



# RIVERLAND DRIVE

## CORRIDOR MANAGEMENT PLAN

*Prepared By:*

BERKELEY-CHARLESTON-DORCHESTER  
COUNCIL OF GOVERNMENTS

October 2014





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# EXECUTIVE SUMMARY



Riverland Drive is a two-lane road that runs along the western edge of James Island in South Carolina. The 4.85-mile road runs through the City of Charleston, Town of James Island, and unincorporated Charleston County. Riverland Drive is located approximately three miles southwest of the Downtown Charleston Peninsula.

Riverland Drive was designated a state scenic byway in 1988, but a comprehensive plan to preserve and protect the corridor has not yet been performed. The Berkeley-Charleston-Dorchester Council of Governments (BCDCOG) received a Federal Highway Administration (FHWA) grant in 2006 to fund the preparation of a CMP for Riverland Drive.

A Corridor Management Plan (CMP) is a written plan developed for a scenic byway that outlines how to preserve, protect, and enhance the byway's character and the assets that define the corridor. CMP's are community-based and result in a document that outlines the goals, vision, and strategies for the corridor. It will address issues such as historic and cultural preservation, land use/smart growth practices, environmental protection, roadway safety, and economic development. Each step of the plan is executed in coordination with local government officials, planners and other administrators, and the public.

The purpose of the Riverland Drive CMP is to protect, conserve, and enhance the route's intrinsic qualities. The document also seeks to promote tourism and economic development in the area. The plan provides a comprehensive assessment of the route's present state as well as the community's vision for its future.

## **RIVERLAND DRIVE CORRIDOR MANAGEMENT PLAN VISION STATEMENT**

*"To retain the natural beauty, history, and character of the Lowcountry region; balance the needs of motorists, pedestrians, and bicyclists; and preserve and protect the environmental and cultural assets for future generations to enjoy."*

Clear and specific goals help to advance the purpose of the Riverland Drive CMP. During the public participation process, goals were laid out for the CMP. These goals provided a framework for developing specific recommendations and strategies.

- Goal 1:** Safeguard what people value (Protect and enhance the corridor's natural, scenic, cultural, and historic qualities and features)
- Goal 2:** Tell the stories of the area (Reveal and interpret the corridor's intrinsic qualities)
- Goal 3:** Make way for play (Expand recreational and social opportunities)
- Goal 4:** Enjoy the journey (Promote a safe, pleasant travel experience for all users)



Once goals were established, recommendations were made that related to each of the four goals. The goals were categorized as follows: land use, historic and cultural, recreational and social, and transportation. The following recommendations serve as the basis for specific projects and strategies to be implemented through the CMP.

## LAND USE RECOMMENDATIONS

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- 1.1** Consider changes to zoning and land use regulations to reduce the impacts of development and to protect the corridor’s intrinsic qualities.
- 1.2** Subdivisions should include conservation of open space and Low-Impact Development (LID) design techniques to manage stormwater.
- 1.3** Support continued land protection efforts to preserve and protect the corridor’s intrinsic qualities.
- 1.4** Encourage groups to adopt portions of Riverland Drive through PalmettoPride’s Adopt-A-Highway program.
- 1.5** Perform a survey/inventory of trees along Riverland Drive to assess age, health, etc.
- 1.6** Develop a tree planting program to replace trees lost due to natural causes and/or development.
- 1.7** Perform a study of drainage in the area to determine best strategies to mitigate flooding issues.

## HISTORIC AND CULTURAL RECOMMENDATIONS

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- 2.1** Coordinate with Charleston County on the future update of the James Island Historical and Architectural Survey.
- 2.2** Prepare a brochure to convey the historic and cultural significance of the roadway.
- 2.3** Develop an interpretive plan that includes tourist and/or interpretive information that is directly related to the byway and the intrinsic qualities that support a scenic byway designation.
- 2.4** Install historical markers in the Riverland Drive corridor area for historic and cultural landmarks.
- 2.5** Work collaboratively with The Charleston Museum and the Charleston County Parks and Recreation Commission (CCPRC) to share the history of the Dill Sanctuary and James Island.
- 2.6** Investigate whether Lindberg Street is eligible for the National Register for Historic Places.
- 2.7** Provide opportunities, especially in public spaces, for artists to display their work
- 2.8** Promote small, locally-owned businesses along the corridor through special events, advocacy, and other support.





- 2.9 Support the South Carolina Historic Battleground Trust in placing conservation easements on historically significant parcels and purchasing land with important battleground sites.

## RECREATIONAL AND SOCIAL RECOMMENDATIONS

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- 3.1 Encourage the implementation of the various existing transportation/mobility plans already in place.
- 3.2 Identify locations for public water access along the Riverland corridor.
- 3.3 Explore opportunities for additional active and passive park space along the Riverland Drive corridor.
- 3.4 Work with CCPRC, The Charleston Museum, and various neighborhood associations to attract and promote cultural, recreational, and social events and programs at James Island County Park and other sites.

## TRANSPORTATION RECOMMENDATIONS

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- 4.1 Maintain the existing two-lane character of Riverland Drive as much as possible.
- 4.2 Improve access management along the corridor with consolidations of driveways and curb cuts.
- 4.3 Increase non-automobile travel options for residents and visitors.
- 4.4 Improve key intersections along the corridor with safety improvements including traffic/pedestrian signals and roundabouts.
- 4.5 Develop a bicycle network that strives to accommodate users of all ages and abilities.
- 4.6 Utilize context sensitive design solutions and traffic calming measures for safety improvements along the corridor.
- 4.7 Prepare an engineering survey of Riverland to determine right-of-way limits for adequate pedestrian and bicycle facilities.
- 4.8 Provide appropriate pedestrian facilities to connect neighborhoods and destinations.
- 4.9 Implement Shared-Use Pavement Markings along streets in the Riverland Scenic Byway Corridor.
- 4.10 Work with SCDOT to develop flexible standards and design guidelines for Riverland Drive.
- 4.11 Develop a Gateway Entrance at Riverland Drive and Maybank Highway.



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# INTRODUCTION

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The Riverland Drive corridor provides a snapshot of the many landscapes one can experience in the Lowcountry, with canopies and tunnels created by the live oak trees and Spanish moss. Periodically, one might see marshes and wetlands when passing over small tidal creeks. When traveling just off of Riverland Drive, visitors can take in breathtaking views of the Stono River, and from the west banks of James Island one can see across to Johns Island.

Sections of Riverland Drive provide views of open and natural space that are becoming increasingly rare in Charleston and the surrounding area. The Charleston tri-county area is one of the fastest growing metropolitan regions in the United States. Moreover, the sprawling development that is occurring in the region is consuming land at an alarming rate. From 1973 to 2000, the region's impervious surfaces increased by 318% as the population only increased by 52%. This means that previously natural and undeveloped land is being developed at a rate that is roughly six times greater than population growth. As urban infill and increased density close to the urban core becomes a priority for local governments, so does the need to preserve and protect the open spaces and visual connections to nature that Riverland Drive provides citizens and visitors.

In 1988, Riverland Drive was designated a State Scenic Byway by the South Carolina Department of Transportation through the Federal Highway Administration's Scenic Byways Program. The Riverland Drive Scenic Byway Corridor Management Plan (CMP) was developed both to validate this designation and to establish a community vision for protecting and enhancing the byway's qualities and character. The plan addresses all fourteen components of a CMP established by the Federal Highway Administration's Scenic Byways Program through goals, objectives, strategies and actions that, if implemented, will keep these qualities unified and intact. Moreover, the suggested enhancements in this plan will improve public access to the corridor's resources and special places without compromising the privacy and quiet enjoyment of corridor residents.

Initiated by the Federal Scenic Byways Program, corridor management planning is a process by which a community gains thorough understanding of a designated scenic byway, with the CMP itself being the resulting document. The CMP records the route's existing conditions and the intrinsic qualities that draw residents and visitors to the corridor by describing strategies to preserve and enhance those qualities.

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## PURPOSE OF THE PLAN

The purpose of the CMP is to provide for the conservation and enhancement of the route's intrinsic qualities, as well as the promotion of tourism and economic development. The CMP also provides a comprehensive understanding of the route and the local community's plan to enhance and preserve it.

The Riverland Drive CMP will be a tool that seeks solutions to serious challenges to the scenic byway by looking at the qualities, those which make the road and corridor unique, and how they are at risk in several ways. A comprehensive CMP with clear goals will be better equipped to find ways to



allow economic growth and development in a manner that protects and enhances the intrinsic qualities of their corridor.

By strengthening visitors' and locals' connections to, and understanding of, the corridor's cultural and natural resources, people will increasingly value and care for these resources and qualities.

The CMP is a document where specific goals, strategies, and implementation of specific actions are addressed. The document combines a realistic view of the present, a dream of what should happen in the future, and a commitment to doing what needs to be done to get there. The primary focus of the plan should be the preservation and enhancement of the corridor's inherent qualities, while at the same time balancing factors like development and tourism.

Strong community support helped in the creation of this management plan. The goals, objectives, and strategies for protecting and enhancing corridor qualities were developed through extensive public engagement. This process involved a core group of committed community representatives as well as the public-at-large.

Plan recommendations will enable safe and convenient travel and mobility for corridor users whether they are motorists, bicyclists, or pedestrians. The plan contains a comprehensive set of actions and projects intended to promote various strategies for resource protection and enhancement. Projects range from creek and wetland restoration to the creation of interpretive exhibits, scenic overlooks, bike trails, and kayak launches. These projects will contribute greatly to the accessibility and appreciation of the corridor for both visitors and local residents alike. The list of suggested projects is not all-inclusive and is primarily meant to suggest ideas and direction for enhancement and protection. The execution of suggested projects should demonstrate tangible results and generate more support and funding for further corridor enhancements.

Looking ahead, implementation of the plan's proposed strategies and projects will depend on continued public support and advancement by agencies, organizations, local neighborhoods, schools, businesses, and individuals. Implementation will also require the securing of funding through grants, donations and other sources. This report provides an overview of the leading agency or organization, potential funding sources, and time-frames for implementing the plan's recommendations.

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## REGIONAL CONTEXT/STUDY AREA

Riverland Drive is located on James Island approximately three miles from downtown Charleston (see *Figure 1: Existing Land Use Map* on page 14). It is 4.85 miles in length and extends from Wappoo Hall Road to Grimball Road. Riverland Drive serves as an important roadway on James Island. The corridor's study limits are one-quarter mile in each direction from the roadway (as seen in *Figure 2: Jurisdiction Boundaries Map* on page 16).

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## SCENIC BYWAYS

A scenic byway is a route that people generally enjoy traveling and reflects the intrinsic qualities of an area. The intrinsic qualities can be forests and mountains, communities, historic landmarks, or recreation resources for which the area is known. A byway can consist of one or more roads, and include rural or developed areas.





Typically, scenic byways are no more than two lane roadways, a scale which adds to their scenic value and is designated for preservation. Development along these roadways is very limited and may have strict design controls. Sidewalks should consist of meandering paths along these roadways. Designating a route as a scenic byway can help residents plan how to preserve what they like best about it for the future and makes it eligible for additional grant funds. Examples in the Charleston region include Bohicket Road on Johns Island and Ashley River Road in the City of Charleston.

The National Scenic Byways Program is part of the U.S. Department of Transportation, Federal Highway Administration. The program is a grass-roots collaborative effort established to help recognize, preserve, and enhance selected roads throughout the United States. Since 1992, there have been nearly 1,500 state and nationally designated byway projects in 48 states. The U.S. Secretary of Transportation recognizes certain roads as All-American Roads or National Scenic Byways based on one or more archaeological, cultural, historic, natural, recreational and/or scenic qualities.

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## **CORRIDOR MANAGEMENT PLAN**

Corridor management plans are broad-based visionary plans that set a course of action for preserving and enhancing a scenic byway. CMPs are particularly useful for historic roads that encompass a number of jurisdictions or constituencies that first need to reach agreement on an overall vision, general obligations, and responsibilities. They can be helpful in providing coordination among the different organizations or entities that have ownership or oversight for a historic road.

CMPs may recommend the need for specific studies (cultural landscape analysis, roadway safety improvements or the feasibility of stone wall restoration), advocate the creation of special organizational structures (such as a citizens' advisory board) or introduce concepts for which no existing program or mechanism exists. While CMPs are generally non-regulatory, non-binding documents, many have been formally endorsed and some have been adopted as policy. If embraced, they provide a framework from which multiple groups and agencies may work toward common goals within their individual organizational cultures. If not properly developed and vetted, CMP's may be ignored by key players within the historic road corridor and lead toward frustration by groups that are committed to the CMP process.

Most importantly, corridor management plans represent a point of departure. They are never, by their very nature, the end of the planning process—they are the beginning. The success of a CMP for a historic road depends on its ability to generate detailed plans, studies, and recommendations that are taken forward to full implementation of research, construction, management and preservation activities.

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## **BRIEF HISTORY OF JAMES ISLAND AND RIVERLAND DRIVE**

Native American sites and artifacts and other pre-historic findings reveal a long history of human settlement on James Island. Early and Middle Archaic (8000-2500 B.C.) stone tools found at the Dill Sanctuary are one of the earliest signs of prehistoric occupations on the island. Shell rings revealed in archaeological digs on James Island date back to the Late Archaic (2500-2000 B.C.) and Early Woodland (2000-500 B.C.) phases; these accumulations of shellfish shells are interpreted as



ceremonial centers, a place for Native populations to gather and feast. The Woodland period (2000 B.C. to A.D. 800) marks a shift to more sedentary lifestyles. Woodland societies developed a wide range of subsistence strategies based on hunting, foraging, and horticulture. Woodland pottery, a technology that emerged during this cultural period, has been found at the Dill Sanctuary. The Mississippian period (A.D. 800 to A.D. 1600s) marked the highest levels of cultural complexity of Native American societies in the Southeast prior to European contact. Populations organized themselves in ranked socio-political units (known as chiefdoms) and participated in intensive agriculture on permanent settlements.

South Carolina was first explored by Europeans in the 16th century and first settled by European colonists in the 17th century. Two of the earliest successful economic pursuits in South Carolina were the export of deerskins and Native American slaves. The island was attractive to colonists due to a number of reasons. The waterways surrounding and cutting through the island provided access and transportation for people and goods. This made a trip to the markets in Charles Towne (now known as Charleston) much easier for planters. The warm weather and sandy, well-drained soil made it an ideal location for cash crops like rice, indigo, and cotton. Additionally, the oak and pine forests provided the timber necessary to construct buildings and fill naval stores.

James Island was known as “Boone’s Island” until it became James Towne in 1693. This name is believed to come from St. James Parish on the Caribbean island of Barbados. James Island grew in population as land grants were provided to colonists who moved south from other colonies. As Charles Towne began to grow into one of the largest colonial cities in the late 1600s and early 1700s, many settlers of James Island moved there for its commercial and social opportunities. From early on, James Island has maintained a quieter, more laidback atmosphere in contrast to the livelier Downtown Charleston.

The first plantations on James Island date back to the late 17th century. The Peronneau family owned one of the well-documented plantations on the island. Samuel Peronneau, Sr. bought land from William Wilkins in April of 1741 and started a cattle farm where the Riverland Terrace neighborhood is now located. Peronneau, Sr. had a total of 19 slaves that worked on his plantation. The cattle meat was sold at a market on the corner of Meeting and Broad Streets in Charles Towne. The Peronneau family plantation further expanded its production when Samuel Peronneau, Jr. began cultivating indigo, a crop that grew well in the Sea Island soil.

Indigo and provision crops, for sale in downtown Charleston, became lucrative enterprises for James Island planters beginning in the mid-18th century. As colonists saw the potential to turn large profits at the markets, the population of the island boomed. Population growth not only included the white planters, but also the slaves used to work on the land.

James Island and its residents were involved in both the Revolutionary and Civil Wars. Led by General Clinton, the British Army landed on James Island along the banks of the Stono River. Clinton and his troops then marched across the island, seizing all cattle, horses, and food, and burning many of the buildings. Aware of the arrival of the British, Patriot troops had destroyed Fort Johnson in preparation and retreated to the Charleston peninsula. During the siege of Charleston in 1780, the Patriots were circled by land and sea. The British placed guns at Fort Johnson and constructed siege batteries along Wappoo Creek and at Stiles Plantation. After a 42-day siege, the Patriots surrendered to the British who seized Charleston and James Island and held control until the end of the Revolutionary War.



In the early 1800s, cotton was king on the sea islands of the South Carolina coast. Due to its high quality, sea-island cotton was more valuable than cotton from inland or the Bahamas. The productivity of the land and the proximity to the markets of Charleston once again made James Island a prime location for planters. The 1860 Federal Census showed how the population on the island had burgeoned. The data reported 1,726 residents in total, 193 of which were white residents and the remainder black slaves. There were 21 plantations, two churches, and two general stores on the island.



Mellichamp Map showing 19th Century roads (Source: SC Battleground Preservation Trust)

The period after the Civil War was one of major transition on James Island. Douglas Bostick, author of *A Brief History of James Island: Jewel of the Sea Islands* describes the island in the spring of 1865 as being in a “state of almost complete destruction”. Only six plantation homes were left standing following the war and crops and livestock were abandoned. The first people to return to the island were freedman families who, by law, were to be “allotted 40 acres from abandoned and confiscated lands on the Sea Islands of Georgia and South Carolina” (General Sherman’s Special Field Orders). As white land owners returned to the island, many discovered that their land had been claimed by freedman’s families. Most plantations were returned to



Freedmen Areas along Riverland Drive (Source: Mark Clark Expressway Appendix M: A Historic Resources Survey)







*Photo taken by George W. Johnson of King's Highway (Riverland Drive) at turn of 20th Century (Source: SC Battleground Preservation Trust)*



*Some island landowners turned to real estate development, dividing their holdings into residential subdivisions. The first such development on James Island was Riverland Terrace, which was laid out in the 1920's and developed in the 1940s, making it James Island's oldest neighborhood. This 1933 aerial photograph of Riverland Terrace shows the neighborhood's famous Avenue of Oaks and the Stone River. (Courtesy of Tom and Ann Read.)*

their original owners and freedmen were offered tracts of contiguous land elsewhere. African American communities formed in these areas and current land ownership today still reflects this to some degree. Freedman areas included Ferguson Village, Fleming Road, the intersection of Riverland Drive and Central Park Road, Grimball Road, Honey Hill, the intersection of Camp Road and Fort Johnson Road, and Sol Legare Island.

James Island dealt with widespread poverty following the Civil War. In addition to all of the destruction, the residents who returned to the island lacked experience and organization to farm successfully. Many of the older, more experienced planters decided not to return to the island or had died during the war. Younger planters also had to learn how to

coordinate with freedman who now worked as sharecroppers or tenant farmers. In order to address many of these issues, the James Island Agricultural Society formed in 1872 with a mission of focusing on the "development of agriculture upon the seaboard of our state". In the late 1800s, the economy of James Island was revived as agricultural practices improved and Sea Island cotton was bringing in high prices once again.

Both blacks and whites on James Island formed military organizations during the Reconstruction period. Captain Isaac Ferguson was the commander in the 1890s of the James Island black militia unit, the Hunter Volunteers, which is said to have had an armory at the fork of Grimball Road and Riverland Drive (James Island Historical and Architectural Inventory, 1989).

Schools, along with churches, were another form of organizations on the island which provided educational, cultural and social outlets for young residents. After the Civil War other social organizations, such as lodges, developed. Lodges once held a variety of functions in its community, including weddings, numerous social ceremonies, and funerals. Predominantly black communities began their own lodges. This included the King Solomon Farmers' Union, Lodge Hall No. 3, which was located on Riverland Drive and established in 1920.





In 1899, the first permanent bridge crossing the Wappoo Creek was built to connect James Island and West Ashley. Up until this point, the island was only accessible by boat or the ferry at McLeod Plantation. In 1926, the first concrete bridge linking James Island and West Ashley was constructed and electric current and telephone lines were brought in from Charleston. These modern advances allowed for growth on the island. C. Bissell Jenkins & Sons purchased 75 acres of land in 1925 to develop Riverland Terrace, the island's first subdivision. The subdivision included an elementary school (Riverland Terrace Elementary), annual horse shows, a riding and driving club, and an airstrip where Charles Lindbergh once landed. By 1938, there were 55 homes laid out in Riverland Terrace and a public golf course was built.

By 1940 the subdivisions Wappoo Hall, Woodland Shores, and Lawton Bluff opened on the island which further reduced the amount of land dedicated to farmland. By the middle of the 20th Century, nearly all traces of James Island's agricultural past had vanished. On January 19th, 1990 a major part of the island's history came to a close when William Ellis McLeod died just weeks before his 105th birthday. McLeod was not only the last of three generations of McLeods who had been "master" of the McLeod Plantation, but also the last living owner of a Sea Island plantation.



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# PUBLIC PARTICIPATION



Participation from the public and stakeholders has been a key component of the development of the Riverland Drive Corridor Management Plan. Public outreach and communication efforts provide information that educates; builds relationships among local government agencies, property owners, and the general public; and is responsive to questions, ideas, and concerns throughout the development of the CMP. The public participation process has included Technical Advisory Committee (TAC) meetings, public workshops, and various meetings with other stakeholders.

## *TAC MEETING No. 1 – FEBRUARY 26, 2014*

The first TAC meeting was held at 3:00 PM on February 26, 2014 at the Lowcountry Senior Center at 865 Riverland Drive, Charleston, SC 29412. The TAC is made up of non-elected representatives from the primary study area of the Riverland Drive CMP. The committee consists of representatives from the City of Charleston, Town of James Island, Charleston County, Charleston County Parks and Recreation, and The Charleston Museum. The meeting introduced committee members to the purpose of the study, the components of a CMP, and a timeline for the study. The TAC discussed the corridor’s strengths, weaknesses, and opportunities in order to identify the next steps for the plan.

## *PUBLIC MEETING No. 1 – APRIL 8, 2014*

The first public meeting was held at 5:30 PM on April 8th at the James Island Town hall at 1238-B Camp Road, Charleston, SC 29412. Over 60 citizens and local government staff attended the meeting. They included local residents, business owners, elected officials, and non-elected government representatives. Attendees were introduced to the purpose, goals, and important milestones of the project. Following this introduction, a breakout group exercise was held to allow attendees to identify strength, weaknesses, and opportunities on the provided maps. BCD COG staff members were located at each map, with each focusing on different issues: land use and natural resources, cultural and historic resources, and transportation and roadway safety.

## *TAC MEETING No. 2 – JUNE 3, 2014*

The second TAC meeting was held at 3:00 PM at the Lowcountry Senior Center at 865 Riverland Drive, Charleston, SC 29412. TAC members were provided a summary of the



*Nick Pergakes receives feedback on a land use map at the first public meeting.*





Meeting attendees mark up map to identify issues and propose solutions

first public meeting and the public comments that were received. BCD COG staff shared a draft of the vision statement and goals for the plan as well as a document outline in order to receive feedback from the committee.

*PUBLIC MEETING No. 2 – JUNE 26, 2014*

The second public meeting was held at 5:30 PM on June 26th at Bethel AME Church at 1827 Central Park Road, Charleston, SC 29412. An estimated 20 interested parties attended the meeting. A presentation was given to share the draft vision statement, goals, and objectives prepared by the BCD COG staff. Following this presentation, attendees were able to circulate the room to make comments on specific aspects of the plan. In an open house style, project representatives were stationed at tables with maps that attendees could mark up and comment on.

*PUBLIC MEETING No. 3 – JULY 17, 2014*

The third public meeting was held at 5:30 PM on July 17th at Bethel AME Church at 1827 Central Park Road, Charleston, SC 29412. An estimated 12-15 interested parties attended the meeting. The format of the meeting was similar to Public Meeting No. 2; a brief presentation was given on the draft vision statement, goals, and objectives. This was followed by a breakout activity where attendees were able to use maps as a tool to reference specific improvements and projects included in the plan. Attendees were able to provide feedback on proposed projects and identify other potential projects to be implemented.



Public Meeting No. 3 was covered by Live 5 News

*PUBLIC MEETING No. 4 - AUGUST 18, 2014*

The fourth public meeting was held at 5:30 PM on Monday, August 18th. The draft plan with recommendations and implementation strategies was presented at this final public meeting. Attendees were asked to make recommendations for how the draft plan could be improved before it is finalized.

Council woman Anna Johnson attended Public Meeting No. 3



## STAKEHOLDER MEETINGS

- April 17th:

*BCDCOG senior planner Nick Pergakes met with representatives from the Town of James Island to provide an overview of the purpose of the CMP to the town and to identify important resources, stakeholders, and contacts in the study area.*

- May 14th:

*BCDCOG staff members went on a site visit to the Dill Sanctuary. Staff members from The Charleston Museum provided a tour of the property, including an African American cemetery, former plantation sites, Civil War earthworks, and more.*

- May 22nd:

*The project team met with Doug Bostick, historian and Executive Director of the South Carolina Battleground Preservation Trust. Mr. Bostick shared stories and old photographs of James Island. This meeting served as the basis for historical research on the corridor.*

- May 27th:

*BCDCOG staff members met with transportation engineers at CDM Smith who worked on the environmental impact statement (EIS) for the Mark Clark Expressway (Interstate 526) completion. This meeting allowed the CMP team to learn about how the transportation project will affect the study area.*

- June 6th:

*BCDCOG staff members met with planners from the Charleston County Zoning and Planning Department, where BCDCOG staff members gave an update on the status of the CMP. The Charleston County planners shared important information about the corridor, specifically a transportation study performed on the Riverland Drive and Central Park Road intersection.*

- June 18th:

*BCDCOG Senior Planner Nick Pergakes met with Carter McMillan, Commission Vice Chair of the James Island Public Service District. The meeting covered various projects and services that may affect the Riverland Drive Corridor. These included the addition of tree reflectors, areas in the corridor with drainage issues, sewer projects, and more.*

- July 9th:

*BCDCOG Senior Planner Nick Pergakes met with planners from the City of Charleston Department of Planning, Preservation, and Sustainability. They discussed problematic intersections, specific zoning and overlay districts that could be used in the area, and upcoming projects on unimproved parcels.*

- July 15th:

*The Charleston Museum hosted BCDCOG and Charleston County Parks and Recreation Commission staff members at the museum to view historical maps of James Island directly from their archives.*



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# EXISTING CONDITIONS



## INTRODUCTION

This section discusses the existing conditions along the Riverland Drive Scenic Byway corridor and a description of significant factors and issues facing the corridor today. Also, included within this section are descriptions of its intrinsic qualities. Intrinsic qualities are what give places, features and resources their unique character and visitor appeal. This includes archaeological, historic, cultural, natural, recreational, and scenic qualities.

***The existing conditions and intrinsic qualities assessment is shown in the following sections:***

<i>Land Use and Development Patterns</i> .....	13
<i>Transportation</i> .....	20
<i>Scenic and Natural Resources</i> .....	43
<i>Cultural and Historic Resources</i> .....	51
<i>Recreational Resources and Community Facilities</i> .....	58



## LAND USE AND DEVELOPMENT PATTERNS

James Island consists mostly of post-World War II suburbs and is the most built-out of Charleston’s suburban areas. James Island is primarily suburban in character today and comprised mostly of single-family residential development with commercial, office, and institutional uses.

Folly Road serves as the major commercial spine of James Island, with a mix of strip shopping centers, restaurants, and services. Maybank Highway on James Island includes small neighborhood-sized shopping centers, restaurants, and services. There is very little industrial development in the corridor, except for some light industrial uses such as those found along Fleming Road.

Riverland Drive today is comprised of a mix of residential, recreational, and institutional as well as vacant land. *Figure 1*, on the next page, shows the existing land uses that are in the corridor today.





