

# Waccamaw Regional Transit Plan



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and



*for the*

South Carolina Department of Transportation

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## Section 1: Introduction

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### **1.1 Purpose of Statewide Multimodal Transportation Plan**

The South Carolina Statewide Multimodal Transportation Plan is being developed to set a course for future transportation investments in South Carolina. It is a long-range planning effort intended to establish a strategic statewide transportation vision, focusing on the mobility of people and the efficient movement of freight and goods. The overall plan consists of three major components that are connected and coordinated:

- Statewide Corridor Plan;
- Statewide Transit Plan; and
- Statewide Railroad Right-of-Way Preservation Plan.

These elements will be linked to provide a cohesive strategy and vision for transportation investments in the state.

### **1.2 Purpose of Regional Plan**

Public transit is an integral part of the region's transportation network. Transit provides mobility to thousands of residents in the region, and is an important tool to foster personal independence and promote economic development. Transit is more than just buses in cities; some form of transit is available in many parts of the state in both rural and urban areas. However, the extent of service varies greatly from region to region.

The Statewide Plan compiles findings developed throughout the study process, focusing on strategies and action items for South Carolina transit in general. The following elements have been included:

- Service needs and strategies – General descriptions for transit service improvements to meet the identified needs;
- Financial needs and strategies – Funding projections for existing services, as well as proposed services. These costs are compared to funding estimates using existing sources as well as potential new sources.
- Capital / technology needs and strategies – Projections of vehicle needs, technology needs (e.g. ITS applications), and facility needs (e.g. multimodal centers) are given.
- Policy needs and strategies – Suggested policy revisions and general planning guidelines are addressed. Transportation coordination issues regarding human service agencies are included in this discussion.

A goal of the transit element of the overall Statewide Plan was to produce recommendations that are geared toward both “statewide” and “regional” interests. At the regional level, strategies and action items were defined that local planners (including



COGs, MPOs, and municipalities) and transit agencies can support and use. These action items vary from region to region, depending on the pertinent concerns and needs in each area. For the purposes of this study, the “regions” are defined as the ten planning regions in South Carolina as defined by COG boundaries. This document is the Waccamaw Regional Transit Plan. A separate overall Statewide Plan and nine other Regional Plan documents that are tied to the overall statewide transit plan examine each of the other regions of the state.

A map showing the location of the Waccamaw Regional Council of Governments, along with the other nine regions, is included as Figure 1.

Figure 1: Location of Waccamaw Region



Source: South Carolina Department of Transportation



## **Section 2: Overview of Transit in the Region**

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South Carolina is primarily a rural state, but one that is rapidly growing and urbanizing in many areas. Although transit needs are significant in both rural and urban areas, existing transit services vary widely in terms of the availability and scope of services. In urban areas, fixed-route services operate on set schedules and routes, and demand-response services operate according to demand within a defined service area. In rural areas, demand-response services cover a wide area, and commuter services enable connections to urban areas in some regions.

### **2.1 Existing Conditions**

Each of the state's ten planning regions has unique conditions and demands related to transit. Key demographic characteristics for the Waccamaw region are presented in this section, along with an overview of current transit operations. The Waccamaw region is comprised of three counties in northeastern South Carolina: Georgetown, Horry, and Williamsburg.

#### **2.1.1 Overall Population**

The Waccamaw region reached nearly 290,000 people in 2005. Horry was the largest county in the region at 196,000 persons, with Williamsburg County the smallest at 37,000. Between 2000 and 2005, Horry and Georgetown Counties experienced growth at a rate higher than the state average, 15.4 percent and 9.3 percent (the state average was 6.1 percent). Williamsburg County experienced a 4.9 percent loss of population.

#### **2.1.2 Elderly Population**

South Carolina's senior population (persons 65 years and older) comprised 12.4 percent of its total population in 2004. The Waccamaw region and all three of its counties had larger proportions of elderly persons than the state average. The region had an elderly population proportion of 15.6 percent. Williamsburg County alone had a proportion of 16.8 percent, the second highest in South Carolina, behind McCormick County.

#### **2.1.3 Persons Below the Poverty Level**

South Carolina had 13.8 percent of its population at or below the poverty level in 2003. Of the three Waccamaw counties, only Horry County, at 13.1 percent, had a lower percentage of persons living in poverty than the state average. Williamsburg and Georgetown Counties had higher poverty levels, with 22.9 percent and 14.7 percent, respectively. Williamsburg County had the second highest poverty rate in South Carolina.

#### **2.1.4 Median Household Income**

South Carolina's median household income in 2003 was \$38,003, which is higher than all three of the Waccamaw counties. Georgetown County had the highest income level at \$36,458, followed by Horry County at \$35,606. Williamsburg's income level is



\$24,712, which is the second lowest median household income in the state, behind Allendale County.

**2.1.5 Change in Daytime Population**

Horry and Georgetown Counties experienced small daytime population increases of 2 percent and 1.9 percent, respectively, while Williamsburg County experiences a loss of 7 percent of its daytime population due to residents commuting to jobs outside the county.

**2.1.6 Demographic Summary**

The Waccamaw region is comprised of two rapidly-growing counties along the coast, and one inland county that has experienced a decline in population in recent years. The Waccamaw region is an attractive retirement destination, as shown in its relative high percentage of elderly population. However, the region as a whole remains comparatively poor, especially Williamsburg County. The Myrtle Beach area is home to many of the region’s jobs, and existing transit services are geared to transporting residents of outlying areas to hospitality and tourism-related jobs along the Grand Strand. As the Myrtle Beach area continues to urbanize, there is likely to be additional demand for transit. In the more rural areas, transit will continue to be needed to connect residents to jobs and basic services.

**2.2 Future Conditions**

Table 1 illustrates population projections changes between 2005 and 2030 for the Waccamaw region. By 2030, the region is expected to grow by 38.6 percent, which will be considerably higher than the state average. Horry County is anticipated to become the second fastest growing county in South Carolina (at 47.7 percent, behind only Beaufort County). It is expected to add 138,000 persons between 2005 and 2030. Table 2 shows Horry County exceeding 335,000 persons by 2030.

Table 1: Waccamaw Region Population Growth Rates

County	2000 to 2005 (%)	2005 to 2010 (%)	2005 to 2020 (%)	2005 to 2030 (%)
Georgetown	9.3	4.2	15.9	27.9
Horry	15.4	6.6	27.3	47.7
Williamsburg	(4.9)	1.1	0.3	(1.6)
Waccamaw COG	11.6%	5.5%	22.2%	38.6%
South Carolina	6.1%	4.7%	15.5%	26.2%

Source: Data by SCDOT



Table 2: Waccamaw Region Population Projections by County

County	2000	2005	2010	2020	2030
Georgetown	55,797	60,983	63,520	70,660	78,000
Horry	196,629	226,992	242,000	288,920	335,320
Williamsburg	37,217	35,395	35,770	35,500	34,840
Waccamaw COG	289,643	323,370	341,290	395,080	448,160
South Carolina	4,012,012	4,255,083	4,458,920	4,916,900	5,371,150

Source: Data by SCDOT

### 2.3 Local / Regional Transit Services

The Waccamaw region is served by two public transit providers: the Coast Regional Transit Authority (Coast RTA) and the Williamsburg County Transit Authority (WCTA).

- The Coast RTA operates a variety of services in Horry and Georgetown Counties, including fixed route service centered in Myrtle Beach and Conway, demand response services throughout the two counties, and special services such as shuttle service at Coastal Carolina University.
- WCTA offers demand response services for agencies and the general public throughout Williamsburg County, as well as an extensive commuter transit service linking residents of Williamsburg County with job opportunities in Myrtle Beach.

#### 2.3.1 Regional Overview

Collectively, the two public transit operators in the Waccamaw region had 100 vehicles actively providing service in FY 2005. In the same year, the systems together provided nearly 1.3 million passenger trips, split nearly evenly between the two systems.

Table 3 shows the trends in the number of vehicles actively providing service. During the four-year period between FY 2002 and FY 2005, the number of vehicles in service was at its maximum in FY 2002, then the number dropped the following year. Service increased again in FY 2005. Since FY 2005, Coast RTA has been forced to cut some services due to local funding constraints, but is working to secure additional local funds to grow its services again.

Table 3: Total Waccamaw Region Vehicles in Maximum Service (FY 2002 to FY 2005)

Area	Fiscal Year			
	2002	2003	2004	2005
Fixed Route	68	54	43	48
Demand Response	21	20	26	32
Other	28	22	18	20
Totals	117	96	87	100

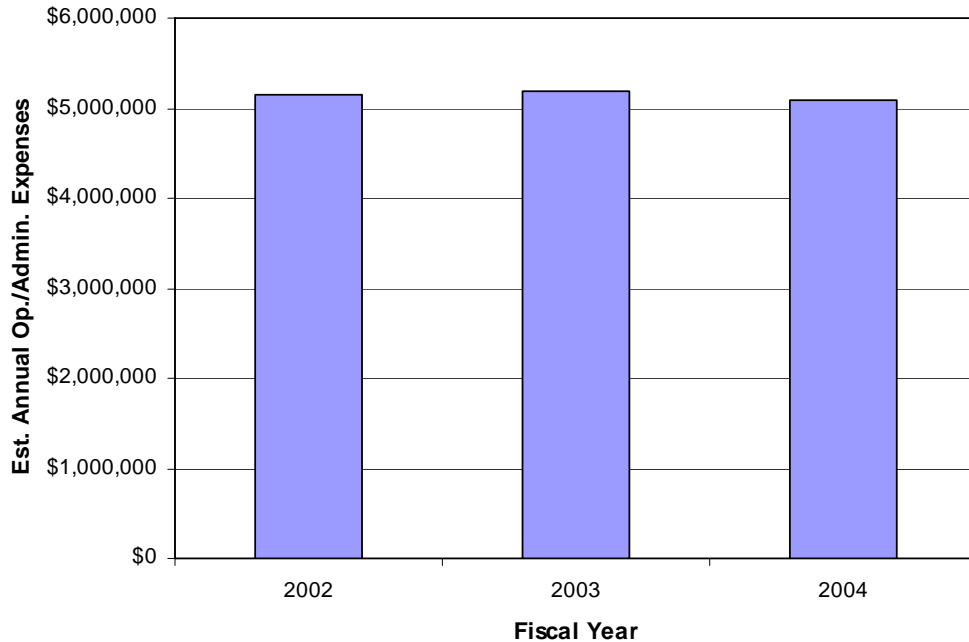
Source: Data by SCDOT

The estimated annual operating costs of the systems in the region have remained quite stable in recent years, as illustrated in Figure 2. In FY 2004, the combined systems had



operating costs of approximately \$5.1 million. No data is shown for FY 2005 because cost data were not available from the Coast RTA for that year.

Figure 2: Annual Operating Expenses (Region Totals FY 2002 to FY 2004)



Source: Data by SCDOT

### 2.3.2 Trends in Ridership and Amount of Service Provided

Transit is generally growing in the Waccamaw region, reflecting the growing population base. The Coast RTA has struggled with funding constraints in recent years, but conditions are improving. Tables 4 to 6 show composite data for ridership, vehicle miles of service, and vehicle hours of service, broken down by type of service as well as by urban and rural setting.

Table 4 illustrates ridership by type of service (fixed route, demand response, other) as well as by geographic area (urban versus rural). Ridership generally increased in all geographic regions and on both fixed route and demand response service. A spike in ridership, particularly rural demand response service, stands out in 2003. However, it is acknowledged that some more recent reductions in service at the Coast RTA are not reflected in these data.



Table 4: Total Waccamaw Region Passengers (FY 2002 to FY 2005)

Service Type	Fiscal Year			
	2002	2003	2004	2005
Fixed Route	511,883	652,048	653,626	750,969
Demand Response	61,110	170,458	91,891	109,671
Other	511,668	507,281	479,289	426,463
<b>Totals</b>	<b>1,084,661</b>	<b>1,329,787</b>	<b>1,224,806</b>	<b>1,287,103</b>

Area	Fiscal Year			
	2002	2003	2004	2005
Urban	347,411	469,884	471,142	484,353
Rural	737,250	859,903	753,664	802,750
<b>Totals</b>	<b>1,084,661</b>	<b>1,329,787</b>	<b>1,224,806</b>	<b>1,287,103</b>

Source: Data by SCDOT

Tables 5 and 6 show the amount of service provided in terms of vehicle miles and hours respectively. Service provided is shown both for type of service (fixed route, demand response, other) and geographic area (urban versus rural). Service has increased for both fixed route and demand response operations, and the level of service has grown fairly equally in urban and rural areas.

Table 5: Total Waccamaw Region Vehicle Miles (FY 2002 to FY 2005)

Area	Fiscal Year			
	2002	2003	2004	2005
Fixed Route	1,015,044	1,313,820	1,269,365	1,466,148
Demand Response	707,112	804,756	931,674	942,840
Other	1,128,245	1,217,908	805,873	807,627
<b>Totals</b>	<b>2,850,401</b>	<b>3,336,484</b>	<b>3,006,912</b>	<b>3,216,615</b>

Area	Fiscal Year			
	2002	2003	2004	2005
Urban	1,098,369	1,266,723	1,454,618	1,263,848
Rural	1,752,032	2,069,761	1,552,294	1,952,767
<b>Totals</b>	<b>2,850,401</b>	<b>3,336,484</b>	<b>3,006,912</b>	<b>3,216,615</b>

Source: Data by SCDOT

Table 6: Total Waccamaw Region Vehicle Hours (FY 2002 to FY 2005)

Area	Fiscal Year			
	2002	2003	2004	2005
Fixed Route	62,027	88,704	112,125	84,601
Demand Response	37,737	48,851	47,805	53,853
Other	106,342	101,888	80,890	91,068
<b>Totals</b>	<b>206,106</b>	<b>239,443</b>	<b>240,820</b>	<b>229,522</b>

Area	Fiscal Year			
	2002	2003	2004	2005
Urban	54,796	76,260	101,233	63,862
Rural	151,310	163,183	139,587	165,660
<b>Totals</b>	<b>206,106</b>	<b>239,443</b>	<b>240,820</b>	<b>229,522</b>

Source: Data by SCDOT

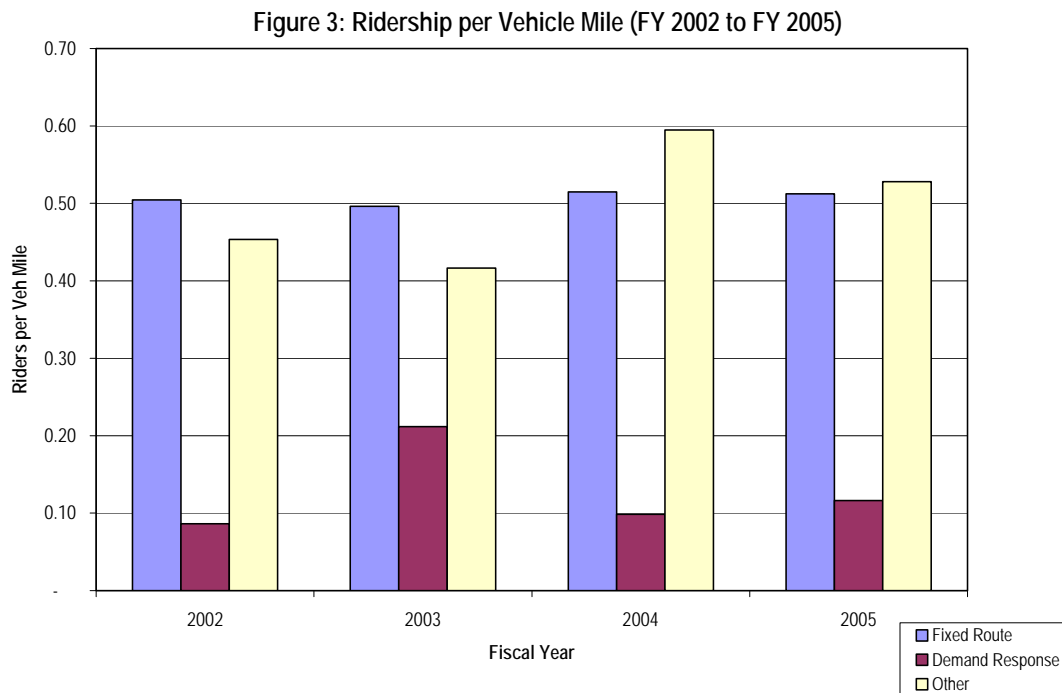


### 2.3.3 Trends in Efficiency and Effectiveness

Figures 3 through 5 present regional trends in revenue and expenses as well as measures of key cost efficiency and service effectiveness. These measures include the following:

- Ridership per vehicle mile;
- Ridership per vehicle hour; and
- Operating cost per rider, per mile, and per hour.

As shown in Figures 3 and 4, there has been some fluctuation in ridership per mile and per hour. It is notable that the fixed route measures are similar to the demand response measures, illustrating the nature of the much of the fixed route service as long-distance commuter shuttles. This type of service typically does not fare well in these types of effectiveness measures.



