate or encourage bicycling. Examples include, but are not limited to bicycle parking/ storage facilities, shared roadways not specifically designated for bicycle use, bicycle lanes, paved shoulders, and sidepaths.

Bicycle Friendly Community – a program established by the League of American Bicyclists that recognizes and awards municipalities who encourage bicycling and make significant strides in creating a bicycle friendly environment.

Bicycle Lane - a portion of a roadway that has been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists. AASHTO requires that bike lanes provide five feet of space between the travel lane and parking, curb face or other roadway barrier. Four-foot bike lanes are acceptable for roadways without curb and gutter.

Bikeway – a generic term for any road, street, path, or way which in some manner is specifically designated for bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.

Blank Walls – relatively large walls of empty surface that provide opportunity for vandalism with graffiti. Set backs, special lighting, and aesthetic architectural interruptions are possible blank wall treatments. Bridge Culvert – a sewer or drain crossing used for the transference of surface water from a bridge Buffer Zone - an area of land specifically designed to separate one zoning use from another

**Bulb-out** - extended pavement to narrow roadway, or pinch through fare, or provide space for bus stop, bench, etc. Commonly used as a traffic calming measure.

"C" Cyclist – a term generally used to describe beginner, juvenile or elderly cyclists who are not comfortable bicycling in an environment with significant motor vehicle traffic. Typically "C" cyclists prefer to cycle on shared-use paths, greenways, and calm neighborhood streets.

Collector Streets – a public road designed to flow traffic from small neighborhood streets and connect to larger thoroughfares Concurrent Signal Timing – motorists running parallel to a crosswalk are allowed to turn into and through the crosswalk (left or right) after yielding to bicyclists or pedestrians

**Condemnation** - the taking of private property for public use, with adequate compensation to the owner, under the right of eminent domain

**Connectivity** - the logical and physical interconnection of functionally related points so that people can move among them

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Contra Flow Bicycle Lane – a striped bicycle lane that goes against the flow of motor vehicle traffic and is separated by a double yellow line.

Conservation Easement - a legally binding agreement not to develop part of a property, but to leave it "natural" permanently or for some designated very long period of time regardless of ownership transfer

Corridor - a spatial link between two or more destinations

**Crosswalk** - a designated point on a road at which some means are employed to assist bicyclists and pedestrians who wish to cross a roadway or intersection. They are designed to keep bicyclists and pedestrians together where they can be seen by motorists, and where they can cross most safely with the flow of vehicular traffic.

Curb Cut – interruption in the curb, as for a driveway

**Curb Extension** - a section of sidewalk at an intersection or midblock crossing that reduces the crossing width for bicyclists and pedestrians and is intended to slow the speed of traffic and increase driver awareness

**Curb ramp** – a ramp leading smoothly down from a sidewalk, greenway or multiuse path to an intersecting street, rather than abruptly ending with a curb

Driveway Apron – the section of a driveway between a sidewalk or greenway and the curb

Eminent Domain – the acquisition of property by the government which is deemed to be necessary for the completion of a public project from an owner that is unwilling to negotiate a price for its sale.

EPA – Environmental Protection Agency

Fee Simple Purchase – an outright purchase of the land by municipality

FHWA – Federal Highway Administration

First Right of Refusal - the right specified in an agreement to have the first opportunity to purchase or lease a given property before it is offered to others

Fitness Trail - a pathway upon which users jog or walk from station to station to perform various exercise tasks

 ${\bf GIS}$  – (Geographic Information System) a system for collecting, analyzing and displaying spatial information

GPATS – (Greenville-Pickens Area Transportation Study) the Greenville area metropolitan planning organization

**Greenway** - a linear open space; a corridor composed of natural vegetation.Greenways can be used to create connected networks of open space that include traditional parks and natural areas.

Hydrologic Resources – stream and sewer corridors and buffer zones that can be used to facilitate the building of greenways B-3

Incentive Zoning - a system by which zoning incentives are provided to developers on the condition that specific physical, social, or cultural benefits are provided to the community

Intersection - an area where two or more pathways or roadways join together

Islands of Vegetation - a landscaping feature that is planted with flora chosen for its ability to remove pollution and toxins. These spaces manage stormwater runoff from impervious surfaces; the water is slowed down, preventing erosion and allowing water to be absorbed into the ground.

Leaseback - the process of selling a property and also entering into a lease to continue using that property

Linear Stream Corridor - generally consists of the stream channel, floodplain, and transitional upland fringe aligned linearly

LRTP – Long Range Transportation Plan

Median - a barrier, constructed of concrete, asphalt, or landscaping and separates two directions of traffic

Mixed Use Area – a term used to describe a specific area that posses a combination of different land use types, such as residential, commercial, and recreation

Mode Share - a term used to describe percentage splits in transportation options

## trails & greenways master plan

MPO – Metropolitan Planning Organization

MUTCD – Manual of Uniform Traffic Control Devices: National standards guidebook on signage and pavement marking for roadways

Municipal Boundary – the limit of municipal jurisdiction

Natural Surface Trail - a marked trail designed to lead people through a natural environment, which highlights and protects resources

**Negotiated dedications** - a local government may ask a landowner to enter into negotiations for certain parcels of land that are deemed beneficial to the protection and preservation of specific parcel of land

Off-road Trail – paths or trails in areas not served by the street system, such as parks and greenbelt corridors. Off-street paths are intended to serve both recreational uses and other trips, and may accommodate other non-motorized travel modes, such as bicycles in addition to walking.

**On-road Bicycle Facility** – any bicycle facility that is constructed or marked on a roadway, such as a shared roadway, signed route, wide outside lane, bicycle lane, or paved shoulder

**Open Space** - empty or vacant land which is set aside for public or private use and will not be developed. The space may be used for

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passive or active recreation, or may be reserved to protect or buffer natural areas.

**Overlay Zone** - a zone or district created by the local legislature for the purpose of conserving natural resources or promoting certain types of development. Overlay zones are imposed over existing zoning districts and contain provisions that are applicable in addition to those contained in the zoning law.

**Pedestrian** - a person on foot or a person on roller skates, roller blades, child's tricycle, non-motorized wheelchair, skateboard, or other non-powered vehicles (excluding bicycles)

**Planned Unit Development (PUD)** - a project or subdivision that includes common property that is owned and maintained by a homeowners' association for the benefit and use of the individual PUD unit owners

**Pocket Park** - a small area accessible to the general public that is often of primarily environmental, rather than recreational, importance; they can be urban, suburban or rural and often feature as part of urban regeneration plans in inner-city areas to provide areas where wild life can establish a foothold.

**Preservation** Easement – a voluntary legal agreement that protects historic, archaeological, or cultural resources on a property. The easement provides assurance to the property owner that intrinsic values will be preserved through subsequent ownership. In addition, the owner may obtain substantial tax benefits. Public Access Easement – a voluntary legal agreement which grants a municipality a perpetual right-of-way and easement for public access and public benefit

Quality of Life - a measure of the standard of living which considers non-financial factors such as health, functional status and social opportunities that are influenced by disease, injury, treatment or social and political policy

**Regional Bikeway Network**- a system of high-quality bicycle facilities, including shared use paths that are a minimum of 10 feet, paved shoulders that are four feet or wider, and bike lanes (see acceptable widths under the definition for bike lanes). In constrained situations, wide curb lanes, with a minimum of 14 feet usable width, can also be used to accommodate bicyclists.

**Retrofit** - the redesign and reconstruction of an existing facility or subsystem to incorporate new technology, to meet new requirements, or to otherwise provide performance not foreseen in the original design

**Road Diet** – reconfiguring or reducing the number of motorized vehicle lanes to provide room to integrate a bicycle facility into a roadway. Commonly used on 4 lane roads with moderate motorized traffic volumes. Generally roadways are reconfigured to include a center turn lane, two 5' bicycle lanes and two motor vehicle travel lanes on either side.

Roundabout - traffic calming device at which traffic streams circularly around a central island after first yielding to the circulating traffic ROW (right of way) - an easement held by the local jurisdiction over land owned by the adjacent property owners that allows the jurisdiction to exercise control over the surface and above and below the ground of the right-of-way; usually designated for passage

RTOR – Right turn on red

Safe Routes to School (SRTS) – a federal program that provides funding to encourage and facilitate the planning and implementation of bicycle and pedestrian projects near schools.

SAFETEA-LU - Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

SCDOT – South Carolina Department of Transportation

**Sharrow** – painted roadway marking that alerts motorists that bicyclists are present and frequently use the roadway. Traditionally used in slower, low volume roadways with wide curb lanes, such as neighborhood routes. Successfully pioneered and used by San Francisco and Denver.

**Shoulder** - The portion of the roadway contiguous with the traveled way for the accommodation of stopped vehicles, for emergency use, and for lateral support of sub-base, base, and surface courses. Paved shoulders can be used for bicycle travel as well. **Shared Roadway** – A roadway that is open to both bicycle and motor vehicle travel. This may be an existing roadway, street with wide curb lanes of 14-feet to 15-feet, or road with paved shoulders. Generally lower speed roadways that are located in residential or compact urban environments.

Shared Use Path (Multi Use Path/Sidepath) - A bikeway physically separated from motorized vehicular traffic by an open space or barrier and located either within the highway right-of-way (often termed "parallel shared use path") or within an independent right-of-way. Shared use paths may also be used by pedestrians, skaters, wheelchair users, joggers, and other non-motorized users. In some cases shared use paths also accommodate equestrians.

**Sidewalk** - an improved facility intended to provide for pedestrian movement; usually, but not always, located in the public right-of-way adjacent to a roadway. Typically constructed of concrete, but can be made with asphalt, bricks, stone, wood, and other materials.

Signed Shared Roadway (signed bike route) – A shared roadway that has been designated by signing as a preferred route for bicycle use with either a "Share the Road" or "Bike Route" sign.

Street Based Trail - a trail facility comprised of a combination of a widened sidewalk, signage, and an appropriate on street bicycle facility. Often used to connect off street based multi-use paths to one another or in dense urban settings where a greenway corridor does not exist.

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**Thoroughfare** - a public road from one place to another, designed for high traffic volumes and essential connections

TND (traditional neighborhood development) - an area of land developed in a planned fashion for a compatible mixture of residential units for various income levels and nonresidential commercial and workplace uses, with a high priority placed on access to open spaces

**Traffic Calming** - a range of measures that reduce the impact of vehicular traffic on residents, pedestrians and cyclists - most commonly on residential streets, but also now on commercial streets

Trip Attractor - a location which, because of what it contains, generates itself as a destination for people

Wide Outside Lane – roadway with additional unmarked space in the outermost lane that allows motorized vehicles to pass cyclists without changing lanes

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# C. Public Input Summary

## C.1 Overview

In order to gain local knowledge and input, a public outreach component was included as an integral part of planning efforts for the Greenville Trails and Greenways Master Plan. Public input was gathered through several different means with the chief efforts being Steering Committee meetings, a meeting with the Swamp Rabbit Forum, a public meeting, and opinion comment forms. This offered the representatives and citizens of Greenville opportunity to contribute to the Plan's development.

Steering Committee meetings were held throughout the planning process with representatives from the City and community. These took place to establish visions and goals for this effort. Committee members also identified key opportunities and strategies for the trail system. A meeting with the Swamp Rabbit Forum was also held during this planning process. The importance of regional connections was emphasized here, primarily the Reedy River corridor that would connect Traveler's Rest with Lake Conestee in the long term.

# C.2 Public Meeting

A public meeting was held on April 11, 2007 at the Carolina First Center in Greenville. Nearly 100 members of the Greenville community attended. Public input was taken in the form of map markups and comments and through discussions between citizens, consultant staff from Greenways Incorporated and Arbor Engineering, and City of Greenville staff. In addition, a hardcopy public comment form was developed (same questions as online survey described in section C.3) and distributed for hand written responses during the meeting.



Participants speak with the Consultant about their desires for the project at the April public meeting.

Preliminary recommendations were presented in map form at this meeting. Citizens responded to these draft recommendations by providing responses and new ideas for trail facilities.

## Overall goals that were voiced most consistently were:

- More off-road trail facilities
- Complete Reedy River corridor
- Connect trails regionally
- Integrate trails network with on-road bicycle network
- Connect locally to schools, parks, and places of work
- Provide a safe system, as much off-road as possible

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Participants consider the northern sections of the Reedy River corridor at the April public meeting.



Public map comments from one of the maps made available at the April public workshop.

## C.3 Comment Form

A comment form was developed for the City of Greenville during this process and made available in both hardcopy and online form. The comment form was available online for over three months. To maximize the responses to the online form, the web address was distributed at the public meeting, to local interest groups, in newsletters, and on flyers throughout the City. Over 600 forms were completed providing significant input into the development of this Plan.

The comment form results shown on the following pages have been tabulated by Greenways Incorporated to provide insight into local residents' opinions and values.



The first page of the online survey, providing project background and instructions for the respondents.

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#### public input summary

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Key general results from the public opinion comment form include:

- Over 80% of respondents felt a need to expand the Greenville's existing trail system.
- Over 95% of respondents responded that they would use trails more often if they were closer to their homes.
- Exercise and recreation were the most highly rated benefits of a comprehensive trails and greenways network.
- User friendly trail maps were the most requested trail amenity.
- Parks, trails and places of work were the highest ranked destinations.

Key specific responses from the public opinion comment form include:

- Complete the Reedy River Trail to Lake Conestee.
- Connect Greenville to Paris Mountain via a trail
- Connect Greenville to Travelers Rest via the Swamp Rabbit Trail
- Connect Greenville to all municipalities in Greenville County via trails and greenways
- Integrate the trail and greenway network with on road bicycle facilities to form an alternative transportation network
- Build more trails and greenways to increase the quality of life for all of Greenville's residents



#### trails & greenways master plan

		Response Percent	Response Count					Response Percent	Count
very important	E	84.3%	541	Walking	E			65.8%	45
somewhat important		12.7%	08	Biking	E	3		66.2%	41
not important	2.0%	13	Rolerblading				0.7%	3	
				Other (please specify)				12.9%	3
				For what purposes do you wall/bike	most now and/or woul	d you want to use trails	for in the future? (R	ank Top 3).	
ten do you use a trail now? (s	elect one)				*1	62	n	Rating Average	Respons
		Response Percent	Response Count	Fitness or recreation	81.3% (482)	11.6% (69)	7.1% (42)	1.26	54
never		16.1%	103	Transportation to some destination	12.3% (45)	52.2% (191)	35.5% (130)	2.23	30
	[	\$1.5%	329	Social visits	5.1% (16)	35.1% (111)	59.8% (189)	2.55	3
few times per month	21			Walking the dog	14.7% (37)	47.6% (120)	37.7% (95)	2.23	2
few times per month few times per week		25.8%	165						

"A ribbon of connectivity throughout Greenville City and County should be priority to continue to make Greenville a quality area it live in. Having developers dedicate ribbons of land to greenways and liner parks is step in build the future." (Public Comment, June 2007)

		Percent	Response Count	What would be the most important b	enetits and uses of a trail system? Select all that apply.		
Yes	C.	96.4%	619			Response	Response
No	8	3.6%	23			Percent	Count
				Transportation		52.1%	321
				Recreation	l: 3	90.1%	555
at is your current trail transportat	on mode? Select all that apply.			Exercise	E	92.9%	572
		Response Percent	Response Count	Community-building and events		41.9%	258
Walking	E	78.1%	489	Connectivity to surrounding area		59.9%	369
Bicycling	( <u> </u>	56.9%	356	Habitat and environment improvements		60.6%	373
Rollerblading		6.1%	38	Economic stimulation		38.6%	238
Other (please specify)		14.9%	- 93	Education and interpretation	[	27.0%	166

#### trails & greenways master plan

What destinations would you most like to get to by trail? (Re	lank Top 3)
---	-------------

	PT	12	12	Rating Average	Response
Place of work	54.7% (01)	22.3% (33)	23.0% (34)	1.68	148
School	35.3% (12)	26.5% (9)	38.2% (13)	2.03	34
Restaurants	17.4% (38)	32.6% (71)	50.0% (109)	2.33	218
Public Transportation	24.5% (12)	40.8% (20)	34.7% (17)	2.10	49
Shopping	14.8% (13)	34.1% (30)	51.1% (45)	2.36	88
Parks	51.0% (232)	36.0% (164)	13.0% (59)	1.62	455
Entertainment	15.4% (23)	34.2% (51)	50.3% (75)	2.35	149
Other Traits and greenways	38.7% (167)	38.4% (166)	22.9% (99)	1.84	432
Libraries or recreation centers	6.7% (9)	17.0% (23)	78.3% (103)	2.70	135