# RIVERLAND DRIVE CORRIDOR MANAGEMENT PLAN

## EXISTING LAND USE MAP

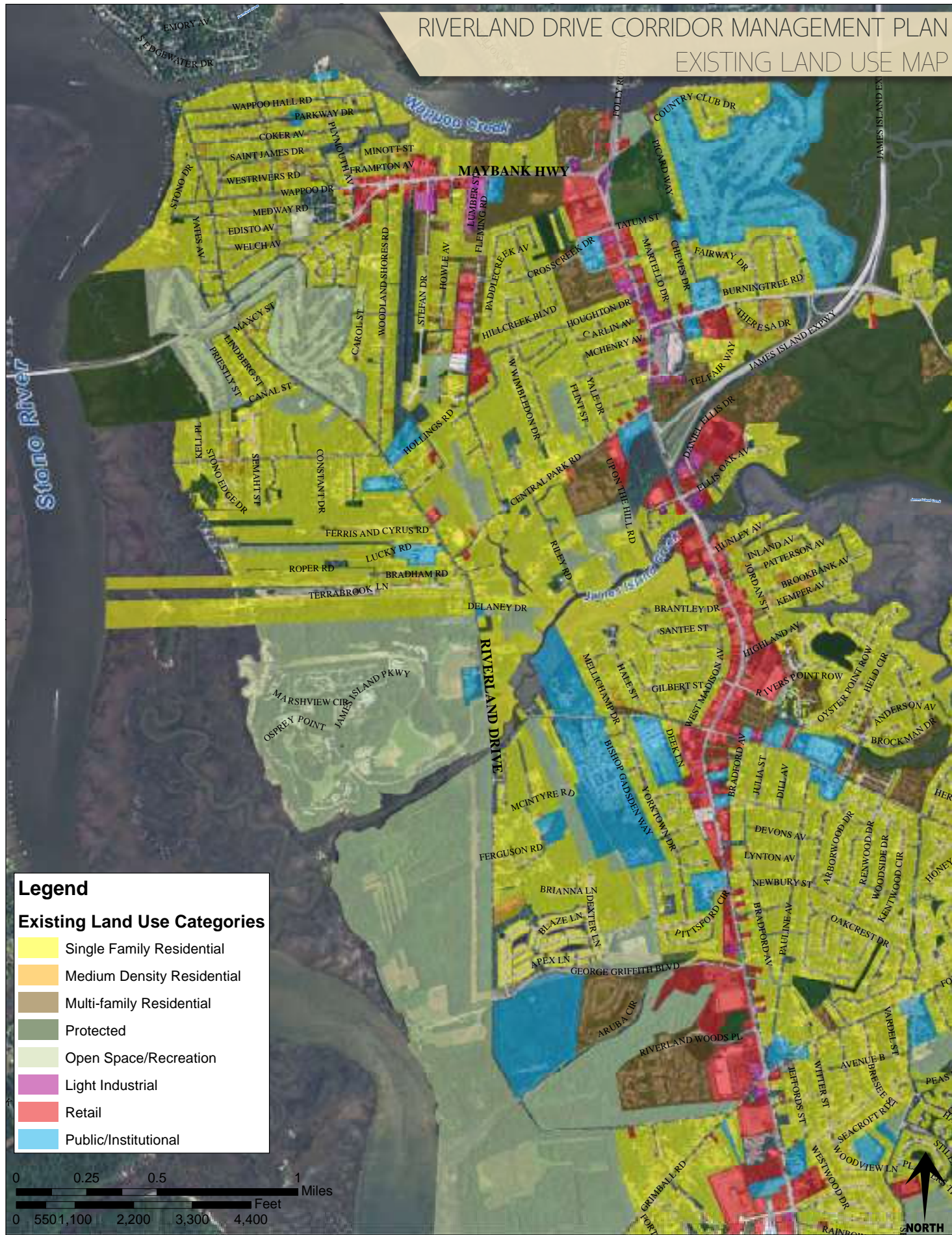


Figure 1: Existing Land Use Map

## FUTURE LAND USE PLANS

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Future land use plans for this area are contained in the Charleston County Comprehensive Plan, the City of Charleston’s Century V City Plan, and the Town of James Island’s Comprehensive Plan. James Island is within the Urban Growth Boundary, the goal of which, as defined by the County, is to manage higher intensity growth within the boundary. The three jurisdictions can be seen on the Jurisdictions Map (Figure 2) on page 16.

### CITY OF CHARLESTON

The City of Charleston has numerous parcels scattered throughout the study area. Most of the property adjacent to Riverland Drive is designated as conserved areas, parks, suburban development, and campus in the City of Charleston Comprehensive Plan.

Conserved areas in the corridor include land that have been preserved via public ownership (although not necessarily routinely open to the general population) or private ownership with preservation or conservation easements that significantly restrict development. Parks are defined as any publicly or privately owned lands that are open to the general population for all variety of recreational purposes (active or passive).

The suburban edge category is one of the lowest densities found within the urban growth boundary, with residential uses ranging from one to four dwelling units per acre. A majority of the residential development in the Riverland Drive area is this land use type.

In the City of Charleston’s Century V Plan, the city identified new civic centers in various places around the city called Gathering Places. These locations may be “important intersections, well-located infill or redevelopment sites, or part of new neighborhoods in more suburban locations”. Gathering Places can create a mixed-use environment that can support walkability and transit.

Two Gathering Places are in close proximity to the Riverland Drive Corridor. One is located along Maybank Highway between Walter Drive and Zelasko Road. The other is located where Folly Road, Grimball Road, and Fort Johnson Road intersect.

Although the future land use and zoning for the corridor is similar to what is existing today, there are still opportunities for infill development on vacant and underutilized properties. The Property Disposition Map (Figure 3) on page 17 shows conserved and/or protected properties along the corridor, as well as properties that may have future infill development.



*The Municipal Golf Course along Maybank Highway and Riverland Drive provides significant open space along the corridor and helps maintain scenic views along the corridor.*





RIVERLAND DRIVE CORRIDOR MANAGEMENT PLAN  
JURISDICTIONAL BOUNDARIES

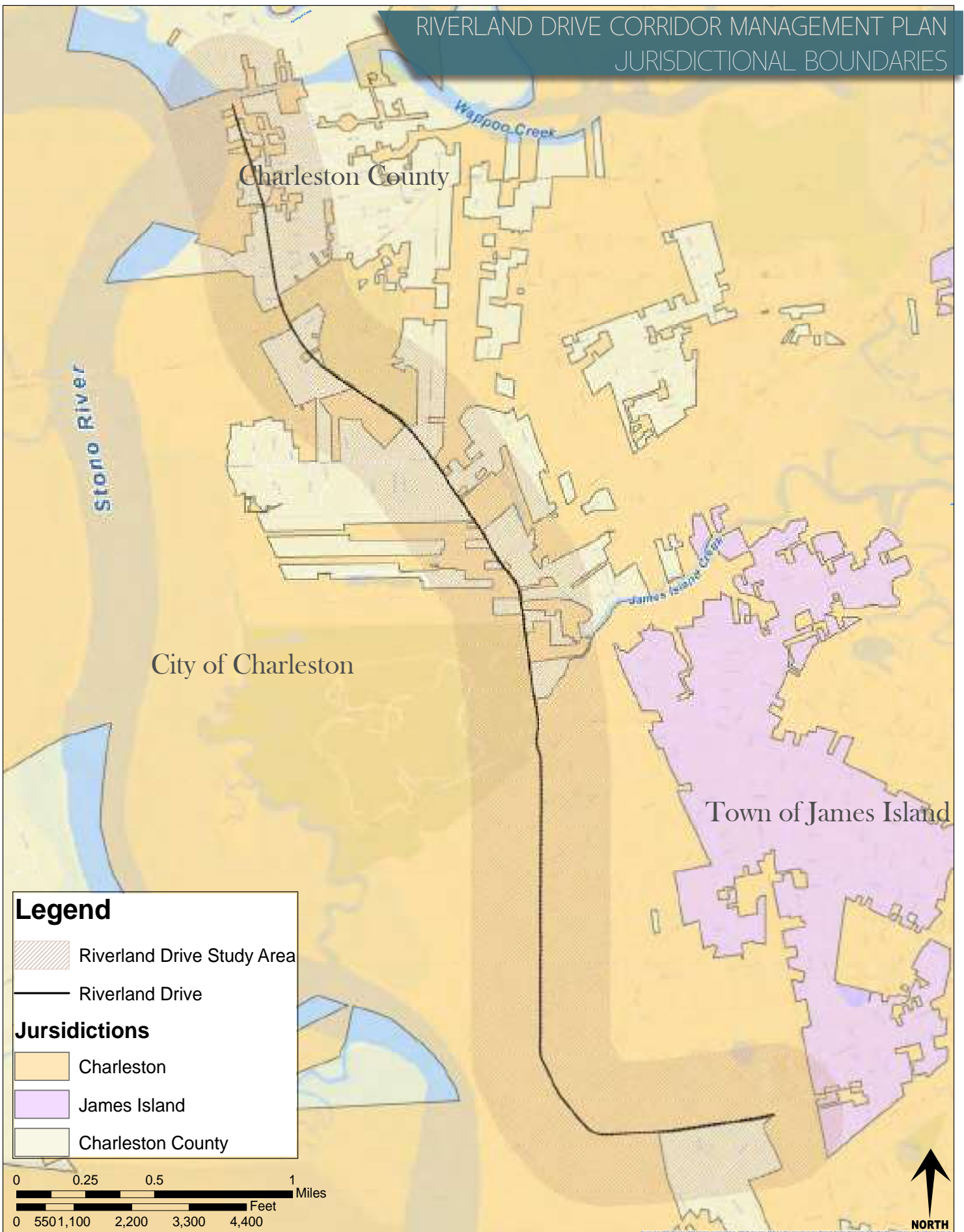


Figure 2: Jurisdictions Boundaries Map

# RIVERLAND DRIVE CORRIDOR MANAGEMENT PLAN PROPERTY DISPOSITION MAP

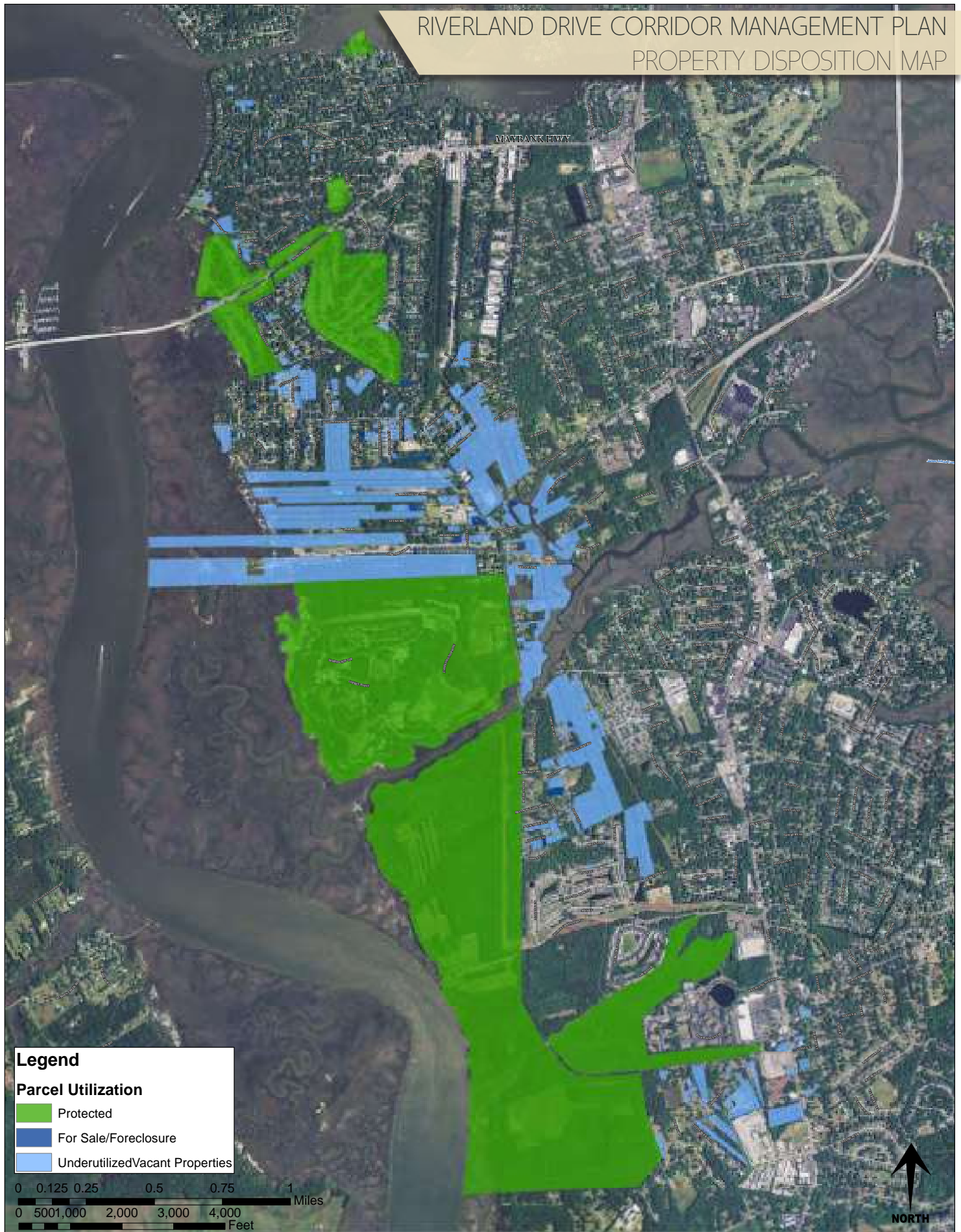


Figure 3: Property Disposition Map

## CHARLESTON COUNTY FUTURE LAND USE

In the Charleston County Comprehensive Plan, specific land use strategies are identified. Strategies that would affect Riverland Drive include the following:

- Protect and enhance the environmental quality of creek, marsh and river front lands, beaches, and access to beaches and waterways.
- Implement design character that enhances the quality of development along commercial corridors, establish scenic corridors, and establish areas of environmental and cultural significance.
- Preserve and protect natural areas such as marshes, forests, and vegetative or wildlife habitats.
- Preserve cultural and historic sites.
- Include parks, recreational uses, greenspace, and water access in urban/suburban neighborhood design.
- Maintain areas occupied by marshes and unique vegetative and wildlife habitats.
- Protect water quality, wildlife habitat, and scenic vistas by meeting or exceeding the minimum lot widths, buffers and setbacks required for developments along the OCRM Critical Line (as contained in the Zoning and Land Development Regulations Ordinance).

## TOWN OF JAMES ISLAND

Residents have formed the Town of James Island by incorporating the remaining parcels on James Island. The Town of James Island's Comprehensive Plan (2006) calls for Riverland Drive to retain its residential character.

## NEIGHBORHOODS IN THE CORRIDOR



*A solitary walker on the tree lined Wappoo Drive in Riverland Terrace*

## RIVERLAND TERRACE

Riverland Terrace is James Island's first subdivision, which was laid out in 1925 on 75 acres. By 1928, Riverland Terrace had 55 homes built. Originally planned to include a large resort-like hotel, Riverland Terrace is located ten minutes west of downtown Charleston, South Carolina along Wappoo Creek and the inland waterway. The neighborhood has a mix of uses including recreational, civic, and neighborhood commercial. Riverland Terrace includes a public boat landing, a playground, the Charleston Municipal Golf Course, restaurants, and antique shops.





Leading into the neighborhood is the Avenue of Oaks, consisting of 73 live oak trees believed to be over a hundred years old. They once led to Wappoo Hall Plantation on the Stono River. A Civil War fortification known as Fort Pemberton, built in 1862, remains in the neighborhood today. Riverland Terrace today consists of approximately 800 homes.

### FERGUSON VILLAGE

Ferguson Village is the most established of the neighborhoods along Riverland Drive with homes dating from the late 1940s to the 1990s. The area was first inhabited by freed slaves from the Dill Plantation and their descendants have resided in this area ever since. There are some mobile homes mixed with single-family residences and several lots have multiple homes on them. The neighborhood park has a baseball diamond, basketball courts, and a play area.

### LAUREL PARK AND MARLBOROUGH

Two of the established neighborhoods, Laurel Park and Marlborough, are located north of Central Park Road and generally are comprised of one- and two-story ranch-style homes. The homes in Laurel Park were constructed in the late 1950s through the 1960s and homes in Marlborough in the late 1970s through the 1980s.

### NEW SUBDIVISIONS

Riverland Park is a fairly new neighborhood of single-family dwellings located west of Riverland Drive and north of James Island County Park. At build-out, the planned unit development will include 27 houses. A future single-family residential subdivision will be developed by Ashton Woods with an entrance off Fleming Road.



*Riverland Park is a recent small traditional neighborhood development across from the Municipal Golf Course*

## CITY OF CHARLESTON ZONING AND OVERLAY DISTRICTS

The City of Charleston’s residential zoning in the corridor is primarily Single-Family Residential (SR-1). This district allows for single-family detached dwellings with a maximum density of 4.8 units per acre respectively, with varying setback, height and lot occupancy requirements.

Several larger parcels in the study area have been designated as Planned Unit Developments (PUDs). A PUD is intended to provide flexibility in the design of developments and to encourage comprehensive planning. It also encourages innovation in neighborhood design that includes incorporation of open space, preservation of natural features and other amenities.

The Diverse Residential district (DR-4) allows multi-family dwellings of 20 or more units for the elderly. Such structures are subject to development standards relating to maximum lot area per living unit, height, lot coverage, as well as other development requirements.

The Gathering Place zoning district (GP) is intended to promote mixed-use town, village, and neighborhood centers around the city at major intersections or along traditional commercial streets. Diverse mixed-use, pedestrian oriented development is permitted within this district. A new apartment and mixed use development is being built at the corner of Maybank Highway and Fleming Road.

Many properties along the corridor area designated as Conservation districts (C). This zoning district is designed primarily to protect and encourage the appropriate use of marshlands, forested areas, scenic areas, and agricultural areas that are not likely to be developed for urban purposes in the reasonable near future. Properties in the corridor include the Charleston Municipal Golf Course, James Island County Park, Dill Sanctuary property (Charleston Museum), and City of Charleston property.

The Landmark Overlay Zone is an overlay zoning district to help protect historic and cultural resources throughout the city. This is due to their historic importance to the City of Charleston. Currently, there are four designated properties in the Riverland Drive corridor that have been placed under Landmark Overlay status. The designation requires that any external changes to the property are under the purview of the City of Charleston Board of Architectural Review. The properties include Fort Pemberton, Fort Pringle, Unnamed Battery No. 1, and Battery No. 1.

**CHARLESTON COUNTY BASE ZONING**

Charleston County properties in the Riverland Drive corridor are R-4, Single Family Residential. The R-4 district implements the Suburban Residential/Residential Low Density (Urban/Suburban Area) policies of the Comprehensive Plan. The maximum density for this zoning district is 4 dwelling units per acre. Regulations in the Charleston County zoning ordinance include a minimum set for the lot area, lot width, and building setbacks. A maximum is set for building coverage and building heights in the R-4 zoning category.

**TRANSPORTATION**

**CORRIDOR DESCRIPTION**

The Riverland Drive Scenic Byway study area is defined by a 1/4 mile offset of Riverland Drive's centerline, as shown in *Figure 4*. As a scenic corridor, the aesthetic character of the byway can be generally characterized as a somewhat tree-canopied corridor offering many views of estuarine wetlands and regularly flooded salt marshes that hug its margins. However, as a transportation corridor the byway contains several problematic intersections, where solutions will require a delicate balance of implementing public safety improvements in a manner that also acknowledges and minimizes the impact on the corridor's scenic beauty.

# RIVERLAND DRIVE CORRIDOR MANAGEMENT PLAN STUDY AREA AND TRANSPORTATION FACILITIES MAP

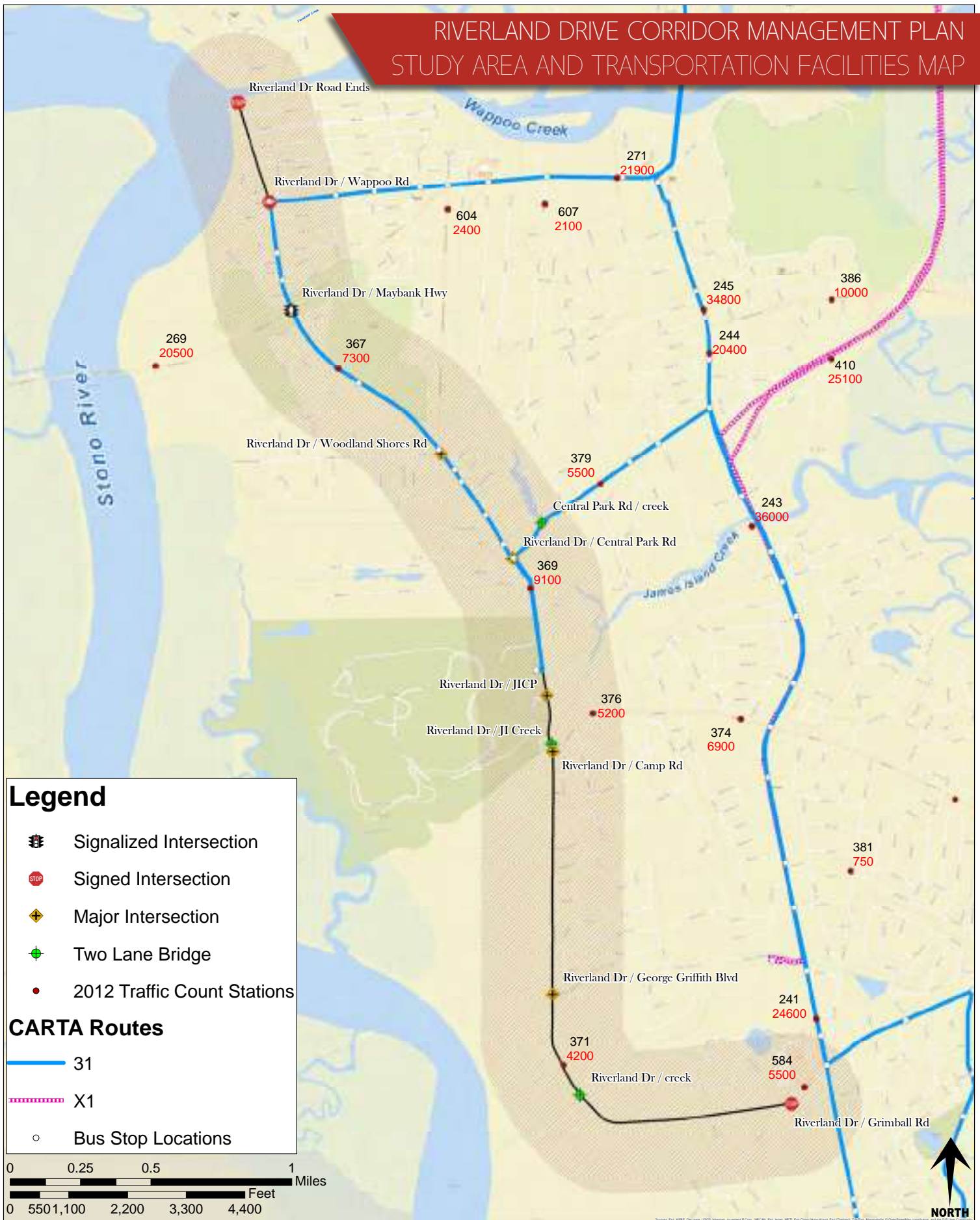


Figure 4: Study Area and Transportation Facilities Map



In order to provide a more detailed description of Riverland Drive as a transportation corridor, this section has divided the byway into the following corridor segments and major intersections as one travels the corridor from north to south:

- The northern terminus of Riverland Drive to Maybank Highway corridor segment
- The Riverland Drive/Maybank Highway intersection
- The Maybank Highway to Central Park Road corridor segment
- The Riverland Drive/Central Park Road intersection
- The Central Park Road to Camp Road corridor segment
- The Riverland Drive/Camp Road intersection
- The Camp Road to Folly Road corridor segment
- The North Grimball Road/Folly Road intersection

#### *NORTHERN TERMINUS OF RIVERLAND DRIVE TO MAYBANK HIGHWAY*

**Corridor Snapshot:** *The northernmost terminus of Riverland Drive begins in the historic Riverland Terrace neighborhood adjacent to Wappoo Creek. The neighborhood is touted as South Carolina's oldest, and the creek is a popular recreational waterway that winds between James Island and West Ashley, connecting the Ashley and Stono Rivers. This segment of Riverland Drive serves as a neighborhood street void of through traffic, where vehicle speeds are kept to a minimum allowing safe passage for pedestrians and bicyclists.*

Heading southward, Riverland Drive is a tree-canopied and very narrow residential-scale local road flanked not by sidewalks, but by well-maintained open ditches. The areas beyond the ditches are almost exclusively residential, with an eclectic mixture of homes ranging from heavily landscaped yards camouflaging large estates dating back to the 1920's, to attractive, yet smaller and more humble dwellings. The roadway is a typical neighborhood local road; mostly void of striping, and no bike lane designations or speed limit postings. There are two all way stop signs along this segment, located where Riverland Drive intersects with St. James Drive and where Riverland Drive intersects with Wappoo Drive. This segment of the study area is the least traveled, with the majority of the vehicular traffic being neighborhood residents and their visitors. The quaint residential streetscape continues to the Maybank Highway intersection, for a length of approximately 3/4 of a mile.



*Riverland Drive in the Riverland Terrace neighborhood. (Retrieved on July 3, 2014 from [www.google.com/maps](http://www.google.com/maps))*



## INTERSECTION – RIVERLAND DRIVE AT MAYBANK HIGHWAY

Maybank Highway is the largest and most traveled road that intersects with Riverland Drive. The highway is an important east-west regional connector linking James Island and Johns Island. The average annual daily traffic (AADT) along this segment of Maybank Highway has increased 41% over the last twenty years; however the highway has actually experienced a minor decrease in traffic over the last three years (SCDOT AADT 1990-2012).

As Riverland Drive approaches Maybank Highway from both directions it widens to two lanes, allowing for a through/left turn lane and a right turn-only lane. The intersection is signalized; however there is no pedestrian signalization or crosswalk striping in any direction. The only sidewalk is located on the south side of Maybank Highway east of Riverland Drive, terminating at the intersection. Maybank Highway is functionally classified as a minor arterial at this intersection, while Riverland Drive is designated as State Route 53 and classified as a collector road from this intersection southward to its southern terminus (SCDOT Functional Classification Map, Charleston Urbanized Area Sheet 8, June 2006).



*Maybank Highway Intersection (Source: BCDCOG Staff)*

It should be noted that from this intersection southward there are no traffic signals, stop signs or street lights on Riverland Drive until reaching its terminus at the junction with North Grimball Road, very near the end of the project study area. Riverland Drive remains one lane in each direction, with the only exception being the approach from either direction to the entrance to James Island County Park, where the corridor widens to three lanes to provide a dedicated turn lane into the park. Acknowledging the many public and private access points to Riverland Drive, the lanes are separated by a solid double yellow stripe indicating a “do not pass” zone for nearly the entire length of the corridor. With no other dedicated left turn lanes at major intersections, the “free-flow” of traffic is disrupted as drivers making left turns back up traffic in their own lane as they wait for an opening in the opposing lane to execute the turn. This dangerous situation occurs whenever a vehicle is making a left turn off of Riverland Drive, but is especially hazardous at peak traffic volumes and where Riverland Drive intersects with Central Park Road and with Camp Road.



## MAYBANK HIGHWAY TO CENTRAL PARK ROAD

**Corridor Snapshot:** *From a traffic standpoint, the character of Riverland Drive changes dramatically as one continues southward along the road from Maybank Highway. The corridor transitions from the slow moving serene environment north of the highway, to one that is faster paced and more energetic. Drivers are less compelled to take in the sights, and more compelled to keep an eye on the road. In general, this corridor segment is less “tree-canopied” than the segment to the north, but remains an aesthetic, meandering drive that emotes more of a rural feel than one might expect.*

The corridor quickly tapers back to one lane in each direction just south of Maybank Highway. Here, the City of Charleston Municipal Golf Course flanks both sides of Riverland Drive, and a striped crosswalk across Riverland Drive allows “safe” passage to golfers moving from one hole to the next. While the crosswalk is at the furthest point possible from Maybank Highway to connect the golf course properties, it is less than 150 feet from the highway and likely comes as a surprise to southbound drivers unfamiliar with the area.

The road is wider than the segment north of Maybank Highway, and the centerline and shoulders are striped. Signage just south of Maybank Highway includes posting of the 35 mph speed limit, “share the road” bicycle signage, and identification of the road as a scenic highway and a corridor included in the Adopt-A-Highway Program. Through the first half of this corridor segment, the adjacent land uses are predominantly single family homes on the west side and the golf course on the east side. Many of the homes contain driveways that front onto Riverland Drive, but with ample visibility in both directions, this does not appear to be a traffic hazard along this section of the corridor segment.

About midway through this segment, Woodland Shores Road intersects with Riverland Drive. At this intersection, drivers on Woodland Shores Road have a stop sign, while drivers on Riverland Drive do not. The overall configuration of this intersection creates a dangerous environment for cars, bicyclists, pedestrians and even users of public transportation. Woodland Shores Road intersects with Riverland Drive from the east at approximately a 45 degree angle, also known as an acute angle junction. This type of intersection is not preferred since it inhibits



*Riverland Drive at Woodland Shores Road Intersection. (Retrieved on May 28, 2014 from [www.google.com/maps](http://www.google.com/maps))*



sight lines and provides a difficult turning radius for large trucks and vehicles with trailers. Traffic flow at this junction point is further complicated by the continuation of Woodland Shores Road on the west side of Riverland Drive being separated into two points of access; westbound traffic on Woodland Shores Road (and southbound traffic on Riverland Drive) enters Woodland Shores Road at an alignment that is a continuation of Woodland Shores Road to the east, while two-way traffic also enters/exits Riverland Drive at a point offset to the south a distance of approximately 75 feet. To make matters worse, a bus stop along the Charleston Area Regional Transportation Authority (ARTA) Route 31 is also located in close proximity to this intersection. It should be noted that a more detailed discussion of Public Transit in the study area is included later in this section.