Source: Data by SCDOT



Figure 4: Ridership per Vehicle Hour (FY 2002 to FY 2005)

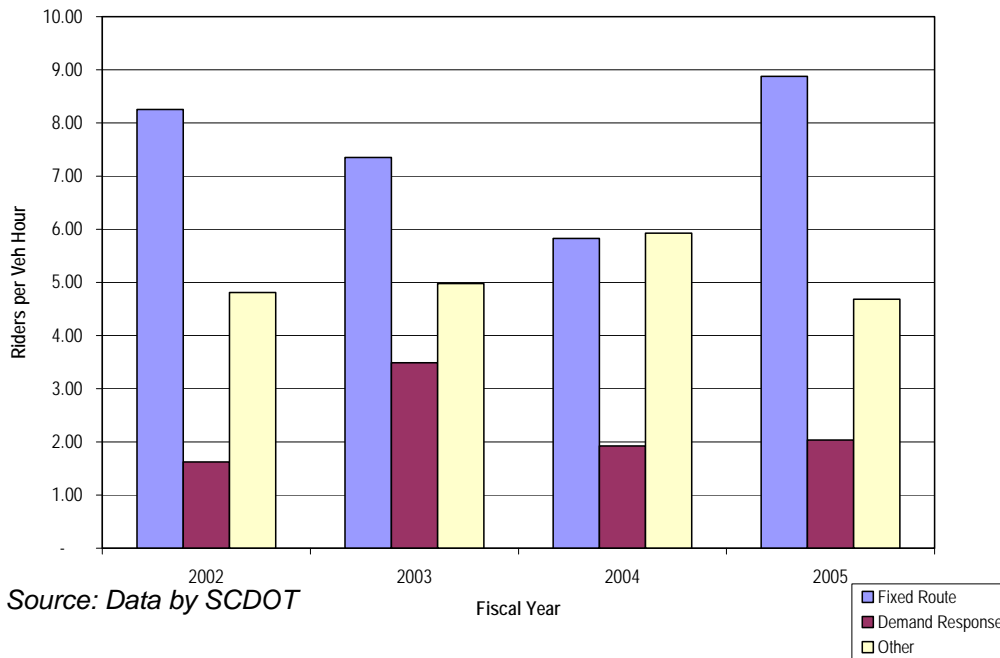
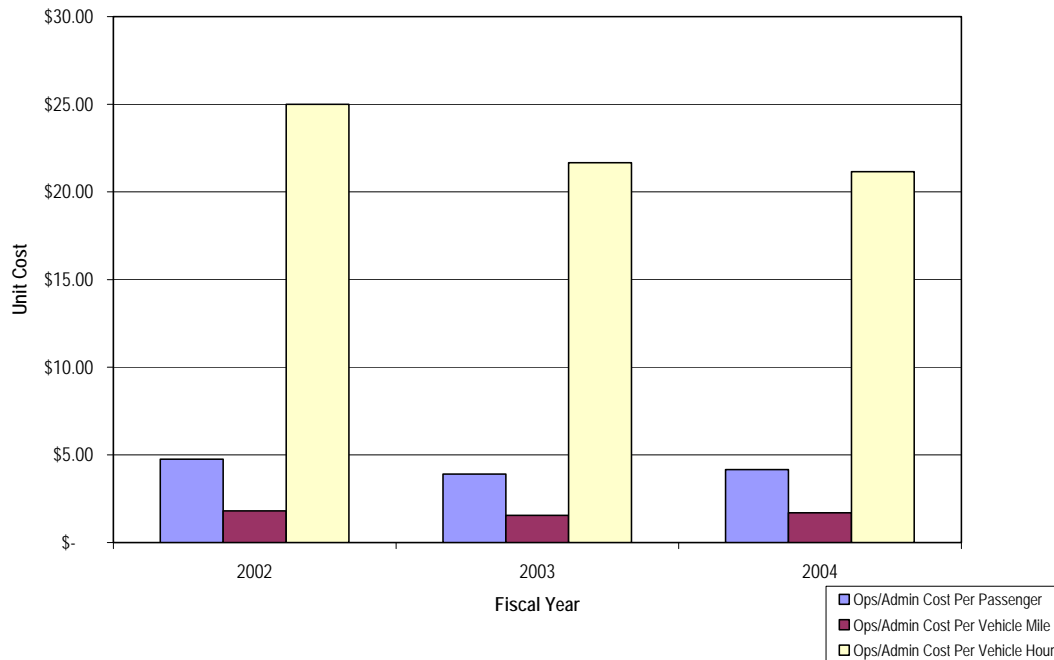


Figure 5 demonstrates that the region’s public transit providers have maintained a relatively stable cost per passenger, per mile, and per hour. In fact, the operating cost per vehicle hour has decreased notably. FY 2005 operating cost data were not available.

Figure 5: Operating Cost per Passenger, per Vehicle Mile, and per Vehicle Hour (FY 2002 to FY 2004)



## **2.4 Strategic Planning Efforts**

The Waccamaw region has a long history of incorporating strategic transit planning as a component of regional transportation planning. The region is working to address major mobility challenges, and many stakeholders recognize that transit service can play a major role in improving transportation conditions in the region. Currently, the region is working on a study of regional transit coordination strategies, in response to the Federal Transit Administration's emphasis on increased coordination of transit services.

The Coast RTA is working to improve the image of transit in the area. The system has made a number of strategic changes in the last few years to increase its financial and operational efficiency, and has been an active participant in regional initiatives.

The City of Myrtle Beach has embraced transit as a mobility solution, as illustrated by its construction of dedicated transit lanes on Ocean Boulevard. Although the lanes have been discontinued due to service-related issues, the City continues to study transit options as part of its short-range and long-range planning efforts. Currently, the City is sponsoring an assessment of the feasibility of streetcar services in the city, and has previously examined light rail, commuter rail, and monorail opportunities (the Coast RTA sponsored a separate evaluation of potential monorail service several years ago).

## **2.5 Stakeholder Input**

A series of interviews was conducted with key regional leaders in the planning community to understand the needs, issues, and goals related to transit in each region from the individual perspectives of the stakeholders. This input is a valuable tool in the assessment of existing attitudes toward transit and the potential roles of transit in the future.

### **2.5.1 List of Interviewees**

Personal interviews were conducted with several community leaders, including representatives of the following agencies and organizations:

- City of North Myrtle Beach;
- City of Myrtle Beach;
- Coast Regional Transit Authority (Coast RTA);
- Waccamaw Regional Planning and Development Council (WRCOG); and
- Williamsburg County Transit Authority (WCTA).

### **2.5.2 Interview Questions**

Each of the interviewees was asked the same set of questions:

1. What is your agency's role in public transportation?
2. How is transit perceived in your community?
3. What are the primary mobility issues in your region? How can transit help improve the situation?



4. What are major gaps in transit service locally?
5. What are the top opportunities facing transit in your area – now, over the next five years, and long-term (10 to 20 years)?
6. What are the top challenges / potential barriers facing transit in your area - now, over the next five years, and long-term (10 to 20 years)?
7. What is the level of local support for transit (financially, politically, and otherwise)?
8. What should the role of transit be in your community in the next twenty years? How does transit fit into the region's vision for the future?
9. What steps can be taken to help meet regional goals for transit?
10. What should the role of the State of South Carolina be in transit?
  - i. Is the state doing enough? If not, what should it be doing? If yes, is it doing too much?
  - ii. What are examples of positives coming from State? What are areas in need of improvement?

### 2.5.3 Summary of Input

General responses to each of the questions are summarized below. The paraphrased comments are not linked to specific individuals, but are indicative of the array of comments received.

- **How is transit perceived in your community?**

Each of the interviewees had some level of understanding of the unique problems for transit in the region. Most of the service is designed to meet the heavy demand for commuters to get from inland areas to the Myrtle Beach hotel district to jobs. The demand is highly seasonal and is used mostly by lower income individuals. A substantial amount of ridership on Coast RTA services are also visitors to the area and students at Coastal Carolina University. The general public mostly sees the transit system as a public service rather than a commute option. There have been a number of studies of higher capacity transit especially along Ocean Boulevard, US 17 and US 501.

- **What are the primary mobility issues in your region? How can transit help improve the situation?**

In addition to continued growth in the tourism sector, the area is also rapidly growing in terms of permanent residents. US 17 and US 501 are the major thoroughfares in the region and will continually experience issues with traffic congestions and more pressure from all of the development. Many of these new residents come from areas of the country where transit is a major commute option which could develop a trend of more people willing to use transit in general. The growing number of retirees was also specifically mentioned as a growing need.



- **What are major gaps in transit service locally?**

The major transit gap in the Waccamaw region is that there is not enough transit service, either in the urban or the rural areas. Funding and general support for transit is limited. Stakeholders specifically mentioned the following service needs:

- Need more commuter based service from inland origins to employment near the Coast on the Strand, in Georgetown and down to Charleston.
  - Need better and easier to understand service to the tourism market.
  - Need more service to target markets – hotels, air base redevelopment, major employers and entertainment districts.
  - Need well marketed fixed routes in the rural areas.
  - Increasing number of major developments that need shuttle service within their community and to other destinations.
  - Need for expanded services in Georgetown County.
- **What are the top opportunities facing transit in your area – now, over the next five years, and long-term (10 to 20 years)?**

Growth in the Waccamaw region is now reaching levels that make the area more conducive to exploring the feasibility of high capacity transit (e.g. rail, monorail, streetcar, etc.). Since the overall confidence in transit is poised to grow in the region, there are some real opportunities for transit to become a solution to mobility issues. A variety of transit modes (including water-based transit) could become viable alternatives to the automobile. Stakeholders note that there are opportunities to better serve tourists as well as local residents and employees through improved transit.

- **What are the top challenges / potential barriers facing transit in your area - now, over the next five years, and long-term (10 to 20 years)?**

Major challenges facing transit in the Waccamaw region are to increase the support for transit both financially and in terms of improving the perception of transit. A dependable and sustainable local funding source for transit services is needed; however, the negative mindset of transit must be changed before local officials will increase their level of support.

- **What is the level of local support for transit (financially, politically, and otherwise)?**

Transit in the region has limited local support. Stakeholders indicate that transit service still has not developed the track record to warrant increased support. Some elected officials genuinely appreciate the service to the community but are unwilling to consider transit in the fiscal planning for their communities. They must consider funding transit on a year to year basis against other financial needs. In addition to local governmental



support, stakeholders note that more support is needed from the development community, major employers and tourism market.

- **What should the role of transit be in your community in the next twenty years? How does transit fit into the region's vision for the future?**

Stakeholders envision a more significant role for transit in the future with more transit mode choices and greater appeal to a broader customer base beyond the transit-dependent population. Increasing population growth and its pressures on the transportation infrastructure will naturally make transit a more attractive choice. Transit will become a more significant tool to maintain and improve mobility as the region continues to grow.

- **What steps can be taken to help meet regional goals for transit?**

Stakeholders commented that several steps could be taken to help advance transit in the region. The development of a sustainable funding source, greater regional coordination of transit services, and the establishment of a more positive image of transit were noted as key steps. In addition, the following action items were noted:

- Increase the role of transit in Regional Transportation Plans;
  - Incorporate transit in land use planning efforts;
  - Improve transit marketing and public relations; and
  - Establish high capacity transit service on US 17, US 501, or Ocean Boulevard.
- **What should the role of the State of South Carolina be in transit? Is the state doing enough? If not, what should it be doing? If yes, is it doing too much? What are examples of positives coming from State? What are areas in need of improvement?**

General comments indicate that SCDOT needs to provide stronger leadership in transit and more funding. In addition, it should foster leadership at the regional and local levels. Education of transit's benefits is needed at every level. The following specific comments were offered:

- South Carolina is a traditionally rural state and though we can't lose sight of rural transportation issues, SCDOT must improve its ability to foster and support urban transit investments.
- SCDOT should continue to maintain its involvement in the streetcar feasibility and other major transit investments in Myrtle Beach.
- SCDOT should increase its understanding of the benefits of transit and relaying the message to the State Legislature to encourage them to provide more funding support for transit investment.



- Would like to see more control at a regional level for transit formula funding.
- The State should encourage more coordination of transit.
- There is a strong need for educational efforts to be targeted at legislators.
- The State has been very helpful and equitable in distributing limited capital dollars. They have also been supportive of innovative financing for fleet replacements, etc.
- SCDOT should provide greater assistance to the RTAs with federal grant administration and general interaction with federal agencies.

## **2.6 Summary**

The Waccamaw region will always have a mix of urban and rural transportation issues, but the region seems poised for more aggressive investments in transit. Growth in tourism as well as in the number of permanent residents continues to push the region toward finding alternative methods for maintaining mobility. The region realizes that if transit is going to become a viable alternative, the public image of transit needs to continue improving and a sustainable local funding mechanism must be implemented.



## Section 3: Transit Perceptions & Attitudes

As part of the Statewide Transit Plan, market research was conducted consisting of focus groups and statistically valid surveys for each of the state's ten regions. The purpose of the market research was to obtain information about attitudes and perceptions of transit in the State as well as to identify areas for improvement.

### 3.1 Focus Groups

During September 2006, ETC Institute facilitated a total of 20 focus groups for the South Carolina Department of Transportation. The purpose of the focus groups was to gather input from residents and community leaders about public transportation issues.

Two focus groups (one with residents and one with community leaders) were conducted in each of the State's 10 regions. For the Waccamaw region, the focus groups were conducted in Georgetown. Elsewhere in the state, focus groups were conducted in Greenville, Columbia, Aiken, Greenwood, Rock Hill, Walterboro, North Charleston, Sumter and Florence.

#### 3.1.1 Who Should Be Served by Public Transportation

Participants were asked to identify the three most important groups that public transportation in South Carolina should serve.

The five most important groups that community leaders and residents attending the Georgetown focus group thought public transportation should be designed to serve for the Waccamaw region is listed below.

#### ***Waccamaw Region***

##### ***Among LEADERS***

<u>Rank</u>	<u>Groups to Serve</u>
1.	Low income (those without cars)
2.	Elderly/senior citizens
3.	Persons with disabilities
4.	Commuters
5.	Tourists

##### ***Among RESIDENTS***

<u>Rank</u>	<u>Groups to Serve</u>
1.	Everyone
2.	Elderly/senior citizens
3.	Persons with disabilities
4.	Commuters
5.	Shoppers

#### 3.1.2 Preferred Funding Mechanisms for Public Transportation

Participants in each focus group were given time to brainstorm a list of possible funding sources for new or expanded public transportation services in South Carolina. The five sources of funding that were preferred most by residents and leaders in the Waccamaw region are listed below.



**Waccamaw Region**

**Among LEADERS**

<u>Rank</u>	<u>Funding Mechanisms</u>
1.	Gas tax
2.	Federal grants
3.	Federal highway authority
4.	Vehicle sales tax
5.	Reallocation of DOT funds

**Among RESIDENTS**

<u>Rank</u>	<u>Funding Mechanisms</u>
1.	User fees
2.	Grants
3.	Business tax
4.	Lottery
5.	Gas tax

**3.2 Statewide Survey Report – Waccamaw Region Results**

**3.2.1 Purpose and Methodology**

ETC Institute conducted a statewide public transportation survey for the South Carolina Department of Transportation (SCDOT) during March of 2007. The purpose of the survey was to gather input from the state’s residents to help improve public transportation services in South Carolina.

**3.2.2 Major Findings**

This section provides the major findings provided by respondents from the Waccamaw region.

**Availability of Public Transportation (at the community level).** One-third (34%) of respondents reported that public transportation services are currently available in their community. When asked to rate the overall availability of public transportation in the community where respondents live most (52%) gave a “poor” rating. Nearly one-third (32%) of respondents could not give a rating because they were not familiar with the services available in their community; 10% of respondents indicated that the availability of public transportation in their community was “average” and 6% either “excellent” or “good.”

**Availability of Public Transportation (statewide).** When asked to rate the overall availability of public transportation throughout the state of South Carolina most respondents (41%) indicated that they could not give a rating because they were not familiar with the services available. Nine percent (9%) of respondents indicated that the availability of public transportation in South Carolina was either “excellent” or “good;” 17% indicated “average” and 33% “poor.”

**Public Transportation Usage in South Carolina.** Seventeen percent (17%) of respondents reported that they have used public transportation services in the state of South Carolina. More than three-fourths (81%) of respondents have not used public transportation services in South Carolina. The remaining two percent (2%) did not have an opinion.

**Types of Groups Public Transportation Should Serve.** When asked to choose the groups that public transportation should serve in the state of South Carolina



most respondents selected persons without cars and low income individuals. The next most important group respondents felt public transportation should serve was commuters, followed by seniors, persons with disabilities, and tourists.

**Types of Public Transportation Household Members Would Likely Use.** More than half (52%) of respondents indicated that members of their household would be “very likely” or “likely” to use door-to-door shuttle service. Forty-one percent (41%) of respondents also indicated that members of their household would be “very likely” or “likely” to use commuter rail service. Other types of public transportation services household members would “very likely” or “likely” use include: bus service that operates on fixed routes (39%), high speed trolley (37%), intercity bus service (35%) and park-and-ride service (34%).

**Public Transportation Priorities.** More than ninety percent (94%) of respondents indicated that maintaining existing roads and highways were either “very important” or “important.” Building new roads and highways was selected by forty-nine percent (49%) of respondents as the most important transportation priority. Maintaining existing roads and highways was the second most important transportation priority followed by adding capacity to existing roads and highways.

**Public Transportation Funding.** Seventy-five percent (75%) of respondents from the Waccamaw region indicated that they thought the level of funding for public transportation in South Carolina should increase over the next five years. Fifteen percent (15%) of respondents thought funding should stay the same, 5% thought it should be reduced and 4% did not have an opinion. See Figure 6.

In addition to the high percentage of acceptance for increasing public transportation funding over the next five years, respondents were also generally supportive of the three types of funding mechanisms discussed in the survey. For example, two-thirds (68%) of respondents were either “very supportive” or “supportive” of the State government funding the expansion of public transportation services in South Carolina. High levels of support were also evident for utilizing user fees (61% of respondents were “very supportive” or “supportive”) and for local governments i.e. cities and counties (57% of respondents were “very supportive” or “supportive”) funding the expansion of public transportation services in South Carolina.

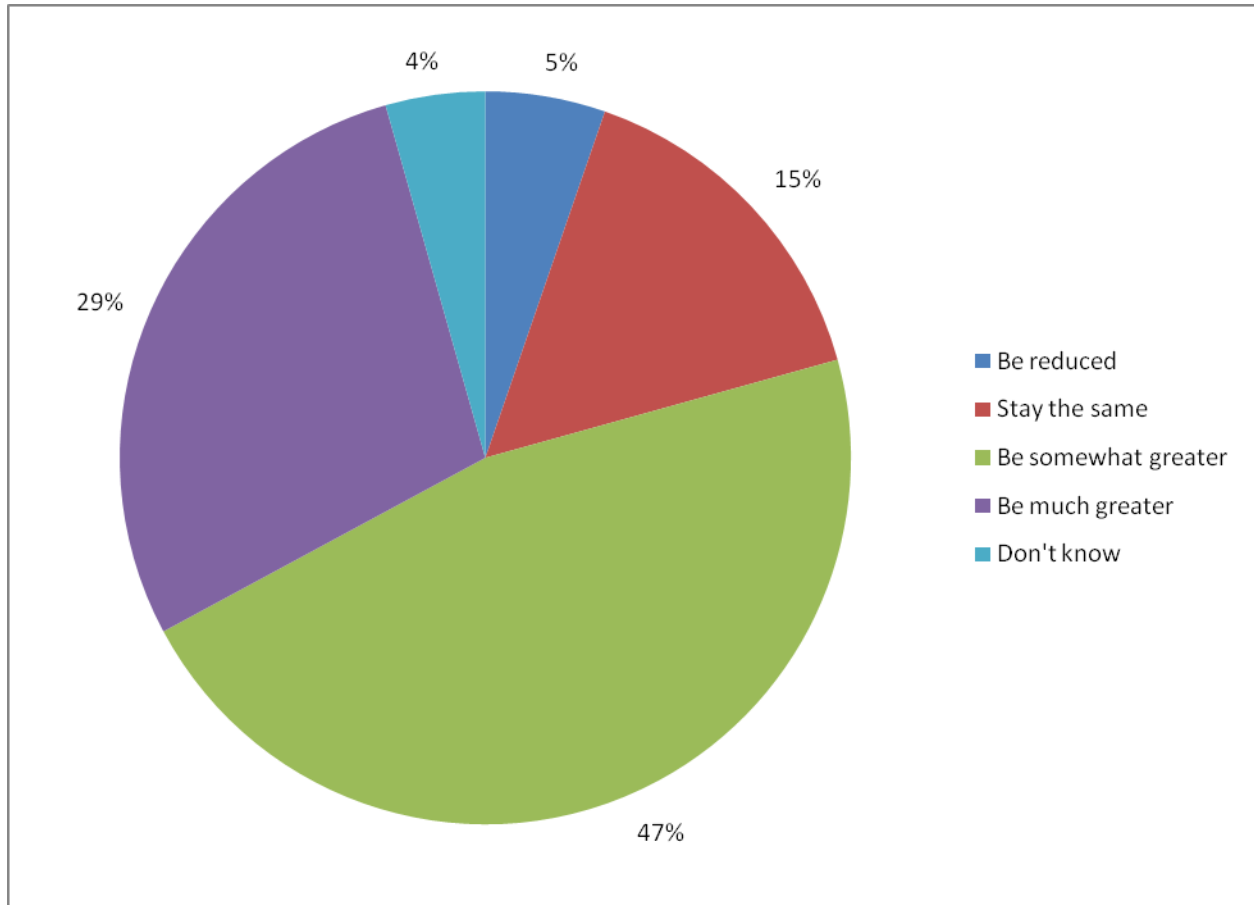
### 3.2.3 Other Findings

- **Increasing Usage.** Half (50%) of the respondents reported that if transit stops were located closer to their home it would “very likely” or “likely” encourage them to begin using public transportation.
- **Locations Public Transportation Serve.** Only eleven percent (11%) of respondents indicated that the locations public transportation serves are adequate.