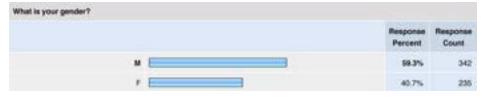
		Response Percent	Count
Paved trails	8	62.6%	372
Unpaved trails	C	29.1%	173
Exercise stations	L	0.7%	-
Educational and interpretive signage	8	1.5%	
Trailheads and picnic areas		0.1%	

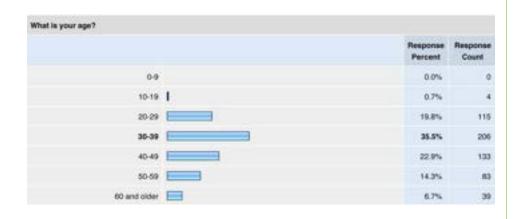
" I am thrilled to see that Greenville is finally creating a long overdue greenway and trails plan. The city government should support this initiative as it will further cement Greenville's quality of life and enhance the health and fitness of it's citizens." (Public Comment, June 2007)

	#1	#2	13	Rating Average	Response Count	What amenities are most important for trails? Select all that apply.		
Lack of sidewalks and trails	68.8% (282)	16.8% (69)	14.4% (50)	1.46	410		Response Percent	Response
Unsafe crossings	20.2% (23)	41.2% (47)	38.6% (44)	2,18	114	Adequate lighting	61.3%	366
Traffic	26.0% (45)	36.4% (63)	37.6% (65)	2.12	173	Trash cans	50.3%	300
Pedestrian unfriendly streets and and uses	23.0% (47)	40.7% (83)	36.3% (74)	2.13	204	Restroams	50.8%	303
Bicycle unifiendly streets and land uses	26.5% (59)	50.2% (112)	23.3% (52)	1.97	223	Benches Signage	34.3%	
Lack of interest	27.1% (16)	35.6% (21)	37.3% (22)	2.10	59	911 call boxes	37.7%	225
Lack of time	19.4% (7)	27.8% (10)	52.8% (19)	2.30	36	Drinking fourtains	41.4%	247
Aggressive motorist behavior	25.6% (34)	38.3% (51)	35.1% (48)	2.11	133	Stretters	18.6%	111
Deficient sidewalks	16.5% (15)	34.1% (31)	49.5% (45)	2.33	01	Bicycle racks	23.5%	140
Lack of nearby destinations	11.8% (14)	36.1% (43)	52.1% (62)	2.40	119	Trail maps	70.4%	420
Personal safety concerns	25.9% (50)	28.9% (52)	47.2% (91)	2.21	193	Other (please specify)	7.5%	- 45

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		Response Percent	Response Count
Greenville		\$1.4%	299
Spananburg	1	0.7%	4
Great		7.4%	43
Travelers Rest	8	3.8%	22
Taylors		5.8%	34
Mauldin	8	3.1%	18
Greenville County, outside of any city or town limit		11,3%	66
Other (please specify)		16.5%	95

# Open-ended Responses to Online Comment Form

(note: open ended responses were taken verbatim and not edited for spelling or grammar)

#### What is your current trail transportation method? (Those who listed other)

Running (68) Biking (1) Skateboarding (2) Jogging (6) Pushing a baby stroller (3) Car (4) Can't use them (1) I would ride if I could from home (1) Hiking (1) Mainly auto, but would love to walk (1) None (1) River trails via canoe if/when available (1) Vehicle (1) There are no trails (1) Horseback (1) Electric scooter (1)

#### What is your preferred trail transportation mode? (Those who listed other)

Running (58) Jogging (4) Pushing a baby stroller (2) Horse (2) Hiking (1) None (1) Motorize (1) Scuba diving (1) River access for canoe (1) Passenger rail between suburbs and downtown (1) With dogs (1) Vehicle (1) Driving (1) Sled dog (1) Segway / electric scooter (2) Skateboarding (1)

#### What amenities are most important for trails? Select all that apply.

Additional indigenous landscaping that has low or no maintenance Drink machines that dispense filtered water Clean and well maintained trails Food vendors Access to restaurants Security cameras Security All the above would be nice! Safe for pets and children Access to shopping Vicinity maps Train Just having more trails would be great. Public Art Undisturbed natural habitat Safetv from traffic Ease of access & relevant points along the trail. Do they go somewhere like to a restaurant or park, or are they simply paths for exercise? All above at access/egress sites Sufficient parking Public access to rivers for canoe (i.e. Section of Reedy River) Pet stations None Police Patrols Security Patrol on foot and bikes Special track surface for joggers Length and connectivity Surface safe for strollers, doesn't have to be paved SAFETY! LOVED 1/2 MILE AND MILE MARKERS ON MD R-T-TR!! Wide trails Flowers Accessibility Away from cars Open greenway Self-guided discovery brochures Nature watching points

#### trails & greenways master plan

#### SCENERY, SAFETY

Handicap access to sidewalks Visit The Silver Comet in Atlanta Proximity to natural areas and not trails through the middle of industrialized areas Restaurants/stores nearby for refreshments; trail maps only if the trail is several miles long Safety (phones or visibility) Access from near by neighborhoods Natural areas/views Dog Waste stations NO, THAT MEANS ZERO, MOTORIZED TRAMS OR OTHER MOTORIZED VEHICLES, EVER. THAT'S WHAT ROADS ARE FOR!

# Do you have specific locations in Greenville that you believe need trails?

•Chick Springs Road area

•North Main should be narrowed down to add bike lanes (from Stone north to Rutherford)

•Trails connecting all parks; and a trail going north to Traveler's Rest

•Augusta street area has a lot of alleys that could be utilized to link parks to downtown parks

•Area between and around Greenville Tech up through the Haywood Mall area.

•Greenville Reedy River to Mauldin Greenville to TR or to Paris Mtn. Maybe a paved path that runs adjacent to 185 that gives route from Greenville to Donaldson Center and then on to Mauldin

•Greenway and or bicycle/walking lanes that connect Cleveland Park, Downtown, and other parks in the City, including Timmons Park.

• All areas around downtown I would like to see linked up so you could go all the way around and connect the neighborhoods with trails

•North Greenville to downtown Greenville

•Just need more sidewalks in neighborhoods and paths that connect to existing trails. Seems like Greenville doesn't care about its walkers and bikers, not all of us want to sit in front of the idiot box all evening.

• I think the proposed Rails-to-trails is a very good plan and currently don't see anywhere else that would need trails, except for maybe the east side of Greenville.

• It would be great to connect Travelers Rest to Greenville with trails, both paved and/or unpaved. A continuous trailway would spur economic development all along the way as well as promoting population health. A well-designed trailway would be a destination for many but an asset to the community. Active people today desire longer trails and alternative commuting options. Check out the trail system in Boulder, Co. Thanks so much!

• Cherrydale towards downtown

•Agusta Rd. area connecting to down town....but pretty much every where...love to ride bikes

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on a pretty day...

•Use downtown as the central location and linkage for many different trails. Need to link downtown with heritage green (library and museums), points north (Furman), other parks (McPherson and North Main). Continue the circle greenway downtown from Falls Park, Cleveland Park, McPherson Park, Timmons Park, North Main Park, Heritage Green, and the new riverwalk trail going up the Reedy past the proposed Kroc Center.

•UP AND DOWN THE REEDY RIVER

•Connecting Cleveland park system (which is quite good) to farther areas (Laurens Rd, Pleasantburg, Wade Hampton, Furman). Also, a trial to ICAR from downtown would probably be a good idea.

•---a connector between the McPhearson Park trails and Academy Street and/or Cleveland Park trails. Present options: stairs or highway. Both are bummers. ---Some way to get out Laurens Road (other than those crazy sidewalks!) ---A route to Cherrydale and

•1.connect downtown to eastside 2. connect downtown to TR/Blueridge

• It would be interesting to connect downtown with other areas of interest (Cherrydale, Furman, etc...)

•Between the library and the Children's Garden (Butler Road area). It is particularly pedestrian-unfriendly around the intersection of Butler and Washington. That intersection needs to be cleaned up.

• Connecting local cities and populated areas within the cities. For example, link downtown Greenville to Piedmont, Simpsonville, Mauldin, Greer, etc,.

•I feel that the Golden Strip area (Mauldin, Simpsonville, and Fountain Inn) are in need of biking/hiking trails. In the city of Greenville, more trails from Conestee to downtown would be nice.

• Corridors between town and surrounding areas, Simpsonville, Mauldin, T.R., Berea, Moonville, Etc.

•North Main to Cleveland Park; Downtown to Furman/TR; North Main/Augusta Rd./ Woodruff Rd to Main St.

• The current plan to finish the swamp rabbit trail. Although I think too much money will be spent on the tram. Just let people use the trail for exercise and recreation.

• Hwy 14 would be an excellent location. Also Butler Rd.

• The area between downtown Greenville and the Woodruff road area. If there were trails or bike lanes I would consider riding to work.

• Ideally, it would be very attractive for Greenville to develop main "north/south" & "east/west" paved trails with spurs from those trails that would link to destination business/shopping/recreation.

•Along E. North St. from N. Pleasantburg to downtown parks/trails.

• Connecting Downtown to Paris Mountain

• From Furman University to downtown Greenville is a very important need; also maybe trails

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linking downtown to the Haywood area.

•More trails at Paris Mtn would be great!

•Downtown connecting to city neighborhoods, including those around BJU and the eastside.

A trail connecting to Furman would be great.

• I live near Agusta rd and Greenville hospital area. Connecting there to downtown would be great.

• Continue the spurs concept with a main trail and spurs off of it.

•Too many to list - all residential areas to shopping, schools, restaurants, and work places. •Suffletown/Woodruff Rd Area out towards I-385 and I-85 Very few sidewalks in this area. •Simpsonville to Woodruff Rd to Greenville - like along 385 or Hwy 14 or along unused railroads or utility easements

• I would love to see a solid and safe pedestrian loop/greenway circling Downtown. I believe the City's current plan to extend the riverwalk to the North and South along the Reedy River is excellent! Cycling paths and safe bike lanes will become an essential asset to the economic growth of Downtown in the near future.

•City of Mauldin

• Greenville to Travelers Rest Greenville toward Easley

• I would like a trail that connected southern Greenville to downtown. It would be great to able to ride our bikes downtown.

•Close to the hospital

•Simpsonville! With the area growing and more people moving in, the narrow roads around here cant handle the traffic that's here now, and with more "super" communities coming in the roads are not safe for people to bike or walk on them.

•Would be great if all neighborhoods had trails

• Finish the rails to trails from downtown to TR.

• Though I live in the county, I would like to be able to ride my bike to a grocery store/library or into the city.

• Reedy River, something to link the existing park system.

•I moved here from Columbus, In which had "people trails" connecting areas in the city. It was great to be able to walk, jog, skate or bike there. It was desirable to live near the trail and increased property values. The kids were able to walk to school. We enjoyed being able to walk to get ice cream or go to the park. We moved to River Walk specifically because of the trail in the neighborhood. When outlying subdivisions have minimal sidewalks, residents must walk in the road or drive to get out and exercise. Connections to neighborhoods along "country" roads would be awesome and we would use the ones near us frequently.

•Better access from Richland St at Cleveland St would be nice.

• The old Greenville Mall (Magnolia Place now?) to downtown Greenville. Extend this to Simpsonville!!

•Suburban neighborhoods and along main traffic thoroughfares (aka, Wade Hampton Blvd)

• There needs to be a spokework of trail leading too/from Greenville. I am way excited about getting to TR from Gville. Would like to see that trail cont to the mtns.

- There is a need for sufficient cycling "paths" from the Taylors area to downtown Greenville.
- •Simpsonville/fountain inn.
- •The Toll section of I-85

• I think Cleveland Park to Greenville tech would be good. If possible some type of trail system that would take you from downtown to Paris mountain.

• Everywhere. I am unaware of any trail in Greenville County right now.

• Downtown Greenville, Greer downtown, Taylors, trails linking the Greenville Zoo to the downtown, link Paris Mountain to Downtown and Greer.

• The Rails for Trails program will be fantastic when complete. A trail along the Reedy to G.Tech will be supreme. I would love to see access spread outward, from downtown, in most directions.... towards Augusta St...up Wade Hampton, into Taylors/Greer...along E. North St to Timmons Park and over to the Pleasantburg/Haywood Rd area.... potentially even out to Woodruff Rd. Just trying to connect the main commerce/residential hubs of the city to promote alternative forms of transportation for the majority of Greenvillians.

• To and from downtown, to and from Paris Mtn State Park, bike lanes for heavily traveled cycling routes.

•I live in Taylors and feel that it is unsafe for my family to bicycle and even walk because of the lack of bicycle lanes and sidewalks and the amount of traffic on the two lane roads around our neighborhood. I feel that bicycling around Greenville is fairly dangerous.

- A link between Paris Mountain and the parks within the City (Cleveland Park, Falls Park).
- Connect Greenville Tech to Downtown 2. Finish connecting the new greenway out to TR 3. A perimeter greenway that encircles to city would be a great idea
- Cleveland Park to Lake Conestee eastside into downtown.

•We are particularly interested in connecting trails from the city to surrounding areas like Travelers Rest, and other suburbs.

- •Downtown area needs dedicated bike lanes
- Mauldin

Not only are more trails needed to the downtown core...but a trail system to and from outlying areas is needed. I live 20 miles from home to work and I would love to bike in.
No specific locations, just a larger network from downtown to outlying areas.

- •Reedy River Corridor
- From downtown living to a grocery store, bakery, market with fresh produce
- More trails in northern Greenville County.
- •Reedy River Greenway ICAR Connection to Conestee
- Connect the Augusta Road area to downtown Greenville

• The upcoming rail trail is supposed to link downtown to TR. Eventually, it is also supposed to link down to the Conestee area. One concern that I see is that there will not be any linkage

## trails & greenways master plan

over to the east side of town, where roads are very busy in places. It would be nice if there were a way to link the east side (Pelham area) and Woodruff Road area into the upcoming rail trail. This would allow every major area to be linked together - downtown, Cherrydale/Furman/ TR, Donaldson/Conestee, Haywood Mall area, Pelham road area, and Woodruff road retail/ restaurants. Not only would this increase access to the trail, but make it a conduit for people to access key retail and dining locations. Ultimately, the goal should be to link the locations where people reside to each other and the locations where they work, play, dine, and shop. This would enhance the value and usefulness of the trails and greenway system.

• There are too many to list here. But most parks in Greenville do not provide adequate trails. Need more trails at parks.

- Mauldin
- •West Greenville
- •Butler Springs park area
- •To Furman
- McBee station to Cleveland streed (old railway)

Trails should be easy to get to from neighborhoods or parking should be close by.
It would be great to have a trail go from southern Greenville County (ex: Greenville Tech Brashier Campus) along the Reedy River to downtown Greenville. There could be parking areas in different areas for defined access points. Not only could the trails be used for exercise, but it could allow people to ride bikes from Mauldin and Simpsonville to downtown Greenville and access the trails that will soon go to Travelers Rest.

•I live in Overbrook and I work downtown. If there was a specific trail leading to downtown that I felt was safe, I might walk or ride a bike to work instead of drive. I've also noticed how much the Verdae area is being overwhelmed by the "suburban sprawl." I know the schools in that area as well as those who care about the destruction of Greenville's once green environment would love for a trail to be made in that area, preserving some of the natural habitat.

- •Downtown, Cherrydale
- •Immediate areas outside of downtown.
- •Laurens, Verdae, Parkins Mill Area
- •East parkins mill verdae area laurens road
- From Haywood/Woodruff to downtown.

•Everywhere. Need to keep development and buildings out of flood plains. Create greenways throughout city. Your survey is terribly biased toward a "masterplan" that no one in neighborhoods has a clue about. This is not the best way to get real resident input. Hold meetings in each neighborhood as was done before the last Comprehensive Plan. This is not a proper way to get valid input at all.

• Pedestrian connectivity is important for many reasons. The more we can connect people with

#### destinations such as shopping, cultural and recreation centers the more use the greenways will receive. And benefit all be cutting down on traffic and increase our health and wellness. •Woodruff Road

• Downtown and adjoining areas, Augusta Rd, Overbrook, etc

•Haywood Road, HWY 291, Cherrydale area

• Complete trail to travelers rest. Old rail bed is already available.