The latter half of this corridor segment extends from Woodland Shores Road to Central Park Road. A pedestrian path begins on the west side of Riverland Drive south of Woodland Shores Road and continues the entire length of this segment. The pedestrian path is inconsistent, with curb-less sidewalks fronting on newer developments, and well-worn dirt footpaths filling in the gaps. Surface drainage is pitched to the opposite side of the road, where an open ditch flanks the roadway. A “winding road” traffic warning sign with flashing light cautions drivers of curving roads ahead, but the curves themselves do more in providing a changing aesthetic view than they do in creating a driving hazard.

Not far beyond the curves, the Murray-LaSaine Neighborhood Elementary School is located on the west side. A flashing school zone sign and a reduction in speed limit sign (reducing the posted speed from 35 mph to 25 mph) alerts drivers of the upcoming school. The school is small, with a current population of 204 students, and the building itself actually fronts onto adjacent Lucky Road. Both of these factors help to mitigate any Riverland Drive congestion created by school-related traffic. Just beyond the school is the major intersection of Riverland Drive and Central Park Road.

**INTERSECTION – RIVERLAND DRIVE AT CENTRAL PARK ROAD**

There is a pedestrian crossing sign posted along Riverland Drive at the approach to Central Park Road. It is referencing the demarcated crosswalk that connects the sidewalk on the north side of Central Park Road to the sidewalk on the west side of Riverland Drive. Westbound traffic on Central Park Road has a stop sign at Riverland Drive. Whether making a left turn or a right turn onto Riverland Drive, visibility is restricted and vehicles must edge forward beyond the stop stripe to ensure the road is clear before proceeding.



*Cyclists ride southbound on Riverland Drive towards James Island County Park. (Retrieved on May 28, 2014 from [www.google.com/maps](http://www.google.com/maps))*



As mentioned at the beginning of this section, there are no stop signs on Riverland Drive, and during peak traffic volumes this causes a backup on Riverland Drive as southbound vehicles wait for an opening to make a left turn onto Central Park Road.



#### CENTRAL PARK ROAD TO CAMP ROAD

##### Corridor Snapshot:

Huge Grand Oak trees and open marshlands dominate the Riverland Drive segment between Central Park Road and Camp Road. Much of the land on the west side of this segment is the James Island County Park, and much of the land on the east side is open marshland surrounding the New Town Cut waterway that connects James Island Creek to the

Stono River. Near the end of this 3/4 mile segment, a bridge crossing the cut serves as a perfect vista to the beautiful wide open expanse of lush green marshlands flanking both sides of Riverland Drive.

*The James Island County Park is a major destination attraction that includes camping, fishing, a water park, hiking trails, a playground and swimming pool, a huge climbing wall, and more on about 640 acres of land. The park plays host to several annual events including the Low Country Cajun Festival and the Holiday Festival of Lights. Last year, the Cajun festival sold over 9,500 tickets for the one-day event. The Holiday Festival of Lights is a much larger draw. The holiday tradition has been around for over twenty five years, and includes over 700 displays and two million lights on the three-mile loop within the park. The event is scheduled nightly from the middle of November through the end of the year, and during recent holiday seasons nearly half a million visitors enjoyed the light show. The resulting traffic congestion on Riverland Drive has crowds waiting up to an hour to see the holiday display, much to the dismay of local residents and through traffic.*

Traveling southward from Central Park Road, the pedestrian pathway on the west side continues only to Bradham Road, or about 250 feet. There is no defined pedestrian pathway again until the Low Country Senior Center about 2000 feet down the road. Just as perilous is the lack of a designated bike path. While the beautiful surroundings seem especially inviting to bicyclists, in reality, riding a bike along most of Riverland Drive means sharing the too-narrow road with vehicles.

While not long ago a right turn onto Bradham Road led to only a handful of homes, dense development along Terrabrook



Lane has greatly increased the number of residents using the Bradham Road intersection. This issue is indicative of any development on the west side of Riverland Drive, in that all vehicular traffic must be routed to the already burdened corridor for literally every trip whether it be a local or a regional outing. Not far south of Bradham Road, there is a somewhat hidden entrance to Delany Drive on the east side of the corridor. It is an unimproved gravel road leading to eight residences, and a warning sign of the upcoming “hidden intersection” should probably be in place along Riverland Drive.

For the remainder of this corridor segment there is no substantial development on either side of Riverland Drive. On the east side there are stretches of marshland broken up by only a couple “islands” of dry land containing a few homes on large lots fronting onto Riverland Drive. On the opposite side there is the Low Country Senior Center and James Island County Park. As mentioned earlier, at the park entrance the corridor widens to three lanes to accommodate a dedicated turn lane into the park from either direction. Beyond the entrance to the county park, Riverland Drive travelers cross the New Town Cut tributary bridge and immediately enter into the major intersection at Camp Road.



*Approaching James Island Creek Bridge  
(Source: BCDCOG Staff)*

### *INTERSECTION – RIVERLAND DRIVE AT CAMP ROAD INTERSECTION*

Camp Road is a major east-west collector road that essentially spans the entire width of James Island. In addition to being a popular “cut-through” to the Folly Road arterial, located on Camp Road are two middle schools and a major retirement community with 450 residents and 300 employees. In the half mile stretch of Camp Road from Mellichamp Drive to Riverland Drive, traffic volumes have increased over 57% over the last twenty years (SCDOT AADT 1990-2012). According to the SCDOT Highway Safety Office, the current configuration of the Riverland Drive at Camp Road intersection has led to twenty nine collisions from January of 2005 to April of 2013. Furthermore, nineteen of these accidents were right angle collisions, eleven of which resulted in injuries to one or more persons.

For Riverland Drive travelers, there are no stop signs at the intersection, but just as for other major intersections on the corridor, southbound vehicles waiting to make left turns cause backups at peak traffic volumes. Approaching from the east along Camp Road, the road forks prior to the intersection to create a right turn-only lane and a left turn-only lane separated by a large, triangular island. As indicated by the number of accidents at this location

in recent years, the intersection is confusing to the point of dangerous, especially in busy traffic and at night. The SCDOT Highway Safety Office has identified this intersection as an immediate public safety concern justifying the implementation of safety improvement strategies. Specifics on a proposed intersection improvement at this location are included in the Recommendations section on page 77.

### CAMP ROAD TO FOLLY ROAD

**Corridor Snapshot:** The final corridor segment extends from the Riverland Drive at Camp Road intersection to the North Grimball Road at Folly Road intersection. Specifically, Riverland Drive extends two miles along a beautiful tree-lined drive, from the intersection at Camp Road to its termination at the intersection with North Grimball Road. The final 0.2 miles of the corridor study area is along North Grimball Road extending from Riverland Drive to the Folly Road intersection. Along this final corridor segment, the posted speed limit increases from 35 mph to 40 mph. However, with only two intersecting streets, which carry substantial traffic, the result is a tendency of drivers to increase their speed well beyond the additional 5 mph. Along the short stretch of North Grimball Road that concludes the corridor study area, the character of the road transitions to a more urban feel as it leads to the busy signalized intersection with Folly Road.



Aerial Photo of Riverland/Camp Intersection  
(Retrieved on May 28, 2014 from [www.google.com/maps](http://www.google.com/maps))



Car approaches stop sign at Riverland/Camp Intersection (Source: BCDCOG Staff)

Just south of the Camp Road intersection, there is signage indicating a deer crossing, “Share the Road” bicycle signage, and a posting that the speed limit has increased from 35 mph to 40 mph. This final corridor segment is the only area along Riverland Drive where the centerline striping is “dashed”, thus allowing cars to pass slower moving traffic. However, with an increase in the speed limit, the centerline indicating a “Do Not Pass” zone for some sections of this corridor segment, and a “Share the Road” with bicyclists environment, creates a dangerous environment for bicyclists.

For approximately the first half of this corridor segment, there is residential development along the east side of the road, with some fronting onto the corridor, some with reverse frontage on the corridor, and some tucked away in subdivisions that exit out onto the corridor. George L. Griffith Boulevard is the southernmost access point onto Riverland





Drive. This boulevard is not only a collector for several local neighborhood streets; it also serves as the southernmost connector between Riverland Drive and Folly Road. There is a Wal-Mart Supercenter located at the southwest corner of the George L. Griffith Boulevard at Folly Road intersection that generates regional traffic for Riverland Drive coming from as far away as Johns Island.

On the same side of Riverland Drive, south of George L. Griffith Boulevard, downtown Charleston's First Baptist School is in the process of constructing new athletic fields, an athletic complex and a fine-arts center on a 62-acre tract with ample frontage on the corridor. A church spokesman also indicated that "(within this tract of land) there is room for future school activity". While the athletic fields will likely result in minimal peak hour traffic, the future addition of a school would further complicate the congestion problems along Riverland Drive. The remaining half mile of frontage on the east side of Riverland Drive remains heavily wooded and undeveloped.

On the opposite side of Riverland Drive is Dill Sanctuary, owned and operated by the Charleston Museum. The sprawling 580 acre sanctuary has been protected by the museum as a cultural and wildlife preserve for the purposes of preservation, wildlife enhancement, research and education. Currently, it is only used for Museum-sponsored programs. The property extends along the entire western frontage of Riverland Drive from the Newtown Cut to approximately 1500 feet short of the Riverland Drive and North Grimball Road intersection. The remaining frontage on the west side of Riverland Drive resembles rural residential development with smaller homes on large lots. The only intersecting street is Sampson Road, an unimproved gravel drive providing a "cut-through" to North Grimball Road and "street" frontage to a small number of homes.

Riverland Drive terminates at the intersection with North Grimball Road. Here, southbound Riverland Drive travelers have a stop sign, while North Grimball Road is through traffic. The angle of the converging roads makes entering onto North Grimball Road from Riverland Drive more of a merge than a turn, and limited visibility encourages the driver to slowly nudge into the intersection beyond the stop stripe in order to check for cross traffic before proceeding into the intersection. The vast majority of Riverland Drive traffic at this intersection makes a left turn toward Folly Road rather than a right turn. The short drive along North Grimball Road to Folly Road is within the study area and serves as the logical southern termini for assessing the Riverland Drive corridor. The distance along North Grimball Road is less than a quarter of a mile, but the sidewalks, the curbs and gutters,



*Southern Terminus of Riverland Drive at Grimball Road (Source: BCDCOG Staff)*





Aerial photo of Riverland/Grimball Intersection  
(Retrieved on May 28, 2014 from [www.google.com/maps](http://www.google.com/maps))

and the commercial development at the busy and signalized Folly Road intersection gives the traveler a sense of having quickly made the transition from a rural setting to a robust urban setting.

#### *INTERSECTION – NORTH GRIMBALL ROAD/FORT JOHNSON ROAD AT FOLLY ROAD INTERSECTION*

Folly Road is a major north-south arterial connecting Folly Beach and James Island. It is a primary hurricane evacuation route, and at the North Grimball Road intersection it is a five-lane urban arterial with a posted speed limit of 45 mph. Folly Road carries more traffic than any other roadway in the study area. At the North Grimball Road intersection the annual average daily traffic (AADT) in 2012 was 24,600, representing nearly a 44% increase over the last 20 years.

## INTERSECTIONS

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### *MAYBANK HIGHWAY*

It has long been recognized that there is a need for improvements on Maybank Highway (SC 700); currently the only route connecting James Island to Johns Island. An original public hearing to discuss potential improvements and funding occurred in September of 2007. The primary concerns and intent of improvements discussed then remain true today; improve traffic flow and safety, and provide adequate bicycle and pedestrian accommodations.

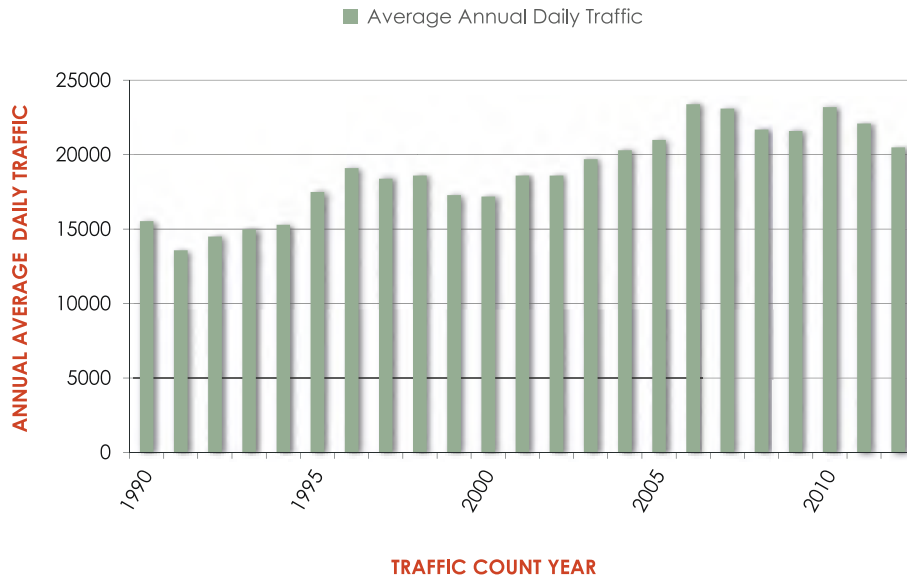
According to the most recent accident data published by the South Carolina Department of Public Safety, for the three year timeframe extending from January 2007 to December 2009 there were a total of 536 accidents along the entire Maybank Highway corridor. This includes 254 injuries and 3 fatalities in 186 accidents. While a large proportion of the highway corridor is on Johns Island, the majority of the traffic, and presumably accidents, is along the Maybank Highway segment between River Road and Folly Road.

Along Maybank Highway, SCDOT has been collecting traffic count data since 1990 in two defined segments; from River Road to Woodland Shores Road, and from Woodland Shores Road to Folly Road. While the annual average daily traffic (AADT) increased only 1.4% from 1992 to 2012 for the Woodland Shores Road-Folly Road segment, over the same twenty year period the River Road-Woodland Shores Road segment has increased 41.4% (*Figures 5 and 6*).

The discrepancy in traffic counts along adjacent segments is likely explained by Riverland Drive being used as a “short-cut” route for vehicles traveling



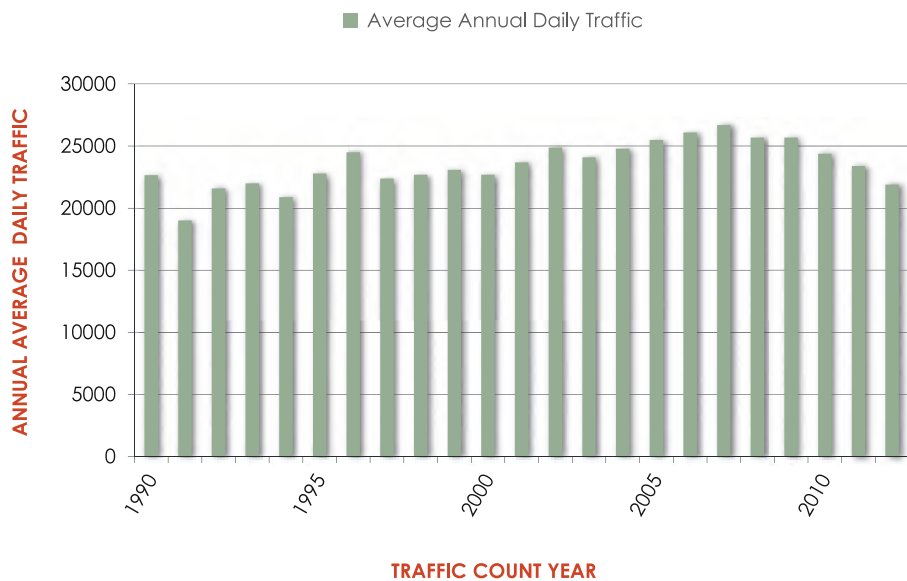
**Maybank Hwy (River Rd to Woodland Shores Rd)**  
 1990 - 2012 Annual Average Daily Traffic (AADT)



Source: SCDOT AADT 1990 - 2012

Figure 5: Maybank Highway (River Road to Woodland Shores Road)

**Maybank Hwy (Woodland Shores Rd to Folly Rd)**  
 1990 - 2012 Annual Average Daily Traffic (AADT)



Source: SCDOT AADT 1990 - 2012

Figure 6: Maybank Highway (Woodland Shores Road to Folly Road)



from Johns Island to downtown Charleston (and beyond) by way of the James Island Expressway (SC 30).

The most recent development regarding the proposed Maybank Highway Improvement Project was Charleston County Council approving a revised project scope on April 22, 2014. The project was requested by the City of Charleston and would be funded by the Charleston County Transportation Sales Tax. The improvements would include the construction of two new locations, parallel routes to provide congestion-reducing options for travelers west of the bridge connecting James Island and Johns Island. Also included would be an evaluation of improvements to Maybank Highway that would be comprised of an additional westbound lane traveling from James Island to Johns Island and improvements to the intersection of River Road and Maybank Highway. A final improvement, as part of this project, would be resurfacing and an addition of four feet of shoulders, for the section of Maybank Highway stretching from River Road to Main Road/Bohicket Road.

These proposed improvements are as much in response to an anticipated increase in daily traffic as they are a remedy for current traffic conditions. Future traffic along Maybank Highway is estimated to be cut nearly in half with the extension of the I-526 Mark Clark Expressway. According to the Charleston County Application to the South Carolina State Infrastructure Bank, Maybank Highway between the Mark Clark Expressway extension and Riverland Drive will see a decrease of approximately 40,000 vehicles to 21,000 vehicles per day.

#### *RIVERLAND DRIVE/WOODLAND SHORES ROAD INTERSECTION*

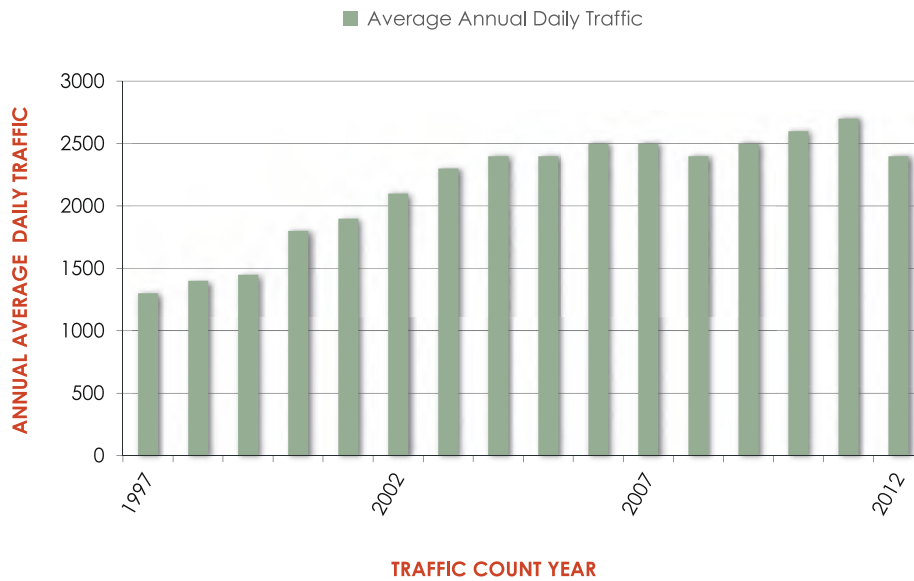
The Riverland Drive/Woodland Shores Road intersection is confusing during off-peak traffic volumes and becomes dangerous during periods of high traffic volume. Reasons for this include the awkward, non-intuitive traffic flow at the intersection, the propensity of commuters to use Woodland Shores Road east of Riverland Drive as a convenient “cut-through” between Maybank Highway and Riverland Drive, and the high-density land development pattern that flank Woodland Shores Road west of Riverland Drive.

The most dangerous aspect of the Riverland Drive/Woodland Shores Road intersection is the angle at which Woodland Shores Road approaches Riverland Drive from the east. Left turns off of Riverland Drive and right turns off of Woodland Shores Road require about a 135-degree turn, further complicated by poor visibility due to sight-lines being impacted by vegetation. Vehicles use Woodland Shores Road as a quick, straight route between Maybank Highway and Riverland Drive; one that by-passes the often congested signalized Maybank Highway/Riverland Drive intersection. While there is only one cross-street along this section of Woodland Shores Road, the entire stretch is lined on both sides with single family homes, each with its own driveway access to Woodland Shores Road. Traffic counts along Woodland Shores Road have been collected since 1997, and for the fifteen year period between 1997 and 2012 the AADT has increased nearly 85% (see *Figure 7 on the next page*).

Woodland Shores Road west of Riverland Drive has two access points from Riverland Drive. The northernmost access point is one-way onto Woodland Shores Road and is an extension of the road along the same alignment as it is east of Riverland Drive. The second access point is two-way traffic located approximately 75 feet further south. This stretch of Woodland Shores is essentially a 0.75-mile long cul-de-sac, with twelve shorted cul-de-sacs feeding into it. Due to this development



## Woodland Shores Rd (Maybank Hwy to Riverland Dr) 1997 - 2012 Annual Average Daily Traffic (AADT)



Source: SCDOT AADT 1997 - 2012

*Figure 7: Woodland Shores Road (Maybank Highway to Riverland Drive)*

pattern, nearly 200 single family homes must all share one point of access out of their neighborhood and onto Riverland Drive.

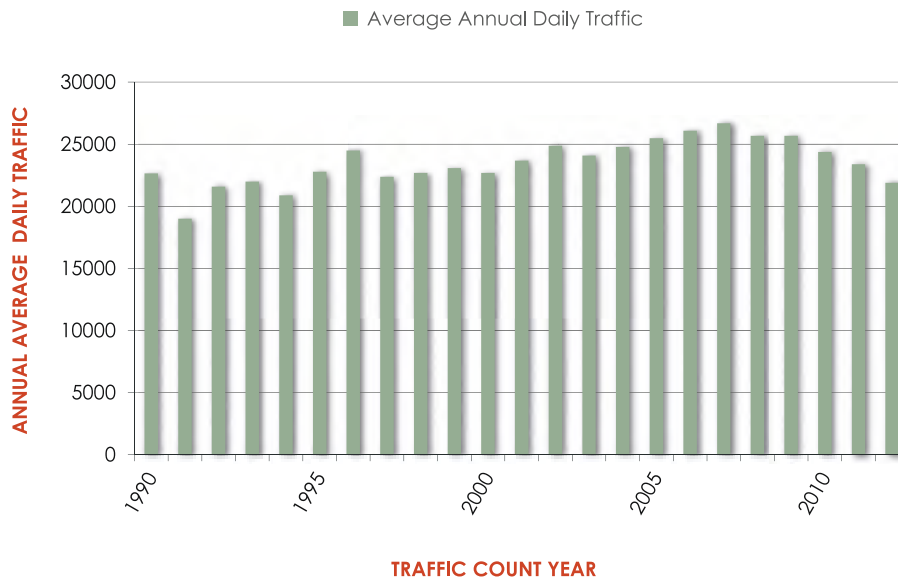
### *RIVERLAND DRIVE/CENTRAL PARK ROAD INTERSECTION*

For many Johns Island (and many James Island) travelers, Central Park Road serves as the preferred route to and from the James Island Connector and Folly Beach. Travelers along this route avoid the often-congested Maybank Highway/Folly Road intersection, and only have to deal with a short segment of Folly Road before reaching the James Island Connector. Central Park Road also serves as a direct route to the popular James Island County Park. The AADT for Central Park Road between Riverland Drive and Folly Road more than doubled between 1992 and 2002, but leveled off in the following decade (see *Figure 8 - next page*). This pattern may be a reflection of the residential growth experienced in and adjacent to the study area and on Johns Island.

Despite nearly stagnant traffic counts on Central Park Road over the last decade, the Riverland Drive/Central Park Road intersection has been recognized as congested, dangerous and in need of improvement. A primary reason for problems at the intersection is the lack of dedicated turn lanes, for both Riverland Drive and Central Park Road, resulting in backups along both roadways. Two alternatives have been considered for the intersection; keeping the intersection in the same location and adding turn lanes, and realigning Central Park Road so it aligns with Lucky Road west of Riverland Drive and providing turn lanes. While keeping the intersection in the same location and adding turn lanes is the less costly of the two alternatives, many large trees including "Grand Trees" would have to be removed to accommodate the additional lanes. While realigning Central Park Road would likely result in less impact on existing trees, and provide a better-aligned 4-way intersection, the increased cost of moving forward with this improvement would require justification.



## Maybank Hwy (Woodland Shores Rd to Folly Rd) 1990 - 2012 Annual Average Daily Traffic (AADT)



Source: SCDOT AADT 1990 - 2012

Figure 8: Central Park Road (Folly Road to Riverland Drive)

### I-526 EXTENSION (MARK CLARK EXPRESSWAY)

By far the largest impact on Riverland Drive, in terms of both aesthetics and as a transportation corridor, would be completion of the proposed Mark Clark Expressway. According to the SCDOT website dedicated to this project (<http://www.scdot.org/MCE/default.shtml>), the project vision dates back to the early 1970's, with the original plan including a connection between West Ashley, Johns Island and James Island. However, it was not until 2004, when the half cent sales tax dedicated to transportation and greenbelt projects was approved by county voters, that a mechanism for funding began to take shape. In 2006, the South Carolina Infrastructure Bank committed funding to the project based upon the availability of matching local funds in the form of the sales tax transportation projects funded through the half-cent sales tax program. Since 2006, this proposed major regional transportation project has evolved through numerous iterations, most recently in the form of a Charleston County resolution approved in December 2012. Among other items, this resolution finds that "it is in the best interests of the County to proceed with the permitting, design, financing and construction of the project". The resolution further states that the Charleston County Council endorses the conceptual Preferred Alternative G with modifications (Figure 9).

While many citizens and organizations have shown passionate support for and against the project, the one consensus regarding the project is that it would have a permanent impact on regional transportation, as well as a permanent impact on local environs. Specific to this corridor management plan, the impact to Riverland Drive is well-illustrated in graphics that were prepared by the City of Charleston and presented to Charleston County Council Special Finance Committee meeting on December 4th, 2012, in a bid to convince the County to take management of the project (Figures 10-12). The proposed Mark Clark Expressway will cross Riverland Drive at-grade, providing





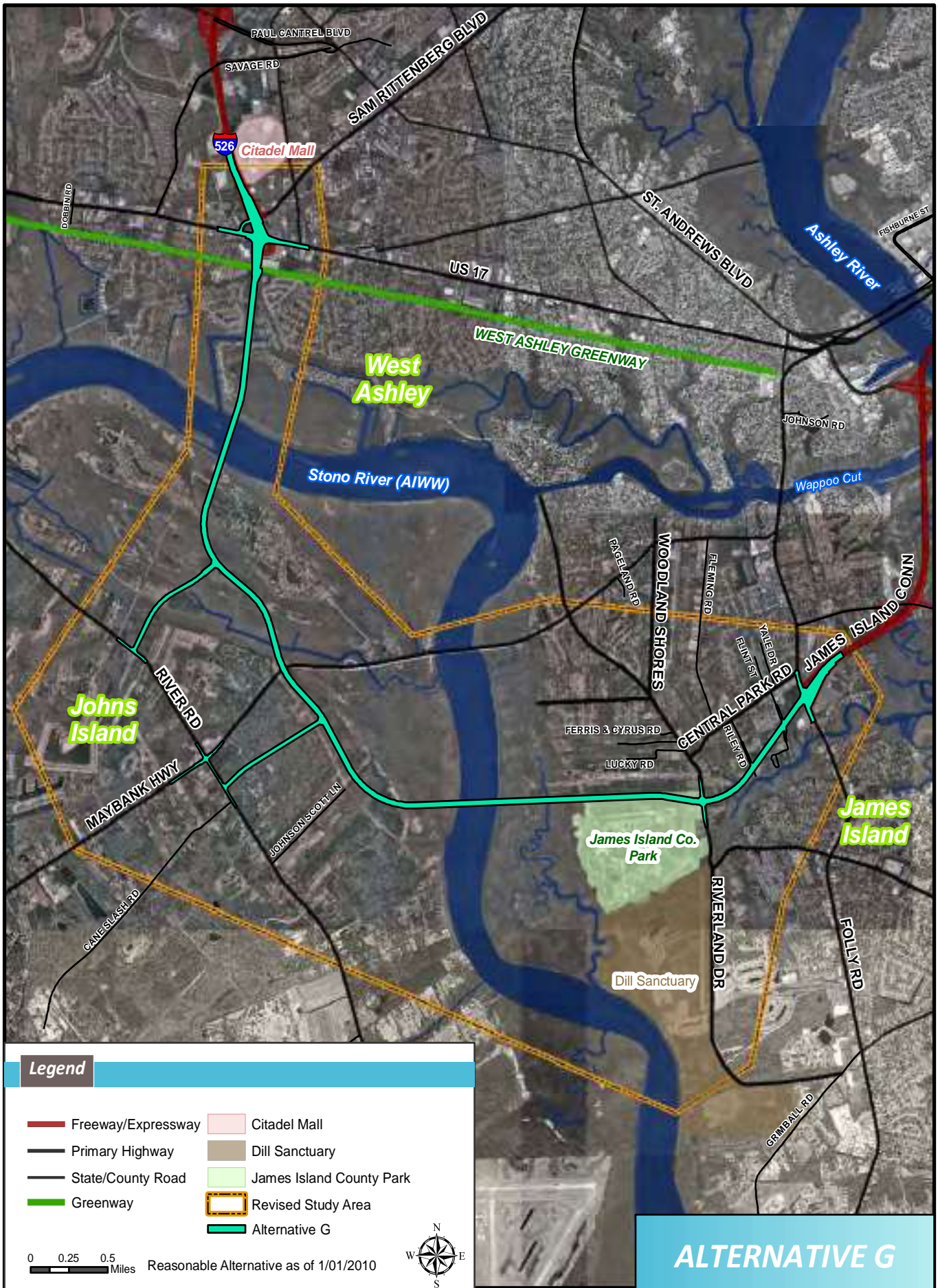


Figure 9: Mark Clark Expressway Preferred Alternative G (Mark Clark Expressway Draft Environmental Statement, July 26, 2010)



two through lanes of traffic in each direction, with dedicated left and right turn lanes for eastbound traffic, and a dedicated left turn lane for westbound traffic. In addition, 4-foot dedicated bike lanes would be provided adjacent to the outer driving lanes, and a 6-foot buffer and 12 foot multi-use path would be provided beyond the curb and gutter. As part of the project, the multi-use path would be extended to the James Island County Park to the south.

