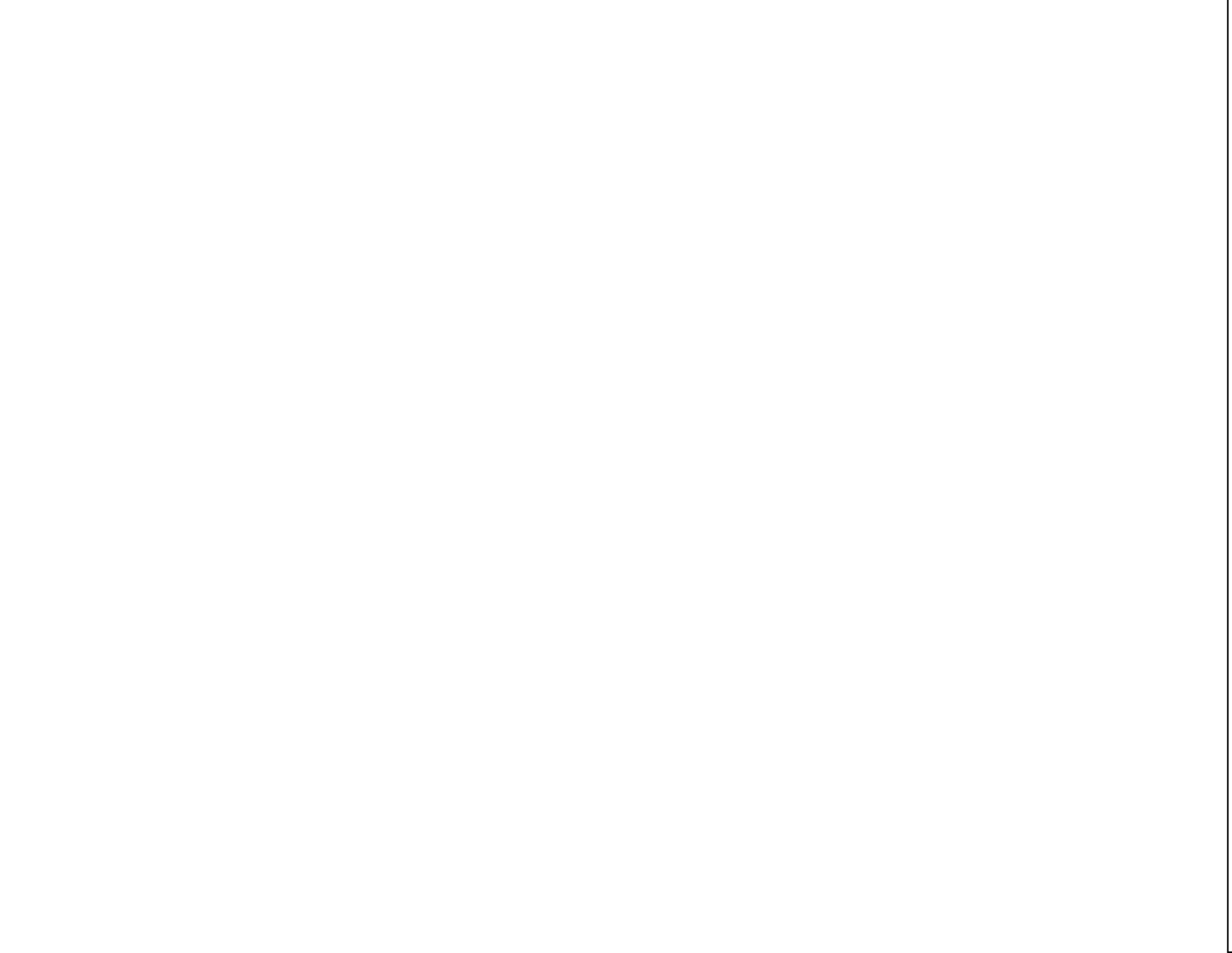


# CENTURY V

2010 COMPREHENSIVE PLAN UPDATE



CITY OF CHARLESTON, SOUTH CAROLINA



CITY OF CHARLESTON

# CENTURY V

2010 COMPREHENSIVE PLAN UPDATE



ADOPTED BY THE CHARLESTON CITY COUNCIL FEBRUARY 22, 2011

## ACKNOWLEDGEMENTS

### Mayor

Joseph P. Riley, Jr.

### City Council Members

Aubry Alexander

Jimmy S. Gallant, III

William Dudley Gregorie

Blake Hallman

James Lewis, Jr.

Timothy S. Mallard

Robert M. Mitchell

Dean C. Riegel

Michael S. Seekings

Louis L. Waring

F. Gary White, Jr.

Kathleen G. Wilson

### Planning Commission

Francis X. McCann, Chair

Barbara Ellison

William Gordon Geer

Angie Johnson

Charles Karesh

Susan Legare

Sunday Lempesis

Valerie Perry

Keith Waring

### Planning, Preservation & Sustainability

Tim Keane

*Director of Planning, Preservation & Sustainability*

### Planning & Neighborhoods

Christopher Morgan

*Division Director*

Ana Emelianoff

*Annexation Coordinator*

Philip Overcash

*Planner*

Eugenia Singleton

*Project Coordinator*

Carolee Williams

*Project Manager*

Jane Baker

*Director of Neighborhood Services*

### Other City Staff

Josh Tanner

*GIS Technician*

Tracy McKee

*Director of GIS*

Jonathan Oakman

*Director of Business Services*

Brian Sheheen

*Director of Sustainability*

Yvonne Fortenberry

*Director of Design, Development, & Preservation*

### Planning Interns

Esther Adams

*Intern*

Eric Bergman

*Intern*

Georganna Moeri

*Intern*

## TABLE OF CONTENTS

### Planning and Coordination

<b>Introduction</b>	<b>1</b>
Laying the Framework	
Role of Comprehensive Planning	
Review of the 2000 Century V Plan	
Updating the Plan	

### Elements

<b>Population and Housing</b>	<b>9</b>
Understanding the Community	
<b>Economic Development</b>	<b>27</b>
Diversifying the Community	
<b>Cultural Resources</b>	<b>37</b>
Preserving & Expanding	
<b>Natural Resources</b>	<b>45</b>
Protecting Important Assets	
<b>Land Use</b>	<b>53</b>
Using Space Wisely	
<b>Mobility</b>	<b>77</b>
Expanding Choices in Transportation	
<b>Municipal Services</b>	<b>105</b>
Building a Livable Community	

<b>Overall Plan Map</b>	<b>121</b>
Pulling it All Together	

<b>Appendices</b>	<b>125</b>
1. Century V City Plan Amendments	
2. Citizen Survey 2009	
3. List of Planning Initiatives	
4. List of all City projects over \$50,000 from 1990-2010	
5. Other	



# Introduction

laying the framework



The City of Charleston's comprehensive plan, known as The Century V City Plan, was adopted in 2000 by City Council. The Century V City Plan is a working document created for the citizens of Charleston that articulates the visions and goals of the city. The plan recommended five matters of emphasis for the future.

This update is the result of the state mandated ten year update cycle, including the incorporation of new elements from The Priority Investment Act. The update also presents new information about Charleston today, reflecting the changes in economy, housing, land use and other trends over the past decade and provides new recommendations for years to come.

### The Role of Comprehensive Planning

A Comprehensive Plan is a long-range plan intended to direct the development of a community over ten or more years. It is a statement of community values and goals concerning the existing and future environment. It serves as a guide for decision makers and a tool for managing community change to achieve a desired quality of life.

The Century V City Plan provides the basis for making decisions related to all of the following:

- Natural and cultural resources
- Economic development
- Public safety and services
- Land use and preservation
- Transportation options
- Planning coordination

The Century V City Plan is *not* a static document. It is a dynamic tool that responds to changes in the community and is updated every ten years. Changes include dramatic shifts in the economy, population and demography; new regional transportation and development opportunities; new approaches to sustainability; legal changes; the adoption of other City initiatives and plans; and a host of other issues, challenges and opportunities that have arisen.

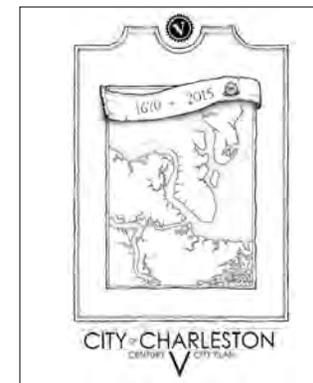
Changes are addressed by evaluating and updating the original comprehensive plan. The state mandated periodic updates also give the community the opportunity to state or reaffirm visions; revise the plan to be relevant to today's world; and draft new strategies for consideration.

### Review of the Century V City Plan

The 2000 Century V City Plan focused on creating land use regulations that encouraged compact development patterns; providing a diversity of options in housing, workplaces and transit; and ensuring the adequate provision of municipal services to new and existing customers.

Similarly, recommendations were drafted that have enabled the City to move forward with strategies to rethink traditional land use planning, improve quality of life, enhance aesthetics, expand the regional greenbelt and bicycle-pedestrian system, and lay the groundwork for sustainability initiatives.

The best way to summarize the overall vision and direction of the 2000 Century V City Plan is through its stated goals listed here:



The 2000 Charleston Comprehensive Plan, Century V City Plan

1. Preserve the physical qualities and way of life in rural areas of the City.
2. Protect and improve our natural resources and maintain a lush, green environment in urban and suburban areas of the City.
3. Ensure a high quality of life throughout the City by maintaining existing and building new quality neighborhoods, encouraging infill and redevelopment and providing new gathering places throughout the City.
4. Ensure all citizens of Charleston have a choice of transportation options for moving within neighborhoods, between neighborhoods and across the City and region.
5. Continue building a community capable of sustaining itself economically by providing a suitable environment for a wide range of businesses and ensuring economic growth expands opportunities and resources for Charleston citizens.
6. Ensure the highest quality public services and facilities to City residents by targeting municipal growth to urban and suburban areas and planning for capital improvements to support City growth.

## Updating the Plan

- Building on the original plan, the 2010 Century V City Plan Update is divided into the following seven elements:
  - Population and Housing
  - Economic Development
  - Cultural Resources
  - Natural Resources
  - Land Use
  - Mobility
  - Community Services

Aside from the state requirements, the following factors have prompted the need for the update.

### Factor 1: New Trends and Opportunities

Over the past decade, the City of Charleston has seen an array of changes. As Charleston changes, the City must rethink how it's planning.

**Growth and Sprawl:** Since 1970, the regional population has nearly doubled from 336,125 to approximately 670,000 persons. The region's population is expected to reach about 700,000 by the year 2020. While the region's population is growing at a reasonably steady

rate, the amount of land being urbanized to support this population has been expanding at a much faster rate. Along with housing and population came increased employment and economic growth. This update further explains the impacts of this growth, and how the City plans to respond.

### *Redevelopment and Infill Opportunities:*

Redevelopment and infill development opportunities continue to arise throughout the City. These underused or abandoned sites are one of Charleston's greatest physical assets because their development or redevelopment can help repair or complete existing neighborhoods. These sites can reduce the need to travel further to shop or work, preserve lands further out, and save taxpayers infrastructure costs. In order to sustain the City, Charleston plans to use this update to identify these underutilized resources, determine how best to use them, and make their development easier to accomplish.

**New Planning Trends:** The continued growth of concern for protection of our environment, the increased emphasis in the Charleston region on the concept of an Urban Growth Boundary (UGB), the increased public desire

for more inviting living, working, and playing environments, the need to further diversify our means of mobility have all been factors that over the last ten years necessitate a review and update of the City's comprehensive plan.

#### **Factor 2:** **Sustainability**

Over the past decade, local governments have begun making sustainability a priority in their planning practices. The State of South Carolina now recommends that municipalities include a Sustainability and/or Energy Element in their comprehensive planning.

In comprehensive planning, sustainability is a broad term. Sustainability can be applied to natural resources (i.e. water and air quality, stormwater and waste management, or resource conservation). It can be incorporated into planning and design (i.e. land use, transportation or parks systems). Sustainability relates to energy choices, pollution and building standards, as well as jobs, tourism and local food systems. Lastly, principles of creating sustainable communities relate to affordability, community wellness, public safety and civic engagement.

Few comprehensive plans will be able to effectively address all of the topics listed above. Like most other local governments, Charleston's 2010 Century V City Plan update focuses on sustainability in planning and natural resources, and thereby support economic development and social goals through infrastructure and quality-of-life improvements that distribute resources more equitably.

In Charleston, many programs and plans are already in place to address specific issues such as historic preservation and public safety, and there is not a need to duplicate these efforts. Rather, this update will incorporate sustainability principles throughout each element and align recommendations with those in the existing plans and programs.

#### **Factor 3:** **Changes in the community**

The single most useful tool for analyzing changes in a community's demographic composition – total population, racial/ethnic makeup, household size, median income, etc. is through analysis of the information provided by the U.S. Census Bureau through their decennial census. By comparing the data collected about Charleston in 2000 to that collected in 2010, quantifiable changes, patterns

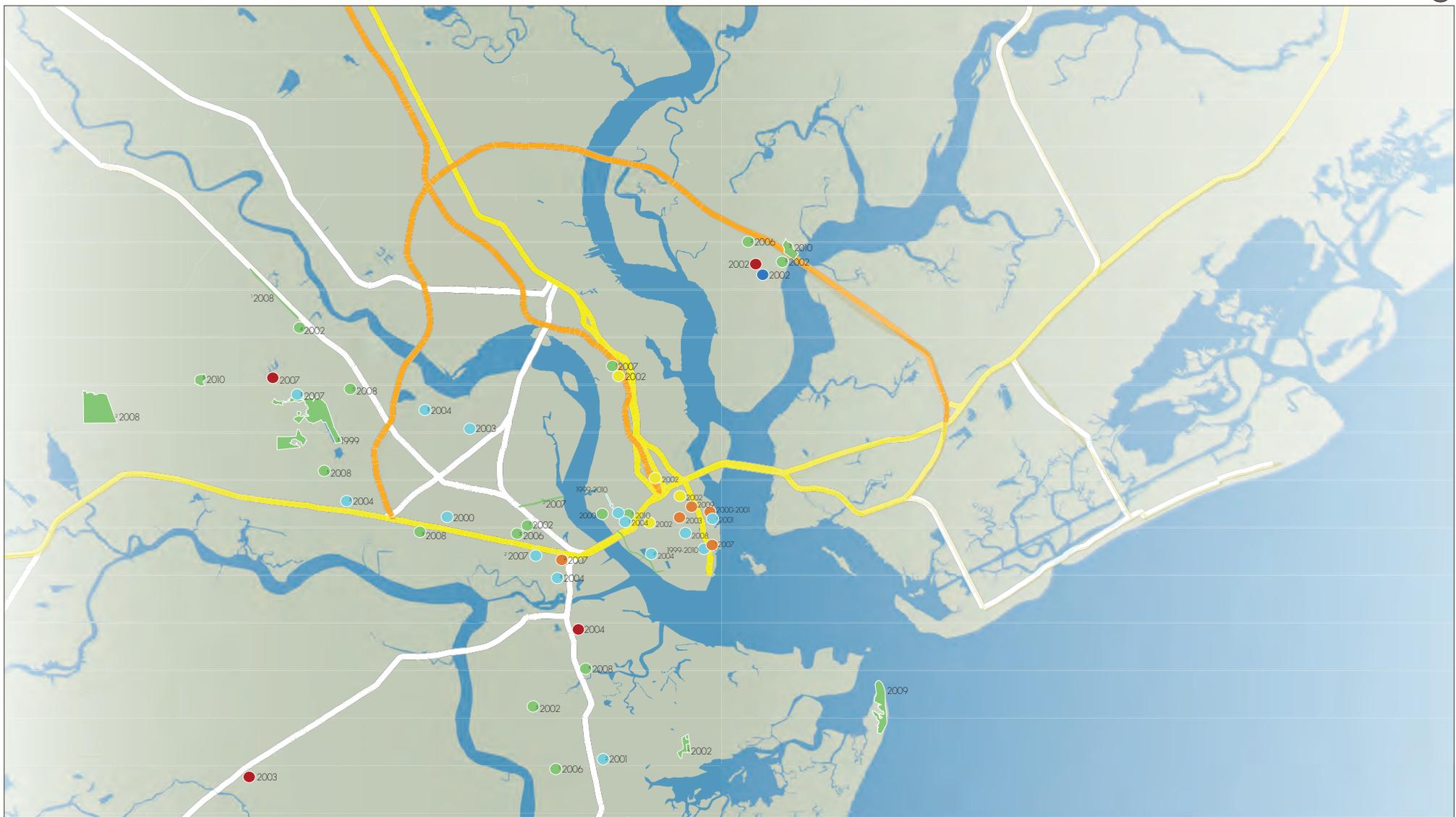
and trends can be identified. Given the timing of the Century V City Plan update, Census 2010 data is not available. However, the City of Charleston uses U.S. Census Bureau estimates and provides its own estimates of population and demographics to complete a 2010 snapshot of Charleston in the Population and Housing Element. Using this data, the City is able to make new recommendations for sustaining a healthy, vibrant and demographically diverse community.

#### **Factor 4:** **A Decade of Accomplishments**

From 2000 to 2010, there has been dramatic change in the City of Charleston, perhaps the most amount of growth and new opportunities the City has ever seen. During this decade the City has completed dozens of projects and invested much in improving the City's quality of life. In the map and timeline, titled "City of Charleston's Notable Investments and Achievements" the progress of the City since 2000 is outlined.

# City of Charleston Notable Investments and Achievements 2000 - 2010

<ul style="list-style-type: none"> <li>2000</li> <li>2000-2001</li> <li>2001</li> </ul>	<ul style="list-style-type: none"> <li>2002</li> <li>2003</li> <li>2005</li> </ul>	<ul style="list-style-type: none"> <li>2007</li> <li>2007</li> <li>2008</li> <li>2008-2009</li> <li>2010</li> </ul>	<ul style="list-style-type: none"> <li>2000</li> <li>2002</li> <li>2002</li> <li>2004</li> <li>2006</li> <li>2007</li> </ul>	<ul style="list-style-type: none"> <li>2003</li> <li>2003</li> <li>2003</li> <li>2004</li> <li>2006</li> <li>2007</li> </ul>	<ul style="list-style-type: none"> <li>2006-2008</li> <li>2007</li> <li>2008</li> <li>2009</li> <li>2009</li> <li>1999-2010</li> </ul>					
<p>Ardmore Drainage Improvement \$5M</p> <p>Aquarium &amp; Liberty Square (8.0ac)</p>	<p>City S&amp;P Bond Rating Upgraded to AA+</p> <p>Lowcountry Senior Center (4.0ac)</p> <p>Johns Island Firestation</p>	<p>Police Department Technology Upgrade \$1.4M</p> <p>AW Christopher Gym Replacement</p> <p>Bees Landing Rec Complex</p> <p>Governor's Park North</p>	<p>Concord St pump station constructed \$15 M</p> <p>Riverland South drainage basin improvements</p>	<p>Charleston School of Law</p> <p>James Island Firestation</p> <p>Traffic Management Center Upgrade</p>	<p>Police Headquarters Renovated \$2.8M</p> <p>1,800 Parking /Meters upgraded for SmartCard system</p>	<p>The Joe (5.5ac)</p> <p>Daniel Island Police Station</p> <p>Daniel Island Fire Station</p> <p>Homeownership Initiative adopted by City Council targeting Cannonborough, Elliottborough, the West Side, H, F, &amp; I Street, the Eastside and Rosemont</p> <p>Hagood Ave raised to reduce tidal &amp; storm flooding</p> <p>Portion of Barre elevated</p> <p>Other drainage improvement projects</p>	<p>Art Institute of Charleston</p> <p>Windemere Renovation</p> <p>Rosemont Field (26ac)</p> <p>West Ashley Bikeway</p>	<p>Courtney St Storm Pump</p> <p>Byrnes Downs drainage improvements \$6.6M</p> <p>Church Creek drainage improvements</p>	<p>Ashley River Rd Bikepath</p> <p>Bear Swamp Rd Park (207ac)</p> <p>Charleston Firefighter Memorial</p> <p>Ellis Oaks Park (1.1ac)</p> <p>Johnson Park (9.2ac)</p> <p>Village Shaffesbury Park (2.9ac)</p>	<p>Flagship Business Development Center</p> <p>Morris Island</p> <p>City S&amp;P Bond Rating Upgraded to AAA</p> <p>Traffic Calming Program has implemented 440 speed humps in 66 neighborhoods \$1.1M</p> <p>Market St basin design and construction (Phase II in progress) \$25M estimate</p> <p>Spring/Fishburne design and construction (construction in progress) \$150M estimate</p>







# Population and Housing

vital, vibrant neighborhoods



Charleston has changed more dramatically during the past two decades than in any other 20-year period. Much of this change is attributed to rapid modernization of the world through changes in how we communicate, travel, work or where we dwell.

Constant technological innovations have given an unprecedented freedom of travel, information exchange, entertainment options, housing choices and access to education. Globally, the population is growing and resources are stretched. As technology spreads globally, the resources for survival and comfort are also spread. Competition on every level (global, regional, state, and local) requires more than ever that government operates efficiently and effectively. These facts cannot be ignored as Charleston seeks to continue as a sustainable community and a preferred place to live and do business.

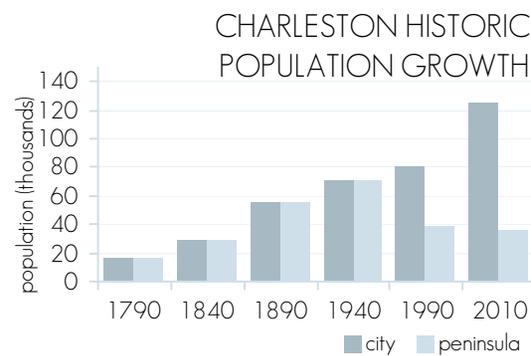
### Trends Affecting Planning

The Century V City Plan Update comes during a remarkable period in the urban development history of the United States. All levels of government are questioning policies that have for decades encouraged flight from the urban city. Many businesses are promoting urban development and redevelopment as sound,

long-term investments. Sustainability advocates, urban planners and developers have begun to forge a vision of urban life as a substantial part of the answer to many environmental and human quality of life challenges. The standout issue faced in the past decade is the increased cost of energy; which has caused every level from nations to households to reevaluate everything from travel modes to housing construction. Public and private leaders have suggested looking to cities as the most livable human habitat.

### Urban Growth Patterns

In the simplest terms, urban areas are the cities and towns that serve as our cultural, economic and population centers. The national trend has been a steady population growth of urban areas and decline in other areas. Between



Source: U.S. Census Bureau and City of Charleston Estimates

### National Urban Growth Trends

- The City of Philadelphia's population declined by 9.4% between 1990 and 1998, the Philadelphia region grew by over 80,000 residents. An indication of changes in growth and land use patterns may be that in the decade between 2000 and 2009, the City of Philadelphia's population grew by 2% while the metro area grew by a relatively comparative 4.9%.
- A similar trend occurred with cities in all regions of the country: New York, San Antonio, Los Angeles, Atlanta, Charlotte & Wichita.
- The City of Portland Oregon, a city with a 30-year history of efforts to control sprawl, grew by 3.7% between 1990 and 1998 while the overall region grew by 15.9% between 1990 and 1996. Contrast this with the 2000-2009 period and the trend towards massive suburban growth seems to be at least slowing: the City of Portland saw double the growth of the urban center at 7% while the metro area continued to grow by 16.3%.

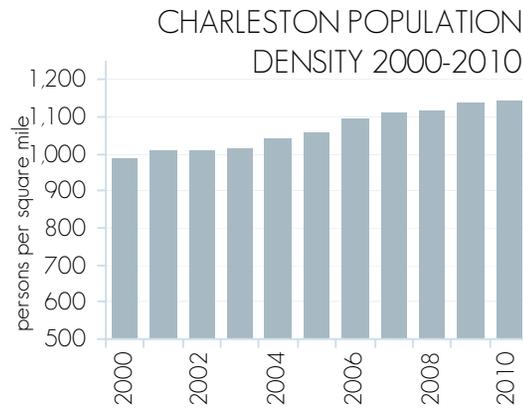
1990 and 2000, 75% of U.S. cities with at least 100,000 residents grew in population. Today, more than 80% are experiencing growth with over half growing by more than 5% during the past decade. As expected the Southern and Western U.S. grew the fastest (over 13%). While the nation and local communities reevaluate urban patterns, new suburban growth in metropolitan areas of the United States continues to exceed the growth in the center, or principal, cities of metropolitan areas. This trend was prevalent in the Charleston area during the 1990s and affected how the City planned for growth and change.

**Slowing Suburban Expansion:** A closer look at national and local trends between 2000 and 2009 shows that many of the “cities” are actually “suburban growth areas.” For example, in the Chicago, Illinois metropolitan area, the “suburb” city of Joliet experienced a 37% increase in population. While the City of Chicago, the urban core of the metropolitan area, declined slightly in population. Yet overall the Chicago metropolitan area reports a five percent total growth rate; the area showed growth, while the city center’s population shrunk. This trend was evident throughout the country in the 1990’s, but recent population data show the trend may now be decelerating.

**POPULATION GROWTH IN CITIES**

City	Principal City Population 2000-2009	Metro Area Population 2000-2009
Charleston, SC	19.7%	20.1%
Athens, GA	14.7%	15.7%
Columbia, SC	11.2%	15.1%
Gainesville, FL	22.2%	12.2%
High Point, NC	20.5%	11.1%
Mobile, AL	2.9%	3.0%
Savannah, GA	2.4%	17.0%
Wilmington, NC	33.6%	29.2%

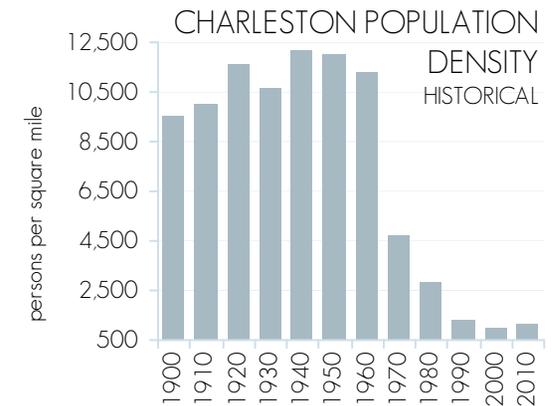
Source: U.S. Census Bureau, Population Estimates



Source: U.S. Census Bureau and City of Charleston Estimates

Slowing suburban expansions like Chicago’s example are now seen in many U.S. metropolitan areas, including Charleston at the sub-area level. The regional population of the Charleston metropolitan area increased rapidly while the Charleston peninsula, the region’s urban core, remained nearly constant. However, it is clear that where population growth occurred over the last decade, the urban core is no longer the loser on the overall growth chart as in the past. To illustrate, the “Population in Cities” table in the lower-left shows the differences in center cities versus metro areas for Charleston and other small U.S. cities comparable in size and location. Even the largest cities, that in the south are following this trend: the principal City of Atlanta grew slightly faster (29%) compared

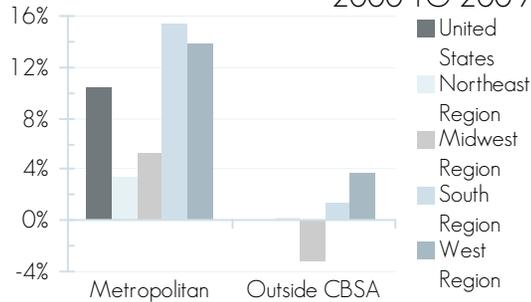
to its metropolitan rate (28%); the City of Charlotte grew 25% compared to 31% at the metropolitan level.



Source: U.S. Census Bureau and City of Charleston Estimates

**Density:** Another indicator of urban growth patterns and population distribution is density. Because most principal cities in metropolitan areas have fairly static boundaries, the growth in population has resulted in a rise in densities. Locally, the overall density of the City of Charleston has increased slightly during the past decade to approximately 1,143 persons per square mile; a sign that the Charleston area is making progress in land use efficiency. This is a leveling-off of a downward trend evident over the past several decades. Recent population estimates indicate that as annexed areas have

## REGIONAL GROWTH CHART 2000 TO 2009



Source: U.S. Census Bureau, Population Estimates  
CBSA: Core Based Statistical Area (area not in a metropolitan (cities) or micropolitan (towns) area)

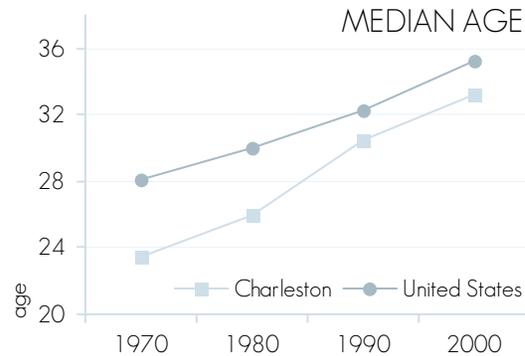
developed and infill development occurred, density in Charleston increased by an estimated 16% between 2000 and 2010.

## Demographic Shift

**Population Migration:** South Carolina was the tenth fastest growing state between 2000 and 2009 (U.S. Census Bureau Estimates). This figure is evidence of the recent shift of the national population through migration and natural increase.

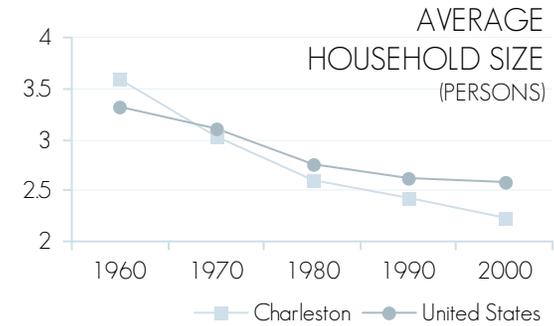
Between 2000 and 2009, the South Region (region defined by U.S. Bureau), by far, saw the highest overall increase in population actually absorbing more than half of the national population growth. Natural population

growth and flow of residents from northern to southern urban areas led to the South region having the fastest growing metropolitan areas in the United States. From 2000 to 2009, metropolitan growth in the South Region grew by 15% (over 12 million persons) compared to very little growth outside Core Based Statistical Areas (135,399 persons). During the same period the national metropolitan growth rate was 10%.



Source: U.S. Census Bureau, Decennial Census Data

This trend continues the rapid expansion of population in South Region metropolitan areas in the 1990s. In contrast, growth in rural counties (outside the Core Based Statistical Areas), which had been a fast-paced 9% in the 1990s, only rose 1.5% between 2000 and 2009. This trend may reflect changing growth management practices by local governments and a changing housing market. While subur-



Source: U.S. Census Bureau, Decennial Census Data

ban growth within the metropolitan areas still dominates the urban growth pattern, signs of maintaining urban boundaries and a movement toward incremental growth within the urban cores are seen.

**Demographics:** The 2010 Census will give an important update of the make-up Charleston. When new 2010 demographics data are released in the Spring of 2011, further analysis will be included in the appendix of this plan. This snapshot from 2010 can be used to identify trends and changes in key demographics, but also further our understanding of the cultural diversity of the City and region.

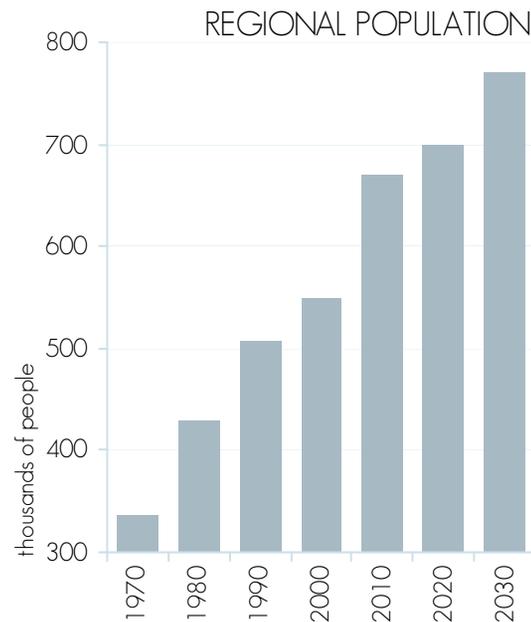
Available data reveals that in Charleston, like other places in the United States, the age of the population has been increasing and the

typical household size has been decreasing for decades.

Since World War II, Charleston's median age was lowest in 1970 when it was 23.5 years of age<sup>2</sup>. The 2000 Census found that the median age of our population had increased to 33.2 (see graph: Median Age) and Census estimates that in 2008 the median age was 33.7. Nationally, the median age in 1970 was 28.1 years, and in 2000 it was 35.3 years of age. This trend is expected to continue as the estimated largest segment of the national population is between 40 and 49 years of age.

The national trend of shrinking household sizes is also taking place in South Carolina and Charleston. In both 1990 and in 2000, about one-quarter of all households in the United States were made up of one person. This is a dramatic change from 1940, when only 8% of all households consisted of one person (U.S. Census Bureau, Decennial Census Data). In Charleston, a more dramatic change occurred. In 1940, 5.8% of S.C. households had just one person, while in 2000 the figure increased to 33.7%.

In addition, "household crowding" has sharply decreased. 'Crowded' is defined as more than one person per room. Persons per household in Charleston decreased from 3.6 persons in 1960 to 2.23 persons in 2000 (see graph: Average Household Size). In 1940, about 20% of U.S. households were considered crowded. By 1990, only 4.9% of U.S. households were considered crowded. In South Carolina, the trend is even more dramatic. In 1940, almost 40% of S.C. households were crowded and by 1990 only 4.1% were.



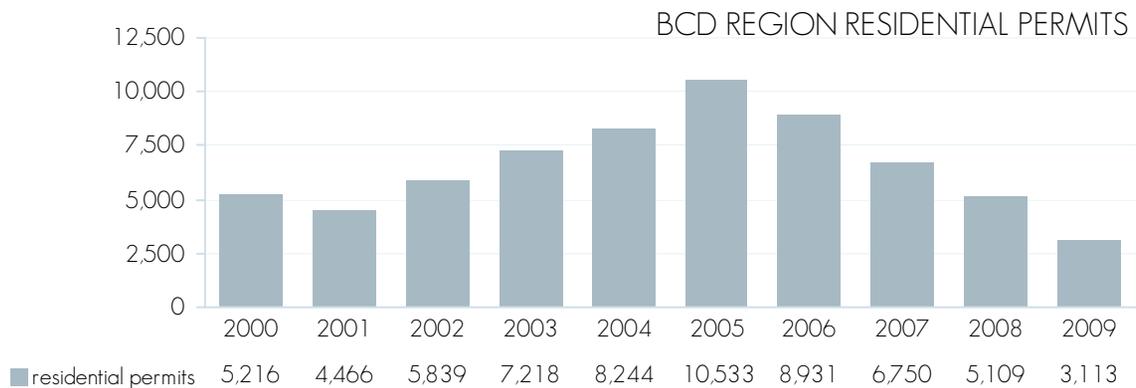
Source: U.S. Census Bureau and City of Charleston Estimates; Includes Berkeley, Charleston & Dorchester counties

An aging population and shrinking household sizes will affect demand for different types of housing, alternative modes of transportation, and local government services. The 2010 Census that has been conducted, but not compiled prior to this document, will provide an invaluable update on these and other demographic changes occurring in Charleston.

### The Regional Context

#### Charleston, Berkeley and Dorchester Counties:

The Charleston region is often thought of as the most urban portions of the tri-county area, but actually (mainly for statistical and planning purposes) comprises the entire area within the boundaries of Berkeley, Charleston and Dorchester Counties. Included within this Charleston-North Charleston Metropolitan Statistical Area (MSA) is a large degree of contextual contrast from the most rural fields of Dorchester County to the most urban streets of downtown Charleston to the barrier island beaches that help form the edge of North America. There are vast areas of unique ecological habitats, a long history of human settlement and dozens of political and public service jurisdictions; all of which make for a diverse environment that manages to grow and change as a region linked by its shared



Source: Real Estate Information Service, Inc.

resources, culture and place.

Within this regional context, the overall population has grown steadily and, most recently, has begun to rise more dramatically as local and national migration patterns affect the area. Other national trends such as a growing senior population, declining household sizes and increasing median incomes are changing the demographic makeup of the Charleston region.

Since the first non-indigenous settlements in Charleston were established in 1679, the number of inhabitants has risen from a few dozen to over half a million over Charleston's 330-year history. At first, the settled areas remained small and confined primarily to walled areas but, as the towns grew in population, so did the urbanized land area. Popu-

lation density in the region (persons per square mile) remained high until transportation and technology allowed settlements and individual property owners to spread out. Much of this spread happened as suburban development between 1950 and the present.