Figure 6: Respondents' Attitudes towards Funding Public Transportation

How do you think the current level of funding for public transportation (e.g., bus, rail) in South Carolina should change over the next five years?



Source: ETC 2007

- **Safety of Public Transportation.** Fifty-seven percent (57%) of respondents indicated that they thought public transportation is safe to use in the state of South Carolina.



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## Section 4: Vision for Transit in South Carolina

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### 4.1 Purpose of Vision

The development of a statewide plan is much more than simply a compilation of regional plans. As part of the statewide plan, the regional differences in goals and visions were acknowledged, but emphasis was placed on the visions that are common to all regions in South Carolina. In addition, “statewide” goals were identified that are not related to specific regions. For example, a “statewide” goal could be to establish general public transit service in every county, which must occur before “seamless transportation” can be a reality. Other goals could relate to establishing new funding sources, improving the image of transit, developing a framework for additional coordination of services, and other common interests. A focus must be placed on common themes across the state that stakeholders can use as rallying points. Regional initiatives should reflect local needs as well as support the overall statewide vision. The following section is the resulting “vision” for the State of South Carolina that was developed as part of the study process.

### 4.2 Vision

#### *Public Transit—Connecting Our Communities*

Public transit, connecting people and places through multiple-passenger, land or water-based means, will contribute to the state’s continued economic growth through a dedicated and sound investment approach as a viable mobility option accessible to all South Carolina residents and visitors.

#### *Economic Growth*

- Recognize and promote public transit as a key component of economic development initiatives, such as linking workers to jobs, supporting tourism, and accommodating the growth of South Carolina as a retirement destination through public / private partnerships.
- Enhance the image of public transit through a comprehensive and continuing marketing / education program that illustrates the benefits of quality transit services.

#### *Sound Investment Approach*

- Ensure stewardship of public transit investments through a defined oversight program.
- Increase dedicated state public transit funding to \$35 million by 2030.
- Make public transit reasonable and affordable by encouraging more local investment and promoting coordinated land use / transportation planning at the local level.



- Utilize an incremental approach to new public transit investments that recognizes funding constraints and the need to maintain existing services.

#### *Viability of Transit*

- Provide quality, affordable public transit services using safe, clean, comfortable, reliable, and well-maintained vehicles.
- Increase statewide public transit ridership by 5% annually through 2030.
- Utilize different modes of public transit including bus, rail, vanpool / carpool, ferry, and other appropriate technologies, corresponding to the level of demand.

#### *Accessibility to All*

- Provide an appropriate level of public transit in all 46 South Carolina counties by 2020 that supports intermodal connectivity.
- Develop and implement a coordinated interagency human services transportation delivery network.



## **Section 5: Regional Transit Needs**

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In this section, an overview of five methods for estimating rural and urban transit demand are discussed and applied. “Need” is expressed for South Carolina’s COG regions. In the individual regional plans “needs” will be expressed at the county level.

### **5.0.1 Arkansas Public Transportation Needs Assessment (APTNA) Method**

The APTNA method represents the proportional demand for transit service by applying trip rates to three population groups: the elderly, the disabled, and individuals living in poverty. The trip rates from the method are applied to population levels in a given community.

### **5.0.2 Mobility Gap Method**

The Mobility Gap method measures the mobility difference between households with a vehicle(s) and households without a vehicle. The concept assumes that the difference in travel between the two groups is the demand for transit among households without a vehicle.

## **5.1 Methods Selection for South Carolina**

Based upon the methodology selection criteria, the available data resources, and the timeframe and resources acceptable for conducting the demand estimate model, the Mobility Gap and APTNA methods tied and were recommended as the preferred methodologies for estimation of transit demand in the State of South Carolina. The data used for both methods is by and large realistically obtainable for the State of South Carolina. The method is also best suited for future State monitoring of transit demand.

## **5.2 Application of Methods**

The APTNA and Mobility Gap methods rely on reliable demographic and traveler information. The demographic characteristics of specified incorporated areas were summed to derive the urban populations within all South Carolina counties and these urban areas were subtracted from the total county population to derive the rural population.

2000 Census Summary Files,

- SF1, Table P12: Sex by Age.
- SF3, Table PCT 26: Age by Types of Disability.
- SF3, PCT 34: Sex by Age by Disability Status by Poverty Status.
- SF3, Table P87: Poverty Status by Age.
- SF3, Table H45: Vehicle Availability.



The assumptions for population trends were for all population groups in this method. These figures came from the South Carolina Department of Transportation. The results of the following methods are discussed.

### 5.2.1 Arkansas Public Transportation Needs Assessment (APTNA) Method

The Arkansas Public Transportation Needs Assessment (APTNA) method represents the proportional transit demand of an area by applying trip rates to three key markets: individuals greater than 65 years old, individuals with disabilities above the poverty level under age 65, and individuals living in poverty under age 65. The table below shows the population groups.

Table 7: Rural & Urban Population Groups Used in APTNA Method

	Elderly (Over 65)			Disabled (Under 65)			Poverty (Under 65)		
	2010	2020	2030	2010	2020	2030	2010	2020	2030
Georgetown County	9,654	10,739	11,854	2,283	2,539	2,803	9,426	10,486	11,575
Horry County	16,039	19,149	22,224	8,443	10,080	11,699	14,566	17,390	20,183
Williamsburg County	4,703	4,667	4,580	1,734	1,721	1,689	8,712	8,646	8,485
Rural	30,396	34,555	38,659	12,459	14,340	16,190	32,704	36,521	40,243
Urban - Horry County	20,316	24,255	28,150	7,525	8,984	10,426	11,106	13,260	15,389
Waccamaw COG	50,711	58,810	66,809	19,984	23,323	26,617	43,810	49,781	55,632

In the APTNA method, trip generation rates represent the resulting ridership if a high quality of service were provided. The trip rates for the APTNA method were calculated using the 2001 National Household Travel Survey (NHTS). The trip rates came from the South Region (Alabama, Arkansas, Delaware, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Virginia and West Virginia excluding Florida, Kentucky, Maryland and Texas). Table 8 below shows the sample sized used for each population group.

Table 8: 2001 National Household Transportation Survey (APTNA) Data

	Rural			Urban		
	Household	Person	Day Trip	Household	Person	Day Trip
Disabled	343	381	2,787	127	139	1,209
Elderly	681	1,114	3,732	387	600	2,226
Poverty	197	518	1,485	86	227	778
<b>Sample</b>	1,221	2,013	8,004	600	966	4,213
<b>Population</b>	1,858	4,290	16,367	3,090	6,850	29,343

Source: Data by NHTS

The original APTNA trip rates were 8.4 for the population above 65 years of age, 3.0 for people from five to 65 years of age with disabilities above the poverty level, and 14.0 for people from five to 65 years of age below the poverty level. The NHTS gave trip rates of 5.8 (rural) and 6.2 (urban) for the population above 65 years of age, 12.3 (rural) and 12.2 (urban) for people from 5 to 65 with disabilities above the poverty level, and 13.8 (rural) and 11.8 (urban) for people below the poverty level.



To derive transit demand, the following equations are used:

$$D_{(Rural)} = 5.8(P_{65+}) + 12.3(P_{DIS<65}) + 13.8(P_{POV})$$

$$D_{(Urban)} = 6.2(P_{65+}) + 12.2(P_{DIS<65}) + 11.8(P_{POV})$$

Where, *D* is demand for one-way passenger trips per year,

*P<sub>60+</sub>* is the population of individuals 65 years old and older,

*P<sub>DIS<60</sub>* is the population of individuals with disabilities under age 65,  
and

*P<sub>POV</sub>* is the population of individuals under age 65 living in poverty.

After applying the trip rates for each population group, we find the population below 65 years of age and living in poverty is projected to have the highest ridership potentials for both rural and urban Waccamaw counties. The second highest projected ridership levels come from the elderly population for all counties except rural Horry County, which has the disabled as the second highest. The disabled population has the highest trip rate but the lowest population for the majority of rural and all urban Waccamaw, thus giving this population group the least projected ridership potential, yet this population group may be the most reliant on transit.

Table 9 shows the daily and annual ridership projections. The daily transit trips are 3,095 for the year 2010 and 4,006 for 2030. The annual transit trips are projected to be 1.1 million for 2010 and 1.5 million for 2030.

Table 9: Estimated Annual & Daily Transit Demand: APTNA Method

	Annual			Daily		
	2010	2020	2030	2010	2020	2030
Georgetown County	214,146	238,217	262,963	587	653	720
Horry County	397,883	475,026	551,315	1,090	1,301	1,510
Williamsburg County	168,822	167,548	164,433	463	459	451
Rural	780,852	880,792	978,711	2,139	2,413	2,681
Urban - Horry County	348,814	416,444	483,324	956	1,141	1,324
Waccamaw COG	1,129,666	1,297,236	1,462,035	3,095	3,554	4,006

### 5.2.2 Mobility Gap Method

The Mobility Gap method measures the difference in the household trip rate between households with vehicles available and households without vehicles available. Because households with vehicles travel more than households without vehicles, the difference in trip rates is the mobility gap. This method shows total demand for zero-vehicle household trips by a variety of modes including transit.

This method uses data that is easily obtainable, yet is stratified to address different groups of users: the elderly, the young, and those with and without vehicles. The



data may be analyzed at the county level, and based upon the stratified user-groups; the method produces results applicable to the State and at a realistic level of detail.

The primary strength of this method is that it is based upon data that is easily available: household data and trip rate data for households with and without vehicles. Population and household data were obtained from 2000 U.S. Census. Table 10 shows the rural and urban households (by age group) in the Waccamaw region without vehicles, based upon Census information. For the purposes of this study, a household that is in the 15 and 64 years of age group has no one residing in the household who is over 65 years of age. A household in the over 65 years of age group has at least one person over the age of 65 living in that household (even if other members are less than 65 years of age).

Table 10: Households With No Vehicle Available: 2010 to 2030

	Households (15 to 64)			Households (Over 65)		
	2010	2020	2030	2010	2020	2030
Georgetown County	1,499	1,668	1,841	971	1,080	1,192
Horry County	2,028	2,422	2,810	1,065	1,271	1,475
Williamsburg County	1,428	1,417	1,391	651	646	634
Rural	4,956	5,507	6,043	2,686	2,997	3,301
Urban - Horry County	2,418	2,887	3,351	1,047	1,250	1,451
Waccamaw COG	7,374	8,394	9,394	3,734	4,247	4,753

Rural and urban trip rate data were derived from the National Household Travel Survey (NHTS) at the South Region level to be consistent in the way the APTNA trip rates were derived. Table 11 below shows the total sample size in the South Region for vehicles available.

Table 11: 2001 National Household Travel Survey Mobility Gap Data

	Rural			Urban		
	Household	Person	Day Trip	Household	Person	Day Trip
No Vehicle (15 to 64)	30	46	85	87	130	432
No Vehicle 65+	38	46	86	82	96	216
Vehicle (15 to 64)	1,423	2,743	9,255	2,340	4,370	16,830
Vehicle 65+	367	619	4,229	581	953	7,165
<b>Total</b>	1,858	3,454	13,655	3,090	5,549	24,643
<b>Area Totals</b>	1,858	4,290	16,367	3,090	6,850	29,343

**Source:** Data by NHTS

For the Mobility Gap method, the trip rates for households with vehicles serves as the target for those households without vehicles, and the “gap” (the difference in trip rates) is the amount of transit service needed to allow equal mobility between households with zero vehicles and households with one or more vehicles. The assumption of this method is that people without vehicles will travel as much as



people who have vehicles, which is the transit demand. The basic equation used in the Mobility Gap method is:

$$\text{Mobility Gap} = \text{Trip Rate}_{\text{HH w/Vehicle}} - \text{Trip Rate}_{\text{HH w/out Vehicle}}$$

Where, “HH w/ Vehicle” represents households with one or more vehicles, and “HH w/out Vehicle” represents households without a vehicle.

Table 12 shows that for households with people age 65 and older, a rural mobility gap of 5.88 and an urban mobility gap of 7.40 person-trips per day per household exist between households with and without an automobile. For households with individuals between the age of 15 and 64, a rural mobility gap of 5.99 and an urban mobility gap of 0.74 person-trips per day per household exists between households with and without an automobile.

Table 12: Mobility Gap Calculations

	Vehicle Trip Rates				Mobility Gap	
	Rural		Urban		Rural	Urban
	None	One or More	None	One or More		
Age 15 to 64	4.09	10.09	7.62	8.36	5.99	0.74
Age 65 or Older	1.76	7.64	2.57	9.97	5.88	7.40

Source: Data by NHTS

Using this methodology, the number of transit trips needed to serve the demand is therefore equivalent to the mobility gap multiplied by the number of households without a vehicle and adjusted by the estimated share of those trips (63 percent) that could be met by transit. The 63 percent is based on Census Journey-to-Work mode share data for the state, which tells us that 0.63 percent of all work related trips for South Carolina are transit related (specifically bus or trolley). We then multiplied the mode share by a factor of 100 to obtain the 63 percent (100 percent service) used to estimate rural transit demand. The formula, therefore, is:

$$\text{Estimated Transit Demand} = (\text{Mobility Gap}) \times (\text{\#HH w/o Vehicle}) \times (\text{Unmet Need})$$

Using the Census 2000 household data (Table 10) and the appropriate Mobility Gap trip rate (Table 12), the estimated demand was calculated for each county in the Waccamaw region. Table 13 shows daily demand for 2010, 2020 and 2030. The statewide demand is 34,684, 39,081 and 43,386 person-trips per day respectively. Table 13 shows that the Mobility Gap method estimates statewide transit demand (based upon 365 days of service) at 12.7 million person-trips per year for 2010, 14.3 million for 2020 and 15.8 million for 2030.



Table 13: Estimated Annual & Daily Transit Demand: Mobility Gap

	Annual			Daily		
	2010	2020	2030	2010	2020	2030
Georgetown County	3,380,013	3,759,946	4,150,520	9,260	10,301	11,371
Horry County	4,235,697	5,056,932	5,869,066	11,605	13,855	16,080
Williamsburg County	2,848,771	2,827,268	2,774,705	7,805	7,746	7,602
Rural	10,464,482	11,644,146	12,794,291	28,670	31,902	35,053
Urban - Horry County	2,195,021	2,620,601	3,041,464	6,014	7,180	8,333
Waccamaw COG	12,659,503	14,264,747	15,835,755	34,684	39,081	43,386

**5.2.3 Comparison of Results**

The transit demand results estimated by the two methods show a substantial difference in the range of transit service required in the Waccamaw region. The APTNA method estimates annual transit demand at 1.1 million person-trips per year for 2010 and 1.5 million for 2030, while the Mobility Gap method estimates annual transit demand at 12.7 million person-trips per year for 2010 and 15.8 million for 2030. Both estimates, however, indicate that the current level of reported transit service provided in the Waccamaw region (1.29 million person-trips per year) falls short of the estimated transit demand. Based upon the Mobility Gap estimate, Waccamaw is currently providing transit service for 10.6 percent of the estimated demand.

Key differences exist between the two models' assumptions. The APTNA Method was derived specifically for the estimation of transit demand, assuming a high-quality level of service is provided. Transit demand, as estimated by the APTNA method is based upon three population groups: the elderly, the disabled and those living in poverty.

Conversely, the Mobility Gap method estimates the additional trips that might be taken by households without a vehicle if an additional mode of transportation were provided, such as transit. The Mobility Gap method estimates transportation demand that could be served by transit. However, these trips might also be served by other modes. Therefore, the Mobility Gap method estimates an "ultimate" demand.

The APTNA method's estimate for urban transit need is not realistic, and the Mobility Gap method for estimating urban transit need is too overstated. After much consideration, we decided to modify each method's estimate of urban need to produce a more realistic estimate. Using professional judgment, this was done by multiplying the APTNA method urban county estimates by 75 percent and the Mobility Gap urban county estimate by 25 percent for small urban areas (Horry). Since rural transit needs were more realistic, the APTNA method rural estimates were used. Table 14 shows the results of the adjustments made to Waccamaw's transit needs.



Table 14: Estimated Annual & Daily Transit Demand: Adjusted Needs (Per Formula)

	Annual			Daily		
	2010	2020	2030	2010	2020	2030
Georgetown County	214,146	238,217	262,963	587	653	720
Horry County	397,883	475,026	551,315	1,090	1,301	1,510
Williamsburg County	168,822	167,548	164,433	463	459	451
Rural	780,852	880,792	978,711	2,139	2,413	2,681
Urban - Horry County	810,366	967,483	1,122,859	2,220	2,651	3,076
Waccamaw COG	1,591,218	1,848,275	2,101,570	4,360	5,064	5,758

The Adjusted Needs (Per Formula) projects daily demand to be 4,360 for 2010, and 5,758 for 2030. The annual demand is about 1.6 million for 2010 and 2.1 million for 2030. As mentioned earlier, Waccamaw had 1.29 million person-trips per year for 2005. The Adjusted Needs (Per Formula) estimate for 2005 shows that current level of reported transit service provided in this region still falls short. However, the percent of need met for urban demand changed from 148 percent (APTNA) and 23.5 percent (Mobility Gap) to a more reasonable 63.7 percent. This also made the overall needs being met to 64.1 percent instead of 119.9 percent (APTNA) and 10.6 percent (Mobility Gap). The rural needs being met remained the same at 38.5 percent.