The current project status is SCDOT taking the Environmental Impact Statement from draft form to final form (FEIS), to be followed by acquiring the necessary environmental permits. From there, and assuming any potential lawsuits are successfully defended, and any necessary additional funding is authorized, the project would move into right-of-way acquisition, design and construction.



Figure 10: Illustration 1 of the Proposed Mark Clark Expressway (City of Charleston Presentation at Charleston County Special Finance Committee Meeting. Slide 15 - December 4, 2012)





Figure 11: Illustration 3 of the Proposed Mark Clark Expressway (City of Charleston Presentation at Charleston County Special Finance Committee Meeting. Slide 17 - December 4, 2012)



Figure 12: Illustration 2 of the Proposed Mark Clark Expressway (City of Charleston Presentation at Charleston County Special Finance Committee Meeting. Slide 16 - December 4, 2012)



RIVERLAND DRIVE/CAMP ROAD INTERSECTION

While Camp Road between Folly Road and Riverland Drive has not experienced a large increase in traffic volume over the last twenty years (Figures 13 and 14), it is likely that based on accident data the Riverland Drive/Camp Road intersection will be the next traffic improvement to occur within the study area. According to a Public Information Meeting held by SCDOT on November 21, 2013, the department has proposed a project intended to improve safety at the Riverland Drive/Camp Road intersection due to a “high rate of vehicular collisions”. From January of 2005 to April of 2013, there were a total of twenty-nine collisions at the intersection, with eleven of these collisions resulting in injuries. The majority of the accidents were right angle collisions, clearly identifying a need for safer turning movements at the intersection.

One objective of the meeting was to present the “preferred alternative” that had been selected as the intersection improvement design that SCDOT felt was the best alternative of the four considered. This alternative would replace the existing intersection with a “roundabout” type intersection specifically designed to avoid adversely affecting the Dill Historic District, which is a protected property under the DOT Act of 1966, Section 4(f). According to SCDOT, the preferred alternative provides safety counter measures needed at this intersection, as well as provides increased capacity (Figure 15 - next page). This improvement would also complement the improvements soon to be under construction at the Camp Road/Folly Road intersection.

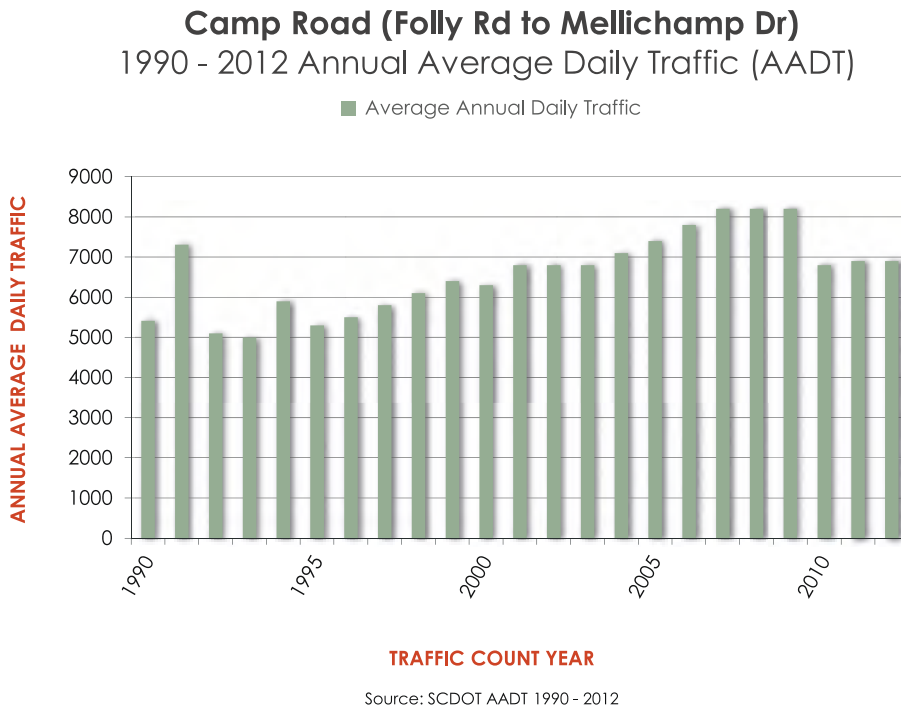
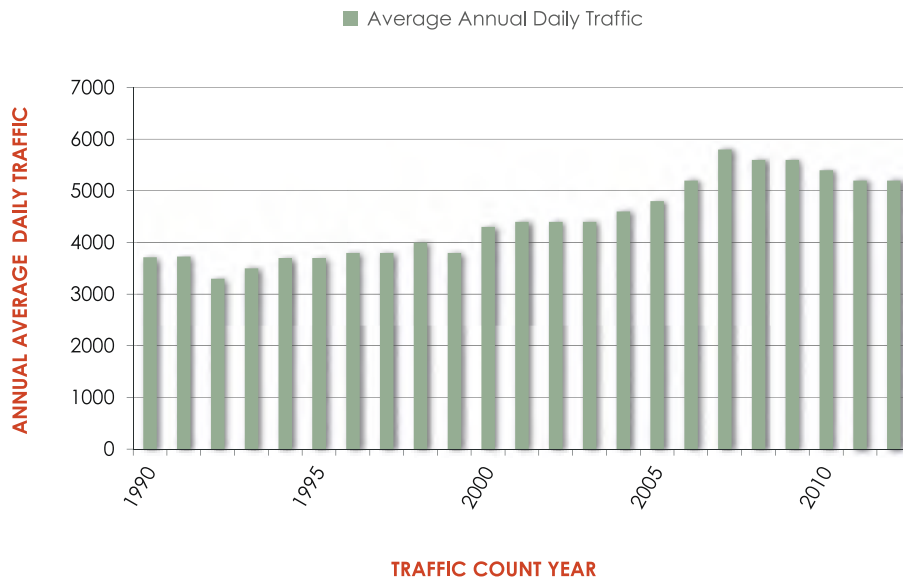


Figure 13: Camp Road (Folly Road to Mellichamp Drive)



## Camp Road (Mellichamp Dr to Riverland Dr) 1990 - 2012 Annual Average Daily Traffic (AADT)



Source: SCDOT AADT 1990 - 2012

Figure 14: Camp Road (Mellichamp Drive to Riverland Drive)

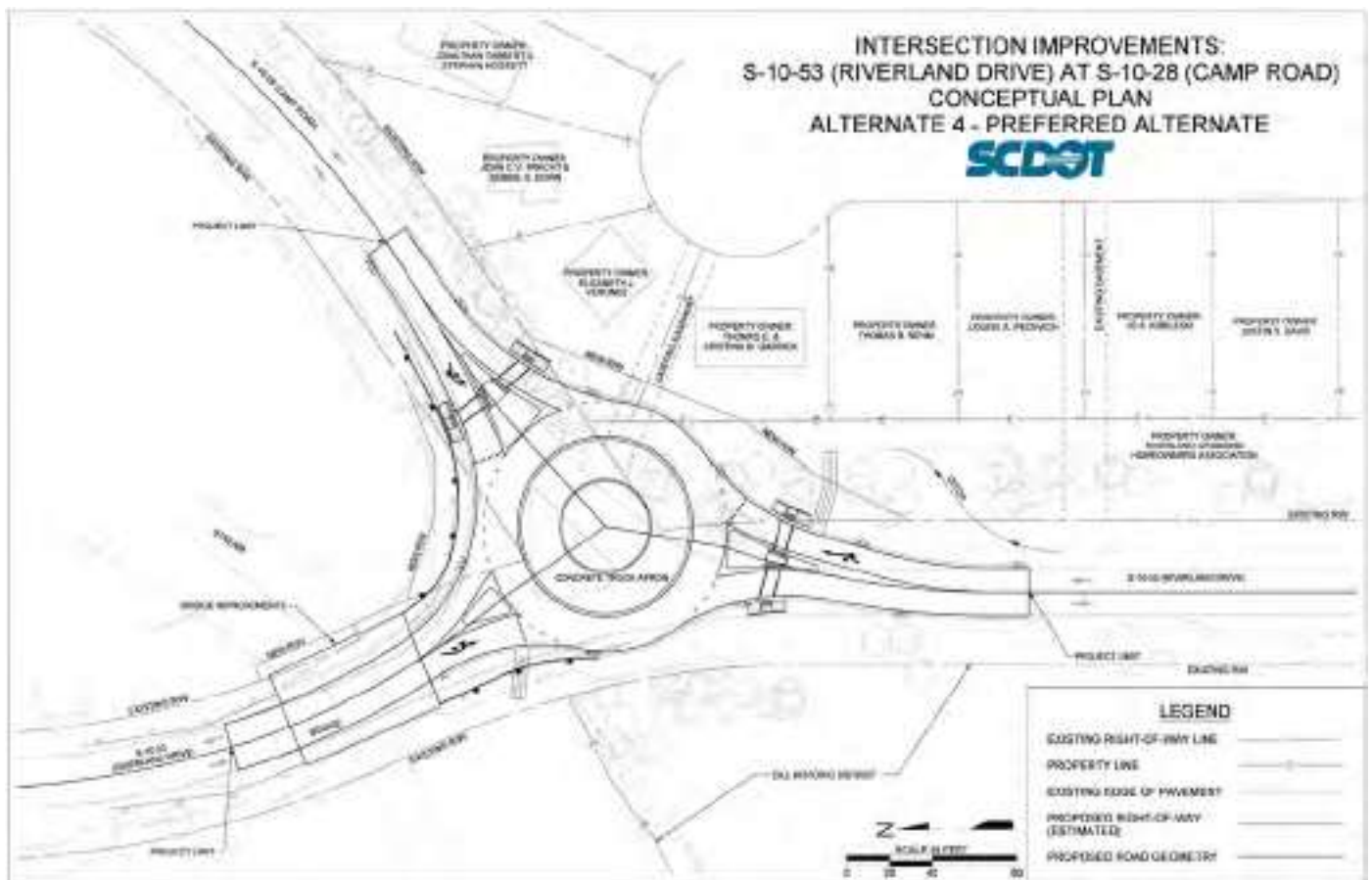


Figure 15: SCDOT Riverland Drive at Camp Road Intersection Preferred Alternative (SCDOT)



## RIVERLAND DRIVE HISTORIC ANNUAL AVERAGE DAILY TRAFFIC (AADT)

The SCDOT has maintained historic AADT counts along the Riverland Drive Corridor Management Plan Study Area utilizing four traffic stations. The segments of the study area captured by these stations are;

- Riverland Drive – From Maybank Highway to Central Park Road
- Riverland Drive – From Central Park Road to Camp Road
- Riverland Drive – From Camp Road to Grimball Road
- Grimball Road – From Riverland Drive to Folly Road

Collectively, this data tells the story of increased traffic over the twenty year period from 1992 – 2012 ranging from 73 – 129%, as illustrated in *Figures 16-19*.

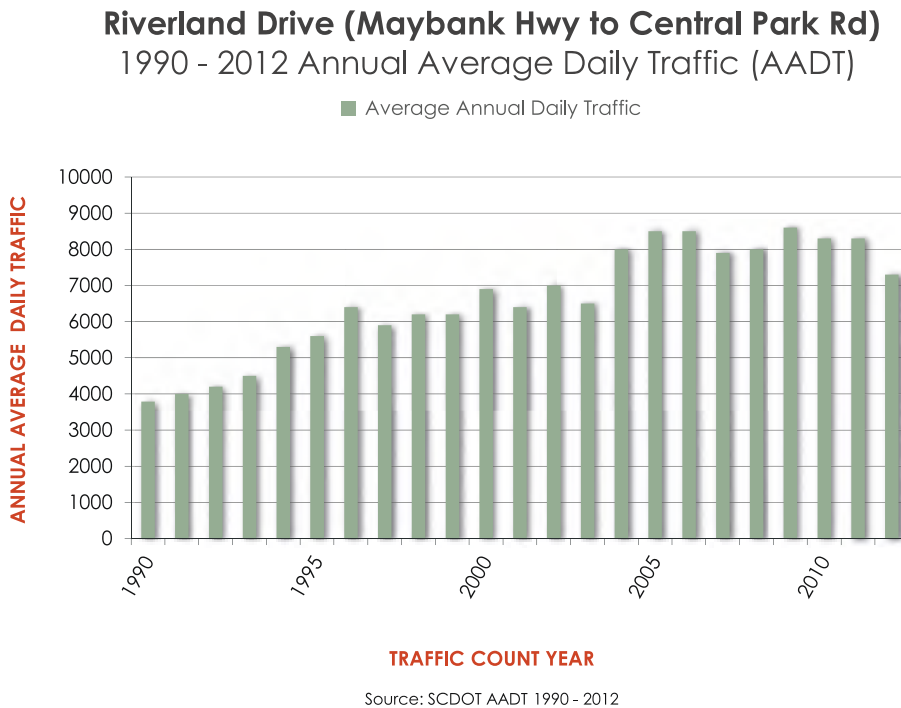
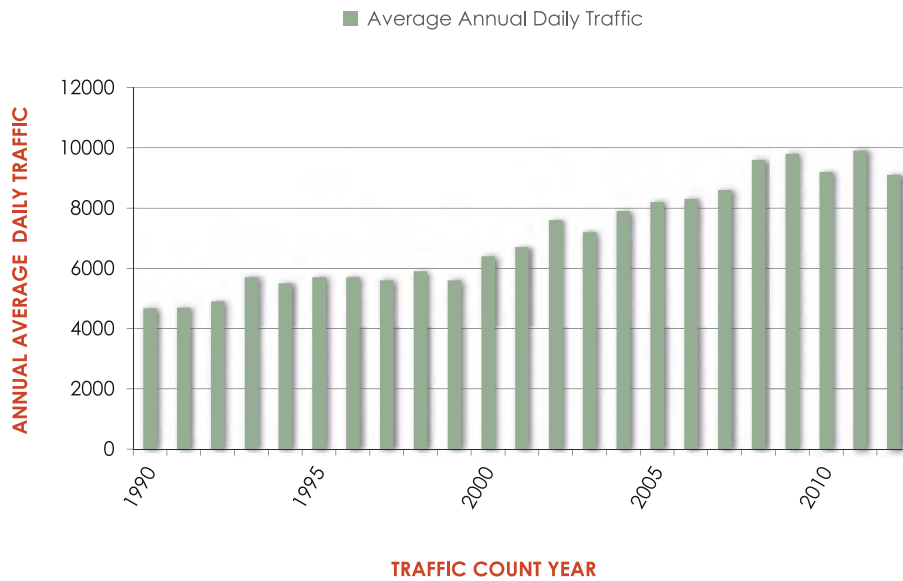


Figure 16: Riverland Drive (Maybank Highway to Central Park Road)



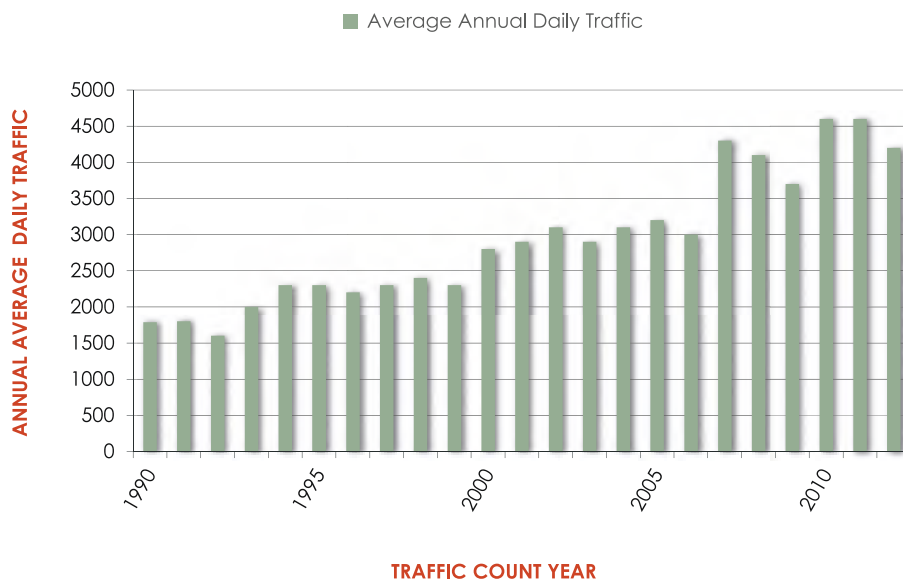
### Riverland Drive (Central Park Rd to Camp Rd) 1990 - 2012 Annual Average Daily Traffic (AADT)



Source: SCDOT AADT 1990 - 2012

Figure 17: Riverland Drive (Central Park Road to Camp Road)

### Riverland Drive (Camp Rd to Grimball Road) 1990 - 2012 Annual Average Daily Traffic (AADT)



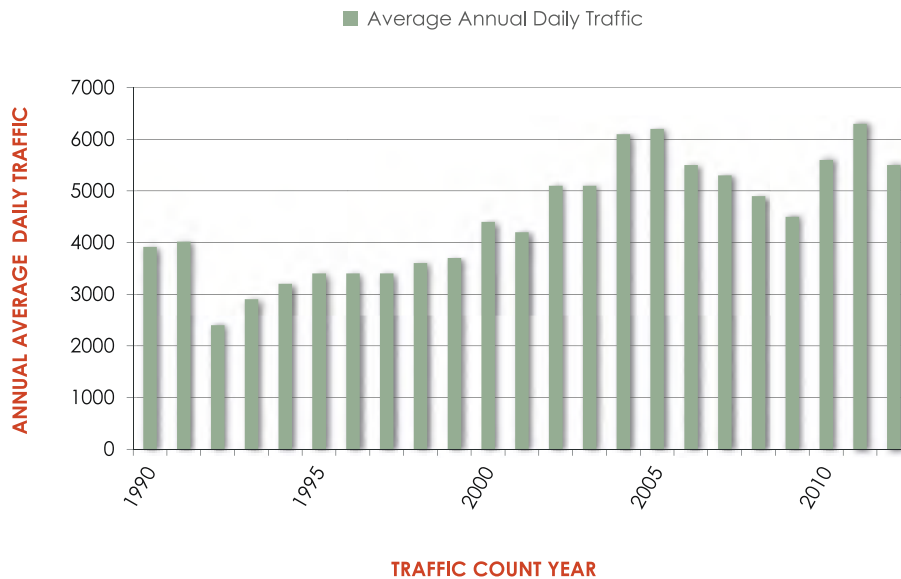
Source: SCDOT AADT 1990 - 2012

Figure 18: Riverland Drive (Camp Road to Grimball Road)





## Grimball Rd (Riverland Dr to Folly Rd) 1990 - 2012 Annual Average Daily Traffic (AADT)



Source: SCDOT AADT 1990 - 2012

Figure 19: Grimball Road (Riverland Drive to Folly Road)

### PUBLIC TRANSPORTATION

The Charleston Area Regional Transportation Authority (ARTA) is responsible for public transportation in Greater Charleston. ARTA has received requests for additional transit service on James Island, with more frequency during the peak morning and evening commute hours.

There are currently 54 stops (including northbound and southbound stops) on James Island, with 16 stops within the Riverland Drive Corridor study area including Maybank Highway, Riverland Drive, and Central Park Road. 12 bus stops are located along Riverland Drive, which includes the Lowcountry Senior Center. ARTA buses pull into the Lowcountry Senior Center parking lot to drop off and pick up passengers. ARTA Express Route 1 has one stop on James Island – a park-and-go at the Wal-Mart on Folly Road – and additional stops in Downtown Charleston and at Northwoods Mall in North Charleston. ARTA Route 31 is a regular service route that makes up the remaining 53 stops on James Island. This route has additional stops in West Ashley and in Downtown Charleston.



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## SCENIC AND NATURAL RESOURCES

Riverland Drive's distinctive natural and environmental resources are a key component of its scenic byway designation. The name of the road itself communicates the interaction between water and land that defines the area. In order to understand the corridor's resources, it is essential to identify and assess the corridor's geology, hydrology, wildlife, vegetation, and any regulations encompassing such resources. This understanding allows for an appreciation for how resources have changed or been altered over time and how they can be managed appropriately in the future.

The Riverland Drive corridor has a long history of human settlement due in part to its natural resources. The characteristics of an ideal human settlement have remained relatively stable over history. Humans are drawn to land that is accessible and navigable, soil that is suitable for agriculture, and a stable climate. The Riverland Drive corridor's waterways, soil, vegetation, and other natural resources have made it an ideal location for settlement for a variety of people and uses. The predominant land use in the area has ranged from agriculture, which peaked in the 18th and 19th centuries, to residential in the 20th century and today. Each type of land use presents varying effects on the environment. In order to protect the natural and environmental resources along Riverland Drive from the threats of development, an inventory of existing conditions and a focus on conservation is vital.

### WATER

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Water is a crucial part of James Island and the Riverland Drive corridor. Rivers, creeks, and marshes are not only part of the identity of James Island and the South Carolina Lowcountry, but also provide economic opportunities through tourism, transportation, recreation, and commercial fishing. The study area is bordered to the west by the Stono River and to the north by the Wappoo Creek. In addition to these larger waterways, there are several smaller tributaries that flow into the Stono River and a number of manmade freshwater ponds distributed throughout the study area. One prominent creek is James Island Creek, a tidal creek that winds through James Island from the Stono River to the Ashley River near its terminus in the Charleston Harbor. Within the study area, the Newtown Cut defines the property boundary between James Island County Park and the Dill Sanctuary.

As seen in *Figure 20* (Page 45) the study area is composed of a variety of aquatic environments. Based on data from the United States Fish and Wildlife Service, the quarter mile buffer around Riverland Drive contains five classifications of aquatic environments: estuarine and marine deepwater, estuarine and marine wetland, freshwater emergent wetland, freshwater forested/shrub wetland, and freshwater pond. Out of the 1632-acre study area, over 230 acres (or 14%) are wetlands or water.





Newtown Cut (Source BCDCOG Staff)

The United States Fish and Wildlife Service (US FWS) definition of wetlands is widely accepted: Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is covered by shallow water. Wetlands must have one or more of the following three attributes:

1. *At least periodically, the land supports predominantly hydrophytes;*
2. *The substrate is predominantly undrained hydric soil; and*
3. *The substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year (Cowardin et al., 1979).*

Wetlands provide a number of benefits in terms of water quality improvement and other ecosystem services. These include flood conveyance, wave barriers, flood storage and slowing, pollution control, fish and wildlife habitat, recreation, water supply, erosion control, aquifer recharge, aesthetics, and education and research (Halfacre-Hitchcock and Hitchcock, 2005). The Office of Coastal and Resource Management (OCRM) considers the wetlands and tidal waters in the corridor to be critical areas, which gives their office direct jurisdiction over permits to perform alterations such as the construction of docks and foot paths.

According to the South Carolina Department of Health and Environmental Control (SCDHEC), there are six water quality sites along the Stono River. These stations measure important water quality metrics such as pH, dissolved oxygen, turbidity, and fecal coliform. Aquatic life and recreational uses are fully supported at five of these six sites. One of the sites, MD-026, only partially supports aquatic life (although it fully supports recreational uses) due to dissolved oxygen excursions.

Charleston Waterkeeper, a local organization with a mission to protect the public's right to clean, swimmable, fishable, enjoyable water, performs water quality monitoring on locations around the Lowcountry. Two of their monitoring sites are on James Island Creek. These two sites were chosen due to frequent recreational use and public access. Based on high levels of enterococci bacteria at these sites on James Island Creek, both were listed as unsafe for recreational activity. Although enterococci bacteria are generally not harmful by themselves, they can be indicators of pathogenic bacteria, viruses, and protozoans that may be present in the water as well. Potential sources for this fecal pollution include animal waste runoff in stormwater, sewer overflows, boat and vessel discharges, and other sources.



RIVERLAND DRIVE CORRIDOR MANAGEMENT PLAN  
ENVIRONMENTAL CONDITIONS MAP

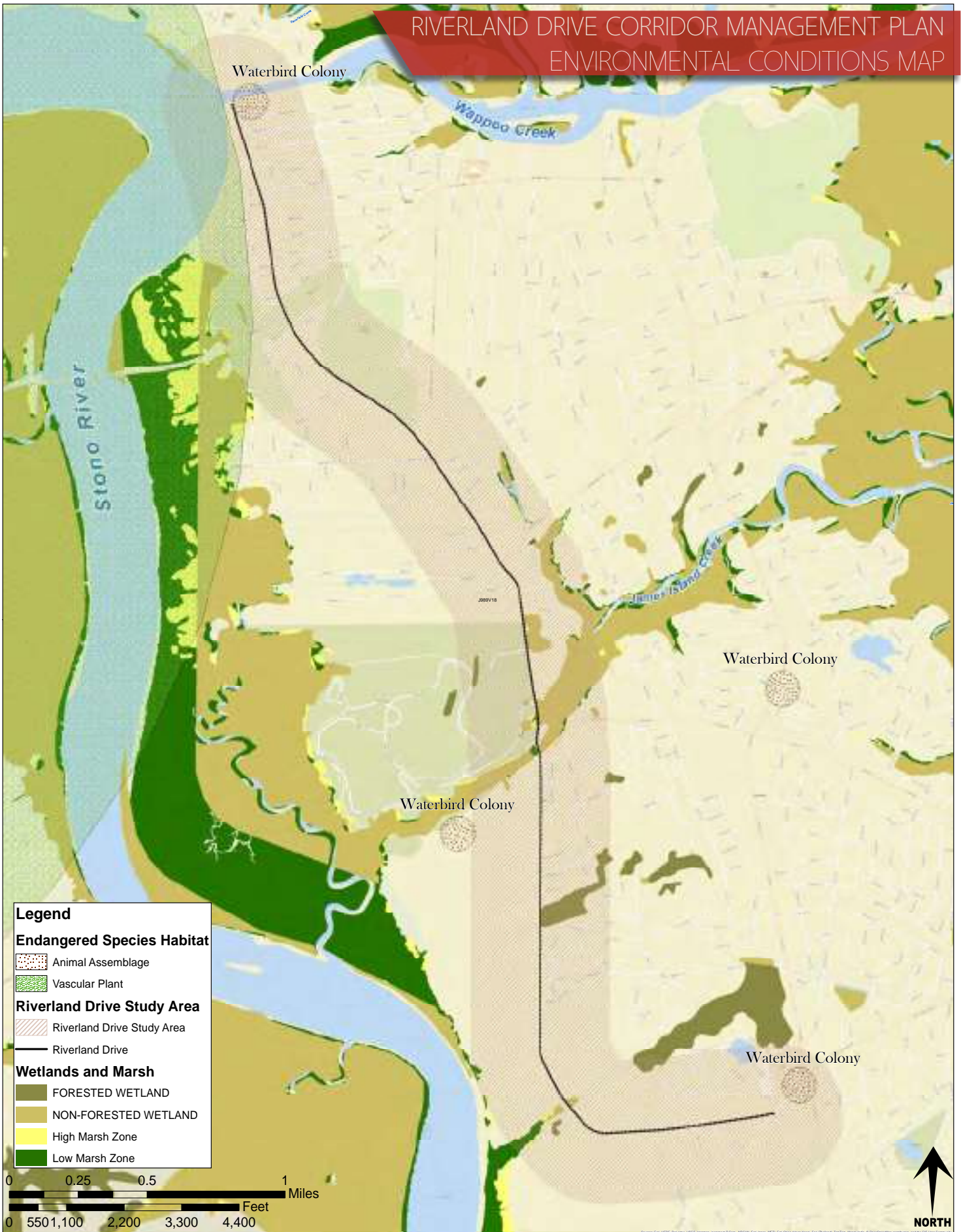


Figure 20: Environmental Conditions Map



## SOIL

Soil is an important geological consideration as it dictates suitable land uses. The study area includes three types of soil landscapes: dune ridge and trough, flood plain/salt marsh, and low relief uplands.

