

Implementation Plan

All long-range plans benefit from a good implementation plan. Taking action on the myriad recommendations in 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 Council of Governments and CHATS Policy Committee must work proactively with the following organizations:

- Citizens and businesses
- South Carolina Transportation Commission
- South Carolina Department of Transportation
- United States Department of Transportation
- Charleston Area Regional Transit Authority
- Regional Municipalities
- 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 Charleston and Dorchester Counties voted to approve a sales 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 before the next update of this long-range transportation plan. 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.

SHORT-TERM ACTIONS

Plan Adoption Process

- Public open-house style meeting and other presentations
- Plan review by SCDOT and FHWA
- Recommend adoption to CHATS Policy Committee on April 25, 2005
- Adoption by CHATS Policy Committee
- Acceptance of CHATS LRTP by SCDOT and FHWA

Implement Financial Plan

- Adopt resolution of support to the following “committed” projects:
 - US 17 North
 - Ashley Phosphate Road
 - Ladson Road
- Develop funding agreements with Charleston and Dorchester Counties to demonstrate and document levels of support using Guide Share funds to assist in the implementation of each county’s sales tax program.
- Adopt resolution of support for the “Complete Streets” program to use Guide Share 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.
- Adopt resolution to use 50% of future Guide Share funds to implement technically meritorious projects (see Chapter 9 — Financial Plan) that are not part of any sales tax program and the other 50 percent to support sales tax transportation projects. The five top-ranked non-sales tax projects are:
 1. Dorchester Road
 2. College Park Road
 3. Maple Street Extension/Berlin Myers north extension
 4. SC 41 from Dunes West to bridge
 5. North Rhett extension
- Continue to support non-Guide Share projects still to be completed, including:
 - Rivers Avenue overpass over railroad
 - US 17/I-526 interchange upgrade
 - Paul Cantrell Boulevard/I-526 interchange modification
- Vigorously pursue innovative public and private sources of funding for the following projects:
 - SC 61 (Glen McConnell) Expressway north of Westbridge Road
 - Mark Clark Expressway
 - Old Orangeburg Road widening
 - I-26 port access road
 - I-26 realignment

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 water shuttle (ferry) facilities.
- Confirm with the CHATS Policy Committee the following principles adopted by the Policy Committee in 1998. Other area jurisdictions and agencies are encouraged to adopt or endorse these policies as appropriate. These recommendations were also incorporated into the *1998 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 bicyclists and pedestrians.
 - 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.
 - 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 bicycle- and pedestrian-friendly retail, 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 visitors will have the opportunity to receive training and information to enable bicyclists, pedestrians, and motorists to more safely coexist on area roads.
 - 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 5 – 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 citizen-based standing 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 \$30 million over the next 25 years.
- Consider transportation projects listed in the Vision Plan to pull forward into the fiscally-constrained plan. This will take place as more information is made available by Charleston County regarding which projects will be funded using their sales tax monies.
- Pursue innovative financing for the following transportation projects: Mark Clark Expressway, Glen McConnell Parkway, I-26 Realignment, I-26 to Port Access Road, and the Old Orangeburg Road widening.

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 14th 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 – Future Highway Element 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 bicycle and walkway facilities.
- Use the corridor profiles illustrated in Appendix A to influence various amendments to the official Highway Plan (s).

Freight Improvements

- The State Ports Authority is pursuing three major projects to accommodate future water-borne freight transport demand:
 - Charleston Harbor deepening project begun in 1999
 - Existing port terminals improvement
 - New three-berth, 250-acre marine terminal at the former Charleston Naval Base

System Improvements

- Proactively pursue safety improvement funds to implement countermeasures at high-crash locations listed in **Tables 3.1** and **3.2**. Recommended countermeasures are presented in Chapter 3 – Highway Element.
- Proactively implement specific intersection improvement recommended through outreach conducted with freight operators and shippers as part of this Transportation Plan, including the following:
 - Dorchester Road – extend southbound left-turn lane at Michaux Parkway intersection
 - Michaux Parkway – restrict access 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 SC 41 to emphasize mobility and safety and mitigate impact on neighborhood
- 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 of US 17 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
- Replace STOP signs with traffic signals at Jedburg Distribution facility
- Address traffic congestion at US 78/US 52 intersection
- Build a 3-mile long access road through state-owned land to eliminate Nucor trucks in neighborhoods
- Continue the FAX notification process during construction of the Cooper River bridge and consider using the procedure on other major construction projects affecting truck routes
- Secure innovative funding to fulfill the commitment to provide direct access from the proposed new port terminal on the former Naval Base site to I-26 to eliminate truck traffic on some local streets

- 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 – Future Highway Element) 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 Chapter 4 – Future Highway Element.
- 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 Chapter 4 — Future Highway Element.

- 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 “New CARTA Plan” through the following steps:
 - Initiate a comprehensive marketing program
 - Enhance commuter service from outlying areas, including Goose Creek and Summerville
 - Establish greater connectivity between CARTA and RTMA and consider strategic methods to serve lower density areas that do not generate adequate ridership on conventional fixed-route large bus services
 - Consider vanpools as an efficient means to reach new service areas
 - Continue to improve DASH service in downtown Charleston, including service to the College of Charleston
 - Serve MUSC with shuttle service tailored to its needs
 - 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 systemwide comprehensive signage program
 - Implement CARTA’s construction program to place shelters at high-demand bus stops
 - Actively participate in promoting transit-supportive land use and site development
- Implement new transit modes and technologies
- Develop dedicate park-and-ride lots to support new CARTA express bus routes

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 at the existing Visitor’s Reception and Transportation Center in downtown Charleston.
- 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 RTMA and CARTA routes.
- Study the potential implementation of streetcar service on the Charleston peninsula.
- Conduct a detailed 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 develop a detailed implementation 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 as an alternative to higher-cost rail technologies. This could be an expansion of successful CARTA express bus service in select corridors.
- Monitor CARTA’s request for federal funding of the Charleston monobeam project.
- As updates to city, town, and county comprehensive plans are initiated, the goals and objectives of this CHATS LRTP should be reflected including the new program called Complete Streets.
- Demonstration projects for “Active Living by Design” should be funded and implemented to test and show the benefits to citizens of various measures to promote and support walking and bicycling.

- Corridor studies for each of the congested corridors shown in **Figures 3.2A, 3.2B, and 3.2C** 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 **Figures 4.1A, 4.1B, and 4.1C** 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, and Cooper Rivers (note that the new Arthur Ravenel Jr. bridge will alleviate this problem over the Cooper River)
 - 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 corridors for potential future commuter rail service in these corridors:
 - Charleston – Summerville – St. George
 - Charleston – Goose Creek – Moncks Corner

Greenway Project

Establish a goal regionally to identify and implement a route through the region for the East Coast Greenway that is substantially (i.e., more than 80 percent) off-road.

Establish Programs

- **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** — Work with local and county law enforcement officials and judges to make sure that laws pertaining to the interaction between motorists and pedestrians/cyclists are heeded by all to provide safety. Make sure that a high proportion (more than 90 percent) of such citations are upheld in court.
- **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.

Bicycle and Pedestrian — 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 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

- BCDCOG funding for a part-time bicycle-pedestrian coordinator for three years

- Ongoing use of federal Transportation Enhancement funds to construct facilities identified in the Pedestrian and Bicycle Plan
- Development 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
- 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

Figures 6.4A, 6.4B, and 6.4C show points or areas of interest in the BCD region. These facilities should be linked via a pedestrian-friendly and bicycle-friendly system of facilities.