• I believe that the City would benefit greatly by expanding the Cleveland Park area to the other side of Woodland Way. More trails would enhance this already popular area. I also think we need to improve the trails around the new baseball stadium and around the Linky Stone Children's Park.

• Everywhere! The entire city should be connected. Why not use power line trails for starters. Look at areas such as Colorado / Washington / Oregon that are very bike & foot traffic commuter friendly.

•Greer

• I would love to see greenways and trails extend beyond downtown. I live downtown and would love to ride my bike to work out on Roper Mountain road but I don't due to traffic risks.

• All the Reedy River

•The Entire county needs to come up with a trail system, Connect Simpsonville, Mauldin, Greenville, Greer, Travelers Rest. This would add to quality of life. Look at Raleigh-Durham NC and their greenway system!

• Eastside and Taylors

•South end of Main to North end

•What happened to the plan to have them all the way through the city, from Travelers Rest to Conestee?

•They should be placed away from private residences to minimize trespassing hikers/walkers, and to minimize disturbances to private homes.

•Neighborhoods desperately need sidewalks! I live near Botany Woods on Wade Hampton and it's very dangerous to walk down my own street, even though it has a lot of foot traffic.

• The trail near Linky Stone Park is a great start. It would be helpful to connect neighborhoods surrounding downtown to that system by trail. For example, there are currently no bike trails to speak of connecting North Main and Overbrook to downtown and it's very dangerous to ride/walk down East North, Laurens, Stone, etc. There are also insufficient pedestrian crossing signals, even for some of the most dangerous intersections. Now that the Fresh Market is moving to be closer to Garners, it would be helpful to have trails that go to that area from the Overbrook, East North, North Main, Augusta neighborhoods. The university center, a bank, and a movie theater are also near Garners and the new Fresh Market so it seems like a great area to connect by some sort of trail. Also, the customers that visit Garners would be a good target market for a trail.

• Parkins Mill/Gower, Verdae Development

appendix c

## trails & greenways master plan

•I am very interested in seeing the Reedy River Greenway being completed from Travelers Rest to Conestee.

•Greer Area

•Berea to Downtown

•Sans Souci/Cherrydale Area to connect to the Swamp Rabbit and Paris Mtn. Trails could give this area the extra boost it needs to become the next residential hot spot.

oA "walking" trail that parallels the Reedy for its entire length across Greenville County 2) Bike trails along scenic roads throughout Greenville County.

•Downtown to Cleveland St. Ext Main St. (South and North) Pleasantburg Dr. Laurens Rd. •I hope that you continue to develop more of the Rails to Trails path from downtown

Greenville to Furman and Traverlers Rest. It should also connect to the trails in Cleveland Park. I enjoy what you have done so far. Please continue.

•Gower Estates; Gower to ICAR; Gower to Havwood Mall

• Connect Overbrook and college heights to Cleveland Park. Also connect Cleveland park/ falls park with the Donaldson center.

•Greenville south area - Mauldin - Simpsonville

•Near Gower Estates Park

•Within the Park systems. Outside of that is a waste of money and resources.

• The recently added trails in downtown are nice, but it would be great to see them expanded to take advantage of the beautiful mountains in our area.

•Furman/Berea area

• Anywhere other than downtown Greenville

• City neighborhoods that feed into town. i.e. stone lake north main

• Would like to see the rails-to-trails completed from downtown to Traverlers rest (does not need to be paved, but feasible for bikes and walkers).

• East North Street/Overbrook area

• Gower, Parkins Mill area would be great. I know there are may others as well.

• Any additional parks with trails would be welcomed.

•Pelham Road and I-85 area

Live in Simpsonville but relocating to Greenville SOON. I like the Rails to Trails idea a lot and have walked it several times...looking forward to it being finished to bike to TR.
Near schools

•Eastside, Roper Mountain Road Area.

• Need more wooded trails.... Look at the trails that go through Callaway Gardens... Wow, you could spend all day there (my wife and I recently did).

•Trails to connect the parks down to Conestee

•I think the site of the old US Finishings along the reedy river should be annexed into the city and purchased and turned in to part of the City Parks and Trails System

•Would be beneficial across the county, but especially where there is a heavier residential

public input summary

# concentration. One area that comes to mind is Woodruff Road, continuing on out past the Five Forks area.

•Cleveland Park Augusta Rd area

• I think any areas in or near parks, any near or around little lakes, ponds, rivers or creeks and any near or around surrounding libraries.

•From travelers rest to downtown Greenville

•Downtown, Pelham Rd area, Woodruff Rd area

• Augusta Rd neighborhoods to Cleveland Park, and Greenway areas from major rush hour traffic areas and/or to public transportation hubs. And, Furman to downtown.

•More sidewalks in North Main area to Stone Academy and Parks. Currently, you have to cross the street several times to stay on sidewalks to Stone Academy. We also need more cross walk light boxes at lights, esp. on North Main. All of North Main Street should have sidewalks!!! I know it's cared for by the state DOT, but we're wasting one of Greenville's most scenic roads that neighbors WANT to walk!!! Need Bike Lane on Woodland Way. The bikers take over the road and it is scary to drive when bikers are on it.

Extending the Rails to Trails path, and connecting the Cleveland park trails with other parks.From eastside to Cleveland park

• Greer-Taylors area.

• Rail to trail conversion from downtown to Traveler's Rest should be accelerated. State Park Road should be widened to include bike lane for access to Paris Mountain State Park. Augusta Road south of I-85 should get bike lane added for safe access to Donaldson Center.

•Northern Greenville county

•Throughout metro Greenville. The proposed trails map is fantastic!

•In terms of "real" mountain biking trails, additions to the Paris Mountain trail system would be great, but this is my personal opinion. On the other hand, Greenways would also be nice for the less experienced mountain biker as well as walkers/runners. Raleigh, NC and Cary, NC are great examples of cities that have made great use of Greenway systems, which in turn have created bicycle friendly communities.

• Downtown

•Connecting northward from Greenville downtown to Paris Mountain North Greenville area doesn't have subdivisions in many areas nor does it have sidewalks so that residents have to really drive to get to safe areas. Also, these main arteries such as Pleasantburg and Poinsett Highways are not very safe for runners or walkers due to traffic and potential crime.

• Chick Springs Road, Stone Lake downtown area.

- •Downtown/augusta road need connectivity
- Pleasantburg drive (under the bridge in laurens rd.) Augusta rd fork shoals road
- East side of Greenville
- •Eastside to downtown and Greer

•Downtown/north main/Paris mountain

#### appendix c

#### trails & greenways master plan

• Connect Furman University to Downtown.

•North Greenville, Berea Area

•Connection to Paris Mountain Connection from outer areas (Greer, etc.) for a "park and bike" possibility.

•Anywhere downtown and connecting areas. The longer, the better.

•Major neighborhoods near downtown connecting them to the downtown area

•The sprawl of the city is the main concern. I would ideally like to bike to work, recreation, shopping without having to use the same roadways as vehicles but due to the sprawl of the city this seems like a nearly impossible project. I believe a focus on recreation and making a few important links between parks, social venues, and service businesses (restaurants, shopping, grocery) may be a good start.

 $\bullet$  Woodruff Rd area because of the lack of bicycle lanes and traffic congestion. It is unsafe to run or bike on the roads & sidewalks in this area.

• There should be trails through every town/city connecting all outdoor recreation facilities and activities. Trails improve the atmosphere and attraction of towns/cities.

• Yes, we need many many more trails in Greenville and the surrounding areas. Anywhere and everywhere! Specifically, we need long nature trails that allow our residents to feel like they are "getting away" -- not necessarily trails that connect to conveniences like work or restaurants.

•An outer perimeter trail that connects access points to the entire downtown area; from there a few extensive trails or pathways the head to places like cherrydale (connecting paris mountain; all the way to augusta road area/church street; and maybe definitely out towards pendleton or white horse road to connect many of those who maybe only have or can afford bikes as a major form of transportation. I.E. INDIANAPOLIS INDIANA

•Downtown to Paris Mtn. Downtown to Riverside Park

•Around school, around the parks, in residential areas... I was born in Vancouver, Canada, where trails and parks are a way of life and they add such a sense of community and appreciation for the land... I miss that here now that I am in Greenville. It is so necessary for the city... everywhere and anywhere we need trails...

• Connect to trails coming out of northern Greenville County into downtown (i.e. proposed trail coming out of Traveler's Rest)

•I don't know if it's a necessity, but it would be very neat to have an extensive trail system that connects the upstate. Like a trail system that connects to Easly, Greer, Spartanburt, etc, but all trails lead to and come out of Greenville, something like a bus station or train station. May seem like a bit much, but it would be really neat and probably a tourist destination for people who are serious about walking/biking. There could be annual Walk Fests where people could walk/run/bike the longer trails for recreation and competition.

•Extension of rail trail along reedy river

•To have a designated bike/walk trail that circles downtown Greenville to make accessing

various areas of town possible. Now the traffic is too dangerous for less brave bikers to use the bike to run errands or travel by bike

- East Side
- Connect downtown to Paris Mountain State Park!
- The city of Mauldin is very lacking of trails and sidewalks.

• Anywhere that would bring positive energy and awareness that the entire city of Greenville is and must be a safer place to live, and walk if we so choose. I know that Greenville is top in numbers of crime rate and it saddens me deeply. I am a native to Greenville, for 35 five years (which is my age). We have a beautiful city. I wish with all my heart that I felt safe enough to frequent trails to local places.

•We need to improve the trails and bridges that we have before we add more to the system. In particular, the bridges across the river are very poor.

• Haywood Road area to Cleveland Park and downtown; Verdae Boulevard area to CU-ICAR; speedy completion of rails-to-trails downtown Greenville to Travelers Rest; Paris Mountain to Cherrydale

- •Downtown / golden strip connection
- Reedy river greenway furman to conestee

• Any unused railroad lines would be ideal. Bike paths that allow for safe family bike rides/ rollerblading are important for community development.

• Connectivity of downtown and Cleveland park to outlying areas (e.g. Furman, Travelers Rest, Mauldin, Simpsonville, Paris Mountain SP, North GV County parks)

Trails connecting surrounding neighborhoods to downtown; i.e. Mauldin, simpsonville, etc.Woodruff road area.

•Woodruff road needs continuous walkways so people don't have to get in their car with their kids just to cross the street to get to another store.

• Sans Souci, Berea, West Greenville

• 1.completion of swamp rabbit trail to travelers rest, and possibly extend on out the old line to Marietta. 2.complete Cleveland Park to conestee segment of trail. 3.devise a way to safely get across or under 291 (S. Pleasantburg) 4. Rail trail from ICAR to downtown.

• HAYWOOD RD AND ADJACENT TO THE MALL AREA.

•I would like to see Greenville County connect to Pickens County. This could help traffic. •Simpsonville- In particular, around and near Plain Elementary School and also Davenport

Road.

- •Not sure have not lived here log enough
- North Main street area
- •Trails to Simpsonville, 5 Five Forks are.
- •TR/Poinsett Highway area
- •Southern Greenville

•Downtown area continue trail from downtown to Travelers Rest

appendix c

## trails & greenways master plan

•On the Eastside

We need bike lanes (trails) all over Greenville. People would utilize these features.
Connecting Greenville's Westend to Easley. From there, trail users can easily access all of Pickens County

• From Greenville Tech area to Cleveland Park AND/OR From Gower Park to Cleveland Park

•North Main area, to downtown. From Rutherford along chick springs to Mohawk to column to Church to downtown. Could Follow Richland Creek part of the way. Or could follow Richland Creek all the way to Cleveland park, and then the Reedy all the way to Falls park.

• Further expansion in the northern parts of the city i.e. up to cherrydale

•PELHAM RD, BUTLER BRIDGE RD, EDWARDS RD-EASTERN GREENVILLE IN GENERAL

- North Main Area to connect to downtown!!
- More around the downtown area
- East North, Pelham area
- From Paris Mtn to Downtown
- Conestee or Mauldin, through Greenville to TR would be fantastic.
- •Pelham Rd I-85 to Cleveland Park

•Bike lane, about 2 miles down little Texas rd.,T.R.-from hwy25 to fallout shelter rd.connect

Paris Mtn. State Park to greenway,

•TR-Cleveland Park - Conestee Falls

• From E. North Street to Downtown; From Downtown to Travelers Rest; From Downtown to Mauldin

• From Downtown to Furman and then to Travlers Rest. This should be an easy one, if the county would get off it's behind and see the need and benefit.

- •Traveler's Rest to Gowensville
- From TR to downtown

•Travel from Simpsonville to downtown Greenville, Travel from Greenville to Travelers Rest, Travel from Greenville to Paris Mountain

•A greenway connector to Paris Mountain State Park would be nice. More trails at Paris Mt St Pk. More Sidewalks throughout the community. Bike lanes on certain roads that would lead cyclists from the city to less traveled areas in the country.

•Downtown

- •Donaldson Center to downtown
- •airport to downtown

•Any place would be great, but I know a trail from Downtown to Travelers Rest area would be nice for those who cycle in TR, Marietta and north of there. It would be a safer way to get north of Greenville without having to use the busy roads.

• I'll be thrilled when the downtown-to-Furman trail is complete. That would be enough to

public input summary

#### the city of greenville

make my wife and I sell our home and relocate somewhere along the trail. I would love to see a commuter trail from the Eastside (say, BJU area, for a modest goal) to downtown.

•1. Access to public libraries - getting from the bike lane on Richardson/Townes to Hughes

Main Branch can be scary and we don't even attempt to go the Ramsey branch closer to home

by bicycle because there isn't a route that feels safe. 2. Access to schools - We're zoned for

Blythe Elementary and would love to ride bikes to school eventually, but riding along Augusta Rd to Blythe is scary.

• I live in Travelers Rest and am excited by the idea of being able to ride bikes with my family to downtown to get dinner or shop.

•Northern Greenville County

• Paris Mtn to Downtown the Greenville Rabbit trail a new saluda river Train from Marietta to Piedmont

• connect to paris mountain state park, downtown, Traveler's rest rails to trails Greenway, the Greenville memorial campus & the east side medical area

•Yes, we should be able to connect with the ICAR area without going through heavy traffic. If we don't have a trail, then there should be bicycle racks on the public buses. There is an abandoned rail trail that goes from downtown through Eastover that could be a new bike/ walking/greenway trail. It goes to Pleasantburg Drive I believe.

•I think that a great link would be from downtown (or traveler's Rest) to the donaldson center. There are many professionals who work there and could easily commute from Mauldin or simpsonville if the infrastructure were there. Plus, the donaldson center is already a biking magnet for the community, this would give cyclists more incentive to ride there instead of driving.

•We need more mountain biking trails. A mountain bike park would be the best!

•University areas, and ability to get downtown from the university campuses.

•The Simpsonville (Golden Strip) area.

• It would be great if there were a trail system that connected major neighborhood areas to downtown, parks, libraries, and other areas people usually need to go. The trails should be for non-car transportation, to get to and from places, not just for fitness and entertainment, since this area is so deadly for bicyclists.

•Hwy 11 to Caesar Head

the donaldson area down ashmore bridge rd, this area does not get any benefits of parks and trails and bike lanes, but is force to pay high taxes to support Greenville's over spending
Reedy Falls Park to Furman U.

•Mauldin Simpsonville Downtown Greenville

•We will be ecstatic when the trail is complete from Travelers Rest (our home) to downtown so we can bike to work, shopping, Furman, and to walk in a safe place. We'd love to see the trail continue on north of Travelers Rest. It would be great to connect to Paris Mountain State Park and perhaps other parks also. •To/From Heritage Park

•the saluda river...we hike and kayak the saluda river and over all it is beautiful and the river seems to be a lot cleaner than the reedy river.

•Batesville Rd; Edwards Rd

•No

• 1) For commute to work: Downtown to Donaldson Center Industrial Park & Simposnville/ Mauldin to Donaldson Center 2) for Recreation + event attendance: downtown to Travelers Rest or even out to Highway 11 bike lanes or RiverFalls Caesar Head / Table Rock areas

•woodruff road area connecting to other trails

•getting from the Grove road area to Cleveland park(crossing Augusta Rd)

•North Main Area of Greenville

• Just moved back to Greenville from the Seattle area. (I have been gone for several years, but this is my home town).