Dune ridge and trough landscapes are found just inland from beaches. This landscape consists of long sand dunes separated by low-lying troughs that parallel the coastline. These soil types have moderate and severe limitations for urban use. The Wando-Seabrook-Seewee soil association is found on James Island. Wando series soils are excessively drained and are found on the tops of the dune ridges. Seabrook series soils are moderately well drained and are found at intermediate levels and on the top of lower ridges. Neither soil has any subsurface profile development. The somewhat poorly drained Seewee series soils are at the lower parts of the landscape and have the characteristic dark Bh horizon beneath the surface, at about the level of the water table

Floodplain/salt marsh landscapes are the most productive and have the greatest impact on the local area. The sediments and organic materials in these soils are from the Holocene age. The land is almost perfectly level and floods often, depositing new sediments regularly. Like dune ridge and troughs, there are severe limitations for urban use on these soils. The Bohicket-Capers-Handsboro soil association is found on James Island. These soils are very poorly drained. Bohicket series soils are flooded by salt water twice daily with the tides, and are usually highly dissected by tidal streams. New sediments are periodically added to this soil. Bohicket series soils are found at the lowest points on this landscape. Capers series soils are found at slightly higher elevations than Bohicket soils and are not as greatly dissected by tidal streams. Some areas covered by Capers soils are flooded twice daily by tides, while other areas are only flooded by extremely high tides. Handsboro series soils are found in areas between lands that are flooded by salt water and lands that are flooded by fresh water. They are composed of thick layers of organic material interspersed with horizons of mineral material, and they are usually flooded twice daily. A few areas were once diked and drained for rice cultivation, but today the vegetation of this entire association is dominated by *Spartina* grass.

Low relief uplands is a category of soil that has different landscape positions, but is formed of the same parent material, exists in the same climate, is approximately the same age, and is influenced by the same organisms. Soils in the Coosaw-Williman-Ridgeland association vary only in their relative elevation. Coosaw series soils are moderately well drained and occupy the higher elevations. Williman series soils are poorly drained and occupy the lower elevations. Ridgeland series soils are somewhat poorly drained and occupy intermediate elevations.

## FLOODPLAINS

The Federal Emergency Management Agency (FEMA) assesses an area's risk of flooding to determine flood zones. The study area, defined as the half-mile buffer around the full length of Riverland Drive, includes four flood zones: AE, X, X500, and VE. 1,019 acres (62% of the study area) falls within the AE zone, which is subject to inundation by the 1-percent-annual-chance flood event. Zones AE and VE are both considered high risk areas by FEMA. A map of the corridor's flood zones can be found in *Figure 21* (Page 48). The City of Charleston's website appropriately reminds residents of the following: "Understanding and protecting the natural functions of floodplains helps reduce





flood damage and protect resources. Floodplains are scenic, valued wildlife habitat, and suitable for farming. Poorly planned development in floodplains can lead to stream-bank erosion, loss of valuable property, increased risk of flooding to downstream properties and degradation of water quality." The statement highlights the importance of smart development within the area. Presently, there are homes and other buildings built on land that is highly susceptible to flooding (i.e. located in the AE FEMA flood zone).

## BUFFERS

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The City of Charleston has designated Riverland Drive as a Class IV road. Class IV roads must have a buffer with a minimum depth of fifty feet and contain specific types of vegetation. The goal of this buffer type along Riverland Drive and other Class IV roads is to ensure a very dense street frontage buffer along the road and between incompatible developments. The required minimum plantings per one hundred feet of road are: six recommended trees, nine understory trees, and any existing trees with six inches or greater D.B.H. (diameter base height) must remain. Any subdivisions and/or site improvements along Riverland Drive require compliance with these standards. Any existing buffers which partially or fully comply with these standards must be maintained.

Charleston County also sets its own buffer requirements for unincorporated areas of the county. Charleston County classifies buffer classes ranging from S1 to S6. Along with other roads that are designated as Scenic Roads (SR), Riverland Drive falls within the S4 buffer type. The S4 designation requires a 50-foot minimum buffer depth (from right-of way), six canopy trees, nine understory trees, 50 shrubs, and two street trees per 100 linear feet.

One of the most important types of vegetative buffers in the study area is a wetland buffer. Wetland buffers are used to minimize the effects of urbanization and other processes on wetlands and other waterways. SC DHEC-OCRM defines wetland buffers, also known as shoreline or riparian buffers, as "corridors of native vegetation along rivers, streams, and tidal wetlands that protect waterways by providing a transition zone between upland development and joining surface waters" (SCDHEC-OCRM, 2002 Vegetated Riparian Buffers and Buffer Ordinances).

The Urbanization and Southeastern Estuarine Systems (USES) project was started in 1990 with the mission of assessing the impacts of urban development on estuaries and develop tools to aid in environmental management decision-making and planning in the



*Riverland Park development features ample setback from Riverland Drive (Source: BCDCOG)*



# RIVERLAND DRIVE CORRIDOR MANAGEMENT PLAN FLOOD ZONES

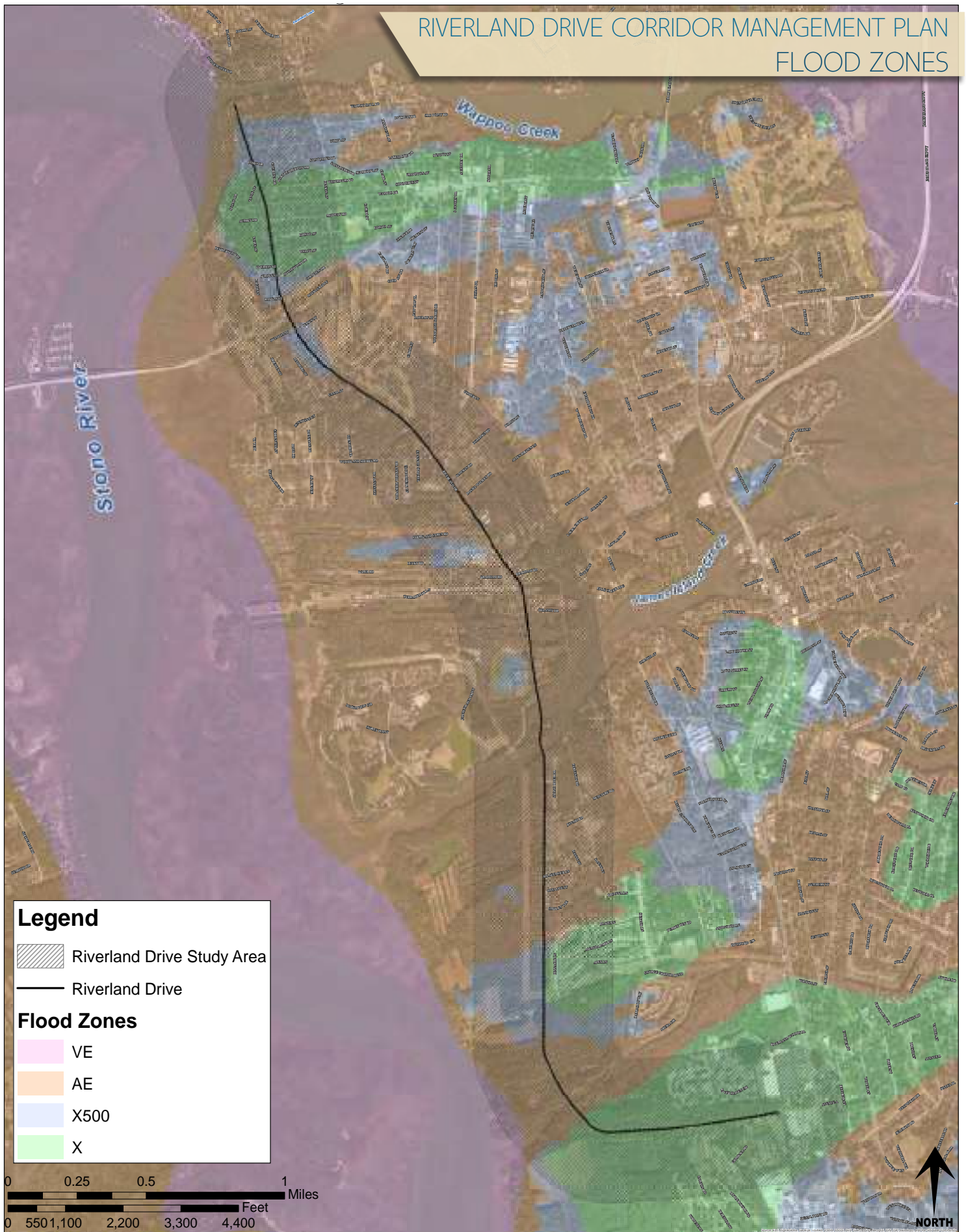


Figure 21: Flood Zones Map



southeastern United States. The study concluded that coastal communities should maintain natural buffers between developed areas and waterways and create buffer strips around areas of impervious surfaces where vegetation is removed (2005).

With a stated purpose of protecting water quality, the City of Charleston has established critical line buffers for properties that abut SCDHEC-OCRM critical lines. Depending on the zoning district, the buffer must be a minimum width of 25 or 40 feet. Buildings must be set back at least ten feet from the required critical line buffer. For unincorporated areas, Charleston County has critical line buffers and setback requirements as well. These were established with the purpose of providing a “visual, spatial, and ecological transition zone between development and the County’s saltwater wetlands and waterways, and to protect water quality and wildlife habitats.” Depending on the zoning district, the buffer must be a minimum width of 15 or 35 feet. Buildings must be set back an additional 15 or 20 feet from required critical line buffer (§9.7.1 - *Charleston County Zoning Code*).

## TREES

Trees are perhaps the most prominent natural feature along Riverland Drive. James Island trees are primarily of the pine-mixed hardwood variety. In the early 1800s, Sea Island cotton became such a profitable cash crop for James Island planters that nearly the entire island was clear-cut to make way for cotton fields and other agricultural uses. The island had been deforested enough to where a man wrote in his journal that he could see both downtown Charleston and the Stono River from his vantage point near the center of James Island. The only trees preserved during this time were trees near buildings that provided a cooling shade and those along live oak allées. Today the island is heavily forested as compared to much of the surrounding area. This means that much of the tree cover and canopy is from relatively new growth that occurred as the area transitioned from primarily agricultural use to residential use during the early 20th century.

The County of Charleston Zoning and Land Development Regulations include provisions for tree protection and preservation. The code recognizes trees as an “essential natural resource, an invaluable economic resource, and a priceless aesthetic resource playing a critical role in purifying air and water, providing wildlife habitats, and enhancing natural drainage of stormwater and sediment



*Large Live Oak Tree at Riverland Drive and Lucky Road (Source: BCDCOG Staff)*



control" (§9.4.1 - *Charleston County Zoning Code*). Riverland Drive's Scenic Road (SR) designation requires "protection under the provisions of this ordinance of all trees 6 inches or greater in diameter breast height (DBH) which are located within rights-of-way" (§9.5.4 - *Charleston County Zoning Code*). Grand trees, those measuring 24 inches or greater DBH (except pines), are prohibited from removal unless a Grand Tree Removal Permit is issued. In most cases, the South Carolina Department of Transportation (SCDOT) and Charleston County Public Works (CCPW) are exempt from tree ordinances. Since Riverland Drive is a scenic highway, however, these organizations are not exempt and must request a variance from the Charleston County Board of Zoning Appeals for removal (§9.4.1 - *Charleston County Zoning Code*). The

City of Charleston has similar restrictions relating to grand trees in Article 3, Part 6, Section 54-327 of their zoning code.

City of Charleston zoning code (Article 3, Part 6, Section 54-331) authorizes its Board to require mitigation of trees that are removed when a variance or special exception is granted. The required amount of caliper inches that must be mitigated per removed tree depends on how the City has categorized that species of tree. The Live Oak (*Quercus virginiana*), for example, requires 100% mitigation. This means that if a Live Oak were removed after a variance or special exception is granted, the Board can require that the total caliper inches of the replacement trees add up to at least the DBH of the removed tree.

## FLORA AND FAUNA

The Dill Sanctuary serves as an important refuge for wildlife on James Island. Owned by The Charleston Museum, the property houses a six-acre wildlife pond and three nesting islands which provides a habitat for a variety of plant and animal life, including nesting sites for migratory and resident bird species.

In addition to the iconic live oak trees in the area, other characteristic tree species in the area include laurel oak, cabbage palmetto, southern magnolia, southern red cedar, yaupon holly, red bay, and wax myrtle trees. Animal species present along the Stono River include kingfishers, wood ducks, red-winged blackbirds, ospreys, anhinga, herons, turtles, snakes, alligators, shellfish, and crabs.



Great Egrets in Dill Sanctuary (Source: The Charleston Museum)



## CULTURAL AND HISTORIC RESOURCES

The Mark Clark Expressway Draft Environmental Impact Statement (DEIS) includes a Historic Resources Survey (Appendix M). The sites that previous surveys list as eligible or potentially eligible to the National Register for Historic Places (NRHP) include Fort Pringle, Battery Tynes, Sons and Daughters of Jerusalem lodge, Oak Point (Welch) House, Woodland Shores Road Historic Area, Unnamed Earthwork, Redoubt C, Redoubt B, Stono Plantation, Turquette Plantation, and Murray-LaSaine Elementary School. From this list, Fort Pringle and Battery Tynes are already listed on the NRHP. Sons and Daughters of Jerusalem lodge was considered eligible for designation by surveyors, but the DEIS recommends that it is not eligible since it was destroyed during Hurricane Hugo. The Oak Point House was considered potentially eligible for designation by surveyors, but the DEIS recommends that it is not eligible since it was moved to its current location from across Folly Road. Woodland Shores Road Historic Area and Murray-LaSaine Elementary School are both considered eligible for the register and Unnamed Earthwork, Redoubt C, and Redoubt D are considered potentially eligible for the register.

The Mark Clark Expressway DEIS also considers the historic nature of the Caretaker's House at the Dill Sanctuary. The house was built in 1915 after the Dill Family's house burned in 1911. Up until the 1970s, the house was occupied by a caretaker who oversaw the crop production for the Dill Family. The house, along with the rest of the Dill Sanctuary, was willed to The Charleston Museum in 1985 when the last of the Dill family died. Although the house alone is not independently eligible, it is a contributing factor to the proposed Dill Historic District which The Charleston Museum is nominating for the NRHP.

At Plymouth Park near the Riverland Terrace Boat Landing stands a two-story windmill that has become a landmark for mariners and residents of Riverland Terrace. The 11,000-pound windmill was built in 1936 by John Roessler and has served as a site for parties and gatherings and has helped mariners to mark their passage and locate the boat landing for decades. The structure was renovated recently when the Riverland Terrace Garden Club, an organization with a mission "To promote gardening, floral design, environmental responsibility and civic beautification in our own yards and beyond



*Dill Sanctuary Caretaker's House (Source: The Charleston Museum)*



*Riverland Terrace Windmill (Source: BCDCOG Staff)*





the garden gate”, raised funds for repairs. With its four blades and geared mechanism, the Dutch-style windmill once generated the power used to operate water pumps or mills. Today it serves as a reminder of the past and a community landmark.

## HISTORIC/CONSERVATION DISTRICTS



*Wildlife Sanctuary in Dill Sanctuary (Source: The Charleston Museum)*

The proposed Dill Historic District consists of all 580 acres owned by the Charleston Museum. The historic district would include: Dill Slave Cemetery, Devil’s Nest Cemetery, Battery Tynes, Fort Pringle, Battery LeRoy, Caretaker’s House, and 15 archaeological sites including former slave quarters, 18th and 19th century main houses and dependencies, Civil War and Revolutionary War related encampments, a military road used during both wars, prehistoric occupations, colonial period canals, a ferry landing, and a wildlife sanctuary.

In Charleston’s comprehensive plan, Riverland Terrace is a proposed conservation district. Riverland Terrace is James Island’s first subdivision, laid out on 75 acres in 1925. By 1928, Riverland Terrace had 55 homes built. It is built on the former site of the Peronneau plantation, which briefly served as a British base of operation during the Revolutionary War.

Originally planned to include a large resort like hotel, the Terrace is located 10 minutes west of downtown Charleston, South Carolina along Wappoo Creek and the inland waterway. The neighborhood boasts a public boat landing, Charleston Municipal Golf Course, a playground, five restaurants and antique shops. Leading into the neighborhood is the Avenue of Oaks, consisting of 73 live oak trees believed to be over 100 years old. They once led to Wappoo Hall Plantation on the Stono River. A Civil War fortification known as Fort Pemberton, built in 1862, remains today. The Terrace consists of approximately 800 homes. Sizes and prices vary greatly. *Figure 22* (on the next page) displays historic and cultural resources, including National Register sites and archaeological sites.



# RIVERLAND DRIVE CORRIDOR MANAGEMENT PLAN CULTURAL RESOURCES

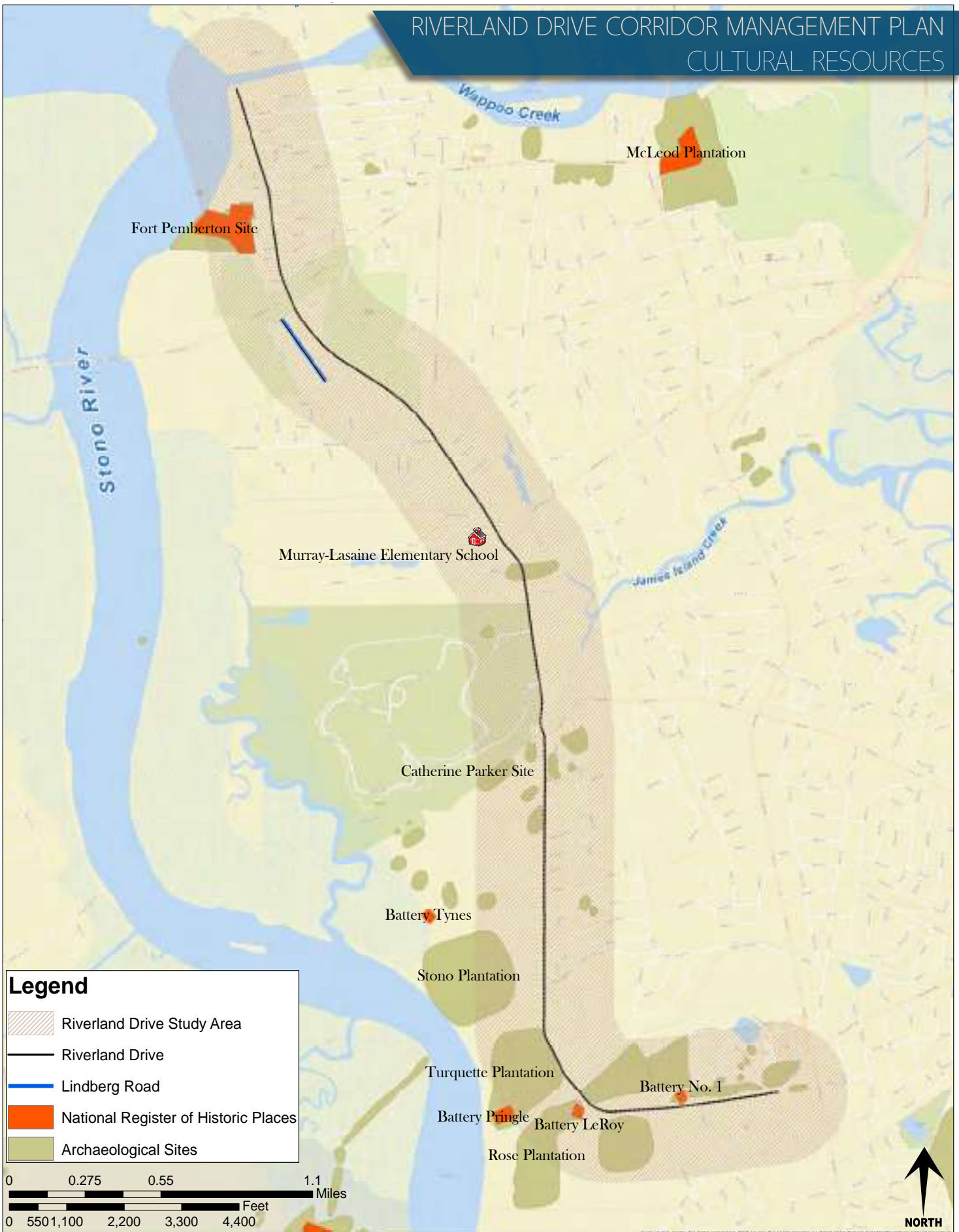


Figure 22: Cultural Resources Map

## CULTURAL RESOURCES

There are two historically significant churches located within the study area: James Island Presbyterian Church and Saint James Episcopal Church.

In 1706, Reverend Archibald Stobo founded James Island Presbyterian Church. In his six years in Charleston, Stobo founded five Presbyterian churches. The original church building, first documented in 1724, was burned during General Clinton's march across the island during the Revolutionary War.

Before the Civil War, the congregation included more slave members than white members, highlighting the fact that slaves greatly outnumbered white residents on James Island during the 18th and 19th centuries. Following the Civil War, former slaves established their own church called Northern Presbyterian Church, which is now St. James Presbyterian Church, the largest African-American Presbyterian Church in the United States. Since 1983 the two churches have been reunited as sister churches with James Island Presbyterian Church having 500 members and St. James Presbyterian having over 1000 members.



*Riverland Terrace Neighborhood (Source: BCDCOG Staff)*

In 1720, Reverend William Guy from the St. Andrews Parish Church in West Ashley decided to establish a "chapel of ease" on James Island that would be more accessible to island residents. The first chapel for Saint James Church on James Island was constructed in 1722. Today's building was built on the same site in 1960. This is the sixth church built on the site over 280 years as hurricanes, wars, fires, and a growing congregation have required new construction. William Wallace McLeod, a South Carolina planter that established McLeod Plantation and fought in the Civil War, is buried in the cemetery at St. James. Also buried in the cemetery is William Godber Hinson, also a Civil War veteran and one of the most successful cotton planters on James Island.

Following the Civil War former slaves began establishing freedmen areas along the Riverland Drive corridor. Tenant farmers often used their wages to rent out the very same houses in which they had lived as slaves. Communities known as freedmen areas developed where tenant farmers lived. Freedmen Areas from the Dill Sanctuary included: Turkey Pen, Ferguson Village, Birchwood, Cut Bridge, Cross Cut, and Ficken. Most of these communities have sense dissolved as development spread across the island throughout the 20th century. A few of the communities are still noticeable, however, including Ferguson Village (on Riverland Drive just south of Camp Road) and several areas along Central Park Road.







*Mural by Douglas Panzone behind Rogue Motion (Source: BCDCOG Staff)*

The Riverland Drive Corridor is also part of Charleston’s thriving art scene. One of the most prominent works of public art is located just yards away from the intersection of Riverland Drive and Grimball Road. A wall of spray-painted murals created by Douglas Panzone is located behind Rogue Motion, a used boat store on Folly Road. Panzone’s murals use bright colors and engage the viewer with its engaging subject matter. Another set of murals is located just outside the study area on Maybank Highway at Charleston Pour House, a local music venue. As part of an annual competition and celebration, the Pour House calls upon local artists to submit ideas for murals to adorn the building. These murals offer a stark contrast to the historic nature of the area and shows off the independent spirit of James Islanders.

The businesses along the mostly residential corridor tend to have a local flair. Gert’s Snowballs offers a chance to cool off on a hot summer day with a snow cone under the shade of a live oak. The Workmen’s Café on Grimball Road is a meat-and-three restaurant serving Gullah cuisine. With most of James Island’s chain retail and commercial businesses on Folly Road, Riverland Drive has remained a place for local businesses.

### ARCHAEOLOGICAL RESOURCES

The Dill Sanctuary, located on James Island at 1163 Riverland Drive, contains assorted habitats for wildlife and numerous cultural features including four earthen Confederate batteries and prehistoric, colonial, antebellum, and



*Gert’s Snowballs Truck on Central Park Road (Source: BCDCOG Staff)*



*Workmen’s Café at 1837 Grimball Road (Source: BCDCOG Staff)*



postbellum archaeological sites. The Charleston Museum, “America’s First Museum”, owns and operates the Dill Sanctuary, which has been the site of many historical, archaeological, and natural investigations. The Charleston Museum acquired the property under the agreement that it would serve as a cultural and wildlife preserve. Thus, the Sanctuary does not have regular tours. However, many visitors can access the park through field trips, day camps, field studies, and for other research and educational purposes.



Grave Marker in Dill Cemetery  
(Source: The Charleston Museum)

Dill’s Slave Cemetery, one of several cemeteries within the property is located within 20-30 feet of Riverland Drive. Ongoing work focuses on identifying and documenting unmarked graves in this and other cemeteries on the property. Eugene Frazier, Sr., the author of *James Island: Stories from Slave Descendants*, has been influential in the work done to document the graves in the African American cemeteries. Frazier claims that every African-American resident of James Island has at least one relative buried in Dills Sanctuary.

There are several Civil War fortifications or earthworks at Dill Sanctuary including Battery Tynes, Fort Pringle, and Battery LeRoy.

Battery LeRoy and Fort Pringle were part of the James Island Siege Line built in 1863. Construction of the 2.5-mile defense was led by Confederate Colonel Charles H. Simonton of the 25th South Carolina Regiment under the leadership of General P.G.T. Beauregard. The east-west line stretched from Fort Pringle to Fort Lamar in Secessionville. This line protected the southern part of James Island from land and naval attack and protected the flank of Fort Pringle.

Small portions of Battery LeRoy remain today; the earth redan measures approximately 340 feet long on the right face, 140 feet long on the center face, and 160 feet long on the left face. The parapet is approximately 15 feet high with the magazine slightly higher. Battery LeRoy is about 400 yards east of Fort Pringle and 350 yards west of Battery Number 1. Each of the earthworks is now covered with heavy secondary vegetation. Fort Pringle and Battery Leroy are still located on the Dill Sanctuary and Battery Number 1 now sits on land owned by the City of Charleston.

Fort Pringle and Battery LeRoy were also part of a north-south line of defense along the Stono River. This line also included Fort Pemberton and an unnamed battery just north of Fort Pemberton. Fort Pemberton was the primary line of defense along the Stono River before Battery Tynes and Fort Pringle





*A house now sits on Fort Pemberton (Source: SC Battleground Preservation Trust)*



*A Union army drawing of Fort Pemberton in 1865 (Source: SC Battleground Preservation Trust)*

were constructed. Completed in 1863, the fort was 400 feet by 350 feet with a rampart measuring 700 feet long. The walls were built between 10 and 12 feet high. A home was built on top of the fort in 1948. There is now a conservation easement on the property preventing further changes to the house or land. Additionally, the fort was added to the National Register of Historic Places. The unnamed battery just to the north of Pemberton, which was likely used to supplement the guns at Fort Pemberton, is also protected by a conservation easement (Source: SC Historic Battleground Trust).

The Dill Sanctuary consists of three plantations: Stono, Turquetts, and Rose. The plantations produced indigo, cotton, and wool, in addition to such vegetables as corn, peas, beans, tomatoes, Irish potatoes, and sweet potatoes. The fields currently lie fallow. During archaeological digs, several brick structures from the Stono Plantation were uncovered. These structures are not currently visible, however, as they had been covered again to avoid exposure and weathering.



*Main Entrance into Dill Sanctuary (Source: BCDCOG Staff)*



## RECREATIONAL RESOURCES AND COMMUNITY FACILITIES

The Riverland Drive corridor is primarily residential and lacks significant industry or commerce. Besides single family homes, condominiums, and apartments, a majority of the buildings and properties along the corridor are ones that serve the community. City and county recreation areas, public water access, a public school, a senior center, several churches, and a scattering of institutional buildings are all found in the study area.

The largest recreational facility on James Island is the James Island County Park. The park is owned and operated by the Charleston County Park and Recreation Commission (CCPRC). Facilities on the 643-acre park include a water park, campgrounds, trails and picnic areas, fishing piers, a dog park, a conference center, and more. The park hosts festivals, races, and cultural events throughout the year. Most notable is the Holiday Festival of Lights, a holiday tradition that draws over 200,000 visitors to the park each year. James Island County Park is one of CCPRC's regional parks that serve as a recreational hub for residents within a five-mile radius. It is the main park for the "Charleston Center" sub-area that is 128.65 square miles and represents 61,538 households (CCPRC Master Plan 2013). The headquarters for CCPRC are located adjacent to James Island County Park at 861 Riverland Drive. The Administration Office of CCPRC includes Executive, Marketing, Finance, Human Resources, Recreation, Maintenance, Planning, Capital Projects, and Operations divisions.



