

## Implementation Plan

All long-range plans benefit from a good implementation plan. Taking action on the myriad recommendations for the Charleston Area Transportation Study will be contingent on several factors, not the least of which is the ability to secure funding. To adopt and implement the plan, the BCD Council of Governments and CHATS Policy Committee must work proactively with the following organizations:

- Citizens and businesses
- South Carolina Secretary of Transportation & Commission
- South Carolina Department of Transportation
- United States Department of Transportation
- Private transportation providers
- South Carolina Ports Authority
- Charleston Area Regional Transit Authority and TriCounty Link
- CHATS member jurisdictions
- Private development industry
- Elected leadership in the South Carolina General Assembly
- Neighboring regions in South Carolina

Transportation improvement funds are scarce and competition for them is fierce. Fortunately, citizens of Berkeley, Charleston, and Dorchester counties voted to approve a self-help tax dedicated to improving transportation. These successful voter campaigns should be used to leverage a higher-return-to-source share of state and federal gas taxes and other transportation-related user fees and taxes.

To fully implement the plan, the region will have to identify stable, timely, and equitable methods of funding. Some municipalities are negotiating with developers to shift some responsibility for the “cost of growth” to developers and eventually to home buyers and businesses. It is expected that similar debates will occur in all communities within the region, especially with the uncertainty in federal funding. Evolution toward a creative and effective mix of funding from various sources and stakeholders in the economy and transportation system of this region is a worthy goal. Coupling these funding mechanisms with an integrated land use-transportation planning process will result in an effective investment in transportation infrastructure.

### SHORT-TERM ACTIONS

#### Plan Adoption Process

- Open-house style public input meeting and other presentations
- Plan review by SCDOT and FHWA
- Recommend adoption from the CHATS Study Team

- Adoption by CHATS Policy Committee
- Acceptance of CHATS 2035 LRTP by SCDOT and FHWA

#### Implement Financial Plan

- Adopt resolution of support for all of the “committed” projects on the E+C list. Support the counties in the implementation of the transportation sales tax programs and impact fee programs.
- Continue to implement the Complete Streets program to use Guideshare funds that include access management projects including landscaped medians, intelligent transportation services, pedestrian and bicycle projects, water shuttle destination point parking and access facilities, and aesthetic improvements including corridor landscaping.
- Program and commence the process to use Guideshare funds to implement technically meritorious projects (see Chapter 11 — Financial Plan) that are not part of any sales tax programs.
- Continue to support non-Guideshare projects still to be completed, including:
  - Railroad Avenue Extension
  - CARTA Intermodal Center and replacement of rolling stock
  - Preservation and maintenance of existing transportation system
- Vigorously pursue innovative public and private sources of funding for the following projects:
- Glen McConnell Parkway Extension
- Mark Clark Expressway
- Old Orangeburg Road Capacity Improvements
- I-26 Port Access Road
- I-26 Capacity Improvements
- Sheep Island Parkway
- Replacement of transit vehicle rolling stock
- Transit services throughout the CHATS Planning Area
- Each jurisdiction adopt and codify the recommended strategies from the regional land use-transportation planning process – *Our Region, Our Plan*.

#### Setting Priorities

- Pursue flexible use of federal Surface Transportation Program (STP) and various state transportation funds to implement a wider range of transportation projects including bicycle, pedestrian, and intermodal transit facilities.
- Confirm with the CHATS Policy Committee the following principles adopted by the Policy Committee in 2005. Other area jurisdictions and agencies are encouraged to adopt or endorse these policies as appropriate. These recommendations were also incorporated into the *2035 CHATS Long Range Transportation Plan*.
- All new and improved non-controlled access highways in the CHATS study area will provide a

minimum level of safe accommodation for bicyclists and pedestrians.

