



LOWER SALUDA GREENWAY
FEASIBILITY STUDY

FEASIBILITY REPORT

March 2021



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BACKGROUND



INTRODUCTION

The Central Midlands Council of Governments (CMCOG) in cooperation with the Irmo Chapin Recreation Commission (ICRC) undertook the Lower Saluda Greenway Feasibility Study.

As the formal documentation of the Lower Saluda Greenway Feasibility Study, this Feasibility Report:

- Further defines the greenway's mission, purpose, and need;
- Identifies potential environmental, cultural, and social resources that should have direct access to the greenway;
- Determines natural features or social concerns that will become constraints for greenway construction;
- Informs, educates, and solicits input from the public about the greenway;
- Provides a detailed concept plan and recommended alignment for the greenway; and
- Provides cost estimates for implementing the project.

This Feasibility Report is part of the South Carolina Department of Transportation (SCDOT) Planning (PL) phase and must be approved by CMCOG, acting as the Columbia Area Transportation Study (COATS) Metropolitan Planning Organization (MPO) before the Preliminary Engineering (PE) phase can commence.

Greenway Corridor

A corridor was identified for the study of the Lower Saluda Greenway. This greenway corridor provides a geography to which all planning efforts and technical analyses were tethered. The greenway corridor runs north of and parallel to the Saluda River. As shown in **Figure I-1**, the corridor connects three segments of the existing greenway/bikeway network: 1) the Saluda Riverwalk of the Three Rivers Greenway near I-26 to the east; 2) the Saluda Shoals Trail near the center of the corridor, within Saluda Shoals Park; and 3) the existing Johnny W. Jeffcoat Walkway and on-street bike lanes at the Lake Murray Dam to the west.

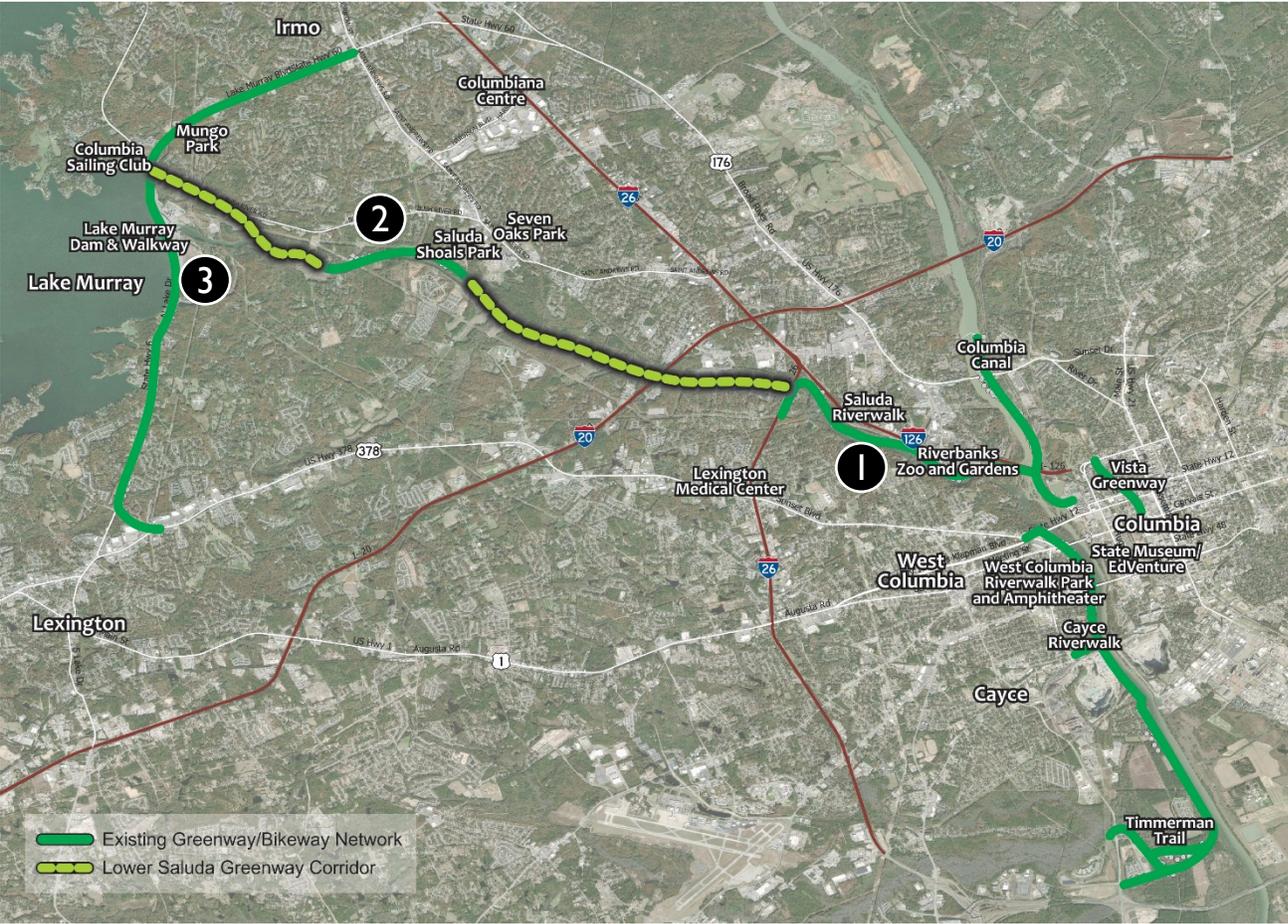


Figure I-1 | Greenway Corridor

PUBLIC ENGAGEMENT

Public participation was an important element of the Lower Saluda Greenway Feasibility Study and assisted with identifying concepts and recommended alignments for the greenway. Many opportunities were made available to obtain input and for the public to stay informed throughout the process.

Despite the COVID-19 pandemic restricting most of the outreach to online activities, participation was robust. Over 3,000 public interactions were achieved between all outreach activities. Strong support for the greenway was expressed throughout the study. The outreach activities conducted were guided by the *CMCOG Public Participation Plan* vision, goals, objectives, and techniques. The CMCOG regulates public participation processes for the development of transportation plans and programs in the region and provides direction for public participation activities.

A specific Public Participation Plan for the study was prepared early in the process to highlight the activities to be conducted and included a description of each activity along with how they would be administered. Having flexibility in what activities were conducted was very important to the process, particularly given the ongoing pandemic. The virtual platforms used to conduct the outreach proved extremely effective. Specific techniques are further described in the sections that follow.

BY THE NUMBERS

Informational Video Views	686
Survey Respondents	1,065
Interactive Map Visitors	266
Pop-up Participants	122
Stakeholder Participants	84
Summary Video Views	741
Final Comment Form	101
TOTAL INTERACTIONS	3,065

Numbers reflect participation through mid-February 2021.

Project Advisory Committee

A Project Advisory Committee (PAC) was established to guide the overall feasibility study development. Members of the PAC included staff from CMCOG, ICRC, Town of Lexington, Town of Irmo, Lexington County, River Alliance, Saluda Shoals Park, Riverbanks Zoo and Botanical Garden, and the SCDOT. The committee met three (3) times at key milestones during the process, including one (1) in-person meeting and two (2) virtual meetings. The committee was tasked with providing input on the identification of needs, reviewing and refining proposed solutions, and sharing study information with their constituents.

Early Activities

A goal of the public participation process was to provide information and opportunities early in the process to ensure public awareness and encourage participation. Multiple tools were implemented simultaneously at the beginning of the study process that were both informational and interactive. Some were online and others provided media and hard copy opportunities to ensure maximum awareness.