While the urbanized area grew, the number of people also grew rapidly, but not at the same high rate. Since 1970, the regional population has nearly doubled from 336,125 to approximately 670,000 persons. The region's population is expected to reach about 700,000 by the year 2020. While the region's population is growing at a reasonably steady rate, the amount of land being urbanized to support this population has been expanding at a much faster rate. Analysis by the Strom Thurmond Institute at Clemson University revealed that while the regional population grew by 41%

between 1974 and 1993, the urbanized area of the region grew by 255%<sup>7</sup>. This trend indicates the need for regional growth management among the three counties and 27 municipalities within the metropolitan area.

**Much of the rapid growth in the region can be attributed to influx of new residents through migration.** This has led to dramatic housing growth, especially in suburban areas such as Mount Pleasant, Summerville and the West Ashley area of Charleston. Between 2000 and 2009, 65,000 new residential permits were issued in the Charleston region. As was the case nationally, housing construction peaked around 2005 and has declined each year since. Single family residential units dominated the new construction market with 81% of the total units permitted; an indication of rapid suburban expansion. This expansion happened despite average home sale prices significantly increasing by 54% between 2000 and 2008. Since 1990, new housing development within the region has been greatest in Mt. Pleasant and in the West Ashley area of Charleston.

Along with housing and population came increased employment and economic growth. All sectors of employment saw growth in the

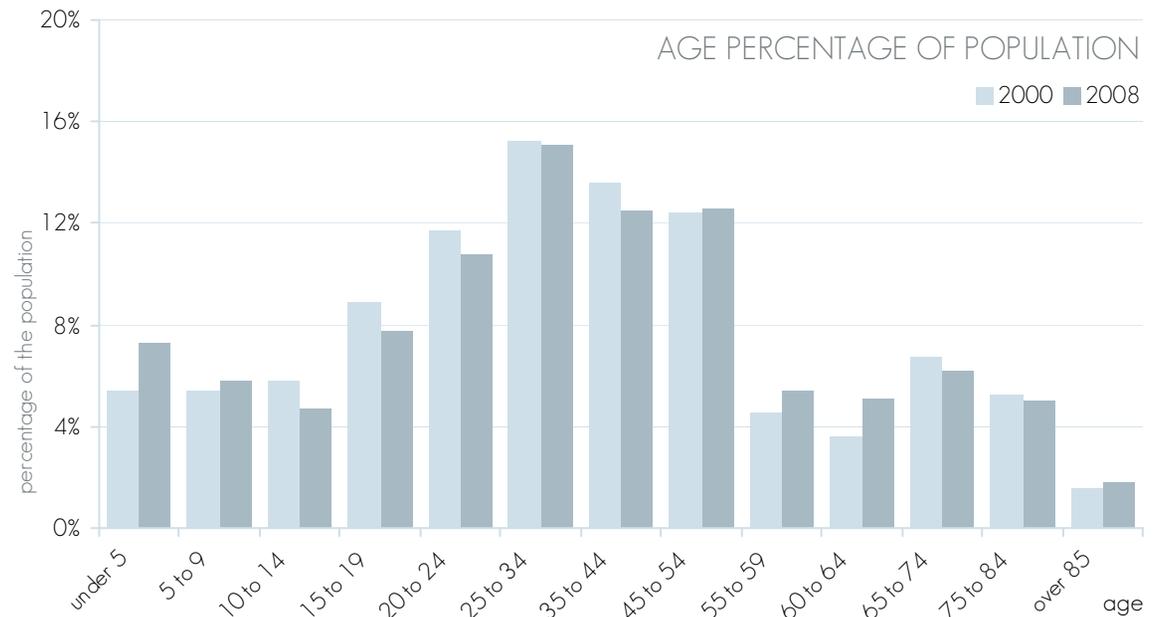
past decade with large increases in the industries related to government, education and health services. Smaller increases occurred in the construction, manufacturing and wholesale trade industries. In the last two years, many industries saw decreases in numbers of employees for the region as unemployment rose dramatically. Overall, the Charleston region fared better than many other metropolitan areas with unemployment rates remaining below State and National averages.

As expected in a metropolitan area, regional employment is concentrated in the urban core of downtown Charleston but, increasingly, areas of high employment are located on the urban fringe: West Ashley, the Airport and the I-526 area in North Charleston, and the Dorchester and Rivers Avenue corridors in North Charleston. Emerging work centers include Daniel Island and the Cainhoy Peninsula and sections of Mt. Pleasant, particularly the Long Point Road and Highway 17 interchanges with I-526 and Patriots Point. Enormous potential for increased employment for all sectors continues in the “Neck” area of Charleston and North Charleston as the South Carolina Ports Authority expands operations on the former Navy base and redevelopment occurs with mixed-uses.

The urban centers of the Charleston area are linchpins for a strong metropolitan area. Downtown Charleston remains the economic, historic, geographic and most urban center of the region. Several small town main streets remain viable in North Charleston and Summerville. The region is dominated, however, by suburban corridors punctuated by intense development at key intersections: Johnnie Dodds Boulevard and Coleman Boulevard in Mt. Pleasant, I-26, Dorchester Road, Rivers Avenue, Montague Avenue, and Ashley Phos-

phate Road in North Charleston, Savannah Highway, Ashley River Road, and Sam Rittenberg Boulevard in West Ashley, Folly Road and Maybank Highway on James and Johns Island, and Clements Ferry Road on the Cainhoy Peninsula. The Mark Clark Expressway is creating new opportunities for development of regional centers at its 12 interchanges with local roadways.

The most important centers of economic activity outside downtown Charleston are the



Source: U.S. Census Bureau, Decennial Census and 2008 American Community Survey

Citadel Mall District of West Ashley, the I-526/Airport area of North Charleston, and the I-26/Ashley Phosphate Road/Northwoods Mall area of North Charleston. The Citadel Mall District is where Savannah Highway and Sam Rittenberg Boulevard meet I-526 and includes the largest concentration of employment in Charleston outside downtown. The I-526/Airport area of North Charleston includes the coliseum and convention center and the research park on International Boulevard. In close proximity to the I-26 and Ashley Phosphate Road interchange are Northwoods Mall and other regional retail centers, and other commercial and office developments.

In addition to these centers, the area around Mount Pleasant Town Center at US Highway 17N and the Isle of Palms Connector is the retail center of East Cooper, attracting customers from all over the region.

### City of Charleston Population

As the cultural, economic and geographic center of the region and South Carolina Low-country, Charleston has maintained a diverse population bound by shared history and place. From its founding, Charleston has been built upon people brought together through shared circumstances of immigration, trade,

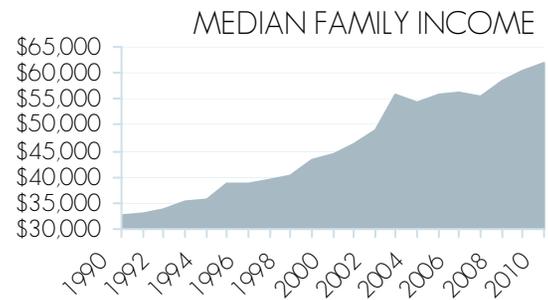
war and self-determination. Even today, Charleston is an evolving blend of people from different ancestry, culture, language, economic means or types of education. Charleston should continue to embrace a diverse socio-economic/demographic makeup as described in the following section.

**Age and Gender:** The gradual trend of an aging population is evident nationally and in the City of Charleston. The median age continues to tick upward as baby-boomers grow older and the population lives longer. The median age in 2000 was 33.2 and was estimated to be around 34 in the latest 2008 Census data (U.S. Census Bureau, American Community Survey, 2006-2008).

Recent estimates indicate a rise in the percentage of persons under the age of ten between 2000 and 2008. Even with an aging population, any planning must consider the unique needs of our youngest population. *The Charleston Area Youth Master Plan (2007)* addresses many of the issues surrounding school-age children in the community. The largest age group in Charleston is made up of persons age 25 to 34 and percentage increases occurred in all age groups from 45 to 64 leading to a modest increase in median age.

Gender percentages remained stable during the last decade with approximately 52% of the population being female.

**Race:** Charleston continues to be racially diverse. The 2008 ACS estimates that about 66.9% of the City's population are white/Caucasian while 29.4% are black/African-American; a decrease of 4.6% from Census 2000. The Charleston peninsula has seen the most significant changes in race population over the decades as Caucasian families moved out of the City into the suburbs in the 1960s leaving a predominately African-American population downtown. Over time,

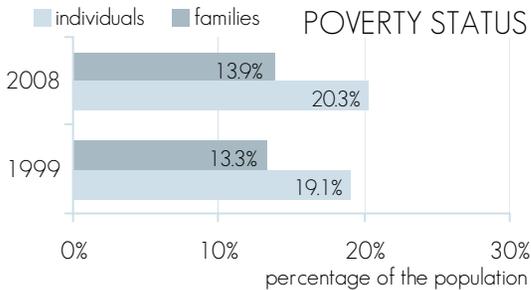


Source: U.S. Department of Housing & Urban Development

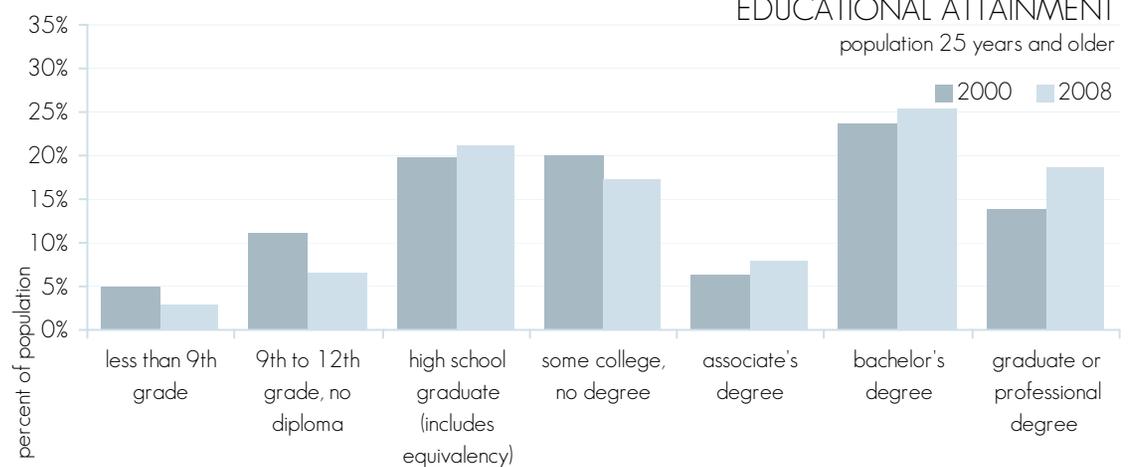
the population of African-Americans and Caucasians have become more comparable, as families have become smaller and people seeking an urban lifestyle have moved to the peninsula. Persons considered Hispanic or

Latino increased to an estimated 2.6% of the 2008 population and tend to live in the Johns Island area of the City.

**Families and Households:** In 2008, families made up an estimated 52% of the households in Charleston. This figure includes both married-couple families (35%) and other families (17%). The average family size was 2.99 persons in 2008. Other relatives (non-



Source: U.S. Census Bureau, Decennial Census and 2008 ACS  
 householder, spouse or child) made up about 6.4% of the population in household, a slight increase from the number in 2000. About 38% of the non-family households were people living alone. Household size has continued to decrease over time from 3.6 persons in 1960 to 2.23 persons in 2000. For Charleston and the nation, this key demographic figure is not expected to drop significantly over the next few decades.



Source: U.S. Census Bureau, Decennial Census and 2008 ACS

**Income:** Median family incomes have risen steadily in the Charleston area over the years and nearly doubled over the past two decades. The median income for a family of 4 increased 39% between 2000 and 2010 (U.S. Department of Housing and Urban Development). Estimates also indicate per capita incomes and median household incomes rose 42.8% and 36.7%, respectively, between 1999 and 2008.

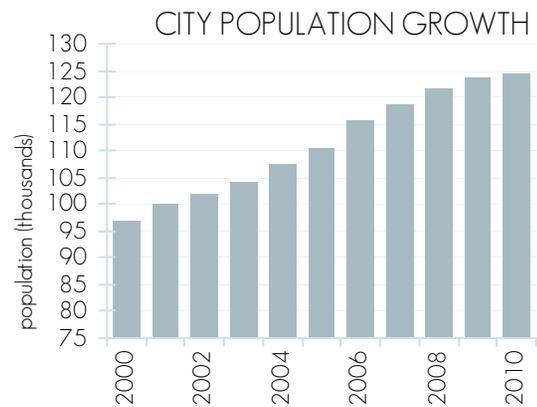
The percentage of families and individuals with incomes below poverty level remained virtually unchanged between 1999 and 2008 given that the latter year's percentage is an estimate (see graph: Poverty Status).

**Education:** The percentage of the population achieving more years of formal education is increasing as well as the number of persons with college and graduate degrees. In 2008, over 90% of the population had a high school diploma (or equivalent) or higher. This is an increase of 7% from the 2000 Census. Also, 44% of Charlestonians had bachelor's degrees in 2008, an increase of 6.6% over the 2000 figure.

### Geographic Areas

The City of Charleston is the primary urban center of a fast growing metropolitan region. The City in 2010 consists of a variety

of urban, suburban, and some rural settings - from the City's oldest neighborhoods downtown, to suburban subdivisions in West Ashley and on James Island, to the pastoral landscapes of Johns Island and new neighborhoods on Daniel Island.



Source: City of Charleston Population Estimates

Each area has its own unique history and man-made or natural environments. But how each area is different is secondary in this plan to how each is united. The residents of each area and every neighborhood share "ownership" of the entire City. Each resident is invested in the City's future. **The Century V City Plan must help reveal the connections between the Peninsula, West Ashley, James Island, Johns Island, and Daniel Island as it reflects the uniqueness of each area.**

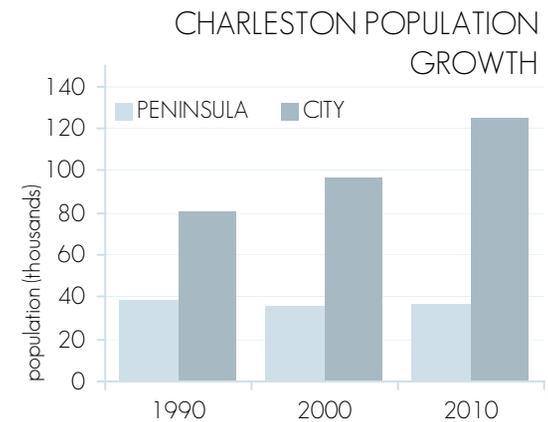
Peninsular Charleston has been largely developed for over 60 years. Since the 1960s, much of West Ashley and James Island was converted from rural to suburban area. Only southwestern areas of James Island remain substantially undeveloped - west and south of Riverland Drive and west of Folly Road. In West Ashley the only substantially undeveloped areas are close to the urban growth boundary near Rantowles Creek. Open space still dominates the landscape of Johns Island, Daniel Island and the Cainhoy Peninsula, but development is slowly filling-in the areas inside the urban growth boundary.

The City's population has grown about 55% since 1990 (see graph: Charleston Population Growth Chart) and the municipal jurisdiction has more than doubled to 109 square miles. Between 1990 and 2000, about half the City's population growth was the result of annexation. In contrast, today most of the growth is occurring as a result of natural increase and migration to the City.

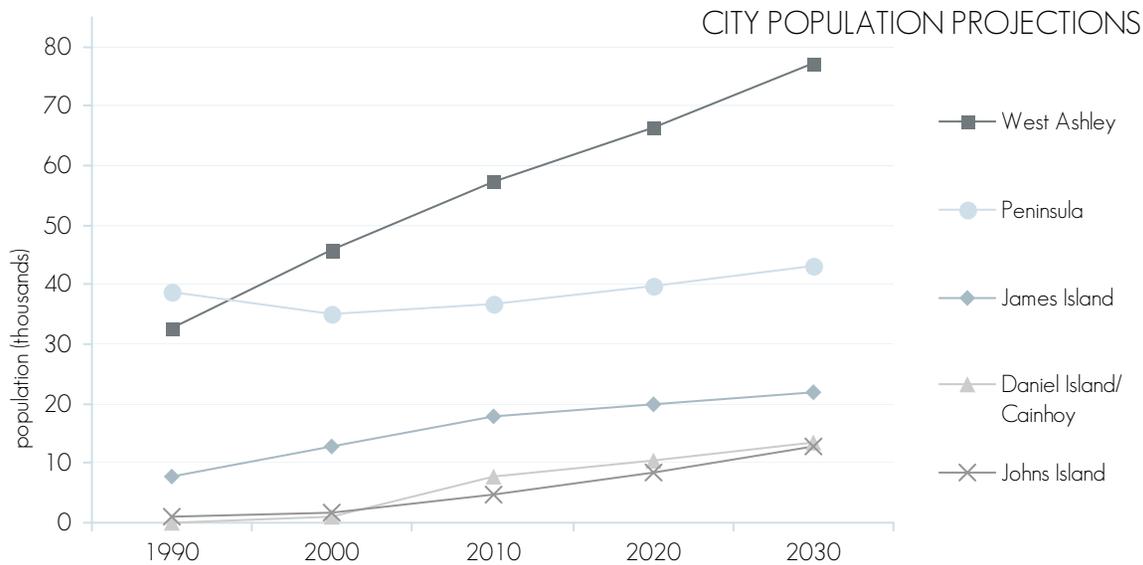
**Peninsula:** The Charleston peninsula, historically the population center of the City and the region, is the second most populated land body in the City with an estimated 36,608 residents. Both the total number and

percentage of population on the peninsula declined significantly after 1940 and only recently may have leveled-off.

**West Ashley:** Currently, the most populated geographic area of the City is West Ashley, where almost half of the City's residents live. This area has increased in population by 25% since 2000 and 75% since 1990. Most of the population lives in suburban neighborhoods developed between 1940 and 1990, but new construction and annexation is increasingly adding to the total number. It was to the new subdivisions in West Ashley that much of the population moved to when they left the peninsula. Today, this area draws many young families and retirees pursuing lower housing prices.



Source: U.S. Census Bureau and City of Charleston Estimates



Source: City of Charleston Population Projections

**James Island:** James Island, much like West Ashley, contains a large suburban population but the majority are not in the City of Charleston jurisdiction. The City's population on James Island has increased about 41% since 2000 to approximately 18,000 persons.

**Johns Island:** Johns Island is the most sparsely populated area of the City with an estimated 4,869 persons in 2010. The City portion of the population on Johns Island has more than doubled since 2000 and tripled since 1990, but the total population has only increased by

an estimated 3,193 persons. Planned and approved development in the Maybank corridor indicate steady growth will continue over the next decade.

**Cainhoy Peninsula:** While all areas of the City have seen significant increases in population, Daniel Island and the Cainhoy Peninsula have seen the highest percentage increase in population since 2000. Six times more people reside in this area than in 2000 as a result of rapid growth in housing and services in the areas.

The most significant population growth trend facing Charleston is the rapidly growing City population outside the Peninsula. In 1940, the Charleston peninsula contained over 71,000 residents. This was 42% of the population in the Charleston region and 100% of the population in the City of Charleston (no other city areas had been annexed). By 2000, the peninsula population had declined by 50% - to less than 36,000 residents. The population of the peninsula had not been this low since before 1850. Today, the peninsula accounts for just 5.4% of the region's population and 29% of the City's population.

Much of the initial decline of the urban center was the result of the mass population movement to the suburbs starting in the 1960s, but other factors such as reduction in household size and lack of housing growth continued the trend into the 1990s. The peninsula remains the most culturally and demographically diverse area of the City and still absorbs a large number of people every day in the form of tourists and workers. The gradual decline in population and continued status as the economic and cultural engine of the region indicates the peninsula has the potential for growth over the next several decades.

**Projections:** The population growth trend in the suburban areas is expected to continue, and by 2030 the population of West Ashley will be nearly twice that of the peninsula. By 2030, Johns Island, Daniel Island and the Cainhoy area are expected to continue with steady population growth while James Island growth will see only modest increases. Projections indicate most of the population will live outside the city center yet will not extend significantly beyond existing urban and suburbanized areas. Infill development, more compact development patterns and changing housing markets and City planning and growth management policies may drive this trend.



Typical Older Suburban Single-Family Home

## Housing

Cities can often be characterized by the quality, distinctiveness and affordability of its housing. Housing is a fundamental building block of good neighborhoods and cities must foster an environment where people thrive in the context of preservation of old homes and where new homes are built as an extension of the culture, lifestyle or civic pride in the community. Ideally, communities provide its population with housing choice through a broad range of housing types, styles and prices.

Because of its long history and diverse population Charleston boasts a remarkable mixture of housing maturation, types, architectural styles and functional designs. From historic wood homes to modern brick houses, housing has been the foundation for an urban pattern that grew out of a walled city into an evolving metropolitan region. This evolution is the result of changes in population, adaptation to climate, construction techniques and market influences. **But, housing has always remained a basic human need and to which a modern society must ensure everyone has access.**

**Housing Affordability:** Housing has become the highest category of expense for households in the United States. The average

household spends over 34% of their income on housing (Consumer Expenditures, U.S. Dept. of Labor, 2009) which is over the recommended individual household affordability threshold of 30%. Homeowners and renters often choose to spend more on the extra comforts of a home, but some spend more in housing because income levels in Charleston cannot keep pace with affordable housing availability.

### HOUSING OPPORTUNITY INDEX

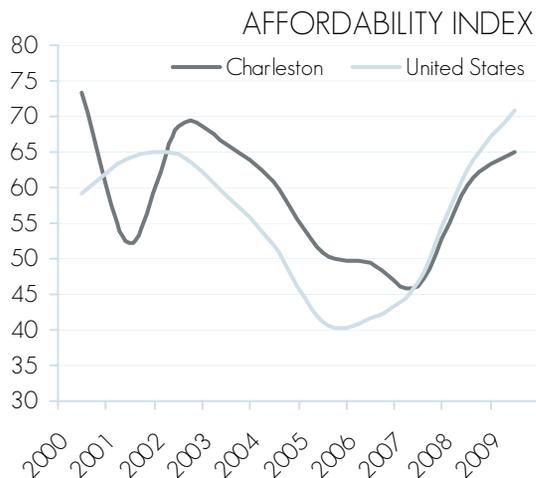
	Quarter 4, 2010
Charleston, SC	65.1
Columbia, SC	83.0
Greenville, SC	82.5
Asheville, NC	79.4
Greensboro, NC	76.4
Charlotte, NC-SC	75.2
NATIONAL	70.8

Source: NAHB/Wells Fargo Housing Opportunity Index

The *City of Charleston 2010-2015 Consolidated Plan* for housing is a detailed review of housing trends, affordability and housing recommendations completed by the Department of Housing and Community Development. This plan describes the recent downturn in the economy and determined that it has not increased affordability for many

families in Charleston, despite the trend in rising median incomes and decreasing rents and home values. This housing affordability environment is driven by the desirability of the Charleston market.

As a snapshot of affordability in Charleston, the median sales price for a home in Charleston is about \$210,000. Based at that price the median home is not affordable to residents earning less than 100% of the median income of the Charleston community. The median income for a family of four in Charleston

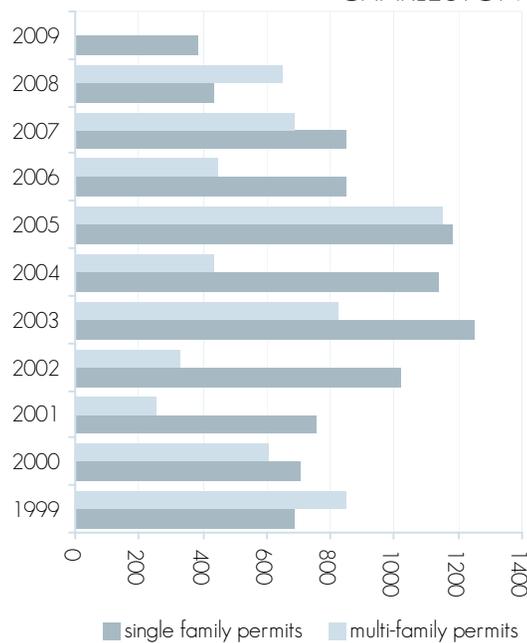


Source: NAHB/Wells Fargo Housing Opportunity Index

is \$60,300. Home ownership is still out of reach for low-income families and virtually impossible for very-low-income families of

Charleston. Of Charleston households with a mortgage, almost half are paying more than recommended on housing (2006-2008 ACS). Another indicator is the National Association of Home Builders Wells Fargo Housing Opportunity Index (HOI). This index charts the affordability of housing as a percentage of households able to purchase a home at the median home sales price. The 2009 figure for the Charleston metropolitan area stood at 58%.

BUILDING PERMITS IN CHARLESTON



Source: City of Charleston Building Permit Data

Almost half of families renting in Charleston are paying more than 35% of their income for rent meaning much of the renting population of Charleston is cost burdened. Charleston is not only facing affordable housing home ownership concerns, but cost-burdened rental housing concerns as well. The City of Charleston and other non-profit or government organizations in the region have many programs to assist in maintaining an affordable housing stock through rent subsidization, low-cost home loans, public housing construction and other necessary programs.

**Housing Construction:** Many factors contribute to increased housing costs in Charleston including land value, building code requirements, existing public infrastructure and home size. Despite rising costs, the Charleston market was able to support the construction of nearly 14,000 units between 2000 and 2009 (Source: City of Charleston Building Permits data). Most of the construction occurred in suburban areas of the City requiring new roads and utility infrastructure. More of the homes were single-family homes on lots typical of suburban neighborhoods and some were built in areas in or near flood

zones. This pattern of construction helps drive prices upward.

A healthy housing market will have an inventory that allows the population to exercise choice in housing type. Between 1990 and 1999, the City saw a new housing market dominated by single-family units. This trend changed between 2000 and 2009 as City building permit data indicates over 38% of all units permitted in the City were multi-family units. While many new multi-family units were built in the past 10 years, they also tended to be constructed in new, "Greenfield" locations rather than close to the urban core where comparable residential units exist in more abundance. More than half of multi-family units were built in West Ashley and Daniel Island, and 11% were built on the peninsula.



Affordable Housing on the Peninsula

### MEDIAN HOME SALE PRICE BY AREA

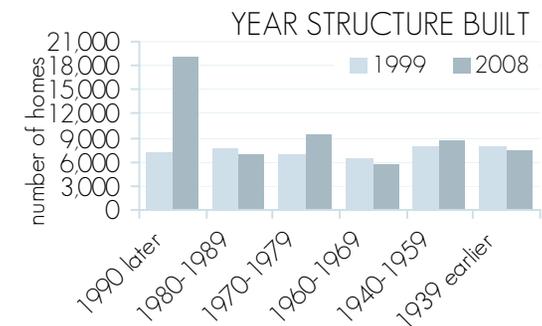
	Peninsula Below Crosstown	Peninsula Above Crosstown	West Ashley	James Island	Johns Island	Daniel Island	Cainhoy
1990	\$175,000	\$68,875	\$166,000	\$73,000	\$63,750	NA	NA
2000	\$407,500	\$110,000	\$144,000	\$155,000	\$183,000	\$266,090	NA
2001	\$399,900	\$141,500	\$146,500	\$162,900	\$145,750	\$280,350	\$80,000
2002	\$389,500	\$163,500	\$149,900	\$167,643	\$138,339	\$268,495	\$458,270
2003	\$410,000	\$154,500	\$159,900	\$166,000	\$229,000	\$335,000	\$234,500
2004	\$474,950	\$197,500	\$172,500	\$173,442	\$201,052	\$383,717	\$184,312
2005	\$502,500	\$255,000	\$189,000	\$189,950	\$247,250	\$359,000	\$229,030
2006	\$622,500	\$295,000	\$209,900	\$232,500	\$236,692	\$569,000	\$218,560
2007	\$565,000	\$259,500	\$213,950	\$261,000	\$219,000	\$431,494	\$259,000
2008	\$550,000	\$249,350	\$212,875	\$247,200	\$220,000	\$441,400	\$217,437
2009	\$487,500	\$213,000	\$200,435	\$205,500	\$230,900	\$410,000	\$194,000

Source: Charleston Trident Association of Realtors MLS data

Around 40% of all permits for new homes (single and multi family) issued between 2000 and 2009 were in West Ashley while only 8% were on the peninsula. Daniel Island saw 23% of all new construction and James Island and Johns Island added more than 4,000 units altogether. This housing construction pattern indicates a more even distribution throughout the City in contrast to the years between 1990 and 1998 which saw 84% of all units built in undeveloped areas of West Ashley and James Island.

**Existing Housing:** Housing prices exploded between 2000 and 2005 but have seen significant declines over the past five years (see

table: Median Home Sale Price by Area). The financial crises of the latter part of the last decade cooled a market that was fast becoming out-of-reach for families in the Charleston area. As the home mortgage/financing industry restructures, foreclosures on



Source: U.S. Census Bureau, Decennial Census and 2008 ACS

existing homes have increased and the number of rate of new construction decreased. Population growth has continued to put pressure on the housing market and construction is continuing at a slow pace. This increase and the huge rate of construction over the past 10 years raised the average age of residential structures (see graph: Year Structure Built). Given its long history and preservation efforts Charleston has an older housing stock than most cities. Housing loss and percentage of dilapidated homes are minimal because of the demand for historic homes and the preservation of significant buildings. It is important that Charleston continue to not only retain housing; but to ensure new uses and building types maintain the character of the existing neighborhoods; especially in the historic districts of the peninsula.

About 55% of homes in the City of Charleston are owned and 8% of those units are vacant. Sixty-seven percent of owned residential units have a mortgage. Over 11% of rental units in the City are vacant (2006-2008 ACS). The vacancy rate for all units Census 2000 was 8.5%, and this figure is expected to be higher when 2010 Census figures are released.

## Housing Trends

Inefficient housing on a city and individual building level contributes to the rising costs of housing. Recent demand for retrofitting older homes and building new, energy-efficient homes, indicates a trend toward improved construction techniques and new policies and programs. From a land-use perspective, com-



One Cool Blow Street: New mixed-use, urban infill housing using green construction techniques. This trend must continue to maintain a vibrant, livable city.

compact housing near existing transportation infrastructure can help reduce emissions and for the individual, maintaining energy efficient homes can be a money-saving practice.

Another trend over the past ten years has been a move from predominantly single-use neighborhoods to mixed-use and mixed housing-type neighborhoods. The City of Charleston has promoted housing choice by encouraging, and in some cases, requiring residential development to include multiple housing types or workforce housing.

Also more housing types today are also including construction accessibility for disabled or elderly persons in response to ADA requirements and the market for units suitable for an aging population. It is important to recognize and plan for an aging population and for persons with special housing needs. Many non-profit, for-profit and public agencies are building senior and assisted living housing in each area of the City and in a variety of types of neighborhoods. The most urban parts of the City, such as the peninsula, typically are the most appropriate locations for safe, afford-

able, accessible, and compact housing that meets the needs of seniors in the community.

## Housing Policies & Programs

Clearly, affordability is the biggest housing concern in Charleston and the City is actively addressing the issue by promoting housing choice. At the same time, the City must monitor fair housing, and the impediments to housing choice and implement the detailed recommendations of the *City of Charleston 2010-2015 Consolidated Plan*. The City's Department of Housing and Community Development and the City of Charleston Housing Authority are taking targeted approaches with a wide range of housing programs, but the City is also directly and indirectly addressing affordability through land-use and design policies. The City of Charleston Zoning Code is increasing workforce housing by encouraging, and sometimes requiring, affordable units to be included in new developments. Also, some zoning districts incentivize workforce housing and housing choice through non-restrictive density requirements or residential density bonuses.

In addition to City code, many of the "area" plans adopted as part of the Century V Plan recommend housing types and designs that

maintain and enhance the character of neighborhoods.

The City is also taking an active role in supporting temporary housing for homeless persons and programs to help prevent homelessness. In September 2010, City Council passed a resolution prioritizing a plan to reduce the impacts of homelessness on individuals and families in Charleston.

## Population & Housing Goals

1. Accommodate future population growth through land-use policies that encourage vibrant, safe, and diverse neighborhoods in areas that allow efficient use of space and transportation.
2. Ensure the Charleston population has access to housing opportunities that provide diversity in building types, availability for all income levels, proximity to transit and accessibility to job centers.

## Population & Housing Recommendations

1. Track changes in national and local population and demographic shifts to ensure growth management, housing, land use and transportation policies reflect current trends and projections.

2. Monitor housing construction permits and sale prices for continuous analysis of housing needs in all areas of the City.
3. Maintain land use policies that allow for and encourage diversity in housing opportunities in a variety of neighborhood contexts.
4. Encourage development of housing in compatible mixed-use neighborhoods and in close proximity to parks, bicycle and pedestrian facilities, public transit, schools, and civic uses.
5. Adopt additional development guidelines that allow and incentivize the inclusion of mixed housing types within neighborhoods.
6. Adopt additional zoning rules that will incentivize the inclusion of workforce housing in new and infill developments.
7. Encourage retention of existing housing stock through preservation incentives and rehabilitation programs and code enforcement.
8. Support sustainable housing development through incentives for efficient construction practices and energy efficient buildings



# Economic Development

diversifying business opportunities



The Charleston Century V plan advises that economic growth should provide new opportunities and resources for Charleston residents. Over the past ten years Charleston's economy has diversified significantly, moving from an economy that relied heavily on military spending to one that derives strength from a variety of business sectors. Sectors such as hospitality, software technology, and professional services have grown by taking advantage of infrastructure and technological resources available in our region. The thriving Central Business District exemplifies this diversification and its benefits, as professional services firms, retail merchants, hotels, and government agencies co-exist in a vibrant urban environment. Employment changes illustrate the growth in a variety of sectors.

As shown in the chart below, between 2002 and 2008 employment rose by 15%, but it rose by 26% in information technology, 35% in financial services, and 25% in other professional services. Two entities that have played leading roles in this diversification and will continue to foster impressive economic growth in the region are the Medical University of South Carolina (MUSC) and Charleston's Digital Corridor. The tourism and hospitality industry was one of the first sectors to flourish as a result of the diversification, and it will remain an important pillar of the City's economy. Manufacturing has created fewer jobs than the average in the past decade, but the recent investment by Boeing in the region will do much to reverse that trend.

### Medical University of S.C.

As its largest employer with over 10,000 employees, MUSC is a major economic driver for the City of Charleston. Every year, MUSC contributes an estimated \$2.3 billion to the local economy in addition to its research grant funding, which amounted to over \$217 million in 2009 alone. The medical facilities at the University are among the best in the country, and the 2009 U.S. News and World Report ranked MUSC as top-tier in the treatment of digestive, kidney, ear/nose/throat disorders, gynecological, respiratory, and rheumatologic disorders.

### Charleston Digital Corridor

A second key economic driver has been growth of the knowledge-based business sector. To foster such development, the

#### ESTIMATED EMPLOYMENT BY INDUSTRY

Year	Natural Resources, Mining & Construction	Manufacturing	Trade	Transportation and Utilities	Information	Financial Activities	Services	Leisure and Hospitality	Government	Total Nonagricultural Employment
2002	20,300	20,900	41,800	12,300	4,100	11,000	68,200	31,200	50,200	260,000
2003	18,800	20,700	41,800	11,900	4,400	11,200	69,800	32,800	52,700	264,100
2004	20,200	21,100	43,000	12,300	4,500	11,700	72,600	34,000	53,200	272,600
2005	20,400	21,300	45,400	11,600	4,700	13,100	75,000	34,400	53,800	279,700
2006	21,500	21,300	46,400	11,600	5,000	13,400	78,400	35,000	54,300	286,900
2007	21,800	22,300	46,800	12,400	5,100	14,200	83,600	36,700	55,800	298,700
2008	20,900	22,100	46,784	12,725	5,158	14,800	84,925	35,875	56,642	299,909

Source: Charleston Metro Chamber of Commerce, Center for Business Research

Charleston Digital Corridor was launched in February 2001 with 18 qualified “Corridor Companies.” Its purpose is to attract, nurture and promote Charleston’s knowledge economy by offering a combination of technology-enabled initiatives and business incentives, private business support, and member-driven programming. At the end of 2009, The Charleston Digital Corridor had 49 members paying average wages of \$83,636, surpassing both the state and regional averages of \$36,050 and \$37,520 respectively.