Riverland Terrace Boat Landing (Source: BCDCOG Staff)



Stono River from Plymouth Park (Source: BCDCOG Staff)

The public access dock located within James Island County Park is one of two public water access sites along or near the study area. From this dock, there is easy access to the Stono River and James Island Creek. The second public water access point is the Riverland Terrace Public Boat Landing located at the northern terminus of Plymouth Avenue. This boat ramp provides access to Wappoo Creek at Elliot Cut. From Wappoo Creek, one can move west towards the Stono River or east towards the Ashley River. The boat landing shares parking with Plymouth Park, a 3-acre City of Charleston park. There is a small baseball field, playground, and park benches along the banks of the Wappoo Creek that provide outstanding views.

The City of Charleston Golf Course, known by many as the "Muni", is an 18-hole public golf course. The course has holes





located in each of the four quadrants created by the intersection of Riverland Drive and Maybank Highway. Over 60,000 rounds of golf are played annually by local residents and tourists. The course was opened on July 8, 1929 when Bissell Jenkins, the developer of Riverland Terrace donated the land to the City of Charleston to build and operate a public golf course. The course hosts annual city championship golf tournaments for men, women, seniors, and juniors.



*City of Charleston Municipal Golf Course (Source: BCDCOG Staff)*

Campus Recreation Services at the College of Charleston maintains a 12-acre outdoor recreation site known as “The Yard” located just off of Riverland Drive. The Yard is located between the Lowcountry Senior Center and James Island County Park. The facility is host to intramural leagues and sport club practices and competitions.

Public schools located on James Island are part of Charleston County’s District Three. Murray-LaSaine Elementary School is located at 691 Riverland Drive (at the intersection of Riverland Drive and Lucky Road) and enrolls less than 200 students in grades PK (pre-kindergarten) through 5th. The school was built in 1956 and named after Albertha Johnston Murray and Mary Alice LaSaine, two influential African American educators in the Charleston area.



*Murray-LaSaine Elementary School (Source: BCDCOG Staff 2012)*

First Baptist School of Charleston has begun construction on a new athletic complex on Riverland Drive at George Griffith Boulevard. The athletic complex will include new football, baseball, softball and soccer fields. A large indoor facility will house two full-size gyms and a multi-use fine arts center. Completion of the athletic complex is targeted for fall 2014. First Baptist plans to eventually build academic buildings on this property to house the Upper School, which is currently located in Downtown Charleston at 48 Meeting Street.



*Construction of First Baptist Athletic Complex (Source: BCDCOG Staff)*

The Lowcountry Senior Center is located at 865 Riverland Drive. It is owned by the City of Charleston and managed by Roper St. Francis Healthcare. It is the first nationally accredited senior Center in the





state. The center is open to adults age 50 and older and provides opportunities for exercise, socialization, and learning. The facility includes a walking trail, outdoor fitness stations, gym, computer lab, and meeting and classroom spaces.

There are several churches along Riverland Drive ranging from small places of worship to larger congregations with multiple services, ministries, and fellowships. Mt. Sinai Evangelistic Church is on Riverland Drive between Woodland Shores Road and Hollings Road. It features a worship hall and a daycare center. James Island Presbyterian is located at the corner of Folly Road and Fort Johnson Road. The congregation dates back to 1706 and has 500 members today. Saint James Episcopal is located at 1872 Camp Road on a site where it has held services since 1722. Smaller churches include True Vine Tabernacle Church at Riverland Drive and Central Park Road and Powerhouse of Prayer at Riverland Drive and Grimball Road.



*Entrance to Lowcountry Senior Center (Source: BCDCOG Staff)*



*True Vine Tabernacle Church (Source: BCDCOG Staff)*



*Charleston Water Systems Station (Source: BCDCOG Staff)*

Additional institutional buildings along Riverland Drive include the Charleston County Magistrate Court and a Charleston County Sheriff's Office substation. Water and sewer services are provided by Charleston Water System. Recycling services are provided by Charleston County Environmental Management and garbage collection is provided by the City of Charleston Environmental Services. The City of Charleston Fire Department and James Island Public Service District Fire Stations provide fire services and act as first responders to medical emergencies. Charleston County Emergency Medical Services (EMS) provides medical care and transportation to hospital emergency rooms for citizens and visitors to Charleston County. The City of Charleston Police Department (Patrol Team Three) and Charleston County Sheriff's Office (South/West Patrol District) provide law enforcement.



# RIVERLAND DRIVE SCENIC BYWAY VISION STATEMENT, GOALS AND OBJECTIVES

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Riverland Drive, a State of South Carolina Scenic Byway, immerses travelers in a landscape of wonderful scenery, fascinating history, unique geology and lush vegetation. The road is an important transportation link, serving corridor residences, businesses, and recreation areas, as well as the broader community that uses the byway to commute to and through the area. Riverland Drive occupies a beautiful and culturally rich setting and is envisioned as a place where:

- Natural, cultural, recreational and scenic resources are conserved and enhanced for public benefit
- The corridor's nationally significant history and cultural heritage are protected, maintained and interpreted
- Multiple modes of transportation are safely accommodated, where appropriate
- The unique blend of neighborhoods, businesses, and social institutions contribute to, and benefit from, the character of the corridor

It is useful to begin a planning process with the development of a vision statement. A vision statement helps to clearly and concisely communicate a broad aspirational image of the future. In the context of a Scenic Byway Management Plan, a vision statement serves as the yardstick for measuring the appropriateness of proposed recommendations.

Corridor goals and objectives are then developed to provide a strategic blueprint for implementing the community vision for Riverland Drive. Goals describe future expected outcomes or states. They provide programmatic direction, focusing on ends rather than means. Objectives are clear, realistic, specific, measurable, and time-limited; they are statements of action which, when completed, will move towards goal achievement.

*Protection and enhancement of the intrinsic qualities along Riverland Drive are the primary purposes of the Corridor Management Plan.*

The CMP is a written document where the goals, strategies, and responsibilities are addressed. The document is a combination of a realistic view of the present, a dream of what should happen in the future, and a commitment to doing what needs to be done to get there.

The primary focus of the plan should be the preservation and enhancement of the intrinsic resources along the corridor, while at the same time balancing factors like development and tourism in the corridor.

## RIVERLAND DRIVE SCENIC BYWAY VISION STATEMENT

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*"To retain the natural beauty, history, and character of the Lowcountry region; balance the needs of motorists, pedestrians, and bicyclists; and preserve and protect the environmental and cultural assets for future generations to enjoy."*



**GOAL 1: *Safeguard What People Value (Protect and enhance the corridor's natural, scenic, cultural, and historic qualities and features)***

**OBJECTIVES:**

1. Protect and restore historic, cultural, and archaeological resources.
2. Protect the oak tree canopy, native plant communities, and vegetation patterns.
3. Protect surface water and groundwater quality.
4. Maintain and enhance scenic views and vistas.
5. Ensure future growth and development is compatible with the corridor's intrinsic qualities and character.
6. Maintain and improve services and facilities, for residents and visitors, which are consistent with James Island and its distinctive character and local values.

**GOAL 2: *Tell the Stories of the Area (Reveal and interpret the corridor's intrinsic qualities)***

**OBJECTIVES:**

1. Identify the varied and unique qualities, places and features that characterize the Riverland Drive corridor.
2. Provide interpretive information about these special places and features.
3. Enable visitors to experience scenic vistas and other points of interest, without trespassing or intruding on private lands.
4. Convey and integrate the stories and interpretive messages.

**GOAL 3: *Make Way for Play (Expand recreational and social opportunities)***

**OBJECTIVES:**

1. Promote the wide range of social and recreational opportunities throughout the corridor.
2. Maintain and increase public trails and recreational spaces.
3. Improve access to and increase the amount of water-related recreational activities while minimizing environmental impacts.
4. Expand opportunities to accommodate events, festivals, concerts and celebrations, especially those that promote the intrinsic qualities of the corridor.

**GOAL 4: *Enjoy the Journey (Promote a safe, pleasant travel experience for all users)***

**OBJECTIVES:**

1. Allow for a range of travel choices (automobile, bus, bicycle, walking).
2. Create safe conditions for all travelers and all modes of transportation.
3. Make roadway improvements compatible with the corridor's intrinsic qualities.
4. Enable safe, convenient access to residences, recreational areas, institutions, and businesses along the corridor.
5. Develop a unified, cohesive system of wayfinding and place marker signage.



# CORRIDOR MANAGEMENT PLAN RECOMMENDATIONS AND STRATEGIES

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## INTRODUCTION

During the CMP process, goals and objectives were established by the Berkeley-Charleston-Dorchester Council of Governments (BCDCOG) for the protection of the intrinsic qualities and enhancement of the Riverland Drive Scenic Byway experience. A series of recommendations and strategies were developed by the planning team to support these goals and recommendations. These strategies, presented here in this section, are proposed ways and means for achieving the stated goals and objectives for the Riverland Drive Scenic Byway. Multiple recommendations and strategies have been assigned to each of the four goals.

To advance these strategies, this section also describes a variety of byway projects for designated locations along the corridor. Projects involve multiple decisions and actions and usually result in a tangible result or product. Projects range from performing additional studies to adding new features along the corridor like interpretive signage. Although projects will require ample funding to implement, they will be important in maintaining support for continued byway management and developing additional corridor projects.

A key component of any strategy or project is its implementation. Issues of project funding, responsible parties, and proposed timeframes are discussed in the next section on Plan Implementation.

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### GOAL 1

*Safeguard What People Value (Protect and enhance the corridor's natural, scenic, cultural, and historic qualities and features)*

In addition to the potential growth from development of vacant land, redevelopment and the expansion of existing uses within the corridor area also helps provide development potential. With minimal vacant, developable land remaining on James Island, redevelopment of existing structures and changes of use may become more prevalent. Such conversions within the Riverland corridor could impact the roadway's character and increase traffic.

For key properties whose development or redevelopment may significantly affect the character of the Riverland corridor, the different jurisdictions should consider acquiring or protecting them through conservation easements, preservation restrictions, or other tools. A parcel's disposition, its likelihood of a vacant or underutilized property being sold and developed, should be considered as well.





Figure 3 (page 17) identifies the location of the corridor's conserved or protected resources, as well as vacant developable land. Parcels with multiple resources present and a high risk of development may be key areas to focus land protection strategies. This map provides an initial tool to help the jurisdictions prioritize land protection strategies.

Despite potential for adverse impacts from redevelopment, areas with existing strip commercial development could provide opportunities to improve existing landscaping, site layout, and site access management. Establishing new landscaping and access management requirements and providing incentives for property owners to improve site design, such as reduced parking requirements and flexibility in layout, could help improve the character and safety conditions in these areas. The corridor's gateways at Central Park Road and Riverland Drive or Woodland Shores and Maybank Highway may benefit from such redevelopment opportunities.

## OBJECTIVES

1. Maintain and enhance scenic views and vistas.
2. Ensure future growth and development is compatible with the corridor's intrinsic qualities and character.
3. Maintain and improve services and facilities, for residents and visitors, which are consistent with James Island and its distinctive character and local values.
4. Ensure land development regulations adequately protect natural resources in the Riverland corridor.
5. The following strategies advance the goals of the CMP and serve as the basis for the land use implementation recommendations:

## LAND USE RECOMMENDATIONS

### **1.1 Consider changes to zoning and land use regulations to reduce the impacts of development and to protect the corridor's intrinsic qualities.**

Development pressure on James Island has increased in recent years as the Charleston region continues to grow. Infill development and redevelopment opportunities are being looked at by developers in the immediate vicinity of the Riverland Drive corridor. To ensure any new development is compatible with the scenic character of Riverland Drive, low-density residential zoning should be kept to ensure that single-family residential neighborhoods are protected.

Infill and redevelopment projects should be single-family dwellings or townhouses. Rezoning of properties to higher intensity uses, such as high-density apartment complexes should not be allowed in the corridor area. Residential densities should be kept under four dwelling units per acre for single-family residential development.

### **1.2 Subdivisions should include conservation of open space and Low-Impact Development (LID) design techniques to manage stormwater.**

Conservation subdivision zoning is another tool to conserve land and scenic resources in the corridor. A conservation zoning district will ideally set aside at least 50 percent of buildable land as open space. In order to accomplish this, home sites are clustered in areas designated



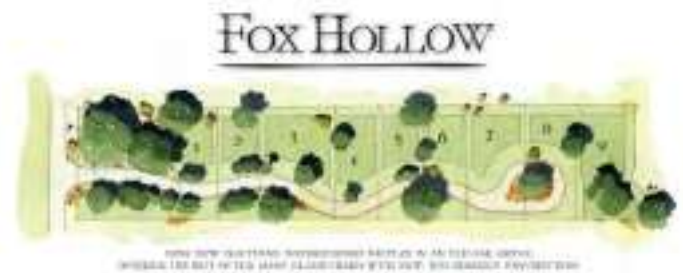
for development. Flexibility in zoning and development regulations is often necessary to cluster homes and preserve communal open space. This may mean reducing setback requirements and reducing minimum lot sizes. In addition to the environmental benefits of wildlife habitat protection and stormwater management, conservation subdivisions offer a number of economic benefits. Homes in conservation subdivisions have been shown to be more profitable and sell more quickly; additionally, infrastructure costs are reduced since less land is cleared and graded and roads and utility connections within each subdivision are shortened.

**1.3 Support continued land protection efforts to preserve and protect the corridor's intrinsic qualities**

The issue of new developments encroaching into previously undeveloped areas is perhaps most relevant as development pressures and the value of residential properties on James Island continue to increase. Some distinctive open spaces have been lost to new residential subdivisions or recreation facilities; losing the few remaining undeveloped areas could significantly alter the historic character of the Riverland Drive corridor. The cities or county should consider pursuing opportunities to purchase open lands along the corridor, which would bring benefits both in the protection of significant heritage landscapes and environmental resources, and in the reduction of traffic. A key non-profit partner in this initiative would be the Lowcountry Open Land Trust, whose principal tool for protection is voluntary conservation easements.



*Conservation Subdivision in Weddington, NC (Source: Greener Prospects)*



*The new Fox Hollow neighborhood on Woodland Shores Road uses LID principles and design (Source: New Leaf Builders)*



*The Dill Sanctuary is protected as a cultural and wildlife reserve and is the largest area of protected land on James Island*



*A small neighborhood commercial district in Riverland Terrace has a mixture of local businesses*



*PalmettoPride works with local Keep America Beautiful affiliates to clean up roads*



*The tree canopy is a distinctive feature of Riverland Drive. The age and health of the trees varies and requires assessment*

**1.4 Encourage groups to adopt portions of Riverland Drive through PalmettoPride's Adopt-A-Highway program**

Currently, citizens who live in the Riverland corridor area are picking up trash on their own. In order to aid in their efforts, litter removal could be organized through local groups and businesses by PalmettoPride's Adopt-A-Highway program.

**1.5 Perform a survey/inventory of trees along Riverland Drive to assess age, health, etc.**

A survey/inventory of trees along Riverland Drive to assess the age, condition, and health of trees should be completed in the near future. This information is essential to making informed decisions on development, transportation improvements, and other projects.

**1.6 Develop a tree planting program to replace trees lost due to natural causes and/or development.**

Trees provide environmental economic, and community benefits. The 10,000 Trees for



Charleston program has not identified Riverland Drive as a target corridor.

Local groups/governments could either work with Keep Charleston Beautiful to designate Riverland Drive a target corridor or a new program could be started.

**1.7 Perform a study of drainage in the area to determine best strategies to mitigate flooding issues**

Several sections of road in the study area experience regular inundation. One area that is particularly prone to flooding is Central Park Road near its intersection with Riverland Drive. All ditches should be cleaned and cleared to allow stormwater to flow freely. Additionally, a study is recommended to identify potential improvements to the drainage systems along the corridor.



*The 10,000 Trees for Charleston project has targeted corridors throughout Charleston for its tree planting program*





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## GOAL 2

*Tell the Stories of the Area (Reveal and interpret the corridor's intrinsic qualities)*

Riverland Drive is characterized by an array of unique historical and cultural qualities. These qualities should be easily identified by residents, visitors and tourists. The following strategies advance the goals of the CMP and serve as the basis for the historic and cultural implementation recommendations.

A number of sites along the Riverland Drive corridor, such as Fort Pemberton, Fort Pringle, and Battery Tynes, are listed on the National Register for Historic Places. In addition to these sites, there are a number of locations in the study area that may be eligible for such a designation. Benefits of a listing in the National Register include consideration in planning for Federal projects, eligibility for certain tax provisions, and qualification for Federal grants for historic preservation. Furthermore, becoming part of the National Register Archives allows the public to access information on each listing. Local organizations and governments should work with the State Historic Preservation Office (SHPO) to seek a National Register of Historic Places designation.

Various sites and districts that are potentially eligible include several Civil War sites (an unnamed battery north of Fort Pemberton and Redoubts B and C), Murray-LaSaine Elementary School, the Dill Sanctuary, Woodland Shores, and Riverland Drive itself. The Dill Sanctuary could be designated a historic district like the French Quarter of Downtown Charleston. Riverland Drive could be designated a historic place similar to Ashley River Road. Designation of the road itself would be in recognition of its importance as a significant transportation route dating back at least to when it was known as the King's Highway.

Riverland Terrace is James Island's oldest neighborhood, first laid out in the 1920s and developed in the 1940s. The neighborhood has approximately 800 homes, several small businesses and restaurants, and a number of recreation areas. Over time the neighborhood has developed a unique character and sense of community as demonstrated by the active membership of the Riverland Terrace Neighborhood Association. Its distinctive building forms and architectural styles, thick tree canopy, and culture make it an ideal candidate for an Area Character Appraisal (ACA). ACAs are documents conducted by the City of Charleston as recommended by their own 2008 Preservation Plan; they define an area by focusing on its "unique character, architectural style, building forms, landscape resources, and cultural resources that make up the streetscapes and blocks." ACAs were performed on the Byrnes Downs, Cannonborough/Elliottborough, and Old Windermere neighborhoods.

### OBJECTIVES

1. Identify the varied and unique qualities, places and features that characterize the Riverland Drive corridor.
2. Provide interpretive information about these special places and features.
3. Enable visitors to experience scenic vistas and other points of interest, without trespassing or intruding on private lands.
4. Convey and integrate the stories and interpretive messages.



## HISTORIC AND CULTURAL RECOMMENDATIONS

### 2.1 *Coordinate with Charleston County on the future update of the James Island Historical and Architectural Survey.*

An update to the James Island Historical and Architectural Survey, which was completed in 1989, should identify and update historical and cultural resources along the Riverland Drive Scenic Byway corridor, such as unique architecture and African-American cemeteries and neighborhoods.

### 2.2 *Prepare a brochure to convey the historic and cultural significance of the roadway.*

The brochure could include a short narrative history of the corridor, a listing of significant sites and attractions in the area, photographs of the scenic byway, and more. Many elements of this plan could be incorporated into the drafting and design of the brochure. As various projects and recommendations from this plan are implemented, there will be opportunities to add to the brochure or create new ones. Future brochures could highlight interpretive trails, a comprehensive bike and pedestrian trail for the area, or a walking tour of James Island County Park.

### 2.3 *Develop an interpretive plan that includes tourist and/or interpretive information that is directly related to the byway and the intrinsic qualities that support a scenic byway designation.*

Interpretive trails provide visitors an opportunity to learn more about the unique natural, historical, and cultural qualities of an area. These trails offer information about the flora and fauna along the trail, points of interest, and stories from the past.

### 2.4 *Install markers along the Riverland Drive corridor and surrounding area for historic and cultural landmarks.*

Historical markers could indicate culturally significant neighborhoods, such as Ferguson Village. In order to place signs on the SCDOT right of way, an encroachment permit must be supported by the SC Department of Archives and History and approved by SCDOT. Coordination with the District Traffic Engineer is also required.



*The interpretive trail at Dixie Plantation in Hollywood, SC highlights the various bird species in the area (Source: College of Charleston)*



*A historical marker for St. Andrew's Parish Church along Ashley River Road*





Lindberg Street, site of Charles Lindbergh's emergency landing



Mural behind Rogue Motion on Folly Road



Conservation easements would help prevent historic sites from being developed on such as Fort Pemberton.

**2.5 Work collaboratively with The Charleston Museum and CCPRC to share the history of the Dill Sanctuary and James Island.**

This could include an interpretive trail at James Island County Park, camps and other programming for children, etc. A museum for the history of the Riverland area including its African-American history could be housed in James Island County Park.

**2.6 Investigate whether Lindberg Street is eligible for the National Register for Historic Places.**

American aviator Charles Lindbergh once made an emergency landing on an airstrip located on land owned by C. Bissell Jenkins & Sons. The former landing strip is now Lindberg Road, which is a misspelling of its namesake's surname.

**2.7 Provide opportunities, especially in public spaces, for artists to display their work.**

An excellent example of public art is the series of murals located behind a commercial center at the corner of Grimball and Folly Road.

**2.8 Promote small, locally-owned businesses along the corridor through special events, advocacy, and other support.**

Small, locally owned businesses add to the rich character of the Riverland Drive corridor. Commercial spaces in the village nodes recommended in the land use section are most appropriate for small businesses that fulfill daily needs of the local area.

**2.9 Support the South Carolina Historic Battleground Trust in placing conservation easements on historically significant parcels and purchasing land with important battleground sites.**

Conservation easements help landowners protect the natural resources and unique character of their property. Several properties in the study area have been protected by the South Carolina Historic Battleground Trust. These easements prevent land uses that might damage or destroy the historic assets on a property.



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## GOAL 3

### *Make Way for Play (Expand recreational and social opportunities)*

Cultural, social, and recreational opportunities enhance the quality of life for a given area. In order to encourage a vibrant environment for cultural activities, promote active lifestyles, and provide an overall enjoyable experience for residents and visitors, opportunities must be accessible by all individuals, regardless of social, economic, or physical considerations.

In order to improve mobility within the corridor and enhance current recreational opportunities in the area, we recommend expansions to existing bicycle and pedestrian facilities. Several area residents that attended public meetings noted how difficult it is to make even the shortest of trips without using their cars. Limiting transportation to automobiles can exclude many residents, particularly children, the elderly, and low-income groups, from safe travel within the corridor. Without improving mobility and access along the corridor, residents will not be able to fully take advantage of existing and proposed recreational and social opportunities. Therefore, a number of safe and convenient transportation options must be available to residents and visitors.

Multi-use paths should provide connectivity between recreation sites and promote physically active modes of transportation along the corridor. The Charleston County Parks and Recreation Commission's (CCPRC) Parks, Recreation, Open Space and Trails Master Plan, the mobility section of the City of Charleston's Century V Plan, and the Bicycle and Pedestrian Element of the Charleston Area Transportation Study (CHATS) Long Range Transportation Plan all propose new bicycle and pedestrian facilities. These plans present a mixture of multi-use paths separated from the roadway, sidewalks along the roadway, and sharrow (shared lane markings) bicycle lanes.

Current plans for the Mark Clark Expressway (Interstate 526) completion include the establishment of a multi-use path that connects the proposed I-526 parkway to James Island County Park. The path would run along the western side of Riverland Drive from the intersection of the I-526 extension and Riverland Drive to the James Island County Park entrance.

### OBJECTIVES

1. Promote the wide range of social and recreational opportunities throughout the corridor.
2. Maintain and increase public trails and recreational spaces.
3. Improve access to and increase the amount of water-related recreational activities while minimizing environmental impacts.
4. Expand opportunities to accommodate events, festivals, concerts and celebrations, especially those that promote the intrinsic qualities of the corridor.





## RECREATIONAL AND SOCIAL RECOMMENDATIONS

### **3.1 Encourage the implementation of the various existing transportation/mobility plans already in place.**

There are a various documents and plans that identify potential expansions to bike and pedestrian infrastructure in the Riverland Drive corridor. All bicycle and pedestrian projects in these plans are both feasible and safe and should be pursued. Based on feedback received from residents at public meetings, the preferred bicycle and pedestrian facility is a multi-use pathway that is physically separated from the roadway. This configuration allows for a safer experience for pedestrian and cyclists and also allows for the path to weave around large live oak trees that are to be preserved. Since many of these grand trees are close to or alongside the roadway, a sidewalk or path that is connected to the roadway would require tree removal.



*A multi-use pathway in Colorado (Source: [bikearoundbend.com](http://bikearoundbend.com))*

### **3.2 Identify locations for public water access along the Riverland corridor.**

Existing public access to waterways is fairly limited along the corridor, occurring only in two locations. Public access to the Wappoo River is located in Riverland Terrace and public access to the Stono River is located in James Island County Park. Boat access is free at the Boat Landing in Riverland Terrace, but boat ramp access is limited to paying customers at James Island County Park. Some residents and visitors use an access point to the James Island Creek at the end of Riley Road, but this is not a public access point. This SCDOT right of way could potentially be configured to officially allow for public water access.

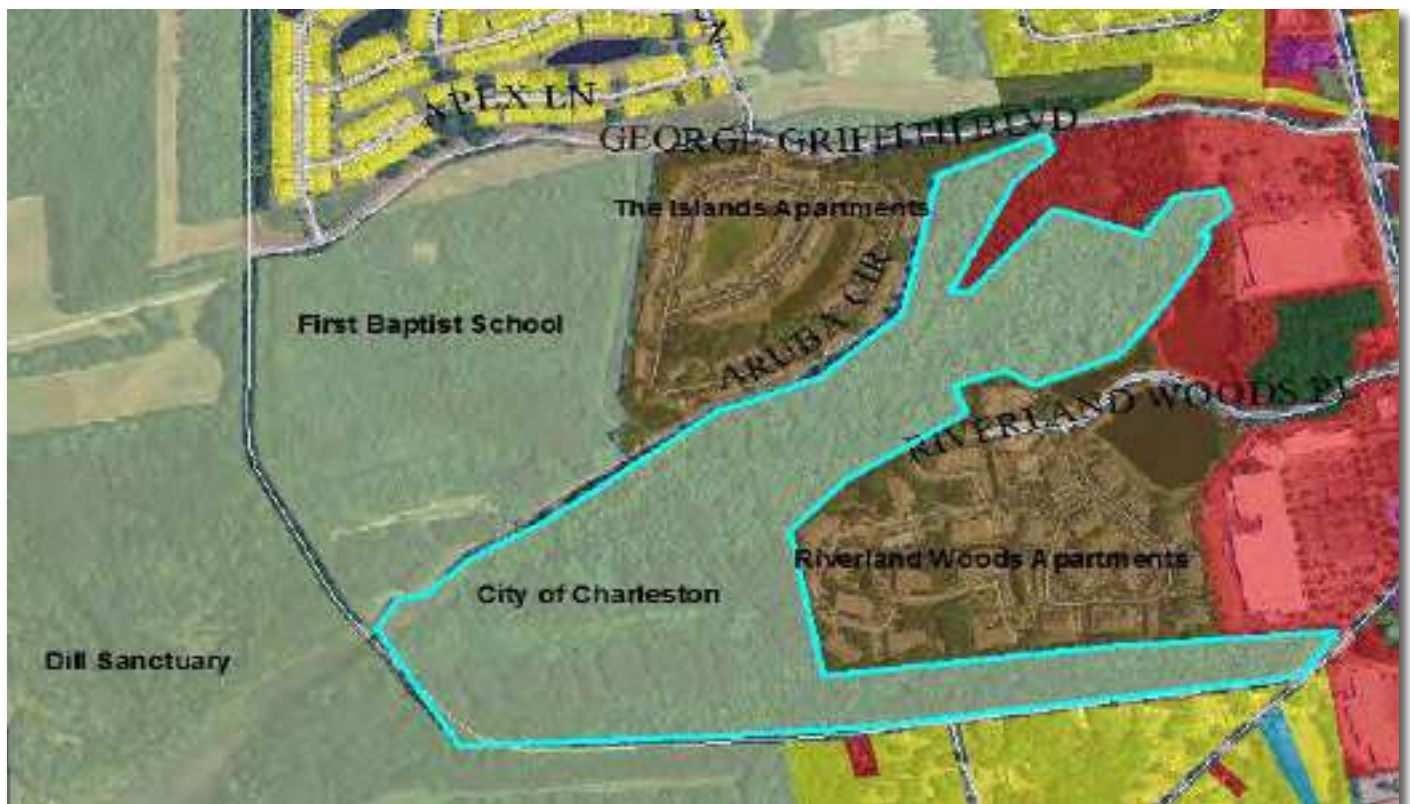
Additional public access points for launching small boats (canoes, kayaks), for fishing, and for river viewing are all desired and highly sought by the community. The provision of additional public access needs to be explored and enabled at several potential locations along the waterway. One suggested location is on



the Newtown Cut near the intersection of Riverland Drive and Camp Road. Additional analysis and study will be required to get closure on final locations, access and parking requirements, relationship with adjacent land uses, etc.