- **Branding** – A project logo was created to provide an identity and recognition of the project and was used on all outreach materials. To maintain this identity, the logo is also available for future outreach as the project moves into design and construction.
- **Press Release** – A press release was prepared to introduce the project, highlight the purpose, and identify public participation opportunities. The press release was included in local print media and shared by the CMCOG, ICRC, and PAC members through their online platforms and social media.
- **Informational Video** – At the beginning of the study, an informative video was created to provide an overview of the feasibility study and encourage the public to get involved with the process. The video was posted to YouTube, the project’s web pages on the CMCOG and ICRC websites, and shared with project partners and local governments to post via their online channels.
- **Survey** – An online survey was created to better understand how the public uses existing greenways, connections that are important, and desires for future amenities. The survey was available online and shared with partner organizations and agencies for distribution on their platforms. A total of 1,065 responses were received and highlighted the experiences of the respondents

who use various existing bicycle and pedestrian facilities (see **Figure I-2**), which revealed both walking and bicycling as primary greenway activities (see **Figure I-3** and **Figure I-4**). Also, there is interest in connecting the greenway to area neighborhoods, with 77% of respondents indicating they would be willing to bicycle or walk to the greenway if it is safely connected to their neighborhoods.

- **Interactive Map** - An online interactive map was created to allow participants to geographically pinpoint issues, opportunities, and challenges. The map also allowed participants to view other’s suggestions. Major themes of the comments received on the map were concerns for crossing SC 6, connections to surrounding communities, provision of ample parking and trailhead amenities, and guidance for future connections to areas south of the Saluda River.