Despite the economic downturn, Charleston’s knowledge economy has continued to thrive. Recently the SC Research Authority, MUSC, and the City of Charleston collaborated to bring online the region’s first wet lab incubator,



Layout of Flagship Business Incubator on East Bay Street that has spurred creation of tech-oriented small businesses.

tor, the Charleston Innovation Center. In 2009 the Digital Corridor opened the Flagship, a co-working facility for small knowledge-based businesses. In its first year, resident companies and Flagship graduates raised \$14.1 million, created \$5 million in pay-

roll, and added 45 jobs to Charleston’s knowledge economy. The Flagship will continue to facilitate development and collaboration within Charleston’s entrepreneurial economy by serving as a venue for networking events and a meeting space for local and visiting professionals.

### Tourism and Hospitality

Charleston has become known as a world-class destination for visitors, with its historic heritage, unique cultural events, and access to the water. The visitor population is an important economic driver for the City, as it supports hotels, retailers, restaurants, the wedding industry, and other types of businesses. From 2000 to 2008, annual lodging revenue in the City increased 50% to over

### CITY OF CHARLESTON TOP EMPLOYERS

Rank	Employer	Product/Service	Number of Employees
1	Medical University of South Carolina (MUSC)	Hospital, post-secondary education, research	11,000
2	Roper St. Francis Healthcare	Roper and Bon Secours St Francis Hospitals	3,800
3	Blackbaud, Inc.	Specialty Computer Software development & design	2,000
4	City of Charleston	Local Government	1,700
5	College of Charleston	Post Secondary Education	1,200
6	Ralph H. Johnson VA Medical Center	Medical care for eligible veterans	950
7	Evening Post Publishing Company	Periodical publisher	700
8	The Citadel	Post-secondary education	650
9	Charleston Place	Lodging	550
10	Bishop Gadson	Assisted living	360
11	BenefitFocus	Web-based benefit package software	350

Source: Charleston Regional Business Journal

## CAPITAL INVESTMENT & JOB GROWTH IN CHARLESTON & BERKLEY COUNTIES

Year	CHARLESTON			BERKLEY		
	Investment	New Jobs	Firms	Investment	New Jobs	Firms
2000	\$159,582,243	1,677	105	\$161,015,059	1,017	47
2001	\$66,356,049	719	69	\$121,587,280	1,095	33
2002	\$199,602,677	1,705	89	\$143,647,419	674	34
2003	\$32,010,000	253	6	\$5,000,000	18	1
2004	\$592,950,000	1,790	5	\$5,500,000	90	2
2005	\$90,700,000	838	10	\$50,030,000	414	5
2006	\$121,500,000	758	7	\$609,300,000	268	3
2007	\$74,190,000	664	9	\$534,500,000	199	4
2008	\$128,180,000	737	9	\$27,000,000	480	3
2009	\$985,480,000	5,057	6	\$145,291,923	1,525	12
<b>TOTAL</b>	<b>\$2,450,550,969</b>	<b>14,198</b>	<b>315</b>	<b>\$1,802,871,681</b>	<b>5,780</b>	<b>144</b>

Source: SC Department of Commerce

\$213 million, while annual tourism revenues rose 61% to \$3.5 million. After rising every year for the past decade, those numbers slipped in 2009 due to the economic slowdown. However, the fundamentals of Charleston's tourism and hospitality industry remain strong, and data show that revenue in this sector is beginning to recover.

The burgeoning cruise ship industry will help this sector continue to grow. Early in 2010 Carnival Cruise Lines began sailing its ship Carnival Fantasy out of Charleston harbor every five to seven days. This represents more than 60 annual port calls that will bring visitors to downtown Charleston. In addition, the SC State Ports Authority is undertaking a major redevelopment of the

undertaking a major redevelopment of the cruise ship terminal and the surrounding property at Union Pier. The new passenger terminal will make the operation much more efficient and reduce local impacts while opening about 35 acres to non-maritime redevelopment.

### Boeing

In the fall of 2009 Boeing announced it would locate a Dreamliner assembly plant in North Charleston. Currently under construction, the new assembly plant will cost \$872 million with a total capital investment exceeding \$1 billion. As can be seen in the chart below, this level of investment is an enormous boost to the Charleston economy, far exceeding the amount of outside investment

ceeding the amount of outside investment over the past decade. Approximately 3,800 new jobs will be created and another 4,000 jobs will be supported as indirect and induced effects of the construction activity, generating \$1.2 billion in labor income per year. In total, the new Boeing facility will add an estimated \$6.1 billion to South Carolina's economy every year.

### Moving Forward

Over the next 10 years, the City must build on the successes of the past decade to further diversify and enhance its economy. Most importantly, the City must implement a multi-tiered economic development strategy for attraction and retention. For larger-scale economic development, this includes being an

conomic development, this includes being an active leader and/or partner with the other agencies and organizations that are working to bring new businesses to the region, such as the SC Department of Commerce, the Charleston Regional Development Alliance, and the SC State Ports Authority. A major target of these efforts going forward will be suppliers for the Boeing assembly plant.

Second, the City will continue to work with outside organizations to promote and improve local and regional infrastructure, such as the port facilities, airport, highways, and streets. Third, the City should continue to develop targeted incentive programs to attract all types of businesses. These initiatives could include enhanced Digital Corridor-based incentives for knowledge economy businesses and targeted programs aimed at Boeing suppliers. In addition, incentives could be provided to companies in the alternative energy sector to help support the City's sustainability goals. With several initiatives aimed at growing green jobs in Charleston, as well as the ongoing development of Clemson University's Wind Turbine Drive Train Testing Facility in North Charleston, there are significant opportunities for the growth of wind power and other energy sectors in the City and the region. Finally, the City

should continue to provide business services and allocate resources to supporting and promoting small, locally-owned, and minority- and women-owned business development.

The City should work to encourage new and expanding businesses in particular in the areas designated on the Land Use maps as "Industrial" or "Job Center." These are areas that have proximity to transportation networks and existing critical masses of small business and industries that can help foster new or fledging companies. Some areas for particular emphasis of this include the Dupont Road/Belgrade Avenue area in West Ashley and the Clements Ferry corridor on the Cainhoy Peninsula.

Another strategy to improve local economic performance is to focus City resources and public finance programs on revenue generators and economic development engines. Several large-scale development projects are being planned that will have significant economic impacts, both by creating jobs and bringing more people to Charleston. These opportunities range from specific development projects such as the Gaillard Center to larger mixed-use redevelopments such as Union Pier. The City should continue to foster these projects, both by managing the planning

process and by leveraging financing programs such as tax credits and tax increment financing to help pay for them.

## Economic Development Goal

**Develop and implement a multi-tiered economic development strategy for attraction and retention.**

## Economic Development Recommendations

1. **Work to promote and improve local and regional infrastructure.**
2. **Attract all types of businesses through targeted incentives.**
3. **Provide business services and allocate resources to supporting and promoting small and local business development.**
4. **Implement targeted job/work centers.**
5. **Continue to promote and grow the capacity of minority and woman owned businesses in the City.**
6. **Focus City resources and public finance programs on revenue generators and economic development engines.**

## Economic Statistics for the City of Charleston

### LABOR FORCE

	Labor Force	Employment	Unemployment	Unemployment Rate
1990	39,147	37,967	1,180	3.0%
1991	40,565	38,836	1,729	4.3%
1992	41,074	38,590	2,484	6.0%
1993	40,623	37,968	2,655	6.5%
1994	39,598	37,123	2,475	6.3%
1995	39,559	37,379	2,180	5.5%
1996	40,136	37,857	2,279	5.7%
1997	42,796	41,073	1,723	4.0%
1998	43,765	42,528	1,237	2.8%
1999	44,814	43,442	1,372	3.1%
2000	48,758	47,169	1,589	3.3%
2001	47,055	45,054	2,001	4.3%
2002	48,314	46,007	2,307	4.8%
2003	50,113	47,405	2,708	5.4%
2004	51,880	49,007	2,873	5.5%
2005	52,751	49,793	2,958	5.6%
2006	56,585	53,518	3,067	5.4%
2007	56,960	54,265	2,695	4.7%
2008	57,751	54,405	3,346	5.8%
2009	58,672	52,782	5,890	10.0%

Source: S.C. Department of Employment and Workforce, Labor Market Information

### GROSS TAXABLE SALES

	Receipts	Percent Change
2000	\$2,767,260,250	
2001	\$2,656,286,451	-4.01%
2002	\$2,714,967,905	2.21%
2003	\$2,810,971,972	3.54%
2004	\$2,336,375,373	-16.88%
2005	\$3,324,015,603	42.27%
2006	\$3,627,675,157	9.14%
2007	\$3,751,225,764	3.41%
2008	\$4,018,139,689	7.12%

Source: S.C. Department of Revenue, Annual Reports

### LODGING REVENUE

	Lodging Revenue
1994	\$74,857,097
1995	\$84,022,849
1996	\$95,504,489
1997	\$103,660,663
1998	\$119,907,040
1999	\$138,383,068
2000	\$142,664,126
2001	\$146,707,506
2002	\$172,424,193
2003	\$162,691,882
2004	\$171,176,742
2005	\$180,667,265
2006	\$191,753,722
2007	\$213,137,335
2008	\$213,311,679
2009	\$189,852,530

Source: City of Charleston Division of Business Services

### ANNUAL TOURISM REVENUES

#### State Accommodations Tax Revenues

	State Accommodations Tax Revenues
1998	\$1,864,576
1999	\$2,030,094
2000	\$2,163,436
2001	\$2,226,861
2002	\$2,420,307
2003	\$2,455,434
2004	\$2,589,892
2005	\$2,781,034
2006	\$3,021,808
2007	\$3,390,097
2008	\$3,487,819
2009	\$3,010,327

Source: City of Charleston Division of Business Services

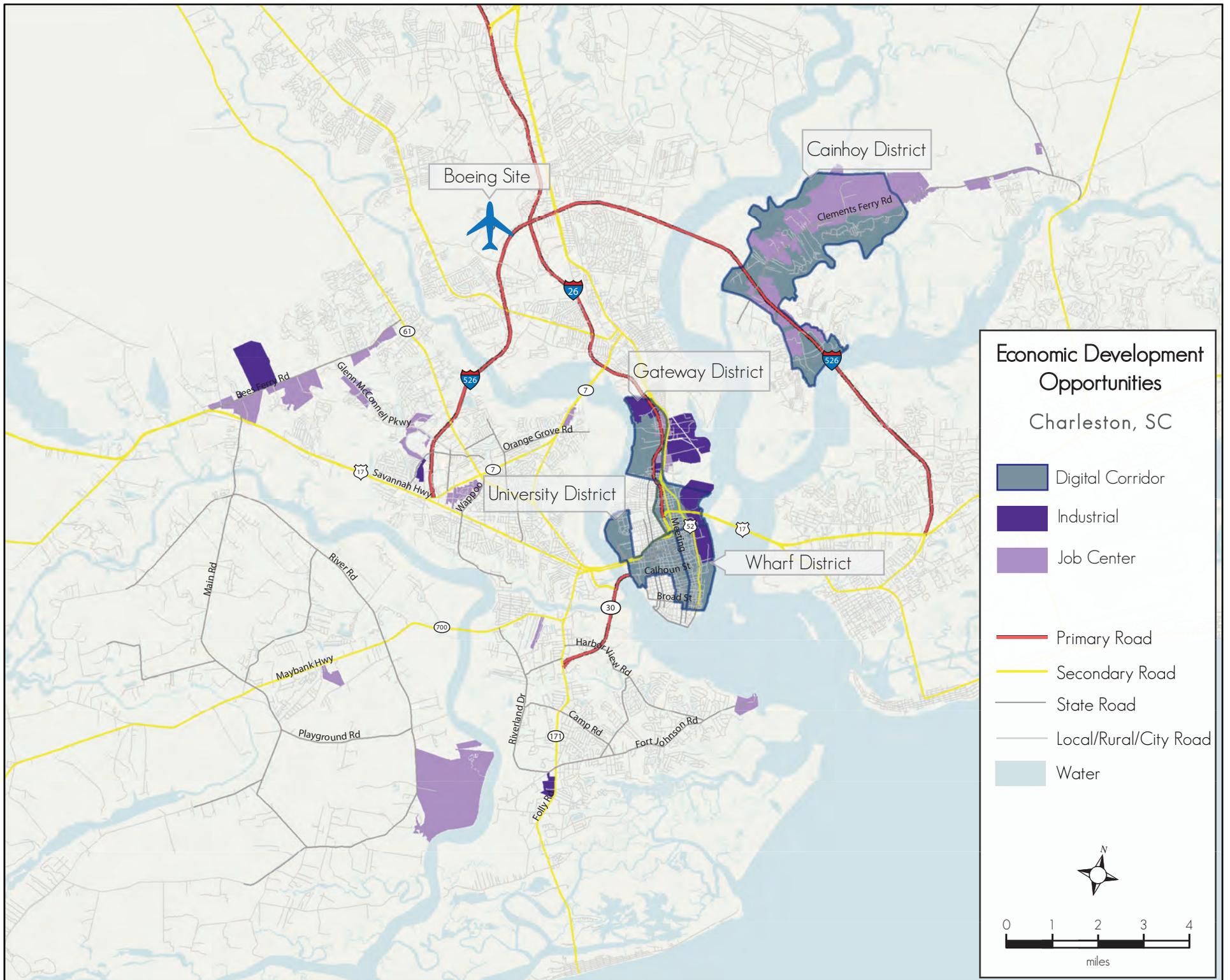
### PORT OF CHARLESTON CONTAINER VOLUME HISTORY

	TEUs
1999	1,347,618
2000	1,567,586
2001	1,615,842
2002	1,509,382
2003	1,681,721
2004	1,724,586
2005	1,970,875
2006	1,978,806
2007	1,883,651
2008	1,694,504
2009	1,373,206

Source: S.C. Ports Authority

### Sources

- Charleston Digital Corridor, City of Charleston, Website: <http://www.charlestondigitalcorridor.com/>
- Charleston Regional Development Alliance
- Medical University of South Carolina, Website: <http://www.muschealth.com/>







# Cultural Resources

preserving and expanding



Charleston is well-known for its unique history and abundance of cultural resources. The City is a major port and a popular destination for visitors, and as Charleston's *Preservation Plan* states, "Historic preservation is an integral part of Charleston's history and will continue to inspire the City's vision and its approach to planning and development."<sup>1</sup>

## Historic Preservation

Founded in 1663 by English colonists, Charleston is home to hundreds of historic houses, churches, cathedrals, synagogues and cemeteries. In downtown Charleston, 1,785 acres are a part of the National Register Historic District. Eighteenth and nineteenth century homes, public buildings, and commercial structures populate the district. However, the City limits stretch well beyond Charleston Peninsula into West Ashley, the Cainhoy Peninsula, Daniel, James, Morris, and Johns Islands. A few well known cultural venues in the City limits include: the Battery, Charles Towne Landing, Waterfront Park, the City Market, King Street, Hampton Park, and Daniel Island Town Center.

National Register sites, districts, and other landmarks are also located throughout the City, such as historic plantations, a number of

### The City of Charleston Preservation Plan—Ten Tenets of the Charleston Vision<sup>2</sup>

1. **Historic preservation is an integral part** of Charleston's history and will continue to inspire the City's vision and its approach to planning and development.
2. Charleston will sustain its rich and dynamic cultural heritage by **retaining its long-standing communities**. Housing affordability is a crucial part of this effort.
3. Charleston will look like Charleston, with recognition that the city's eras of development each have a **distinct and valuable character**, which collectively represent the continuity of its rich history.
4. The peninsula will continue to grow as a **dense and diverse urban community** consistent with its historic development patterns.
5. The **natural landscapes** in Charleston are important parts of the city's cultural and environmental heritage. These landscapes will be protected with planning and conservation tools.
6. Suburban neighborhoods are the potential historic resources of the future. They will be treated accordingly, with the goal of **reducing sprawl** through development consistent with traditional patterns.
7. **Dense urban architecture and infill development** will be encouraged where infrastructure supports such development. Publicly accessible open space is central to successful development.
8. Charleston's historic architecture sets a high and challenging standard. This tradition of **high-quality architecture** and building materials will be required in all projects in the city.
9. Charleston's policies will encourage a **balance of diverse, appropriate, and compatible uses** to make it a truly living city with continuing neighborhood vitality and livability.
10. Charleston will be a responsible **steward of its environment, both built and natural**: environmental and cultural sustainability will be considered in planning decisions that affect development.



North Central



Citadel Square Baptist Church



Wagener Terrace (Source: Preservation Plan)

Civil War era (and pre-Civil War) forts and archaeological sites. The City now recognizes that there are also numerous older neighborhoods in Charleston eligible for National Register status. In 2008, the City adopted the *Preservation Plan*, wherein the City proposes changes to the existing districts, to include these neighborhoods and parts of West Ashley, Johns Island and Cainhoj (see map of “Charleston Preservation Plan’s Proposed Changes to Protected Areas”). Area character appraisals for these neighborhoods and areas are currently underway.

The *Preservation Plan* (a.k.a. “Vision | Community | Heritage”) also presents key stewardship principles, growth and sprawl issues, diversity of place visions, historic neighborhoods descriptions, and new paths for preservation in sustainability, archaeology, housing affordability and disaster preparedness/recovery. Recommendations presented in the *Preservation Plan* mirror those that the City wishes to support in comprehensive planning.

### Benefits and Challenges

Preserving historic buildings is essential to understanding the City and nation’s heritage. In addition, it is an environmentally responsible practice, develops an economy for heritage

tourism, creates jobs, and can boost property values. Charleston has found that preservation is a natural way to conserve resources by reducing new infrastructure, and recycling materials, and reusing existing structures.

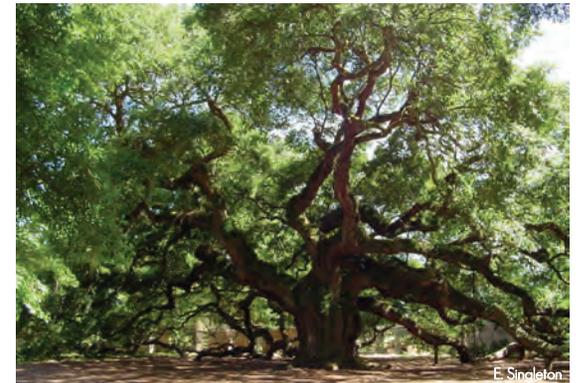
However, preservation is not without its challenges. Unprecedented growth in Charleston’s history and projections for future growth, threaten the City’s cultural resources. The *Century V Plan*, *Preservation Plan*, *Charleston Green Plan* and other planning initiatives have established practical steps in transportation, planning, and infrastructure to help overcome this challenge. **This comprehensive plan update aims to reinforce and build on these steps to overcome not only the challenges of growth, but also affordability, sustainability, and even natural disasters.**

### Beyond the Buildings

Aside from preserving manmade structures, Charleston is home to many beautifully preserved and maintained gardens, plantations, farms and live oak trees. In West Ashley, tourists and residents alike enjoy the plantation districts, including Magnolia Plantation and Gardens, Middleton Place, and Drayton Hall. On Johns Island stands the majestic Angel Oak. Estimated to be as much as 1400-1500



Charleston Farmers Market, Marion Square Downtown

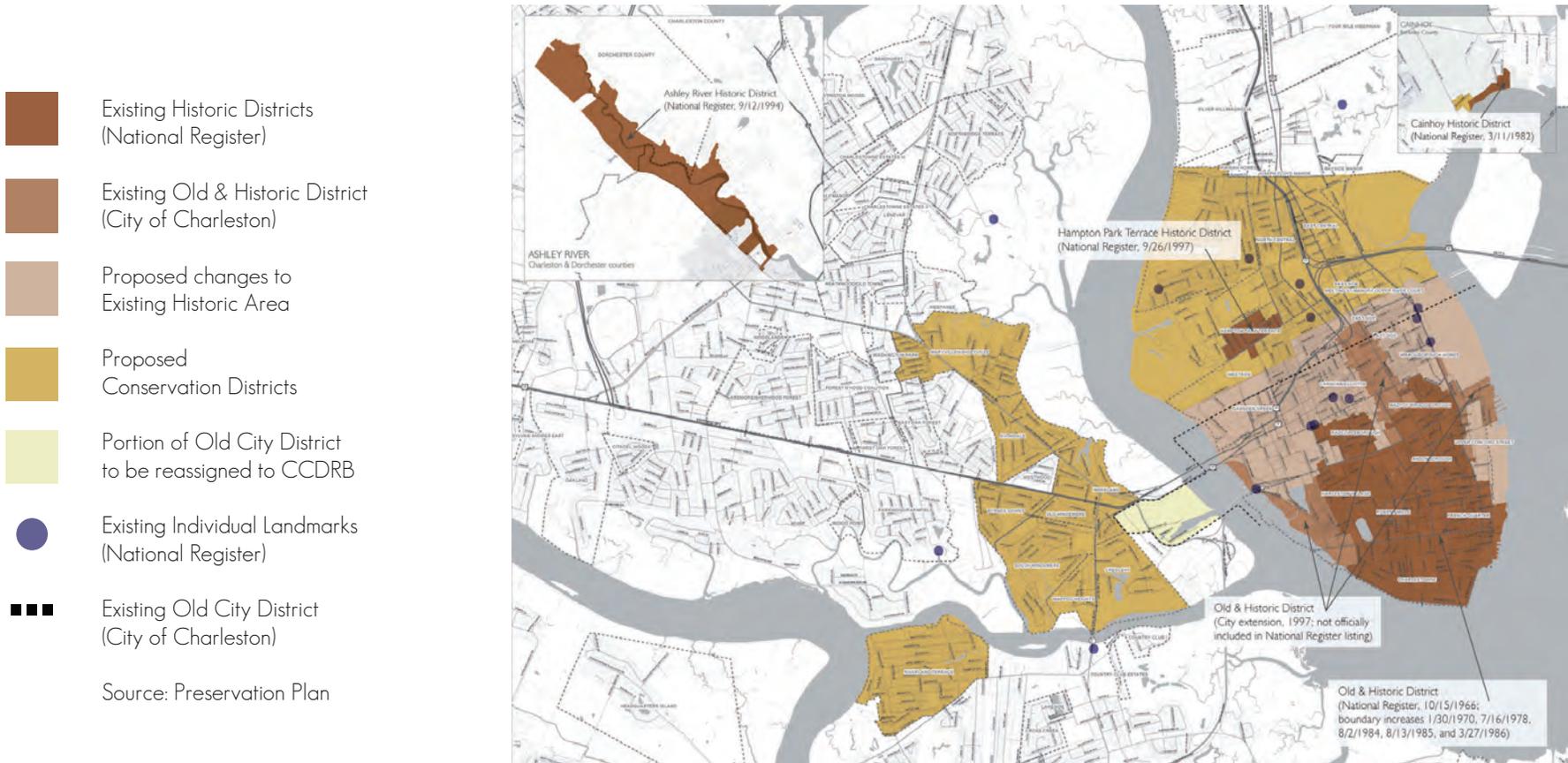


Angel Oak, Johns Island



Drayton Hall, West Ashley

## Charleston Preservation Plan's Proposed Changes to Protected Areas



### *Proposed changes to protected areas, including historic districts expansions and conservation districts creations.*

The passage of time, additional research, and an assertive annexation policy have resulted in a greater number of buildings in the City being recognized as potential historic resources. The *Preservation Plan* proposes changes in the protected areas of Charleston to include expanded historic districts and new conservation district. The Mid-Peninsula, Upper Peninsula, West Ashley, and James and Johns Islands contain built resources that speak to the city's history. Though some of these resources may be less traditionally "historic" than the Lower Peninsula, they should be recognized and protected. The above map illustrates the new areas being proposed. (Source: *Preservation Plan*)



Piccolo Spoleto Concert at Custom House Steps



Riverdogs game at "The Joseph P. Riley, Jr. Baseball Stadium



South Carolina Aquarium

years old; the tree towers 65 feet high, has a circumference of 25.5 feet, and an area of shade spreading over 17,000 square feet.

Downtown nestled beneath beautiful trees of Marion Square, the Farmers Market comes to life each Saturday morning and offers an abundance of the freshest local produce, plants, herbs and crafts. Also supporting the local economy and promoting sustainability, Daniel Island hosts its own Thursday Farmers Market. One is expected to open in West Ashley in 2010.

### Artistic Expression

The City of Charleston also has many artistic resources. The City of Charleston Office of Cultural Affairs is responsible for providing access to the arts for all citizens. It advocates the work of local artists, performers, and writers; supports and serves as a convening agency for local arts organizations; partners with Charleston County Schools to provide arts education opportunities; and works on several major events. Events include Spoleto USA, Piccolo Spoleto, MOJA festival, Annual Food and Wine Festival, Charleston Fashion Week, Southeastern Wildlife Exposition and the Cooper River Bridge Run. There also are numerous performing arts companies in the

City utilizing performance venues such as the newly renovated Dock Street Theater, Gaillard Auditorium, and the College of Charleston. In 2010, the City announced its plans to revitalize the Gaillard Auditorium into a world class performing arts center and exhibition hall, and included plans to expand the building footprint to house most City of Charleston general offices.

### Special Attractions

A number of professional, minor league, and amateur sports teams including the Riverdogs baseball team and Battery soccer team reside in Charleston. Other attractions include the South Carolina Aquarium (opened in 2000), Family Circle Cup Stadium (opened in 2001), and the The Arthur Ravenel Jr. Bridge (opened in 2005). The City also houses a number of significant museums as well, such as the Charleston Museum (the nation's oldest), the Gibbes Museum of Art, the Children's Museum, and future home of the International African American Museum. In addition, many historic houses in the City serve as house museums, profiling significant architectural styles and historic events.

## Cultural Resources Goals

Charleston will sustain its rich and dynamic cultural heritage.

## Recommendations

1. Build, maintain and preserve an array of first class cultural facilities and sites.
2. Support and implement recommendations from the Charleston Preservation Plan including landscape scale preservation efforts on Johns Island and the Cainhoy Peninsula.
3. Encourage public and private investment in cultural preservation, development and diversity.
4. Support the growth and development of Charleston's arts community.
5. Support policies, incentives and plans that encourage and stimulate preservation and growth of cultural resource opportunities, including the economy for heritage tourism.

NOTE: Specific recommendations for the cultural resources element were not outlined in the 2000 Century V Plan.

## Sources

<sup>1</sup>*Vision | Community | Heritage: A Preservation Plan for Charleston, SC.* City of Charleston. Page 6. Adopted 2008.

<sup>2</sup>Ibid.



# Natural Resources

protecting important assets



The City of Charleston is located in the Lowcountry of South Carolina. The humid, semi-tropical climate gives rise to a diversity of plant and animal life. Charleston is host to a myriad of islands, wetlands, creeks, rivers and harbors which determine the shape and configuration of man-made development. Although urbanization and the associated land development in the Charleston region can have a positive impact on the local economy, it exerts pressure on the estuarine system and natural environment<sup>1,2</sup>. The sustainable management of natural resources is essential to maintain quality lifestyles for residents.

### Surrounding the City with Green

Delineating the rural/sub-urban edge with tools such as the Urban Growth Boundary (UGB) has been an important step in preventing new sprawl and promoting conservation in Charleston. Ecologically important marshlands can be destroyed and scenic byways impacted when rural land is developed<sup>3</sup>. For this reason, Charleston has made improvements in land conservation and promotes compact development patterns that minimize consumption of land as recommended in the 2000 Century V Plan.

The City continues to support Charleston County's Greenbelt Plan for the conservation of greenspace in Charleston. One of the newest additions to the Greenbelt is the 207 area park at Long Savannah (aka Bear Swamp Road Park) located in West Ashley.

The City also currently owns and is responsible for 120 parks, including approximately 1,500 acres of parks and open space. Charleston strives to provide both larger parks (50+ acres) for active and passive use; neighborhood parks (2-20 acres) within walking and biking distance of most homes; connectors like greenways and

### CITY OF CHARLESTON PARK LAND ACQUISITIONS 2000-2010

NAME	Acres	Year	Location
Maybank Tennis Center	58	2001	James Island
Cool Blow Park/Simmons Playground	1.8	2001	Peninsula
Liberty Square	80	2001	Peninsula
DI Waterfront Park & Trails	7.5	2002	Cainhoy Peninsula
Family Circle Tennis Center Facility	338	2002	Cainhoy Peninsula
Fort Bull for Future Use	8.1	2002	West Ashley
Freedom Park	107	2006	Cainhoy Peninsula
Morris Square Plaza	0.1	2007	Peninsula
Rosemont Field	26	2007	Peninsula
Simonton Park	0.3	2007	Peninsula
Ellis Oaks	1.1	2008	James Island
James Island Recreation Center (for future use)	120	2008	James Island
Cannonborough/Eliotborough Park	0.5	2008	Peninsula
Neck/Magnolia site for Future Use	320	2008	Peninsula
Ashley River Road Bike Path	43	2008	West Ashley
Bear Swamp Road Park (for future use)	2070	2008	West Ashley
Village Shaftesbury Park (for future use)	290	2008	West Ashley
Cummings Point/Morris Island Passive Natural Space	117	2009	James Island
Woodland Road Park	9.2	2009	West Ashley
Bees Landing Recreation Complex	257	2010	West Ashley
<b>TOTAL: City of Charleston Park Land Acquisition</b>	<b>487.5</b>	<b>2000-2010</b>	
Charleston County Park & Recreation Commission (PRC) Long Savannah Park Acquisition	1,568	2008	West Ashley
<b>TOTAL: New Parkland In &amp; Around the City of Charleston</b>	<b>2,055.5</b>	<b>2000-2010</b>	

Source: City of Charleston Parks Department



Waterfront Park, a public park along the Charleston harbor

bikeways; and unique waterfront parks with public access to waterways whenever possible (see Land Use element for more information about the City's UGB, Greenbelt and Parks Systems).

### At Sea Level

Most of the City is at or near sea level elevation. Because of its low elevation and warm, coastal location, Charleston is subject to the hazards of South Atlantic hurricanes and various flooding events throughout the year. These climatic events necessitate planning and adaptation through stringent building standards for elevation and wind resistance, stormwater management and other sustainability practices. Local policy about urban design, historic preservation,

land use, and disaster preparedness must address these possible climatic events. One such way is through rural land preservation in places like Johns Island and other undeveloped parts of Charleston that contain forests and agricultural lands that absorb rainwater to prevent flooding and absorb less solar heat than developed areas, preventing heat islands<sup>2A</sup>.

### Water Quality

Water is one of Charleston's most important natural resources. Beaches, marshes, rivers, and creeks provide an economic engine for the recreation, tourism, shipping, and commercial fishing industries; yet water quality is a major concern for Charleston. Polluted stormwater, from activities like over-fertilizing lawns and spilling motor oil, runs off into the drainage system which flows into the streams and estuaries. Stormwater runoff is considered one of the worst water pollution problems in developed areas. State monitoring has found concentrations of pollution in tidal creeks feeding Charleston Harbor, largely due to runoff of those wastes from roads, rooftops, parking lots and driveways<sup>5</sup>. Increased stormwater issues arise as more impervious surfaces (paved or water impermeable surfaces) are developed in the City. The City's

Stormwater Division is responsible for monitoring and responding to these challenges, which has included the development of the Stormwater Management Plan, Design Manual, Education Initiatives, and Utility Fee Fund. The Parks Department also coordinates with this division on a tree planting and maintenance program because healthy urban trees can reduce the amount of runoff and pollutants that flow into waterways, thus improving the water quality.



**Did you know that the City of Charleston's street trees intercept 28.3 million gallons of stormwater annually?** The City's street tree inventory includes 15,244 publicly managed trees along the streets in Charleston but does not include an estimated 35,000 other trees located in parks, traffic medians, wooded buffers, and drainage areas. Charleston's streets are planted at near capacity, with 80% of possible planting spaces filled. (Source 4)

Water pollution can also be reduced through the implementation of wetland and vegetative

buffers. Vegetative buffers act as filters, removing pollutants before it enters waterways. The City of Charleston has implemented a buffer ordinance requiring them in appropriate and critical areas as a means to ensure water quality is maintained.



Eleven Lowcountry city and county officials have signed a joint resolution to form the Ashley Cooper Stormwater Education Consortium, to combine efforts educating people on how to minimize their impact on the waters. The effort is mandated by the federal Clean Water Act, part of a larger regulation of utilities that manage stormwater drainage systems. The regulation has led to water and sewer customers being charged stormwater fees.

## Air Quality

The City of Charleston strives to improve air quality in a number of ways. Reducing air pollution from vehicles has been an important initiative over the past decade. By providing more choices in mobility such as bikeways and bus routes, less cars are driving thus less pollution is produced. Other initiatives include increasing connectivity of streets in suburban areas, changing one-way streets back to two-way in urban areas, retiming lights to improve traffic flow throughout the City, and enforcing an idling time limit ordinance. Local industries

also have a significant impact on air quality through their fuel efficiency and fuel type choices. The City plans to identify these sources and supports efforts to reduce this pollution.

## Planning Sustainably

Over the past ten years, the City of Charleston has played a more active role in promoting sustainability as a means to protect its natural resources and enhance Charlestonians' quality of life. Such initiatives include the development of the *Johns Island Community Plan* (2007), *Preservation Plan* (2008), *Charleston Green Plan* (2009), *West Ashley Greenway Plan* (2010), *Johns Island Greenway Plan* (expected 2010).

Additionally, Charleston has committed to reducing emissions by 2012 and formed the Charleston Green Committee (2006) and a Sustainability Division (2009) to aid in this commitment.<sup>6</sup> The Green Committee was created to develop policy recommendations related to energy choices, emissions reductions, sustainable development and education<sup>7</sup>. This committee developed these recommendations in the *Charleston Green Plan*, which includes initiatives to improve the City's transportation choices, building practices, energy choices and efficiency, and waste management practices.<sup>7</sup>

Many of the recommendations and principles in the *Charleston Green Plan* originated in the 2000 Century V City Plan and have been reinforced in other City planning initiatives and this update.

Charleston also hired a Sustainability Director in 2009 to head the newly formed Sustainability Division in the Department of Planning, Preservation, and Sustainability. This division works with the Green Committee, Sustainability Advisory Committee (SAC), and an interdepartmental Sustainability Advisory Team (SAT) to ensure policy decisions and programs are interconnected through the common bond of sustainability as expressed in their guiding principles.

## Natural Resources Goals

Protect and preserve our natural resources to the greatest extent practical.

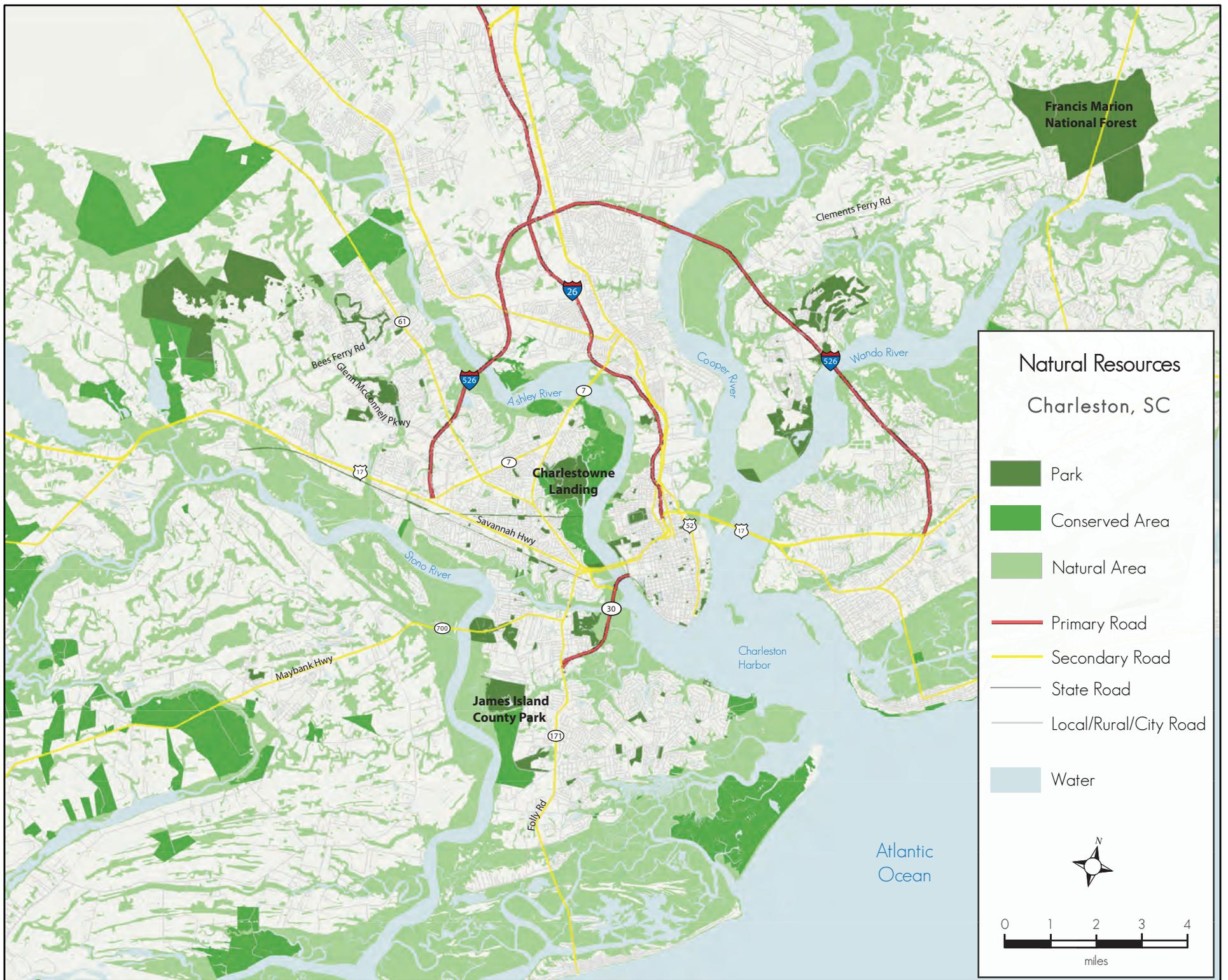
## Natural Resources Recommendations

1. Ensure land development regulations adequately protect the city's farms, prime soils for farming, natural resources and rural areas.