- On key routes identified in the CHATS plan, streets and highways shall be retrofitted to better accommodate bicyclists and pedestrians.
- All new and improved bridges in the CHATS study area will provide safe bicycle and pedestrian access.
- Improvements to area transit services must provide safe and convenient access for all users.
- All existing rail and utility corridors will be reviewed for their potential to incorporate multi-use trails. The CHATS Policy Committee recommends that area jurisdictions shall act immediately to protect and preserve abandoned railroad corridors that have the potential to become part of a regional trail network or transit corridors.
- The design, designation, and signing of bicycle and pedestrian facilities in the CHATS study area will conform to current standards and guidelines developed at the national level.
- The CHATS Policy Committee recommends that area jurisdictions shall encourage nodal, mixed-use, commercial, and residential developments.
- The CHATS Policy Committee recommends that area jurisdictions adopt policies and procedures to encourage the installation of secure bicycle parking facilities throughout the study area.
- The CHATS Policy Committee will support efforts so that area residents and businesses participate in the BCDCOG Mobility Management Program and implement travel demand management best practices.
- The CHATS Policy Committee will recommend to state and local jurisdictions that enforcement of laws regarding dangerous and illegal behavior by motorists, bicyclists, and pedestrians be improved.
- Facilitate changes to the CHATS transportation project scoring method to align it with the goals and objectives outlined in the CHATS LRTP. Adapt the methods used in this study, as described in Chapter 10 – Environmental Screening, to best fit the needs of the region as projects are prioritized in the future.
- Request inclusion of high-priority projects in the next version of the State Transportation Improvement Program.
- Create a steering committee that will report to the CHATS Policy Committee and be chaired by the Executive Director of BCDCOG to oversee priority-setting of a new program called Complete Streets. Funding levels recommended in this plan for Complete Streets projects, exclusive of other TIP projects, is \$25 million over the next 25 years.
- Consider transportation projects listed in the candidate projects to pull forward into the fiscally-constrained plan.
- Pursue innovative financing for the following transportation projects: Sheep Island Parkway, Glenn McConnell Parkway, I-26 capacity improvements, I-26 to Port Access Road, and the Old Orangeburg Road widening, and fixed guideway transit services.
- Continue to evaluate fixed guideway transit options for the region and implementation of transit supportive site design and land use development plans.

### *Thoroughfare Plan Amendments*

- Adoption of a resolution by affected municipalities to amend official comprehensive plans and transportation plans to be consistent with the CHATS LRTP.
- Continue to implement the directive issued in 2003 by the South Carolina Department of Transportation supporting bikeway and sidewalk construction that states:  
‘Generally, sidewalks are an integral part of city streets. For suburban residential areas, the construction of sidewalks is often deferred. However, sidewalks in rural and suburban areas are still often justified at points of community development such as schools, local businesses, shopping centers, and industrial plants that result in pedestrian concentrations along the highway. If pedestrian activity is anticipated, include sidewalks as part of the construction.’

Also implement the resolution passed by the State Transportation Commission in January 2003 that states:

“Now, therefore, be it resolved that the South Carolina Department of Transportation Commission in meeting duly assembled this 14<sup>th</sup> day of January 2003, affirms that bicycling and walking accommodations should be a routine part of the department’s planning, design, construction and operating activities, and will be included in the everyday operations of our transportation system”; and “Therefore, be it further resolved, that the South Carolina Department of Transportation Commission requires South Carolina counties and municipalities to make bicycling and pedestrian improvements an integral part of their transportation planning and programming where State or Federal Highway funding is utilized.”

- The policy survey conducted for this study shows that many of the larger municipalities have guidelines to help shape the development of bicycle and pedestrian facilities in their areas. In contrast, Berkeley, Charleston, and Dorchester Counties have fewer requirements for these facilities. All cities, towns, and counties in the region should prepare or update their development guidelines to incorporate complete streets concepts with consideration given to the recommendations made in Chapter 4 — Planning for Growth - Future Conditions of this report.
- Municipal officials should consistently remind elected officials of their authority to veto state roadway improvement projects that fail to meet the goals established in this plan, including the requirement to accommodate bicyclists and pedestrians.
- Encourage training as needed for state, regional, and local professionals in the development of appropriate multimodal facilities.
- Use the corridor profiles illustrated in Chapter 4 in developing the project purpose and need statements to implement projects based on their context