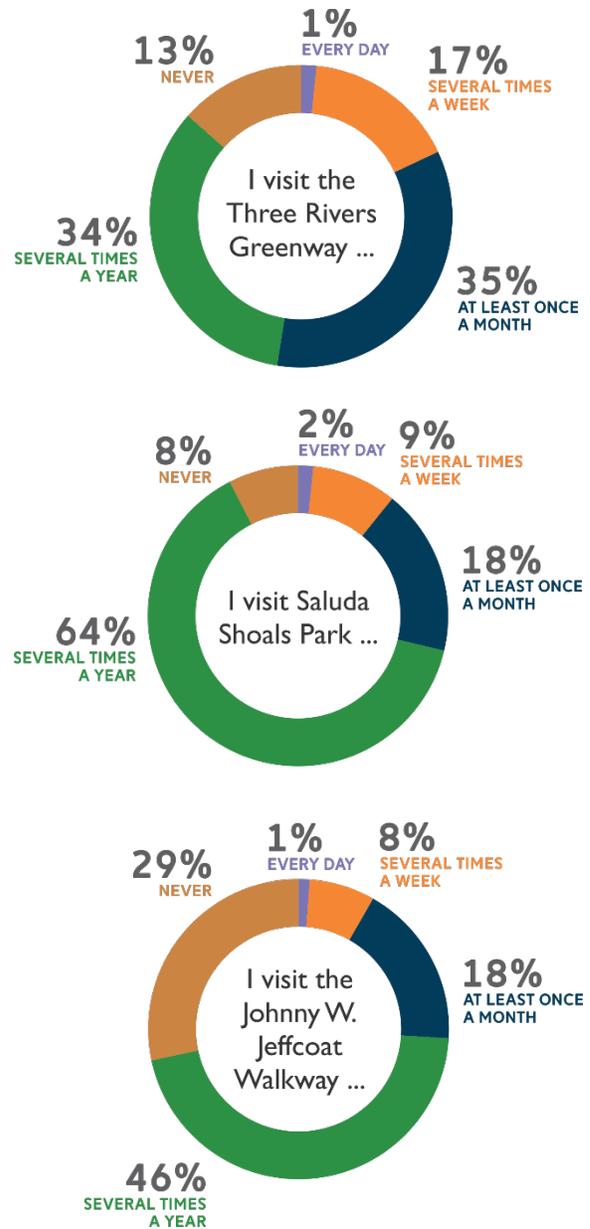


Figure I-2 | Survey Respondents' Use of Existing Facilities

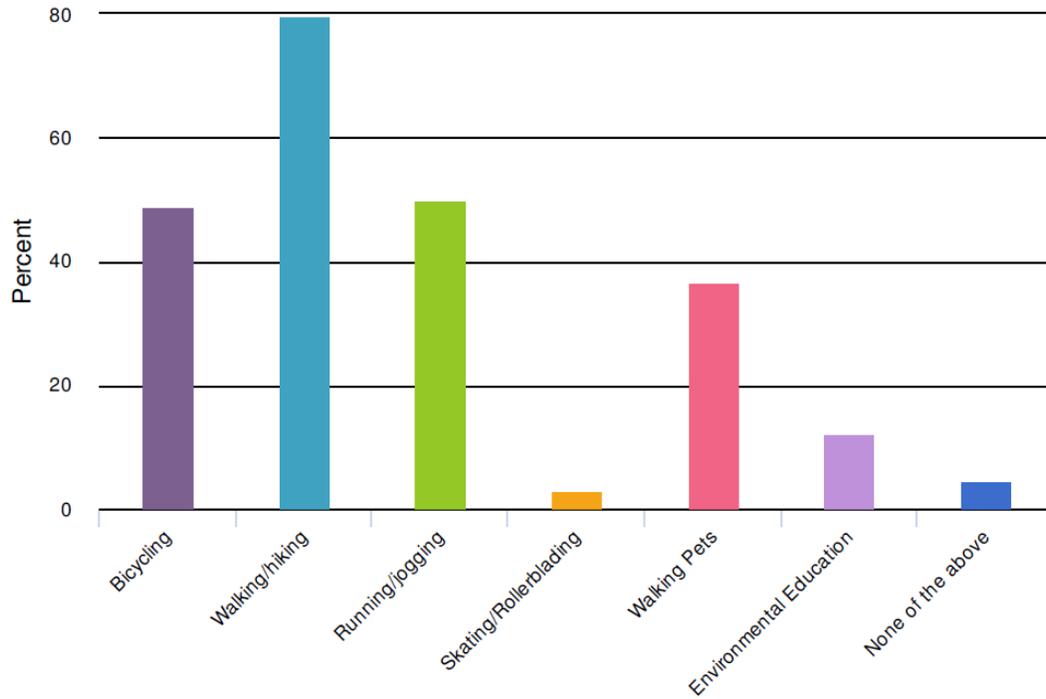


Figure I-3 | Survey Respondents' Activities on the Three Rivers Greenway

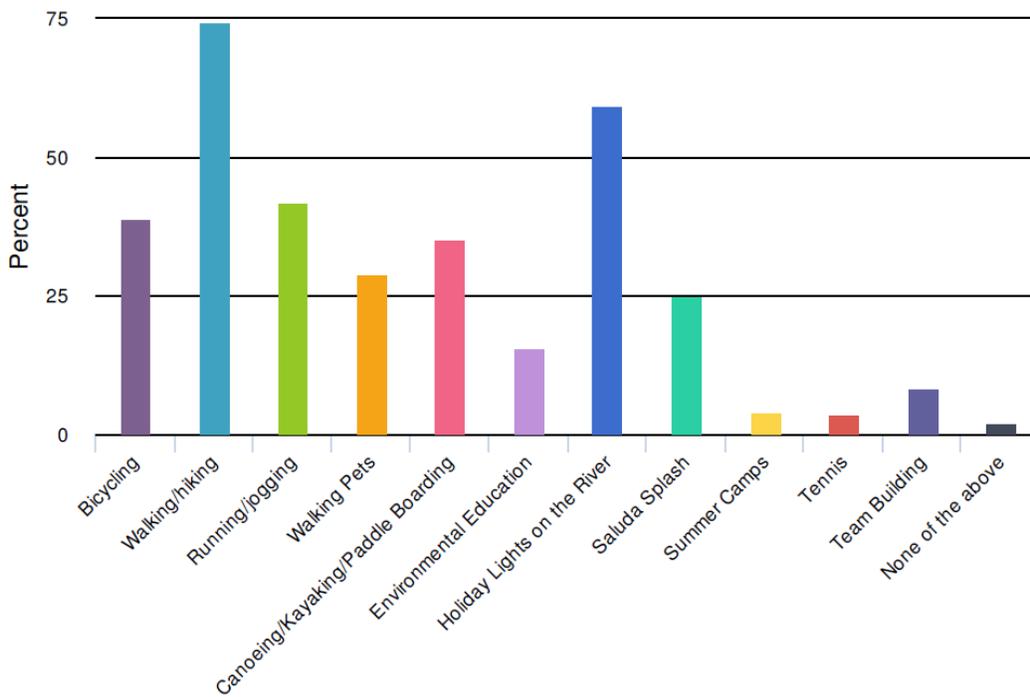


Figure I-4 | Survey Respondents' Activities at Saluda Shoals Park

Study Information

The public was regularly informed about the study in a variety of ways:

- **Online Presence** – Both CMCOG and ICRC hosted project web pages that disseminated project information and provided access to participation opportunities. These pages were regularly updated with study information.
- **Talking Points** – A document containing “talking points” was prepared and shared with CMCOG, ICRC, and PAC members to use to bring awareness to the study. The document was also used as a fact sheet and distributed in public places.
- **Signage** – To bring awareness about the study process to those using existing greenways and recreational facilities, numerous yard signs with QR codes and links to online information and engagement tools were placed throughout the community. Scanning the QR code or using the links provided on the signs directed users to the informational video, survey, interactive map, and website.

Public Events

Due to the pandemic, public, in-person events were limited to ensure the safety and welfare of the public and project team. Several public events were held online, and a few engagement activities were conducted in person in a safe, distanced format.

Pop-up Engagements

Project team members conducted a series of four pop-up engagements at key locations to intercept the public where they were and receive input. Tables were set up at each location with fact sheets, easel boards with interactive questions, and QR code cards that linked to online project resources. During these events, the public was made aware of the study process and encouraged to use the online tools to provide feedback. Over 120 people participated in the pop-up engagements.

The locations for the pop-ups were determined with CMCOG and ICRC staff and included:

- Lake Murray Dam Parking Lot
- Saluda Riverwalk/Three Rivers Greenway access point at Riverbanks Zoo
- West Columbia Amphitheater
- Saluda Shoals Boat Launch

Stakeholder Discussions

Stakeholder discussions were conducted with local governments, business leaders, greenway advocates, and property owners to gain an inventory of opinions and feedback about the study and to bring awareness to the process. Discussions were conducted virtually, and participants were also encouraged to share the public information tools with their constituents. Input focused on coordination with agencies and organizations conducting ongoing and related projects.

Project Summary

Due to pandemic restrictions limiting in-person meetings, a prerecorded presentation of the project summary was prepared and made available on YouTube and via the ICRC and CMCOG websites. It was also shared with project stakeholders.

The video summarized the feasibility study purpose and need, public engagement process, and general findings and recommendations. At the end of the video, viewers were directed to an online comment form that allowed them to answer several multiple-choice questions and leave open-ended comments. To ensure two-way engagement, the comment form also offered the opportunity to speak directly with a member of the project team, if desired.

As of the drafting of this Feasibility Report, there have been over 660 views of the summary video and 85 comment forms completed. Feedback from the summary video confirmed the strong public support received during the study process, with 99% indicating a general excitement about the project.

PURPOSE AND NEED

Purpose and Need statements are essential to defining the “why” of the project, the very foundation on which the project will be built. The Purpose establishes the problem that must be addressed, while the Need defines and justifies the existence of the problem. Purpose and Need statements are presented below; these were refined throughout the feasibility study process.

Purpose

The purpose of the Lower Saluda Greenway, a proposed 10.5-mile multi-use paved path along the north side of the Lower Saluda River, is to increase safe access to nearby parks, trails, and destinations, aid in short-trip multimodal travel, and increase regional connectivity and unity between the Lexington and Irmo areas with the communities of Columbia, West Columbia, and Cayce.

With that purpose in mind, the feasibility study seeks to gain a better understanding of the opportunities and constraints that exist as the proposed greenway moves into design and construction. To that end, this Feasibility Report provides an evaluation of the proposed project based on a variety of technical analyses.

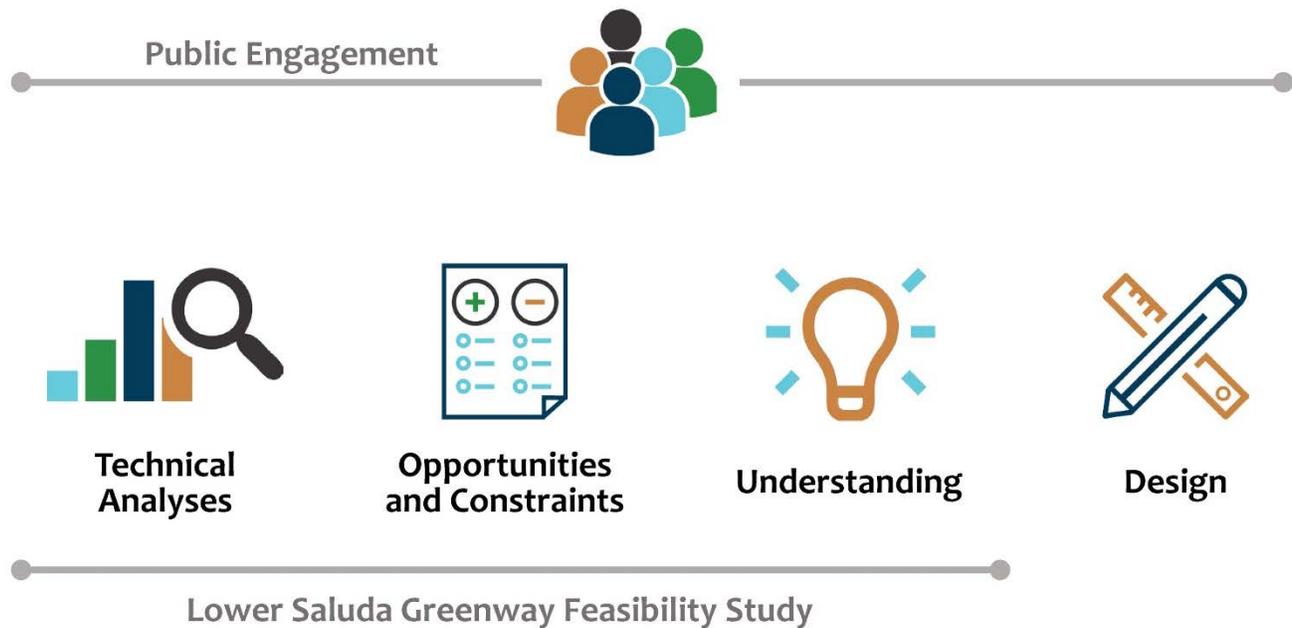


Figure I-5 | Feasibility Study Process

Need

Through high use of existing facilities and advocacy for additional facilities, the community has made it abundantly clear that connected, safe, and comfortable non-motorized transportation and recreational facilities are of paramount importance. The current active transportation network lacks connectivity between communities in Irmo and Lexington and those in Cayce, Columbia, and West Columbia, limiting non-motorized access to critical destinations and recreational amenities. Addressing this lack of connectivity will provide multimodal transportation choices, healthier lifestyles, access to the outdoors, a higher quality of life, and a more vibrant regional character.