•all areas

•Crestview Hills neighborhood in Greer. Some of these older neighborhoods desperately need sidewalks for the safety of children walking to and from school, people walking dogs & babies or just riding bikes & walking in the evenings.

•Branching off of all Main St. North and South to Cleveland Park, Falls, Library area, even to Haywood Rd area

•Connecting schools and neighborhoods to each other (e.g. Stone Academy on Woodruff seems to be very pedestrian unfriendly). Greenville also has a railroad right-of-way (that parallels Laurens Road) that would be a great trail (goes all the way up to the zoo; I think some of the right of way is getting taken by the zoo's new giraffe exhibit, but if not, it would be great to have a trail behind the zoo, parallel to Washington St).

•Travelers Rest to G'ville 2) Hollingsworth Park to Downtown 3) Along the Reedy from Downtown to Lake Conestee 4) Taylors to Greenville 5) Clemson to Greenville

•Wade Hampton/Pleasantburg area

- Hospital to downtown
- •highway 123 and 124 leading into and out of Greenville.

• donaldson ctr. area

•Trail from Main Street to Easley - somewhat following HWY 123

• downtown area

• North Main neighborhood connecting to downtown

•more downtown possibly that could link up along the Reedy River

 $\bullet {\rm Downtown}$ 

•the Cherrydale area, the Greenville Tech area

• simpsonville

• North Greenville/Travelers Rest

• Paved path from Woodland Way beside the Cleveland Park Stables southward to Fountain Inn; Paved path along the rivers (Reedy and Saluda Rivers), from the southern part of the County to the northern tributaries, as a precursor to a Mountains-to-the-Sea bike/running path.

- Connect Simpsonville/Mauldin to Greenville.
- •The location for the Rails to Trail program, including the segment north to Travelers Rest
- Cleveland Park to Furman
- just finish the trails you have started
- •Southside area. Donaldson Center.
- •All along the Reedy River. Between downtown and Furman.

#### What other improvements do you consider priorities?

• convert old rail line near laurens road to greenway.

• Figuring out how to do a trail through/along the country club -- it would be a real shame to have a portion of the trail along the Reedy out along the road

• Connectivity of sidewalks/safe crossings

- •additional indigenous landscaping that has low or no maintenance
- Promote interconnectivity between trail systems.

•Work with the County to finish greenway from Downtown to Furman University and beyond. Increase the number of bicycle lanes. Work with local cycling groups to determine what the best routes would be. Greenville hosts several nationally known cycling events, yet our roads are not bicycle friendly. Look to Portland, Oregon and Albuquerque, New Mexico as examples of bicycle friendly cities.

• Get the public more informed about this program. maybe get the media involved in this good cause.

•More mass transit options are a very important NECESSITY that the general public needs.

•Allowing and encouraging a wider variety of activities in South Carolina public lands.

Although some development may be required sports like mountain biking, rock climbing, and adventure racing are all on the rise. Active folks need variety and now we take alot of tourism dollars to N.C., Ga. and other destinations because many of these activities are either not allowed or discouraged. Hunting, fishing, boating, and hiking are all fun but wake up S.C. these sports are mainstream and our state is way behind the times. Public skate parks, BMX tracks, rock climbing practice walls, and access to areas where specific sports can be practiced are all major issues to my community. Offering incentives to business owners who promote these activities would be great. Allowing county, state, and nat'l. parks to expand and develop their activity options would also rock. Thanks.

• a push to get more people on scooters(Vespa) they are quiet and less gas consuming...It would give Greenville a more Charleston feel...

• The city should assist with the Swamp Rabbit Trail out to Furman and TR.

appendix c

## trails & greenways master plan

•Less impervious surface - better stormwater management

•Bike Lanes!!!!! I ride and run on them, and they are a major asset to the city.

•add bike lanes or at least streets that are a little wider. I have lived all over the US and have never seen such narrow streets and poor planning!

•---a collaborate business incentive for workers to ride bikes to work. i.e., companies paying \$10-\$15 monthly to employees who bike to work. Businesses in other cities are doing this as a way to promote healthy lifestyles, which economically helps the com

• better security - the swamp rabbit trail leaves town and goes through some risky areas (abandoned industrial/high crime-low income neighborhoods). I'm reluctant to use the completed portion without a large group. Maybe put bicycle patrolmen on the trails with a frequent rotation?

• Make the crosswalks over Academy between downtown and the library/Greenville Little Theater/museums more pedestrian friendly. The light is too fast, and the cars coming toward downtown turning right generally don't yield to pedestrians. A pedestrian bridge over Academy would be fantastic. It's a dangerous road to cross, especially at the crosswalks.

•Rails to trails is a good idea, but most trails only need to be a few feet wide unless your are trying to meet ADA requirements.

•Landscaping/green areas, improved access/parking in West End

•Moore bike lanes on current roads, Larger Shoulders on existing roads.

•Road improvements and a bike lane on Old Buncombe Rd. between town and Furman/ backside of Paris Mountain.

• Every park in Greenville should have it's own map. This way groups can meet up at locations within the park. These can be available online. This also would be a way for people to know exactly what amenities are available at the park or trail.

• Clear markings on streets and street signs that give drivers of cars the understanding that bike usage can help us all in so many different ways.

• The Reedy River needs to be cleaned up.

•Wider bike lanes. Traffic signals for cyclist in the city limits. Possibly a "share the road" educational campaign for motorists.

•Regular street swiping all the way to the edge of roads so bikers can utilize edge of roads.

• Any trail system developed would need extensive PR so that the community would give it a try. Safety will be key for continued use.

• Connecting city trails to county and private trails.

• Safety improvements on certain trails

•SIDEWALKS along well-traveled roads....it's so dangerous to for walkers, runners, and bikers to share a 2-or-more-lane road with drivers. And the reduction of strip malls and suburban housing development styles. Better public transportation--give incentives for using it and help it expand!

•Bike lanes would be great on collector streets.

• Bike lanes should be incorporated into road renovations, like the new hospital buildings at Orchard Park. The roads were widened but no bike lanes were added.

•Better access to public transpiration.

Preservation and community access to natural areas including creek and river areas.
Need a bathroom facility at Linky Stone Park. Find a way to get the trail around Greenville Country Club. Find a way to link the Swamp Rabbit Trail to Paris Mountain. Build awareness of the trails within the community.

• a mountain Biking trail on the sewer way in the woodruff rd area

• Planting trees to replace the ones chopped down by developers.

• I believe that all paved paths should incorporate uniquely attractive lighting fixtures.

Uniquely attractive signage is a vital detail that is highly necessary as well. I also love natural trails like the Fernwood Nature Trail and the Eagle Trail at Cleveland Park. These types of trails allow us to feel as though we are not in the heart of the city.

•Our roads are terrible. The weather in Greenville is great of Bicycle commuting but, it is too dangerous!!! Both because of the roads and the people.

•Safe trails with enough lighting for dusk/evening. Patrolling by security

•Some sort of light rail from Simpsonville or other surrounding communities to link up to other places in Greenville.

 $\bullet$  Bike lanes everywhere; enforce law against aggressive drivers; public transportation w/ park & ride for easy access

•Occasional police patrols.

•bike lanes

• To me the top priority is to establish a plan as quickly as possible and begin implementation before it gets prohibitively expensive. Land values will never get any cheaper.

• Motorist behavior. Greenville motorists are known for speeding, ignoring red lights and seem to not slow down around turn or park areas that might have people crossing streets or walking on sidewalks.

• Cut spending.

• I think that paved trails are great but unpaved trails would be nice too, they could always be paved at a latter time!

• Bike paths in the downtown Greenville area and other community centers that are clearly marked with crossings that are constructed so that motorists and trail users are aware of each other.

• Bike paths in the downtown Greenville area and other community centers that are clearly marked with crossings that are constructed so that motorists and trail users are aware of each other.

• Making trails safe

•Several downtown neighborhoods are disconnected from downtown proper simply because of dangerous street crossings. Attempting to cross the intersection of Stone Ave/Laurens Rd

## trails & greenways master plan

and East North St/Park Ave is virtually impossible at certain times of the day, and risky at all times. This precludes nearly all of the Bob Jones and Overbrook communities from walking or biking to downtown events, destinations, and businesses. Parking would be less of an issue downtown if people who live close by could actually take advantage of their proximity and walk. Also, there are no continuous sidewalks running from Rutherford to downtown on either Bennett or on North Main.

• Lighting and safety phones are important to promote the safety aspect and to make people feel comfortable after dark. Just increasing sidewalks and bike lanes would help tremendously, although I'd be more in favor of greenspace trails that were more direct route and not necessarily along main roads.

•I think we need to focus some attention on cleaning up our dirty streets and intersections (ex.E. Lee @ Wade Hampton and Rutherford Rd. @ Wade Hampton). There are weeds and trash on some of our streets that really detracts from our community. I find it refreshing to visit Charlotte, NC, where the streets are always clean and neat and finished with sidewalks and curbs.

•A large dog park, more passive recreational opportunities (walking trails, picnic areas, community gardens)

• More singletrack loops/trails will provide a "visit with nature" right off of the greenway. More unpaved paths are also needed. Paving is expensive and time consuming, where there are certain trail users that would prefer a dirt road or unpaved greenway to a nice paved greenway. Economical and provides a variety of options to the user.

• Completion on Swamp rabbit tram trail

•Old railroad would be great for a paved trail- no traffic or minimal traffic related crossings •Public transportation

sidewalks throughout parkins mill/e parkins mill - in particular close to mauldin road.
More greenbelts are desperately needed. There seems to be too much development without enough priority given to the impact of flooding, global warming, wildlife and other environmental issues.

•As a recreational bicyclist, my main concern is safety as it relates to traffic. I would love to ride around Greenville with a minimum of bike/traffic interface. I have two babies that will soon be able to ride in a bike trailer. I would love to have a safe destination to use such a device now and a safe place for them to learn to ride later on. Perhaps even more important, though, is public awareness about bicycle use and safety in traffic. I think Greenville could be an excellent cycling destination with a little bit of public education and courtesy. Frankly, I am nervous to the point of avoiding riding on the highways because of inattentive drivers. • More bike lanes on roads.

•The downtown needs a large market area for food and flowers. Only Pedestrian traffic on Main St. No cars!! Downtown area could add Mountain Biking to the Park and very slow speed limits for road biking areas!! (about 15mph) and make sure enforced!!

• Extend the Swamp Rabbit trail. It's so nice... and shows the potential of what can be!

•Considering the areas that some of the upcoming rail trail will pass through, I am wondering if some areas will be unsafe or considered unsafe by potential users. Ensuring trail safety is critical so that the trail does not obtain a bad reputation and become unused. There must be some type of trail head parking areas so that people that do not live close to the trail can use it by driving to it. Example, as mentioned above, people on the east side would have to drive to a trailhead as there would be no other way to access it due to a lack of connecting sidewalks and trails to link the east side and Woodruff areas. Signs indicating trail courtesy and regulations should be posted (i.e. dogs on leash, use caution and announce your presence when passing others. i.e. cyclists passing walkers.).

•We desperately need bike racks in downtown Greenville.

- •More police bike patrols downtown
- •train or tram

• bike lanes and "share the road" signage

•Efforts to interconnect parks, neighbors, and shopping with trails would be most beneficial. It would be nice to ride to a market for that loaf of bread or 1/2 gallon of milk.

•Have one central trail (i.e. along Reedy River) and have other trails and branches loop off of it. If it is decided to create a trail along the Reedy to Simpsonville, include parking areas for access to the trails for both trail users and for people who want to use the river for canoeing and kayaking.

•In general, I fear that Greenville is becoming a town of strip malls and pavement. Though I know business brings the city affluence, I hate to see the beauty of Greenville destroyed completely all for the sake of commerce. There is way too much construction consuming areas that should be saved for the animals and wildlife that populate them, as well as for those of us who do care about the environment.

• downtown sidewalks

• Expand designated bike lanes in more areas where possible, with the goal of being able to bike into and out of the city to surrounding residential areas safely.

•less paving, more GREEN and SIDEWALKS

• Environmental issues. No paving of trails because it increase environmental issues. Keep as many plants and trees as possible. More bike trails and increased safety for pedestrians and bikers from automobiles.

• Create growth boundaries and prevent dense development in inappropriate areas like existing residential neighborhoods. Mixed use is an excuse to tear down and rebuild what doesn't need rebuilding. If the city were really concerned about residents, they would go into neighborhoods and ask these questions, not do an on-line survey no one will know about.

•A ribbon of connectivity throughout Greenville City and County should be priority to continue to make Greenville a quality area it live in. Having developers dedicate ribbons of land to greenways and liner parks is step in build the future.

## trails & greenways master plan

•Connecting tram system for all parts of Greenville County

• Paved trails that would connect neighborhoods, for both walkers and bikers

•Some effort by the County to follow the City of Greenville's example. It is a travesty what the County Council and supposed Planning Commission is doing to Greenville County's environment, resources, and fauna.

• a new way of transportation for older folks to get to and from T R to Greenville • I think we need trail improvements along the path from Cleveland Park to Falls Park particularly around the Church Street Bridge area. This part of the trail often feels trashy and sometimes unsafe.

Sidewalks, roads near Laurens Road (East Washington is very bumpy and too narrow.)
Any unpaved trail that promotes well being and fitness in the community is a number one priority for me.

•Safety

• Create a bike lane through Cleveland park and/or change the traffic patterns to make the streets more bicycle friendly. (no vehicular traffic at certain times and/or certain directions. (e.g. Central Park in NY)

•Signs and laws designed to allow bikers full use of traffic lanes and requiring cars to change lanes in order to pass.

•Taking card of the new plantings, in existing trails/greenspaces. The one near our house, just completed a few months ago, already has dying/dead trees!

•I think an emphasis on public transportation for all sectors of the community is important. I consider myself middle class, and I think, sadly, that most people consider public transportation something only for the poorer members of the community. Unfortunately, we will all have to be willing to use public transportation or alternative methods of transportation in the future in order to reduce our emissions of greenhouse gases. Attractive greenways could offer alternatives for suburbanites if they extended out to the suburbs. A high-speed rail service could help with this too, as this type of transportation is often a more appealing option to the middle class person than bus service.

•Sidewalks, sidewalks and more sidewalks!! And my neighborhood (Woodland Hills)has been fighting with city council for years over getting speed bumps installed. We have a horrible problem with speeding in our neighborhood. We've gone through all the right channels and yet were denied of what we needed. We were approved for a traffic circle, of all things- isn't that much more expensive? And the circle isn't going where speeding is the biggest problem. I don't think it will make much of a difference. My street is about 100 yards long with an apartment complex at the end. The young guys who live there constantly race down my street at 40+MPH. It's very unsafe.

•Additional/improved pedestrian crossing signals.

•I think that it is critical to paint the pedestrian crosswalks in Cleveland Park. There is a lot of traffic in that park and people have very little regard for pedestrians. The signage at each

#### trails & greenways master plan

crosswalk should clearly state "cars Yield to Pedestrians." I don't think that people understand that cars are supposed to yield to the pedestrians, and I don't think they understand the current signage. I have never seen anyone stop for a pedestrian to cross in the 20 years that I have lived near Cleveland Park. I have seen some close calls.

• Better means of public transportation or carshare programs intended to ease traffic before it gets too ridiculous.

•Historic Markers that provide information about the areas that the trails pass through. There is still a great deal of history in Greenville that has not been brought to the surface due to our City's infamous track record of destroying historic buildings as well as historic areas that are in low-income/high crime areas.

• Create a major new park on the Reedy from Fork Shoals Mill to Cedar Shoals Falls.

• Public Transportation

• More bike lanes on roads like north main, east north, and farris.

• better road maintenance

•Keeping motorized bikes off of trails

• Paved trails to destinations downtown west end

• Would like to see access to sections of Reedy river that are conducive to canoe/kayaks, and perhaps walking/biking trail access along the river.

• The trail that runs between McDaniel Ave and Falls Park at the Church Street overpass needs beautification and updating. The utility pipes and smell in this area discourages us from taking this path to read the Falls Park area.

•Any that would encourage healthier activities and discourage more use of gasoline. Public transportation review for one. And encouraging people to carpool to work or anywhere.

•With the obesity crisis in this city, county and country, wide and safe sidewalks should be built where ever possible. This is especially important in residential areas.