### *Freight Improvements*

- The State Ports Authority is pursuing three major projects to accommodate future water-borne freight transport demand:
  - Charleston Harbor deepening project
  - Existing terminals improvement and a passenger terminal
  - New three-berth, 250-acre marine terminal at the former Charleston Naval Base
  - Implement improvement recommend in the freight providers survey
  - Conduct the I-26 and I-526 corridor analysis studies
  - Enhance the freight modeling capacity of the CHATS travel demand model
  - Coordinate intermodal freight movements
- Proactively pursue safety improvement funds to implement countermeasures at high-crash locations listed in Chapter 3
- Proactively implement specific intersection improvement recommended through outreach conducted with freight operators and shippers as part of this Transportation Plan, including the following:
  - Develop a system of truck routes and accessible intermodal facilities—in order to preserve reasonable truck mobility
  - Clements Ferry Road – plan for secondary roads to smooth growing traffic congestion as Cainhoy area develops; install traffic signals at Cainhoy Road / Clements Ferry Road intersection
  - Improve Jedberg Road to emphasize mobility and safety
  - Implement travel demand management strategies to mitigate impacts on neighborhoods
  - Implement driver awareness program to “give trucks a brake” and not cut them off
  - Create legislation to restrict trucks to the two right lanes on I-526 to improve safety and facilitate passing maneuvers
  - Study interchange along I-26 and I-526 to address traffic congestion
  - Study synchronization of traffic signals on truck routes in downtown Charleston, timed to promote safe and reasonable speeds on downtown streets that minimize truck delay
  - Address traffic congestion along the STRANET system
  - Continue developing the 511 system and in-cab notifications and consider using the procedure on other major construction projects affecting truck routes
  - Secure innovative funding to complete the I-26 Port Access Road from the proposed new port terminal on the former Naval Base site to I-26 to eliminate truck traffic on some local streets

### *Intersection Improvements*

- Implement access management policies and construct measures that create a balance between the need for access to the transportation system and the desire to protect the mobility of major corridors. The recommendations (see Chapter 4 - Planning for Growth - Future Conditions)

emphasize the protection of existing roadways through the inclusion of plantable medians and better access management design. In other words, if an arterial warrants widening or other capacity improvements, a median may be proposed as a short-term action to improve safety, control access, and enhance the corridor aesthetics.

- More efficient use can be made of the existing transportation system through minor improvements such as the construction of additional turn lanes, installation of updated or advanced signal equipment, installation of intelligent transportation systems, and identification of alternative travel patterns as described in Planning for Growth - Future Conditions.
- Site access mitigation measures should be implemented. Site driveways and intersections should be configured to minimize the negative traffic effects on the adjacent public street network. This can be accomplished through good site design and by limiting the number of new points of access along a roadway, as described in Planning for Growth - Future Conditions.
- Implement Complete Streets projects to improve the safety, comfort, and convenience of pedestrians and bicyclists at intersections where pedestrians and bicyclists are observed or desired.

### *Transit Service*

Voters provided CARTA with funds to continue improving transit service when they approved a referendum for a one-half cent sales tax in Charleston County in November 2004. The following recommendations for action by CARTA are consistent with CARTA plans to wisely use this new voter mandate.

- Enhance existing service according to the CARTA Plan” through the following steps:
  - Continue comprehensive marketing program
  - Enhance commuter service from outlying areas, including Goose Creek and Summerville
  - Establish greater connectivity between CARTA and Tri County Link and consider strategic methods to serve lower density areas that do not generate adequate ridership on conventional fixed-route large bus services
  - Identify companies that may benefit from using transit services, including vanpools as an efficient means to reach new service areas
  - Continue to evaluate the expansion of DASH service in downtown Charleston
  - Continue to serve MUSC with shuttle service tailored to its needs including the bus pass program for students and employees
  - Continue bus pass programs, such as the one with College of Charleston students, faculty, and staff
  - Invest in technology that will allow buses to preempt traffic signals to continue green lights, as well as customer information services via the internet, phones, and at transit stops
  - Build the North Charleston Intermodal Center to create a hub linking local, regional, and intercity transit services
  - Implement the CARTA system wide comprehensive signage program