While the region has a robust variety of trails, they are not fully interconnected as a network, limiting the attractiveness and utility that a complete active transportation network would offer. This project will be a critical link within the active transportation and recreation facility networks of greater Columbia by providing seamless connectivity with other trails and amenities in the region, including the Three Rivers Greenway, Riverbanks Zoo and Botanical Gardens, and Saluda Shoals Park.

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RECOMMENDED GREENWAY



TECHNICAL ANALYSES

Through technical analyses and walking the entire corridor for the proposed greenway, opportunities and constraints were documented, including identifying numerous points where design decisions needed to be made. For a detailed summary of these analyses, please see **Appendix A**. The analyses revealed areas where challenging topography, barriers to access, sensitive environmental features, and manmade obstacles exist. At each of these decision points, an evaluation of alternative alignments was performed.

EVALUATION CRITERIA

Evaluation criteria were developed, as shown below, with each alternative alignment being weighed against them. While decisions were needed at each of the decision points, some were very straightforward and did not require an evaluation of alternatives. **Appendix B** includes the evaluation of each alternative.

- | | | | |
|----------|--|----------|---|
| 1 | Ability to gain property owner permission, minimize property acquisition | 4 | Ability to avoid/mitigate environmental impacts |
| 2 | Ability to increase visual and/or physical access to the Saluda River | 5 | Ability to simplify construction and maintenance access |
| 3 | Ability to connect surrounding areas/residents to the greenway network | 6 | Ability to reduce overall cost |

GREENWAY ALIGNMENT

Based on the evaluation of alternatives, a planning-level greenway alignment emerged. It includes paved greenway, boardwalks, bridges, trailheads, lighting, call boxes, and other site-specific safety improvements to complete the 10.5-mile Lower Saluda Greenway. The greenway alignment is shown below in **Figure 2-1**.

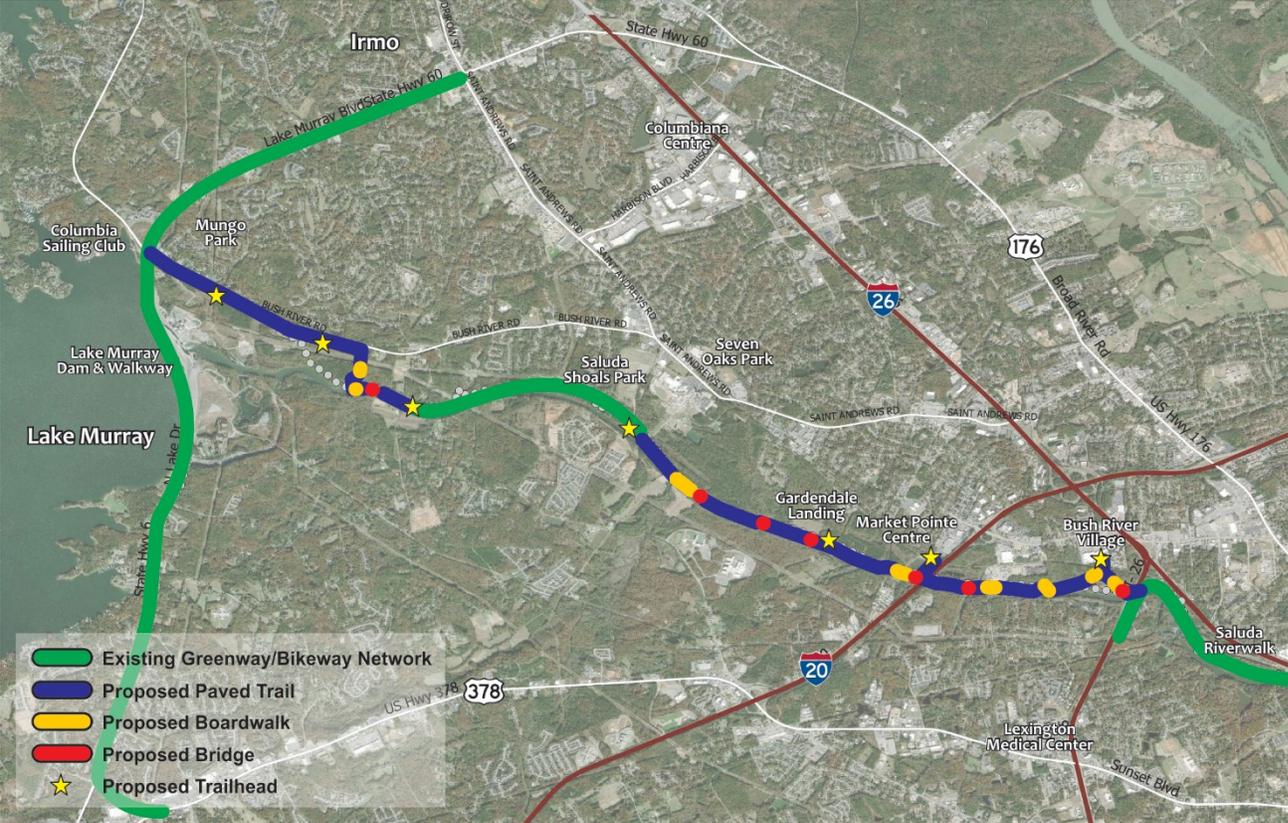


Figure 2-1 | Planning-level Greenway Alignment

CONCEPTUAL DESIGN GUIDANCE

While the scope of the feasibility study did not include detailed design, this Feasibility Report does provide conceptual design guidance. When final design does commence, four key areas of design should be considered, as shown below.



CONTINUITY There should be continuity between greenway sections, making them seamless with no perceived gaps. Users need to know and understand that they are on the greenway network no matter where along the greenway they are located.



COHERENT The greenway must be visually coherent by allowing the user to know where they are supposed to go next, with no opportunity for getting lost or feeling confused.



PRIORITY The greenway should be treated as a priority facility within the transportation system. Safety for greenway users should always be paramount.



SEPARATION Physical separation between greenway users and adjacent roadways will provide safety and comfort. Anywhere separation cannot be provided, the speed of vehicles should be controlled.

GREENWAY CHARACTERISTICS

Greenway Width

The width of the greenway will directly affect user comfort, the necessary right-of-way and cost of construction, as well as ongoing maintenance. Most existing greenways and trails in the Columbia region are eight to ten feet in width. However, it is anticipated that the Lower Saluda Greenway will rely on federal transportation dollars as a significant funding source. Therefore, it is also anticipated that the greenway will need to be built to federal and state standards, which are taken from the American Association of State Highway Transportation Officials (AASHTO) *Guide for the Development of Bicycle Facilities*.

The current 2012 edition of the AASHTO *Guide for the Development of Bicycle Facilities* requires that trails and greenways be 12 feet in width, allowing for 8 feet in constrained areas. The forthcoming new edition, which is expected to be published in late-2021, will recommend wider greenways and trails to encourage safer passing and side-by-side bicycling based upon anticipated user volumes. Not knowing the exact timing of the greenway or the publication of the new standards, this Feasibility Report envisions the greenway to be 12 to 14 feet wide.



Figure 2-2 | Greenway Conceptual Cross Section

Boardwalks

Through wetlands and flood prone areas, wooden boardwalks are recommended. It is anticipated that approximately 3,100 total linear feet of boardwalk will be needed throughout the greenway corridor.



Figure 2-3 | Boardwalk Conceptual Cross Section

Bridges

Bridges will be necessary to cross smaller waterways that flow into the Saluda River and traverse difficult terrain. Approximately 430 total linear feet of bridge will be required. Shorter bridges (i.e., less than 100 feet in length) are recommended to be stick-built, while longer bridges would be prefabricated off-site.