• Preserving as much green space as possible. It is the greenery and family friendly atmosphere that draw people to Greenville.

•Make crosswalks safer!! I regularly see red-light runners, especially at the ped x-ing over Rutherford Rd at James and Earl Streets.

• I would like to see more social groups get together to do activities outside (much like the disc golf group that meets at Timmons Park)

• Improvements on sidewalks. My biggest complaint is even though there are trash cans people still litter! This is awful! Can we do something to make people more aware. When I am in

Falls Park it disturbs me how many cigarette butts are on the ground trashing the park. Can we do something about this?

•Some coverage by county personnel for safety

•More open space overall. Areas for off-leash dog run. Creating these public spaces beyond Downtown Greenville - Roper Mountain Road area, for one.

•Bike lanes on roads would be great.

#### appendix c

I like the new trail that is downtown that is half paved and half of the soft material - it is really great. I am hoping that in the future it may be a little longer. It would be really nice to have a way to get from Downtown to Paris Mountain Park and/or Furman. Thank you.
Need more sidewalks on Cleveland Street and Faris Rd.

• More areas that are family and/or kid-friendly.

• Bike lanes and improved sidewalks in the Augusta Rd/McDaniel Rd area. Lots of uneven sidewalks because of trees. We like the trees but it is unsafe to run at night.

• It's important to walk, bike and exercise yet this city is not conducive for doing that. Lack of sidewalks or sidewalks put on busy streets discourage walking and biking for children or families. We don't bike as a family in the city due to the lack of sidewalks. We don't take walks as a family because of the dangerous factor of having to walk on the road. When the city improves a road and repaves and adds a curb, I find that only finishing the job part way. When improving a road, adding a sidewalk along with the curb would stimulate more exercise and increase safety. If you're going to bike or walk as a family, you have to either go to Furman or have to make the trek downtown to walk along the river along with thousands of other Greenvillians. It's getting crowded because there aren't enough places for all of us. • redevelopment of run blighted properties. for example the stretch of road between Cherrydale

Plaza and downtown on Hwy 25.

• Making the roads cycle friendly by having a bike lane

•cleanliness, lighting

•Better sidewalk system and wider bike paths .. preferable bike baths that are separated from the street by several feet or more! And maybe better signage warning drivers of bike routes, trail crossings, that sort of thing.

The bridge in Cleveland Park near the "fighter plane" is too narrow, and unsafe for joggers, walkers and bikers. Also, it would be nice to replace the metal bridge over the river that currently you only can walk across...jogging/biking isn't allowed on the current bridge.
more roads with bicycle lanes

•SIDEWALKS!!!!

• Trails/paths should be wide enough to allow safe, concurrent usage by bicycles and pedestrians.

• safe crossings

•Bike lanes on major public roads, clearly marked.

•I don't consider the improvements priorities, but Greenville would definitely be more attractive to new comers (and an incentive for many to stay in the area) if more recreational trail systems were in place, whether it be more mountain biking trails or a greenway system. •trails along main roads...sidewalks etc.

• This may not always be feasible, but trails should be created such that people can use them for "short trips" that now require the use of a car b/c of safety concerns and infrastructure limitations. Many people live a short distance to a grocery or convenience store but end up

driving b/c that's the only way to go. Trail networks to enable non-motorized mobility could then be connected to even allow commuting.

• I'm not sure of exactly what you mean. I assume you mean other improvements than trails for our overall transportation? If so, then I do not need public transportation for my family but it is a major improvement need for Greenville with our poor transit system.

• Resurfacing and expanding current trails so they are wider (can accommodate foot and bicycle traffic)

•Road conditions and street signs.

•Safety and adequate lighting.

• connection between trails

• More sidewalks and bike paths along busy roads

• more connecting trail systems

•SIDEWALKS!!!!!!!!!!!!!!!!!!and other pedestrian friendly walkways to get downtown.

• Safety Issues

• Advertising the system

•Anything for safety. Also, R-T-Tr I lived near and used daily in Maryland had water stops, mileage markers and businesses set up along the way offering (cold) food/snacks, bike rentals and bike repair services. The park service had a location offering bathrooms, first aid, bicycle safety education, etc.

• I did not see safety listed anywhere but this would have to be a consideration for any trails that are developed.

•Bicycle lanes in suburbs.

There should be bike lanes on all major roads and on the heavily traveled roads to encourage people to get out and exercise together. I lived in CA for 5+ years, and everyone (especially the children) was biking or walking or rollerblading after school/work and on the weekends. Everyone was healthier and happier. Families road their bikes to the many parks to play and relax together and the bike lanes made it safe for children to ride their bikes to school!
Protecting our green space and creating more to improve the quality of life for residents and attract new business and their employees. I would like to see a significant improvement in bicycle friendly road both in town and out of town.

•as Greenville fills in, the proactive establishment of smaller parks that fit between neighborhoods or give others a bit further out to walk their dog or just relax... IE LONDON, NEW YORK something downtown with recreations fields for sports?

• bike lanes on all major streets

•Sidewalks!! Streets need signs!! More pedestrian friendly! More parks and green space... there needs to be some urban planning. See Vancouver, B.C, Canada and how the city is planned out... very friendly for walking outdoors... we should not just be limited to being in cars. Improved bus system so that people don't just use cars!

•Why can't we have trails that connect to Piedmont, Moonville, or even a sidewalk from

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## trails & greenways master plan

Moonville to Greenville. Would love to ride my bike to work, but to dangerous without a sidewalk on 25.

•Just make the trails as safe as possible, adequate lighting, perhaps security stations at strategically placed locations, these stations could house 1 or 2 people that can give information, directions, and also can be certified security officers who know basic health skills like CPR.

• extension of rail trail along reedy river

• More bike lanes on existing roads and bike markings on the lanes, and signage.

•You've done a great job so far! Don't give up now!

•Sidewalks

• Increased habitat protection. Especially along rivers and waterways.

•What remaining natural land we have in the city, and safety most of all.

• Full implementation of the Reedy River trail system master plan.

•We need to improve the trails and bridges that we have before we add more to the system. In particular, the bridges across the river are very poor.

•Although I have some reservations about dedicated bike lanes: (motorist sometimes don't seem to understand why cyclists leave the bike lane to make left turns;) (motorist sometimes take the attitude that cyclist should ONLY use bike lanes;) I am happy to see Greenville marking bike lanes on some of the downtown streets. The markings, I feel, increase the awareness of the motoring public to the presence of cyclist in the downtown area.

• more reedy river cleanups and conservation

•bike lanes, bike friendly signage, support from city to make GV a bike friendly city

• Closing Main street to vehicles.

• Connect adjacent trails to downtown Greenville.

• A bridge over the road somehow so you don't have to cross.

• Bicycle paths on all roads except highways.

•Time delayed traffic crossings to allow adequate time for pedestrians to cross busy intersections

•Keeping grass and nature a priority in downtown, litter control...cigarette butts.

 ${\scriptstyle \bullet}$  provide parking areas with access to trails  $% {\scriptstyle \bullet}$  portapotties or similar in a few locations

• More emphasis on sidewalks in all residential developments

• Recreational parks with all facilities

• More connectivity to North Main area parks

 $\bullet \operatorname{Safer}$  crossings for pedestrians at busy intersections

• Parking Lots at Trail Heads that are safe and secure.

• Paved sidewalks

• bike lanes on the roads!!

• Economic redevelopment of the road between cherrydale point and Pete Hollis gateway!

• Is it possible to get a time line for the Trolley downtown? Or does traffic make that

public input summary

impossible.

•Some more park & ride spots along the trail

• CONNECTING EXISTING TRAILS, GIVING PEOPLE GOAL-ORIENTED TRAILS, MAKING THEM AS EASY TO POSSIBLE TO USE AND SAFE.

•the parks that we have now need to become more safe, there are TOO many 'wondering homeless people' now in many of them (esp N.Main) where it is unsafe for a female (or child) to walk alone....if they aren't safe then what is the use of building new ones other than the 'look what we did' factor!! lets make it safe everywhere for everyone

• more public restrooms

• Parking, safety along the route.

• I think the biking trail system is a big plus. The Silver Comet in Atlanta should be your benchmark. It is a travel destination in order to ride for myself and others who live in Greenville. I can't wait until the TR to Downtown Greenville trail is finished.

•Mtn. bike trails inn Gateway park ,T.R.,A Good BMX track and Skate park in Greenville or

T.R. More bike Lanes on busy roads and the other greenville county bike routes

• Maintenance of currently installed sidewalks and trails

Better communication to the greater community. The green-way program suffers from lack of public reporting and information. Plus outreach to the community's interest groups: Greenville Spinners, etc would help accelerate ideas, support, participation and overall communications.
Bicycle lanes

•The beautification of the river along the current Mutli-use trail downtown.

• Public transportation. Without a car it is impossible to travel through the city safely. If you walk, you can forget about ever crossing a street, so many things a inaccessible. Too much growth, not enough sidewalks with cross walks.

•Bicycle lanes on existing roadways.

• More green space, more protected areas

• MORE BIKE LANES

• Increased bicycle lanes on paved highways.

• Further promotion of an overall health-focused lifestyle among the residents of Greenville and the surrounding areas.

• Building roads that have shoulders wide enough to ride on.

•sidewalks to walk to supermarkets

• As a cyclist, the fewer train tracks in the road, the better! Rails to Trails takes care of that problem with the unused Rail lines.

•Lighting is nice (to the point of a previous question), but not essential. I rode at night on bike trails near Wurzburg, Germany. But the key things are to (1) get the right-of-way, and (2) get going! Sonoma County, where I also lived and rode the trails, had such a good network it allowed a 25-mile (round trip) daily commute by bike.

• Please fix short sections of missing sidewalks along Augusta Road (near Augusta Pl). We

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## trails & greenways master plan

ride with a Burley trailer behind our bikes to transport our 3 year old. Along busy roads, like Augusta Rd, riding on the street is not safe even though that's the law. If we can't avoid a busy street, we ride on the sidewalk. The missing or rough sidewalks are very rough for a child. Also, there are places where we are forced into the street because telephone poles make the sidewalk impassable with the trailer. Yikes! This happens on Augusta Rd north of Faris Rd on the way to the new Drive stadium. Safe access to the West End would be wonderful. • Converting old rail lines that are unused would be a great starting place to be able to access various location without the use of a car. As this area grows traffic congestion could possibly be eased if there are safer ways to get around on a bike.

• More people would probably be willing to bike in the downtown area if more bike racks/ lockers were made available.

• This has been on Greenville drawing board way too long. Greenville should be bicycle friendly city like Seattle. Also, all the traffic crossing in Cleveland Park should make all automobiles stop for cyclists and pedestrians. WE NEED TO EDUCATE DRIVERS ABOUT SHARING THE ROAD.

•Connectivity of trails and lots of different destinations

•Bike lanes on streets to promote more alternative commuters

•Bike Lanes! Or, at least, wider shoulders.

•Auto emission inspections should be done in this area to help improve air quality. A better public transportation system also needs to be considered. In cities where people care about their environment a bus system is essential, not just for low income citizens but for anyone that wants to help improve air quality. Sprawling cities where most live in suburbs and work downtown or elsewhere a bus system can really improve traffic and air quality.

•Bike lanes, bicycling awareness

•bike lanes

•Construction of tunnels to avoid crossing major streets

• More parks and Green areas

• Passing laws to keep dogs out of the flower beds in Falls Park. There needs to be a set fine for Animal Control to impose upon offenders.

• More greenspace generally in the city and county of Greenville. With increased development, we seem to be getting lower and lower on "green."

•traffic control

• have an anti-litter campaign, we have got to teach people the importance of not littering... start in the schools teaching the children to respect our beautiful state and cities.

•More trails, sidewalk access to get to downtown and beyond from Eastside Greenville •Many trees

•Sidewalks and bike lanes... half of North Main St. only has sidewalk on west side. You have to cross busy Main Street to get to sidewalk from feeder roads on east side. Not easy for kid to do to get to ball field or elementry School Slowdown traffic in areas with potential for high

## the city of greenville

pedestrian bicycle use. For example North Main... again the steep hills and 2-lanes each way and you frequently have cars/trucks going 50 mph. Drop speed limit to 30 and enforce •Cleaning up the Reedy River Trail between Falls Park and Cleveland Park - the area near the church st. bridge

• Absolutely imperative that we require even more green spaces, really push xeriscaping and drastically reduce high-maintenance lawns to reduce water waste. Encourage use of gray-water systems. Educate homeowners on use of natural/organic pesticides/fertilizers and require all government land care systems to do same- we and our kids deserve a clean planet !

• Just keep maintaining what you have.

• Locking in the rights of way for future trails now, before land prices get too high.

•proper lighting 3) Landscaping 4) Signage 5) Benches 6) Phones

• Parking lots at trail access points

•plenty of small shelters for rest and shade.

• i believe everything was covered in previous questions

• safety

•add parks see below also arrest the gangs don't go soft on them

• It would be great if there were walker/biker friendly paths around all the college/universities. Students need to be able to access surrounding areas and the community can benefit from the great stuff happening on the campuses.

• Trails linking to public transportation!

•Bed & amp; Breakfast Inns at trail junctions or along trails at points of interest; Railsto-Trails without gas-powered vehicular traffic; Paved walking/running paths around the perimeter of City and County parks.

• Better laws to protect cyclist on the roads and more bike lanes. We just want exercise, commute and have fun we don't want to obstruct traffic or risk our lives to do it

•BICYCLE SAFETY and automobile driver education

•bicycle/runner friendly streets and destinations.

•lights and homelessness problem running in the dark

• More bicycle lanes on roadways, especially major roads.

• Sidewalk on N. Main between West Avondale and Earle Street.

#### Do you have any other comments?

• expand existing trail system!!!

• Having trails would encourage use as an alternate to driving automobiles which contribute to global warming and other negative environmental impact. Trails also offer an alternate way to exercise.

•I stayed in Moab Utah at my friends and I loved that you could go all the way around the town on a bike path and it had "exit ramps" to all the different areas of the town and you never had to ride in the streets. Maybe take a look at their master plan for some insight

#### appendix c

•bike lanes!!! bike lanes!!! bike lanes!!!

•I think some really great things are happening to our town, keep up the GREAT work!!!!!! •Used the "new" rails to trails today (3/25) for the first time. Even though I had heard that a portion was completed, I wasn't really sure where it started. Would love to see better signage and more publicity. I understand it is in the early stages but more people using the trail will also give the appearance of a safer environment. Even as a male and walking with my wife, I found myself looking over my shoulder rather than enjoying the environment. Lighting, call boxes and water fountains along with a perception of some security patrols would be good additional options for the future. Once completed, I believe this trail will become a major attraction for Greenville City & County. If there is anything I can do to help with this project I would be happy to participate. Jeff Plain Easley, SC 29642 864-306-6314 •Greenville needs more mass transit and badly.

•Hope that covers it (#12. and 13.). If I can help in anyway please contact me. I am a life long athlete in any unorganized sport. Teaching individuals to enjoy exercise is a life long commitment I've made. Some do religion, I'll spread the gospel of play and all the joy it brings to me, my family, friends, and community.

• lets make it happen!!

•Thanks for working to improve the trail system in Greenville!

I came to Greenville by haphazard chance. The active community and pedestrian friendly intown areas, along with the living costs and professional opportunities are what make me want to stay here for life. Continual development of the active / pedestrian infrastructure will, in my opinion, continue to attract young professionals like myself to the area. Please keep pushing for more investment and keep up all of the hard work. Greenville is a very special place.
'i'm 24 years old, and i've lived in Greenville for two years. between the city's crazy growth rate and fairly progressive mindset, i plan to live here forever. originally from a dead, old Northeast town, i genuinely feel that Greenville is uniquely positioned to build itself unlike anywhere else in the world. this is so exciting, and i tell everyone i know they need to live here. i believe it's absolutely essential that the city continue to develop non-mainstream infrastructure -- like trails, bike-friendliness, etc. -- and turn the urban core into the coolest, forward-thinking series of interconnected locales. it's this that will fuel future growth -- and give folks like me, transplants, a reason to never leave.

•would love to have something that made commuting for work and entertainment/dining easy. I live downtown/work on the eastside. It's hard to find a reason to design my riding route to stop or end at one of the downtown restaurants to eat afterwards. I always end up loading the bike on the car, drive closer to safe, low traffic roads, unload the bike, ride my route, then drive home. I miss the social aspect of having a starting or ending point in a pleasant environment. But it's too risky to get across town on foot or bike.