- Continue implementation and evaluation of CARTA’s construction program to place shelters at high-demand bus stops
- Actively participate in promoting transit-supportive land use and site development through speaker forums, and input on comprehensive and other related planning efforts
- Implement new transit modes and technologies
- Develop dedicated park-and-ride lots to support new CARTA express bus routes
- Coordinate with and support the promotion and implementation of the BCDCOG Mobility Management Program including referring clients, and partnering on events that may include the Charleston Green Fair, Earth Day Festival, Dump the Pump Day, and other initiatives.
- Evaluate the transit needs of the Hispanic and disabled community

### *Follow Up Studies/Plans*

- Study the causes and countermeasures of increasing traffic congestion on Interstate Highways 26 and 526 and identify strategies to avoid worsening delays to freight movement.
- Study enhancements to improve the transit hub activities with new private development.
- Monitor successes and areas for improvement with the recently opened CARTA Superstop on Rivers Avenue at Cosgrove Avenue in North Charleston. Develop a prototype for the development of Superstops elsewhere in the CARTA service area. Consider using the Superstops as regional transfer centers between TriCounty Link and CARTA routes.
- Study the potential implementation of streetcar service on the Charleston peninsula.
- Update the Water Ferry study to develop a public-private partnership plan to jumpstart water shuttle (or ferry) service between publicly-owned docks with adequate parking facilities. The service should have a sufficient element of transportation-related function (compared with tourist-oriented service) to justify public capital expenditures to improve docks, road and path access to docks, and vehicle parking. The following actions are recommended for BCDCOG:
  - Work with National Park Service to update the plan for an initial phase of a Charleston Harbor water shuttle service
  - Identify a lead agency for the water shuttle operation
  - Work to reduce and/or eliminate docking fees for boats used in a water shuttle operation
  - Coordinate connecting bus service to serve the water shuttle docks
  - Identify park-and-ride lots for water shuttle riders at all departure points
- Investigate funding opportunities for needed facilities and improvements. A potential source may be the Federal Highway Administration’s Ferry Boat Discretionary program.
- Examine the feasibility of bus rapid transit (BRT) in critical corridors or the locally preferred alternative for that corridor.
- As updates to city, town, and county comprehensive plans are initiated, the goals and objectives of this CHATS LRTP should be reflected including the Complete Streets program.
- Complete a bike restriping design plan for the regional bike/pedestrian route.
- Corridor studies for each of the congested corridors shown in Chapter 3, should be prioritized,

funded, and conducted to consider what combination of roadway improvements and complete street improvements should be recommended. This should be followed by corridor studies for any corridors not already studied that appear on Chapter 4 reflecting congested corridors projected after completion of all the “committed” transportation improvement projects.

When considering new roadway alignments and extensions, planners and engineers should use a guiding set of principles, including those listed below, to make sure that environmental considerations are followed:

- Avoid steep slopes and otherwise unsuitable topography
- Minimize impacts to the built environment
- Stay away from FEMA designated floodplains
- Minimize the number of wetland (National Wetland Inventory) impacts
- Minimize the amount of each wetland impact (e.g., don’t cross a wide wetland when a narrower one can be crossed)
- Minimize the number of stream crossings
- Minimize the length of stream crossings
- Minimize impacts to school sites
- Minimize the number and size of impact to historic features and districts
- Minimize the number and size of impact to threatened and endangered species
- Minimize the number and size of impact to hazardous waste sites
- Minimize the number and size of impact to superfund sites
- Minimize or avoid impacts to neighborhoods
- Avoid unnecessary or disproportionate impacts to minority and low-income communities
- Avoid impacts to parks and designated open spaces
- Minimize gameland impacts
- Minimize the number of new facilities in critical watershed areas
- Be aware of existing development patterns

Capitalize on street connectivity opportunities such as stub streets

Encourage a multimodal system with the promotion of pedestrian, bicycle, and transit networks

Study countermeasures to current deterrents to inter-community bicycle and pedestrian travel such as:

- Lack of safe water crossings of the Ashley, Stono, Wappo, and Wando Rivers.
- Design of arterials discourage all but the most determined bicyclists
- Gaps in safe facilities make longer distance travel difficult
- Distances between the suburban growth centers, such as Summerville, and the traditional employment centers in North Charleston and Charleston are too great for the majority of people to consider bicycling
- Increasing suburbanization that will make these factors worse
- Identify funding source and promote the creation of an ADA Transition Plan for each city, town, and county in the region that identifies existing deficiencies, estimates retrofit costs, schedules improvements, and programs sufficient annual funding to erase the backlog of

deficient locations. The Transition Plan should focus on public facilities for the disabled community, including intersections and curb ramps.