Figure 2-4 | Bridge Conceptual Cross Section

SC 6/SC 60 Intersection

Significant volumes of pedestrians and bicyclists are anticipated at the intersection of SC 6 and SC 60 near the Lake Murray Dam. There are already hundreds of people utilizing the Johnny W. Jeffcoat Walkway on a daily basis, and the implementation of the Lower Saluda Greenway will increase these numbers exponentially.

Improvements are proposed that will slow traffic speeds and increase pedestrian and bicyclist safety. As shown in **Figure 2-5**, key features include the removal of right-turn slip lanes on the northern quadrants of the intersection, the addition of raised crossings across the slip lanes on the southern quadrants, and widened, enhanced crosswalks with pedestrian refuge. A traffic analysis should be performed as part of schematic design, including consideration of a pedestrian-only phase for the signal. Also during schematic and final design, landscaping should be included to enhance this intersection, as it is prominent gateway.

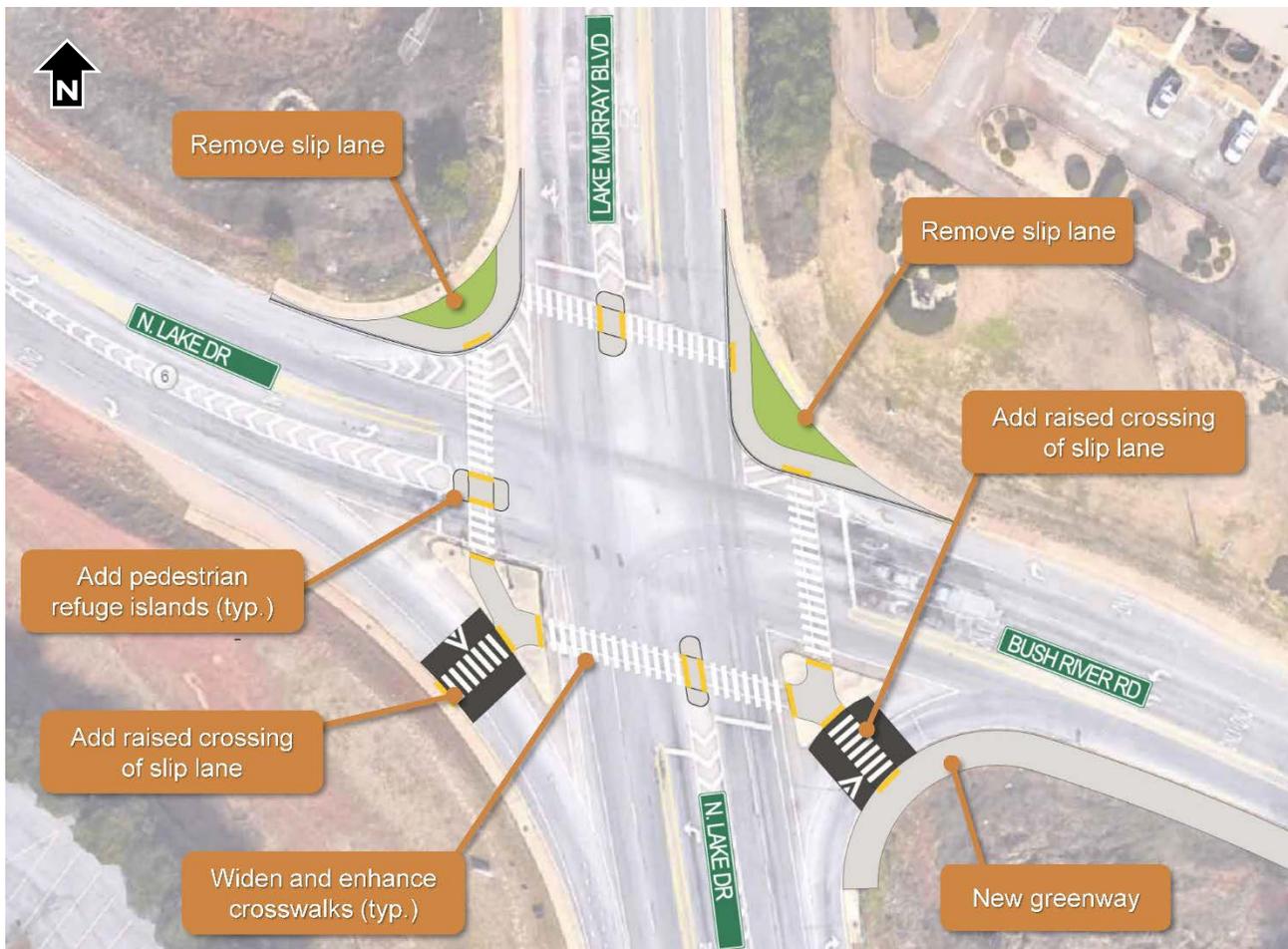


Figure 2-5 | SC 6/SC 60 Intersection Conceptual Improvement

Trailheads and Parking

As discussed in a later section, long-term connectivity to the surrounding area will ultimately be achieved. Trailheads will be essential to provide access to the greenway for local users in the short-term and for regional users who will see the greenway as a destination. As part of the greenway alignment, this Feasibility Report identified seven locations for trailheads (see **Figure 2-1**), all with parking and some with proposed bathrooms and maintenance facilities.

Proposed trailheads and their likely amenities are presented in **Table 2-1**. In each case, agreements would need to be negotiated with property and/or business owners.

Table 2-1 | Proposed Trailheads

TRAILHEAD NAME	LOCATION	AMENITIES	NOTES
Coldstream Trailhead	Near the intersection of Bush River Road and Coldstream Drive	Parking, bathrooms, maintenance building	The existing Lexington County Collection and Recycling Center would be relocated to convert this site into a trailhead.
Bilton Trailhead	Near the intersection of Bush River Road and Bilton Road	Parking	A portion of a laydown yard would be converted into a trailhead.
Saluda Shoals West Trailhead	At the existing Saluda Shoals Boat Launch	Parking, bathrooms, maintenance building	Enhancements would be made to the existing boat launch area to accommodate more users.
Saluda Shoals East Trailhead	At the easternmost end of Saluda Shoals Park	Parking	Enhancements would be made to the area to accommodate more users.
Gardendale Trailhead	At the existing Gardendale Boat Ramp	Parking, bathrooms, maintenance building	Enhancements would be made to the existing boat ramp area to accommodate more users.
Market Pointe Centre Trailhead	In the south parking area of the Market Pointe Centre office/shopping area	Parking	Utilize existing parking for trail users.
Bush River Village Trailhead	In the southeastern corner of the parking area at Bush River Village (i.e., Walmart)	Parking	Utilize existing parking for trail users.

One proposed trailhead location is the existing Lexington County Collection and Recycling Center at Bush River Road and Coldstream Drive. As shown in **Figure 2-6**, relocating the recycling center and retrofitting the site would provide parking, bathroom facilities, and maintenance storage, with a plaza connection to the greenway. In conjunction with this trailhead, consideration should be given to making a connection across Bush River Road and up Coldstream Drive to ultimately link the Lower Saluda Greenway to Mungo Park; this connection is included in the long-term connectivity map (see **Figure 2-8**) presented later in this chapter.