•The new rail-to-trail that starts near the Children's park on Broad street is a great first step. Unfortunately, the trail goes through a section of town that doesn't feel completely safe, which

currently discourages people from using it.

•Keep up the good work! We look forward to using the Rails-to-Trails path when it becomes more safe. So far, the only people I've seen on it have been nervous runners and homeless people.

• I like the trails that you have built so far. Keep up the good work.

• I would not use any trails, but I think they would be a big "plus" for Greenville, specifically downtown.

• Thanks for all you guys are doing. i can't wait for the future of Greenville.

•Street markings should be emphasized at all crossroads, to show both bicycle and car users the correct space the bicycle will be using.

• I would love to see automobile free areas for pedestrian/cyclist. My husband and I love the bicycle friendly atmosphere in Europe and would love to ride more here in the upstate but fear for our safety on the roads. Please continue your efforts to bring these greenways/trails to the area!!!

•Yes, the inclusion of sidewalks on the survey shows a lack of understanding. Neither bikers nor runners like sidewalks. The concrete is harder on runner's legs and too broken up to use for biking. What is needed is a biking/running lane as part of road system.

• Trails for walking and cycling provide not only recreation and exercise options, but potentially provide transportation avenues for people who would rather not commute via automobile. These trails help with economic development and the environmental sustainability of our community.

• I'm so glad this is becoming a priority in Greenville.

• Please help Greenville become a city committed to smart development and not another sprawling Atlanta with its awful effects on health, quality of life and the environment. So many things can help: public transportation, trails, more green space, better development...good luck.

• Cycling has brought a lot of good press to Greenville. I'd like to see the city do more with what they have, especially as we get ready for the next US Pro Nationals Race.

• The improvements I have seen to downtown Greenville over the last 30 years are amazing. I no longer live in Greenville but I visit a lot since my family still resides. It is easily one of the most beautiful urban areas I have seen today and I brag on the downtown all the time. Cleveland Park is stunning and anything that can be done to extend access to it through trails would be wonderful.

•Make Meadowbrook Park happen. If we thought Falls Park was great, wait until Meadowbrook. Make sure the current property owners--the Farris and the Turrentines--are up to speed on the plans and know what is going on. Please make sure you are collaborating with the County and GCRD. The City of Greenville has a reputation for just doing projects without asking the opinions of the County and the other municipalities. Some of the wounds need to be healed between the city and the county. Although the Rec departments are

#### trails & greenways master plan

collaborating well together, elected officials need to do a better job of partnering. Also, at some point we need to think about the Saluda River and the Enoree River for conservation. The Saluda, in particular, is not being utilized for recreation like it could be.

•Running in the mornings is like playing frogger. I feel like cars try to get as close to you as they can because they think we should not be there. Then you see the drivers that grab the steering wheel because they think that they are going to hit you but God forbid they slow down. I run at 5:00 am because I have to run on the street and that is when there are the fewest cars out. If I could hop on the sewer way in the scuffeltown area and run to I-85 this would be a real safety blessing.

• Virginia has many bike lanes along side of the roads. SC roads need to have at least a shoulder if not a bike lane added.

•Greenville is such an awesome destination and a perfect place to live. Utilizing the natural beauty by cleaning up certain areas for trails and paths and providing visitors and residents with a safe and progressive outdoor network will pay off in many positive ways beyond the initial investment.

•As we all become more informed about maintaining our health and they impact of the baby boomers not wanting to "get old" more amenities like trails will needed and not just wanted. •Just wanted to say as a fairly new resident (2 years) to Greenville and SC. this is a beautiful place to live. Growth is definitely happening, but would be nice for the county and the different cities to get their heads out of the dirt and realize they need to step up and get the roads and traffic under control before they allow development. Shops at gridlock on woodruff is a perfect example, and with another proposed development coming to that area. That was real smart, anything for the dollar.

• We need to encourage alternative methods of transportation into downtown. Shuttle buses from a convenient parking location (University Ridge?)

• You always spend money on North Greenville County, but what about the Southern part? We pay taxes as well.

• Connectivity important

• Thanks for the well developed trail system in Greenville! Hope to get out and do more of it soon. Please do keep up the good work.

• The trail(s) can be left unpaved until we get them established for a few years. Packed gravel is fine.

•I think Greenville City and County would benefit with more speed bumps around park areas causing people to slow down. More police or traffic enforcement cameras would also help but the cameras would be cheaper and probably more productive.

• If you want more crime, then move to Atlanta

• I am very excited about the trail system that will connect downtown to Furman! thanks!

• The other outlying towns such as Greer and Taylors should have marked bike paths. Traffic is so heavy and people drive so dangerously, I fear for my safety when I ride. If bike paths could

be linked between communities, it would help foster exercise and good health. The Pinellas trail in the St. Pete/Clearwater area is a good example of such trails that are used by bikers and pedestrians. See http://www.pinellascounty.org/trailgd/

• Connecting and improved trails would bring a lot more people out to participate and would encourage family fitness.

Unfortunately, benches and picnic areas often become hotspots for criminal activity. In my opinion, the more natural the area, the less likely drug traffic will occur. Dealers don't want to get their sneakers dirty. Let's keep park benches and picnic tables in easily patrolable parks.
Keep the momentum going, Greenville is blossoming!

•I am glad to see Greenville placing a priority on this. My family would like to use trails/ bicycle lanes as a safe alternative means of transportation and recreation.

• No Hunting or motorized vehicles allowed.

•We love the bike/walking trail that starts in downtown Greenville, but it is a little scary with all of the vagrants who live up under the bridges and near some of the old buildings on the West side.

• If Greenville wants to attract people to the community, bike and skate friendly trails are the way to go. I mean long trails not one mile and back. All thriving cities have these trails for serious exercisers and recreational opportunities and they are packed on weekends and summer evenings. I like downtown but there is more to a city than going shopping.

• cleveland park is a great place to walk but it seems that there is a lot of car traffic (and they are driving way to fast) and can be scary to cross the street. people are using the park to cut through town. speed bumps should be implemented throughout the park.

• It is so exciting to see this happening in Greenville, my home town (and my husband's). Thank you.

•Greenville currently has the momentum to do some great things with trails and pathways. If it can be established here, perhaps it would be continued in other areas of the upstate. I live in Williamston and am always interested in better places to ride my bike and spend time outside with my family. I would even consider moving to a location closer to Greenville that would provide access to a trail system.

• Would like to see unused railroads converted to trails.

• Any sort of trail system - hiking, pedestrian, bicycle - would be a big improvement.

• Fantastic job with the Swamp Rabbit trail. Would love to see more improvements like that, as well as bicycle lanes throughout the city.

• It would be great if the trail and greenways could spur some economic development of businesses located near the trails / greenway. Example - a cafe near the trail to have coffee or lunch at as you take a walk or go on a bike ride. This would kind of give some other 'adventure' along the way and give the chance for a rest break if needed. I would prefer to see money spent on connecting more areas and making sure the trails is well paved and signed / marked rather than on things like shelters, picnic tables, water fountains, bike racks, etc. To me, the

#### trails & greenways master plan

true value of the trail is in the existence of it and how many places it could connect and not on trivial other amenities that may or may not be used and would require continued funding and maintenance. I am thrilled to see that Greenville is finally creating a long overdue greenway and trails plan. The city government should support this initiative as it will further cement Greenville's quality of life and enhance the health and fitness of it's citizens. I used to live in a city that had an exceptional trails / greenways plan and that is the key thing that I miss about that particular city. I can attest from experience regarding the positive benefits trail and greenway facilities can have in respect to health and well being. I applaud Greenville for initiating this effort and I sincerely hope that it is the beginning of a masterpiece that will benefit the lives of all those that live in and visit Greenville county.

•We desperately need bike racks in downtown Greenville.

•As a log home contractor I have access to a lot of treated lumber and logs as excess from a building site. I have an extremely high level of interest, both personally and professionally, in getting this timber donated to the trails and greenways. Trailhead markers, benches, shelters, and boardwalks are just some of the uses that I can imagine. This is all high quality material, not junk!! THANK YOU! Joe Lyle

• Make the Reedy River a recreational centerpiece in the Greenville County community from TR to Simpsonville. Allow easy access for trails users, canoeing, and kayaking.

• Please help keep Greenville beautiful and help the city to preserve natural environments. It's imperative that we start conserving land and trees so that our children may enjoy our city's natural beauty in the future.

•A good mix of paved and (unpaved nature trails) would be great!

•Thanks for asking Greenville people what they think. I always run into someone who says they would ride a bike if they had safe places or designated bike lanes.

• this would add character and beauty to our beloved Greenville

•Who are you and are you a contractor for the City like Market Street?

• Planning a complete greenway system is important and having land use ordinances that require developers to contribute land and funds to the development of greenways and greenspace needs to be in place for the continued "greening" of Greenville.

• Thank you to the City of Greenville for at least considering our environment, the affects of development and the attempt to integrate the two aspects together. Again, Greenville County could learn a lot.

•Quit talking and do something

• I would recommend prioritizing areas in the City for trails. Since we are well on the way to a good trail system using Cleveland Park as a starting point, let's work to make that the best it can be now and then build outward from there into other areas.

• I wish this would happen. I see great results from it.

• Greenville is heading in the right direction. We need to continue developing parks and greenways to attract new businesses and continued intelligent growth. Historically this area has

paid little attention to parks and greenways compared to other areas of the country and world. Thank you for what you're doing!

•Look at the RALEIGH DURHAM NC greenway system- It is SPECTACULAR. You go anywhere in town on your bike or by walking now. Malls, parks, downtown, anywhere... and people use it. There are some trails where it is literally packed like I-85 during rush hour traffic.

• More trails please

•I think it's pretty sad that we are host to the US Cycling Championships and we have such an unfriendly bicycle environment in this town. No bike lanes to speak of (and no, I do not count a couple of token lanes right downtown, after all you have to actually GET to downtown to even use them); SC continues to be a very unfriendly biking state in terms of bike fatalities (#6 in the US). Also, I believe in free speech but exactly how many bike opposition letters does the Greenville News have to publish before people think it's actually ok to squeeze bikes off the road.

• Just another question: How does the city plan to protect people using these trails? My

husband and I walked the section from Falls Park to McDaniel Ave. last year, and I know a girl lost her life in there, a few years ago.

• I visited Boulder, CO recently, and I was very impressed with their Boulder Creek Path. I think Greenville downtown has the potential to have something equally nice. With the Reedy River so close, it would be an ideal place to have a lengthy trail system. Greenville has already done a lot to improve the Reedy River area with the Falls Park addition. I can see potential there for even more areas like that along the river.

•Greenville County has so many neighborhoods without sidewalks. Woodland Hills gets a lot of foot traffic and these poor people are taking their lives in their own hands because of all the speeding traffic and no where safe to walk!

• Have you visited the Virginia Creeper Trail?

• The sidewalk on East Parkins Mill is a great improvement. The trail in the downtown area is so successful that we would like to see more this type of improvement in other parts of the city. • I think the city should consider making the streets through Cleveland Park one way for cars. That way the other lane could be used by bikers and pedestrians. Lots of bikers ride in Cleveland Park and there are no shoulders. I have seen some close calls between cars and bikers on the streets. Cherokee Park in Louisville KY took many of the streets in the park and made them one way with plastic post barriers in the middle to separate the bikers/skaters/ walkers from the cars. It has proven to be very popular. If the city cannot make the streets one way they should figure out a way to add a bike lane. Please don't wait until a biker is hit and injured before doing something.

•The sidewalk installed on south batesville road, when it was widened a couple of years ago, is a fairly good success. It helps connect the subdivisions and is used frequently by children too young to posses a drivers license. This also helps ingrain alternatives to the person automobile

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at a young age. There is an added benefit of exercise which is a problem for today's youth. •Trails + Sans Souci + History = Rock n' Roll

• Some the questions above needed an "other" or comment space.

•Would like to see Cleveland Park changed so that it is not a cut-through for commuter traffic. Limit traffic flow - possibly close a road. North Main St. changed to 2 lanes and a bike lane added.

• This is a great concept which I hope the City will pursue.

•Offer volunteer programs to both individuals and service oriented organizations throughout the area. "adopt a trail", high school service projects, etc.

•Greenville has great opportunities to move forward with trails and greenways. I work in an office downtown where there are ~10 part-time on-and-off bicycle commuters, and the primary reason for not commuting more is probably lack of facilities, particularly from the East side (there's just no good way down Wade Hampton corridor). The other component of this master plan in my eyes is connecting with public transportation. Even though service routes of GTA are not great, the buses are clean and it's not a bad ride. I manage to ride the bus about once or twice a month because I just don't want to drive, but it's inconvenient to get to and from the routes without being able to transport a bike. If the bike routes and bus routes came together, and if the buses would allow bicycles, I'm absolutely sure it would help both ridership on buses and bicycles in Greenville. I'm excited about the momentum in Greenville. I'm not sure it will ever become a Denver or Seattle, but we can always hope so, because it's a great place to live!

love to walk - anything that makes it convenient and varied would be wonderful
More info on how i can help

•Overall, would prefer to see greenways made a priority in city planning. Other cities in the US have added bike lanes, extensive biking/hiking trails linking different areas of cities, and even river access that promotes use. Outdoor magazines frequently rave about cities that are able to incorporate an outdoor lifestyle, and active(healthy) people gravitate towards those places because of the advantages they offer. In many cases, it just relies an a little bit of creative thinking - for example: The lower part of the Reedy River below 85 could be a great place for folks to enjoy the river if they only had a designated place to park and enough access to walk/hike. Greenways provide buffer zones for development and are also a huge asset to homes that are built in the area - what individual needs to own property all the way to a river or lake edge if there is a greenway providing beauty and a trail that will allow them to access to additional miles of walking, etc. That is the difference between an ok city and a GREAT place to live. (contact me @: edward.enggasser@siemens.com)

 $\bullet$  Trail use should be via user fees. Why should 100% of taxpayers pay for trails for the 0.1% of residents that use them?

•What a great idea. Interested in what other communities did with this. Would be nice to have parks connect so that you could bike or walk to the park, to play basketball or tennis or

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#### the city of greenville

#### whatever.

•I enjoyed the Carolina First Center event this week (week of April 9, 2007). Abundant and beautiful greenway space with trails is absolutely vital to a thriving community. The master plan for Greenville is fantastic. I can't wait for it's full implementation. Virginia A. White, MD

•Greenville is heading in the right direction. I would suggest to research other towns/cities out west who are or have done the same thing - Seattle WA would be a great place to start. Also, have you thought about making the school bus and bus transportation here bio fuel. Seattle has done so and is reaping the rewards! An electric tram line going into downtown would cut on traffic and pollution. :) Tax advantage like in other cities would get the Greenville's attention. Thanks for all you are doing.

• I believe the upstate is such an attractive area for so many reasons. We are becoming an area that cares about health and the benefits that our community can offer so much more so than many areas I have lived prior. So much has been done since we arrived in 94 and are very grateful to all who have lead the community in this direction. Please continue to head forward and allow us to enjoy the outdoor beauty that is sometimes taken for granite.

•We would very much like to see a dramatic reduction in clear-cutting for new development - there are so few mature trees in Greenville compared to when we relocated here in 1999. Almost makes us wonder why we live here.

• I think this needs to be county wide initiative. Greenville is growing out and unless people from the outlying areas can safely access the Greenville City trails, they won't use them. I think public, through green space should be mandatory in all new subdivisions.

• Connect not only city parks but connect county parks as well.

• Thanks for putting the work and effort towards this!

•I'm glad to hear that this is being worked on. It will definitely add value to the community and metro area as a whole... Making us more competitive as a place to consider raising a family or even do business or vacation travel in.

•Yes, PLEASE ADD MORE SIDEWALKS IN THIS CITY so we can all enjoy walking in our neighborhoods! =) It hinders people from walking, biking and exercising as a family because of it.

• I don't think that potential property developers are aware of the incentives available to them (tax breaks, special purpose financing, etc.) for redeveloping such properties and furthering the growth of Greenville.

•Think how the city would benefit from less emissions if we were a trail friendly city

• Continue to be progressive and intertwine the natural resources of a beautiful state with a vibrant city.

• Greenville has made great strides in pedestrian friendly areas ... keep it up!