Table 15 summarizes the two methodologies' results and primary assumptions and the adjusted method as well.

Table 15: Comparison of Results for Estimated Rural & Urban Transit Demand

Demand	APTNA Method			Mobility Gap Method			Adjusted Needs (Per Formula)			
	2010	2020	2030	2010	2020	2030	2010	2020	2030	
Rural	Daily	2,139	2,413	2,681	28,670	31,902	35,053	2,139	2,413	2,681
	Annual	780,852	880,792	978,711	10,464,482	11,644,146	12,794,291	780,852	880,792	978,711
Urban	Daily	956	1,141	1,324	6,014	7,180	8,333	2,220	2,651	3,076
	Annual	348,814	416,444	483,324	2,195,021	2,620,601	3,041,464	810,366	967,483	1,122,859
COG	Daily	3,095	3,554	4,006	34,684	39,081	43,386	4,360	5,064	5,758
	Annual	1,129,666	1,297,236	1,462,035	12,659,503	14,264,747	15,835,755	1,591,218	1,848,275	2,101,570
Data Sources	65 Years Old or Older Under 65 Years Old With A Disability Under 65 Years Old Living In Poverty			Individuals With A Vehicle Not Available Individuals With A Vehicle Available			Rural: APTNA (100%) & MG (0%) Small Urban: APTNA (75%) MG (25%) Large Urban: APTNA (50%) MG (50%)			
Quality	Trips If All Groups Were Served			Additional Trips Filled By Transit Service			Advantages of Both Methods			
Type of Demand	Elderly, Disabled & Poverty Demand			Persons Without Vehicles Demand			Percentage of Both Methods			

A comparison with the current level of transit service in Waccamaw (1.29 million person-trips per year) suggest that the Adjusted Needs (Per Formula) method represents a realistic estimate for existing transit demand, while the estimate provided by the APTNA method is a low-end goal and the Mobility Gap method is a "high-end" goal for the region. To verify the legitimacy of the model's estimated results for transit demand, a transit mode share analysis and a comparison of ridership statistics were performed.



### 5.3 Transit Demand Validation

Two techniques were used to help validate the results for calculating rural and urban transit demand. First, the transit demand estimates for the APTNA and Mobility Gap methods were compared with transit mode-splits for rural and urban Waccamaw. Second, per capita ridership was compared with states deemed, respectively, as having well regarded rural transit programs and urban services.

#### 5.3.1 Modal Split Analysis

The mode-split analysis compared the transit demand estimates with the estimated regional annual transportation mode share for Waccamaw for bus and trolleys. In this manner, the estimated demand for rural and urban transit (i.e. Waccamaw's estimated transit mode share for rural areas) was compared with the Waccamaw's total rural and urban travel patterns.

The first task was to estimate the State's total rural and urban travel demand for all modes. The statewide travel demand for all transportation modes was estimated at 6.77 billion one-way person-trips per year. This estimate reflects travel for all individuals age 15 and older for *all modes* of travel in South Carolina. The estimate was based upon the trip rates produced from the 2001 Nationwide Household Travel Survey (NHTS) data for all South Carolina households.

Census 2000 estimates show that the rural Waccamaw population consists of approximately 154,810 people age 15 and older, and an urban population of 79,722. Based upon the statewide annual travel estimate of 6.77 billion one-way person-trips per year and weighting by the total state rural and urban population, people in rural areas take approximately 8.87 trips per day, while people in urban areas take about 17.22 trips per day, a reasonable estimate for the rural and urban Waccamaw average.

Table 16 compares the recommended range of estimated transit demand (for 2005) with the statewide travel demand estimate in annual person trips. As the table shows, the preliminary results of the rural APTNA method and the Mobility Gap method represent a mode split of 0.012 and 0.155 percent, respectively, while the urban mode split is 0.005 and 0.032 percent respectively. The Adjusted Needs method's rural mode split is the same as the APTNA's because no changes were made to rural transit estimates, but the urban portion reflects the changes made resulting in a more realistic mode split of 0.012 percent.

Various mode-split statistics for Waccamaw were used for comparison with the mode split ratios for transit demand and are shown in Table 16. A work trip mode-split from Census 2000 as well as an estimation of transit mode split for total rural and urban trips derived from the NHTS (Statewide) was calculated. The Census 2000 indicates that rural and urban transit travelers in Waccamaw make up 0.049 and 0.007 percent respectively of total *work* trips in the rural and urban parts of



Waccamaw. The NHTS analysis shows that rural travels make up 0.80 percent of *total* rural trips, while urban trips make up 0.56 percent.

Table 16: Estimated Rural & Urban Transit Demand by State Total

	<b>APTNA</b>	<b>Mobility Gap</b>	<b>Adjusted Needs</b>	<b>Means of Transportation</b>
Rural Need	780,852	10,464,482	780,852	NA
Urban Need	348,814	2,195,021	810,366	NA
South Carolina Person Trips	6,771,409,100	6,771,409,100	6,771,409,100	NA
<b>Demand to Person Trips (Rural)</b>	<b>0.012%</b>	<b>0.155%</b>	<b>0.012%</b>	<b>0.049%</b>
<b>Demand to Person Trips (Urban)</b>	<b>0.005%</b>	<b>0.032%</b>	<b>0.012%</b>	<b>0.007%</b>

For the work trip mode split, the Mobility Gap is significantly higher for rural and urban areas; the APTNA is slightly lower than the rural and urban level, while the Adjusted Needs is slightly higher for urban areas. For the total trip mode split, the Adjusted Needs, APTNA and Mobility Gap are significantly lower for both rural and urban.

This review of the mode split statistics suggests that the Adjusted Needs method is a more realistic approximation of Waccamaw travel characteristics.

### 5.3.2 Recommended Demand Estimation Methodology

The Adjusted Needs method produced results more in line with current experience, and appeared to be logical with both the modal split comparison provided in Table 16 and the comparison with model states provided in Table 15 of the Statewide Transit Plan. Therefore, it was recommended that the Adjusted Needs method be used for quantifying rural and urban transit demand in Waccamaw.

## 5.4 Quantifying Transit Need

Based on the transit demand projections provided in section 5.3, this section analyzes the strategies to meet the current and future demand, and estimates the costs involved, including operating cost, vehicle expansion and replacement cost, and facility cost.

Operating cost is defined based on transit subsidy, or the cost of operating services less fare box revenue. The vehicle cost is defined in terms of numbers of vehicles purchased and the cost of each purchase. The facility cost is assumed to be related to the number of vehicles an operator has, and whether the operator is an existing one or a newly started one. All cost calculations use year 2005 constant dollars.

### 5.4.1 Transit Need in the Region

For the purpose of estimating costs, a targeted level of transit need was required based on the predicted level of demand. Demand was forecasted using three



methods described in Section 5.2: Mobility Gap method, Arkansas Public Transportation Needs Assessment (APTNA) method, and the Adjusted Needs (Per Formula) method. The Adjusted Needs method was selected as the targeted level of demand in cost calculation. This method is selected because it is somewhat in the mid-range of the other two methods and represents a significant increase in transit services in most of the counties compared with existing services. The Adjusted Needs estimate would seem to present an achievable goal in comparison with the much higher, upper limit of the transit demand predicted by the Mobility Gap method.

Based on the Adjusted Needs forecast, the total transit demand in 2005 was estimated at 1.3 million one-way person trips. In the same year, 1.3 million trips were provided. The average percentage of demand met is 100 percent. To meet the current transit need, no additional trips are needed. This is shown in Figure 7. The demand forecast shows that by 2030, the estimated transit demand will exceed 2.4 million trips. Among those trips, 1.3 million will be demand for the existing rural transit systems and 1.1 million will be demand for existing urban transit systems.

Figure 7: Existing Service & Transit Need

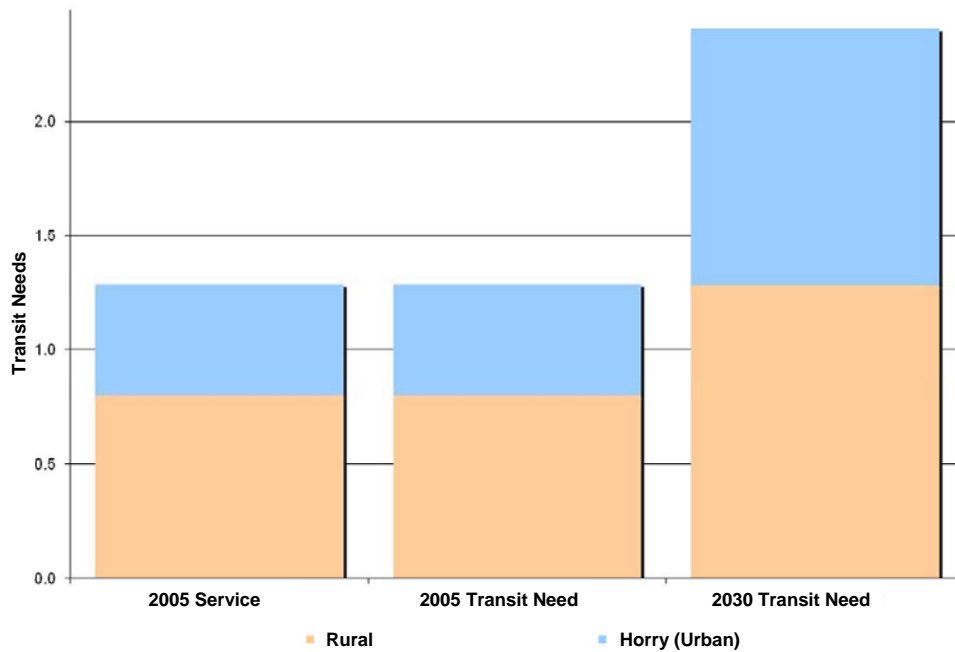


Table 17 shows the 2005 estimated and 2030 forecasted transit need for the rural and urban portions of Waccamaw. The existing service is based on data provided by SCDOT for FY 2005. The 2005 and 2030 transit needs are from the Adjusted Needs forecast. The 2005 unmet need is the difference between predicted transit need and the existing service. Using the data in the table, 100 percent of Waccamaw’s urban needs and 100 percent of Waccamaw’s rural needs are being met.



Since the demand is forecasted on a county level, the distribution of the demand to each individual transit operator was based on the year 2005 SCDOT data reports. These reports give the information on the counties an operator serves and the current ridership.

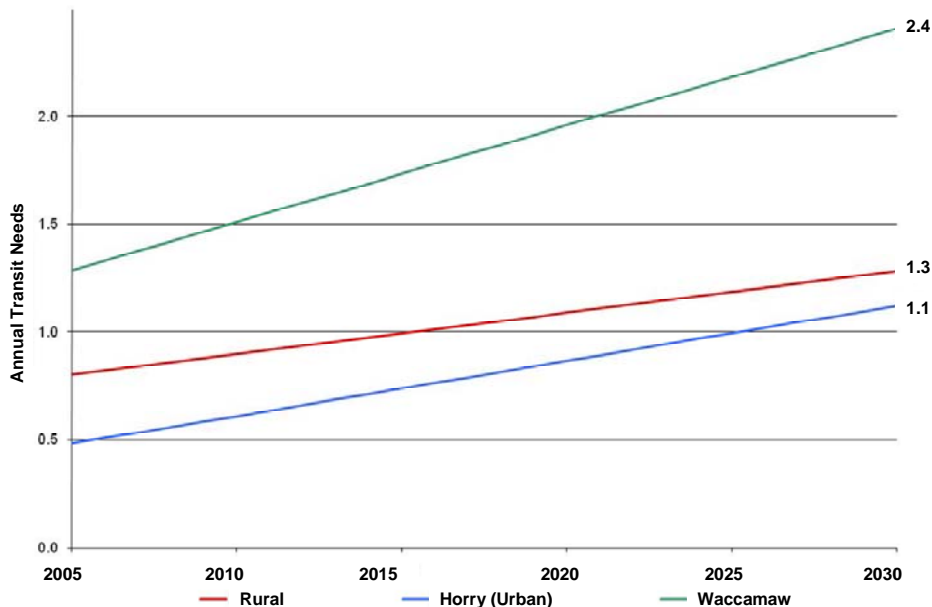
Table 17: 2005 and 2030 Transit Need

	2005 Service	2005 Transit Need	% of Need Met	2030 Transit Need
Georgetown County	220,152	220,152	100%	347,047
Horry County	409,041	409,041	100%	701,011
Williamsburg County	173,557	173,557	100%	235,184
Rural	802,750	802,750	100%	1,283,242
Horry (Urban)	484,353	484,353	100%	1,122,859
Total WCOG	1,287,103	1,287,103	100%	2,406,101

*(In One-Way Annual Passenger Trips)*

To meet the unmet demand, our general assumption is that service will not decrease, even if demand goes down. For counties for which the current predicted demand is higher than the service provided, we gradually increase services between years 2005 and 2030 until needs are met. This is accomplished by a uniform annual increase. To meet the goal, for the existing systems, overall, they should provide an equivalent of 45,000 additional one-way person trips service annually.

Figure 8: Transit Need and Strategy to Meet: 2005 to 2030



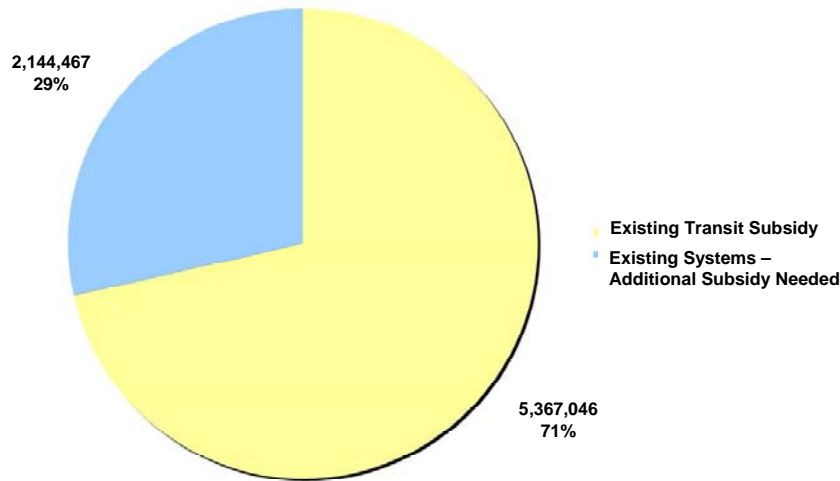
### 5.4.2 Transit Net Operating Costs

For the existing systems, to meet all their demand in 2005, \$7.5 million in operating subsidies (operating costs minus fare revenue) are needed. Comparing to the current subsidy of \$5.4 million, \$2.1 million in additional subsidy is required. This is



shown in Figure 9. It must be noted that this only gives the estimation to meet all the demand in 2005. In terms of implementation, not all the subsidy is required in place at the beginning, as discussed later.

Figure 9: Estimate of Subsidy Needed for 2005



In the year 2030, to meet all the demand, the predicted subsidy is \$13.5 million (\$4.5 million for the existing rural transit systems and \$9 million for existing urban transit systems).

Table 18 shows the year 2005 estimated and year 2030 forecasted transit subsidy for the rural and urban counties. The existing subsidy is estimated based on the data provided by SCDOT for FY 2005. The 2005 subsidy is based on the predicted transit need, and the unit subsidy per person-trip from the existing subsidy estimation. Similarly, 2030 subsidy is also calculated based on the unit subsidy and the predicted demand at that time.

Table 18: Transit Subsidy for 2005 & 2030

	2005 Existing	2005 Need	% of Need Met	2030 Need Subsidy
Georgetown County	\$714,408	\$958,168	75%	1,221,315
Horry County	\$1,327,369	\$1,779,028	75%	2,519,758
Williamsburg County	\$563,205	\$755,811	75%	789,565
<b>Total Rural</b>	<b>\$2,604,982</b>	<b>\$3,493,008</b>	<b>75%</b>	<b>4,530,638</b>
Horry County (Urban)	\$2,762,064	\$4,018,505	69%	9,044,625
<b>Total WCOG</b>	<b>\$5,367,046</b>	<b>\$7,511,513</b>	<b>71%</b>	<b>13,575,263</b>

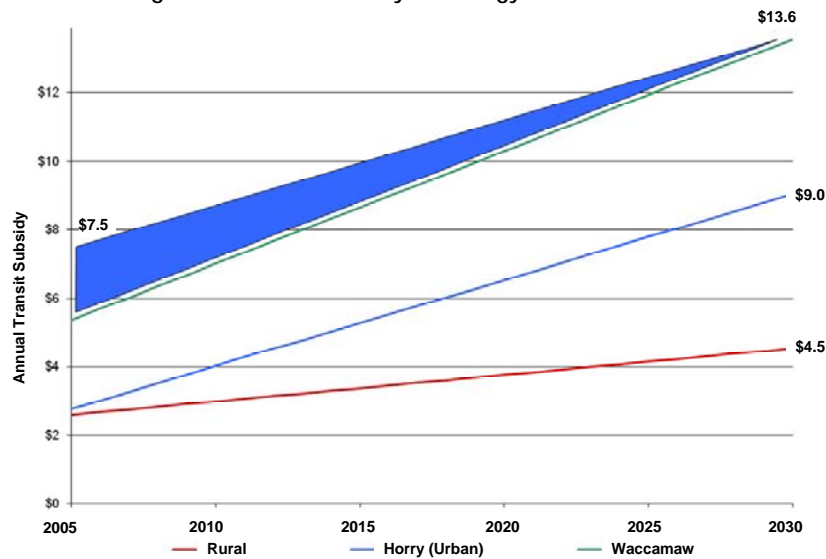
*(Subsidy = Operating Cost – Farebox Revenue)*

The total \$7.5 million in operating subsidy is estimated to meet all the 1.3 million one-way trips for 2005, and \$13.5 million (in year 2005 dollars) is projected to meet all the 2.4 million one-way trips to meet the expected 2030 transit need. However, as assumed, not all the demand is going to be met at the beginning. The actual



subsidy required for 2008 (since 2005 is past and we only distribute the unmet subsidy from 2005 through 2030, by a 25-year period) is \$6.3 million (\$2.8 million for existing rural systems and \$3.5 million for existing urban systems). Then the subsidy is increased by a uniform rise annually to reach the goal of meeting all the demand in the year 2030. In this case, the annual subsidy increase should be \$330,000 (\$80,000 for existing rural transit systems and \$250,000 for existing urban transit systems). Figure 10 shows how the transit need would be met by increasing subsidy gradually consistent with the sound, incremental approach to transit investments expressed previously in the statewide Vision for Transit (Section 4.2).