### 3.3 Explore opportunities for additional active and passive park space along the Riverland Drive corridor.

Active and passive park space for community residents should be explored in the scenic byway corridor. This may include a pocket or neighborhood park that is accessible to all residents along the corridor. The City of Charleston owns a large tract of land near the southern terminus of Riverland Drive. The property is bordered by Riverland Drive, George Griffith Boulevard, Wal-Mart, two apartment complexes, and a property owned by First Baptist School which is currently being developed for an athletic complex. The property is just across Riverland Drive from the Dill Sanctuary. One possible use for the land is to create a City of Charleston park for James Island residents to use. With the site's proximity to James Island County Park, a major CCPRC park with a wide range of facilities and activities, it is important not to duplicate what opportunities are available in the study area. Instead, the use (or conservation) of the property should fill a recreational need that is not currently fulfilled in the study area.



The City of Charleston owns a large tract of land (outlined in blue) that could be developed into a city park





Advertisement for Summer Concert Series at James Island County Park (Source: CCPRC)

**3.4 Work with CCPRC, The Charleston Museum, and various neighborhood associations to attract and promote cultural, recreational, and social events and programs at James Island County Park and other sites.**

Programs, events, and other cultural activities should celebrate the diversity, assets, and history of the corridor. Cultural, recreational, and social events and activities should educate, inform, and inspire creativity. James Island County Park currently hosts a number of these experiences; we encourage CCPRC to continue to provide these and to expand the offerings through partnerships with other organizations. Additional sites, such as the Dill Sanctuary, could be utilized for additional programs related to the area's cultural and natural history.



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## GOAL 4

*Promote a safe, pleasant travel experience for all users*

A vast majority of Riverland Drive users travel the corridor because of what the journey has to offer. The intrinsic qualities of the corridor have wide appeal and should be accessible to all. Individuals should be able to enjoy those resources at a variety of paces and modes, and feel safe while doing so.

According to the regional travel demand model, the daily traffic flow along Riverland Drive (north of Camp Road) in 2010 was approximately 8,600 vehicles. In 2035, the expected daily traffic flow along Riverland Drive north of Camp Road will be approximately 10,500 vehicles per day. The safety of motorists and non-motorists will remain an important issue over the next twenty years. When assessing a scenic byway, it is important to understand how it is managed and who the parties are that are involved. The road is comprised of the road itself, right-of-way, and the lands beyond the right-of-way, which are the scenic resources. South Carolina's Department of Transportation (SCDOT) owns the road and the right-of-way, while the scenic resources are owned by public or private ownership.

Several transportation and mobility recommendations have been identified to further the goals and objectives of the CMP. Recommended actions and projects are described on the following pages.

### OBJECTIVES

1. Allow for a range of multi-modal travel choices (automobile, bus, bicycle, walking).
2. Create safe conditions for all travelers and all modes of transportation.
3. Make roadway improvements compatible with the corridor's intrinsic qualities.
4. Enable safe, convenient access to residences, recreational areas, institutions, and businesses along the corridor.
5. Develop a unified, cohesive system of wayfinding and place marker signage.

### TRANSPORTATION RECOMMENDATIONS

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#### **4.1 Maintain the existing two-lane character of Riverland Drive as much as possible.**

Roadway improvements, including wider lane widths designed solely to accommodate higher rates of speed or carry larger volumes of traffic will have a negative impact on the scenic character of the roadway and should not be considered. If widening Riverland Drive or other streets in the corridor is deemed necessary, it should disturb the fewest number of trees as possible.

#### **4.2 Improve access management along the corridor with consolidations of driveways and curb cuts.**

While intersecting driveways and roads are relatively infrequent along the corridor (except north of Central Park Road), certain areas exist where the frequency and/or spacing of access





points is problematic. Access management seeks to provide access to land development in a manner that preserves the safety and efficiency of the transportation system. Access management studies should be considered as part of any planning effort along the corridor.

#### **4.3 Increase non-automobile travel options for residents and visitors.**

Alternate travel modes should be supported by the development of non-automobile transportation facilities, education, and marketing. Using alternate transportation such as biking and walking reduces the impacts on air quality, safety, and energy use associated with automobile travel and enhances the Riverland Drive experience by reducing traffic.

In addition, expanding transit options to help reduce vehicle trips and make the corridor more accessible should be assessed by the local jurisdictions and CARTA. CARTA is considering increased service at the transit stop located at the Lowcountry Senior Center for seniors and individuals with disabilities.

#### **4.4 Improve key intersections along the corridor with safety improvements including traffic/pedestrian signals and roundabouts**

Options for roadway improvements on Riverland Drive are limited due primarily to the presence of historic, scenic, and environmental resources as well as right-of-way (ROW) issues. Meeting current roadway design standards, many of which are incompatible with the character of the scenic byway, will add further challenges. The opportunities and constraints for key intersections along Riverland Drive are discussed below.

##### *MAYBANK HIGHWAY AND RIVERLAND DRIVE*

The widening of Maybank Highway at Riverland Drive to allow for left turn lanes and left turn signals should be explored. This will greatly increase the safety of this intersection.

##### *WOODLAND SHORES ROAD AND RIVERLAND DRIVE*

Woodland Shores Road west of Riverland Drive has two access points from Riverland Drive. The northernmost access point is one-way onto Woodland Shores Road and is an extension of the road along the same alignment as it is east of Riverland Drive. The second access point is two-way traffic located approximately 75 feet further south. This stretch of Woodland Shores is essentially a 3/4-mile long cul-de-sac, with twelve shorted cul-de-sacs feeding into it. This intersection should be considered for safety improvements by SCDOT in the future.



*Adding turn lanes and signals on Maybank Highway would make its intersection with Riverland safer (Source: BCDCOG Staff)*



## CENTRAL PARK ROAD AND RIVERLAND DRIVE

To avoid taking down the oak trees near this intersection and improve safety, a realignment of Central Park Road to the north to meet Lucky Road should be considered. This would also create a safer intersection by giving drivers a better angle of view and a signal could potentially allow for easier travel movement in this critical intersection.

## CAMP ROAD AND RIVERLAND DRIVE

The Camp Road and Riverland Drive intersection is currently slated to become a roundabout. This improvement would also complement the improvements soon to be under construction at the Camp Road and Folly Road intersection.



*The intersection of Woodland Shores and Riverland Drive needs improvements (Source: BCDCOG Staff)*

### **4.5 Develop a bicycle network that strives to accommodate users of all ages and abilities.**

A key goal of the CMP is to accommodate alternate modes of transportation, including bicycles and pedestrians, safely along the corridor while maintaining the character of the existing roadway. Due to the limited right of way and the historic and scenic nature of the road, options to improve bicycle accessibility are limited. The existing paved roadway width averages 22 feet along Riverland Drive with an overall narrow right-of-way throughout the corridor.

Full width bicycle lanes (minimum 4 feet on each side) cannot be provided without acquiring additional ROW, thereby encroaching upon sensitive natural resource areas, which would alter the corridor's historic and scenic character. Narrowing vehicular travel lanes and providing slightly wider shoulders is not feasible.

A dedicated bicycle path immediately adjacent to the roadway is less desirable due to the high number of closely-spaced curb cuts and resource constraints and impacts. Instead, a dedicated multi-use trail separated from the roadway and meandering through the oak trees is preferred. A combination of bicycle and pedestrian improvements are shown in *Figure 23* (next page).



# RIVERLAND DRIVE CORRIDOR MANAGEMENT PLAN BIKE PEDESTRIAN INFRASTRUCTURE

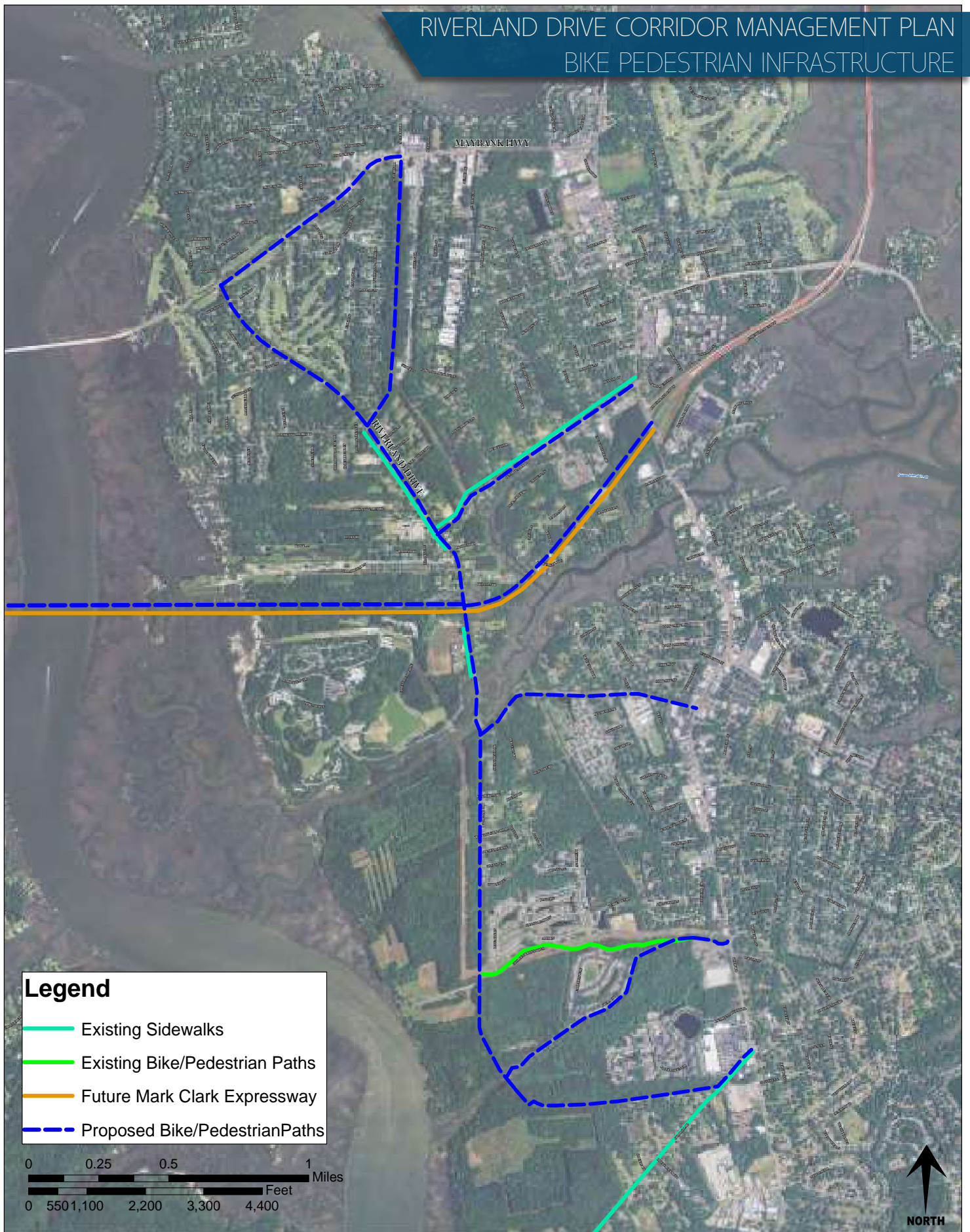


Figure 23: Bike Pedestrian Infrastructure



**4.6 Utilize context sensitive design solutions and traffic calming measures for safety improvements along the corridor.**

One of the most common issues brought up by local residents was the high speed of vehicular travel on Riverland Drive south of Camp Road, where the current speed limit is 40 miles per hour. A 35 mile per hour speed limit should be instituted south of Camp Road extending to Grimball Road. This would match the existing speed limit that is already in place north of Camp Road to Maybank Highway.

A 25 mile per hour speed limit north of Maybank Highway should remain along Riverland north of Maybank Highway to Wappoo Hall Road. Riverland Drive is comprised of single-family residential uses in the Riverland Terrace area. Educational and enforcement programs of safe driving along the corridor should be explored as well.

Reflective devices next to trees along Riverland Drive should also be installed to allow for safe driving in inclement weather and for nighttime. Bohicket Road, another scenic byway on Johns Island, has incorporated reflective devices due to accidents that were occurring along the scenic byway.

**4.7 Prepare an engineering survey of Riverland to determine right-of-way limits for adequate pedestrian and bicycle facilities.**

The narrow ROW on Riverland Drive limits the available width for potential improvements. Roadway construction and upgrades for bicyclists and pedestrians usually require safety features such as adequate lane and shoulder width, smooth pavement, and curb setbacks. Without adequate space within the ROW, improvements would not be possible without taking land or accepting easements by property owners. No comprehensive engineered survey of Riverland Drive has been conducted in over thirty years, and the location and extent of the ROW is unclear in various locations throughout the route.



*Trees close to Bohicket Road have reflective signs and devices to improve safety (Source: SCDOT)*



**4.8 Provide appropriate pedestrian facilities to connect neighborhoods and destinations.**

Providing appropriate pedestrian facilities to connect neighborhoods and destinations along the corridor is critical. The Town of James Island is proactively working on adding sidewalk connections in the corridor area and should be tied to future Riverland sidewalks.

Substantial areas along Riverland Drive have no pedestrian paths. Without accommodations for walking (for pleasure/recreation or for a short trip), travelers are forced to use cars. Sidewalks serve a basic need for many of the shorter trips along the byway. When pedestrians are not present, sidewalks are also useful for beginning cyclists and low speed biking. SCDOT has indicated that 4-foot wide sidewalks are acceptable (narrowing intermittently to 3-feet at restrictions such as utility poles).

**4.9 Implement Shared-Use Pavement Markings along streets in the Riverland Scenic Byway Corridor.**

Travel lanes on scenic byways, such as Riverland Drive, are often too narrow for sharing side-by-side by bicyclists and passing automobiles or trucks. Bicyclists riding too close to the roadway edge run the risks of being run off the road, being “clipped” by overtaking motorists who misjudge passing clearance, or encountering drainage ditches and other hazards. Riding farther to the left may help avoid these problems but can be hazardous.

Share the road signs exist already along Riverland Drive. Pavement markings, such as bike sharrows, would further help bicyclists until a multi-use path is implemented along the roadway.



Sharrows, which indicate the legal and appropriate bicyclist line of travel, and cue motorists to pass with sufficient clearance, are recommended for certain locations along Riverland Drive. They also remind bicyclists to ride their bicycle predictably, follow the rules of the road, and to watch for motorists.

Guidance for proper installation indicates that a shared-lane marking should not be placed on roadways that have a speed limit above 35 miles per hour. Markings should be placed immediately after an intersection and spaced at intervals not greater than 250 feet thereafter. If used on a street without on-street parking (like Riverland Drive), the

*A Share the Road sign warns drivers of cyclists on the road; pavement markings would increase safety*



centers of the markings should be at least 4 feet from the face of the curb, or from the edge of pavement where there is no curb.

Streets that would benefit from pavement markings other than Riverland Drive include Woodland Shores, Fleming Drive, and Central Park Road.

**4.10 Work with SCDOT to develop flexible standards and design guidelines for Riverland Drive.**

SCDOT should consider developing flexible design standards and guidelines for scenic roadways in their Access and Roadside Management Standards (ARMS) document. The current design manual requires the same roadway design regardless of roadway designation. Acknowledging the unique nature of Riverland Drive and reducing the design standards to allow for context-sensitive design solutions would help Riverland Drive as well as other scenic byways across the state.

**4.11 Develop a Gateway Entrance at Riverland Drive and Maybank Highway.**

The Riverland Drive/Maybank Highway and Riverland Drive/Grimball Road intersections represent the northern and southern gateways to the scenic byway. Improvements to these intersections, including unified landscape and signage treatments, would help to better define the “gateway” roles of the intersections.

**4.12 Place utilities underground in the corridor.**

Wherever possible, utilities should be placed underground in the corridor to help preserve the integrity and visual aesthetics of the corridor.



*Gateway to the Red Rock Scenic Byway in Arizona  
(Source: Red Rock Scenic Byway)*



*Utility Lines detract from the scenic and visual aesthetics of the corridor (Source: BCDCOG Staff)*

# IMPLEMENTATION STRATEGIES AND FUNDING



The strategies identified in the previous section provide a general framework for the protection, preservation, and enhancement of the intrinsic qualities that define the Riverland Drive Scenic Byway. From these recommendations and strategies, several site specific projects or actions can be identified to further the goals and objectives of the corridor management plan.

Recommended projects and actions are described on the following pages. These projects/actions align with the four overarching Plan Goals addressing resource stewardship, interpretation, recreation, and transportation.

Implementing the strategies and projects recommended for the Riverland Drive Scenic Byway Corridor is an extensive undertaking that will require the efforts and resources of several jurisdictions and organizations. The Implementation Matrix of Action Projects, as seen in *Figure 24* on the next page, summarizes the recommended strategies and projects that should be pursued. The table identifies the recommended strategies and non-site specific projects that are applicable to the entire corridor. The Implementation Matrix suggests those entities most likely to have oversight or responsibility for the implementation of a given strategy or project. The map displayed in *Figure 25* (on page 87) locates where proposed implementations in the matrix should take place.

Some strategies or projects may occur within a short time frame while others will take years to complete. Part of the speed with which implementation measures will occur is tied to the availability of funds to make a strategy, project, or action a reality. Also, identified in the matrix are general time frames for implementation, based either on the critical nature of the action or the relative cost and/or availability of resources to initiate it. A short-term time frame suggests that a project can be initiated (not necessarily completed) within two years from adoption of this plan. A Mid-Term time frame would take between three to five years to initiate, while a Long Term time frame designation suggests five years or longer.

The matrix also lists potential funding sources for each strategy. These sources would potentially contribute monies above and beyond future operating or capital budgets of the cities and Charleston County that have been identified as the party responsible for implementation. This list is by no means exhaustive, but represents funding opportunities that have historically been available for similar projects. Following the Implementation Matrix, brief descriptions of common funding sources are provided.



ID	Project Name/Description	Timeframe	Responsible Party	Estimated Cost	Estimated Funding Source
<b>Land Use and Development Strategies/Projects</b>					
L-1	Update City of Charleston and Charleston County Comprehensive Plan, per Riverland Drive CMP recommendations	Short-term	City of Charleston	TBD	City of Charleston and Charleston County
L-2	Zoning Code Amendments, per Riverland Drive CMP recommendations (See recommendations 1.1 and 1.2)	Short-term	City of Charleston	TBD	City of Charleston
L-3	Clean and clear ditches and drainage at Central Park and Riverland Drive Intersection and perform study for other drainage improvements in corridor	Mid-term	City of Charleston	TBD	City of Charleston, Charleston County Transportation Sales tax funds
<b>Preservation and Urban Design Strategies/Projects</b>					
P-1	Pursue a National Historic District designation for Woodland Shores Road Historic Area	Short-term	City of Charleston, Charleston County	TBD	City of Charleston, Charleston County
P-2	Update Charleston County Historic Resources Survey which includes James Island	Short-term	Charleston County	TBD	Charleston County, SHPO
P-3	Prepare a brochure of historic and cultural assets along the Riverland corridor for distribution to tourists/residents	Short-term	Charleston Area Convention and Visitor's Bureau; City of Charleston	\$10,000	SHPO grant, Charleston Area Convention and Visitor's Bureau, CCPRC
P-4	Prepare study for design of Riverland Scenic Byway gateway entrances (gateway markers and signage at intersections of Riverland Drive with Maybank Highway and Grimball Road)	Mid-term	City of Charleston	TBD	City of Charleston, TAP, SHPO
P-5	Prepare an Area Character Appraisal for Riverland Terrace	Mid-term	City of Charleston	\$40,000	City of Charleston, SHPO grant
P-6	Pursue National Historic District designation for Dill Sanctuary and historic/cultural designation for Ferguson Village	Mid-term	The Charleston Museum; City of Charleston	TBD	SHPO grant; The Charleston Museum; City of Charleston

Figure 24: The Implementation Matrix of Action Projects Table



ID	Project Name/Description	Timeframe	Responsible Party	Estimated Cost	Estimated Funding Source
<b>Preservation and Urban Design Strategies/Projects</b>					
P-7	Install historical markers along Riverland Drive	Mid-term	SHPO, SCDOT	TBD	SHPO grant, SCDOT, private funders
P-8	Pursue various strategies, including conservation easements, to preserve Fort Pemberton site	Long-term	SC Historic Battleground Trust	TBD	Federal preservation grants, SHPO grant
<b>Environment and Open Space Strategies/Projects</b>					
E-1	Partner with Palmetto Pride's Adopt-a-Highway Program to keep the corridor clean	Short-term	Keep Charleston Beautiful Committee, Charleston County Community Pride Board	Volunteers	SCDOT, Charleston County Community Pride Board, Clemson Extension
E-2	Perform a tree inventory along Riverland Drive	Short-term	City of Charleston, Charleston County, Clemson Extension	TBD	City of Charleston, Charleston County, Clemson Extension, SC Forestry Commission
E-3	Partner with 10,000 Trees for Charleston and City of Charleston Urban Forestry Division to replace trees in the corridor lost due to natural causes or new developments	Mid-term	City of Charleston and Charleston Horticultural Society	TBD	City of Charleston, private donations
E-4	Pursue acquisition of open space to preserve scenic vistas and open space	Long-term	City of Charleston, Town of James Island	TBD	City of Charleston, Town of James Island, Charleston County, CCPRC, LOLT
<b>Transportation and Mobility Strategies/Projects</b>					
T-1	Camp Road and Riverland Drive Intersection Roundabout Project	Short-term	SCDOT and City of Charleston	\$750,000	FHWA Funds, SCDOT

ID	Project Name/Description	Timeframe	Responsible Party	Estimated Cost	Estimated Funding Source
<b>Transportation and Mobility Strategies/Projects</b>					
T-2	Central Park Road Intersection Improvements (Traffic Signal, Turn Lanes, Crosswalks)	Short-term	SCDOT	TBD	SCDOT HSIP
T-3	Implement bike sharrow markings along Riverland Drive, Fleming Road, Woodland Shores Road, and Central Park Road	Short-term	SCDOT, Charleston County or City of Charleston	TBD	SCDOT, Charleston County Transportation Sales tax/CTC funds, City of Charleston, CHATS
T-4	Prepare an engineering survey of Riverland Drive to determine right-of-way limits for future improvements and facilities	Short-term	SCDOT, Charleston County or City of Charleston, CCPRC	TBD	SCDOT, Charleston County Transportation Sales tax/CTC funds, City of Charleston, CHATS, CCPRC
T-5	Perform detailed planning/engineering study for pedestrian/bicycle trail system in the Riverland Drive corridor area	Short-term	City of Charleston, Charleston County, Town of James Island, CCPRC	TBD	Charleston County Transportation Sales tax/CTC funds, City of Charleston, CHATS, CCPRC
T-6	Maybank and Riverland Intersection Improvements including turn lane and sidewalks	Short-term	SCDOT	TBD	SCDOT
T-7	Woodland Shores and Riverland Drive Safety Project Study	Mid-term	SCDOT	TBD	SCDOT
T-8	New signal at Fleming Drive and Maybank Highway	Mid-term	SCDOT	TBD	SCDOT
T-9	Develop Riverland Drive Scenic Byway Design Guidelines	Mid-term	BCDCOG, SCDOT	TBD	SHPO grant, SCDOT
R-1	Perform assessment of locations for public access for a kayak/paddleboard launch along James Island Creek	Short-term	City of Charleston, CCPRC	TBD	City of Charleston, CCPRC

ID	Project Name/Description	Timeframe	Responsible Party	Estimated Cost	Estimated Funding Source
<b>Recreation and Interpretive Strategies/Projects</b>					
R-2	Design and complete construction of interpretive trail plan for the Riverland Drive Scenic Byway corridor	Mid-term	City of Charleston, Charleston County, CCPRC	TBD	SCPRT grants, Charleston County Transportation Sales tax/CTC funds, City of Charleston, CCPRC
R-3	Explore locations for an Interpretive Center/Museum for the Riverland Scenic Byway	Long-term	City of Charleston, CCPRC	TBD	Charleston Area Visitor's Bureau, CCPRC

ABBREVIATIONS

- Federal Highway Administration (*FHWA*)
- South Carolina Department of Transportation (*SCDOT*)
- State Historic Preservation Office (*SHPO*)
- Transportation Alternatives Program (*TAP*)
- Lowcountry Open Land Trust (*LOLT*)
- Charleston Co. Parks & Recreation Commission (*CCPRC*)



# RIVERLAND DRIVE CORRIDOR MANAGEMENT PLAN PROPOSED IMPLEMENTATION STRATEGIES/PROJECTS

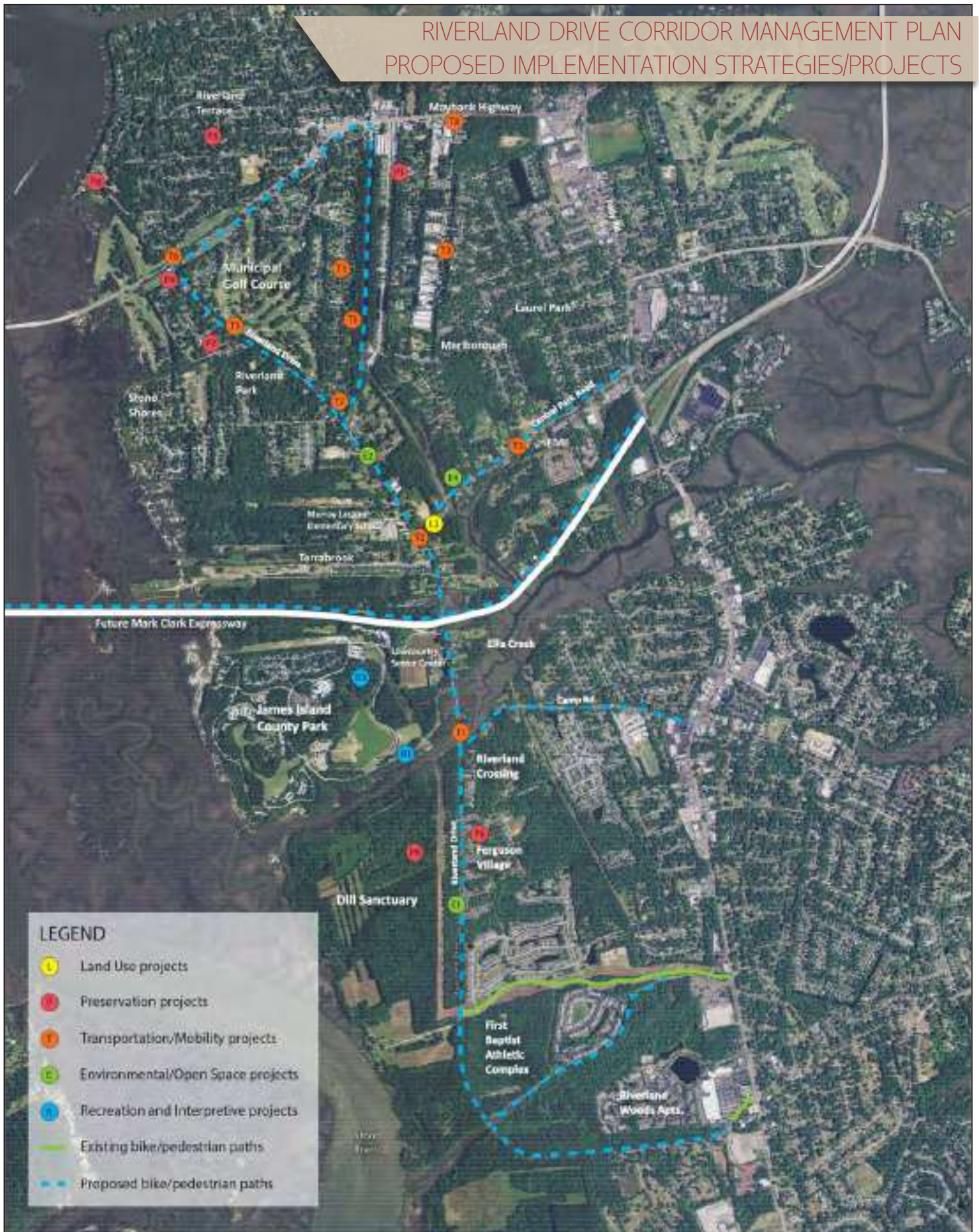


Figure 25: Proposed Implementation Strategies/Projects



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## TRANSPORTATION FUNDING OPPORTUNITIES

*In order to implement the recommended strategies for improving transportation and mobility in the Riverland Drive corridor, funding sources must be identified. These funds range from local to federal and can be used for roads as well as bike and pedestrian facilities. To assist in locating funds that can be used to implement the various transportation recommendations in the CMP, the following review of transportation funding resources is included as follows:*

### PUBLIC WORKS/CAPITAL PROJECTS/TRANSPORTATION DEPARTMENT FUNDING

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The public works, capital improvements or transportation departments of municipalities and counties are internal departments that can address the planning, financing, and construction of a broad category of infrastructure projects for recreational, employment, and health and safety uses in the greater community. These projects may include roads, bike paths, bike lanes, transit shelters, public spaces, park benches, drainage, and other, usually long-term, physical assets and facilities.