2. Continue to support the use of an Urban Growth Boundary and Greenbelt and Parks system with Charleston County in West Ashley, Johns and James Island, and extend the UGB and Greenbelt goals to include the city's Berkeley County boundary at the Francis Marion National Forest in Cainhoy.
3. Continue to provide and expand the parks system to include large and small parks, as well as increased connectivity between greenspaces and public access to waterways.
4. Continue to implement appropriate building standards for elevation, wind resistance and stormwater management and sustainability practices to plan and adapt to climatic events such as flooding and hurricanes.
5. Adopt storm water management practices and standards that are 'light on the land', encourage innovative BMP's and 'green' methods, i.e., bio-swales, porous pavements, rain gardens, etc., for treating storm water and vegetative buffer requirements to improve the water quality of Charleston.
6. Continue air quality improvements through transportation planning and identifying and supporting local industries to reduce air pollution.
7. Continue to play an active role in promoting sustainability initiatives within municipal operations and the community at large, including: developing plans and education programs that promote sustainability and sustainable development; increase mobility choices; reduce water and air pollution; support energy conservation and efficiency; increase opportunities and funding for renewable energy; and encourage emission reductions and alternative fuels.
8. Continue to pursue a comprehensive reform of the city's tree protection ordinance to align it with American Forests' recommendation that a city east of the Mississippi River should adopt/meet the goal to achieve/maintain a city-wide canopy cover of 40%.
9. Encourage small and large landowners to manage their land by the planting of native plant species and the removal of invasive species.
10. Promote sustainability through support for local agriculture and animal husbandry.
11. Inventory and document unique and sensitive natural resources, i.e., tree allees, unique wetlands, unique topographic features, unique waterways, flora and/or fauna habitats.

## Sources

- <sup>1</sup> Allen, J. and K. Lu. 2003. Modeling and prediction of future urban growth in the Charleston region of South Carolina: a GIS-based integrated approach. *Conservation Ecology* 8(2): 2. [online] URL:<http://www.consecol.org/vol8/iss2/art2/>
- <sup>2</sup> Sensitivity of these ecosystems is directly and indirectly related to impacts of urban development (Source 2). (Source 2: The Charleston Harbor Project. 1999. [online] [www.sacusace.army.mil/assets/pdf/\\_/special\\_area\\_mgmt\\_plan.pdf](http://www.sacusace.army.mil/assets/pdf/_/special_area_mgmt_plan.pdf))
- <sup>3</sup> *(Vision | Community | Heritage: A preservation Plan for Charleston, South Carolina.* "Restricting development in sensitive locations preserves traditional communities and culturally significant landscapes and directs development to infill areas that already support an urban growth pattern and infrastructure." Pg 81
- <sup>4</sup> City of Charleston, South Carolina Municipal Forest Resource Analysis June 2006
- <sup>5</sup> City of Charleston Stormwater Management division <http://charlestoncity.info/dept/content.aspx?nid=1744>
- <sup>6</sup> U.S. Conference of Mayors Climate Protection Agreement (2005) add citation
- <sup>7</sup> Charleston Green Plan
- <sup>8</sup> Charleston Green Plan







# Land Use

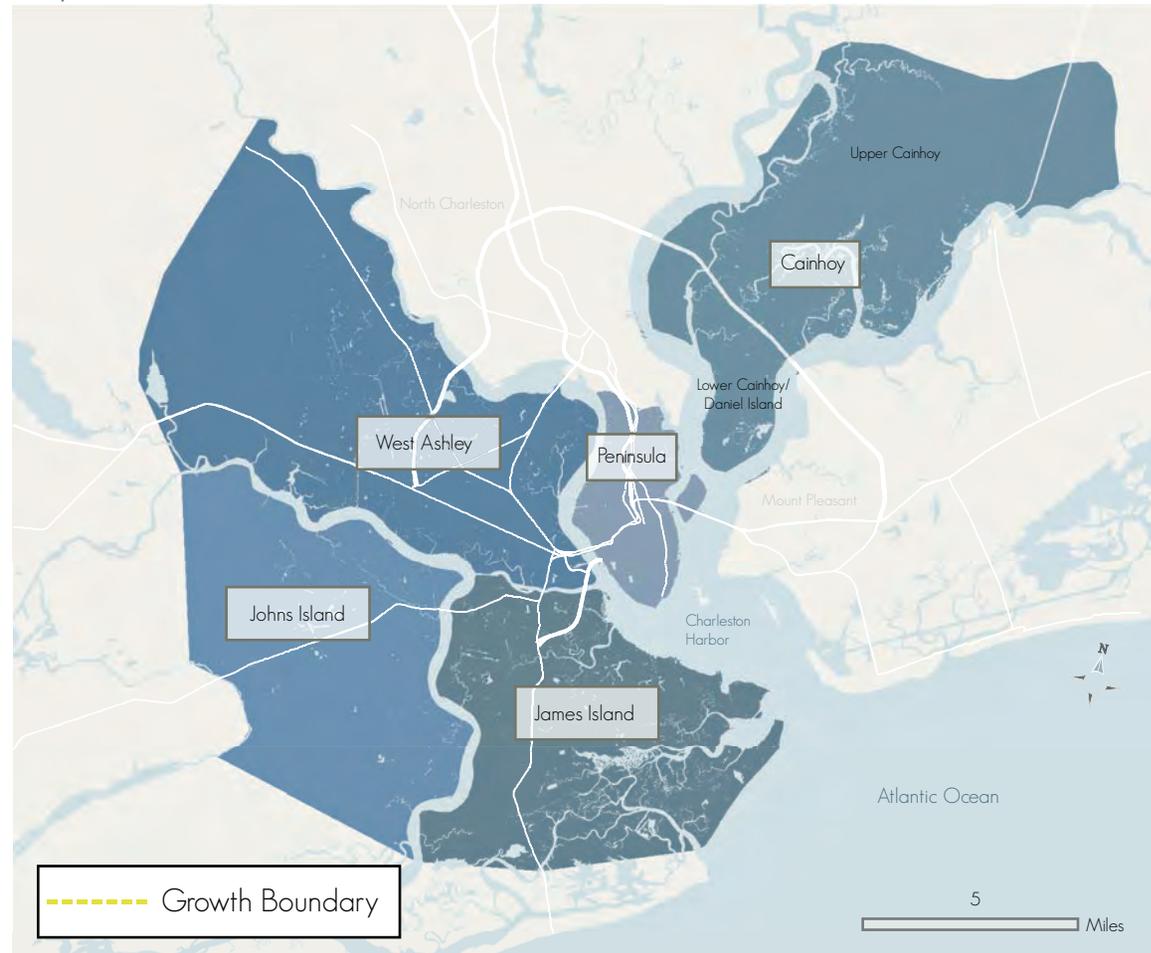
using space wisely



The City of Charleston is comprised of five distinct land masses:

1. **The Peninsula**, the historic core of the Charleston;
2. **West Ashley**, home to some of the first post WWII suburbs, it is the City's largest and most populated area that first saw annexations in the 1960s;
3. **James Island**, also home to post WWII suburbs, it is the City's smallest Sea Island with annexations starting in 1970s;
4. **Johns Island**, the second largest island on the east coast with only a small, concentrated portion annexed into the City limits starting in the 1980s; and
5. **The Cainhoy Peninsula**, linked to the City via the Mark Clark Expressway through Daniel Island, it's large scale annexations began in 1990s and continue today.

### City Areas of Charleston



### CHARLESTON CORPORATE LIMITS EXPANSIONS

Year	City Area
1960	6 sq. miles
1970	14 sq. miles
1980	25 sq. miles
1990	61 sq. miles
2000	98 sq. miles
2010	109 sq. miles

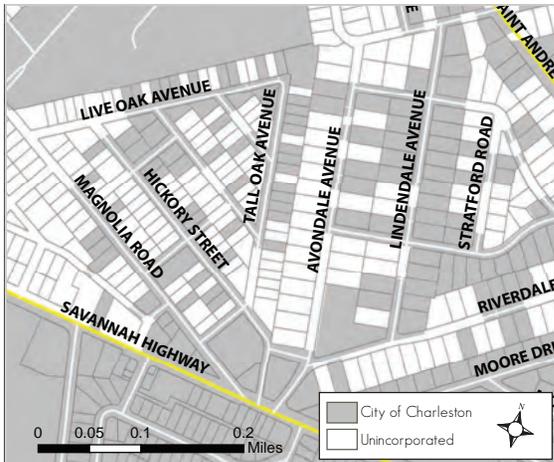
Source: City of Charleston

Charleston has grown rapidly in these land masses over the past decades including the last ten years. Because of annexations, the

City was roughly 98 square miles in 2000 and is 109 square miles today.

Each of the City's land masses has unique attributes and development patterns. Determining a future course for land use in the City must take into account the diversity of these five land masses and recommend ways to preserve their unique character.

While the City has continued to grow, "doughnut holes" in the corporate limits and the presence of other jurisdictions make for a complicated system of boundaries.



Given that the scope of this comprehensive plan is broad and seeks to create a more long range vision, this document provides complete set of land use recommendations for each of the City's five land masses, including adjacent areas that have not been annexed. These recommendations will be presented to

surrounding jurisdictions for their input and comment, and the City of Charleston will use the plan to determine the best lot by lot recommendations for parcels within the City jurisdiction and areas of future annexation.

### Existing Land Use

An analysis of Charleston County Assessor's data and existing City of Charleston zoning coverage gives a good sense of how land is being used on the Peninsula, West Ashley, James Island, and Johns Island. For Berkeley County, no similar Assessor's data exists, so existing zoning was used.

#### Peninsula (approximately 8 sq. mi.)

Nearly 20% of the land on the Peninsula is categorized as commercial use, signifying it as the City's business center. However, currently a large amount of commercial space is vacant (15%), which gives rise to concerns that there is not as much business activity as could be accommodated. Nearly 30% of the Peninsula's zoned land is Heavy Industrial, tracing back to the area's industrial past. Conversion of many portions of this land seems likely, given a lesser port presence in the downtown area, and development of Brownfield projects such as Magnolia (see chart on the following page).

#### West Ashley (approximately 30 sq. mi.)

Single family residential use dominates West Ashley, covering more the 20% of the area, and accounting for more than 35% of the existing zoning. Suburban commercial development is also present, with about seven percent of West Ashley zoned General Business. As the City's largest and most populated land mass, it has the greatest number of new and future developments, such as Long Savannah and Carolina Bay (see the chart on the following page).

#### James Island (approximately 16 sq. mi.)

James Island is also dominated by single-family residential and the zoning coverage reflects the character of its topography. Many creeks, marshes and lowlands exist that are zoned Conservation, suitable for the no or low density residential development. Because James Island is the most "built-out" of Charleston's suburban areas, it does not have as many new developments over the past decade. Commercial development is concentrated along Folly Road, and there is very little industrial development in this area.

MAJOR DEVELOPMENT  
APPROVED & STARTED (2000-2010)\*

Project Name	Location	Unit Count
Long Savannah (incl. Village Green)	West Ashley	6,100
Magnolia	Peninsula	4,400
Carolina Bay	West Ashley	2,500
Shade Tree	Johns Island	1,300
Bolton's Landing	West Ashley	965
Whitney Lake	Johns Island	873
Sea Island PUD/ Angel Oak Village	Johns Island	630
The Peninsula	Cainhoy Peninsula	570
Grand Bees in Grand Oaks	West Ashley	507
Fenwick Hills	Johns Island	430

\*Inclusion on this list does not imply that a development will be fully built out in the upcoming 10 or even 20 years. It is just a list of the larger developments that had full approvals and some degree of a start towards development.

**Johns Island (approximately 13 sq. mi.)**

Johns Island has the most rural character of all the land masses in Charleston. Situated within the urban growth boundary at the City's edge, Johns Island is appropriately

dominated by lower density residential uses and agricultural designations. Conservation is the largest zoning category with almost 37% of the land area. Light Industrial has nearly 14% of the land area, but this is attributed to the large industrial areas around the Johns Island Airport. Johns Island has seen a great number of new developments approved in the past decade, although the recent economic down turn has affected them all, by either preventing any construction or leaving unsold units in recent developments.

**Cainhoy Peninsula (approximately 33 sq. mi.)**

The Cainhoy Peninsula has two main areas, Daniel Island and the upper Cainhoy area. The Daniel Island development has its own zoning codes that dominate land use on the southern end of the peninsula. This consists primarily of single family neighborhoods and some mixed-use in its town center areas. Further north, along Clements Ferry Road and the Mark Clark Expressway, Industrial uses and zoning dominate. The Cainhoy (CY) zoning designation on the Guggenheim tracts is in the upper regions of Clements Ferry Road. This designation is one of the City's more open or flexible zonings because it will require future land planning as other tracts are subdivided off it.

**Land Use Goal:**

Foster the sustainable growth of the City through encouraging infill, redevelopment, diverse, walkable neighborhoods and park spaces, well located mixed-use centers, and protection for our surrounding natural and rural areas.

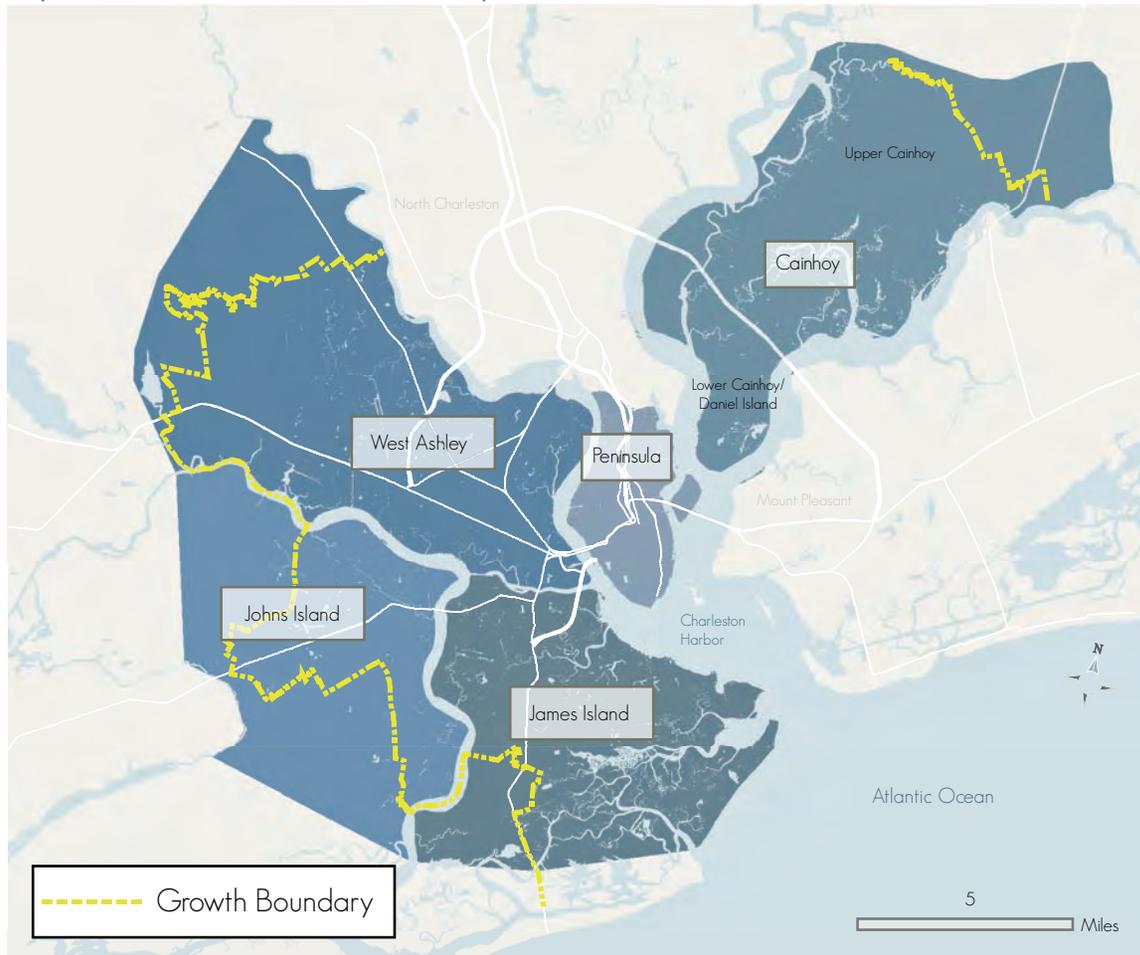
**Urban Growth:**

*Surround the City with Green*

Within the City of Charleston's jurisdiction exist some of the region's most urban settings, such as the central business district of downtown Charleston, as well as very rural areas, such as agricultural areas found on Johns Island. In order to protect the natural environment and preserve the unique quality of each area, urban growth should be managed. This means urban and suburban development should not spread throughout rural areas and nature should be protected in suburban and urban sections of the City.

Urban growth continues to be a concern on Johns Island and in the upper Cainhoy Peninsula, where forest, farm land, and open space continue to dominate the landscape. City and non-City residents of these areas are seeking ways to preserve their unique rural quality of life. Subsequently, the City of Charleston in-

### City Areas and Urban Growth Boundary



vested considerable time working with the citizens of Johns Island, the Johns Island Growth Management Committee, and others, to develop the 2007 *Johns Island Community*

*Plan*. Similarly, on the Cainhoy Peninsula, the City continues to work with citizens on plans to protect the historic resources of that special part of the area.

### Urban Growth Boundary

In the City's 2009 Resident Survey, 91% of respondents agreed with limiting urban expansion of our City (i.e. supporting the urban growth boundary). Over ten years after the creation of the Urban Growth Boundary, strong support still exists to limit urban development. In fact, in Charleston County's 2008 *Comprehensive Plan Update*, they stated that "the Urban Growth Boundary needs to be institutionalized through intergovernmental agreements and/or working relationships in order to direct higher intensity growth to the Urban/Suburban area where adequate infrastructure and services are in place, allowing for preservation of rural character of the majority of the County."

Accordingly, the 2008 *Charleston County Plan* designates areas of the County for urban/suburban, and rural development patterns. These recommendations affect City growth in West Ashley, James Island, and Johns Island. It should be noted that in this and previous planning documents, the City of Charleston supports the original location of the Charleston County Suburban/Rural lines (a.k.a. UGB) on James island, thereby keeping a large portion of the southwest quadrant of

James Island outside the UGB (south of Grimball Road and west of Old Military Road). Areas outside the UGB are hence designated only for rural development levels. However, Charleston County removed their UGB designation from James Island completely in 2004.

As noted previously, there has been continued public support to control and limit development, making the location of the UGB of critical importance. Therefore in 2007, the *Century V Plan* was amended to include criteria for adjusting the UGB (included in the appendix). These criteria require that justifications be made to warrant an adjustment in the boundary, including evidence the new location of the UGB would: 1) better protect the public interest, 2) better preserve of rural character of lands beyond the UGB, and 3) better secure the line as a permanent fixture (i.e. the land outside the UGB becomes publicly owned making it more than just a political marker and contributing to a permanent greenbelt system).

In 2008, the Long Savannah development utilized these criteria in moving the UGB in West Ashley to accommodate that development's plan. One of the key benefits of the move was the creation/preservation of

Charleston County's largest park just outside the new UGB, and a City park on Bear Swamp Road. These parks contribute to the City's plans to surround the City's edge with greenspaces and essentially encircle Long Savannah making the UGB more permanent in this location.

An additional alteration to the UGB is to bring it in closer to the existing urbanized areas along outer Ashley River Road. This document recommends bringing the UGB closer to the edges of the McLaura Hall and Village Green neighborhoods, as shown on the map on page 6.

#### **Coordination with Surrounding Counties**

The *2008 Charleston County Comprehensive Plan Update* identifies places in the urban and suburban area "that are experiencing immediate development pressures and require further study regarding land use issues." These include areas located in West Ashley along Bees Ferry Road, Belgrade Road, and Savage Road, and on Johns Island. The County's recommended implementation strategy for these areas "is to create consistent area plans coordinated with adjacent jurisdictions." Along the Maybank Highway Corridor on Johns Island, the County Plan recommends

"coordinated planning in the Maybank Highway Corridor...and to work with the public and the City of Charleston to implement consistent land use and design standards." The City should continue to have discussions with the Charleston County about this approach.

Within the urban and suburban areas of West Ashley, James Island, and Johns Island as defined by the *2008 Charleston County Comprehensive Plan* there are about ten square miles of undeveloped land. This is more land than the entire Charleston peninsula. In addition, about twenty square miles of vacant land is available in Berkeley County south of the Francis Marion Forest and Flag Creek. So within the proposed urban and suburban areas of the City there is sufficient land available for development to meet increased demand, consumer preferences and demographic changes that will occur well into the next century.

**However, the 2000 Century V City Plan recommends that not all this vacant land be converted to suburban and urban development.** There are opportunities in suburban and urban areas to conserve open space. Even as of 2010, Johns Island and much of the Cainhoy Peninsula continue to maintain their rural heri-

tage and open spaces still dominate the landscape. The City continues to uphold that urban growth should not consume these areas.

In addition to controlling the spread of urban growth, the City must manage it within already developed areas. The pattern and design of development within suburban and urban areas of the City affects Charleston's natural resources and quality of living. Urban growth in these areas must not come at the expense of clean air, water, and vegetation.

Berkeley County is in the process of updating the *Berkeley County Comprehensive Plan 1999*, but the final version was not completed during the City's drafting of this 2010 Century V Plan Update. City planning staff have met with Berkeley County planners and the County Planning Commission to discuss the possibility of creating an Urban Growth Boundary in areas near and around the City of Charleston's boundaries on the Cainhoy Peninsula. There is a logical location for such a line outside the westernmost edge the Francis Marion National Forest. A growth boundary in this location would be most appropriate, as there would be a federally owned forest on the outside of the line would impose the permanence of the boundary.

### Urban Growth Goals

*Develop and maintain a sufficient open-space/parks system so that the City is diverse in uses and opportunities and includes natural spaces and wildlife habitat, as well as passive and active recreation with an equitable distribution of parks, trees and pathways throughout the community.*

*Implement land use and transportation planning and policies to create compact, mixed-use projects, forming gathering places and sites designed to maximize affordable housing and encourage walking, bicycling and the use of existing and future public transit systems.*

### Urban Growth Recommendations

1. Support Charleston County's Comprehensive Plan and its designation of an Urban Growth Boundary (UGB) protecting rural areas surrounding the City of Charleston and other urban areas of Charleston County.
2. Work together with Berkeley County to have that County adopt a similar UGB system in the Cainhoy Peninsula, in the same location as the City of Charleston's along the inside boundary of the Francis Marion National Forest.

3. Work with Charleston, Berkeley, and Dorchester County residents and their leaders to implement land conservation programs in rural areas.
4. Ensure City land development regulations encourage compact development patterns that minimize consumption of land.
5. Tailor ordinances to complement the way of life in rural areas of the City.
6. Ensure land development regulations adequately protect natural resources in urban and suburban areas of the City.
7. Ensure land development regulations protect existing farms and agricultural use and encourage urban farming.
8. Ensure land use regulations allow urban agriculture as an alternative land use for non-contaminated vacant properties.
9. Draft a plan within 18 months for management of growth and development on the Cainhoy Peninsula and be completely through the process in 3 years.
10. Consider a Transfer of Development Right program.

### City Development: *Investing in Existing Assets*

The pattern and quality of growth and development is essential to maintaining and improv-

ing quality of life and sustainability of Charleston. Charleston contains a variety of quality urban, suburban, and rural environments. Future City development must complement and improve these places. This is especially important because the City Plan recommends that urban growth be managed, so that it does not continue to spill into the countryside.

City development involves a variety of factors: land use, urban design, preservation, housing, and parks to name a few. The City has enacted many programs and regulations to address each issue. These issues are intricately interrelated to one another, so as the 2000 Century V Plan recommends, City development will be managed by focusing on the following essential areas:

1. **Neighborhoods**
2. **Infill and Redevelopment Opportunities**
3. **Gathering Places**

### Focus 1: Neighborhoods

Sustainable neighborhoods are the backbone of the City. Neighborhoods are the City's setting for most housing, parks, civic and community spaces. Neighborhoods can also be an ideal location for shopping and work places. City development must occur in a manner that enhances existing neighbor-



Source: Fabric Urban Design, 2010

hoods and creates opportunities for a variety of new neighborhoods.

The term "neighborhood" can invoke a variety of images because it has been used to define many things. Each resident is likely to describe his or her neighborhood, its size, and boundaries uniquely. For the 2000 Century V Plan, City residents helped clarify the essential elements of a neighborhood by answering the following questions on a 1998 citizen survey:

- About 70% of those surveyed agreed or strongly agreed that "A good neighborhood should include a mix of some of the following: housing types, retail, places of worship, civic institutions, work places, schools, and public gathering places, such as a local park or community center."
- Over 80% of those surveyed agreed or strongly agreed that "A good neighborhood should have schools, parks, and recreation facilities within walking or bicycling distance of most residents."

For the 2010 Century V Plan Update, City residents were again asked about their neighborhood preferences in the 2009 citizens survey, and the result was that 82% of respondents wanted neighborhoods with more services and jobs within a walking distance of their homes.

### Is there a market for walkable neighborhoods?

In a recent survey...

**6 in 10** prospective homebuyers chose walkable neighborhoods with less time spent driving.

Source: 2004 poll by National Association of Realtors and Smart Growth America

The particular size, arrangement, housing density, design of parks and open spaces, and availability of services will depend upon the setting of each neighborhood. While neighborhoods throughout the City share some of the elements revealed in the citizen survey, they are also unique to their setting. An urban neighborhood on the Peninsula is different from a suburban neighborhood in West Ashley or a rural neighborhood on Johns Island.

The Charleston area contains many neighborhoods that may serve as models for the City's comprehensive planning. These places possess the qualities City residents are looking for in a neighborhood, but each is unique to its setting. City policies and regulations must continue to foster unique neighborhoods offering a balanced mix of dwellings, parks and open spaces, civic buildings, shops, and workplaces.

The recommendations and land use plans presented in this update are designed to accommodate much of the demand for housing, services, civic institutions, and workplaces in neighborhood settings. Neighborhood design, building design, and infill and redevelopment must, therefore, complement the neighborhood

setting. Some uses are not appropriate in a neighborhood setting and their location should be limited accordingly.

**Uses that are not appropriate in a neighborhood setting are ones that can be a threat to public health and safety, uses that require excessively large buildings and parking areas, and uses that generate heavy volumes of traffic from outside the neighborhood.** City policies and regulations should reflect these basic conflicts.

Parks are an integral part of neighborhoods and the urban environment of Charleston. Parks in the City give citizens a place to relax, experience nature, and recreate. Parks are also an important part of Charleston's public space. City parks welcome all citizens. They are both a gathering place and a civic monument.

In the Charleston region, many citizens have access to nature and an array of park settings. Most Charlestonians are a short drive or bus ride to many coastal retreats: beaches, islands, and coastal parks. Others can enjoy the Francis Marion Forest on the northeast edge of the City. In West Ashley, the City has a large state park on the Ashley River called Charles Towne Landing, and on James Island there is a large County park including a campground and wa-

ter park (a full listing of the City Park Land Acquisitions is in the "Natural Resources" chapter). These two large parks within the City limits are great assets. In the near future, the largest park in Charleston County, created on 1,568 acres surrounding the Long Savannah development and a 208-acre adjacent tract purchased by the City will be another important asset in the system of parks around the City.

City parks play a unique role in the life of City residents. They should be available as daily retreats for all citizens. They are places where Charlestonians can walk their dogs every morning or where children safely play after school. Parks are one of the benefits of living in the City, and Charleston has over 1,700 acres to enjoy. For example, 67 acre Hampton Park serves the neighborhoods it borders as well as residents throughout the City. Mall Park, Hampstead and E. Hampstead Parks are within blocks of most homes in the Eastside neighborhood. Brittlebank Park gives residents and visitors alike a place to view the Ashley River. The West Ashley Greenway provides an off-street connection for pedestrians and bicyclists to tour West Ashley. Likewise, West Ashley Park provides open spaces, ball fields and forest lands for residents to enjoy.

These are good examples of what the City continues to need as it grows: 1) larger parks attached to several neighborhoods that combine active recreation facilities like ball fields and quieter places like a nature trail; 2) smaller neighborhood parks scattered throughout neighborhoods and within

### Compact, walkable neighborhoods

Cut vehicle miles traveled by

An average of **30 PERCENT**

(with higher ranges possible)

Source: Smart Growth America

a five or ten minute walk of every home; 3) parks that serve a unique purpose, such as Brittlebank Park and Waterfront Park; 4) parks and trails that connect neighborhoods, schools and other parks, such as the West Ashley Greenway; and 5) community gardens, urban farms or other means of local food production.

Residents should be given access to waterfront areas throughout the City. The City's efforts on the Peninsula will ultimately provide public waterfront from Joseph P. Riley Baseball Park on the Ashley River to the Aquarium on the Cooper River. Off the Peninsula, Plymouth Park on James Island

provides convenient access to the Intercoastal Waterway for residents and visitors to Riverland Terrace. Also on James Island, City owned property on the Charleston Harbor has been developed into Sunrise Park, with a public pier and open waterfront views. Similar efforts should ensure all residents access to waterfront areas near their neighborhoods.

Greenways and bikeways can provide safe and convenient routes for bicycles and pedestrians. The City currently intends to improve and extend the West Ashley Greenway so it connects all of West Ashley with the Peninsula, via a bicycle-pedestrian lane to be added to the newer Ashley River Bridge (a.k.a. Legare Bridge). Other improvements to the Greenway were recently outlined in the West Ashley Greenway Plan (2010). Similarly on Johns Island, the City is developing the Johns Island Greenway Plan that will provide recommendations and map out a network of connections for the Island. The plan is expected to be completed in 2010. By integrating bike and pedestrian trails and locating parks in throughout the City, Charleston can also reduce travel times, traffic, and gas expenditures, as well as promote healthy, active lifestyles.

Lastly, parks serve as important civic spaces within neighborhoods. Community buildings, churches, and schools can play a similar role. City development efforts must include cooperation with other agencies and institutions to share facilities that can be used as important community centers.

### Neighborhood Recommendations

1. Engage existing neighborhoods in more detailed design studies to examine specifically how growth can improve quality of life.
2. Revise land development regulations to focus on compatible mixing of building types. Buildings must reflect rather than be foreign to the neighborhood scale.
3. Revise land development regulations to allow for sustainable urban farming and small-animal husbandry.
4. Permit a variety of housing, services, workplaces, and civic institutions in neighborhood settings. Strive to locate such a mix of uses within a five minute walk of any residence.
5. Concentrate higher density housing within a five to ten minute walk of transit stops.
6. Accommodate the full spectrum of housing for all neighborhoods by permitting a

range of building types compatible with the neighborhood setting.

7. Provide larger district parks (50+ Acres) for active and passive use within safe biking distance of all residents of the City.
8. Provide neighborhood parks (2 - 20 Acres) within a ten minute walk of all homes. Work with neighborhood councils to find locations in existing neighborhoods and require new neighborhoods to be designed with usable parks.
9. Expand park connectors like greenways and bikeways by seeking partnerships with utility providers for use of utility corridors and expanding use of unused rail corridors.
10. Provide community agriculture opportunities within a ten minute walk of all homes.
11. Provide a productive environment for review of new development projects that includes citizen involvement early in the process.

### Focus 2: Infill & Redevelopment Opportunities

"Infill" is a term used to describe development on unused parcels of land surrounded by already developed sections of a City. These sites present great opportunities that typically require minimal investment to provide services because the infrastructure already exists. Infill

sites tend to be on existing streets with available utility service, garbage collection, police already patrolling, and other municipal services. These underused or abandoned sites are Charleston's greatest physical assets because their development or redevelopment can help repair or complete existing neighborhoods.

However, infill and redevelopment sites often also present the greatest development challenge. These sites are usually in close proximity of existing homes; therefore, neighbors must be involved in the design of infill and redevelopment projects. These sites have existing buildings, parking lots or environmental issues that must be addressed. Government regulations may actually discourage reuse or development. Market statistics for surrounding neighborhoods may not adequately reflect purchasing power, so developers and lenders may look at them as poor investments. The types of problems to be addressed are quite different from those for a vacant piece of land in a suburban or rural setting.

Nevertheless, these are the City's greatest assets. Infill developments can reduce the need to travel further to shop or work, preserve lands further out, and save taxpayers

infrastructure costs. In order to sustain the City, Charleston must work with residents and businesses to fully identify these under-utilized resources, determine how best that can be used, and make their development as easy as possible.

### Infill & Redevelopment Opportunities Recommendations:

1. Identify opportunities for infill development and redevelopment throughout the City.
2. Work with neighborhood councils and citizens to determine how infill and redevelopment sites can be utilized to benefit every section of the City.
3. Revise development regulations, approval processes, and capital planning priorities to make infill and redevelopment as easy as possible.
4. In its efforts to promote appropriate infill development and redevelopment, the City should evaluate the 2007 South Carolina Priority Investment Act. This law allows local governments to identify "priority investment zones" in which they can eliminate non-essential regulations and use market based incentives to encourage traditional neighborhood development.

### Focus 3: Gathering Places

As the City's population grows and Charleston's environment changes, it is important that new civic centers and gathering places be identified and created. Residents of all sections of the City will increasingly need convenient locations to: gather for work and commerce, find key civic institutions, hold special events, and connect to public transportation. These locations may be important intersections, well-located infill or redevelopment sites, or part of new neighborhoods in more suburban locations. They will serve important community needs as well as defining a unique sense of place in various places around the City.

Additionally, these specially targeted Gathering Places can create an environment that can support walkability and key transit services. While not all areas of the City can achieve the density and level of mixed-use that Gathering Places should, if the City focuses development and redevelopment efforts on a handful of these key sites around the City, it will make the reality of these centers easier to achieve.

#### Key Gathering Place Sites:

1. West Ashley Circle
2. Daniel Island Town Center
3. McLeod Village (Maybank Highway at Folly Road)
4. Maybank Highway at River Road
5. Maybank Highway at Bohicket Road
6. Ashley Bridge District/South Windermere
7. Old Charles Towne District (Sam Rittenberg Boulevard at Old Towne Road)
8. Folly Road at Grimball Road & Fort Johnson Road
9. Mid-Maybank Highway between Walter Drive and Zelasko Road

#### Gathering Place Recommendations

1. **Working with surrounding neighborhoods, create appropriate area plans and zoning for Gathering Place locations around the city for new mixed-use, walkable centers.**
2. **Assure that plans for Gathering Places are as transit friendly as possible.**
3. **Focus City development efforts on these sites, including possible public participation in infrastructure or incentives to make them as economically feasible as possible.**

#### Future Land Use Maps

At the end of this chapter are the maps showing recommended land uses. The terms

defined below will help explain the designations on the maps.

**Urban Growth Boundary:** The line separating urban and suburban development and rural areas. Lands outside the boundary are designated for preservation and/or limited development.

**Parks:** Any publicly or privately owned lands that are open to the general population for all variety of recreational purposes, active or passive.