## **MID-TERM ACTIONS**

### *Corridor Preservation*

Preserve rail corridor capacity for potential future commuter rail service in these corridors and consider adding rail/trail bike and pedestrian facilities along the rail corridors:

- Charleston – Summerville – St. George
- Charleston – Goose Creek – Moncks Corner

### *East Coast Greenway*

The East Coast Greenway Plan was completed in 2005 although the routing may be changed by the cities, towns, or counties as development opportunities arise. To promote the routing for residents and tourists, East Coast Greenway additional wayfinding signage should be placed along the route and brochures placed at visitor centers.

### *Programs and Policies:*

**Education:** New and experienced bicyclists need to be made aware of where suitable routes are and what destinations can be accessed. Motorists, pedestrians, and cyclists need to understand the “rules of the road” to keep themselves safe while operating not only on but also adjacent to these facilities. Consider various means of educating the public in these regards.

**Encouragement:** People need to be encouraged to walk and bicycle. The more desirable the region becomes for pedestrians and cyclists (by providing more destinations oriented for them), the more successful these modes will become. Set a goal regionally and locally to be widely recognized as bicycle-friendly.

**Enforcement Issues:** Educate law enforcement and the public on the new **H3006 Bicycle Law** Revisions passed by the SC Legislature includes changes that include the following: A driver of a motor vehicle must at all times maintain a safe operating distance between the motor vehicle and a bicycle; is unlawful to harass, taunt, or maliciously throw an object at or in the direction of any person riding a bicycle; a bicyclist may, but is not required to, ride on the shoulder of the roadway in order to comply with the requirements of this subsection; whenever a bicycle lane has been provided adjacent to a roadway, operators of: motor vehicles may not block the bicycle lane to oncoming bicycle traffic and shall yield to a bicyclist in the bicycle lane before entering or crossing the lane; and bicycles are required to ride in the bicycle lane except when necessary to pass another person riding a bicycle or to avoid an obstruction in the bicycle lane. However, bicyclists may ride on the roadway when there is only an adjacent recreational bicycle path available instead of a bicycle lane.

**Parking:** Consideration should be given to providing bicycle parking at key destination points throughout the region. Some potential areas include, but are not limited to, malls, theaters, parks, central business districts, and schools. The cost for such amenities ranges from a few hundred to several thousand dollars, depending on the type and quality of material. A program to partially subsidize the cost could be considered.

**Smart Ride Program (Mobility Management Program):** Continued support of the BCDCOG’s Mobility Management Program, which provides education and assistance throughout the region on how individuals, companies, and agencies can reduce the use of single car vehicles with alternative modes of transportation including biking and walking. The program also promotes policies and initiatives that support the implementation of school pools, flextime, compressed work time, and telecommuting; all of these programs can result in cost savings, improve air quality and reduction of employee stress.

**Trident Ride Share:** Continued support of the BCDCOG’s Trident Rideshare Program, which allows for online or BCDCOG staff assistance at [tridentrideshare.com](http://tridentrideshare.com) in locating someone to share a bike ride, walk, transit, taxi, or car to work or events.

**Safe Routes to School Programs/Grants:** Support ongoing coordination with SCDOT, school districts and area partners on promoting Safe Routes to School Programs, grants, policies, and infrastructure improvements, which would include Walking School Buses, Walking clubs, and putting in bike racks at schools and other public buildings.

**Bike Friendly Community Program:** Continue to support and provide BCDCOG staff assistance on advancing the League of American Bicyclists’ Bike Friendly Community program to area towns and cities.

**Complete Streets:** Provide ongoing assistance to small towns, cities, and advocates on complete street ordinances and policies including accessibility for the disabled as required by the American for Disabilities Act.