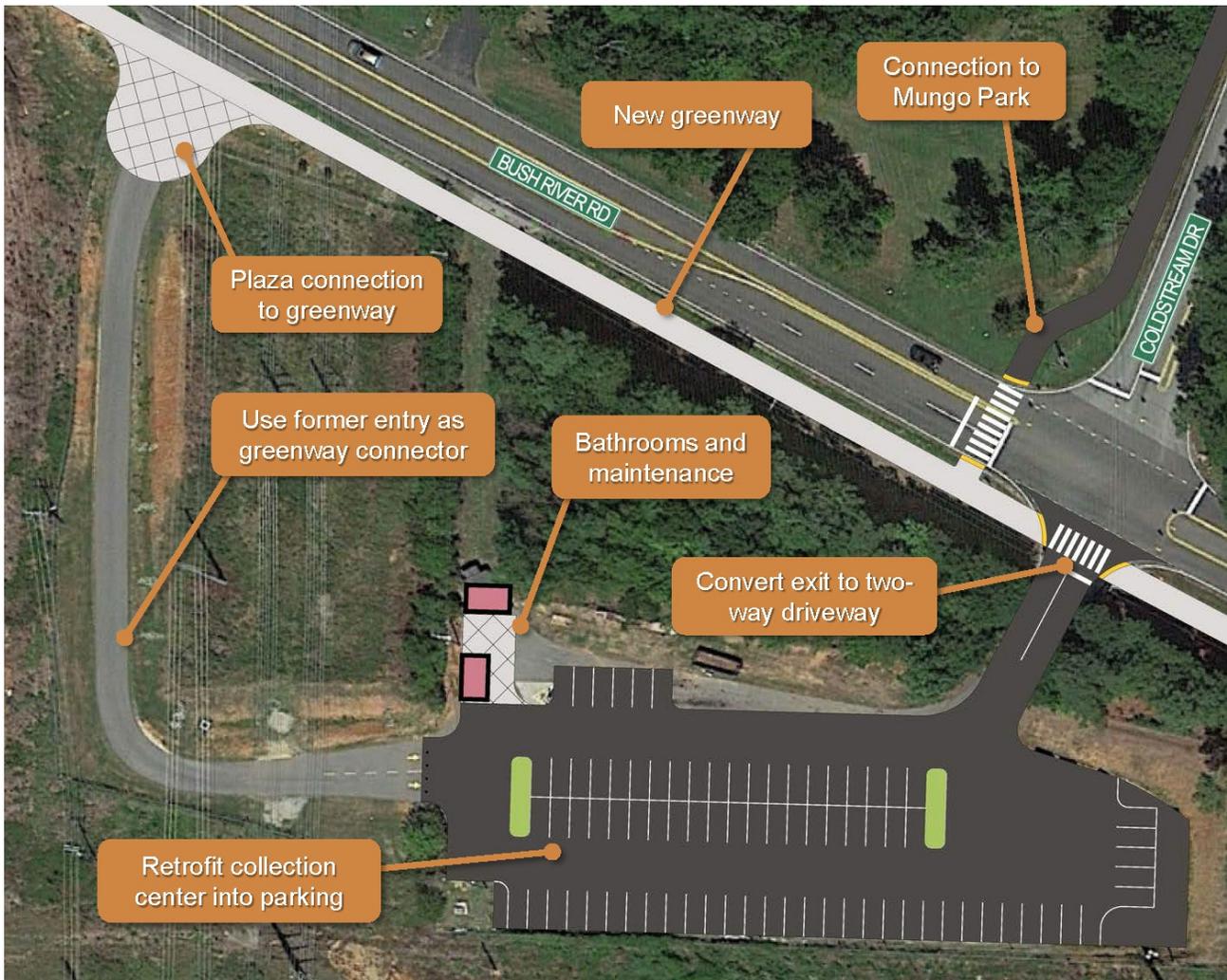


Figure 2-6 | Coldstream Trailhead Conceptual Improvement

At-grade Railroad Crossings

It is anticipated that three at-grade railroad crossings will be necessary as part of the Lower Saluda Greenway. All crossings would be of CSX Transportation (CSXT) rail and are listed in **Table 2-2**. **Figure 2-7** depicts an at-grade crossing conceptual improvement.

Table 2-2 | Anticipated At-grade Railroad Crossings

OWNER	DIVISION	SUBDIVISION	BRANCH	NOTES
CSXT	Florence	Columbia, Newberry, and Laurens (CN&L)	SCE&G Spur	The mainline greenway would cross the railroad near Bush River Road east of Bilton Road.
CSXT	Florence	CN&L	-	The connection to the Market Pointe Centre trailhead would cross the railroad west of I-20.
CSXT	Florence	CN&L	-	The connection to the Bush River Village trailhead would cross the railroad west of I-26.

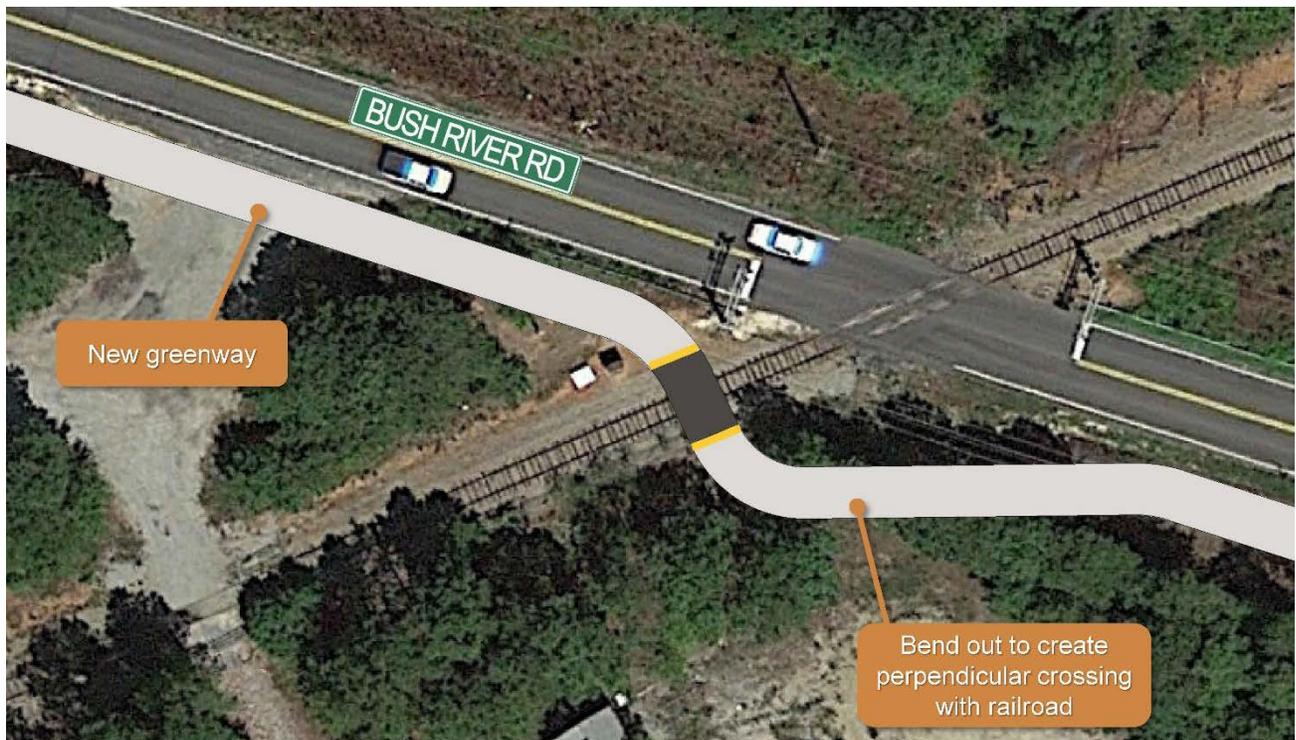


Figure 2-7 | At-grade Railroad Crossing Conceptual Improvement

Long-Term Connectivity

While the Lower Saluda Greenway is anticipated to be well-used by people from throughout the region, those who live closest to it will receive the greatest transportation, recreation, health, and quality of life benefits. To that end, it is important to consider connectivity to surrounding neighborhoods and destinations.