Figure 10: Transit Subsidy & Strategy to Meet: 2005 to 2030



### 5.4.3 Capital Needs

This section examines major capital needs including vehicles and facilities.

#### 5.4.3.1 Vehicle Needs

The following data and assumptions are used in vehicle estimation:

- The existing number of vehicles is based on data provided by SCDOT (FY 2005).
- Total vehicle requirement: based on transit demand forecast and vehicle production.

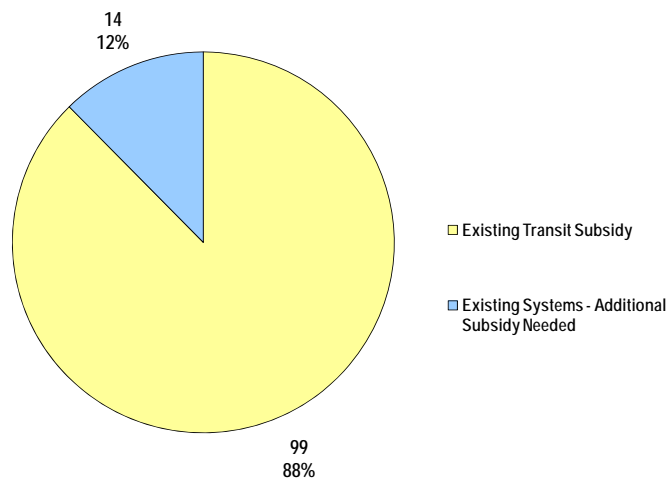


- A vehicle is added for every 15,300 new riders per year, which is based on the following assumptions:
  - Vehicle utilization is 5 riders per vehicle hour.<sup>1</sup>
  - Each vehicle operates 12 hours per day for 255 days per year.<sup>2</sup>
- Vehicles need to be replaced after 5-12 years in service.
- Between 2005 and 2030, the vehicle fleet size is increased as the level of transit service is increased. The fleet size is expanded at a rate that corresponds with the uniform annual demand increase according to the strategy to meet all the demand gradually from 2005 to 2030. This assumes that there will be no fleet size decrease over the 25 year period.
- The cost of each new vehicle purchase is assumed to be \$275,000 for Fixed Route vehicles, \$60,000 for Demand Response vehicles and \$30,000 for Human Resource vehicles and remain constant from 2005 to 2030.

Based on these assumptions, the overall vehicle needs for each year, the vehicles needed to be purchased and replaced, and the related costs were calculated and summarized as follows:

Through 2005, the existing service providers had 99 vehicles (67 rural and 32 urban) in total. To meet all the predicted demand in 2008, about 113 vehicles will be needed. Since the strategy is not to meet all the demand at once, the actual vehicles required in 2008 will be about 113 vehicles (81 for existing rural systems and 32 for existing urban systems). This equates to the number of vehicles needed to meet the level of 2008 need. The following Figure 11 shows the vehicle needs for 2008.

Figure 11: Vehicle Needs for 2008



The vehicles required to meet all the predicted need in 2030 will be 136 (104 for existing rural systems and 32 for existing urban systems). Table 19 shows the

<sup>1</sup> Consistent with existing Section 5311 operations

<sup>2</sup> 3,060 vehicle hours annually



vehicles needs to meet the predicted 2030 transit demand, and the vehicles needed in 2008.

Table 19: Vehicle Needs for 2008 & 2030

	2005 Existing	Needed in 2008	% of Need Met	Needed in 2030
Georgetown County	19	23	79%	29
Horry County	34	41	75%	55
Williamsburg County	14	17	85%	20
Total Rural	67	81	78%	104
Horry County (Urban)	32	32	100%	32
Total WCOG	99	113	83%	136

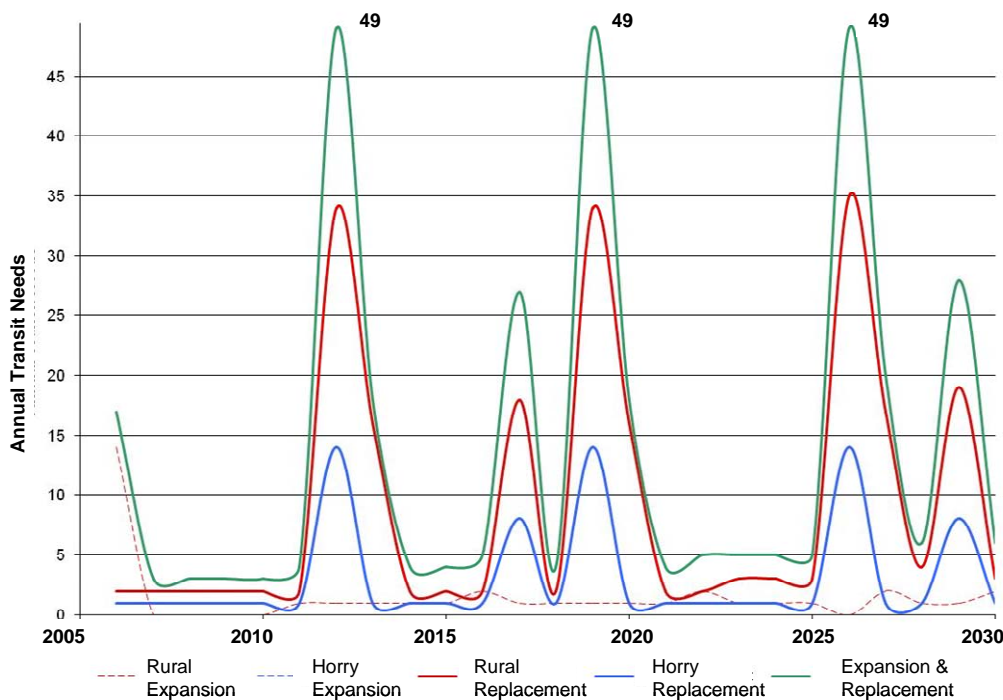
From 2005 to 2030, 37 vehicles will be purchased for fleet expansion, while 307 vehicles will be purchased for fleet replacement, adding up to the total purchase of 344 vehicles. The purchases and related costs are shown in Table 20.

Table 20: Vehicle Needs & Cost Over 25 Years

Units	Fleet Expansion Vehicles	Fleet Replacement Vehicles	Total Purchased Vehicles	Total Cost Millions of Dollars
Georgetown County	10	63	73	\$8,700,000
Horry County	21	120	141	\$17,525,000
Williamsburg County	6	46	52	\$5,930,000
Total Rural	37	229	266	\$32,155,000
Horry County (Urban)	0	78	78	\$12,525,000
Total WCOG	37	307	344	44,680,000

Figure 12 shows the vehicle capital expenditures between 2005 and 2030.

Figure 12: Vehicle Capital Expenditures Over 25 Years



**5.4.3.2 Facility Needs**

This analysis assumes that facility expansion or construction will be needed between 2005 and 2030 for existing and newly started transit systems. The amount of facility expansion or construction is assumed to be proportional to the number of vehicles required by each system. The capital costs for facility expansion and construction were categorized as having different level of cost requirements. Expansion is for the existing systems while construction is for the new systems. An exception is that an existing system expanding by 41 or more vehicles would be calculated at the construction cost. Table 21 gives the approximate cost based on the above assumptions:

Table 21: Facility Needs Assumptions Based Upon Fleet Size

Fleet Size	Expansion System	New Systems
0	\$0	\$0
1-10	\$875,000	\$1,750,000
11-40	\$1,500,000	\$3,000,000
41-80	\$2,750,000	\$5,500,000
81-160	\$4,625,000	\$9,250,000
161-320	\$8,375,000	\$16,750,000
Over 321	\$15,875,000	\$31,750,000

Facility costs are assumed at about \$280 a square foot for new construction. This assumes masonry or similar construction material and includes design fees, contingencies, project management as well as an allowance for land purchase at about \$44,000 an acre. A cost of about \$42 a square foot for expansion has been assumed and includes space for parking and fueling vehicles. No expansion of maintenance bays are assumed except in the expansion of a fleet by 41 or more vehicles.

Table 22 summarizes the total vehicle costs and facility costs.

Table 22: Vehicle & Facility Capital Costs: 2005 to 2030

	Vehicle Purchases	Vehicle Cost	Facility Cost	Total Cost
Georgetown County	73	\$8.7	\$4.6	\$13.3
Horry County	141	\$17.5	\$13.0	\$30.5
Williamsburg County	52	\$5.9	\$2.8	\$8.7
Total Rural	266	\$32.2	\$20.4	\$52.5
Horry County (Urban)	78	\$12.5	\$7.4	\$19.9
Total WCOG	344	\$44.7	\$27.8	\$72.4

(in millions)



**5.4.4 Total Capital and Operating Costs**

The total capital and operating costs is summarized below in Table 23.

Table 23: Total Capital & Operating Costs: 2005 to 2030

	Vehicle Purchases	Operating Costs	Vehicle Cost	Facility Cost	Total Cost
Georgetown County	73	\$25.2	\$8.7	\$4.6	\$38.5
Horry County	141	\$50.0	\$17.5	\$13.0	\$80.5
Williamsburg County	52	\$17.6	\$5.9	\$2.8	\$26.3
Total Rural	266	\$92.8	\$32.2	\$20.4	\$145.3
Horry County (Urban)	78	\$153.5	\$12.5	\$7.4	\$173.4
Total WCOG	344	\$246.3	\$44.7	\$27.8	\$318.7

(in millions)

Waccamaw Council of Governments is projected to have costs of up to 318.7 million dollars over the next 25 years. About 77 percent of this cost is attributed to operating costs, while about 14 percent of the costs are projected to come from vehicle costs and about 9 percent from facility costs.

**5.5 Intercity / Interregional Transit Needs**

For residents and visitors who have limited travel options, intercity bus will continue to provide an important mobility service. However, for intercity bus service to have an increased role in transportation in South Carolina, the service must be provided in a way to attract more people who could otherwise fly or drive. It is difficult for intercity bus to be time-competitive with air travel or driving directly between an origin and a destination, but budget-conscious travelers may be more receptive to bus service if it is provided at a deeply-discounted fare. The “no frills” business model being used by Megabus.com and other similar providers is attempting to use low fares to attract customers who would otherwise fly or drive, but the long-term sustainability of this operation remains unproven.

As part of the focus group sessions conducted for this planning process, several community leaders and members of the general public made comments regarding the need for more public transportation options between cities or across state lines. Although the need for improved intercity transportation was recognized in the focus group sessions, there was a greater emphasis on local and regional (commute-oriented) transit needs. The same thought process was also reflected in the stakeholder interviews with regional planners and transit officials, in which most of the comments received addressed regional transit needs as opposed to intercity concerns.

Intercity rail transportation, particularly high speed rail service, has a greater potential than intercity bus to significantly impact how South Carolina residents and visitors travel between cities in the future, due to the reduced travel times, level of comfort, and direct service. Several attempts have been made in the State to use intercity bus service to connect residents to Amtrak service (such as the former Amtrak “Thruway” bus connection between Florence and Columbia that was



operated by the Pee Dee Regional Transportation Authority). Although this type of service was previously unsuccessful due largely to the unreliability of Amtrak, using intercity bus service to connect patrons to high speed rail service could serve to extend the reach of the high speed rail corridor. This type of connection should be considered in future high speed rail planning. This could be a very successful service model to connect the Myrtle Beach area to high speed rail along the I-95 corridor.

Several public transit agencies in the State offer what can be described as “intercity bus service”, designed to connect inland communities to employment opportunities in coastal resort areas like Myrtle Beach (with trips traveling distances of 50-100 miles or more one-way). Because these trips are daily, commute-oriented trips, they are not specifically included in this “intercity bus” assessment. However, this travel pattern reflects one of the unique transit issues in South Carolina, and considering the rapid growth rate of coastal areas along with high unemployment rates in inland counties, this long-distance transit connection will likely grow in importance over the coming years. Therefore, providing enhancements in these long-distance commuter connections is identified as a focus area for intercity-type travel.

The State of South Carolina currently provides no subsidies for intercity bus service, but these needs should be considered in the future, especially if additional service cuts are made to current operations. If necessary, state investment in intercity bus service should be considered to maintain key connections across the State. Current State funding sources are used by public transit agencies to support the intercity commute-oriented services to jobs along the coast, but additional support for these services may be needed in the future. Additionally, as high speed rail services are developed, the State should examine its role in not only the rail operation, but any connecting bus service as well.

### **5.5.1 Intercity High Speed and Passenger Rail Assessment**

Although there is not, as yet, a funded national program for the actual construction of high speed rail passenger corridors, the United States Department of Transportation (USDOT) has designated a network of corridors for the development of high speed rail service in this country. These corridors are generally focused on regional trips that could be competitive with commercial air service from a schedule standpoint. To date, only small amounts of Federal funding have been provided, adequate only for studies. South Carolina is a member of the Southeast High Speed Rail Coalition, along with its neighbors, North Carolina, Georgia, Florida and Virginia. Two corridors that pass through South Carolina have been adopted as part of the Southeast High Speed Rail Coalition plan. These corridors were added to the Southeast Corridor network designated by the USDOT as future high speed rail passenger routes on December 1, 1998.

A connection from Myrtle Beach to a HSR Station in Florence via rail or bus would be very important for access to and from the Waccamaw Region.



## **5.6 Critical and Potential Transit Corridors**

In addition to the needs-based assessment of transit demand, potential for commuter-based transit and other services designed to attract choice riders was also analyzed across the State. Developed in conjunction with the development of the Strategic Corridor System, there were several corridors in the Waccamaw Region identified as having transit supportive characteristics. These corridors could have been selected for any number of reasons including but not limited to: projected traffic congestion; other traffic or development patterns; currently served by successful transit service poised for expansion or enhancement; and/or the implementation is included in regional long range transportation plans and has a defined transit-supportive commuting or land use pattern. Beyond the scope of this plan, more detailed transit propensity analyses in congested corridors must be performed as part of the Advanced Planning Project Report (APPR) phase of project development, in adherence to the requirements of Section 57-1-370 of the Code of Laws of South Carolina.

The purpose of this section is to evaluate potential transit technologies for consideration in the South Carolina Multimodal Transportation Plan, and to identify those that may be most suitable for potential transit applications. A map of these corridors is depicted in Figure 13 at the end of the section.

### **5.6.1 Potential Transit Technologies**

Five transit technologies were identified for evaluation as potential corridor application options. The technologies analyzed include:

1. Local Bus;
2. Express Bus;
3. Enhanced Bus / Intelligent Transportation Systems (ITS);
4. Bus Rapid Transit (BRT); and
5. Commuter Rail

#### ***Local Bus***

Local bus service represents the most common and most flexible type of public transportation and is commonly referred to as fixed route as service operates along a defined route and on a pre determined schedule. Service can be provided with vans, small buses, traditional transit buses including low floor configuration, or articulated buses. Stops are typically as placed as frequent as every one to two blocks, or every one-eighth mile. When operated within a smaller area, local service may be called circulator, feeder, neighborhood, trolley, or shuttle service. Complementary paratransit service for eligible persons with disabilities who cannot access or use the local service must be provided as required under the Americans with Disabilities Act of 1990.



### ***Express Bus***

Express bus service provides direct point-to-point service over longer service routes utilizing high-occupancy vehicles. Buses are usually equipped with high-back seats, reading lamps, and other passenger amenities. Service typically operates between central business districts and suburban areas, primarily on weekdays, and during peak hours, however limited midday trips are not uncommon. Suburban terminals may include customer parking and covered waiting areas.

### ***Enhanced Bus/ITS***

Enhanced bus service uses low-floor, low or zero-emission buses with Intelligent Transportation Systems technology such as traffic signal priority and coordination along the entire alignment and on board customer information displays. Enhanced bus service typically operates in mixed-flow traffic along major arterial streets except in congested segments where peak period transit lanes or “queue jump” lanes may be provided. Queue jump lanes allow buses to bypass traffic queues at major intersections and advance more quickly through traffic signals. Bus pull off areas and bus stop passenger amenities may also be included.

### ***Bus Rapid Transit (BRT)***

Bus Rapid Transit uses a number of features to reduce delays and improve customer convenience. BRT systems typically use dedicated busways or bus lanes, although they can also operate in HOV lanes, dedicated guideway facilities, or in mixed traffic on arterial streets with various ITS applications including traffic signal priority. Other features can include improved passenger waiting areas, high-capacity/low-floor buses; fare collection prior to boarding; and advanced customer information systems. BRT systems can improve passenger convenience by using the same vehicle for the collection/distribution portion of the trip and for the faster line-haul portion of the trip; reducing the number of required transfers is a major advantage of BRT systems.



Busways which provide a high level of service and allow high hourly passenger capacities are typically grade separated from cross streets, and have on-line stations with spacing comparable to light rail. Low volume busways often are characterized by at-grade intersections with cross streets. Buses may operate non-stop along the busway/bus lanes or make selected stops based on passenger demand. Buses may also exit the specially designated busway and operate along streets to provide local area circulation and distribution. BRT is considered a viable option for upgrading bus service performance.

Busways which provide a high level of service and allow high hourly passenger capacities are typically grade separated from cross streets, and have on-line stations with spacing comparable to light rail. Low volume busways often are characterized by at-grade intersections with cross streets. Buses may operate non-stop along the busway/bus lanes or make selected stops based on passenger demand. Buses may also exit the specially designated busway and operate along streets to provide local area circulation and distribution. BRT is considered a viable option for upgrading bus service performance.

### ***Commuter Rail***

Commuter rail is a mode of passenger transportation using vehicles with steel wheels on steel rails using



tracks that are part of a general rail network. The name "commuter rail" covers a multitude of rail system elements to carry passengers. Service typically operates between a central city terminal and outlying suburbs and trains can be diesel powered or use electric-powered rail cars. Commuter rail services may share track with railroad freight trains, or have separate tracks. Some commuter lines are primarily used for peak hour work trips while others have extended off-peak and weekend services. Commuter trains can vary in length from one car to 14, but are generally limited to the length of the platforms at the stations. Some systems use locomotives for power and others have self-propelled cars.