• Maybe some more signs for dog owners to clean up after their dogs...there have been a lot of messes on the trails lately.

# • I'm from Minnesota. This is one of the "healthier" states, and I believe that is due to the accessibility of side walks and recreational parks/areas. One of the first things I noticed when I moved here was the lack of sidewalks.

•Developing an adequate trail system is an overdue element for Greenville's economic development. More money should be earmarked for trails and parks.

• The proposed plan is outstanding and if implemented will set Greenville from other cities in the Southeast-it would be a boom for quality of life, recreation, business and industry and an absolute plus for our entire community

•I would seriously recommend taking a look at the Raleigh/Cary, NC greenway system. I feel that the amount of money spend in creating these trails has greatly improved the community in terms of the economy and the well being of individuals.

think city could be more safe if speed limit in residential areas lowered and enforced
Please keep a balanced view of what trail users are out there. Walkers, hikers, runners, mountain bikers etc all have needs. I mountain bike but I also enjoy paved (or even unpaved if that's all there is) rail trails to enjoy with the family. The rail trail from downtown is a great start. I haven't been to Timmon's park to mountain bike b/c the trail had been poorly marked and not well kept. We have a beautiful setting in the upstate and Greenville's downtown is a great centerpiece - a good trail network would make us stand out, especially if we can take leadership in that area.

I believe that connecting with trails from downtown to Paris Mountain somehow would greatly impact the traffic to the Paris Mountain State Park which would dramatically improve the usage of an incredible but underutilized asset that we have with the park and its acreage.
Greenville should study other growing cities to become more in tune to "outdoor living" and recreation to provide a place for everyone to walk, bike, etc. safely with a feeling that these activities are welcome. Our automobiles rule this city and many who use the roads are reckless and inconsiderate. Where is our monitoring system?

•Thank you for pursuing this.

• every single rd need to have a trail

•Thank you for making this a priority. I think Greenville will be that much of a better town if we can improve the number of people who walk around. Look at the wonders of West End... there is a demand...if you build it...they will come!

• Trails and greenways will help keep the 'green' in Greenville. An effectively implemented plan will also help overcome the dismay that many citizens feel as the area fills with aggressive development and impervious surfaces. Trails and greenways will restore balance to this rapidly growing area.

•Current 1 mile is awfully creepy - unsafe w/ homeless people and NO ONE around to hear you if you had trouble. I am very concerned about the safety of trail until it reaches the Furman area. I think the street crossings on the trail, so far, are not safe -- drivers are not slowing down as if they are not expecting pedestrians and bikers on the trail.

•This is a great initiative.

• The lack of trails/paths and bike lanes results in more children and families sitting in front of the T.V./game box because it's too dangerous for them to be out riding their bikes near the narrow, heavily traveled roads here in S.C.

• The lack of nature trails has been one of the biggest disappointments about living in Greenville County. There are far too few in and surrounding the city!

•I think Paris Mountain has evolved into a wonderful park and I applaud the efforts of the Rangers and volunteers. Washington DC has a paved trail that circles the entire city and it is available for walkers, bikers, rollerbladers, etc. I believe the entire loop is approx 30 miles. It would be wonderful to have this kind of trail around Greenville with spurs off of it to allow people to connect to their place of work or other recreation areas. This could possibly be an extension to the rails to trails initiative.

how can recycling get better? conservation of light?thank you

•we really need sidewalks on every major road. This is so important so that people do walk.

And we need better signage on roads so that people know where they are going. Big signs on the streets. More parks!! Save the green space instead of only building. Save the trees - think of the future... it will make the city look even more beautiful.

•Please make a sidewalk from Moonville to Downtown Greenville. It would be so nice to be able to go from the city to the country by riding a bike and not by car.

•Greenspace including walking & bike trails add to the overall quality of life and health of residents. It also makes this a more desirable place to live or work.

• I look forward to using the trails when they are completed.

• I love Greenville and it is a great city for recreation, but improvement is always good. This will keep Greenville the best! =)

• I am very pleased with the walking/biking trail in Cleveland/Falls Park. I use it weekly several times.

• I appreciate that you are looking into making trails a very necessary...possibility for Greenville... the bestest, and most beautiful on God's glorious earth!

•Same as above. I pray that Greenville becomes a place of fellowship and that we can encourage each other to better ourselves continuously in the name of Jesus, I do pray. Bless all of you who do take pride in our city.

• I live in Travelers Rest and am excited about the Tram and Trails. I jog regularly around my neighborhood but have a problem with loose dogs. My only concern is that these trails would be in unsafe areas or secluded areas where someone could be assaulted. I am sure once people begin using these trails there would be lots of people that use them but what if they don't?

•I really like the direction the city and county have taken in constructing trails and greenways. I'd like to see more in the future. Maybe we can get sidewalks and greenways in place along Haywood Road and a possible perimeter around the downtown airport. Sidewalks connecting

#### trails & greenways master plan

apartment dwellers off Haywood Road to Haywood would be a big plus. These communities are in close proximity to Haywood Mall, yet have no access to the Haywood Mall via foot traffic. • I would like to see Greenville City and County work together to secure the rail right-ofways as they are abandoned, particularly the right-of-way for the line from downtown to the Golden Strip area. These right-of-ways could be used for trails and Greenways, with future use targeted for light rail or other mass transit purposes.

•better police enforcement of traffic laws to protect cyclist

• Abandoning the Greenville Northern railway was the stupidest, most short-sighted decision ever.

•Love Cleveland park!

• I think that it is great that Greenville is doing this. If people could use bicycles more instead of cars they would be more fit, there would be less pollution and America would be less dependant on oil and gas.

• This project will grow bigger than the city or even the county. Your master plan will help direct how the county and other municipalities develop their programs. Make sure your plan anticipates a seamless integration with others.

• i have lived in Greenville all of my life. I always said that when i had a family i would move to another place because Greenville had nothing to offer. Now that i am an adult(24) I am looking forward to growing old in my native city. There have been so many great renovations without making it seem like Greenville has been erased. All it needed was a facelift and your group has done a wonderful job. I love how you have kept the outdoors a priority of Greenville. Your TLC for the city is well shown in all the work that has already been done.

• avoid areas such as Faris Road - presently both East and West Faris are totally unacceptable for trails or on road use, and sidewalks on e. faris are also unsatisfactory. avoid Augusta street- also unsafe

•Thank you for considering the needs of our citizens

• I have been in Greenville for a short period of time and there very few parks and rec. facilities for such a beautiful down town.

• If it's there, I'll run on it!

•We need to focus on making Greenville the biking capital of the Southeast or maybe even the nation.

•Great job!

•I like Cleveland Park and Reedy River Park but my dog can't cross the open metal bridge between them.

•Thank you Greenville for all that you're doing. We love living downtown, and don't mind paying as much as we do for taxes because we see it to good use. Thanks for being responsible with our money.

•I believe in creating green space! The government should use existing fund balance monies to create the green space. I don't think they should use hospitality tax money. Further, I don't

think that hospitality tax dollars should be used for tourism based projects, not ballparks, waterparks, soccer stadiums, etc. That is not the kind of tourism that brings in the money. •In consideration of the ever worsening traffic, inconsiderate drivers, and lack of traffic law enforcement, I eagerly await the day I can hang up my car keys and have alternate transportation modes realistically available.

• A network of connected trails thru out greenville and nearby communities. We live in Roanoke VA but visit son and family often in Simpsonville. We enjoy riding our electric scooters in cities and along greenways.

•Wonderful idea and vision. I would like to help make this a reality.

• Consideration should be given to extending the Downtown/Furman/TR trail on to Cleveland SC. I understand that is where the Swamp Rabbit rail line ended.

• The old T.R High school football field would be a good place for a BMX track, find ways to consolidate Greenville reek parks sports fields, to help save money

• I use the trail to leave my home near the hospital and head towards Furman. It is not long, but it does help to stay away from cars for a brief period of time.

• Trails will give safer places for my familiar to ride together and enjoy quality time. It also makes for a healthier community and encourages everyone to take advantage of what Greenville has to offer.

•Thank you so much for working to increase the amount of green space that is available.

• It makes no sense to have bike lanes only downtown...no one is going pack up there bike and transport it downtown to use bike lanes....it makes more sense to have lanes going to & from town to other communities...providing bike lanes only downtown was an extremely silly idea and a big waste of money

•Thanks for helping in this area.

• The work already done at Paris is excellent, hope it continues. I also commend the rails to trails conversion.

•I moved to Greenville about one-and-a-half years ago from Birmingham, AL. I have been very impressed with consciousness of the City's planners, etc, in promoting a healthily culture. This is very different than B'ham and I hope it continues through the construction of a more extensive trail network.

• I have lived all over the US, never I have seen such narrow roads. Why?

•Feel free to contact me if I can help: jrpeck@gmail.com

•Our family bikes extensively to go to parks, downtown and run errands. My daughter has been in a bike trailer on these excursions since she was 3 weeks old. There are places we just can't get to safely and we're brave! We take some risks because the benefits of modeling a healthy lifestyle seem worth it. I hope the traffic situation never makes us regret this.

•Thank you for your efforts.

• Having bike lanes on the roads would great considering that this area is becoming known as a great area to move if you love to cycle.

#### trails & greenways master plan

• I have used the trails in Morgantown, West Virginia. They are rails to trails, some paved some not, they go through town, they are well marked, wide and safe. A good example for us • work with the Greenville Hospital System to connect trails on their campuses to your greenways

•only that you do some good and make the greenways and trails happen very soon before i'm too old to ride or walk anymore. these activities make a healthier community.

•Let's do everything we can to make SC a cycling-friendly state!

• Check out the city of Eugene, Oregon. They have an excellent bus system and a very simple system of trail for walking and bicycle transportation that gets bicyclists from suburbs to downtown without using major streets, to keep bicyclists safe. I would love to use a bicycle for most of my transportation, but since I have lived in Greenville I have not even owned a bicycle because this is such an unsafe city to ride in.

• I am not a current user of bike trails but it was huge when I lived on Hilton Head Island. This is a terrific amenity that has economic benefits. Places that have biking/hiking trails are associated with well-educated and affluent populations.

• I think a big push should be to get children, African Americans, and other people into bicycling, walking, running, and getting out and enjoying Greenville. The White horse road area needs major help.

•More Parks and Green areas

• It would be nice to be able to get a map of the trail all the way from Travelers Rest to downtown, so we can see exactly where the trail will go. Also it would be nice to know proposed completion dates.

•the trails so far are awesome - just want them to go on forever!

•In Greenville for 21 years, Great progress! Thanks ! But, lets keep going.

•Check out the city of Bellingham, WA. I lived near there. They have a great trail system and are one of the most bicycle-friendly cities in the Northwest. http://www.cob.org/mayor/boards\_commissions/bicycle\_pedestrian/bicycle.htm http://theslowlane.com/bhaminfo/bikework.html Also, this site: http://www.everybodybike.com/

•One o the reasons we have so much tourist activity and influx of new residents from all over the world is our beautiful scenery and relativity pure air (compare to NY, etc.) However, we are growing so quickly that it is important to be aggressive in maintain and creating even more greenspace and beginning right now to reduce pollution, by complying with the Kyoto Plan, etc. Other cities have done it with magnificent results- we can, too ! One major improvement would be very simple- Discontinue traffic on Main Street. There is ample parking within a block of Main street -so this is no hardship for anyone. It would also make it much more appealing to those who are interested in living there. What is the use of living in one of the new very expensive "green-built" condo if you are hit with all the pollution as soon as you step outside? For those of you who are financially motivate, this would most likely allow you to bring in an even higher dollar for your properties! People are creatures of habit and will

continue to park on the street if you allow. Personally, I no longer shop or eat downtown because walking there is quite unpleasant due to the exhaust fumes and auto noise. Take a look at Burlington, Vermont- their little downtown area is thriving with no parking as i mentioned. Let's not make the mistake of getting to the point where we have dangerous levels of pollution before we act- I have lived here all my life. It has been so heartening to see downtown revived-would be fabulous to see it become the REAL GREENville !! Thank you •We are new residents.. retiring baby boomers. We LOVE GREENVILLE. Lived in Oconee County but we would never go back. Keep up the great work and vision. Advertise when you need volunteers for cleanups etc. We would love to get involved.

• It would nice to have a high speed rail system near these trails, but not to the extent that it takes away from the beauty of the greenway system. It would be nice if they could coexist together.

• trails should be easy to locate

• Greenville is turning out to be probably the most beautiful city in the country! • thank you.

Keep Greenville GREEN! business increase is great! BUT----Do not just build anywhere think ahead of the traffic problems that could occur I moved from NJ everyone there says its a concrete jungle----lets keep downtown beautiful build but keep fountains near the businesses-old fashioned lights and stuff like on Main St---also add parks to run down areas don't let GANGS spray paint buildings that are abandoned etc rip them down like on Poinsett highway going towards Travelers Rest---This city and area has tons of potential---Lets REALIZE IT!
We should be doing all we can to make use of abandoned rails; start railbanking immediately. Abandon the ridiculous notion of using the trail for a diesel "trolley";. This is totally counter-intuitive to the whole idea of using RT's for exercise and CLEAN transportation.

• I can't wait for the trail to extend to TR!!

•Other requests: 1) Emergency booths along Rails to Trails, similar to the ones at the Governors School and at Furman; 2) All-season water fountain each mile along the Rails-to-Trails path; 3) Mile and Metric markers along Rails-to-Trails path; 4) Readable signage at River Street directing pedestrians towards trails both eastward and westward

• I would love to see Greenville continue to be a GREAT bicycle community. We can bring more focus to our city as well as raise money for good causes. I hate to see the wall building between cyclist and motorist we need to co-exist. Laws, riding areas and education will fix most of the current issues.

• Don't forget the runners who will be using the trails...

•Stop unnecessary new construction! Give tax incentives to owners and builders who refit existing buildings to new use. There are enough buildings for all current users.

#### trails & greenways master plan



Falls Park



Rock Garden Park

#### trails & greenways master plan

the city of greenville

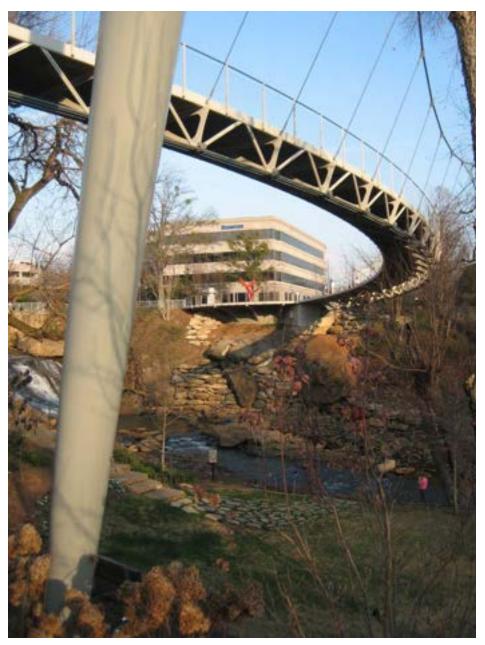
# D. Technical Details

## D.1 Introduction

The technical illustrations presented in this Appendix are for reference only and are not to be used as final construction drawings. Section D.2 provides information on proper trail intersection design and construction. Section D.3 contains graphics illustrating SCDOT roadway cross sections and appropriate specifications for bicycle facility incorporation.