Through the BCDCOG’s Mobility Management Program, promote the use of biking, walking, and using transit to employers and individuals including the use of parking spaces for preferred parking for bike racks, showers for bicycling employees and information on the tax benefits to employers.

- Currently, sidewalk implementation is required either on one or both sides of the street in most counties and cities in the CHATS study area for residential land development. It is recommended that these policies be implemented in those counties and cities that do not already have them. A strong commitment to sidewalk implementation should be an integral part of the development review process.
- Promote bicycling and walking as legitimate, popular, and mainstream activities that all sections of society and all ages can enjoy through key area events.

- Use driver education classes and curricula, driver testing and licensing information, and public awareness campaigns to inform motorists about passing bicyclists with care, using the horn appropriately, and yielding to bicyclists at intersections. Supply information to drivers on how to share the road with bicyclists and pedestrians in ways that are not intimidating. Additionally, provide enforcement and publicity of cases where motorists are abusive and threatening to bicyclists or pedestrians.
- Coordinate with wellness worksite initiatives to encourage more employees to commute by alternative modes of transportation.
- A policy to improve bicycle route signage and directional signage will show connections between the routes. Comprehensive and frequent bicycle signage also can promote bicycling by making the extensive bicycle route

Implementation of policies, programs, and projects requires public support, political will, and staff diligence. The public outreach sessions show strong public support for “complete streets” that safely and conveniently accommodate pedestrians and bicyclists. Funding for retrofit projects is scarce and very competitive. The Federal Transportation Enhancements Program is extremely popular in this region and across the nation. Funds are set aside for statewide competition every two years. This region has been successful using Enhancement funds to build hiker-biker trails in Goose Creek, multi-use trails in Summerville, trails and sidewalks in Mount Pleasant, and many other projects.

Streets funded with state, county, and federal transportation monies are a steady source to build a network, however these projects are typically scattered throughout the region and rarely form an immediate network serving a specific area. Nevertheless, most of these streets form critical links in the transportation system and would be very expensive to retrofit for sidewalks and bikeways compared with the incremental cost of accommodation as other transportation improvements are constructed.

Funding for new construction occurs as development occurs, if developers are required to provide infrastructure. This “pay as you go” system is effective because streets are built as new development occurs. However, these public streets are often used by general traffic that did not pay for them so a degree of fairness is introduced if a public-private partnership is formed with a mixture of funds from both the developer and the public sector.

A multi-pronged approach is necessary that includes the following:

#### Short-Term

- Ongoing use of Federal Transportation Enhancement funds to construct facilities identified in the Pedestrian and Bicycle Plan
- Update of project scoring system to use technical criteria to rank candidate projects for prioritization by decision-makers

- Policy changes to implement demonstration projects
- Policy changes to adopt pedestrian and bicycle-friendly ordinances and policies in each jurisdiction

#### Mid-Term

- County and large city funding for their own pedestrian-bicycle coordinators
- Consideration of using “flexible” state and federal surface transportation program funds to construct pedestrian and bicycle projects

#### *Project Selection Criteria for Streets and Trails*

Following are criteria to consider in developing a prioritization scoring procedure for pedestrian and bicycle projects:

- Provide connectivity between important activity centers within each jurisdiction and within the region including schools and shopping areas
- Provide service to existing areas of the greatest population and employment density, as well as areas of expected growth
- Provide service to residents making bicycle and pedestrian trips outside their home jurisdiction
- Serve the primary connectivity needs between jurisdictions within the region and neighboring jurisdictions outside the region
- Provide key crossings of the major highway, rivers, and/or railroad barriers that make regional bicycle and pedestrian connectivity difficult or impossible
- Include many of the roadways and other corridors with the greatest potential to serve pedestrian trips

#### *Complete Streets / Transit Ready Communities*

Chapter 10 shows points or areas of interest in the BCD region. These facilities should be linked via a pedestrian-friendly and bicycle-friendly system of facilities. This minimize vehicle miles travel and ensure our air quality standards are maintained. As the region’s demographic composition changes, our standards for quality placemaking will evolve and this plan will create a safe, equitable, and effective transportation system to all its users.