**5.6.2 Corridor Evaluation Criteria**

***Technology Compatible with Existing Development***

The corridors being considered for transit options vary widely in regards to existing development and adjacent land uses. The transit technologies described above can be strategically employed to alleviate congestion, provide mobility options, and/or enhance existing roadway capacities. The attributes

<p><b><u>Scoring Method:</u></b>  <b><i>Appropriate: +1</i></b>  <b><i>Somewhat Appropriate: 0</i></b>  <b><i>Not Appropriate: -1</i></b></p>
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of the transit technology should be consistent with the existing characteristics of the corridor. This criterion is qualitative and ratings were determined by assigning the most reasonable score based on existing development characteristics and staff knowledge of the area.

***Technology Compatible with Level of Service Needs***

This criterion examines the future level of service needs for the corridor. The 2030 Average Daily Traffic (ADT) figures were utilized by assuming a ten percent transit mode split. Lower ADT scores in a corridor were assumed to indicate the need for lower capacity transit options, such as local bus, and higher scores indicating the need for higher capacity options, such as BRT or commuter rail. Note: Along highways with multiple segments, the highest ADT along that roadway was used.

<b><u>Scoring Method:</u></b>	
<b><i>ADT less than 2000 then Local Bus Assigned Score: 1</i></b>	<b><i>Other Modes: -1</i></b>
<b><i>ADT 2000-5000 then Local, Enhanced &amp; Express Bus Assigned Score: 1</i></b>	<b><i>Other Modes: -1</i></b>
<b><i>ADT greater than 5000 then BRT &amp; Commuter Rail Assigned Score: 1</i></b>	<b><i>Other Modes: -1</i></b>

***Technology Compatible with Roadway Improvement Plans***

This criterion evaluates the technology as compared against the Statewide Multimodal Transportation Plan. The technologies were assessed for various roadway improvement categories including capacity, Intelligent Transportation Systems (ITS), operations (e.g. signal timing), and access management. If the roadway type improvement has potential for promoting the technology, then the technology was considered compatible and assigned a rating of +1. It is important to note that the proposed roadway improvements were not considered to have



potential to promote commuter rail. For this reason, commuter rail was assigned a score of 0 to represent its lack of compatibility to this criterion.

Scoring Method	Roadway Improvement			
	Capacity	ITS	Operations	Access Mgmt.
Technology				
Local Bus	1	1	1	1
Express Bus	1	0	0	1
Enhanced Bus	0	1	1	0
BRT	1	0	0	0
Commuter Rail	0 or 1	0	0	0

**Railroad Right-of Way Adjacent to the Corridor**

This criterion considers the advantage of existing exclusive rail right of way for Commuter Rail. For the technologies other than Commuter Rail, the score is 0.

<b><u>Scoring Method:</u></b>
<b>Available or Planned: +1</b>
<b>Available or planned along a Portion of the Corridor: 0</b>
<b>Not Available: -1</b>

**Technology Compatible with Existing Plans**

It is important for the candidate transit technology to be compatible with the existing local, regional, and statewide plans. For this criterion, the Long Range Transportation Plan was utilized, as well as mode specific plans from relevant transit authorities and Metropolitan Planning Organizations (MPOs).

<b><u>Scoring Method:</u></b>
<b>Compatible: +1</b>
<b>Somewhat Compatible: 0</b>
<b>Not Compatible: -1</b>

**Roadway Parallel to the Corridor**

This criterion considers the advantage of existing/ planned roadways parallel to the corridor.

<b><u>Scoring Method:</u></b>
<b>Available or planned roadway/HOV: +1</b>
<b>Available or planned along a Portion of the Corridor: 0</b>
<b>Not Available or Planned: -1</b>

**5.6.3 Waccamaw Region Corridors**

This region contains segments from the Atlantic Coast and Trans-Carolina corridors.

**Atlantic Coast Corridor**

Segments AC14-1 through AC14-3; AC14-5; AC15-1 and AC15-2; and AC16-1(A) through AC16-6 are within the Atlantic Coast corridor. The following matrix provides applicability ratings for transit technologies for these segments.



**Segment AC14-1 through AC14-3**

*US 17 (Ocean Highway) from S-759 (Waterford Road) to S-362 (Sandy Island Road)*

Waccamaw  
Atlantic Coast  
AC14-1 to AC14-3

Guideline	LOCAL BUS	EXPRESS BUS	ENHANCED BUS/ITS	BUS RAPID TRANSIT	COMMUTER RAIL
Technology compatible with existing development	Compatible	Compatible	Somewhat Compatible	Incompatible	Incompatible
<i>Rating</i>	1	1	0	-1	-1
Technology compatible Level of Service needs	Incompatible	Incompatible	Incompatible	Compatible	Compatible
<i>Rating</i>	-1	-1	-1	1	1
Technology compatible with roadway improvements	Compatible	Compatible	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible
<i>Rating</i>	1	1	0	0	0
Railroad right of way adjacent to the corridor	Partially Adjacent	Partially Adjacent	Partially Adjacent	Partially Adjacent	Not Adjacent
<i>Rating</i>	0	0	0	0	-1
Technology compatible with existing plans	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible	Incompatible
<i>Rating</i>	0	0	0	0	-1
Parallel roadway/facility	Partially	Not Present	Not Present	Partially	Partially
<i>Rating</i>	0	-1	-1	0	0
<b>Overall Rating</b>	<b>1</b>	<b>0</b>	<b>-2</b>	<b>0</b>	<b>-2</b>
<b>Carry Forward?</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>

*Rating scale:*

*Desirable/Positive Rating = +1*

*Neutral Rating = 0*

*Negative Rating/Less Desirable = -1*

Local bus service performed highest among all evaluated modes. This sub-corridor includes low-density protected and underdeveloped areas as well as Pawleys Island, a resort community with light commercial activity along US 17 (Ocean Highway). Operational and access management strategies recommended for the sub-corridor in this Statewide Multimodal Transportation Plan include access control measures along US 17 that maintain the existing facility capacity. Future transit improvements within this sub-corridor could include increasing the frequencies of service (currently, every 3.5 to 4 hours) on the Coast Regional Transit Authority (Coast RTA) Route 16 between Georgetown and Myrtle Beach. With the planned widening of US 17 between Murrells Inlet and Pawleys Island, bus rapid transit may be a long-term consideration along this sub-corridor if dedicated right-of-way becomes available. In the interim, equipping Coast RTA buses with bicycle racks and/or providing bicycle storage or parking near bus stops can support intermodal connections with the Waccamaw Neck Bikeway.



**Segment AC14-5**

*US 17 (Ocean Highway) from S-392 (Wesley Road) to Horry County Line*

Waccamaw  
Atlantic Coast  
AC 14-5

Guideline	LOCAL BUS	EXPRESS BUS	ENHANCED BUS/ITS	BUS RAPID TRANSIT	COMMUTER RAIL
Technology compatible with existing development	Compatible	Compatible	Compatible	Incompatible	Incompatible
<i>Rating</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>-1</i>	<i>-1</i>
Technology compatible Level of Service needs	Incompatible	Incompatible	Incompatible	Compatible	Compatible
<i>Rating</i>	<i>-1</i>	<i>-1</i>	<i>-1</i>	<i>1</i>	<i>1</i>
Technology compatible with roadway improvements	Compatible	Compatible	Somewhat Compatible	Incompatible	Incompatible
<i>Rating</i>	<i>1</i>	<i>1</i>	<i>0</i>	<i>-1</i>	<i>-1</i>
Railroad right of way adjacent to the corridor	Partially Adjacent	Partially Adjacent	Partially Adjacent	Partially Adjacent	Not Adjacent
<i>Rating</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>-1</i>
Technology compatible with existing plans	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible
<i>Rating</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
Parallel roadway/facility	Partially	Present	Partially	Present	Partially
<i>Rating</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>1</i>	<i>0</i>
<b>Overall Rating</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>-2</b>
<b>Carry Forward?</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>No</b>

*Rating scale:*

*Desirable/Positive Rating = +1*

*Neutral Rating = 0*

*Negative Rating/Less Desirable = -1*

Express bus services performed highest among all evaluated modes, followed by local bus service. The moderate density community of Murrells Inlet along this sub-corridor includes strip commercial land use and connector and arterial roadway linkages to predominantly single-family residential communities. Operational and access management strategies and bicycle/pedestrian facility improvements recommended for the sub-corridor in this Statewide Multimodal Transportation Plan are intended to improve traveler safety. Future transit improvements within this sub-corridor could involve increasing the frequencies of service (currently, every 3.5 to 4 hours) on Coast RTA Route 16 between Georgetown and Myrtle Beach. Prospective periods for expanded operation include the morning and evening peak-periods. Existing services may be supplemented by a “Restaurant Row” shuttle along the Highway 17 Business corridor (situated east of this sub-corridor) during periods of highest activity.



**Segments AC15-1, AC15-2, and AC16-1(A) through AC16-3**  
 US 17 (Highway 17 Bypass South) from SC 544 (Dick Pond Road) to US 501 (West Broadway); US 17 (Highway 17 North) from US 501 (West Broadway) to US 17 Business

Waccamaw  
 Atlantic Coast  
 AC15-1 to AC16-3

Guideline	LOCAL BUS	EXPRESS BUS	ENHANCED BUS/ITS	BUS RAPID TRANSIT	COMMUTER RAIL
Technology compatible with existing development	Compatible	Compatible	Compatible	Compatible	Compatible
<i>Rating</i>	1	1	1	1	1
Technology compatible Level of Service needs	Incompatible	Incompatible	Incompatible	Compatible	Compatible
<i>Rating</i>	-1	-1	-1	1	1
Technology compatible with roadway improvements	Compatible	Compatible	Somewhat Compatible	Compatible	Somewhat Compatible
<i>Rating</i>	1	1	0	1	0
Railroad right of way adjacent to the corridor	Partially Adjacent	Partially Adjacent	Partially Adjacent	Partially Adjacent	Not Adjacent
<i>Rating</i>	0	0	0	0	-1
Technology compatible with existing plans	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible
<i>Rating</i>	0	0	0	0	0
Parallel roadway/facility	Partially	Partially	Partially	Partially	Partially
<i>Rating</i>	0	0	0	0	0
<b>Overall Rating</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>3</b>	<b>1</b>
<b>Carry Forward?</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>Yes</b>

Rating scale: Desirable/Positive Rating = +1  
 Neutral Rating = 0  
 Negative Rating/Less Desirable = -1

Bus rapid transit (BRT) performed highest among all evaluated modes, followed by local bus service, express bus service, and commuter rail. Throughout this sub-corridor are a significant number of retail, tourism and leisure activity centers, including regional malls and outlet store centers, hotels, an airport, a minor league baseball stadium, and amusement parks. Operational and capacity enhancement strategies and bicycle/pedestrian facility improvements recommended for the sub-corridor in this Statewide Multimodal Transportation Plan are intended to address congestion while improving traveler safety. Future transit improvements within this corridor could involve increasing the frequencies of operation (currently, every 3.5 to 4 hours) on Coast RTA Route 16 between Georgetown and Myrtle Beach, as well as providing coordinated shuttle services between hotel districts and the Myrtle Beach International Airport. With the diverse array of employment centers and activity centers along this sub-corridor, higher-capacity transit services such as commuter rail can be a future consideration, but the sole railroad right-of-way is an active short line railway which crosses the sub-corridor adjacent to US 501. Further, the “highway bypass” orientation of this sub-corridor, with few traffic signals interrupting vehicular flow, would require significant investments in supportive pedestrian infrastructure and dedicated guideway between stations. Coast RTA is exploring opportunities to expand park-and-ride services throughout the Waccamaw region. An intermodal passenger transfer center planned near the US 17/US 501 interchange, south of the current Conway Terminal, will facilitate transit connections



for Conway, Waccamaw-area and Pee Dee-area commuters, as well as transfers via Coast RTA Route 22 to and from Coastal Carolina University/Horry-Georgetown Technical College.

**Segment AC16-4 through AC16-6**

*US 17 (Highway 17 North) from S-94 (11<sup>th</sup> Avenue North, North Myrtle Beach) to S-50 (Mineola Avenue)*

Waccamaw  
Atlantic Coast  
AC16-4 to AC16-6

Guideline	LOCAL BUS	EXPRESS BUS	ENHANCED BUS/ITS	BUS RAPID TRANSIT	COMMUTER RAIL
Technology compatible with existing development	Compatible	Compatible	Compatible	Incompatible	Incompatible
<i>Rating</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>-1</i>	<i>-1</i>
Technology compatible Level of Service needs	Incompatible	Incompatible	Incompatible	Compatible	Compatible
<i>Rating</i>	<i>-1</i>	<i>-1</i>	<i>-1</i>	<i>1</i>	<i>1</i>
Technology compatible with roadway improvements	Compatible	Compatible	Somewhat Compatible	Compatible	Somewhat Compatible
<i>Rating</i>	<i>1</i>	<i>1</i>	<i>0</i>	<i>1</i>	<i>0</i>
Railroad right of way adjacent to the corridor	Partially Adjacent	Partially Adjacent	Partially Adjacent	Partially Adjacent	Not Adjacent
<i>Rating</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>-1</i>
Technology compatible with existing plans	Somewhat Compatible	Compatible	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible
<i>Rating</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>0</i>	<i>0</i>
Parallel roadway/facility	Partially	Partially	Partially	Partially	Partially
<i>Rating</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
<b>Overall Rating</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>-1</b>
<b>Carry Forward?</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>

Rating scale:

Desirable/Positive Rating = +1

Neutral Rating = 0

Negative Rating/Less Desirable = -1

Express bus service performed highest among all evaluated modes, followed by local bus and bus rapid transit (BRT) services. This sub-corridor is typified by marina and country-club residential land uses along with low-to-moderate-density highway commercial activity. A combination of access management and capacity enhancement strategies are recommended for the sub-corridor in this Statewide Multimodal Transportation Plan to address traffic congestion. Express service to a park-and-ride location, supplemented by planned trolley or shuttle circulator bus services to North Myrtle Beach, may provide a more cost-effective operation than Coast RTA's recently discontinued Route 11 between Myrtle Beach and North Myrtle Beach. If BRT is implemented in Myrtle Beach, an extension to this area may become feasible once population and employment densities increase to supportive levels.

**Trans-Carolina Corridor**

Segments TC32-1 through TC32-3 are within the Trans-Carolina corridor. The following matrix provides applicability ratings for transit technologies along these segments.



**Segments TC32-1 through TC32-3**

*US 501 (Highway 501 East) from US 701 (4<sup>th</sup> Avenue) to SC 31 (Carolina Bays Parkway)*

Waccamaw  
Trans-Carolina  
TC32-1 to TC32-3

Guideline	LOCAL BUS	EXPRESS BUS	ENHANCED BUS/ITS	BUS RAPID TRANSIT	COMMUTER RAIL
Technology compatible with existing development	Compatible	Compatible	Compatible	Incompatible	Incompatible
<i>Rating</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>-1</i>	<i>-1</i>
Technology compatible Level of Service needs	Incompatible	Incompatible	Incompatible	Compatible	Compatible
<i>Rating</i>	<i>-1</i>	<i>-1</i>	<i>-1</i>	<i>1</i>	<i>1</i>
Technology compatible with roadway improvements	Compatible	Compatible	Somewhat Compatible	Compatible	Somewhat Compatible
<i>Rating</i>	<i>1</i>	<i>1</i>	<i>0</i>	<i>1</i>	<i>0</i>
Railroad right of way adjacent to the corridor	Partially Adjacent	Partially Adjacent	Partially Adjacent	Partially Adjacent	Partially Adjacent
<i>Rating</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
Technology compatible with existing plans	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible
<i>Rating</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
Parallel roadway/facility	Partially	Partially	Partially	Partially	Partially
<i>Rating</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
<b>Overall Rating</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>
<b>Carry Forward?</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>

Rating scale:

Desirable/Positive Rating = +1

Neutral Rating = 0

Negative Rating/Less Desirable = -1

Local bus service, express bus service, and bus rapid transit (BRT) performed highest among all evaluated modes. The segment includes the highly-developed activity centers of historic downtown Conway and the Coastal Carolina University/Horry-Georgetown Technical College area. Interspersed in the largely undeveloped and protected land between Conway and Carolina Bays Parkway near Myrtle Beach are large industrial and commercial business complexes. A variety of access management, capacity enhancement, and bicycle/pedestrian facility improvements are recommended within this sub-corridor in this Statewide Multimodal Transportation Plan, including lane expansion along the southern portion of the sub-corridor, grass medians and access controls, and a three-lane parallel bridge across the Waccamaw River from Conway. The Coast Regional Transit Authority (Coast RTA) is currently serving this corridor with Route 7 (Conway to Myrtle Beach), as well as three routes serving the Coastal Carolina University/Horry-Georgetown Technical College area. Coast RTA is exploring opportunities to expand park-and-ride services throughout the Waccamaw region. An intermodal passenger transfer center planned near the US 17/US 501 interchange, south of the current Conway Terminal will facilitate transit connections for Conway, Waccamaw-area and Pee Dee-area commuters, as well as transfers via Coast RTA Route 22 to and from Coastal Carolina University/Horry-Georgetown Technical College. Bus rapid transit can be considered along this sub-corridor, in conjunction with capacity enhancement projects, if dedicated right-of-way and adequate financing becomes available.



### 5.6.4 Other Potential Transit Corridors

Not all corridors have either current or projected issues with critical traffic congestion, as is the case with the Critical Corridors identified in Section 5.6.3. However, many of these corridors can benefit from future enhancements to coordinated public transportation, and/or new transit services. The methodology detailed in the preceding section is applied to an additional set of corridors. Among non-critical corridors, these were identified to pose the greatest potential for transit.

#### ***Florence-Conway***

Corridor(s): Mid-Carolina

Region(s): Pee Dee, Waccamaw

Region Pee Dee - Waccamaw  
 Corridor Mid-Carolina  
 Sub Corridor Florence to Conway

Guideline	LOCAL BUS	EXPRESS BUS	ENHANCED BUS/ITS	BUS RAPID TRANSIT	COMMUTER RAIL
Technology compatible with existing development	Compatible	Compatible	Compatible	Incompatible	Incompatible
<i>Rating</i>	1	1	1	-1	-1
Technology compatible Level of Service needs	Compatible	Compatible	Compatible	Incompatible	Incompatible
<i>Rating</i>	1	1	1	-1	-1
Technology compatible with roadway improvements	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible
<i>Rating</i>	0	0	0	0	0
Railroad right of way adjacent to the corridor	Partially Adjacent	Partially Adjacent	Partially Adjacent	Partially Adjacent	Not Adjacent
<i>Rating</i>	0	0	0	0	-1
Technology compatible with existing plans	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible
<i>Rating</i>	0	0	0	0	0
Parallel roadway/facility	Partially	Not Present	Not Present	Partially	Partially
<i>Rating</i>	0	-1	-1	0	0
<b>Overall Rating</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>-2</b>	<b>-3</b>
<b>Carry Forward?</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>No</b>

*Rating scale:* Desirable/Positive Rating = +1  
 Neutral Rating = 0  
 Negative Rating/Less Desirable = -1

Local bus services performed highest among evaluated modes, followed by express bus service along with enhanced bus service featuring ITS technology. The sub-corridor connects the rural areas of southern Florence County with the City of Conway in the Myrtle Beach urbanized area. Transit services and coordination in the Pee Dee region are provided by the Pee Dee Regional Transportation Authority (PDRTA), while the Waccamaw Regional Transportation Authority (Coast RTA) coordinates transit services in the Waccamaw region. PDRTA provides a shuttle service to the Myrtle Beach area during peak travel periods.