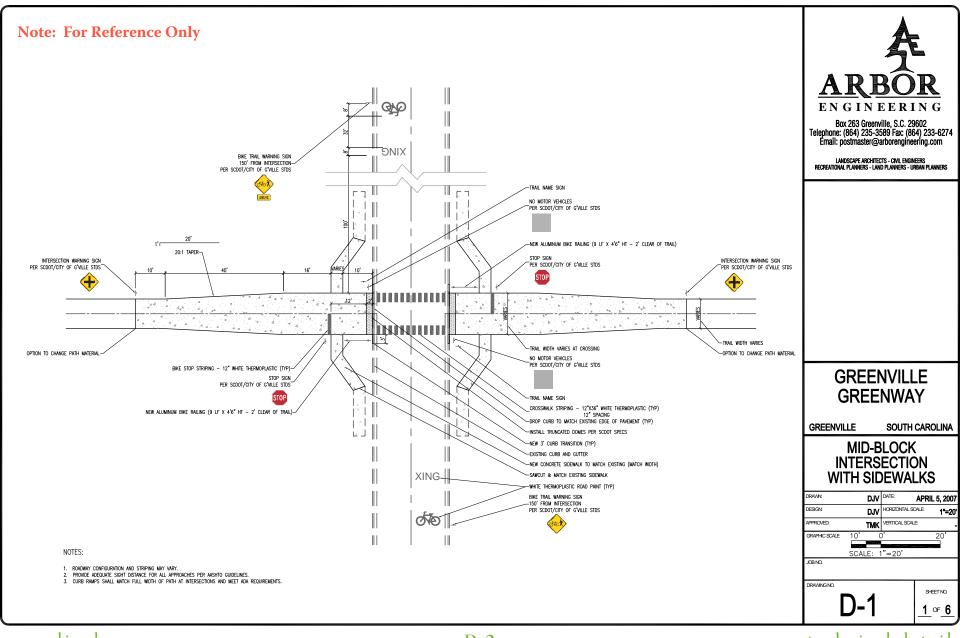


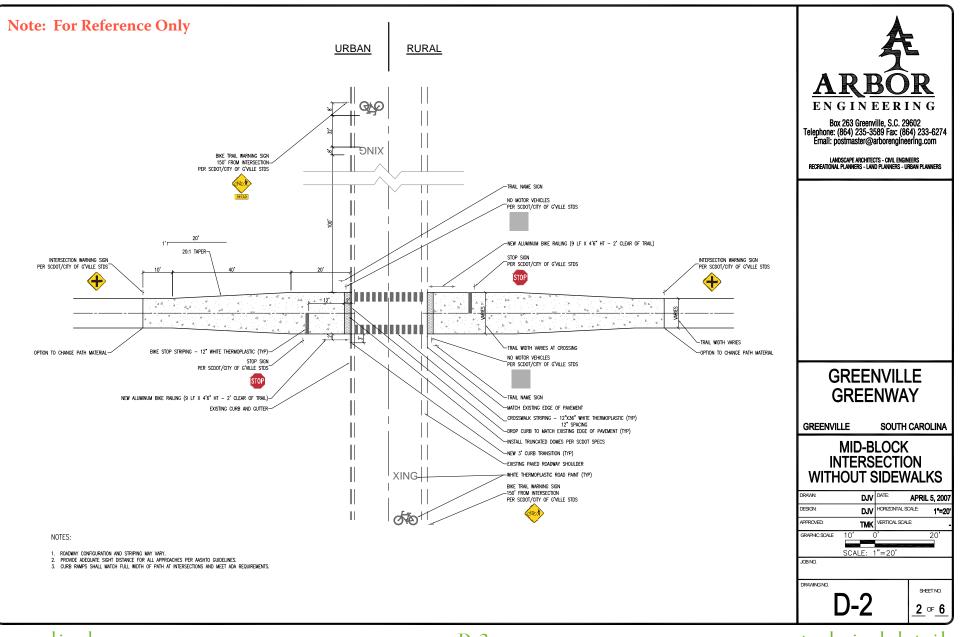
Falls Park appendix d



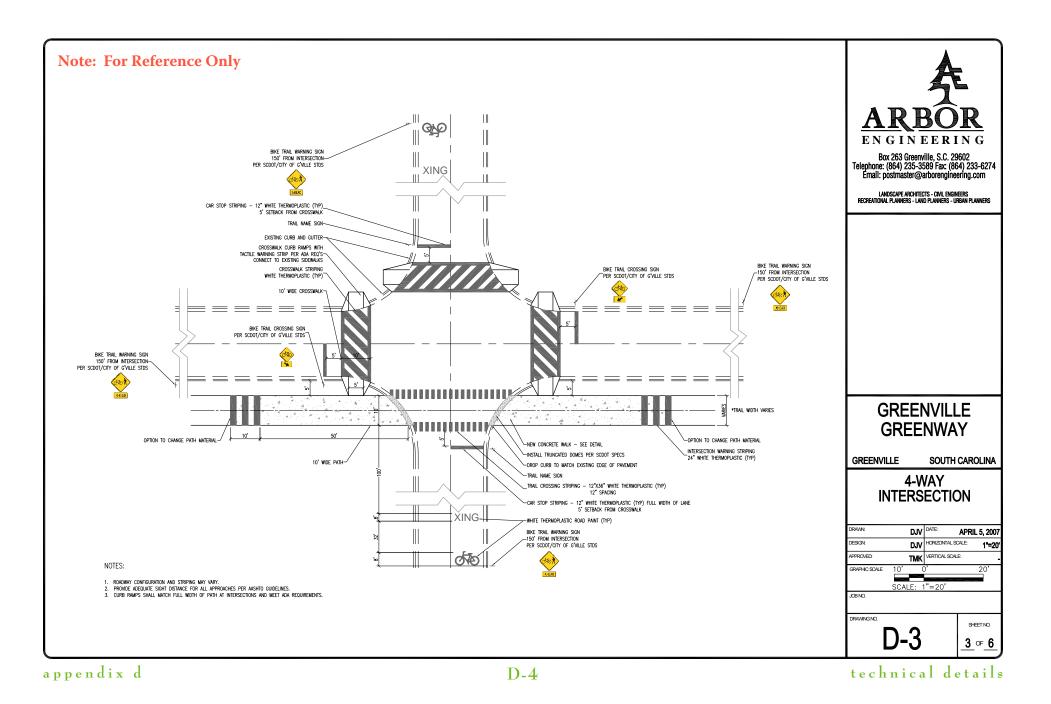
Liberty Bridge in Falls Park

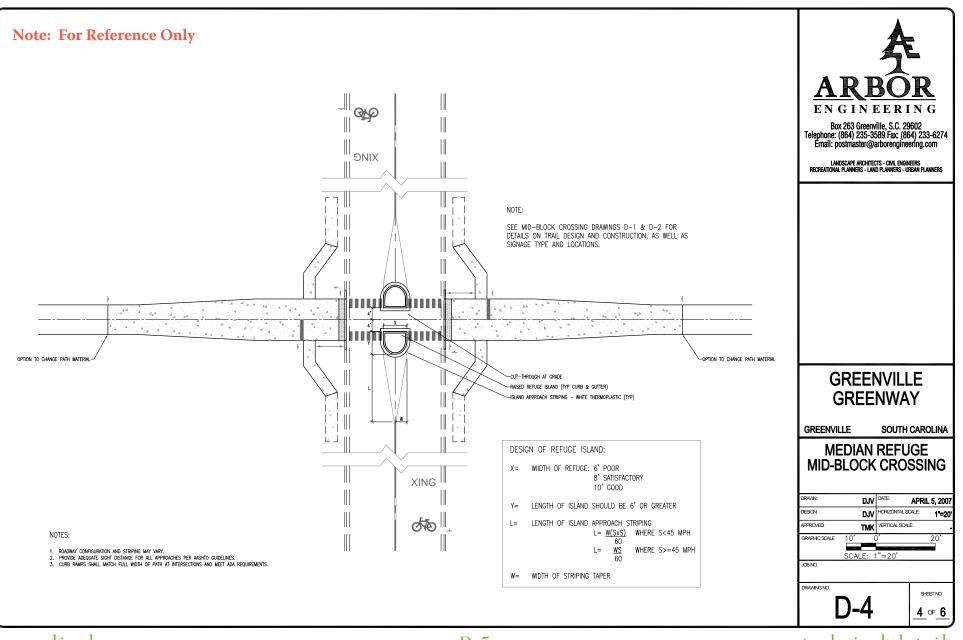
## D.2 Trail Intersection Details



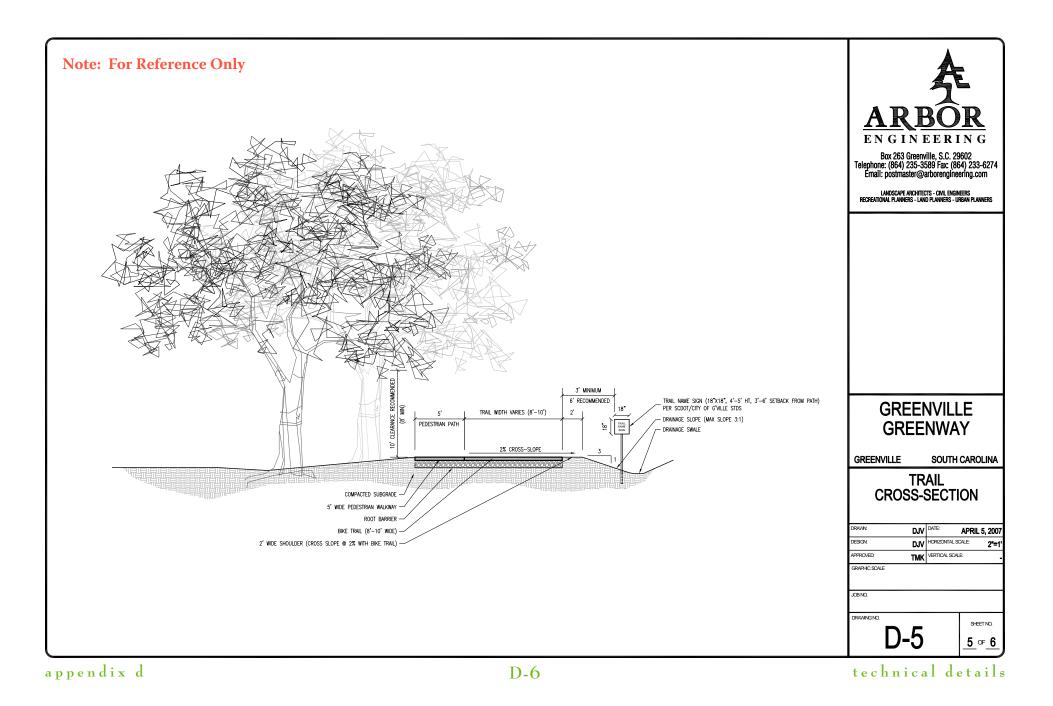


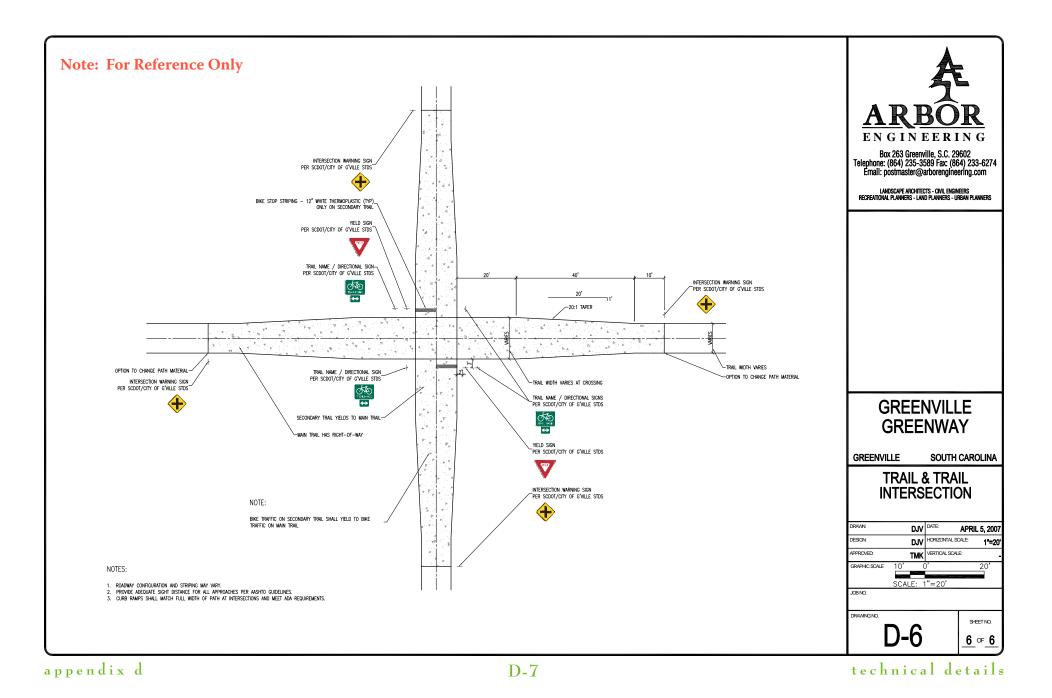
#### appendix d



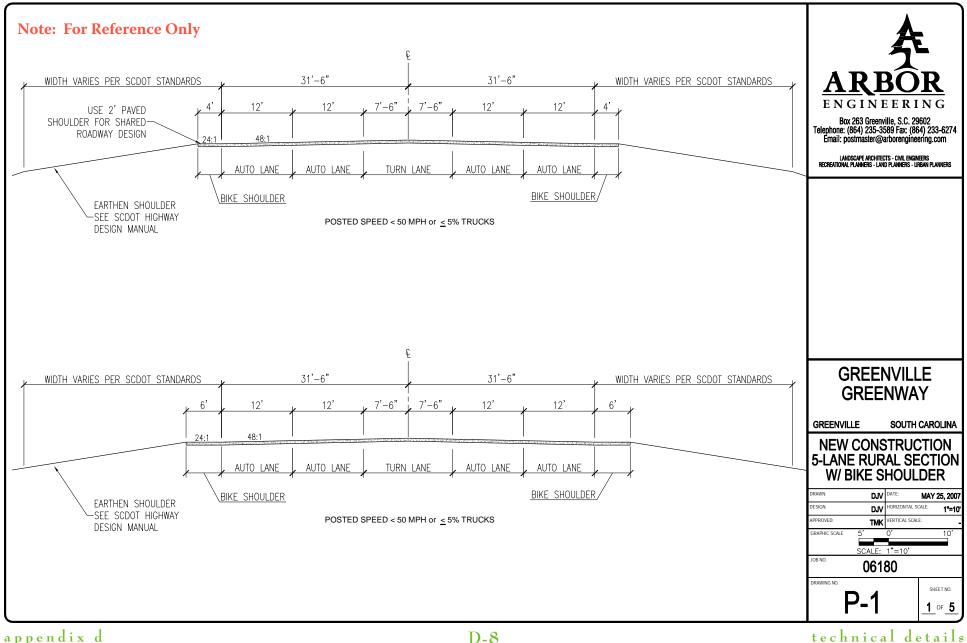


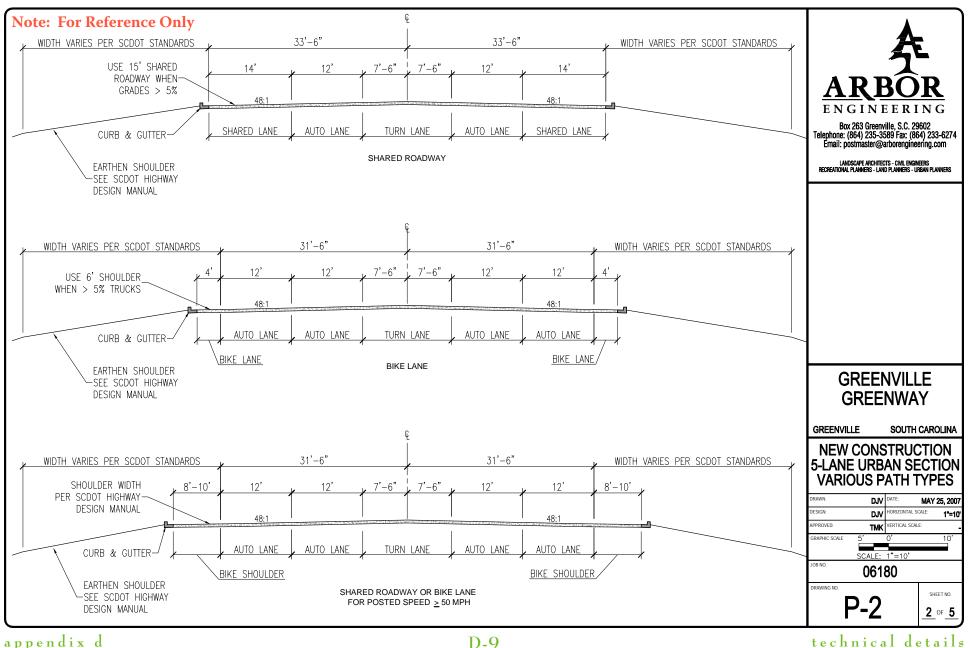
appendix d





# D.3 SCDOT Road Cross Sections





#### **Note: For Reference Only**