**Conserved Areas:** Lands 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

**Natural Areas:** Wetlands or other lands that can not be developed due to their geography or topography

**Rural:** Areas outside of the designated Urban Growth Boundary, where densities would not exceed one unit per acre, and in general would be much lower. Development in these areas would include low density residential,

agricultural areas, forestry areas, and recreational areas. There would be development in rural areas, though at a much lower density.

## Primary Land Use Designations

**Suburban Edge:** The lowest densities found inside the urban growth boundary, ranging from one to four dwelling units per acre (1 du/a to 4 du/a). Uses are almost exclusively residential. Examples include: Sandhurst, Shadowmoss, and Stiles Point neighborhoods.

**Suburban:** Low density, suburban-style areas, adjacent to higher zones that include some mixed-use. Limited mixed-use is allowed at key cross roads. Densities range from four to eight dwelling units per acre (4 du/a to 8 du/a). Examples include: Wagener Terrace, Riverland Terrace, Avondale, and St. Johns Woods neighborhoods.

**Urban:** Mixed-use, but primarily residential areas with a wide range of building types and setbacks. Densities range from eight to 12 dwelling units per acre (8 du/a to 12 du/a). Examples include: Annonborough, and Hampton Park Terrace neighborhoods.

**Neighborhood Centers:** Medium density (from eight to 20 dwelling units per acre) with mixed-use buildings and a very connected and walkable block layout. The extent of a Neighborhood Center would typically not exceed a quarter mile across. Neighborhood Centers can serve as Gathering Places. Examples include: Avondale Point, the Old Charles Towne District, and Maybank Highway at Woodland Shores.

**Urban Centers:** Higher density (from eight to 26 dwelling units per acre) mixed-use buildings that accommodate retail, offices, and residential. Urban Centers are characterized by a tight network of streets with wide sidewalks for a very walkable environment. The extent of an Urban Center would typically not exceed a half mile across. Urban Centers can serve as Gathering Places. Examples include: Maybank at Folly (McLeod Village), and Daniel Island Town Center.

**Urban Core:** The densest, most mixed-use portions of the City. The tallest buildings would occur here along with the most buildings of regional significance. Blocks may be larger, streets have steady street tree planting, and buildings are set close to wide sidewalks. There would typically only be one or two Ur-

ban Core areas in the City. Densities would range from ten dwelling units per acre and up. The Central Business District of Charleston (portions of King, Calhoun, Meeting, East Bay, and Broad Streets), the MUSC/Roper/VA Medical District, the approved plans for Magnolia, and the areas around Citadel Mall would fit in this category.

## Other Land Use Designations

**Campus District:** The campus areas would primarily house school or office uses that do not conform to traditional urban block patterns. Residential uses, other than those associated with a school or a large assisted living facility would not be allowed. Examples include: Charleston area high schools and the St. Francis hospital area.

**Job Center District:** The job center areas would primarily house light manufacturing, warehousing, office/warehousing, and some commercial and office uses that can not conform to traditional urban block patterns. These areas would hopefully serve as incubators for small and entrepreneurial businesses. Residential uses would be very limited in order to help reserve these areas for job generation. Exam-

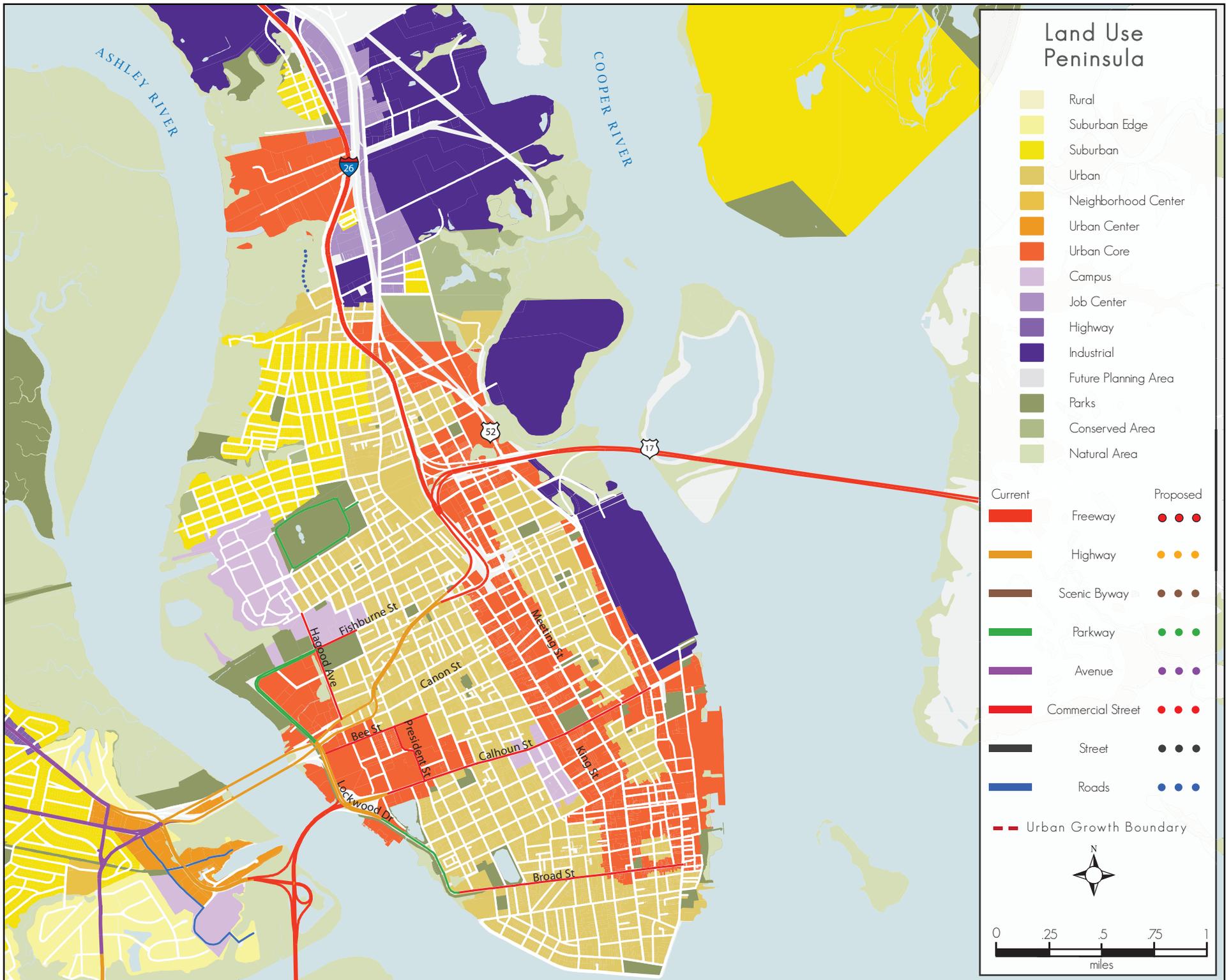
ples include: areas along Clements Ferry Road, around Dupont Road, at the Fort Johnson research area, and around the Charleston Executive Airport on Johns Island,

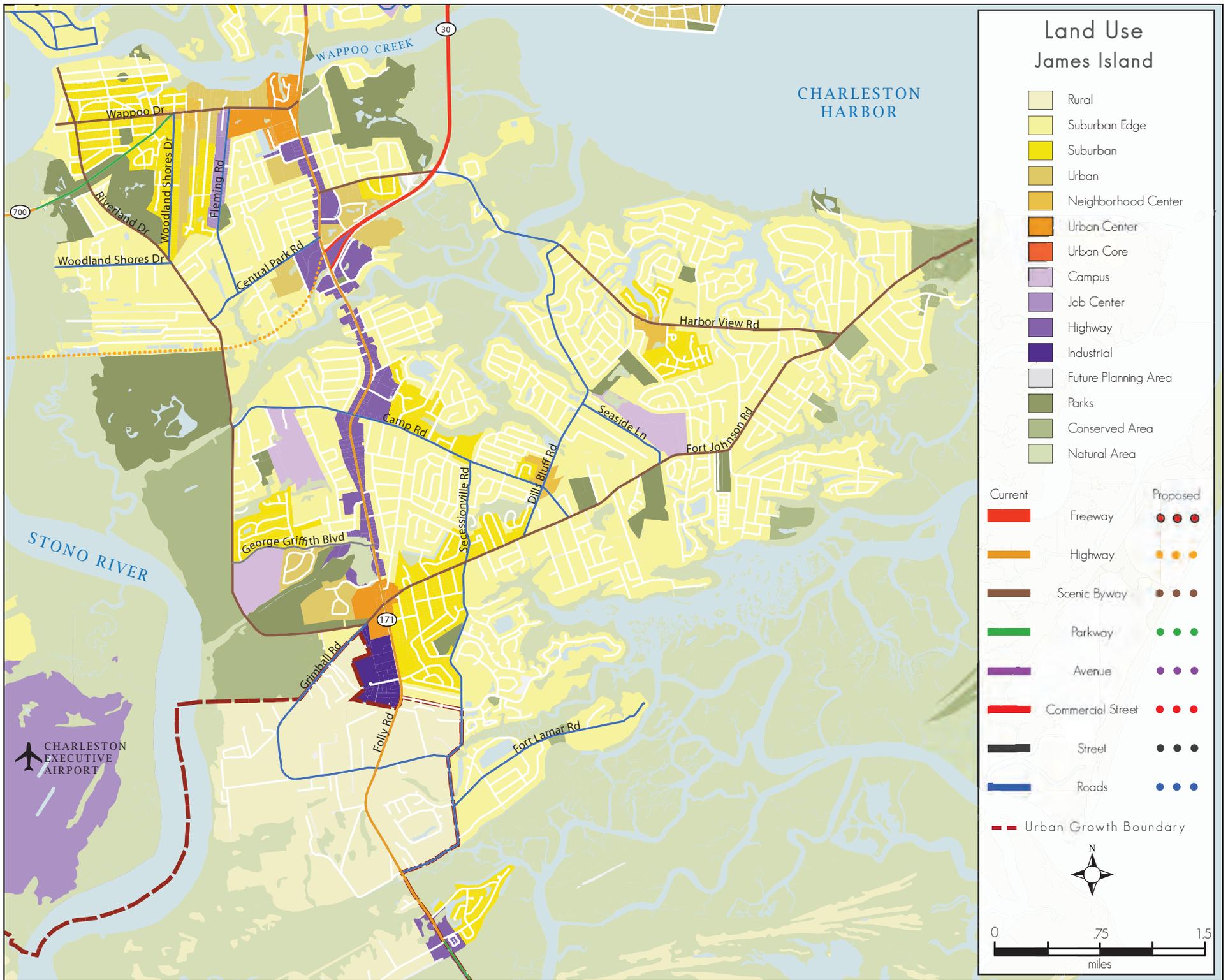
**Highway District:** The highway areas would primarily house more auto intensive commercial uses, although residential and office uses in a more urban format would still be permitted as well. Over time, if auto dependence begins to decline, these areas could be converted to one of the denser, primary land use designations. Examples include: many portions of Folly Road and some portions of Savannah Highway.

**Industrial District:** The industrial areas would primarily be house more intensive manufacturing, warehousing and distribution involving heavy truck traffic and potential emissions that would not be found in lighter manufacturing operations. Residential uses would not be allowed, in an effort to preserve these areas for job generation and reduce conflicts from industrial traffic, emissions, and noise. Examples include: the east side of the Charleston Neck area and the Columbus Street Terminal

**Future Planning Area:** Land areas for which there is no definite land use recommendation in this document, but that would be subject to further planning before any devel-

ment would occur. This area is the current Guggenheim property along upper Clements Ferry Road.

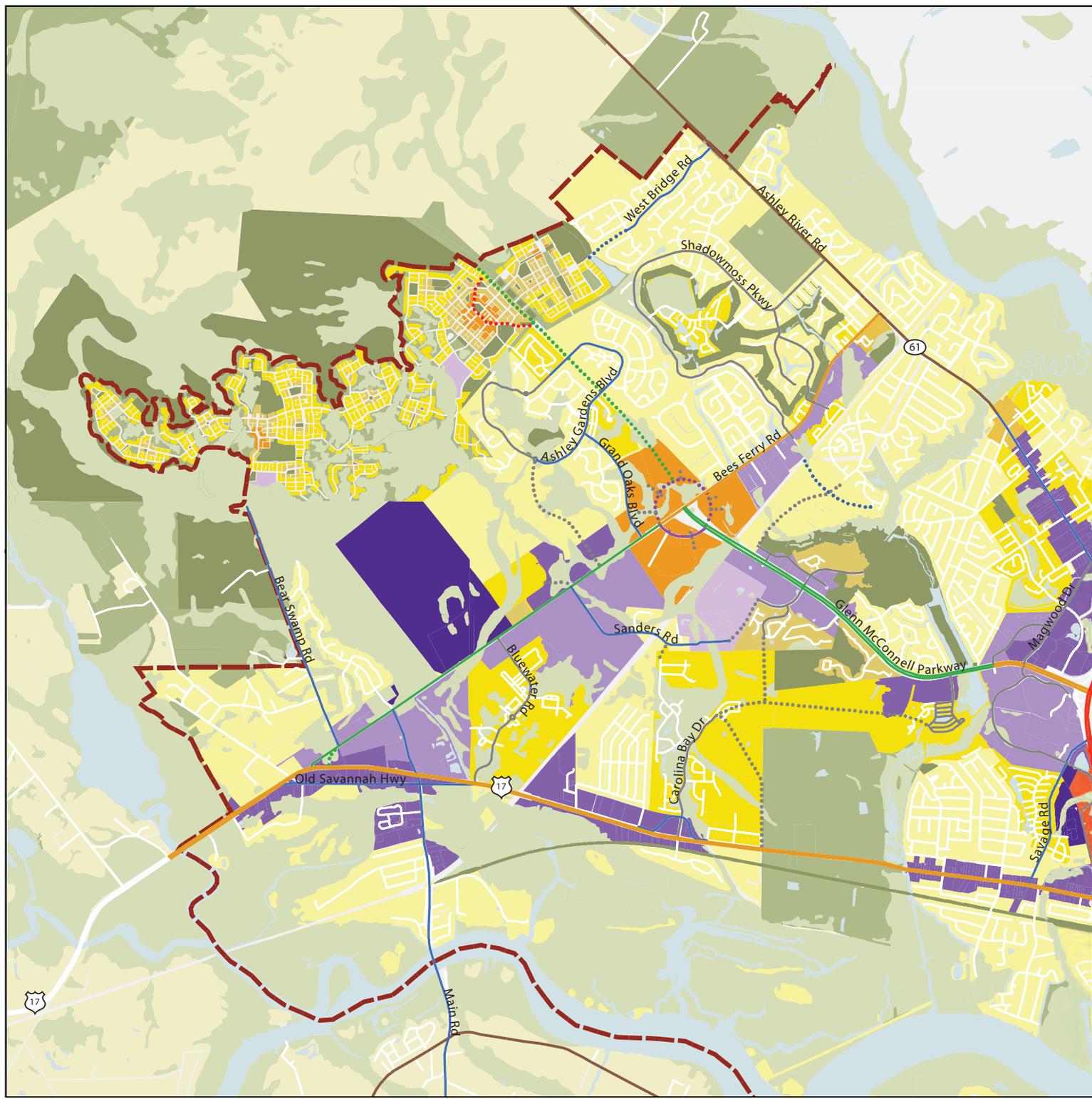


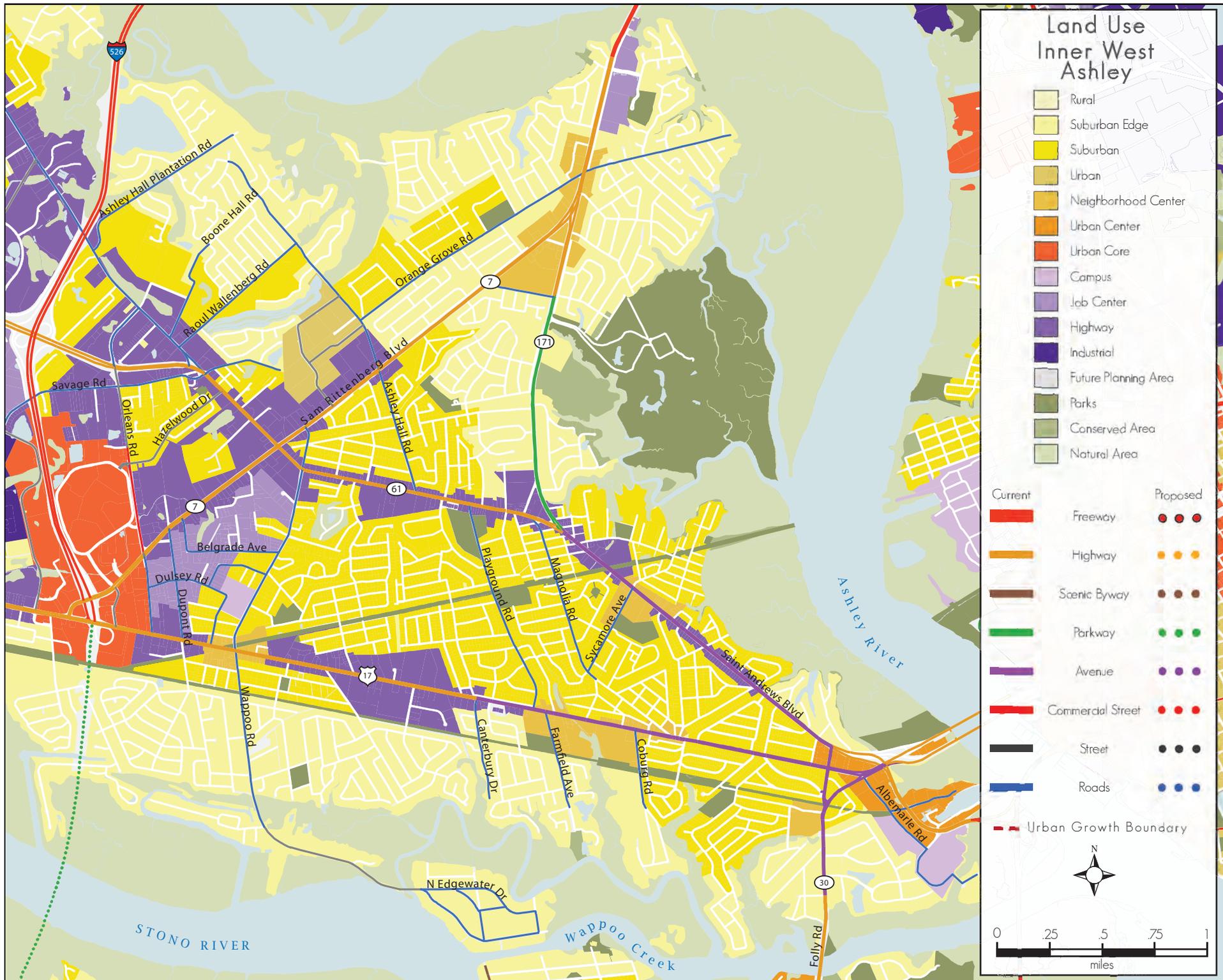


# Land Use Outer West Ashley

- Rural
- Suburban Edge
- Suburban
- Urban
- Neighborhood Center
- Urban Center
- Urban Core
- Campus
- Job Center
- Highway
- Industrial
- Future Planning Area
- Parks
- Conserved Area
- Natural Area

- | Current   | Proposed  |
|---|---|
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #f44336; border: 1px solid #ccc; margin-right: 5px;"></span> Freeway           | <span style="display: inline-block; width: 15px; height: 15px; border: 2px solid #f44336; margin-right: 5px;"></span> |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #ff9800; border: 1px solid #ccc; margin-right: 5px;"></span> Highway           | <span style="display: inline-block; width: 15px; height: 15px; border: 2px solid #ff9800; margin-right: 5px;"></span> |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #795548; border: 1px solid #ccc; margin-right: 5px;"></span> Scenic Byway      | <span style="display: inline-block; width: 15px; height: 15px; border: 2px solid #795548; margin-right: 5px;"></span> |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #4caf50; border: 1px solid #ccc; margin-right: 5px;"></span> Parkway           | <span style="display: inline-block; width: 15px; height: 15px; border: 2px solid #4caf50; margin-right: 5px;"></span> |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #9c27b0; border: 1px solid #ccc; margin-right: 5px;"></span> Avenue            | <span style="display: inline-block; width: 15px; height: 15px; border: 2px solid #9c27b0; margin-right: 5px;"></span> |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #f44336; border: 1px solid #ccc; margin-right: 5px;"></span> Commercial Street | <span style="display: inline-block; width: 15px; height: 15px; border: 2px solid #f44336; margin-right: 5px;"></span> |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #000000; border: 1px solid #ccc; margin-right: 5px;"></span> Street            | <span style="display: inline-block; width: 15px; height: 15px; border: 2px solid #000000; margin-right: 5px;"></span> |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #2196f3; border: 1px solid #ccc; margin-right: 5px;"></span> Roads             | <span style="display: inline-block; width: 15px; height: 15px; border: 2px solid #2196f3; margin-right: 5px;"></span> |
| <span style="border-top: 2px dashed #a020f0; width: 15px; display: inline-block; margin-right: 5px;"></span> Urban Growth Boundary                              |   |





526

7

17

7

61

7

30

STONO RIVER

Wappoo Creek

Ashley River

Ashley Hall Plantation Rd

Boone Hall Rd

Royal Wallenberg Rd

Orange Grove Rd

Savage Rd

Oleian's Rd

Hazelwood Dr

Sam Rittenberg Blvd

Ashley Hall Rd

Belgrade Ave

Dulsey Rd

DuPont Rd

Wappoo Rd

Paradound Rd

Marchole Rd

Sycamore Ave

Saint Andrews Blvd

N Edgewater Dr

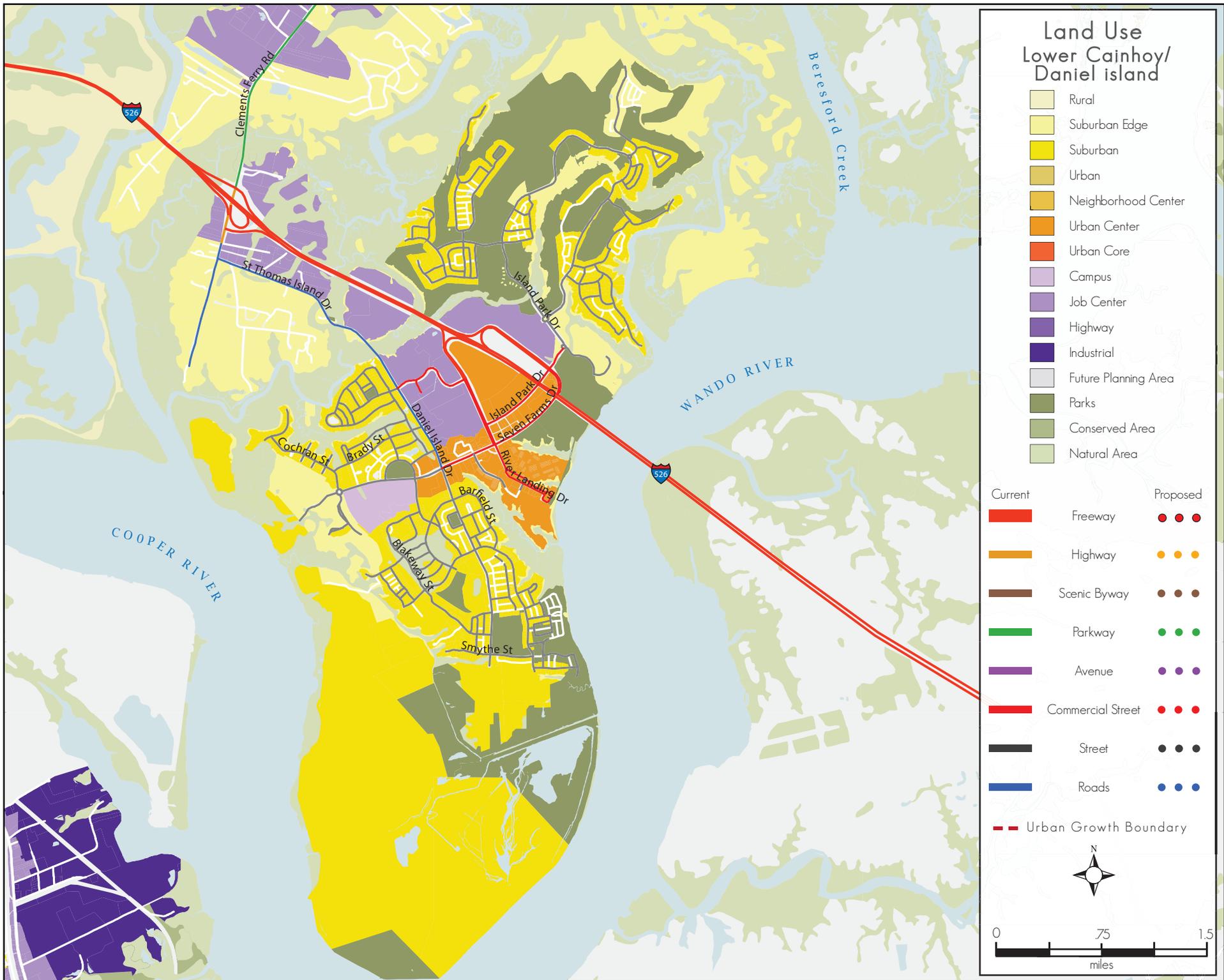
Canterbury Dr

Emmeheld Ave

Coburn Rd

Folly Rd

Albemarle Rd



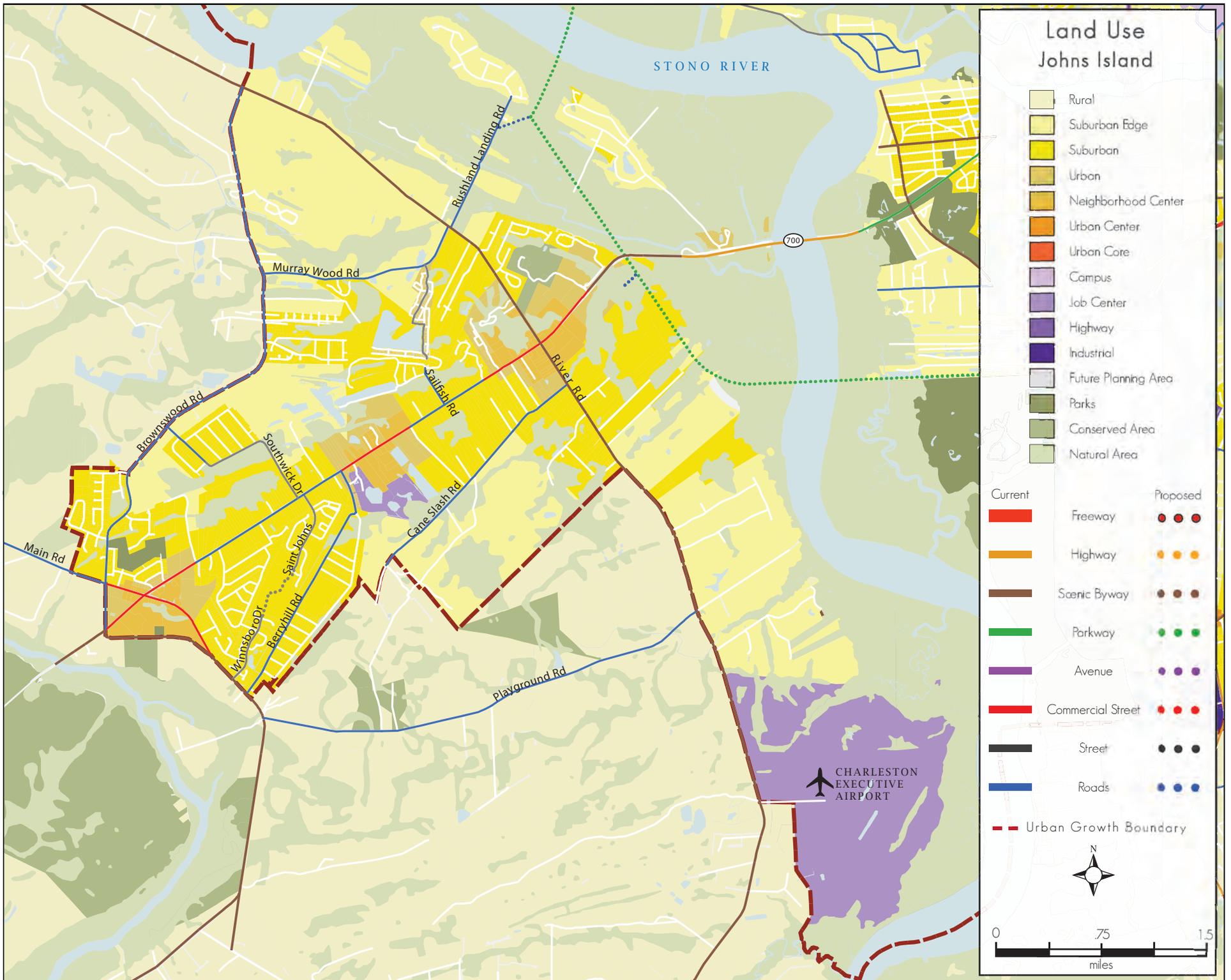
### Land Use Lower Cainhoy/ Daniel Island

- Rural
- Suburban Edge
- Suburban
- Urban
- Neighborhood Center
- Urban Center
- Urban Core
- Campus
- Job Center
- Highway
- Industrial
- Future Planning Area
- Parks
- Conserved Area
- Natural Area

- | Current  | Proposed   |
|--|--|
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #ff0000; border: 1px solid black; margin-right: 5px;"></span> Freeway           | <span style="display: inline-block; width: 10px; height: 10px; background-color: #ff0000; border: 1px solid black; margin-right: 5px;"></span> <span style="display: inline-block; width: 10px; height: 10px; background-color: #ff0000; border: 1px solid black; margin-right: 5px;"></span> <span style="display: inline-block; width: 10px; height: 10px; background-color: #ff0000; border: 1px solid black; margin-right: 5px;"></span> |
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #ff8c00; border: 1px solid black; margin-right: 5px;"></span> Highway           | <span style="display: inline-block; width: 10px; height: 10px; background-color: #ff8c00; border: 1px solid black; margin-right: 5px;"></span> <span style="display: inline-block; width: 10px; height: 10px; background-color: #ff8c00; border: 1px solid black; margin-right: 5px;"></span> <span style="display: inline-block; width: 10px; height: 10px; background-color: #ff8c00; border: 1px solid black; margin-right: 5px;"></span> |
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #8b4513; border: 1px solid black; margin-right: 5px;"></span> Scenic Byway      | <span style="display: inline-block; width: 10px; height: 10px; background-color: #8b4513; border: 1px solid black; margin-right: 5px;"></span> <span style="display: inline-block; width: 10px; height: 10px; background-color: #8b4513; border: 1px solid black; margin-right: 5px;"></span> <span style="display: inline-block; width: 10px; height: 10px; background-color: #8b4513; border: 1px solid black; margin-right: 5px;"></span> |
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #008000; border: 1px solid black; margin-right: 5px;"></span> Parkway           | <span style="display: inline-block; width: 10px; height: 10px; background-color: #008000; border: 1px solid black; margin-right: 5px;"></span> <span style="display: inline-block; width: 10px; height: 10px; background-color: #008000; border: 1px solid black; margin-right: 5px;"></span> <span style="display: inline-block; width: 10px; height: 10px; background-color: #008000; border: 1px solid black; margin-right: 5px;"></span> |
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #800080; border: 1px solid black; margin-right: 5px;"></span> Avenue            | <span style="display: inline-block; width: 10px; height: 10px; background-color: #800080; border: 1px solid black; margin-right: 5px;"></span> <span style="display: inline-block; width: 10px; height: 10px; background-color: #800080; border: 1px solid black; margin-right: 5px;"></span> <span style="display: inline-block; width: 10px; height: 10px; background-color: #800080; border: 1px solid black; margin-right: 5px;"></span> |
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #ff0000; border: 1px solid black; margin-right: 5px;"></span> Commercial Street | <span style="display: inline-block; width: 10px; height: 10px; background-color: #ff0000; border: 1px solid black; margin-right: 5px;"></span> <span style="display: inline-block; width: 10px; height: 10px; background-color: #ff0000; border: 1px solid black; margin-right: 5px;"></span> <span style="display: inline-block; width: 10px; height: 10px; background-color: #ff0000; border: 1px solid black; margin-right: 5px;"></span> |
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #000000; border: 1px solid black; margin-right: 5px;"></span> Street            | <span style="display: inline-block; width: 10px; height: 10px; background-color: #000000; border: 1px solid black; margin-right: 5px;"></span> <span style="display: inline-block; width: 10px; height: 10px; background-color: #000000; border: 1px solid black; margin-right: 5px;"></span> <span style="display: inline-block; width: 10px; height: 10px; background-color: #000000; border: 1px solid black; margin-right: 5px;"></span> |
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #0000ff; border: 1px solid black; margin-right: 5px;"></span> Roads             | <span style="display: inline-block; width: 10px; height: 10px; background-color: #0000ff; border: 1px solid black; margin-right: 5px;"></span> <span style="display: inline-block; width: 10px; height: 10px; background-color: #0000ff; border: 1px solid black; margin-right: 5px;"></span> <span style="display: inline-block; width: 10px; height: 10px; background-color: #0000ff; border: 1px solid black; margin-right: 5px;"></span> |
| <span style="display: inline-block; width: 15px; border-bottom: 2px dashed red; margin-right: 5px;"></span> Urban Growth Boundary                                |  |







STONO RIVER

700

Murray Wood Rd

Rushland Landing Rd

Brownwood Rd

Sailfish Rd

River Rd

Southwick Dr

Cane Slash Rd

Main Rd

Wynnsboro Rd

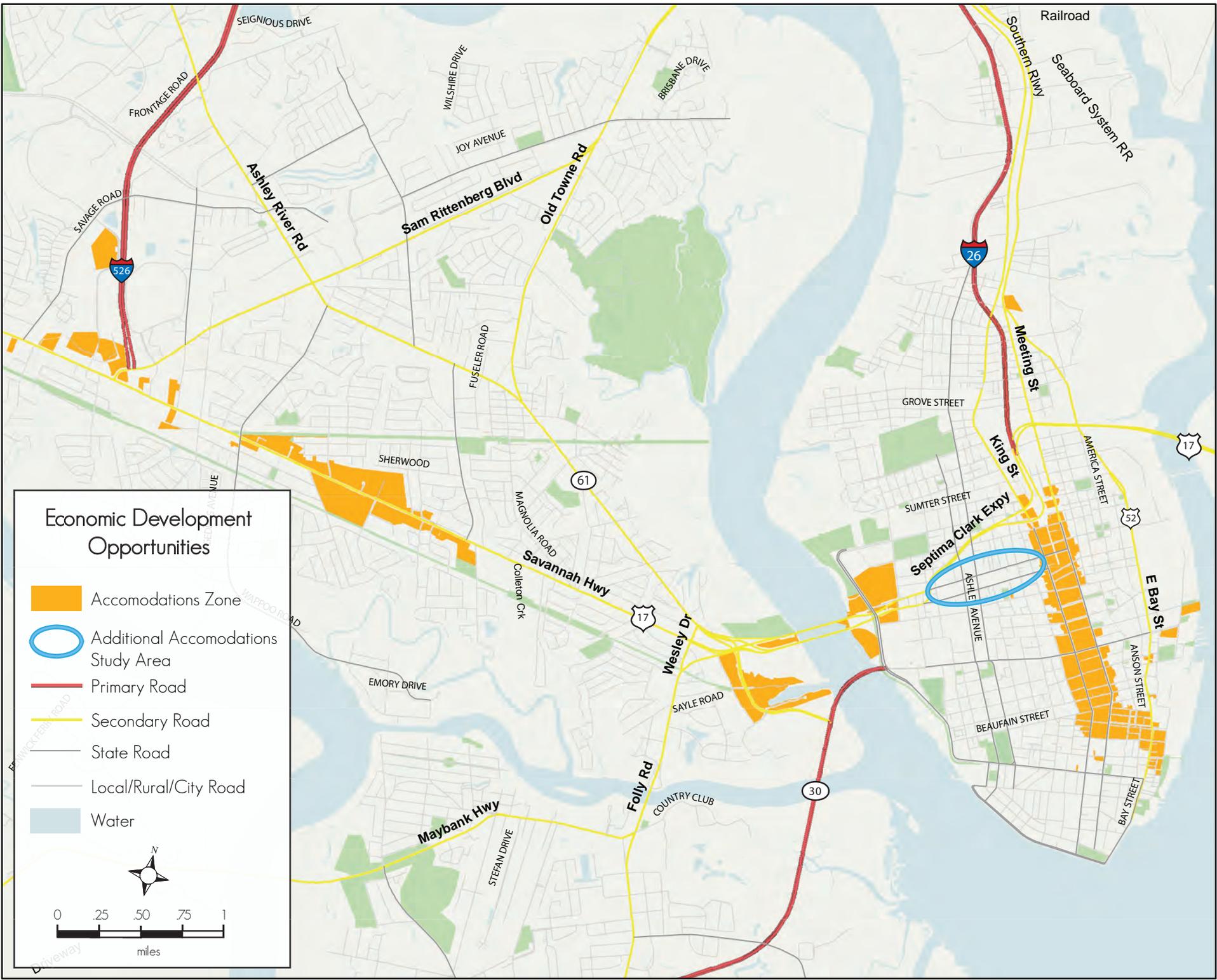
Berryhill Rd

Saint Johns

Playground Rd

CHARLESTON EXECUTIVE AIRPORT





**Economic Development Opportunities**

- Accommodations Zone
- Additional Accommodations Study Area
- Primary Road
- Secondary Road
- State Road
- Local/Rural/City Road
- Water

0 0.25 0.50 0.75 1  
miles







In the City of Charleston, mobility is not just a matter of moving cars from here to there. Charleston's unique geography of waterways and marshes separating the City's five land bodies limits the ability to fully connect various points of the City and region by roadway. In addition, Charleston's urban setting naturally results in increased congestion that cannot be completely mitigated through road construction.