Potential transit opportunities include extending PDRTA services to the planned Coast RTA Conway Terminal, with automatic vehicle locator systems enhancing timed transfers with Coast RTA express routes heading east to Myrtle Beach. A park-and-ride facility in the vicinity of Lake City can offer intermodal connections with PDRTA services for residents of south Florence County as well as neighboring Clarendon and Williamsburg Counties.



**Marion-Conway**

Corridor(s): Trans Carolina

Region(s): Pee Dee, Waccamaw

Region Pee Dee, Waccamaw  
 Corridor Trans Carolina  
 Sub Corridor Marion to Conway

Guideline	LOCAL BUS	EXPRESS BUS	ENHANCED BUS/ITS	BUS RAPID TRANSIT	COMMUTER RAIL
Technology compatible with existing development	Compatible	Compatible	Compatible	Incompatible	Incompatible
<i>Rating</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>-1</i>	<i>-1</i>
Technology compatible Level of Service needs	Incompatible	Incompatible	Incompatible	Compatible	Compatible
<i>Rating</i>	<i>-1</i>	<i>-1</i>	<i>-1</i>	<i>1</i>	<i>1</i>
Technology compatible with roadway improvements	Compatible	Compatible	Somewhat Compatible	Compatible	Somewhat Compatible
<i>Rating</i>	<i>1</i>	<i>1</i>	<i>0</i>	<i>1</i>	<i>0</i>
Railroad right of way adjacent to the corridor	Partially Adjacent	Partially Adjacent	Partially Adjacent	Partially Adjacent	Not Adjacent
<i>Rating</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>-1</i>
Technology compatible with existing plans	Compatible	Compatible	Compatible	Somewhat Compatible	Somewhat Compatible
<i>Rating</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>0</i>	<i>0</i>
Parallel roadway/facility	Partially	Not Present	Not Present	Partially	Partially
<i>Rating</i>	<i>0</i>	<i>-1</i>	<i>-1</i>	<i>0</i>	<i>0</i>
<b>Overall Rating</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>-1</b>
<b>Carry Forward?</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>

Rating scale:

Desirable/Positive Rating = +1

Neutral Rating = 0

Negative Rating/Less Desirable = -1

Local bus service performed highest among evaluated modes, followed by express bus and bus rapid transit (BRT) services. Development patterns along this sub-corridor are predominantly rural, with development levels highest in the urban city of Conway, part of the Myrtle Beach urbanized area. Roadway improvements recommended in the Statewide Multimodal Transportation Plan include the provision of a grass median and access control strategies, along with facilities supporting bicycle and pedestrian travel. Projects identified within the long-range transportation plan for the Myrtle Beach urbanized area include the widening of US 501 to six lanes in Horry County, frontage roads and intersection improvements.

Transit services in the Pee Dee region are provided by the Pee Dee Regional Transportation Authority (PDRTA), while the Waccamaw Regional Transportation Authority (Coast RTA) provides transit services in the Waccamaw region. PDRTA provides shuttle service to the Myrtle Beach area during peak travel periods.

Potential transit opportunities include extending PDRTA services to the planned Coast RTA Conway Terminal, with automatic vehicle locator systems enhancing timed transfers with Coast RTA express routes heading east to Myrtle Beach. A park-and-ride facility in the vicinity of the City of Marion can offer intermodal connections with PDRTA services for residents of Marion County as well as neighboring Dillon, Florence and Marlboro Counties.



**Florence-Kingstree-Charleston**

Corridor(s): Pee Dee

Region(s): Pee Dee, Waccamaw, Berkeley-Charleston-Dorchester

Region Pee Dee, Waccamaw, and Berkeley-Charleston-Dorchester  
 Corridor Pee Dee  
 Sub Corridor Florence to Kingstree (Williamsburg County) to Charleston (at end of Pee Dee Corridor)

Guideline	LOCAL BUS	EXPRESS BUS	ENHANCED BUS/ITS	BUS RAPID TRANSIT	COMMUTER RAIL
Technology compatible with existing development	Compatible	Compatible	Somewhat Compatible	Incompatible	Incompatible
<i>Rating</i>	<i>1</i>	<i>1</i>	<i>0</i>	<i>-1</i>	<i>-1</i>
Technology compatible Level of Service needs	Incompatible	Incompatible	Incompatible	Compatible	Compatible
<i>Rating</i>	<i>-1</i>	<i>-1</i>	<i>-1</i>	<i>1</i>	<i>1</i>
Technology compatible with roadway improvements	Compatible	Compatible	Compatible	Compatible	Somewhat Compatible
<i>Rating</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>0</i>
Railroad right of way adjacent to the corridor	Partially Adjacent	Partially Adjacent	Partially Adjacent	Partially Adjacent	Adjacent
<i>Rating</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>1</i>
Technology compatible with existing plans	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible	Somewhat Compatible
<i>Rating</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
Parallel roadway/facility	Partially	Not Present	Not Present	Partially	Partially
<i>Rating</i>	<i>0</i>	<i>-1</i>	<i>-1</i>	<i>0</i>	<i>0</i>
<b>Overall Rating</b>	<b>1</b>	<b>0</b>	<b>-1</b>	<b>1</b>	<b>1</b>
<b>Carry Forward?</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>Yes</b>	<b>Yes</b>

Rating scale:

Desirable/Positive Rating = +1

Neutral Rating = 0

Negative Rating/Less Desirable = -1

Local bus, bus rapid transit (BRT) and commuter rail services performed highest among evaluated modes. This extensive corridor connects the Florence urbanized area with the northern suburban reaches of the Charleston urbanized area, via rural centers of Moncks Corner, Kingstree, and Lake City. Current transit services within this sub-corridor are operated by the Pee Dee Regional Transportation Authority (PDRTA) in Florence County, the Williamsburg County Transit Authority (WCTA) in the center of the sub-corridor, and Tri-County Link rural shuttles by the Berkeley-Charleston-Dorchester Rural Transportation Management Association (BCDRTMA), with services extending south to the Charleston urbanized area. In addition to coordinated transit services, a combination of capacity enhancement and access management strategies are recommended in the Statewide Multimodal Transportation Plan, including the introduction of a grass median and access control strategies, a context sensitive solutions process, and facilities supporting bicycle and pedestrian travel.

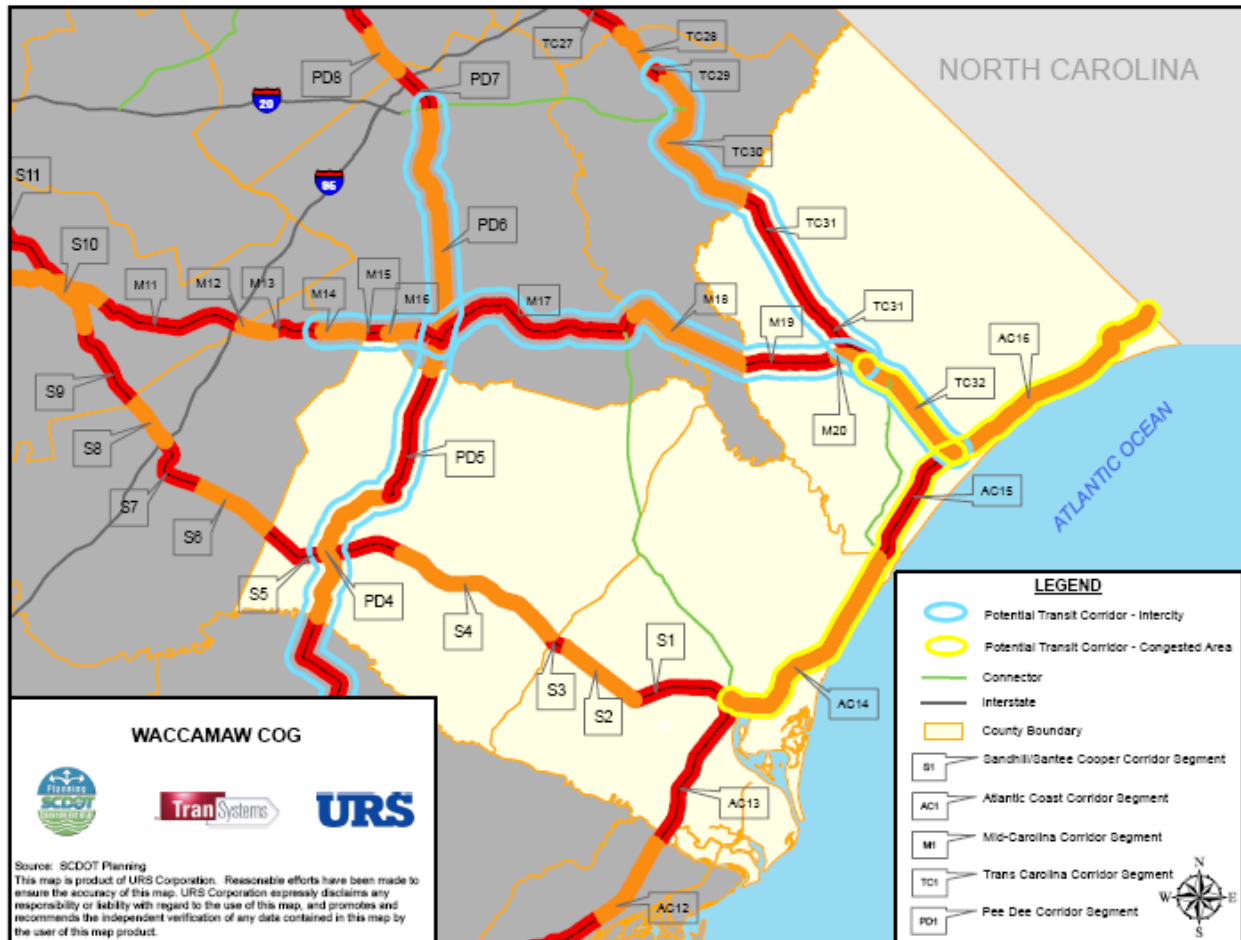
Potential transit opportunities include the expansion of transit services and service hours in the PDRTA area, as well as the expansion of Tri-County Link rural transportation services by the BCDRTMA. Commuter rail services on the southernmost end of this sub-corridor are under consideration by the Berkeley-Charleston-Dorchester Council of Governments. Strategic growth in land use mix and population and employment densities along this corridor should precede consideration for future northward extensions to this proposed line. More concentrated growth patterns and dedicated right-of-way may also improve the future feasibility for BRT service along this sub-corridor, particularly in Berkeley



County on the southern end and between Florence and Williamsburg Counties on the northern end.

Figure 13 presents potential transit opportunities along the Strategic Corridor System within the Waccamaw region. Transit opportunities beyond the Strategic Corridor System are detailed at a regional level under separate cover from this plan.

Figure 13: Potential Transit Opportunities



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## Section 6: Transit Funding Needs

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### **6.1 Discussion of Funding Issues for the Waccamaw Region**

Along with the assessment of current and future transit needs, the other major component of illustrating future conditions is the identification of funding needs to support operating and capital expenses. Given the growth and tourism based economy in the Waccamaw Region, transit will become increasingly important as a viable transportation option. Currently, however, there have been several years of debate annually on the funding of transit locally. The Coast RTA has had several fiscal problems in the recent past and struggles to convince local leaders of the benefits inherent to their system. The Horry County casino boat tax subsidy will eventually improve the perpetual funding shortfall situation, although delays due to legal affairs caused Coast RTA to temporarily suspend several fixed-route services. Compounding the challenges to secure dedicated local funding, the swift growth of the Myrtle Beach urbanized area could result in the area surpassing 200,000 population following the 2010 Census, which under current FTA policy severely limits the availability of federal funds to be used to support transit operating expenses. The change in funding rules for larger areas will create more pressure on the local governments to generate enough revenue to cover system operating expenses.

The corridor based transit findings in Section 5.6 indicate a number of areas where transit could be implemented and result in substantial modal shifts, especially on US 501 and US 17. Regional studies have supported these transit investments and they may lead to a critical connection between locally elected officials and a greater realization to more measurable benefits of transit. SCDOT support of the corridor based investments is critical and the Coast RTA may avoid funding issues with the human service side of their programs through the implementation of commuter based service.

According to the needs analysis, the region will require over \$13.5 million in annual operating costs, which constitutes an increase several times the amount of local funding being generated today.

From the focus groups (Section 3.1.2), community leaders and residents similarly agreed that gasoline taxes and grants are preferable sources for needed transit funding. Expanding revenue from state motor fuel taxes for transit, without raising the current tax rate, is currently gaining attention at the state legislative level. Motor fuel taxes at the local, regional, state and/or federal levels need to be indexed to inflation to maximize revenue. Beyond formula funding provided through the federal government, discretionary grants can be perennially sought and typically support capital projects, but can be less reliable as a source to support routine operating expenses. Higher scrutiny of the discretionary earmark grant process as well as the current lack of indexing for motor fuel taxes to inflation hinders the likelihood of reliably increasing returns from grants at the federal level. Smaller in scale, grants from foundations and other entities



may supplement funding for specific community-related needs such as improved customer accessibility, technology improvements and customer amenities including shelters and informational guides.

## **6.2 Potential New Funding Sources**

To fully address transit needs in the state, new revenue sources will need to be tapped. Potential new funding sources could come from a variety of levels, including federal, state, and local governments, transit users, and private industry contributors. Based on the level of transit need in the state, a combination of sources will be needed to make significant enhancements in the level of service that is available. In many communities, transit has been regarded as a service funded largely from federal grants, state contributions, and passenger fares. However, with the strains on the federal budget and restrictions on use of funds, coupled with a lack of growth in state funding, communities are recognizing that a significant local funding commitment is needed not only to provide the required match to draw down the available federal monies, but also to support operating costs that are not eligible to be funded through other sources.

Historically, local governmental funding in South Carolina has been allocated on a year-to-year basis, subject to the government's overall fiscal health and the priorities of the elected officials at the time. Local funding appropriated to a transit system can vary significantly from year to year, making it difficult for systems to plan for the future and initiate new services. To reduce this volatility, systems have been pushing for local dedicated funding sources that produce consistent revenues from year to year. For example, Charleston County has a dedicated half-cent transportation sales tax, a portion of which is allocated to the Charleston Area Regional Transportation Authority (CARTA) and the Berkeley-Charleston-Dorchester Rural Transportation Management Association (BCDRTMA). Richland County has implemented an increased vehicle registration fee, with the proceeds of the increase supporting the Central Midlands Regional Transit Authority (CMRTA) system until the revenue source expires in 2008.

For both local leaders and residents, there appears to be a growing realization that transit funding should come from all levels of government, in addition to transit users and other sources. As part of the input gathered through the focus group process, participants were asked if they would be willing to have local taxes used to fund public transportation services. Of the community leaders that were surveyed, 89% indicated that they would be willing to have local taxes used for public transportation; likewise, 80% of the residents who participated in the focus groups stated that they would be willing to have their local taxes used to fund public transportation.

### **6.2.1 Possible Funding Mechanisms**

Participants in the focus groups were asked to brainstorm a list of possible funding sources for new or expanded public transit services in South Carolina. The list generated by the participants includes potential sources from all levels of government, as well as user fees and private contributions. The complete list as identified by focus group participants is as follows:



- Advertisement
- Alcohol tax
- Bonds
- Business license
- Business tax
- Cigarette tax
- County funds
- City funds
- Corporate investment
- Dedicated state fuel tax
- Employer tax
- Energy tax
- Environmental credits
- Federal government
- Fee option over parking spaces
- Gambling/Lottery
- Gas tax
- Grants
- Hospitality tax
- Impact fees
- Local sales tax
- Lottery/gambling
- Medicare tax
- New dedicated tax
- Non-profit donations
- Parking fee in urban areas
- Private contributions
- Property tax
- Reallocation of DOT funds
- Rental car tax
- Sales tax
- State infrastructure bank
- Tax incentives to industrial parks
- Tax on beneficiaries
- Tire/oil tax
- Tobacco tax
- Tolls
- Traffic fines
- Trailer tax
- Unemployment tax
- Use current dollars better
- User fees
- Vehicle registration fees
- Vehicle sales tax

A number of these potential revenue sources are already used by various states for transit funding. Major sources of state-level transit funding include the following:

- Vehicle license/registration fees<sup>\*</sup>;
- Motor fuels tax<sup>\*</sup>;
- General fund monies<sup>\*</sup>;
- Sales tax on vehicle sales<sup>\*\*</sup>;
- Bond funds<sup>\*\*</sup>;
- Retail tax (CA, IN, MA, NY, PA);
- Rental car tax (AR, FL, PA);
- Interest income (CT, NV, WY);
- Corporate taxes (MD, NY);
- Casino revenues (NJ);
- Cigarette tax (OR);
- Lottery funds (PA);
- Oil company tax (CT); and
- Bridge tolls (DE).

<sup>\*</sup>Many States

<sup>\*\*</sup>Several States

As illustrated by this list, states are using a variety of different sources of revenue for transit purposes, and many states use a combination of multiple sources. Conversely, South Carolina currently uses only one revenue source (proceeds from the state motor fuels tax). This list is not intended to imply that all of these potential sources may be appropriate in South Carolina; however, this list does indicate the breadth of transit funding streams that are being used at the state level.



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## Section 7: Action Plans

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Transit in South Carolina, in its current form, generates numerous benefits for its residents and visitors as well as to its economic health and quality of life. Transportation providers in the State form a comprehensive system despite weak funding streams and non-conducive land use patterns. It is not without its gaps and issues, but public transportation in South Carolina is comprised of a comprehensive network of rural services, human service transportation programs and several urban systems that could be poised for growth. The information and analysis within this Plan indicates, however, that there is considerable unmet demand in the State, given the prospect of continual growth in population, especially in transit dependent sectors of the population. There is also a need for more connectivity, opportunities for improved efficiencies, greater emphasis on commuter transportation and a substantial need for increases in the overall funding for transit.