### CHARLESTON COUNTY TRANSPORTATION COMMITTEE "C" FUNDING

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C Funds are allocated to each county by the South Carolina Department of Transportation for the purpose of transportation improvements. C funds are derived from the South Carolina tax on gasoline. 2.66 cents a gallon of the user fee charge on gasoline is deposited with the State Treasurer to be used in the implementation of a countywide transportation plan adopted by the county transportation committee.

In 1994, the C Fund statutes were revised by removing the legislative delegation's control and creating County Transportation Committees (CTCs). The responsibilities for each CTC includes the formation of a county transportation plan as well as the approval and use of C funds for local transportation projects. Project funding is awarded annually. For more information on applying for project funding under this program, go to: <http://www.charlestonctc.org/meetings.htm>.

### CHARLESTON COUNTY TRANSPORTATION SALES TAX FUNDING

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In the fall of 2004, Charleston County voters agreed to add a half-cent sales tax on purchases made in the county. The collection of Charleston County Transportation Sales Tax began in May of 2005 and will continue for 25 years or until the \$1.03 billion is collected for transportation, transit, and greenspace projects. There is \$500,000 available annually through the course of this funding initiative for bicycle and pedestrian facility improvements and connections; this would include sidewalk and multi-use pathway construction. There is also \$1 million for drainage projects, \$2 million for intersection projects and approximately \$6 million for paving and resurfacing projects available annually. For more information on applying for project funding under this program, go to: <http://roads.charlestoncounty.org/#&panel1-3>.



## SC TRANSPORTATION ALTERNATIVES PROGRAM (TAP)

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Transportation Alternative Program (TAP) projects are federally-funded, community-based projects that expand travel choices and improve the transportation experience by enhancing the cultural, historic, and environmental aspects of our transportation infrastructure. TAP was authorized by the Moving Ahead for Progress in the 21st Century Act (MAP-21), the most recent federal transportation funding act, which was signed into law on July 6, 2012. MAP-21 redefines the former Transportation Enhancement (TE) Activities and consolidates these eligibilities with the Safe Routes to School program.

*TAP is a part of the Federal-Aid Highway Program. The following eligibilities are authorized in MAP-21 for TAP and by the SCDOT Commission:*

- Pedestrian Facilities
- Bicycle Facilities
- Streetscaping Projects

Funding for projects in the urban areas of Berkeley, Charleston and Dorchester Counties are addressed by the Charleston Area Transportation Study Team; there is currently \$864,189 in funding available each year. Funds are allocated through a competitive grant process facilitated by the Berkeley-Charleston-Dorchester Council of Governments (BCDCOG). Each grant process will begin with a call for proposals made by BCDCOG.

## COMPLETE STREETS FUNDING

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Complete Streets are transportation areas designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. In an effort to transform transportation corridors from vehicle-dominated thoroughfares into community-oriented streets that safely and conveniently accommodate all modes of travel, the Charleston Area Transportation Study (CHATS) Policy Committee has approved the following process for planning and programming Complete Streets projects within the urban areas of Berkeley, Charleston and Dorchester Counties:

The CHATS MPO's Policy Committee determines on an annual basis the amount of the Guideshare funds to allocate to the Complete Streets program. This method was decided upon in an effort to keep each year of the Transportation Improvement Plan financially feasible.

*The following types of projects are eligible for funding:*

- Provision of facilities for pedestrians and bicycles
- Provision of safety and educational activities for pedestrians and bicyclists
- Transportation corridor studies and preliminary engineering reports
- Planning, design, preliminary engineering, or construction/acquisition of public transit facilities
- Acquisition of right of ways specifically to build, construct, or maintain a complete street project



- Access Management studies and/or implementation of an access management project
- Street cross-section modifications to achieve complete street objectives
- Traffic signal modifications, especially the addition of a pedestrian crossing phase and equipment
- Landscaping that is incidental to another named eligible activity

These categories have been interpreted by the BCDCOG staff to mean that the proposed Complete Streets activity must have a direct relationship to the intermodal transportation system. This relationship may be one of functionality or proximity.

## RECREATIONAL TRAILS PROGRAM (RTP) FUNDING

The Recreational Trails Program (RTP) is a Federal-Aid assistance program designed to help states provide and maintain recreational trails for both motorized and non-motorized recreational trail use. The South Carolina Department of Parks, Recreation & Tourism manages this grant program for the Federal Highway Administration.

There is approximately \$1 million of RTP funding available each year as part of MAP-21. Funding is allocated through a competitive grant application process; the minimum grant amounts awarded range from \$10,000 to \$100,000. Qualified applicants may include private organizations or municipal, county, state or federal government agencies. For more information on this program, go to: <http://www.scprt.com/our-partners/grants/trails.aspx>.

## HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)

The SCDOT Safety Office administers the federally funded Highway Safety Improvement Program (HSIP) for the state of South Carolina. The HSIP uses a data-driven, strategic approach to identify locations throughout the state with high crash rates or patterns and implements safety enhancements through infrastructure related improvements. The HSIP criteria requires the state to consider and evaluate potential alternatives to ensure that the maximum safety benefit will be obtained for the amount of funds invested.

The intersection of Camp Road and Riverland Drive is slated for safety enhancements utilizing HSIP funds because the location has experienced a crash rate and severity that is significantly higher than those of comparable intersections in the state. This is an ongoing project that is in the process of acquiring a required right-of-way and has an anticipated construction start date of Winter 2014. SCDOT has also identified the Central Park Road and Riverland Drive intersection as a HSIP project.





# APPENDIX

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# Riverland Drive Corridor Management Plan Meeting

## PUBLIC COMMENTS

APRIL 8, 2014



1. *James Island/Riverland Drive Area Resident  
Area Business Owner*
  - o Add traffic circles at Central Park Road and Camp Road
  - o Add a bike/pedestrian lane so people can bike/walk safely to the park, etc.
  - o Preserve the beauty of the scenic highway as much as possible
  
2. *James Island/Riverland Drive Area Resident  
Area Business Owner*
  - o We would like to see traffic circles at Central Park Road and Fort Johnson Road. Please, no traffic lights!
  - o We would like to see pedestrian/bike paths along the entire length of the road
  - o Model after Mathis Ferry Road in Mount Pleasant
  
3. *James Island/Riverland Drive Area Resident*
  - o Need stoplight/3-way stop at Central Park Road and Riverland Drive
  - o Need stoplight at Fleming Road and Maybank Highway
  
4. *James Island/Riverland Drive Area Resident*

Unfortunately I'm afraid that the "big money" is intent on developing the area at the expense of the natural and historic beauty and intrinsic value. I'd really like to preserve and protect the corridor as much as possible and limit development to the minimum.
  
5. *James Island/Riverland Drive Area Resident*
  - o Restrict development
  - o Put in roundabouts instead of stoplights
  - o Place additional bikeways or walkways off Riverland Drive (on the other side of the historic trees)
  - o Do not widen road
  - o Hold additional community meetings/conduct outreach to fully ? resources along Riverland Drive
  
6. *James Island/Riverland Drive Area Resident*

No. 1 Priority: Bike Path.

Suggestion: Similar to Martha's Vineyard, MA. 5-6 foot asphalt path next to road, but with a buffer between the two. You could even place the path behind the trees running next to



Riverland Drive. It's marshland on the other side of trees and could build that up. Keep road quaint as is and contemplate already developed roads, i.e. Folly and possible connector to handle the development traffic. I see no other solution other than connector to go forward.

**7.** *James Island/Riverland Drive Area Resident*

We need traffic lights in Fleming and traffic lights in Riverland with Central Park. More buses to avoid heavy traffic. Cut trees that are along the roads and are dangerous (Riverland/Ft. Johnson, etc.); no more Gathering/developments); signs; Please take care of Fleming

**8.** *Other*

The Riverland Drive Corridor is an important transportation corridor linking two major roadways, Folly Road and Maybank Highway. As our population grows, alternate choices in transportation are very important. Improvements to Riverland Drive should respect historic trees, but also should be designed to move traffic at a reasonable rate of speed. Also, bike lanes should be included that can handle pedestrians whether it is included in the roadway or offset to the other side of trees. The general public desires efficient roadway design.

**9.** *James Island/Riverland Drive Area Resident*

- Please read the book A Brief History of James Island, Jewel of the Sea Islands, by Douglas W. Bostick. There is good information about African-American landowners and historic sites and militia points.
- There should be no more development near Dill or the county park.
- Is there some sort of safe fence that can be erected to protect the deer and keep them from running out in the road?
- Maybe contact The Bird Sanctuary in Awendaw about ideas to protect the birds along the highway.
- Obviously the intersection near the school needs a light and road or bridge repair during flooding.
- Install a turning lane at Riverland Drive and Central Park, or a traffic light.
- Can we think outside the box on bike lanes? Can we elevate them instead of expanding Riverland?
- If they install a kayak/boat launch at Camp Road, can Charleston County allow parking within the park?

**10.** *James Island/Riverland Drive Area Resident*

Traffic circles on Central Park Road and Camp Road. I was hit at the intersection of Camp and ended up missing four months of work. These intersections are dangerous due to the risk drivers have to take to get onto and off of Riverland.

**11.** *James Island/Riverland Drive Area Resident*

Mark and I attended the "Management Plan Meeting" held on April 8 of this year. We have lived on the corner of Riverland Drive and Canal Street since 1981. Obviously we have seen traffic change dramatically over the years. We both worked for DNR at the end of Ft. Johnson

Road and raised two boys who attended James Island schools. We have traveled all of the roads on the island and watched most of them change as well. We would like to submit two scenarios for consideration towards keeping Riverland the scenic and historic highway it is.

o **Scenario 1:**

- *Go back to the original design for the 526 extension making it a four lane thruway with one limited access interchange for James Island at Folly Road. Folly Road is the main thoroughfare for the island, most of the businesses are there, and with improvements at its intersections, especially Camp and Folly Roads, the flow of traffic while heavy at times would be manageable.*
- *By building the original plan we will minimize road costs and land impact with only one interchange instead of multiples. While the County Park and neighboring communities will be affected by either plan for 526 the impact would be less onerous from a thruway rather than a, supposedly, slower moving parkway with grade level crossroads. The issue of safety around Murray LaSaine Elementary would be lessened, Central Park would not become even more crowded with the additional access allowed from the crossroads off the parkway section, and Riverland Drive would return to carrying mostly local traffic.*
- *The intersection at Central Park and Riverland definitely needs improvement. Currently, there is vacant land which would allow turning lanes onto Riverland off of Central Park. Although we dislike the idea of a traffic light there we have seen close calls from well intending people waving cars illegally this way or that as well as when someone just tries to make a left turn.*
- *Finally, make a 5-6 foot wide walkway/bikeway the entire length of Riverland. This will get most of the bike traffic off the road and allow the many people who try to walk or run on it to do so safely. This will also add to the feel of a scenic/historic road that can be enjoyed.*
- *We realize that to get a drastic idea as suggested above back on the table despite the safety and cost issues would be a monumental task on your part.*

o **Scenario 2:**

- *We suggest that the fix be made to Central Park as mentioned above. The walkway/bikeway should be done for the same reasons as mentioned and should include Central Park since it presently has unconnected sidewalks. We presume that the round-about at Camp Road and Riverland must be in the works since the house near the intersection is being demolished.*
- *More enforcement of speed limits would discourage some of the traffic that is in such a hurry especially in the rush hours.*
- *Improvements to the intersection of Maybank and Riverland, a grade level intersection, need to be made. The number of accidents at this intersection is alarming. There need to be turning arrows for traffic leaving Maybank from both directions onto Riverland. Also the timing of the lights needs to be adjusted for different times of the day. During school dismissal in the afternoon traffic can back up to Woodland Shores Road. The lights should be adjusted at this time during the school year to allow more cars to turn onto Maybank.*
- *Even though "improvements" were made to the intersection of Maybank and Folly Roads there are now even longer traffic backups on both. What was done is not working. There are*





*too many lights in a short distance that are timed poorly. Because of this bottleneck more traffic to Johns Island seeks Riverland Drive even though it has become just as congested.*

- *Riverland Drive and Ft. Johnson Road provided the main communication link between the original colony on the Ashley River and the entrance to the harbor. The fact that these roads are still in use seems to defend their timelessness and therefore make it even more imperative to keep them truly scenic highways.*

We look forward to the June meeting.

## **12. Riverland Terrace Neighborhood Association President**

I am just now getting a chance to provide comments from the April 8th meeting on the CMP for Riverland Drive. Given the goal is to maintain the scenic, cultural, and other characteristics now present, some suggestions and guiding principles follow.

### **A. Transportation**

1. Do NOT make Riverland part of any master plan to alleviate traffic congestion. Major traffic flows should naturally, through design, flow to Folly.
2. Speed limits on Riverland should be 40 mph or lower. It should not be a road designed to accommodate high volume or speed. Commercial trucks over a certain size or weight should not be allowed.
3. Access to Riverland should be limited when any new development takes place. Multiple family units in a development should have one point of entry or feed onto Folly. Roundabouts instead of stoplights should be considered.
4. Traffic congestion should not be reason to expand the road into more lanes. Natural congestion should be a deterrent for use as a cut-through at peak traffic times.
5. Find a place for a bike/walking path under existing power lines or away from the road (other side of trees where applicable). Any new development allowed should be required to provide bike/walk paths along road.

### **B. Scenic Beauty**

1. Have large buffers required by zoning between the road and development.
2. Purchase or encourage owners to seek scenic easements along the road.
3. Place any new utilities underground.
4. Do not grant any re-zoning requests commercial or other higher intensity use. Do not allow high density housing within a certain distance of the road.
5. Record each grand tree's health and use as a benchmark for assessing any turn for the worse (or improvement).

## C. Culture

1. Designate the two or three black hamlets established after the civil war as historic districts or other suitable zoning to protect them if owners concur.

### 13. Charleston County Parks and Recreation Commission

Charleston County Parks supports the development of the Riverland Drive Corridor Management Plan (Plan). We have a prominent presence on Riverland Drive. Naturally, we support maintaining the historic grand oaks along Riverland Drive. We also understand that there may be a need to improve traffic safety. Along those lines, our primary concern for the plan is to be sure it adequately details the need for safe bike and pedestrian facilities between JICP and the various nearby neighborhoods. We prefer that bike/pedestrian facilities be separate from the roadway itself. It is understood that trails/paths separated from the roadway create a safer environment for cyclists and pedestrians, and especially families travelling together, as compared to paved shoulders/bike lanes or 'share the road' situations. I illustrated the following concepts on an aerial map at the public meeting yesterday, but please consider this e-mail as our formal comments for the Plan.

- o Existing Bike/Pedestrian Facilities
- o Multi-use path along George Griffith Blvd., between Walmart and Riverland Dr.
- o Segments of sidewalk between Woodland Shores Rd. and JICP.
- o Planned Bike/Pedestrian Facilities
- o Multi-use lane (with Jersey barrier) from West Ashley to Johns Island to Riverland Drive, continuing on to Folly Road, as part of I-526 (SCDOT is working to accommodate)
- o Multi-use path from I-526 to JICP entrance (SCDOT is working to accommodate)
- o Full vehicle turning lane from I-526 to JICP entrance, including Senior Center
- o Sidewalk along entire length of Camp Road
- o Proposed Bike/Pedestrian Facilities (in order of priority)
- o Multi-use lane on bridge (with Jersey barrier) and proposed roundabout at Camp Road intersection (SCDOT is working to accommodate)
- o Multi-use path from roundabout to JICP entrance (including bridge, above)
- o Multi-use path from Woodland Shores Rd. to I-526 (consider appending to existing sidewalk)
- o Multi-use path within wide utility corridor paralleling Riverland Drive between Camp Rd. and George Griffith Blvd. (on Dill tract)
- o Multi-use path in utility corridor behind Poorhouse to Baptist Church at Woodland Shores Rd.
- o Multi-use path from Maybank Highway to Woodland Shores Rd.
- o Please let me know if you have any questions/comments, or if you'd prefer this content in a formal business letter. Thank you.



#### 14. *Unknown*

I attended the meeting which was (as usual) a "divide and conquer" type of setup where traffic, cultural preservation and land use concerns were handled by separate tables. It is beyond me why the BCD COG folks are reluctant to redefine the study area by extending the Riverland Dr. corridor study .2 mile and LINK up with another scenic byway Fort Johnson Rd. Why do we keep missing opportunities to link up roadways with pedestrian/bike friendly design features? Is it because there is a Gathering Place zoned for that same .2 of a mile and buildings MUST be placed right on the roadway? I really think BCDCOG is missing an opportunity here and hope it is not so that a second GP will serve as a bookend with the Standard for Riverland Dr.

#### 15. *James Island/Riverland Drive Area Resident*

Thank you for hosting informative and important meeting in which we discussed the management plan for the Riverland Drive scenic byway. I look forward to the development of the plan and the improvements that will hopefully be executed on the road. Just to reiterate the two main ideas I had:

1. An off-road segregated multi-use path that allows for walkers and bikers to commute/exercise without the fear of vehicular traffic. Since the road is a scenic byway it would allow people to more easily appreciate the road, and what the area has to offer. It would allow people to walk from many nearby areas to James Island Park or simply exercise along the nice shaded road (which is essential in the heat of the Charleston summer). Also, since Ft. Johnson Road basically connects with Riverland and spans the whole of JI it would connect and allow way easier bike and pedestrian traffic across the island. Ft. Johnson Rd. is in the process of connecting all of its sidewalks so if Riverland did the same there would be a route that spans almost 10 miles and goes from Historic Ft. Pemberton in Riverland Terrace to Ft. Johnson on the Charleston Harbor.
2. A kayak/paddleboard launch located at the creek where Riverland Drive meets Camp Road. There is a house for sale on the Interior side of the creek that has been for sale and empty for a long time, is in a major flood zone, and would be a perfect place for a kayak launch/parking lot. A parking lot is perfect for highly susceptible areas for floods and would allow people to way easier get out on the water in the interior of JI. While there is a lot zoned for institution/public across the street, it is on Newtown Cut which is adjacent to JI County Park but goes to dry at low tide. The interior land would be great because you can go all the way from Riverland Drive to the Charleston Harbor via James Island Creek. That makes a great kayak/paddleboard trail so people can see the interior of the island. Other launches are the boat landings at Elliot Cut and Wappoo Cut which can have very strong currents and a lot of boat traffic making kayaking/paddle boarding very difficult. Also the JI park's dock is very long and difficult to get kayaks down it and into the water. The only other places are all the way out to the beach which is a little far to drive especially considering we live on the island and have creeks and water all around us. We just need to be able to access it. The 526 extension will partly be going over

the waters and salt marsh of the creek so maybe they could help out with some money that will help with launch/restitution for causing some negative effects on the waterways. Mitigation in a way.

Sorry those were a little rambling but if you or anyone wants to give me a call I would love to be involved in this process. My Wife and I just bought a house at 450 Riverland Drive and would love to preserve/conservate this area. I will be beginning Grad School at CofC in Fall for a Dual Masters in Public Administration and Environmental Studies and am interested in planning and land/wildlife management.

**16. James Island/Riverland Drive Area Resident**

Thank you so much, Nick, for a well-planned and informative meeting.

Also, thank you for all the work that your group has already done to get to this point for protecting the Riverland area, and for continuing to garner the input from the residents and also the attention from the various governmental bodies whose collaboration/endorsement is necessary to have the protections and improvements occur.

The residents of James Island are happy to participate!

Until the next meeting.

**17. James Island/Riverland Drive Area Resident**

I live in the Riverland Terrace neighborhood and know this road well.

Would like to see more black/yellow signs for the large trees alongside the road.

Will try to be there on April 8th.

Thanks for the invite.

**18. James Island/Riverland Drive Area Resident**

- In order to preserve the corridor hopefully the planners will complete inventory of historic and archaeological significance before any more development is permitted. Hopefully to include information about the original Kings Highway, the schools, crops grown, use by soldiers during the Civil War, etc. One project is to completely limit development to single family homes on individual plots.
- In order to maintain the corridor, reduce speed limit to 35mph. If the history and beauty of the road is emphasized a lower speed limit would allow travelers to pull over to road information markers and enjoy the view. It would also encourage pedestrians and bicyclists to use the road and ensure their safety.
- In order to enhance the corridor, add long overdue bicycle lanes along the entire route. Add sidewalks!! Preferably along the entire route-but at least in more residential sections. Encourage people to walk or bike to the park! Find a few spots to open up the view to the river.
- Hopefully there will be no "economic development". Let this be something for Charlestonians to enjoy after a long day at work!! Not solely a tourist draw.





# Riverland Drive Corridor Management Plan Meeting

## PUBLIC COMMENTS

JUNE 27, 2014



1. *Riverland Terrace Neighborhood Association*

*James Island/Riverland Drive Area Resident*

- Protected left at Maybank and Riverland Drive to prevent cut through traffic in Riverland Terrace
- Remove yellow line on Riverland Drive in Riverland Terrace; it's presence has increased speed of traffic in the neighborhood
- Stop sign on Riverland at Welch Avenue or Edisto Avenue
- Preserve quality of life for residents along corridor
- Move/Improve CARTA Route 31 through Riverland Terrace; does not serve residents/businesses along Maybank; make bus go in both directions
- Enforce speed limits

2. *James Island/Riverland Drive Area Resident*

Do keep it small and manageable, not taking down too many trees, interfering with scenic, cultural, natural beauty, etc. Bear in mind- our children and grand(children) need green space to grow and thrive.

3. *James Island/Riverland Drive Area Resident*

If traffic lights are deemed necessary at the intersections of Central Park, and perhaps even Woodland Shores, we suggest that the lights be set to operate at peak times of the day and otherwise merely be flashing for caution. This would help to maintain the scenic flow down a beautiful byway. Then, when I-526 is finished and the bulk of the traffic is diverted from the road the lights could be removed altogether.

The bike/pedestrian paths should wind through the trees as far as possible from the road. Obviously there are places where it will have to be very close to the roadway but for the most part it could be a much more pleasant walk/ride than a "straight" path.

I have a question also. The other day I was listening to public radio and caught a brief reference about scenic byways and the residents who live along them being stewards for its upkeep, such as picking up trash, mowing and generally keeping it pretty and inviting. My husband and I, and others, already do this to our sections of Riverland Drive, but if this is in fact an expected, or appreciated, task then perhaps a gentle suggestion/acknowledgement of such efforts should be worked in to the plan. I would think that the folks who live along the road would want to help keep it nice since it is in their "front yard" but a sign of appreciation from you may be good policy.



## Riverland Drive Corridor Management Plan Meeting

### PUBLIC COMMENTS

JULY 17, 2014

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1. *Former Principal of Murray LaSaine Elementary*

Please ensure that the name of the school remains as is. There is much history behind the name.

## Riverland Drive Corridor Management Plan Meeting

### PUBLIC COMMENTS

AUGUST 18, 2014

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1. *James Island/Riverland Drive Area Resident*

- Keep traffic improvements related to vehicles to the absolute minimum. Any improvements that facilitate improved vehicular traffic will result in more traffic. Mathis Ferry Road functions well with roundabouts – good model.
- Bike/sidewalk adjacent to road (easements) much better than sharrows. Power line easement good location too (see Ashley River Road bike path, Hwy 61 @ Bees Ferry Road).
- Explore a bike path route that uses power line near Yorktown Road and long narrow undeveloped parcel parallel to Woodland Shores Road (S. Gervert Drive).

2. *James Island/Riverland Drive Area Resident*

- Protected bike lane
- Protected pedestrian sidewalk
- Protected left turn signals corner of Maybank and Riverland Drive
- Protect trees, land, open space conservation
- James Island/Riverland Drive Area Resident
- Try to mitigate increased traffic volume due to special events at James Island County Park as well as increased development along Riverland Drive.
- Festival of Lights has grown in popularity so that traffic is backed up on all possible access routes on weekend as well as weekdays. Recommend implementation of timed ticket entrance purchased over internet; this will eliminate taking of money at gate, speed up traffic through gates, and distribute volume of traffic more evenly over the hours of the show.
- Also, RVs, campers are cutting through Riverland Terrace to avoid dangerous left turn from Maybank onto Riverland Drive on way to James Island County Park.



3. *James Island/Riverland Drive Area Resident & Area Business Owner*

- Please no more traffic lights! Consider traffic circle anywhere possible, especially at Central Park Road
- Please add bike paths when possible
- Please minimize the use of large reflective signs by trees. These signs destroy the beauty of the road
- Traffic circles will help to slow traffic at Woodland Shores Road, Central Park Road, Camp Road, and by First Baptist School property

4. *James Island/Riverland Drive Area Resident*

Just do as little as possible to preserve beauty and integrity of the corridor! Thanks.

5. *Unknown*

*James Island/Riverland Drive Area Resident & Area Business Owner*

Separate bike/ped trail through wood is absolutely essential. Off of the road!

6. *James Island/Riverland Drive Area Resident*

Please work toward a turn lane for safety from Maybank Highway at Riverland Drive. Currently, left hand turns off of Maybank are almost impossible and always unsafe at high traffic times. Thank you.

7. *James Island/Riverland Drive Area Resident*

- Use some out-of-the-box thinking. For instance, talk to the City of Charleston about developing a plan to get sidewalks and bikes away from traffic. Provide an alternative to straight sidewalks. Require bike paths to connect through subdivisions!
- Everyone else does this in the whole county! Why can't we? SCE&G right-of-way can be used.
- No roundabout at Camp Road and Riverland Drive. This [draws arrow pointing towards drawing of T-intersection] does not require a roundabout.
- What "public spaces" are there? Use PRC. There are no public spaces.
- Preserve, preserve, preserve. That's the point of this!

8. *James Island/Riverland Drive Area Resident*

T-4: Add crosswalk markings @ Riverland/Maybank  
Really good work! Hats off to y'all!

9. *Town of James Island Council*

It was a pleasure making your acquaintance last night at the Riverland Drive Corridor Management meeting at the Low Country Senior Center. We spoke briefly about potential changes to the land-use element and I wish to convey my concerns about two items. First, I really do not wish to expand any commercial land use along the corridor particularly near the Central Park Rd. intersection. This is pretty congested as it is and with an expanded

Murray LaSaine Elementary School nearby a dangerous situation could emerge. I am also very opposed to up zoning from single family residential to any multiunit type of housing. We already have some infrastructure issues with respect to our undersized James Island Charter High School as well as issues with traffic congestion that will only be exacerbated with greater density. Please know that I am squarely behind the recommendations that preserve and protect natural and cultural resources and hope that the tree-lined arbor may be preserved by installing any multi use path behind the trees that line the roadway. It seems that much of this route could exist beneath the SCEG easement that is in place. Thanks for all you are doing in your consideration of this beautiful and unique corridor. Please do not hesitate to contact me if I may be of assistance or if you wish to discuss any of these ideas.

**10. James Island/Riverland Drive Area Resident**

1. The commercial village near Riverland and Central Park is not needed. Keep the whole length free of any more commercial development. Maybank and Folley are not far away and their commercialization is why the Riverland corridor needs to remain as free of commercial use as possible.
2. One of the earlier suggestions was to keep Riverland Drive free of stoplights. Some solution to the intersection of Central Park and Riverland other than a stoplight must be found. Suggestions this afternoon suddenly appeared that a stoplight was part of the solution; this needs to be avoided.
3. In the matrix at the end of the document, the city of Charleston is often listed as the governing body required to initiate action; it seems in many of the cases that the county and town also share some obligations.
4. If there is any way to limit the weight, number of axles, and height of trucks being able to use Riverland, the safety, and ambiance of the corridor would be greatly enhanced. Too many very large trucks use it currently. They should be directed to major arteries.
5. To provide room for bikes, pedestrians, etc., one solution is install pipes in drainage ditches, cover them with dirt, and place sidewalks on the newly created space. When used in conjunction with right-of-ways on either side of the road, a significant amount of space will be available.
6. Suggestions for single family residents on how to protect their land from re-zoning in future generations would be helpful. I am not certain if covenants on future use, or some type of easement for small parcels is possible.

**11. Advocacy Organization**

While it is important to preserve the corridor's natural, scenic, cultural, and historical qualities and features – it is also important to consider the safety of drivers as well as cyclists and pedestrians; therefore you should consider (1) realigning Central Park Road and Riverland Drive to improve visibility, (2) provide multi-use paths for both cyclists and pedestrians that are protected/separated from the auto traffic on Riverland Drive, (3) consider constructing turn lanes where possible.





In addition, CARTA should reevaluate its routes on James Island to provide more consistent and comprehensive service to area residents.

Lastly, the use of the Dill Tract should be reconsidered since it was meant to be a public amenity and given that portions of James Island County Park will be taken as a result of the proposed extension to I-526.