Notwithstanding the geographical factors, demographic data paints a picture that shows a need for options. In the 2000 Census, over 15% of households in the City of Charleston were identified as not having a vehicle available for transportation. Thus, at a minimum, over 18,000 people in the City everyday will likely be walking, biking, riding public transportation, or car pooling.

In the City's 2009 Citizens' Survey over 90% of the respondents agreed that streets need to emphasize more connectivity and more low-speed, pedestrian-friendly character. Previously in the City's 1998 Citizens' Survey respondents said the most important single issue for managing growth and development in the City was improving the quality and character of streets, sidewalks, street lighting, and street trees.

Given these significant indicators of public support, the City needs to do more to offer alternatives to the traditional passenger vehicle. The City needs to avoid accepting the suburban-oriented system of wide, high-speed collectors and arterials. Charleston needs more bike lanes and sidewalks; needs more public transportation options, and needs to ensure that land use recommendations are support development patterns that encourage walking and transit.

For those who are using passenger cars, there need to be more choices available as well. Choices of vehicular routes is a critical need. If there is more than one way to get to a location, traffic on each of those routes is more equalized and no particular route shares an undue burden. That is the beauty of a connected grid, such the one established on the Peninsula of Charleston. While Charleston's geography prevents as great a network system as some cities can have, within the five land masses there are plenty of connections that can create better networks. Therefore, one of the most important areas the City of Charleston needs to focus on is providing more choices in mobility.

While much has been accomplished in the past 10 years, much remains to be done. This Mobility Element sets the tone for a City that seeks to become a role model for advances in the choices of mobility.

#### CHARLESTON ROADWAY IMPROVEMENTS, COMPLETED

Area	Project	Type/Description	Status
Cainhoy	Daniel Island Interchange at Mark Clark Expressway	New Interchange with Mark Clark	Completed
James Island	Folly Rd and Maybank Hwy	Intersection improvements	Completed
James Island	Folly Rd	Bridge replacment over James Island Creek	Completed
Peninsula	Ravenel Bridge	New Bridge connecting Charleston and Mt. Pleasant over the Cooper River	Completed
Peninsula	Heriot St. Bridge at the Magnolia Development	New Bridge connecting Upper Rutledge and I-26 with the Magnolia Development	Completed
West Ashley	West Ashley Circle, Southwest Quadrant	New Roadway	Completed
West Ashley	Henry Tecklenberg Blvd connection	From Magwood Rd to Savage Rd	Completed

Source: South Carolina Department of Transportation

### Mobility Goal:

Seek to offer as many choices for mobility in the City as possible, from modes to routes

### Existing Traffic Patterns

Currently, most development is designed to be entirely automobile dependent. Most

cities, including Charleston, have greatly increased their levels of VMT (vehicle miles traveled). A city must be realistic about how much vehicle traffic can be supported through increased roadway capacity and balance its effects on the community's quality of life.

To illustrate Charleston's roadway capacities, a chart of key traffic counts in Charleston between 1998 and 2009 is included on at the end of this chapter. There are a significant number of roadways that have seen decreases in vehicles over the past 10 years or so. Examples include Rutledge Ave. from King

## CHARLESTON ROADWAY IMPROVEMENTS, PLANNED/UNDER CONSTRUCTION

Area	Project	Type/Description	Status
West Ashley	Glenn McConnell Parkway Improvements	New lanes, stoplight improvements, sidewalk construction—Charlie Hall Blvd to Orleans Rd	Under Construction
WA, John, James Is	Mark Clark Expressway (I-526) Extension	Extension from Savannah Hwy to Folly Rd	Planned, 10+ yrs
Cainhoy	Clements Ferry Rd.	New Lanes, I-526 to Jack Primus Rd. Bike and Pedestrian facilities	Planned, 1-10yrs.
Cainhoy	Clements Ferry Rd.	Further improvements, bike and pedestrian facilities, Jack Primus Rd to Hwy 41	Planned, 1-10yrs.
Cainhoy	SC 41 Bridge	Bridge over Wando River	Planned, 1-10yrs.
James Island	Harborview Rd	New Lanes, bicycle and pedestrian facilities	Planned, 1-10yrs.
James Island	Intersection: Dills Bluff/Camp Rd.	Intersection improvements	Planned, 1-10yrs.
James Island	Intersection: Folly Rd/Camp Rd.	Intersection improvements	Planned, 1-10yrs.
James Island	Folly Rd bridge over Folly River	New Bridge, Construction begins in early 2011	Planned, 1-10yrs.
James Island	Folly Rd bridge over Folly Creek	New Bridge, Construction begins in early 2011	Planned, 1-10yrs.
Johns Island	Maybank Highway	Road, Bike and Pedestrian improvements from Bohicket Rd. to Stono River	Planned, 1-10yrs.
Peninsula	Port Access road connecting to I-26	New Roadways facility for new port in North Charleston	Planned, 1-10yrs.
Peninsula	Bee St. and Courtenay St.	Road improvements	Planned, 1-10yrs.
Peninsula	Septima Clark Parkway	Road improvements, streetscape, bike and pedestrian improvements	Planned, 1-10yrs.
Peninsula	East/West Connector Road	New Road between Meeting St. and East Bay St.	Planned, 1-10yrs.
Peninsula	Commuter Rail Study	Feasibility of passenger rail on existing freight rail	Planned, 1-10yrs.
West Ashley	Bees Ferry Rd.	New Lanes, Bike and Pedestrian facilities	Planned, 1-10yrs.
West Ashley	Ashley River Bridge	Bike and Pedestrian Retrofit	Planned, 1-10yrs.
West Ashley	Glenn McConnell Extension, from West Ashley Circle North to Dorchester Co.	New Roadway connecting to Grand Oaks and Long Savannah	Planned, 1-10yrs.
West Ashley	West Ashley Circle, remaining 3 quadrants	New Roadway	Planned, 1-10yrs.
West Ashley	Sam Rittenberg Blvd and Ashley River Rd	Intersection improvements	Planned, 1-10yrs.
West Ashley	Savannah Hwy and Folly Rd	Intersection improvements	Planned, 1-10yrs.
West Ashley	Sam Rittenberg Blvd and Old Towne Rd	Intersection improvements	Planned, 1-10yrs.
West Ashley	US 17 at Magnolia Rd/Avondale	Pedestrian Improvements, Streetscape	Planned, 1-10yrs.
West Ashley	Sanders Road Connection via Carolina Bay	New Roadway from Bees Ferry Rd to Savannah Hwy	Planned, 1-10yrs.
West Ashley	Carolina Bay connector to Glenn McConnell	Partially complete, remainder planned to connect to West Wildcat from Savannah Hwy	Planned, 1-10yrs.

Source: SCDOT BCD-COG and the City of Charleston

St. to Mt. Pleasant St., Orleans Rd. from Savannah Hwy. to Ashley River Rd., Ashley Ave. from Murray Blvd. to the Septima P. Clark Pkwy., and Ashley River Rd. from Sycamore Ave. to Savannah Hwy. These are streets that are prime for a retrofit or “road diet” to reduce the space given to passenger vehicles, and add or increase the space given to pedestrians, bicycles, and/or transit.

There are also streets with significant gains in vehicles traveling them. Examples include Clements Ferry Rd. from SC-41 to Jack Primus Rd.; Clements Ferry Rd. from Jack Primus Rd. to St. Thomas Island Dr., Mark Clark Exp. from Virginia Ave. to Clements Ferry Rd., Septima P. Clark Pkwy. from the James Island Connector to King St., and the Glenn McConnell Pkwy. from Bees Ferry Rd. to Magwood Dr. These are streets that if not already targeted for improvements, may need to be improved in the next 10-20 years. Perhaps most importantly though, these are the routes that public transportation should be targeting for increased service.

Charleston’s unique geography and the reality of increasing traffic are challenges. The City can best address these challenges by focusing on a balanced strategy maximizing transportation choices.

Charleston’s focus needs to be on providing viable choices, so daily trips can actually be spread among several transportation modes. Jobs centers and commercial services that are located in areas far away (located away from main radial corridors and/or the City center) ultimately exclude residents that have little or no access to vehicles to travel to those more remote locations.

### Existing Traffic Patterns Recommendations

1. **Seek to enhance the City’s network with road improvements. Coordinate road improvements with SCDOT, CHATS, and Charleston and Berkeley Counties.**
2. **Monitor streets with decreasing traffic load for potential “road diets” and conversion of vehicle space to pedestrian, bicycle, and/or transit space.**
3. **Monitor routes with increasing traffic load for enhanced transit routes and possibly physical improvements to handle traffic loads.**

### Streets

Streets are the best way to move about the City in a vehicle, by foot or on a bike. This requires a fully developed network of streets in each area of the City with attention to how new streets are designed and existing streets are improved.

Conflicts continue to occur between vehicles and pedestrians. There are still streets with higher volumes of traffic and intersections that are particularly dangerous. The City’s challenge is to adapt as conditions change always keeping in mind the public street must accommodate a variety of users.



John’s Island Scenic Byway with a tree canopy

Improvements to main roadway corridors must respect the unique environment of the area. For example, roadway improvements to Maybank Highway on Johns Island must protect the tree canopy of that scenic route. The City and Charleston County RoadWise are seeking to do that with the proposed “Pitchfork” concept.

Roadway improvements will need to always accommodate bicyclists and pedestrians. Bike

and pedestrian facilities will be an integral element of roadway design.

### Street Design

To help balance the scales for pedestrians and bicyclists, street design standards need major upgrading. Current codes mirror those found around the country which are based on suburban or rural, vehicle only design types. The problem with these codes is that they almost never take the principles of walkability into account and instead move vehicles at the highest possible speed through the community.

In the City's 2009 Citizens' Survey, over 90% of respondents supported designing or retrofitting streets to accommodate pedestrians, bicyclists, and transit users, as well as automobiles.

#### TOP TEN FACTORS TO MAKE A "WALKABLE" PLACE

1. small block size
2. buildings fronting street
3. mixed land use
4. lower traffic speeds
5. on-street parking
6. interconnected streets
7. narrow streets
8. sidewalks
9. traffic volumes
10. street trees

Source: Hall Planning and Engineering

A walkable street is not just a street that includes sidewalks. Walkability is based on a range of factors involved in urban design (see "Top Ten Factors to Make a Walkable Place"). New streets should be designed based upon an approved hierarchy accommodating pedestrians and vehicles, such as is found in the draft Street Standards.

In addition, existing streets should be improved to provide convenient and safe sidewalk connections. Whenever streets are resurfaced in the City, lane widths should be analyzed with the goal of moving away from rural or suburban design standards. Where widths permit, bike lanes should be added on resurfaced streets via restriping with narrower lanes for vehicles. Street trees should be added wherever possible; on-street parking added when appropriate and where widths will accommodate it; and the placement of future buildings should generally be at the back of the sidewalk.

### Street Recommendations

1. **Design new streets and improve existing streets to accommodate walking, bicycling, and vehicle travel.**
2. **Adopt the new draft Street Standards as the City's policy for future street design and retrofit.**

3. **Monitor all resurfacing of streets in the City for the possible inclusion of bike lanes where road widths allow. Work with SCDOT to accommodate non-standard lane widths where possible so that bike lanes can be included.**
4. **Target transportation investments to enhance the existing transportation network. Coordinate these improvements with SCDOT, CHATS, and Charleston and Berkeley Counties.**
5. **Prioritize improvements to existing thoroughfares and bottlenecks at major intersections and bridge locations.**

### Network Expansion

As previously described, Charleston's geography presents unique transportation challenges. The web of waterways defines individual land bodies that can be connected at a limited number of locations. The result is a well-developed system of radial roadways emanating from downtown Charleston and a limited number of circumferential roadways connecting across land bodies. Charleston's geography places limits on the ability to fully develop a circumferential system of streets. The City must focus on radial corridors and on providing alternative ways of movement.

A connected network and/or lower speed streets can move traffic just as well, or even better in most circumstances. The network also has the advantage of being much more walkable and neighborhood friendly.

**Peninsula:** On Charleston's Peninsula an outstanding network of streets exists. Improvements can be achieved with the conversion of one-way streets back into two way streets, where street widths and traffic volumes permit. Neighborhood livability increases greatly from such conversions. One-way street conversions have been very successful with Wentworth and Beafain Streets and lower Ashley and Rutledge Avenues over the last ten years. The City hopes to continue with the conversions of Spring and Cannon Streets and to study the future conversion of upper Ashley and Rutledge Avenues.

**West Ashley:** In West Ashley, increasing connectivity between the major arterials is critical. Several connections have been completed over the last ten years, such as the Magwood Road/Henry Tecklenberg Boulevard/West Ashley Town Center Drive connection between the Glenn McConnell Parkway and Savannah Highway, and the Bolton Landing Raod connection between Savannah Highway

and Bees Ferry Road. Several more are planned such as the Carolina Bay Drive connection between Savannah Highway and West Wildcat Boulevard, and future connections between Ashley River Road and the Glenn McConnell Parkway, as specified in the City's *Master Road Plan* (The *Master Road Plan* is a part of the comprehensive plan, see the Overall Plan Maps).

**James Island:** On James Island, most of the road system is built out, but connectivity is key, such as the connection of George Griffith Boulevard, created in the last 15 years between Riverland Drive and Folly Road.

**Johns Island:** On Johns Island, a network of streets within the designated urban/suburban area is recommended in the *Johns Island Community Plan*. This is a critical element to assure that Maybank Highway does not become overburdened and prevent developing a series of isolated neighborhoods.

**Cainhoy Peninsula:** On the Cainhoy Peninsula there is only one main public street, Clements Ferry Road. Due to its narrow geography, this is the only main route in and out of the area. North of Jack Primus Road, there exists the pos-

sibility of creating a network of streets, similar to what is recommended for Johns Island.

## Network Expansion Recommendations

1. Assure that new neighborhood, commercial, and mixed-use developments are fully connected on all sides.
2. Seek to create as many network connections as possible between key suburban arterials. Add any needed connections to the City's *Master Road Plan*.
3. Implement connections designated in the City's *Master Road Plan*. Coordinate with SCDOT, CHATS, and Charleston and Berkeley Counties for inclusion on any needed priority lists.



Johns Island Network from the Johns Island Community Plan adopted by City Council

Development Zones and Street Network Design Standards

<p><b>Natural Areas</b></p> <p>Lands approximating or reverting to a wilderness condition, including lands unsuitable for settlement due to topography, hydrology or vegetation.</p> <p><b>General Character</b> natural landscape with some agricultural use</p> <p><b>Building Characteristics</b> none available</p> <p><b>Civic Spaces:</b> parks and greenways</p>	<p><b>Rural Areas</b></p> <p>Rural land use areas consist of land in an open or cultivated state or sparsely settled. These areas may include woodland, agri-cultural lands, grasslands and wetland areas.</p> <p><b>General Character</b> primarily agricultural with woodlands, wetlands &amp; scattered bldgs.</p> <p><b>Building Characteristics</b> variable setbacks, porches, fences, natural plantings, 1-2 story</p> <p><b>Civic Spaces:</b> parks and greenways</p>	<p><b>Sub-Urban Areas</b></p> <p>Sub-Urban are predominately low density residential areas that may be adjacent to higher density or mixed use areas.</p> <p><b>General Character</b> lawns, landscaped yards, single-family detached</p> <p><b>Building Characteristics</b> variable setbacks, porches, fences, natural plantings, 1-2½ story</p> <p><b>Civic Spaces:</b> parks and greenways</p>	<p><b>Urban General Areas</b></p> <p>Urban General land use areas consists of mixed use but primarily resident urban fabric. Urban General may have a wide range of bldg types including single-family, sideyard &amp; townhouses.</p> <p><b>General Character</b> mix of houses, townhouses, small apartment bldgs, scatter commercial, pedestrians</p> <p><b>Building Characteristics</b> shallow to medium front &amp; side yard setbacks, porches, fences, 2-3 story with a few taller mixed use bldgs.</p> <p><b>Civic Spaces:</b> squares and greens</p>	<p><b>Urban Center</b></p> <p>Urban Center land use areas include predominately higher density mixed use building types that accommodate retail, offices, rowhouses and apartments.</p> <p><b>General Character</b> shops mixed with townhouses, larger apartment bldgs, offices, workplace, commercial, pedestrian</p> <p><b>Building Characteristics</b> shallow setbacks or none, bldgs oriented to street, stoops, shop fronts, galleries, porches, fences, 2+ story bldgs with a few taller mixed use bldgs.</p> <p><b>Civic Spaces:</b> parks, plazas, and squares</p>	<p><b>Urban Core</b></p> <p>Urban Core land use areas consist of the highest density and height with the greatest variety of uses and civic buildings of regional importance.</p> <p><b>General Character</b> medium to high density mixed use bldgs, civic, cultural, attached bldgs, highest pedestrian activity</p> <p><b>Building Characteristics</b> shallow setbacks or none, bldgs oriented to street, stoops, shop fronts, galleries, porches, fences, 3+ story bldgs with a few taller mixed use bldgs.</p> <p><b>Civic Spaces:</b> parks, plazas, and squares</p>

Source: Duany Plater-Zyberk & Co.; Smart Code Version 9.2 and the City of Charleston

## Roadway Definitions

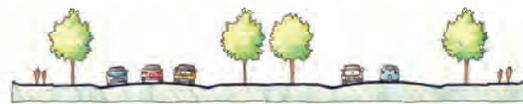
As shown on the attached maps, below are the definitions of the different types of roadways the City has (or plans to have) in the Charleston. The location of the types of roadways, or the changes in a roadway's type at several points along its route are the result of existing or planned land uses and urban/suburban character along the route.

**Freeways:** Roadways that are limited access and have posted and design speeds of 45 mph and higher. They are typically multi-lane. There typically are very limited pedestrian provisions for a freeway. Examples include I-26 and the Mark Clark Expressway.

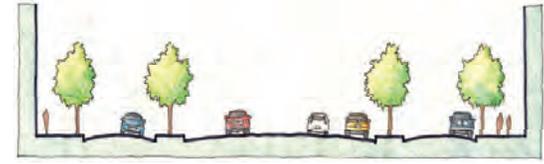
**Highways:** Roadways that have posted and design speeds of higher than 35 mph and are typically surrounded by auto-oriented development that generally is accessible from the roadway. Sidewalks should be separated from the edge of the road on Highways. Examples include Sam Rittenberg Boulevard and Folly Road.



**Scenic Byways:** Roadways that have scenic qualities from surrounding land forms or vegetation, or from historic structures along their routes. Typically they are no more than two lane roadways, and that limited scale is part of their scenic value and is designated for preservation. Development along these roadways is very limited with strict design controls. Sidewalks should consist of meandering paths along these roadways. Examples include outer portions of Ashley River Road and Riverland Drive.



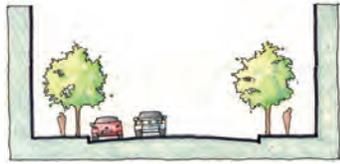
**Parkways:** A more rural scaled roadway, with vehicular and design speeds of 35 mph and up, typically with a wide median and extensive landscaping/vegetation on either side and within the median. Development along these roadways is heavily buffered and typically not directly accessible from the roadway. Sidewalks should consist of meandering paths along these roadways. Examples include portions of Lockwood Boulevard and the Glenn McConnell Parkway.



**Boulevards:** A very walkable roadway of high vehicular capacity and moderate speed (35 mph or less), traversing an urbanized area. Typical sections include slip roads buffering sidewalks and buildings. Mixed use buildings typically line both sides of these roadways. Currently, no roadways in Charleston meet this classification or are planned to, but this is one of the recommended street types in the City's new Street Standards, and may eventually be practical in some segment of the City.



**Avenues:** Roadway of high vehicular capacity and low to moderate speed (25 - 35 mph), acting as a short distance connector between urban centers, and usually equipped with a landscaped median. A variety of building types line these roadways and buildings are typically close to the street. Sidewalks are buffered by on-street parking. Examples include planned portions of St. Andrews Boulevard and Savannah Highway.



**Commercial Streets:** A local urban roadway of low speed (25 mph or less) and capacity that serves a more mixed-use or commercial area, with extensive on-street parking. Buildings are typically located at the back of the sidewalk. Examples include King Street, Meeting Street, and Seven Farms Drive.



**Streets:** A local urban roadway of low speed (25 mph or less) and capacity. Sidewalks are on both sides of these roadways. The bulk of the roadways in the City of Charleston will be classified in this manner.



**Roads:** A local rural and suburban roadway of low to moderate vehicular speed (25 - 35 mph) and capacity. Many streets in the City will meet this definition, but some specific examples include Wappoo Road, and Camp Road.

### Bicycle and Pedestrian Mobility

No range of mobility choices is complete until the City provides a full range of safe and convenient routes for bicyclists and pedestrians. The City has seen a surge in bicycling and walking throughout Charleston.

#### BICYCLE COUNTS

	King/Calhoun	Ravenel Bridge/ East Bay St	Saint Philip St
2006	465	130	--
2009	1,005	235	--
2010	--	--	1,361

Some Charlestonians that bike or walk do so for recreation/exercise and other as a means of commuting to work or errands, and commute by foot or bike. This City Plan Update recommends improvements in bicycle and pedestrian facilities that will help both of these types of users.

New streets should always include provisions for bicyclists and pedestrians and existing roadways should be retrofitted as funds permit. Utility corridors and rail corridors should be targeted for new off-street connections. These corridors are particularly useful for connecting parks, schools, libraries and other places children are trying to get to and from safely.

### Bicycle and Pedestrian Facility Definitions

**Multi-Use or Shared Use Path:** Pathway or trail physically separated from motorized vehicular traffic for the shared use of bicyclists, pedestrians and other non-motorized travelers.

**Bicycle Lane:** A portion of a roadway designated by striping, signage and markings for the preferential or exclusive use of bicyclists.

**Bicycle Route:** A segment of a system of bike-ways designated by the jurisdiction having authority with appropriate directional and informational markers, with or without specific bicycle route numbers.

**Sharrow:** Pavement marking used on roadways to indicate the travel lane is shared by bicycles and motor vehicles.

**Greenway:** Linear park, alternative transportation route, or open space conservation area that provides passive recreational opportunities, multi-use paths, and/or the conservation of open spaces or natural areas.

## CITY OF CHARLESTON BICYCLE & PEDESTRIAN IMPROVEMENT PROJECTS 2000 -2020

Projects Completed 2000 - 2010	Status	Department
Heriot/Magnolia Bridge Path	Completed	Developer
James Island Creek Bridge Bike Lanes and Sidewalk	Completed	SCDOT
West Ashley Bikeway - Extension	Completed	Capital Projects
East Bay Bicycle/Pedestrian Path	Completed	Capital Projects
Ashley River Road Bicycle/Pedestrian Path	Completed	Capital Projects
West Ashley Greenway Phase III - Extension	Completed	Capital Projects
Battery Gaillard Path	Completed	Developer
Ravenel Bridge Bike/Ped Lane Parking Lot	Completed	Capital Projects
Ravenel Bridge Bike/Ped Lane	Completed	SCDOT
Mary Ader Blvd Path	Completed	Capital Projects
Maybank Highway Pedestrian Tunnel	Completed	Capital Projects
George Griffith Blvd Bike/Ped Path	Completed	Developer
Projects Planned/Under Construction 2000 - 2020	Status	Department
Fort Johnson Rd Sidewalk	Design/Engineering Stage	Charleston County
Harbor View Rd Path	Design/Engineering Stage	Charleston County
Bees Ferry Rd Path	Design/Engineering Stage	Charleston County
Saint Andrews Blvd Bike Lanes	Design/Engineering Stage	City/County
Septima Clark Expressway Bike/Ped Improvements	Design/Engineering Stage	Public Service
Folly Rd Bike Facilities	Planning Stage	City/County
Peninsula I-26 Corridor Path	Planning Stage	City/SCDOT
Maybank Hwy Bike Lanes/ Path	Planning Stage	City/County
Riverland Dr Bike/Ped Path	Planning Stage	City/County
Ashley River Bridge Bike/Ped Retrofit	Planning Stage	City/County
Morrison Dr Bike Lanes	Planning Stage	City/County/SCDOT
West Ashley Greenway Phase IV	Planning Stage	Capital Projects
Carolina Bay Multi-use Path	Under Construction	Developer
Governor's Park Trails	Under Construction	Capital Projects

### Bicycle & Pedestrian Mobility Recommendations

1. Create and implement Street Standards and City policy that requires every street that is built to be a "complete street", including facilities for all mobility types and with urban design elements that help to facilitate alternative modes of travel, such as street trees and on-street parking.
2. Implement the routes and improvements shown on the attached pedestrian and bike plan maps using a set of new Street Standards.
3. Further enhance and update the proposed and planned network shown on the accompanying maps as funds permit.
4. Work with the City's Bike and Pedestrian Committee and community to en-

courage and facilitate multiple modes in every way possible.

5. Ensure that the City's pedestrian amenities accommodate all users, regardless of disability.
6. Implement the recommendations of *West Ashley Greenway Master Plan* and continue efforts to improve facilities along its route.
7. Construct the bicycle/pedestrian lane for the Ashley River Bridge.
8. Establish an agreement with local utilities for use of utility corridors as walking and bicycling paths.
9. Seek funding to support the aforementioned recommendations and improvements.
10. The City should work to make sure that every residence in the City is within a half-mile (10 minute walk) of a dedicated bike and/or bike/ped facility.
11. The City should analyze streets that are currently serving the greatest traffic volumes to assure that those streets are safe for pedestrians and bicyclists as well, and if not, target these streets for high priority pedestrian and bicycle improvements.

### Public Transportation

The Charleston Area Rapid Transit Authority (CARTA) has been responsible for public transportation in Charleston since 1998. CARTA has made improvements to its provi-

sion of services, including a region-wide bus system. In 2004, Charleston County approved a referendum for a half-cent sales tax and approximately 18% was allocated for public transportation, via CARTA. This gives CARTA an assured funding source for the near future and allows further expansion of service.

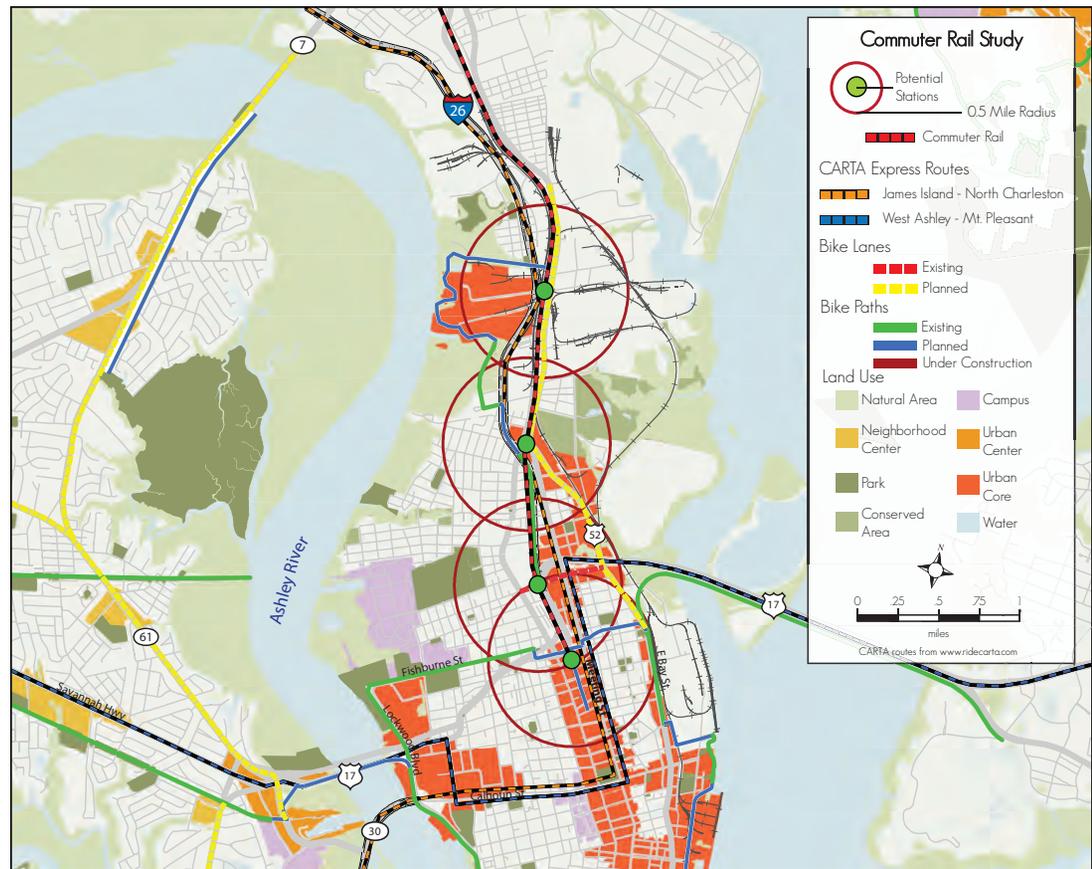
For public transportation to be successful and to give as many citizens and visitors as possible this choice for moving around, it is dependent on certain levels of density along its routes. The City must guide the demand for

higher density housing toward locations near transit corridors and stops. Transit stops are important opportunities and should be a part of every civic center, neighborhood center, or gathering place throughout the City.

Public transportation has traditionally been successfully used for the trip to and from

work. The commute is the most important vehicle trip to capture with the public transportation system. Therefore, connecting homes and jobs by public transportation is critical. Jobs along principal corridors on the Peninsula and in West Ashley should have convenient access to public transportation. Existing employment centers such as the Peninsula's

CARTA System-wide Route Map



Central Business District and the MUSC-Roper area, as well as the area around Citadel Mall in West Ashley are well located for public transportation. Building the employment base in these locations will give more citizens access to jobs by transit.

Charleston is a small city in a relatively small metropolitan area. The future potential for fixed-guideway transit service such as commuter rail, light-rail, busway transit is uncertain. A Commuter Rail Study is currently underway. Preliminary feasibility studies suggest that the potential for this service exists for the following reasons:

**Geography:** The City has already built all of our connections to the peninsula for vehicles. There is limited ability to expand roadway capacity.

**A Strong Center:** Downtown Charleston is a dense urban setting with almost 40,000 residents and tens of thousands of jobs.

**Visitors:** In addition to the commute trip, transit has also traditionally worked well for entertainment trips. The large number of visitors to Charleston presents a sizable customer base for transit.

**Growth:** Charleston is a growing city. If the city and region's growth is directed appropriately it can be transit supportive. If growth is not directed in this manner, then the customer base will not justify the investment in fixed guideway transit.

### Public Transit Recommendations

1. Work closely with CARTA to identify optimal transit routes and locations for current and future transit stops.
2. Promote walkable neighborhoods and developments, with appropriate densities to support key transit corridors.
3. Continue to protect the railroad right-of-way running the length of the peninsula and connecting downtown with North Charleston and Summerville for future use as a future transit corridor.
4. Study potential transit stops along the rail corridor connecting downtown with North Charleston and Summerville and coordinate land use recommendations in these areas to encourage compact, mixed-use development around these locations.

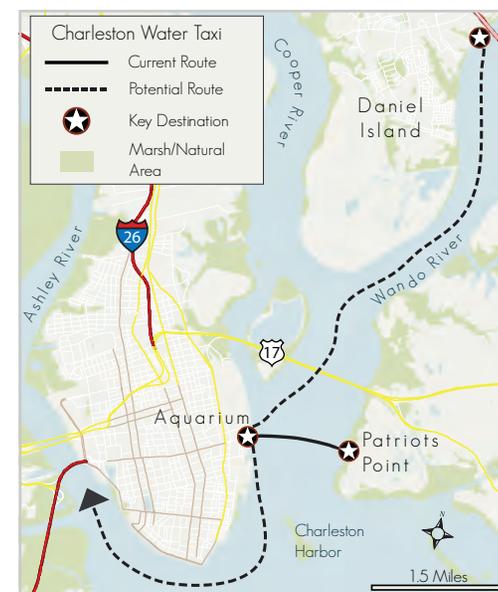
### Water Transportation

Given the limited number of roadway connections to the peninsula, Charleston's geography makes water taxi and ferry services

a unique mobility choice. Existing water taxi service available between the Peninsula and Mount Pleasant should be enhanced with better and more convenient dock locations downtown. Connections between the Peninsula and Daniel Island and James Island are viable in the short and long term and should be explored to a greater extent.

### Water Transportation Recommendations

1. Continue efforts to enhance service between the Peninsula and Mount Pleasant, with enhanced and better located dock locations downtown.