The Waccamaw Region represents a cross-section of the rural networks, human service transportation programs and urban service. However, the public perception of transit is not good. Whether this perception stems from past improprieties with the system or the more common stigma of transit as a public service for the indigent and transit dependent; the fact remains that traffic issues, mobility problems and/or the need to continue stimulating growth and economic development will continue to heighten the benefits that can be realized through the implementation of transit. For this reason, many of the action items included in the statewide plan apply to the Waccamaw Region.

### ***7.1 Close the Gap between Funding Needs and Available Funding Levels***

As identified in Section 6, two significant findings in the Statewide Transit Plan are the gap of about \$60 million between the current level of transit service and estimated annual transit needs in the State, and the shortfall in revenue exceeding \$1 billion over the course of the Plan (2007-2030). These are substantial investment shortfalls in transit and require a broad spectrum of strategies to increase the level of funding from existing sources and identifying new sources so that more of the needs are met. These strategies need to be aggressive, offer transit providers flexibility and should be sustainable in order to facilitate bonding capacity and other long range financing techniques.

Like Greenville and Columbia, Myrtle Beach faces an uphill battle every year as they propose funding levels through the County and City general budgeting process. This problem stems from the lack of confidence on the part of elected officials in transit providing tangible benefits.



### 7.1.1 Improve Efforts to Leverage Federal Dollars

First and foremost, greater financial participation at both the State and local government level is critical to the success of transit as a mobility solution. South Carolina ranks a distant fourth among Southeastern States (VA, NC, TN, GA, MS, AL) in terms of state contribution per capita for transit service and only Charleston has a semi-permanent local funding mechanism directly targeting transit improvements. Many of the transit systems in South Carolina struggle on an annual basis to generate the matching funds for federal formula dollars. There has been little instance of returning federal formula dollars back to FTA, however, so systems are generally achieving the required matching requirements in spite of their struggles. But it raises the question of how many federal *discretionary* dollars could the State have collected if more flexibility and capacity to match federal funds were afforded the State's transit systems.

The number of discretionary programs actually declined after SAFTEA-LU but FTA and other US DOT programs are available to fund transit initiatives and require 20-50% non-federal match. SAFTEA-LU has also included new provisions under Section 5310, 5316 and 5317 which allow the use of non-FTA federal dollars to match funds under these programs. These are generally small sums of funding but target transportation disadvantaged populations.

### 7.1.2 Allow Greater Flexibility for Local Jurisdictions to Generate Funds

A number of potential local funding mechanisms are outlined in Section 6.4 of the Plan that could be implemented at the local (some at the State) level to generate funds. Most of these methods require substantial political capital in order to implement them. Adding to the difficulty of establishing these mechanisms is the fact that there are legislative restrictions against them. A concerted effort among transit providers and SCDOT, perhaps in conjunction with TASC, should be undertaken to research these barriers and approach the State Legislature about changes in the restrictions placed on local funding mechanisms. TASC annually prepares a legislative agenda for law makers regarding transit and relaxing these restrictions could be included with the agenda.

#### *Provide Local Control Options for Transit Funding Sources*

Broad flexibility with local control for funding options must also be made available such as sales and gas taxes, vehicle registration fees, property taxes and tax allocation districts. Municipalities within South Carolina and elsewhere in the Southeast (including Atlanta, Charlotte and now Charleston) have used local sales tax revenues to pay for transit services. Richland County is currently using part of a vehicle registration fee to fund transit in the short term until the revenue source expires in 2008. The General Assembly should provide flexibility in local control for additional transit revenues.



All three counties in the Waccamaw Region and the Cities of Myrtle Beach and North Myrtle Beach seem to be many years away from considering a local funding mechanism dedicated to transit.

### **7.1.3 Increase State Funding for Transit**

State funding support for public transit should be increased to expand service and provide increased mobility and travel choices. As is the case with local funding mechanisms, legislation has restricted the use of State motor fuel user fee receipts for transit to  $\frac{1}{4}$  of a cent out of 16.8 cents per gallon. This translates to about \$6 million per year for transit programs. This fee is based purely on the level of fuel consumption, and is not indexed to inflation. Therefore, if consumption remains flat, the proceeds from this user fee will also experience little variation from the 18 cents per capita made available for transit funding. In addition to increasing the percentage of the user fee dedicated to transit, the State will need to explore methods to provide incremental increases to account for inflation.

### **7.1.4 Engage Non-Traditional Partners**

Transit's role in economic development and supporting tourism is on the rise and transit providers and the state transit association have taken a more visible approach to engaging chambers and economic development agencies in the planning process. A number of transit systems especially those just inland depend heavily on routes that serve the coast and transport many workers to and from jobs on the Strand, as well as other coastal areas. The ridership on these routes has steadily increased in the recent past and the trend should continue. Critical to the expansion of transit as well as the introduction of premium service transit, like bus rapid transit and rail service, will be how well the transit community engages the tourism and development communities into the design of service and ultimately the funding of new service.

Georgetown County is still void of local bus service and should take advantage of its location between the Coast RTA and WCTA to begin a more full-scale implementation of transit in that County. Transit providers should redouble their efforts to approach the business community and tourism industry for their support of transit.

Regional mobility providers can expand partnerships with private employers, non-profit organizations and government agencies to promote the federally-sponsored tax-free commuter benefits program. Often called "Commuter Choice," the program is authorized under Section 132 in the Internal Revenue Code, Title 26 of the United States Code, and currently allows employers to pay for their employees to commute by transit or vanpool for up to \$115 per month in exchange for a tax deduction. Alternatively, employers may allow employees to exchange up to \$115 monthly in taxable salary for tax-free transit or vanpool benefits, or may share the costs with employees. Additional information is provided by the Association for Commuter Transportation at [www.commuterchoice.com](http://www.commuterchoice.com), or from the Federal Transit Administration and the National Transit Benefit Association.



## **7.2 Increase Coordination among Providers**

A number of other key findings from the coordination planning process speak to methods for improving transit in the State. Although the specifics of transportation needs from region to region differ greatly, the primary findings in the process indicate that the needs of each region can be classified under the following:

- Increase service (more days, hours, geographic coverage including rural areas)
- Targeting populations that may not qualify for existing programs (like Medicaid and TANF) but are still low/fixed income and have unmet transportation needs
- Access to jobs many of which are across county or regional boundaries
- Improve response time for return trips through centralized and/or real-time scheduling
- Coordinate fleet replacements and expansion in an effort to reduce capital costs
- Develop programs that increase the utilization of existing services
- Improve the distribution of information to the riding public, human service agencies about available services through the use of a mobility manager (this is underway in the Lower Savannah Region).
- Expense pooling program (fuel, insurance, training etc.)
- Address cost allocation among operators to facilitate greater coordination/cooperation

These issues constitute the commonalities among the regions, but the coordination plan development process did show significant differences in the primary transportation needs of each region. Given the differences in the provision of service and the different evolution of relationships among agencies from region to region, potential strategies to address these issues will vary across the State. Each plan does place the responsibility of developing actual projects to the human service agencies and transportation providers and for the COGs to develop an evaluation process to identify which of these projects will receive funding.

A major goal for the Coordination Plan is to establish a methodology to evaluate potential projects at the Regional level so that limited resources are optimized. Based on the plan development process in the Waccamaw Region the following criteria should be considered when selecting projects.

1. Projects that enhance reliability and schedule adherence of demand response services.
2. Projects that target new rural service and more specifically service in Georgetown County should receive favorable ratings in the evaluation process.
3. Projects that relax eligibility requirements or increase the number of individuals eligible for service should be considered.

## **7.3 Expand Transit Service**

There is little doubt that transit can be expanded in its role as a mobility option in South Carolina. Even though there is heightened awareness about the benefits of transit,



expansion of service will be predicated upon identifying new service that is cost effective with defined benefits that warrant sustainability and funding.

Demand estimates for the Waccamaw Region show there is on average a 20% increase in transit demand every decade between now and 2030 (see Table 12 in the Statewide Transit Plan). This growth along with increasing congestion on the main thoroughfares leading to and along the Strand will need the implementation of transit to at the very least, maintain mobility.

### **7.3.1 Need to Accommodate the In-Flux of Elderly**

South Carolina has one of the fastest growing elderly populations in the US because of the State's allure as a retirement destination. Many of these individuals have higher incomes (although may still be fixed incomes) and come from areas of the country where transit plays a greater role as a transportation option. One of the primary reasons the needs assessment shows so many deficiencies in the transportation system is attributable to the pressure the elderly population will exert on the transit network in terms of need for service and the propensity for using the service. Transit systems cannot be slow to react to new developments with elderly populations and should look for opportunities to partner with these developments to help fund transit programs. The Waccamaw Region is well above the State average in elderly population growth.

### **7.3.2 Target Gaps in Rural Areas**

The needs assessment for the Statewide Plan focused on transit dependent populations which showed that only 34% of the total transit need is being accommodated currently in counties with existing service. This equates to over 4 million trips and the number nears 6 million if those counties without service are included in the estimate. Rural transportation is a core function of transit in South Carolina and service in these areas should be expanded. Williamsburg County and northern Horry County currently have service but every indication points toward growth in these areas. Georgetown County needs service to be introduced altogether and show growth at a similar rate as Horry and Williamsburg.

### **7.3.3 "Right Size" Urban Systems**

The evolution of the urban systems in South Carolina has led to several of them being undersized given the population in these areas. Many of them were originally operated by power companies and were reduced in scope as the power companies relinquished control to public authorities. Other factors have also affected the size of these systems like the density of population and the general difficulty in maintaining local funding for these systems. Columbia has recently faced service cuts as the funding agreement between the Authority and SCE&G has sunset. Charleston was forced to make drastic cuts in service prior to the introduction of a dedicated sales tax. Given the population of these cities along with Greenville and Myrtle Beach, their systems would probably be quite larger if they were in another part of the country or there was a different culture toward transit. The primary issue is funding, but these cities could support larger more intensive transit systems.



Some cursory research shows that on average cities between 200,000 and 400,000 in population have systems with peak bus requirements in the 60-100 range. Knoxville, a city with approximately 180,000 in population, has a peak requirement of 72, while comparable cities in South Carolina have much smaller fleets. Continuing to keep in mind that sustainable funding is the core problem inhibiting expansion of these systems, these cities could realize an order of magnitude difference in ridership just by increasing the frequency on existing routes and without increasing their service area. One of the key issues for these systems as they attempt to attract choice riders is that hourly headways on a route fails to provide the convenience necessary for non-dependent riders to choose to ride the system. Growth in the urban areas continues to move these regions closer to the densities and travel patterns more conducive to transit as a commute option and it will be critical to expand these systems to a level commensurate to the size of the jurisdictions they serve.

### **7.3.4 Increase in Commuter Based Services**

Even though the needs assessment in the Plan centers on the needs of transit dependent populations, we cannot lose sight of the need to attract choice riders. From the Statewide Plan's perspective, development of regional commuter based systems will be left up to the individual regions since they are better equipped to produce ridership estimates and must identify long term funding programs. However, the State should support the implementation of regional commuter based transit through increased funding support, especially for capital expenditures, such as the implementation of formal park and ride facilities, purchase of rolling stock, corridor preservation; as well as the introduction of pilot programs like the SmartRide program.

A key finding in the Plan is that the change in daytime population indicates significant travel patterns between regions and from the suburbs into the urban areas. The State of South Carolina currently provides no subsidies for intercity bus service, but these needs should be considered in the future, especially if additional service cuts are made to current operations. If necessary, state investment in intercity bus service should be considered to maintain key connections across the State and these services could augment commuter based services into the urban areas. Current State funding sources are used by public transit agencies to support the intercity commute-oriented services to jobs along the coast, but additional support for these services may be needed in the future. Additionally, as high speed rail services are developed, the State should examine its role in not only the rail operation, but any connecting bus service as well.

As a part of the development of the Statewide Transportation Plan, a corridor plan was developed to identify deficiencies in the roadway network that connects key cities and activity centers. Several of these corridors present opportunities for transit to play a role in attracting choice riders and potentially encourage a modal shift away from the automobile. There were several corridors identified in the Waccamaw Region that exhibit the characteristics necessary for transit to become a viable option. Table 24 below shows the transit projects to address these corridor issues and the Corridor Plan contains more detailed information.



Table 24: Potential Transit Options

SC Region	Corridor	Project ID/ Sub-Corridor	Route	Segment Length (miles)	Potential Transit Option(s)
Waccamaw	Atlantic Coast	AC14-1	US 17 (Ocean Highway)	1.67	Local Bus
Waccamaw	Atlantic Coast	AC14-2	US 17 (Ocean Highway)	2.84	Local Bus
Waccamaw	Atlantic Coast	AC14-3	US 17 (Ocean Highway)	3.11	Local Bus
Waccamaw	Atlantic Coast	AC14-5	US 17 (Ocean Highway)	4.06	Express Bus, Local Bus
Waccamaw	Atlantic Coast	AC15-1	US 17 (Highway 17 Bypass South)	2.69	BRT, Local Bus, Express
Waccamaw	Atlantic Coast	AC15-2	US 17 (Highway 17 Bypass South)	3.16	BRT, Local Bus, Express
Waccamaw	Atlantic Coast	AC16-1(A)	US 17 (Highway 17 North)	3.59	Bus, Commuter Rail
Waccamaw	Atlantic Coast	AC16-2	US 17 (Highway 17 North)	1.69	BRT, Local Bus, Express
Waccamaw	Atlantic Coast	AC16-3	US 17 (Highway 17 North)	2.64	Bus, Commuter Rail
Waccamaw	Atlantic Coast	AC16-4	US 17 (Highway 17 North)	1.05	BRT, Local Bus, Express
Waccamaw	Atlantic Coast	AC16-5	US 17 (Highway 17 North)	0.85	Express Bus, Local Bus, BRT
Waccamaw	Atlantic Coast	AC16-6	US 17 (Highway 17 North)	1.77	Express Bus, Local Bus, BRT
Waccamaw	Trans-Carolina	TC32-1	US 501 (Highway 501 East)	1.49	Local Bus, Express Bus, BRT
Waccamaw	Trans-Carolina	TC32-2	US 501 (Highway 501 East)	1.49	Local Bus, Express Bus, BRT
Waccamaw	Trans-Carolina	TC32-3	US 501 (Highway 501 East)	6.00	Local Bus, Express Bus, BRT
Waccamaw	Mid-Carolina	M-16 to M-20	Florence-Conway	US 378	Local Bus, Express Bus, Enhanced Bus/ITS
Waccamaw	Trans Carolina	TC-30 to TC-31	Marion-Conway	US 501	Local Bus, Express Bus, BRT
Waccamaw	Pee Dee	PD-1 to PD-6	Florence-Kingstree-Charleston	US 52	Local Bus, BRT, Commuter Rail

### 7.3.5 Needs Incremental Approach with Sustainability

Another important component of the Plan is the Vision and Goals included in Section 4 which speak to the potential of transit as a catalyst for economic growth, and its role in maintaining mobility and the quality of life in South Carolina. One key ingredient in realizing this Vision will be to concentrate on core service as we incrementally grow the transit network. It will be important to maintain momentum for transit growth by avoiding the pitfalls of growing too fast and spreading services too thin. Planning transit expansion must hinge on the quantification of benefits and designing cost effective service so that they can be justified to funding entities and gain better support from the public and just as important, improve the image of transit in the public’s eye. This is a very important concept to the growth of the transit network in the Waccamaw Region because the system must take every precaution for new service to be successful.

## 7.4 Other Action Items

### 7.4.1 Coordinating Transportation and Land Use Decisions

South Carolina has the fifth worst sprawl rating in the country and ranks fourth in the amount of land being developed on a per capita basis. Even more remarkable is that South Carolina, one of the smallest states (40th in size), ranks ninth in the country in the total number of acres that are being developed. A statewide study conducted by the Center for Urban Policy Research, Rutgers University entitled, *South Carolina Infrastructure Study: Projection of Statewide Infrastructure Costs 1995-2015* (1997),



determined that through compact growth, South Carolina would reduce its infrastructure costs for a 20-year period (1995 to 2015) by nearly \$5 billion.

In South Carolina, the State is responsible for transportation and local governments are responsible for land use and zoning. Frequently there are inadequate incentives for municipalities to cooperate with one another and the State on transportation and land use issues. There is a need to take voluntary but cumulative steps toward improving transportation and land use planning in the State.

Access management techniques provide a way to manage access to transportation facilities, typically highways. These techniques can help increase public safety, extend the life of major facilities, reduce congestion, support alternative transportation modes, and improve the appearance and quality of the built environment while ensuring appropriate access to adjacent businesses and other land uses. Managing access to transportation facilities and services is one way to preserve the operational integrity of the transportation system while ensuring its compatibility with adjacent land uses.

#### **7.4.2 Upgrade Passenger Rail Service**

Develop an integrated Statewide Rail Plan that includes coordination of all entities relative to passenger rail service, including freight interests and Amtrak. Address future growth and development opportunities facilitating passenger rail service. Identify options for a sustainable source of state funding with which to support capital and operating costs of passenger rail and/or other incremental transportation services. Work with the railroad companies to ensure that upgrades are made to track and other equipment that benefit both passenger and freight rail:

- Work with both public and private sector interests to improve the State's rail infrastructure and passenger and freight rail service.
- Continue to support the interstate efforts to implement high speed rail in the Southeast.
- Providing a connection to high speed rail corridors will only enhance mobility and economic growth in the Waccamaw region.

### **7.5 Conclusion**

This plan provides a framework for collaborative, continuous actions on the part of SCDOT, the metropolitan planning organizations, councils of governments, and regional stakeholders to move toward effective implementation of a multimodal transportation network along the Strategic Corridor System.

The need for collaborative efforts at all levels is evident considering that the scale of cumulative transit funding needs in South Carolina through 2030 (\$3.88 billion) significantly outstrips unconstrained projections of available funding (\$2.15 billion) over the same period. Financial deficits for current, planned and projected transit operations are anticipated in each region. The urgency for action becomes more essential as rising fuel and travel costs, socioeconomic and environmental impacts, right-of-way limitations for roadway expansion, and demographic changes collectively suggest the



growing need on South Carolina's critical corridors for viable alternatives to personal single-occupant motorized transportation, now and into the future. If shortfalls at the state and regional levels continue unabated, the state's citizens and leaders will have to come to terms with the prospect of substandard transit service levels that fall short of meeting a diverse range of intra-regional and inter-regional needs.

While the challenges ahead may appear insurmountable, this plan lays out action items which can be tailored to help address many of the burdens to be placed on current and future transit providers and those who will rely on their coordinated services. A balance can be struck between anticipated transit demand and the minimum acceptable corridor levels of service to reflect the quality of life expected within each region. State and regional partners may build on the focus group findings and other analyses in this plan to help articulate the purpose and need for enhanced transit services and pursue the most acceptable mechanisms to fill gaps in funding.