Figure 2-8 presents a plan for long-term connectivity to the Lower Saluda Greenway. In addition to one bicycle and pedestrian bridge to the south side of the Saluda River, three types of facilities are recommended:

- **Neighborhood Bikeway**
Neighborhood bikeways are established on quiet streets, often through residential neighborhoods. These facilities are designed to prioritize bicycle through-travel, while maintaining relatively low motor vehicle speeds. Treatments vary depending on context, but often include elements of traffic calming. Neighborhood bikeways are also known as neighborhood greenways and bicycle boulevards, among other locally preferred terms.
- **Shared Lane**
Shared lanes are where bicyclists and motor vehicles share the same lane. These can be delineated by “Share the Road” signage and/or “sharrow” pavement markings. Shared lanes are most appropriate where there are three or fewer lanes of travel, the posted speed limit is 25 mph or lower, and average traffic volumes are below 3,000 vehicles per day. Streets within parks work well with shared lanes.



- Shared Use Path**

Shared use paths are two-way facilities physically separated from motor vehicle traffic and used by bicyclists, pedestrians, and other non-motorized users. Shared use paths, referred to as trails or greenways, are often located in an independent alignment, such as a greenbelt, utility easement, or abandoned railroad. However, they are also regularly constructed adjacent to roadways where users will have increased interactions with motor vehicles at driveways and intersections on these “sidepaths.”

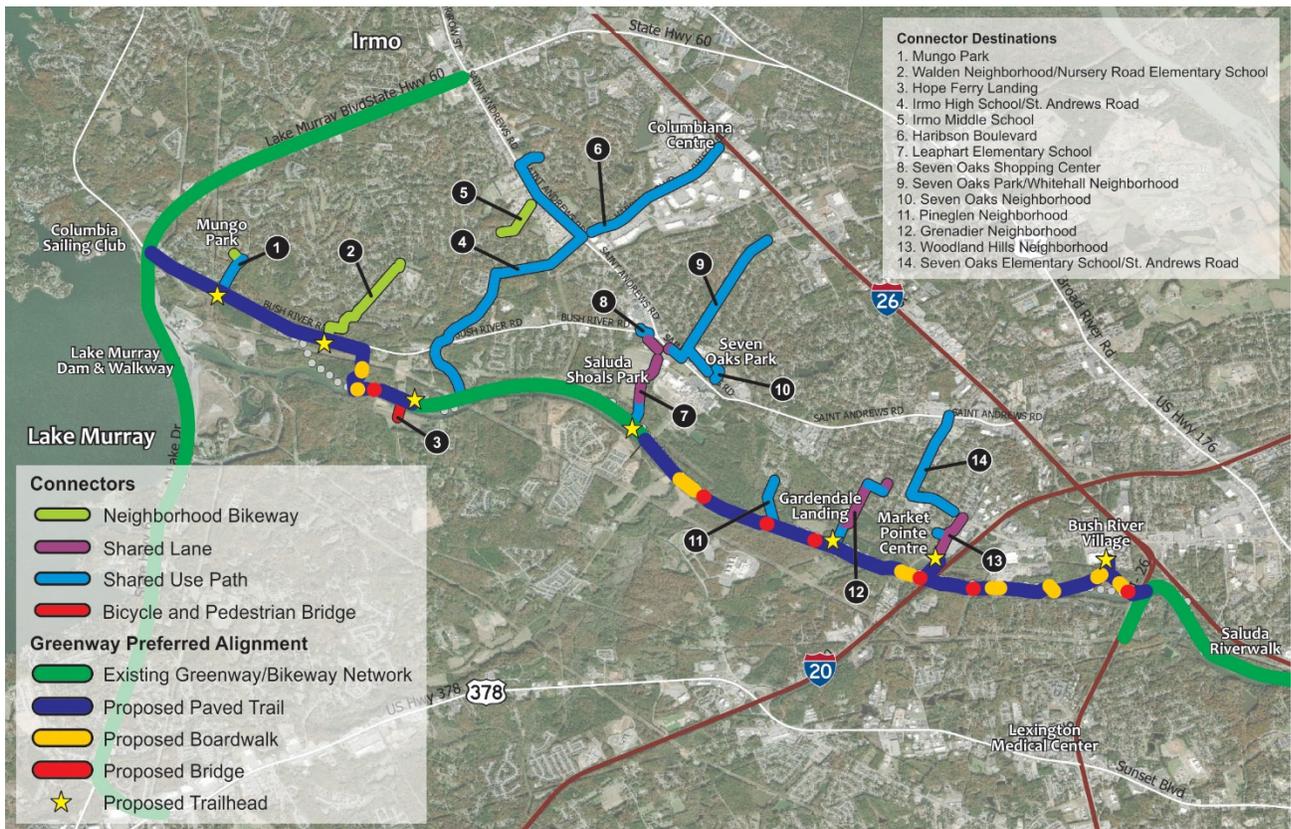


Figure 2-8 | Long-term Connectivity

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IMPLEMENTATION



This Feasibility Report is a critical step in advancing the Lower Saluda Greenway. The process which crafted this document has set the foundation for implementation. To assist in moving recommendations to reality, an Implementation Matrix has been created and is presented at the end of this chapter. The Implementation Matrix summarizes recommendations, anticipated phasing, and order-of-magnitude opinions of probable cost.

OPINIONS OF PROBABLE COST

An estimated order-of-magnitude opinion of probable cost is presented for each recommendation in the Implementation Matrix. Costs included in the matrix assume a 12-foot wide greenway. As the required width could be increased to 14 feet depending on the timing and funding source(s) utilized, **Appendix C** includes detailed costs for both a 12-foot and 14-foot greenway width.

As the Lower Saluda Greenway Feasibility Study is a planning study, costs have been developed based on current understanding of each recommendation and should provide a good baseline for planning-level, capital improvement decision-making. Costs were estimated based on professional judgment and experience with similar projects.

Cost Considerations

When reviewing and utilizing the opinions of probable cost presented in this Feasibility Report, several areas should be considered.

Greenway Width

As mentioned above, the costs presented assume a 12-foot wide greenway, as it is anticipated that federal funds that flow through SCDOT will be used to construct the greenway (i.e., AASHTO design standards, which SCDOT utilizes, currently require a 12-foot width). Previous greenways constructed in the Midlands region have been eight to 10 feet in width; therefore, they may have been constructed for less dollars per linear foot of greenway length. Should a funding plan be realized that does not require federal funding, it could then be assumed that the greenway might be constructed at a narrower width, realizing cost savings.

While it is beyond the scope of this feasibility study to estimate the cost of narrower widths, it is reasonable to assume that for every two feet of width the greenway is narrowed approximately 6-8% in cost savings might be realized. However, it should be cautioned that funding source and cost should not be the deciding factors in determining greenway width; rather, the volumes, types, and mix of users should determine the appropriate width of the facility.

Efficiencies

With most construction projects, certain efficiencies can be achieved by increasing the size of the project. Therefore, it is reasonable to assume that, if the entire Lower Saluda Greenway were constructed at one time, the total cost would be lower than if it is constructed in separate phases. A single construction project would most likely realize savings in survey, permitting and design fees, contractor mobilization, larger quantity materials discounts, and other areas.