## LOCATIONS WITH DECREASED TRAFFIC COUNTS FROM 1998 TO 2009

Street Name	Location	Station	1998 Count	2009 Count	% Change
Coming St.	Septima Clark Pkwy. to Race St.	432	2,500	1,800	-28.0%
Beaufain St.	Halsey Blvd to Moultrie St.	407	5,300	3,900	-26.4%
Folly Rd.	Battery Island Rd. to S. Grimball Rd.	237	16,000	11,800	-26.3%
Rutledge Ave.	King St. to Mt. Pleasant St.	424	2,500	1,850	-26.0%
Fleming Rd.	Maybank Hwy. to Cnetral Park Rd.	607	2,800	2,100	-25.0%
Orleans Rd.	Savannah Hwy. to Ashley River Rd.	393	12,100	9,100	-24.8%
Ashley Ave.	Murray Blvd. to Septima Clark Pkwy.	429	7,300	5,500	-24.7%
Folly Rd.	Sol Legare Rd. to Battery Island Rd.	235	15,700	11,900	-24.2%
Race St.	King St. to Rutledge Ave.	619	2,400	1,900	-20.8%
Savannah Highway	Wesley Rd. to St. Andrews Blvd.	121	24,800	19,800	-20.2%
President St.	Fishburne St. to Doughty St.	428	7,500	6,000	-20.0%
Wappoo Rd.	Sam Rittenburg Blvd. to Savannah Highway	395	12,900	10,400	-19.4%
St Andrews Blvd.	Sycamore Ave. to Savannah Hwy.	213	51,600	42,000	-18.6%
Folly Rd.	S Grimball Rd. to Fort Johnson Rd.	239	17,700	14,500	-18.1%
Mt. Pleasant St.	US 78 to US 52	718	12,800	10,600	-17.2%
Cleveland St.	Ashley Ave. to King St.	537	900	750	-16.7%
Barre St.	Broad St. to Doughty St.	601	6,100	5,100	-16.4%
Ashley River Rd.	Old Towne Rd. to Sycamore Ave.	211	53,300	45,000	-15.6%
Dupont Rd.	Savannah Hwy. to Sam Rittenburg Blvd.	391	5,000	4,300	-14.0%
St Philip St.	Sheppard St. to Line St.	434	1,450	1,250	-13.8%
Dupont Rd.	Piper Dr. to Savannah Hwy.	389	5,200	4,500	-13.5%
Playground Rd.	Savannah Highway to Ashley River Rd.	401	6,000	5,200	-13.3%
Huger St.	King St. to Morrison Dr.	422	2,300	2,000	-13.0%
Coming St.	Logan St. to Septima Clark Pkwy.	431	7,700	6,700	-13.0%
Sam Rittenberg	Savannah Highway to Ashley River Rd.	181	29,200	25,600	-12.3%
Morrison Dr.	Cooper River Bridge to King St./Mt. Pleasant St.	171	13,000	11,400	-12.3%
Ashley Ave.	Septima Clark Pkwy. to Moultrie St.	430	3,400	3,000	-11.8%
SC 171	Ashley River Rd. to Sam Rittenburg Blvd.	249	26,800	23,800	-11.2%
Line St.	Rose Ln. to Meeting St.	633	2,800	2,500	-10.7%
Rutledge Ave.	Calhoun St. to Murray Blvd.	426	3,300	3,000	-9.1%
Rutledge Ave.	Septima Clark Pkwy. to Calhoun St.	425	8,900	8,100	-9.0%
Brownswood Rd.	Maybank Hwy. to Main Rd.	508	1,200	1,100	-8.3%
Spring St.	Meeting St. to Westcott St.	419	8,800	8,100	-8.0%
E. Battery St.	Broad St. to S. Battery St.	405	5,100	4,700	-7.8%
Camp Rd.	Fort Johnson Rd. to Dills Bluff Rd.	372	5,200	4,800	-7.7%
Calhoun St.	Barre St. to Coming St.	414	24,500	22,700	-7.3%
Calhoun St.	Coming St. to East Bay St.	415	21,300	20,300	-4.7%
Mt Pleasant St.	I-26 to King St.	717	11,700	11,200	-4.3%

## LOCATIONS WITH *DECREASED* TRAFFIC COUNTS FROM 1998 TO 2009

Street Name	Location	Station	1998 Count	2009 Count	% Change
Ashley Hall Rd.	Raoul Wallenburg Blvd. to Sam Rittenburg Blvd.	484	9,500	9,100	-4.2%
Charlotte St.	East Bay to Washington St.	705	1,200	1,150	-4.2%
Savannah Highway	Savage Rd. to Playground Rd.	117	39,100	37,500	-4.1%
Hagood Ave.	Septima Clark Pkwy. to Huger St.	560	5,200	5,000	-3.8%
Ashley River Rd.	Savage Rd. to SC 7	207	37,000	35,700	-3.5%
Ashley River Rd.	Sam Rittenburg Blvd. to Old Towne Rd.	209	34,600	33,400	-3.5%
East Bay St.	E Battery/Broad Sr. to Savannah Highway	169	19,900	19,300	-3.0%
Harbor View Rd.	Fort Johnson Rd. to North Shore Dr.	383	14,000	13,700	-2.1%
Orange Grove Rd.	Ashley Hall Rd. to Sam Rittenburg Blvd.	487	10,600	10,400	-1.9%
Broad St.	Lockwood Dr. to East Bay St.	403	11,300	11,100	-1.8%
Savannah Hwy.	Playground Rd. to Old Towne Rd.	119	39,600	39,000	-1.5%
River Rd.	Maybank Highway to Plow Ground Rd.	357	5,800	5,800	0.0%
Romney St.	Morrison Dr. to King St.	549	4,000	4,000	0.0%
St. Philip St.	Line St. to Beaufain St.	433	4,300	4,300	0.0%
Wentworth St.	Halsey Blvd. to East Bay St.	413	6,100	6,100	0.0%

SOURCE: South Carolina Department of Transportation

## LOCATIONS WITH *INCREASED* TRAFFIC COUNTS FROM 1998 TO 2009

Street Name	Location	Station	1998 Count	2009 Count	% Change
Calhoun St.	East Bay St. to Concord St.	416	1,600	6,100	281.3%
Washington St.	Laurens St. to Society St.	709	1,850	5,300	186.5%
Washington St.	Laurens St. to Charlotte St.	707	2,200	6,200	181.8%
Beaufain St.	Pitt St. to King St.	408	1,400	3,700	164.3%
King St.	Line St. to Morrison Dr./Mt. Pleasant St.	145	7,700	19,800	157.1%
Murraywood Rd.	Brownswood Rd. to River Rd	669	1,000	2,500	150.0%
Clements Ferry Rd.	SC 41 to Jack Primus Rd.	269	6,700	15,300	128.4%
Brownswood Rd.	Main Rd. to River Rd.	509	1,000	2,200	120.0%
Berryhill Rd.	Bohicket Rd. to Walter Dr.	351	1,000	2,000	100.0%
Woodland Shores Rd.	Maybank Highway to Riverland Rd.	604	1,400	2,500	78.6%
Clements Ferry Rd.	Jack Primus to St. Thomas Island Dr.	270	11,400	20,300	78.1%
Riverland Dr.	Central Park Rd. to Camp Rd.	369	5,900	9,800	66.1%
Mark Clark Expressway	Virginia Ave. to Clements Ferry Rd.	2,517	37,800	59,000	56.1%
Calhoun St.	SC 30 to Barre St.	640	22,500	34,800	54.7%
Septima P. Clark Pkwy.	James Island Connector to King St.	125	40,000	61,500	53.8%
Mark Clark Expressway	Clements Ferry Rd. to Seven Farms Dr.	2,518	31,600	48,200	52.5%
Columbus St.	East Bay St. to King St.	623	3,600	5,400	50.0%
Linguard St.	Church St. to East Bay St.	557	600	900	50.0%
Ashley River Rd. Connector	Merritt Rd. to James Island Connector	210	12,500	18,400	47.2%

LOCATIONS WITH INCREASED TRAFFIC COUNTS FROM 1998 TO 2009

Street Name	Location	Station	1998 Count	2009 Count	% Change
Glenn McConnell Pkwy.	Bees Ferry Rd. to Magwood Dr.	684	19,400	28,100	44.8%
Savannah Hwy.	McLeod Rd. to Dobbins Rd.	113	25,300	36,500	44.3%
Mark Clark Expressway	Sam Rittenburg Blvd. to Paul Cantrell Blvd.	2,501	25,200	36,300	44.0%
River Rd.	Main Rd. to Maybank Highway	355	3,700	5,300	43.2%
Fishburne St.	President St. SW	595	6,000	8,400	40.0%
I-26	Mt. Pleasant St. to Romney St.	2,209	52,400	73,000	39.3%
Riverland Dr.	Maybank Hwy. to Central Park Rd.	367	6,200	8,600	38.7%
Ashley River Rd. Connector	Savannah Hwy. to Merritt Rd.	212	13,000	17,600	35.4%
Fishburne St.	Coming St. to Rutledge Ave.	594	1,050	1,400	33.3%
Magwood Dr.	Ashley River Rd. to Paul Cantrell Blvd.	686	10,500	14,000	33.3%
Logan St.	Tradd St. to Beaufain St.	580	950	1,250	31.6%
Folly Rd.	Central Park Rd. to McHenry Ave	244	22,400	29,400	31.3%
Cannon St.	Westcott St. to King St.	417	7,200	9,300	29.2%
Fishburne St.	0.56 mi S of Savannah Hwy.	275	7,700	9,700	26.0%
Grimball Rd.	Riverland Rd. to Folly Rd.	584	3,600	4,500	25.0%
Jackson St.	Morrison Dr. to US 52	677	1,000	1,250	25.0%
James Island Connector	Harbor View Dr. to Savannah Highway	412	39,400	49,200	24.9%
Huger St.	President St. to King St.	421	5,000	6,200	24.0%
America St.	Stuart St. to Cooper River Bridge	579	2,100	2,600	23.8%
Savannah Hwy.	Dobbins Rd. to Savage Rd.	115	31,200	38,500	23.4%
Maybank Hwy.	Main Rd./Bohicket Rd. to River Rd.	267	11,500	13,900	20.9%
Market St.	King St. to Meeting St.	599	5,300	6,400	20.8%
Mark Clark Expressway	Paul Cantrell Blvd. to Leeds Ave.	2,505	59,300	71,200	20.1%
Fort Johnson Rd.	Folly Rd. to Camp Rd.	385	5,700	6,800	19.3%
Savannah Hwy.	Davidson Rd. to McLeod Rd.	111	26,600	31,200	17.3%
Bee St.	Lockwood Dr. to Westcott St.	585	7,000	8,200	17.1%
Cooper River Bridge	King St. to W Coleman Blvd.	127	64,500	75,500	17.1%
Maybank Hwy.	River Rd. to Woodland Shores Rd./Wappoo Dr.	269	18,600	21,600	16.1%
Market St.	Beaufain St. to King St.	581	4,600	5,300	15.2%
Central Park Rd.	Folly Road to Riverland Dr.	379	5,300	6,100	15.1%
Folly Rd./Wesley Dr.	Maybank Hwy to Ashley River Rd.	247	35,100	40,100	14.2%
I-26	Heriot St. to Mt. Pleasant St.	2,207	62,500	71,200	13.9%
Harbor View Rd.	North Shore Dr. to Theresa Dr.	384	20,400	23,100	13.2%
Maybank Hwy.	Woodland Shores Rd./Wappoo Dr. to Folly Rd.	271	22,700	25,700	13.2%
Hasell St.	King St. to Meeting St.	597	3,100	3,500	12.9%
Battery St.	Murray Blvd. to Tradd St.	547	2,400	2,700	12.5%
George St.	East Bay St. to St. Phillip St.	435	4,000	4,500	12.5%
Doughty St.	President St. to Courtenay Dr.	587	4,900	5,500	12.2%
Folly Rd.	Camp Rd. to Central Park Rd.	243	40,000	44,700	11.8%

## LOCATIONS WITH INCREASED TRAFFIC COUNTS FROM 1998 TO 2009

Street Name	Location	Station	1998 Count	2009 Count	% Change
Bees Ferry Rd.	Glenn McConnell Pkwy. to Savannah Hwy.	479	14,700	16,300	10.9%
King St.	I-26 to Septima Clark Expwy.	179	8,500	9,300	9.4%
Ashley River Rd.	Dorchester Co. to Parsonage Rd.	203	12,500	13,600	8.8%
I-26	Romney St. to Septima P. Clark Pkwy.	2,210	57,200	62,200	8.7%
Lockwood Dr.	Calhoun St. to Halsey Blvd.	639	22,900	24,900	8.7%
Hasell St. *	Meeting St. to East Baty St.	598	2,400	2,600	8.3%
Murray Blvd.	S. Battery St. to Ashley Ave.	406	2,900	3,100	6.9%
Main Rd.	Chisholm Rd. to Maybank Hwy.	347	13,200	14,100	6.8%
Meeting St.	Line St. to Battery St.	439	19,800	21,100	6.6%
Harbor View Rd.	Theresa Rd. to Folly Rd.	386	12,000	12,700	5.8%
Ashley River Rd.	Parsonage Rd. to Savage Rd.	205	21,700	22,900	5.5%
Paul Cantrell Blvd.	Magwood Dr. to Ashley River Rd.	685	31,000	32,600	5.2%
Magnolia St.	Ashley River Rd. to Savannah Highway	409	3,900	4,100	5.1%
Folly Rd.	McHenry Ave. to Maybank Highway	245	28,500	29,800	4.6%
Savannah Highway	Ashley River Rd. to James Island Connector	123	57,000	59,200	3.9%
King St.	Line St. to Murray Blvd.	437	11,200	11,600	3.6%
Folly Rd.	Fort Johnson Rd. to Camp Rd.	241	22,500	22,900	1.8%
US 78	Septima Clark to Line St.	180	12,500	12,700	1.6%
I-26	Spruill Ave. to Heriot St.	2,205	70,800	71,200	0.6%
Folly Rd.	Camp Rd. to Central Park Rd.	243	40,000	44,700	11.8%
Bees Ferry Rd.	Glenn McConnell Pkwy. to Savannah Hwy.	479	14,700	16,300	10.9%
King St.	I-26 to Septima Clark Expwy.	179	8,500	9,300	9.4%
Ashley River Rd.	Dorchester Co. to Parsonage Rd.	203	12,500	13,600	8.8%
I-26	Romney St. to Septima P. Clark Pkwy.	2,210	57,200	62,200	8.7%
Lockwood Dr.	Calhoun St. to Halsey Blvd.	639	22,900	24,900	8.7%
Hasell St. *	Meeting St. to East Baty St.	598	2,400	2,600	8.3%
Murray Blvd.	S. Battery St. to Ashley Ave.	406	2,900	3,100	6.9%
Main Rd.	Chisholm Rd. to Maybank Hwy.	347	13,200	14,100	6.8%
Meeting St.	Line St. to Battery St.	439	19,800	21,100	6.6%
Harbor View Rd.	Theresa Rd. to Folly Rd.	386	12,000	12,700	5.8%
Ashley River Rd.	Parsonage Rd. to Savage Rd.	205	21,700	22,900	5.5%
Paul Cantrell Blvd.	Magwood Dr. to Ashley River Rd.	685	31,000	32,600	5.2%
Magnolia St.	Ashley River Rd. to Savannah Highway	409	3,900	4,100	5.1%
Folly Rd.	McHenry Ave. to Maybank Highway	245	28,500	29,800	4.6%
Savannah Highway	Ashley River Rd. to James Island Connector	123	57,000	59,200	3.9%
King St.	Line St. to Murray Blvd.	437	11,200	11,600	3.6%
Folly Rd.	Fort Johnson Rd. to Camp Rd.	241	22,500	22,900	1.8%
King St.	Septima Clark to Line St.	180	12,500	12,700	1.6%
I-26	Spruill Ave. to Heriot St.	2,205	70,800	71,200	0.6%

Source: South Carolina Department of Transportation



# Traffic Counts Charleston, SC

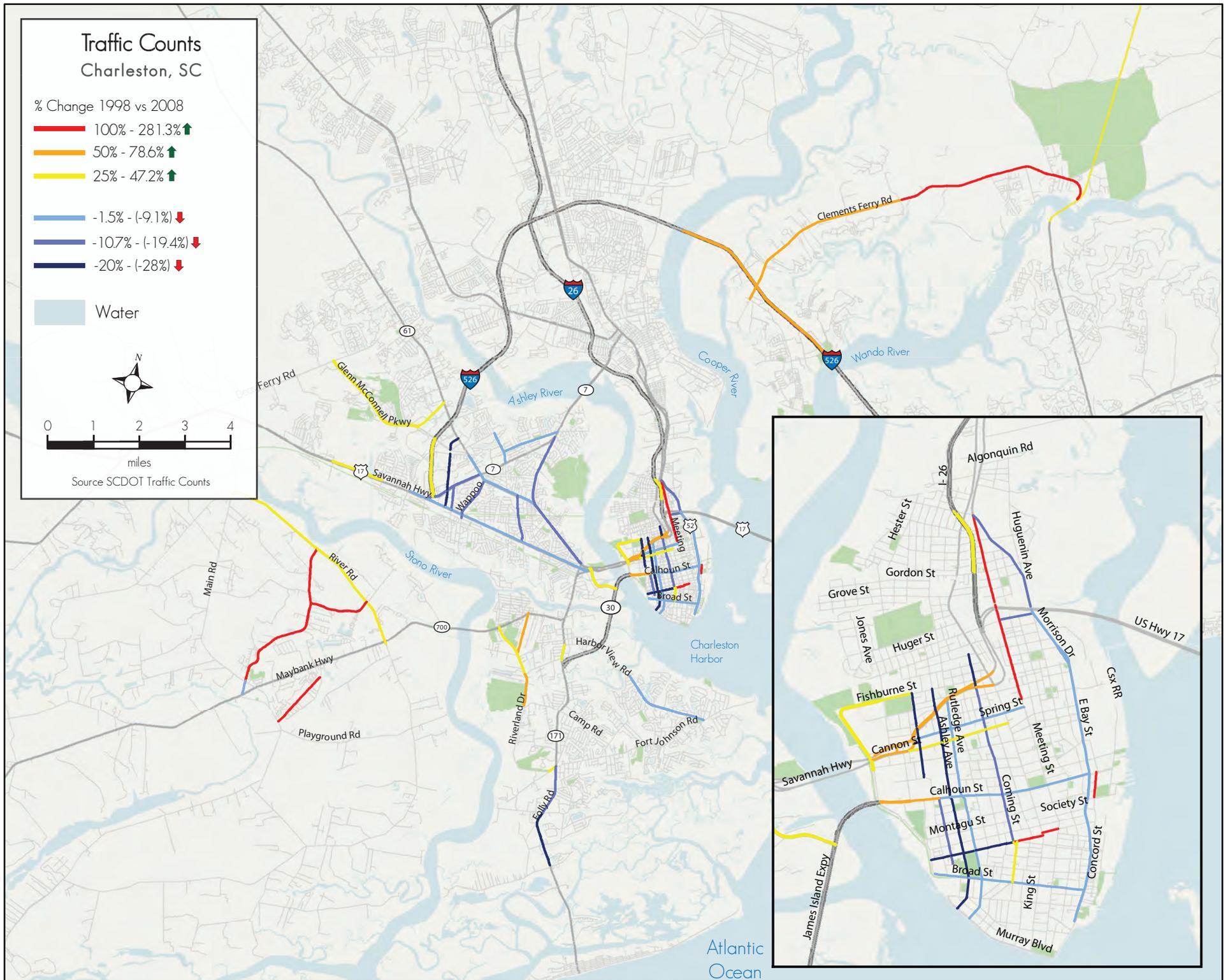
% Change 1998 vs 2008

- █ 100% - 281.3% ↑
- █ 50% - 78.6% ↑
- █ 25% - 47.2% ↑
- █ -1.5% - (-9.1%) ↓
- █ -10.7% - (-19.4%) ↓
- █ -20% - (-28%) ↓

█ Water



Source SCDOT Traffic Counts



Atlantic  
Ocean



# Bicycle/Pedestrian System

Peninsula

Bike/Pedestrian Paths

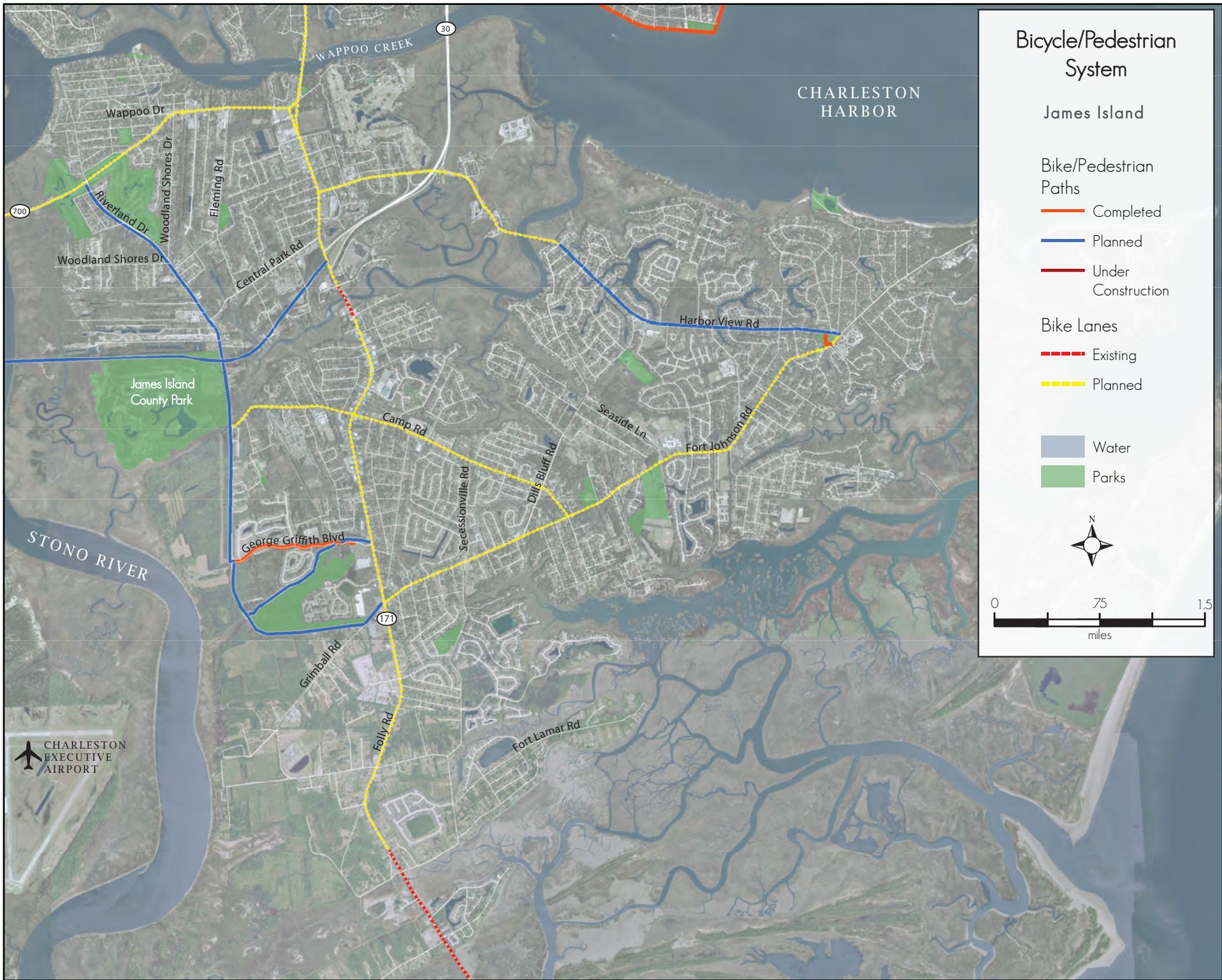
- Completed
- Planned
- Under Construction

Bike Lanes

- Existing
- Planned

- Water
- Parks





# Bicycle/Pedestrian System

## James Island

### Bike/Pedestrian Paths

- Completed
- Planned
- Under Construction

### Bike Lanes

- - - Existing
- - - Planned

- Water
- Parks



# Bicycle/Pedestrian System

## Outer West Ashley

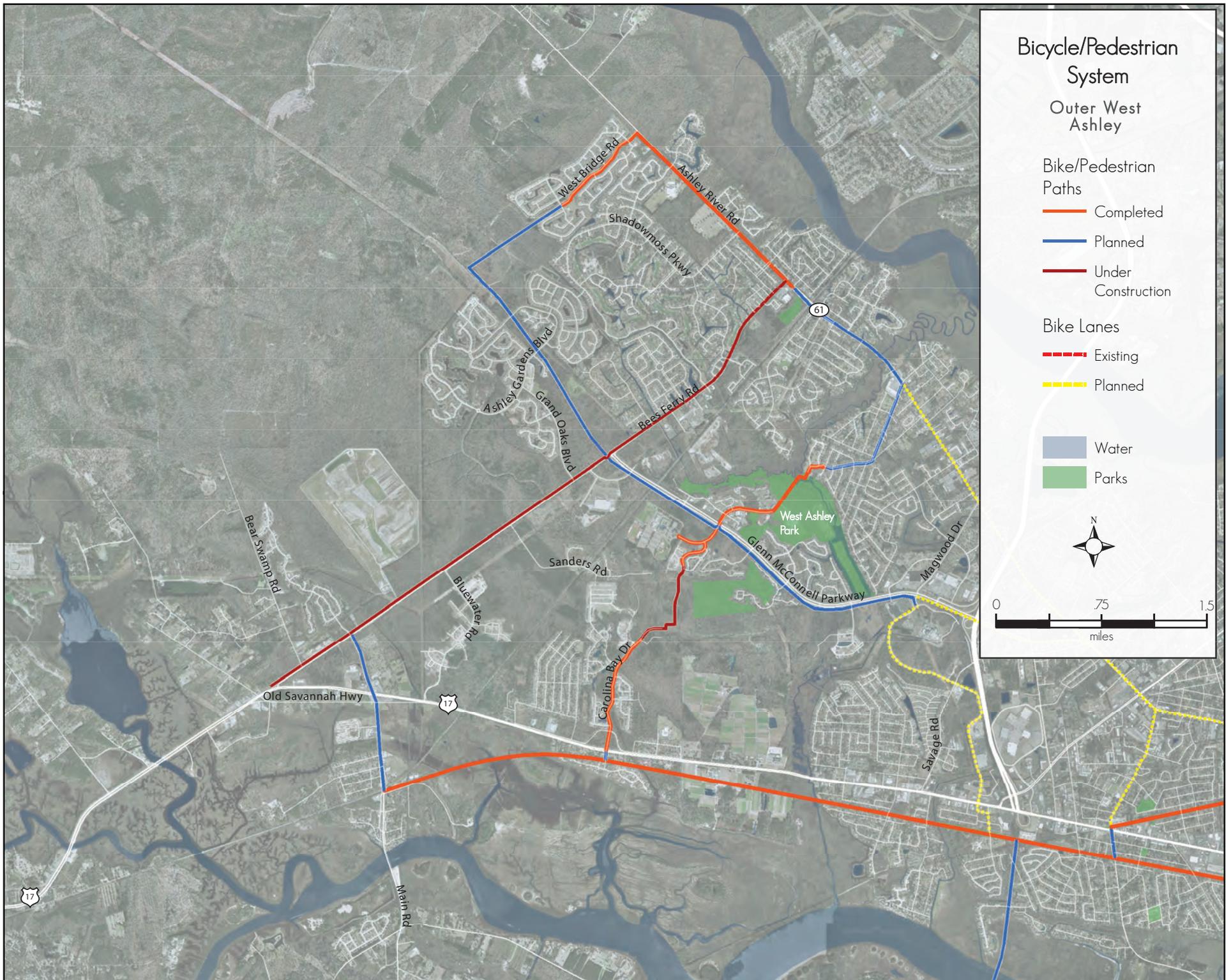
### Bike/Pedestrian Paths

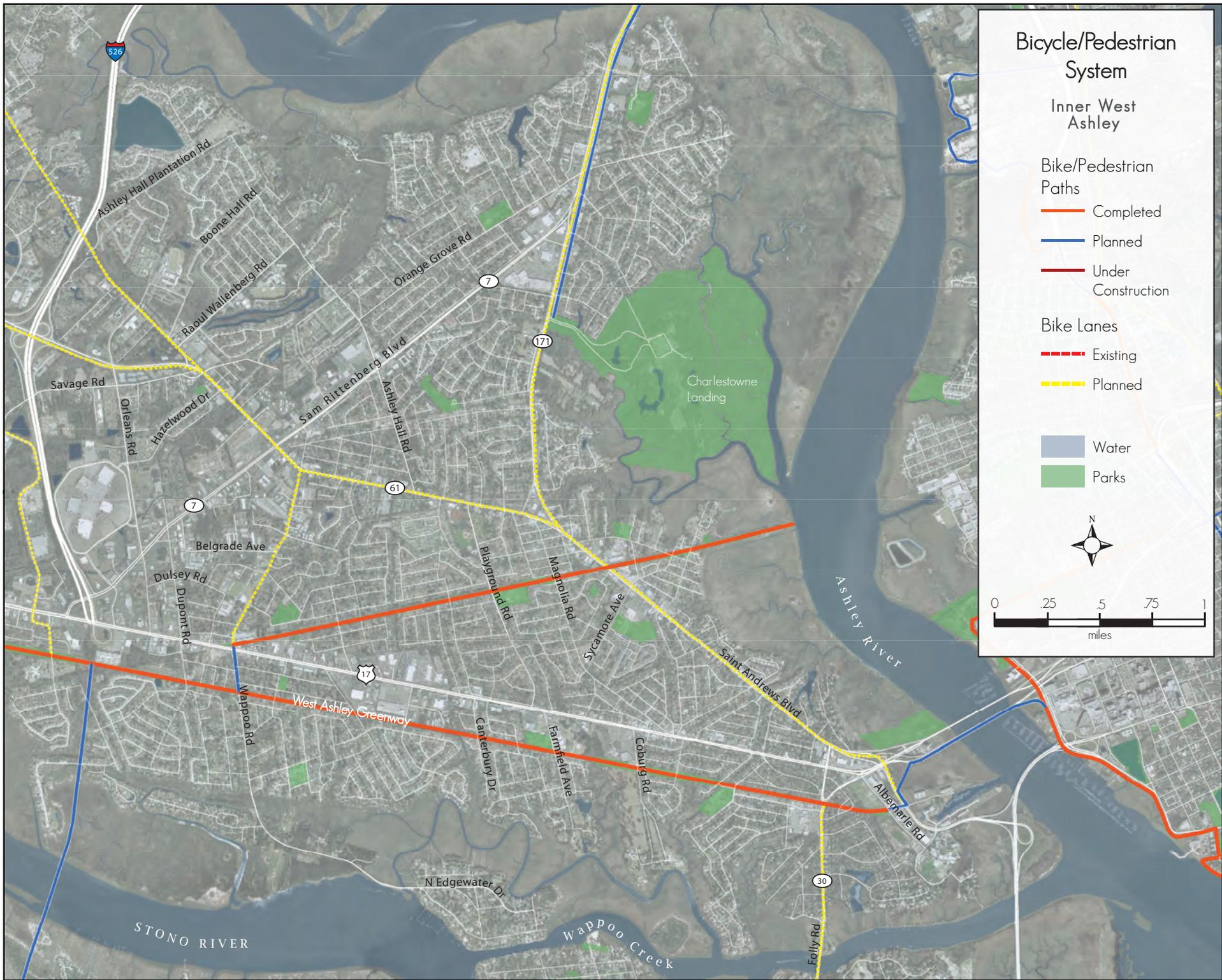
- Completed
- Planned
- Under Construction

### Bike Lanes

- Existing
- Planned

- Water
- Parks





# Bicycle/Pedestrian System

## Inner West Ashley

### Bike/Pedestrian Paths

- Completed
- Planned
- Under Construction

### Bike Lanes

- - - Existing
- - - Planned

- Water
- Parks



# Bicycle/Pedestrian System

Lower Cainhoy/  
Daniel Island

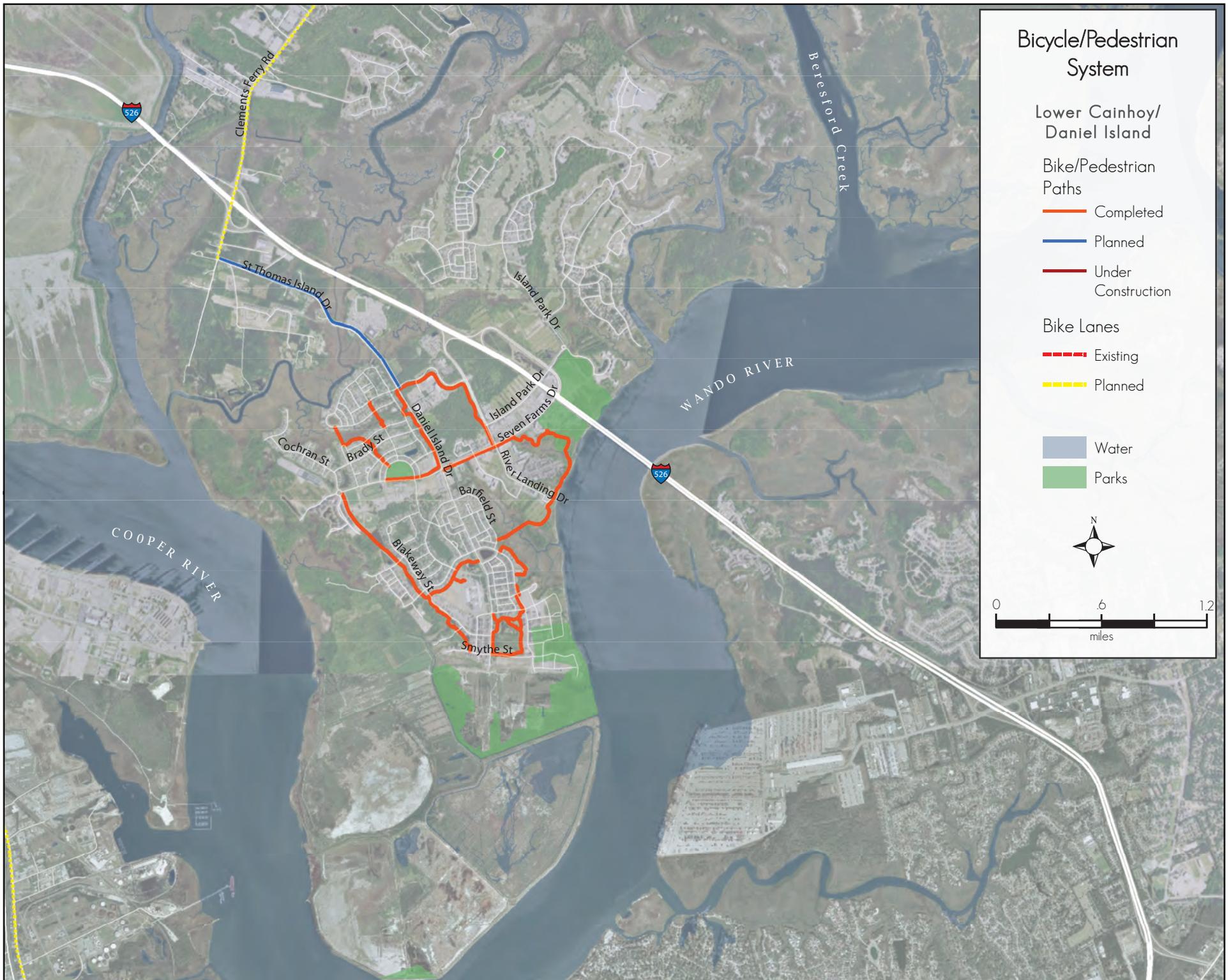
Bike/Pedestrian  
Paths

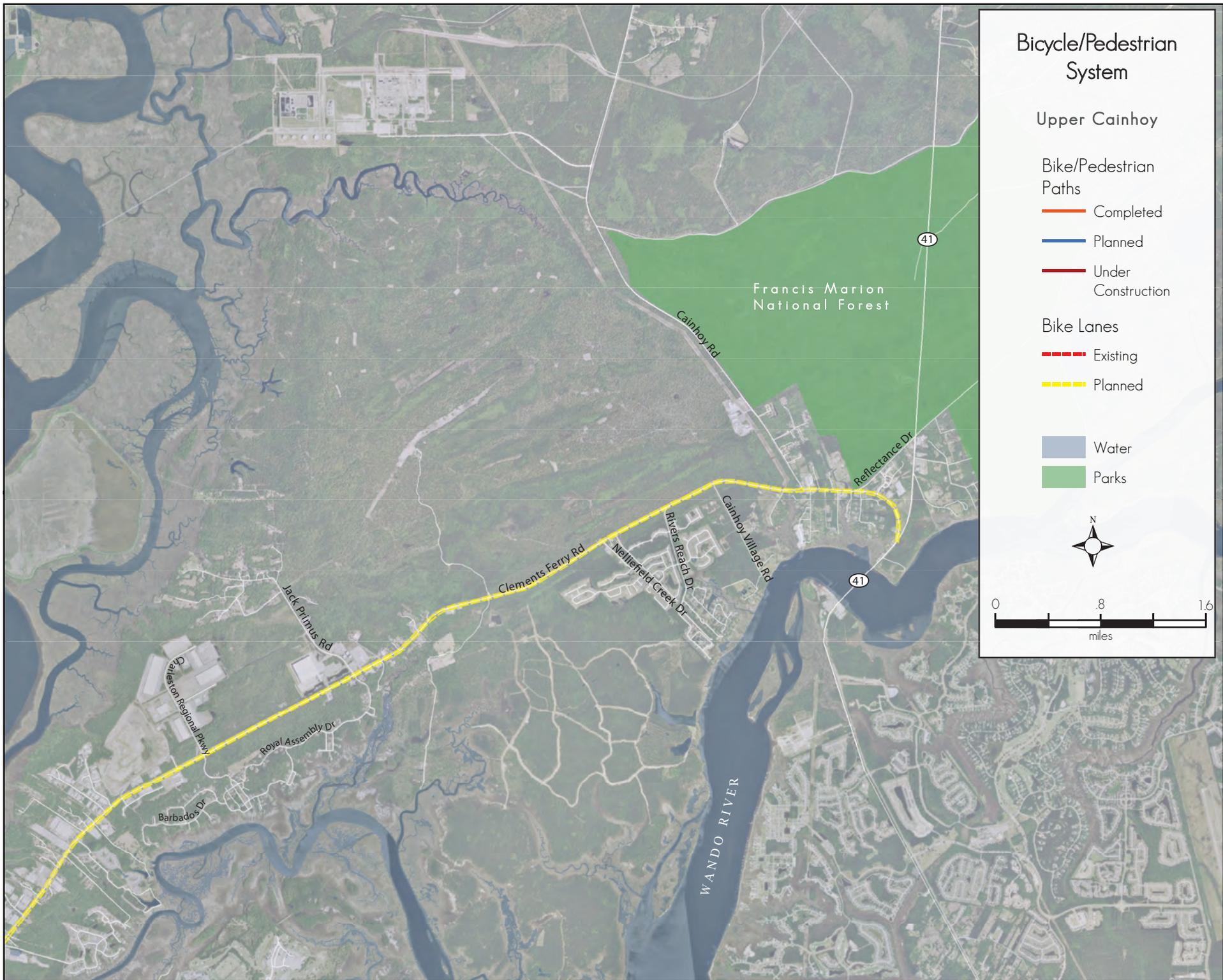
- Completed
- Planned
- Under Construction

Bike Lanes

- Existing
- Planned

- Water
- Parks





# Bicycle/Pedestrian System

## Upper Cainhoy

### Bike/Pedestrian Paths

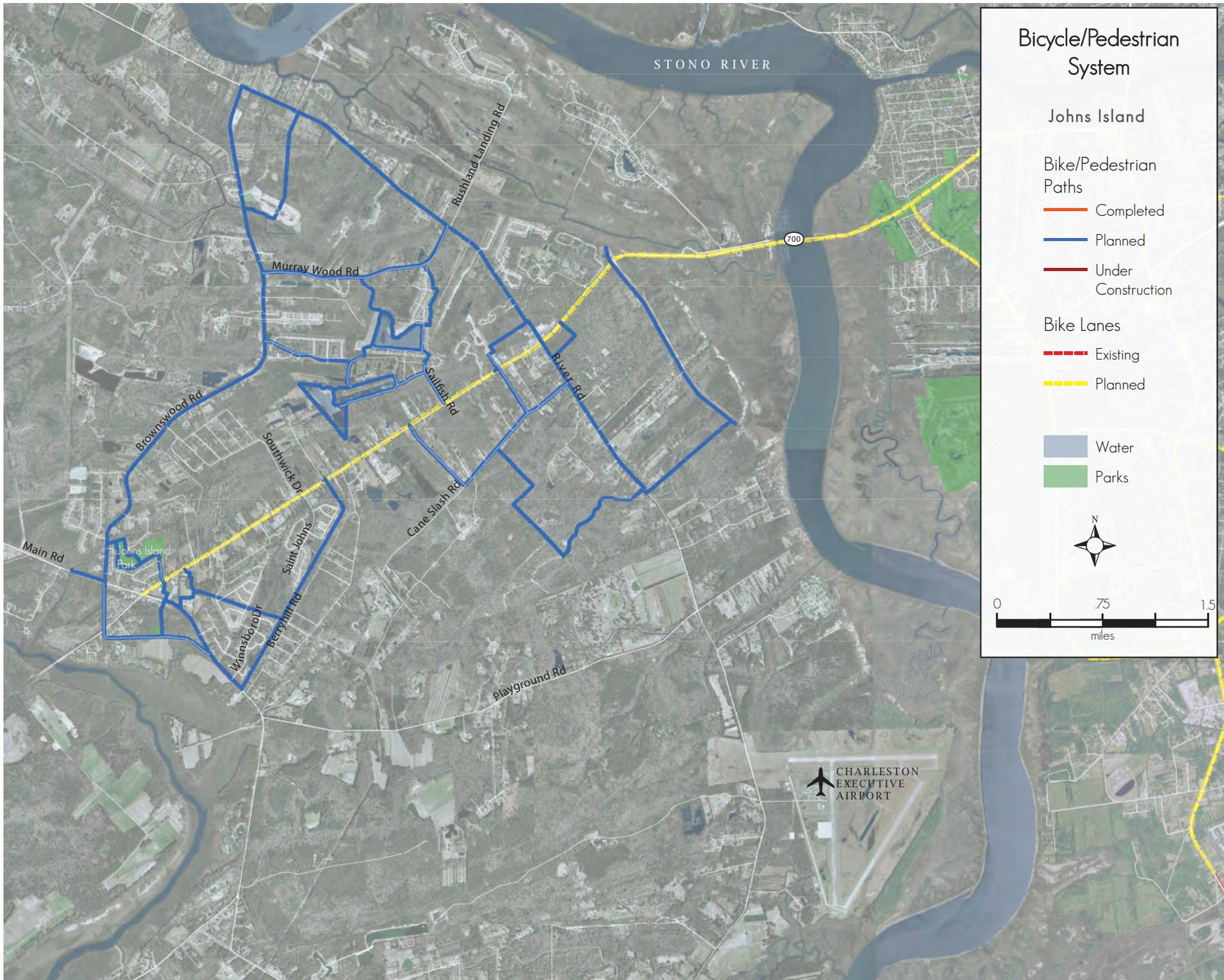
- Completed
- Planned
- Under Construction

### Bike Lanes

- - - Existing
- - - Planned

- Water
- Parks









# Municipal Services

building a livable community



An important element of the local government's planning process is the provision of community facilities and services. Community facilities are defined as major capital improvements, including, but not limited to transportation, drainage, water, parks and recreational facilities. Facilities and services are planned to meet Charleston's current needs and future demands. In order to provide the highest quality municipal services, the City must manage the extension of its service areas and ensure municipal services and facilities are adequate to accommodate growth.