Cyclical Cost Changes

Construction costs are greatly affected by economic conditions (i.e., past, current, projected, and future conditions). Therefore, particular project types can be more or less expensive at certain times. At the writing of this Feasibility Report, construction costs are elevated. In 2019, construction costs saw a 2% increase nationally, and costs continued to rise throughout 2020. This was attributed to rising material prices and labor shortages.¹ The pandemic has impacted prices as well, with lumber prices at an all-time high in early 2021. This is due to home building and remodeling as people move out of cities, take advantage of low interest rates, and stay at home more. This has been further exacerbated by mills not being able to ramp up production.² Should economic and health conditions change (i.e., for better or worse), it is possible that associated cost effects could change as well.

¹ <https://www.cpexecutive.com/post/construction-costs-continue-to-rise-in-2020/>

² <https://tradingeconomics.com/commodity/lumber#:~:text=Lumber%20is%20expected%20to%20trade,763.72%20in%2012%20months%20time.>

POTENTIAL PROJECT PHASING

If the entire project cannot be reasonably accomplished at one time, three potential phases have been identified:

- **PHASE 1 | Short-term (2-5 years)** – These portions of the greenway should be implemented first. Based on public input and connectivity to existing facilities, it is anticipated that these portions of the greenway would be highly successful, help to establish early momentum, and set the foundation for future phases.
- **PHASE 2 | Medium-term (6-10 years)** – While these are important portions of the greenway, these recommendations build on Phase 1 recommendations. Establishment of support and identification of funding sources should begin now for these projects, so they are on track for implementation within this period.
- **PHASE 3 | Long-term (10+ years)** – These recommendations will complete the Lower Saluda Greenway. Similar to Phase 2 recommendations, building of support and funding identification should begin as soon as possible.

Although phases have been established, these designations are for planning purposes only; greenway phases should be implemented as soon as opportunities arise. If circumstances provide an opportunity to complete a Phase 3 recommendation three years after the Lower Saluda Greenway Feasibility Study is adopted, the improvement should be made, regardless of its designation as “Phase 3” (e.g., combining greenway improvements with planned utility improvements).

Table 3-1 provides a summary of baseline construction costs by phase; a 30% contingency is also shown to account for unknowns that exist at the current level of study. **Table 3-2** takes the contingency-burdened construction costs and associates them with costs for preliminary engineering (PE) and right-of-way acquisition (ROW), resulting in total costs by phase and for the entire project (i.e., efficiencies may be realized to lower total costs if all phases are implemented as a single project).

Table 3-1 | Construction Cost by Phase

PHASE	ESTIMATED CONSTRUCTION COST	WITH 30% CONTINGENCY
PHASE 1 – Short-term (2-5 years)	\$4,286,000	\$5,572,000
PHASE 2 – Medium-term (6-10 years)	\$6,309,000	\$8,202,000
PHASE 3 – Long-term (10+ years)	\$4,614,000	\$5,998,000
TOTAL[^]	\$15,209,000	\$19,772,000

[^] Efficiencies may be realized to lower total costs if all phases are implemented as a single project.

Table 3-2 | Cost by Category and Phase for Total Project

PHASE	PE @ 10%	ROW @ 5%	CONSTR	TOTAL
PHASE 1	\$557,000	\$279,000	\$5,572,000	\$6,408,000
PHASE 2	\$820,000	\$410,000	\$8,202,000	\$9,432,000
PHASE 3	\$600,000	\$300,000	\$5,998,000	\$6,898,000
TOTAL[^]	\$1,977,000	\$989,000	\$19,772,000	\$22,738,000

[^] Efficiencies may be realized to lower total costs if all phases are implemented as a single project.

Table 3-3 | Implementation Matrix

RECOMMENDATION	NOTES	ESTIMATED CONSTRUCTION COST
PHASE I Short-term (2-5 years)		\$4,286,000
Greenway Phase I (Lake Murray Dam to Saluda Shoals Park)	<ul style="list-style-type: none"> • Construct greenway from Lake Murray Dam to Saluda Shoals Park. • Saluda Shoals Park and the Johnny W. Jeffcoat Walkway at the dam are already well-utilized. • Survey respondents ranked this segment as their number one priority. • Existing parking at the Lake Murray Dam and Saluda Shoals Park will help to reduce the need for additional trailheads immediately. 	\$3,408,000
SC 6/SC 60 Intersection	<ul style="list-style-type: none"> • Improve intersection to increase bicycle/pedestrian capacity and safety. • Remove slip-lanes on northern quadrants. • Add raised crossings to slip-lanes on southern quadrants • Widen and enhance crosswalks and add refuge islands. • Landscape where possible to provide gateway character. 	\$234,000
Coldstream Trailhead	<ul style="list-style-type: none"> • Relocate Lexington County Collection and Recycling Center. • Retrofit site to provide trailhead with parking, bathrooms, and maintenance building; provide signage, wayfinding, trash receptacle, call box, and lighting. • Trailhead will provide needed relief to Lake Murray Dam parking area. • Could be implemented in conjunction with Greenway Phase I or follow. 	\$469,000
Saluda Shoals West Trailhead	<ul style="list-style-type: none"> • Expand parking area at Upper Boat Launch, and provide signage, wayfinding, trash receptacle, call box, and lighting. • Could be implemented in conjunction with Greenway Phase I or follow. 	\$175,000

RECOMMENDATION	NOTES	ESTIMATED CONSTRUCTION COST
PHASE 2 Medium-term (6-10 years)		\$6,309,000
Greenway Phase 2 (Saluda Shoals Park to I-20)	<ul style="list-style-type: none"> • Construct greenway from Saluda Shoals Park to I-20. • Saluda Shoals Park is already well-utilized. • Survey respondents ranked this segment as their number two priority. • Existing parking at Saluda Shoals Park will help to reduce the need for additional trailheads immediately. 	\$5,490,000
Saluda Shoals East Trailhead	<ul style="list-style-type: none"> • Expand parking area at Lower Boat Launch, and provide signage, wayfinding, trash receptacle, call box, and lighting. • Could be implemented in conjunction with Greenway Phase 2 or follow. 	\$175,000
Market Pointe Center Trailhead	<ul style="list-style-type: none"> • Develop an agreement with Market Pointe Center to allow trail users to park in the south parking area of the office/shopping area. • Improve parking area, and provide signage, wayfinding, trash receptacle, call box, and lighting. • Could be implemented in conjunction with Greenway Phase 2 or follow. 	\$175,000
Gardendale Trailhead	<ul style="list-style-type: none"> • Improve existing boat ramp area to accommodate more users, including paved parking, bathrooms, and maintenance building; provide signage, wayfinding, trash receptacle, call box, and lighting. • Could be implemented in conjunction with Greenway Phase 2 or follow. 	\$469,000

RECOMMENDATION	NOTES	ESTIMATED CONSTRUCTION COST
PHASE 3 – Long-term (10+ years)		\$4,614,000
Greenway Phase 3 (I-20 to I-26)	<ul style="list-style-type: none"> • Construct greenway from I-20 to I-26, connecting to Saluda Riverwalk. • Survey respondents ranked this segment as their number three priority. 	\$4,089,000
Bush River Village Trailhead	<ul style="list-style-type: none"> • Develop an agreement with Bush River Village (i.e., Walmart) to allow trail users to park in the southeastern corner of the parking area of the shopping center. • Improve parking area, and provide signage, wayfinding, trash receptacle, call box, and lighting. • Could be implemented in conjunction with Greenway Phase 3 or follow. 	\$175,000
Bilton Road Trailhead	<ul style="list-style-type: none"> • Develop an agreement with Dominion Energy to utilize a portion of a laydown yard as a trailhead. • Construct parking area, and provide signage, wayfinding, trash receptacle, call box, and lighting. • Could be implemented in conjunction with Greenway Phase 3 or follow. • Cost estimate doubles 30 space “Type 2” estimate to assume 60 spaces. 	\$350,000