The City of Charleston recognizes the importance of having a long-range strategic plan for capital improvements as a vital part of the City's mission to preserve and enhance the quality of life for our citizens. The Capital Improvement Plan (CIP) is a separate five-year plan that matches available funding with the City's highest priority capital needs. The plan includes investment in projects in all functional areas of City government. The Century V Plan however is a ten year planning document that uses the CIP and other projections to prepare for a decade of service needs.

## Capital Improvement Planning

Capital improvement planning and project execution are led by the Parks Department. The City's Capital Projects Review Committee, which includes all City departments, manages capital projects and annually recommends capital projects to City Council for execution. The CIP includes new and continuing projects that are categorized by governmental function. The 2010-2014 Capital Improvement Plan calculates \$276,721,444 in planned expenditures. Many of the projects involve the collaboration of multiple departments.

### 2010-2014 CAPITAL IMPROVEMENT PLAN

Percentage of Total Capital Improvement Projects Budgeted by Function\*

Culture / Recreation	52.2%
Recurring Projects	12.2%
Urban / Community Development	10.0%
Public Safety	10.0%
Public Service	8.9%
General Government	4.5%
Enterprise	2.2%

\*The Capital Improvement Plan is updated annually and can be found in the City of Charleston Budget Book at: [www.charlestoncity.info/dept/content.aspx?nid=2031](http://www.charlestoncity.info/dept/content.aspx?nid=2031)



Police Crime Scene Unit: Alternate Light Source Processing to find latent evidence

## Public Safety

Public Safety capital projects focus on improvements needed to sustain exceptional levels of emergency services for the fire and police protection needs of the City of Charleston.

### Police Department

Charleston has the largest police force in South Carolina, with a staff of 546. The City Police Department is headed by one full-time chief and has 382 sworn police officers, 137



Charleston Police Department: Traffic Mustang

civilians and 27 reserve police officers. There are currently eight patrol divisions and several specialty divisions, including SWAT, Victims Services, Traffic, Animal Control, Crime Scene Unit, Disaster Response Team, Hostage Negotiation Unit, Explosive Devices Unit, and many others (For more information, visit [www.charleston-sc.gov](http://www.charleston-sc.gov).) A map of the City's police coverage and population densities is provided in the appendix.

### Fire Department

The City of Charleston Fire Department consists of 20 fire companies located throughout the City. A full-time Fire Chief supervises three Assistant Chiefs and 12 Battalion Chiefs. New stations are planned in Carolina Bay (West Ashley) and on Clements Ferry Road (Cainhoy). Fire protection is also coordinated under a mutual aid agreement with area public service districts and Berkeley County volunteers. A map of the existing and planned multi-purpose public safety stations is included in the "Overall Plan Maps."

### Emergency Services

Charleston County provides emergency medical services (EMS) to the City of Charleston. Disaster and emergency preparations are coordinated by the City of

Charleston in conjunction with other local, regional and national governments and agencies. Annual hurricane drills are coordinated with the South Carolina Emergency Management Division, Charleston County Emergency Management, and City of Charleston.

### Public Services

The City of Charleston Public Services Department is comprised of building inspections, engineering, road and sidewalk maintenance, storm drainage and flood control, garbage and trash collection, and street sweeping. The Department of Public Service works with numerous other local and regional agencies.

### Public Service Capital Projects

About nine percent of the currently planned capital improvement projects are for public services, but these account for a much larger percentage based on dollar amount due to the high costs of these projects, including several drainage projects (based on the 2010-2014 CIP). These projects are funded mainly from the revenues produced by the City of Charleston's Stormwater Utility Fee and revenues in the Drainage Fund.



Intersection of Cherry and Bee Street—Flooding caption goes here about stormwater and this area.

### Stormwater Capital Improvements

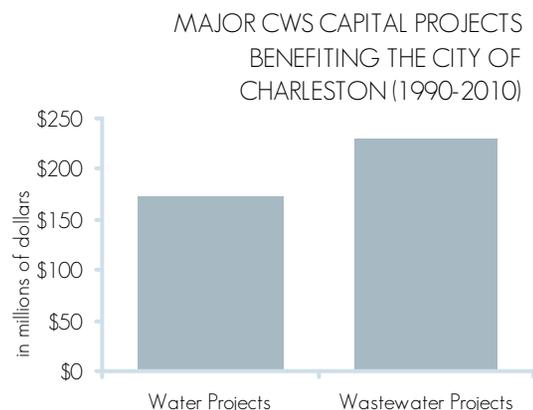
In 1984, the City of Charleston adopted its Master Drainage and Floodplain Management Plan, and more recently developed the City of Charleston Stormwater Management Program (SWMP) in 2008. Since the master plan's adoption, the City has successfully completed its two highest priority major drainage improvement projects and continues to fund and complete necessary improvements. Funding sources have included a \$9.5 million bond, South Carolina Department of Transportation participation (\$1,990,000), Federal Emergency Management Agency participation (\$2,595,000) and a South Carolina Electric and Gas settlement (\$2,500,000).

To fund future improvements, City staff must continue to work aggressively with state and federal leaders to secure the funding for pro-

jects that improve drainage, particularly on state and federal roads. It is anticipated that future projects will be funded by a combination of funding sources including revenue bonds supported by stormwater fees, FEMA grants for flood mitigation projects, SCDOT participation and perhaps a federal appropriation through the Transportation Bill Water Resources Development Act (WRDA).

### Charleston Water System

Water and sewer service is provided by the Charleston Water System (CWS) in most areas including West Ashley, Daniel Island, James Island and parts of Johns Island and Cainhoy. CWS strives to maintain a reliable water and wastewater service that can support existing and future needs through careful planning and investment in the expanding



Source: Charleston Water System

infrastructure. Major CWS capital projects since 1990 have directly or indirectly benefited the City of Charleston, including: \$172.8 million in water service projects and \$230.6 million wastewater service projects, for a combined total over \$403 million in capital improvements benefiting Charleston.

### Environmental Services Division

The Environmental Service Division is responsible for maintaining a clean, safe and healthful environment for residents and visitors of the City of Charleston. This division manages the collection of refuse, and street sweeping.

Garbage Collection serves residential and some commercial customers. Residential garbage is collected weekly, from standardized containers using semi-automated collection equipment. Trash Collection collects bulk trash and yard trimmings for all city residents weekly.

Additionally, Grounds Custodians are assigned daily in designated commercial areas to empty public trash receptacles and pick up litter. Street Sweeping is scheduled for certain areas to sweep city streets with regenerative air sweepers.



City Swimming Lesson at WL Stephens Center

### Cultural and Recreational Services

Recreation function holds the largest percentage of capital projects based on the total number of projects. These projects will improve existing parks and facilities and develop new spaces for the community to enjoy. The Department of Recreation offers a diverse array of programs, sports, and activities. Similarly, the Office of Cultural Affairs (OCA) is committed to promoting and fostering excellence through artistic expressions, including two annual festivals. All OCA festivals and special events include an arts education and/or outreach component to further connect our community through the arts.

### Urban and Community Services

Urban and Community Development projects improve infrastructure and enhance the envi-

ronment in targeted areas throughout the City, as well as provide affordable housing for citizens. The Department of Housing and Community Development (HCD) provides a range of services that employ a multi-faceted approach for neighborhood revitalization. HCD also oversees the Renewal Community Initiative and Brownfields Redevelopment efforts. The Ombudsman and Citizen Support System also provide community services and assistance to citizens and visitors.



The City of Charleston has converted many parking meters to allow Smart Cards.

### Traffic and Transportation Services

The City of Charleston Department of Traffic and Transportation (T&T) studies, plans, and implements traffic operations, and transportation services and facilities to maintain the safe and efficient movement of people and goods throughout the City. A few notable projects



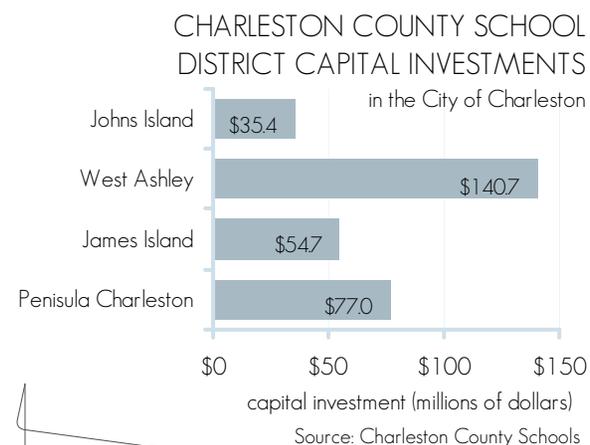
From June 1990 to June 2009, the College of Charleston has made \$238,567,217 worth of capital improvements.

include traffic operations work for the new Arthur Ravenel, Jr. Bridge, the conversion of Rutledge and Ashley Avenues to two-way traffic to improve safe and control speed, and the SmartCard Parking Meter Program.

### Educational Services

Area public schools are located in the Charleston County and Berkeley County School Districts. The City is also served by a large number of private schools located throughout the region. Public institutions of higher education in Charleston include the College of Charleston (the nation's 13th oldest university) and the Citadel (the state's military college). Charleston is also home to the only college in the country that offers bachelors degrees in the building arts, The American College of the Building Arts. Other institu-

tions include Charleston Southern University, Charleston School of Law, the Medical University of South Carolina, Roper Hospital School of Practical Nursing, Art Institute of Charleston, Trident Technical College, and branches of Webster University, and the Low-country Graduate Center.



## CITY OF CHARLESTON NEW FACILITIES OR MAJOR RENOVATIONS

Name	Year	Location
Daniel Island Municipal Complex	2002	Cainhoy Peninsula
Lowcountry Senior Center	2002	James Island
Fire Station 17	2003	Johns Island
Fire Station 13	2004	James Island
City Art Gallery	2005	Peninsula
180 Lockwood Municipal Complex	2006	Peninsula
Old Slave Mart Museum Renovations	2007	Peninsula
Fire Station 19	2007	West Ashley
Digital Corridor "Flagship" Business Center	2008	Peninsula
City Hall Major Renovation	2008	Peninsula
116 Meeting Street Major Renovation	2009	Peninsula
Dock Street Theater Major Renovation	2010	Peninsula
City Market Renovations	2010	Peninsula
A.W. Christopher Community Center	2010	Peninsula

**NOTE:** Facilities and major renovations listed are not meant to be an exhaustive list of all community facility project. Projects listed only included all cost over \$50,000.

## CITY OF CHARLESTON MAJOR PARK DEVELOPMENTS AND IMPROVEMENTS

Name	Year	Location
Maybank Tennis Center Renovations	2001	James Island
Cool Blow Park/Simmons Playground	2001	Peninsula
Liberty Square	2001	Peninsula
Marion Square Renovation	2001	Peninsula
DI Waterfront Park & Trails	2002	Cainhoy Peninsula
Family Circle Tennis Center Facility	2002	Cainhoy Peninsula
James Island Recreation Center Upgrade	2003	James Island
Miracle League Field	2005	West Ashley
Freedom Park	2006	Cainhoy Peninsula
Hampton Park Upgrade	2006	Peninsula
St. Julien Devine Community Center	2006	Peninsula
Morris Square Plaza	2007	Peninsula
Municipal Golf Course Upgrades	2007	James Island
Simonton Park	2007	Peninsula
West Ashley Bikeway Extension	2007	West Ashley
M. P. Demetre Park and Pier	2008	James Island
Cannonborough/Eliotborough Park	2008	Peninsula
Ashley River Road Bike Path	2008	West Ashley
Bees Landing Recreation Complex	2010	West Ashley

**Source:** City of Charleston Parks Department

## City of Charleston Capital Improvement—Selected Projects



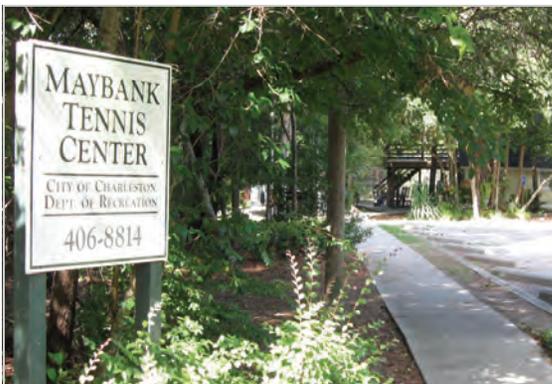
**Charleston City Hall**, underwent a top to bottom restoration project which was completed in 2008.



**Ellis Oaks Land Acquisition** on James island, along Folly Road in front of Lowes.



**Lower King Street Streetscaping Project**, which was completed in 2009.



**Maybank Tennis Center** on James Island



**116 Meeting Street**, City office space for BF&RC, was renovated in 2009



**Demetre Park and Pier** on James Island offers stunning views of Charleston Harbor

## City of Charleston Capital Improvement—Selected Projects



**Renovated Dock Street Theatre** February 1726, Dock Street became the first building designed for theatrical use in the Americas. June 2007, City of Charleston closed the theatre to begin a three year, multi-million dollar renovation. March 2010, the renovated theatre reopened to the public.



**Bees Landing Recreation Center** in West Ashley, was completed in 2010



**Fire Station 19** on Bees Ferry Road was completed in 2007.



**Lowcountry Senior Center** on James Island



**Market Hall Building** was completely restored in 2004



**Family Circle Tennis Stadium** on Daniel Island was completed in 2002.

### Development Impact Fee Program

The City of Charleston charges impact fees on new development to help fund certain capital improvements. Funds collected from these fees pay for the purchase of equipment and public facilities that are necessitated by (and benefit) the new development. The City of Charleston first began collecting impact fees in 2003 and has not increased fees to date. The current impact fee ordinance was adopted and added to the Comprehensive Plan in 2003 and will expire on December 31, 2015. Prior to its expiration, the City plans to re-evaluate the program and extend it as needed to continue to fund capital improvements. Until then, the City plans to continue with the existing impact fee program summarized in this chapter and proposes candidates for funding should the program continue past 2015.

### Land Use and Development Assumptions

Impact fees are a one-time assessment on new development. Land use and development assumptions are used to develop capital planning priorities and the impact fee program. As described in the land use element, the City identifies a defined geographic boundary between suburban and rural areas called the Urban Growth

Boundary as well as the following land use classifications: Rural, Suburban edge, Suburban, Urban, Neighborhood Centers, Urban Centers, Urban Core, Special District Campuses, Special District Job Centers, Special District Highways, Special District Industrial, Future Planning Areas, Water, Parks, Conserved Areas and Natural Areas.

Capital investments are directed to urban and suburban areas of the City. Infill development is encouraged in most existing neighborhoods. It is anticipated that infill development will occur with land uses and densities comparable to that of the existing neighborhoods. New neighborhood development will occur at higher densities in areas already developing at suburban densities and in locations where urban services and infrastructure all already available. The suburban pattern will be punctuated by higher density, mixed-use Neighborhood Centers and Job Centers. This pattern is illustrated on the Overall Plan Map.

These assumptions and the existing zoning, land use patterns and approved development proposals were collectively analyzed to develop capital needs and the impact fee program.

### Growth and Demand Factors

Impact fee amounts were calculated based future projections for housing units and non-residential development. Actual development rates have varied; thus annual revenue from development impact fees and the related costs vary from these projections. The growth and demand factors presented in the chart below and in detail in the 2000 Century V Plan Section E(1). These factors are used to estimates the demand for public facilities and to guide capital planning for the impact fee program.

IMPACT FEE  
GROWTH AND DEMAND FACTORS

YEAR	2000	2015
Non-Residential Space (square footage)	51,813,547	74,219,403
Population	96,650	138,741
Housing Units	44,143	63,710
Occupancy Rate	91.5%	91.5%
Residential Households	40,391	58,295
Single Family Detached Households* (~ 2.54 ppl/household)	22,791	33,766
Other Households* (~ 1.85 ppl/household)	21,331	29,944

\* <1% of housing units are boats, RV's, vans, etc. and are not include in the household calculations.

Source: Census 2000 data, City of Charleston data

Projections used for the initial creation of the Impact Fee Program in 2003 are based on Census 2000 data and projections of population, housing units, occupancy rate and households to the year 2015 (see: "Impact Fee Growth and Demand Factors" table). Housing unit estimates are based on City of Charleston building permit data. The chart also includes Census 2000 estimates of people per household, also known as household size. Household size is a useful measure to understand the demand for certain city services, like public safety. This measurement is taken in two categories of residential units - single family detached house and "other" multiple unit structures. The Census 2000 household size for a single family detached unit in Charleston was 2.54 people per household. The Census 2000 household size for all "other" categories is an average of 1.85 people per household.

Also, Charleston County Tax Records and City of Charleston development approvals were analyzed to determine the amount of non-residential development square footage located within the corporate limits of Charleston and to project the rate of development anticipated from 2003 to 2015. However, since non-residential

development is sometimes concentrated in specific areas of the City, land use and zoning recommendations were analyzed as well to adjust projections accordingly. These projections are the basis the impact fee program analysis.

### Impact Fee Program Analysis

According to state law, impact fees may be used to pay capital costs associated with public facilities such as sanitation, roads, stormwater control, and public safety. They may be used to finance the construction of facilities, the purchase of land, or the equipment that is needed to provide these services. Capital investments are eligible for funding if the individual unit cost is greater than \$100,000. Since 2003, Charleston has imposed a citywide impact fee for environmental and public safety services only. With appropriate data and planning, other services may warrant an impact fee program in the future.

The fees established are proportionate to anticipated demand for these services by new development. Developing a rational and fair estimate of the cost of these services first involved evaluating the current level of service for environmental services and public

safety throughout the existing City. Also, data from the City Police, Fire and Public Services Departments were used to evaluate the level of current and future demand.



City of Charleston Example Garbage Truck Photo Goes here with a caption about it

### Environmental Services

Environmental Services uses a central garage and office on Milford Street for operations. Additional capital infrastructure includes vehicles needed for garbage and trash collection. The City's existing level of service includes a weekly garbage and trash collection service to residential customers and some commercial businesses. On Daniel Island and the Cainhoy Peninsula, the city contracts a garbage collection company to provide collection services.

Additional capital investment in garbage and trash collection apparatus has been necessitated by new development. Since 2003, the City has used \$644,771 in impact fees to purchase the following:

- One Garbage Truck, \$122,258 (2005),
- One Garbage Truck, \$126,540 (2006),
- One Garbage Truck, \$133,129 (2007),
- One Garbage Truck, \$146,585 (2008),

- One Street Sweeper, \$116,259 (2009).

The City examined the existing routes and projected growth rates to estimate future, increased demand in garbage and trash collection. In 2003, the average garbage truck route serviced 600 units. It was estimated that an additional 15,899 dwelling units would be constructed in the City by the end of 2015. This results in the need for

approximately 26 new garbage routes, thus requiring seven additional trucks to be added to the City fleet. In 2003, the cost of one garbage truck was \$185,400. The total estimated capital investment needed to serve new development from 2003 to 2015 was \$1,297,800. Using this estimate, the development impact fee was set at \$82 per unit and has not increased (see: Environmental Services Development Impact Fee Calculation).

### ENVIRONMENTAL SERVICES DEVELOPMENT IMPACT FEE CALCULATION

Garbage route:	600 units per route average
Additional units:	15,899 new units anticipated
Additional routes:	26 new routes to be created
Additional trucks*:	7 new trucks needed
Cost of one truck**:	\$185,400 (one truck)
Total Investment:	\$1,297,800 (seven trucks)
Cost per unit: (Total/Units=Fee)	\$82 impact fee per unit (\$1,297,800/15,899=\$82)

SOURCE: Impact fees were created in 2003. \*Based on 2003 estimates and projections for service through 2015. \*\*Based on the 2003 estimated cost of a standard garbage truck. Costs vary.

NOTE: As of 2010, the price of a garbage truck has increased to \$215,393, but the average units per route is now 650. Using the same formula, the fee if increased would be about \$95 per unit. This however does not account for any Berkeley County services. The City plans to re-evaluate the fee prior to the program expiration for a renewal and potential increase starting 2015. The fee was not increased per inflation as previously recommended.

### PUBLIC SAFETY DEVELOPMENT IMPACT FEE CALCULATION

Source of Fire Calls*	% of Calls	Calculation of Impact Fee	Impact Fee
Residential	62%	62% of capital improvement cost / # of residential units = fee	\$79.00 per dwelling unit
Non-Residential	38%	38% of capital improvement cost / amount of non-residential square footage = fee	\$0.04 per square foot

SOURCE: Impact fees were created in 2003. \*Based on 3256 service calls to the Fire Department from 1/1/2001 to 12/31/2002.

NOTE: The breakdown of calls has remained about the same each year since the program's inception. In 2009, 67% of call came from residential sources and 33% from non-residential. Based on 8506 service calls from 1/1/2009 to 12/31/2009. The cost of a facilities and equipment has increased however. In 2010, a two bay fire station with police substation (not including land or any equipment) is estimated at \$3 million. These costs are expected to increase to about \$5 million for stations built in five to ten years. While costs have increased per inflation, fees have not. The City plans to review the fee analysis prior to renewing the program to study adjustments that are needed.

### Public Safety

The City of Charleston provides police and fire service to all residents and properties within the municipal limits. The City Fire Stations Map in the Overall Plan Maps chapter illustrates existing fire station locations and proposed station locations where it is anticipated that new stations will be needed to serve new development. The City Police Coverage Map (in Overall Plan Maps) shows team offices, headquarters locations, police team coverage areas, and the density of residents in these areas.

Public safety facilities funded with impact fees are primarily fire stations, but each also serves

as a substation to the City Police Department and provides resources to other public safety agencies like County EMS. The City Fire Department's goal is to maintain a station within a six minute total response time of every customer. Currently, some areas of West Ashley and the Cainhoy Peninsula are outside of this service standard and in need of additional stations. The newest station in the City opened in 2007 on Bees Ferry Road in West Ashley. Stations in the Carolina Bay Neighborhood (West Ashley) and on Clements Ferry Road (Cainhoy) are planned and two others proposed (see: Proposed Public Safety Stations Map).

Police team station standards are more flexible than fire standards. They are based on an eight team patrol system that covers each area of the City. In the City of Charleston, police stations and substations are generally sited for every fifteen to twenty thousand people, with limited exceptions. One such exception is the Cainhoy Peninsula. Other factors affecting the location of new stations include the density of development and the number of people living and working in an area.

During the first Impact Fee Program's planning period, the City did not anticipate that existing

stations would require expansion or new equipment as the result of new development; thus no impact fee funds were or have been allocated to existing facilities. However, growth projections identified three areas of the City that, because of new growth, require additional fire and police facilities: 1) Outer West Ashley, 2) the Cainhoy Peninsula, and 3) Daniel Island. New stations have been added to outer West Ashley and Daniel Island since the impact fee program began. Police substations have been included in the new fire facilities and are planned in each of the proposed, new fire stations (see: Proposed Public Safety Stations Map). Since 2003, the City has utilized \$674,426 in impact fee funds for the following:

- Bees Ferry Multipurpose Public Safety Station: \$152,434 toward the facility construction (2005);
- Debt service for the 2009 fire truck fund: 61,035 toward a pumper truck that costs \$460,957 (2009); and
- Budget funds to the 2010 fire truck fund: \$460,957 toward a pumper truck (2010).

To calculate the public safety impact fee used to fund these improvements, emergency calls to the City Fire Department categorized by land use were tallied to determine the

proportionate share factors for residential and non-residential sources. In 2002, the Charleston Fire Department responded to 4,437 calls for service. 3,256 of these calls could be categorized into two sources: residential (62%) and non-residential (38%). The percentage of calls from each source was used to estimate the proportion shares of the capital cost. Over the past few years, the ratio of residential to non-residential calls has remained close to the original tally. In 2009, 67% of call came from residential sources and 33% from non-residential (see: Public Safety Development Impact Fee Calculation).

Analysis of calls for service reveals that station coverage overlaps which ensures a high level of public safety. The resources at each station provide backup support for all other stations within the system. Since public safety investments contribute to a citywide system of emergency response, impact fee is calculated and applied citywide. The calculation of the public safety impact fee for new residential dwelling units is \$79.00 per unit and \$0.04 per square foot for non-residential development.

### Double Payment for Capital Improvements

Where double payment for capital facilities would occur upon implementation of an impact fee, a fee credit should be applied. This would occur where previous capital investments are paid for with bonds and execution of the fee is proposed to a service area that is not citywide or specifically tied to individual unit impacts. For more information, reference City of Charleston Ordinance Section 2-271.

### Impact Fee Exceptions

State law provides exceptions for affordable housing and economic development provided the jurisdiction proposes a process for considering and approving such exceptions. Such exceptions are detailed in the 2000 Century V Comprehensive Plan Section E-1(c) and City of Charleston Ordinance Section 2-271.

### Administration of Impact Fees

Development impact fees are charged when the individual building permits are issued by the City of Charleston Department of Public Service. The South Carolina Development Fees Act requires accounting procedures that ensures monies collected from these fees are used only to fund the capital improvements outlined in the Impact Fee Program.

### Re-evaluating the Program

The City of Charleston plans to reassess the impact fee program for an extension in 2015. Currently, the city has decided not to increase the fees annually per inflation or per adjustments to the growth and demand factors that were measured in 2003. It is likely that the fee will increase when reassessed proportionate to the rising cost of equipment and facilities funded by the program. Also, the City has not yet identified funding that could be used to offset the costs associated with waiving the impact fees for affordable housing, as recommended in Section E(1) of the 2000 Century V Plan.

*+The Impact Fee Program is included in the City of Charleston Comprehensive Plan Update in accordance with the South Carolina Development Impact Fee Act.*

### Municipal Services Recommendations

1. Establish adequate public facility standards consistent with the service standards throughout the City.
2. Continue to focus the City's annexation efforts on urban and sub-urban areas within the Urban Growth Boundary.
3. Manage the provision of municipal services and facilities in rural, suburban and urban areas.

4. Continue to implement impact fees for environmental services and public safety facilities that will ensure the adequate provision of these services to growing areas of the City.
5. Provide an annual report of development impact fee funds and purchases.
6. Identify sources of fund that can be used to offset the costs associated with waiving the impact fees for affordable housing.
7. Re-evaluate the existing impact fee program prior to its expiration.
8. Research and evaluate candidates (facilities and equipment) for the existing impact fee program.
9. Research and evaluate other City services that may need additional funding due to growth and analyze existing City revenue streams for available funds for these services.

### Municipal Services Goal

Ensure the highest quality public services and facilities to city residents by targeting municipal growth to urban and suburban areas and planning for capital improvements to support city growth.

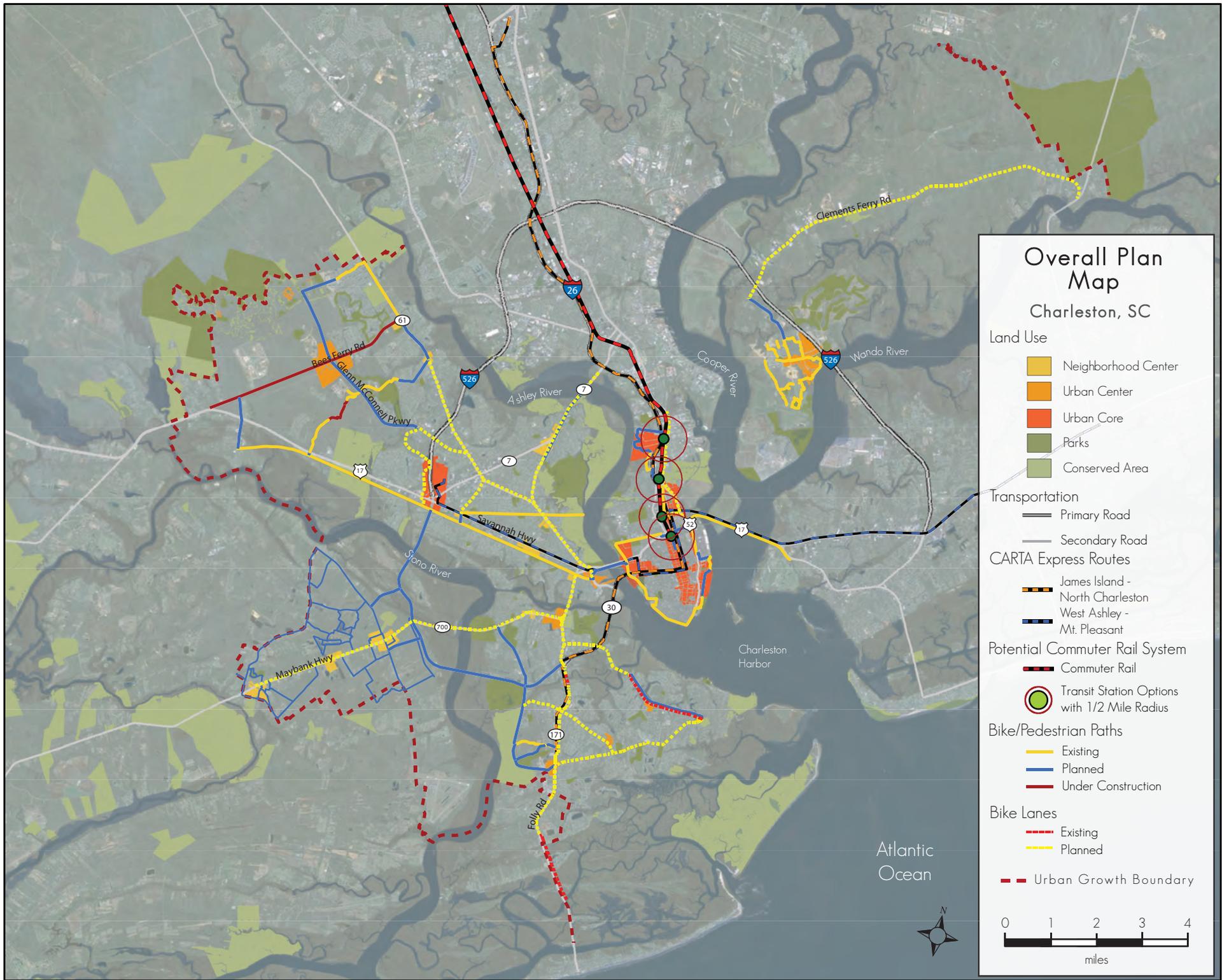




# Overall Plan Map

pulling it all together





# Overall Plan Map

## Charleston, SC

### Land Use

- Neighborhood Center
- Urban Center
- Urban Core
- Parks
- Conserved Area

### Transportation

- Primary Road
- Secondary Road

### CARTA Express Routes

- James Island - North Charleston
- West Ashley - Mt. Pleasant

### Potential Commuter Rail System

- Commuter Rail
- Transit Station Options with 1/2 Mile Radius

### Bike/Pedestrian Paths

- Existing
- Planned
- Under Construction

### Bike Lanes

- Existing
- Planned
- Urban Growth Boundary

Atlantic Ocean





# Appendices

reports, surveys, and lists



## AMENDMENTS

### Charleston Century V Plan

Adopted July 18, 2000  
2000-179

### Amend Part 3, Section E

and to include the use of impact fees as a means of  
funding capital improvements

Adopted April 22, 2003  
2003-37

### Amend Ordinance 2000-179 and 2000-216

to provide for the movement of the Urban Growth  
boundary

Adopted June 17, 2007  
2008-79

### Strategic Economic Development Plan

Adopted September 12, 2000  
2000-215

### Amend Ordinance 2000-179

to incorporate new urban growth  
boundary polices and procedures

Adopted November 27, 2007  
2007-216

### Amend Ordinance 2000-179

to incorporate the plan entitled Vision  
Community Heritage: A Preservation Plan for Charleston  
SC

Adopted May 15, 2008  
2008-104

### Amend Ordinance 2000-179

to incorporate the Johns Island Community Plan

Adopted November 27, 2007  
2007-217

