

**Lower Savannah Council of Governments
Rural Long-Range Transportation Plan
2005-2030**



Prepared By:

Lower Savannah Council of Governments

In Cooperation With:

**South Carolina Department of Transportation
and the
Technical Advisory Committee**

TABLE OF CONTENTS

Chapter 1	Introduction and Vision	5
Chapter 2	Highways and System Upgrade	12
Chapter 3	Intersections and Safety	20
Chapter 4	Bridges	24
Chapter 5	Maintenance and Resurfacing	28
Chapter 6	Signalization	33
Chapter 7	Mass Transit	35
Chapter 8	Bicycle and Pedestrian Facilities	42
Chapter 9	Environmental Screening	49
Chapter 10	Financial Plan	51
Chapter 11	Unfunded Projects	57
	List of Figures	3
	List of Tables	4

List of Figures

Figure 1.1	Study Area
Figure 2.1	Major Roads
Figure 2.2	Aiken County Traffic Counts
Figure 2.3	Allendale County Traffic Counts
Figure 2.4	Bamberg County Traffic Counts
Figure 2.5	Barnwell County Traffic Counts
Figure 2.6	Calhoun County Traffic Counts
Figure 2.7	Orangeburg County Traffic Counts
Figure 3.1	Regional High Accident Locations
Figure 3.2	Functional Improvements
Figure 4.1	Recommended Bridge Projects
Figure 7.1	LSCOG Regional LMI

List of Tables

Table 1.1:	LSCOG System Upgrade Program (Guideshare Projects)	9
Table 2.1:	2004 Traffic Counts on Rural Highways	13
Table 2.2:	2004 Level of Service (LOS)	16
Table 2.3:	Rural Annual VMT by County	18
Table 2.4:	Rural Annual VMT by Functional Class	18
Table 2.5:	Rural LSCOG Region Projections	19
Table 3.1:	Leading Cause of Fatal Accidents	21
Table 3.2:	SCDOT Rankings for Safety Projects	22
Table 3.3:	LSCOG Functional Improvements	23
Table 4.1:	SCDOT Priorities for Bridge Replacement	25
Table 5.1:	LSCOG Roads with PQI Less Than 2.6	29
Table 7.1:	LSCOG Mass Transit Financial Summary	41
Table 10.1:	LSCOG Estimated Funding Through 2030	54
Table 10.2:	LSCOG Mass Transit Financial Summary	54
Table 10.3:	LSCOG Estimated Project Funding	55

Chapter One:
Introduction and Vision

Introduction

This is the first comprehensive approach to a rural Long Range Transportation Plan (LRTP) for the rural area of the Lower Savannah region. The Augusta Regional Transportation Study (ARTS) Policy Committee has produced long range transportation plans for the urbanized area of the region since the early 1960's. The ARTS 2015 Long Range Transportation Plan update was adopted in September 1997. In 1998, the Plan was extended to the year 2020. Extending the forecast period a second time, to the year 2025, was necessary in order to comply with federal transportation planning statutes and regulations. For the rural areas of the Lower Savannah region, most transportation planning has been under the jurisdiction of the South Carolina Department of Transportation (SCDOT).

SCDOT first began enhancing the statewide planning process and local consultation procedures in response to the directives of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). At that time, rural project identification, evaluation, and prioritization was the responsibility of SCDOT. Consultation with local officials took place as a function of public involvement activities associated with the statewide long-range transportation plan and State Transportation Improvement Program (STIP). A revised process was ultimately implemented following the directives of the Transportation Equity Act for the 21st Century (TEA-21) and the adoption of the STIP in 1999. A working committee including representatives from South Carolina's ten Council of Governments (COGs) and the FHWA Division Office assisted SCDOT in developing the revised process.

The fundamental change in the process began with a partnership between SCDOT and the ten regional COGs, which have representation from all 46 counties in the state. SCDOT created a Rural System Upgrade Program referred to as Guideshares, which includes the federal-aid construction program for the areas outside of the metropolitan planning organizations (MPOs). Rural Guideshares were allocated by COG regions based on rural population. SCDOT initially prepared a list of potential transportation needs based on travel, congestion, and safety data for each region in the state. The COGs used the listing as the basis for discussion with local officials, economic development groups, and members of the legislative delegation. Through these meetings, additional projects were also identified. As a result of these initiatives, the Lower Savannah COG developed a steering committee made up of a board member from each county to evaluate and rank potential projects. Rural project priorities were endorsed by the COG board and forwarded to the SCDOT Commission for final approval. The COG facilitated all public involvement activities for projects programmed in the STIP.

In 2003, the SCDOT Commission adopted the Statewide Multi-modal Transportation Plan. The planning process utilized the COGs to develop regional transportation plans that collectively provided the basis for establishing statewide priorities.

On August 10, 2005, the President signed into law the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). Representing the largest surface transportation bill in the nation's history, SAFETEA-LU provides for a \$244.1 billion investment. Like TEA-21 before it, SAFETEA-LU provides a foundation for improving transportation safety, reducing traffic congestion, improving efficiency in freight movement and protecting the environment.

Today each COG has transportation functions similar to that of MPOs. A portion of SCDOT's State, Planning, and Research (SPR) funding is allocated to the COGs to facilitate an ongoing rural transportation planning process. Each COG is required to submit a Rural Planning Work Program (RPWP) outlining the planning emphasis areas and planning projects for the year.

Planning Process

In accordance with U.S.C. Title 23, Section 135, Statewide Planning, federal law specifies that each State shall carry out a transportation planning process that provides for consideration of projects and strategies that will—

- (A) support the economic vitality of the United States, the States, and metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency;
- (B) increase the safety and security of the transportation system for motorized and nonmotorized users;
- (C) increase the accessibility and mobility options available to people and for freight;
- (D) protect and enhance the environment, promote energy conservation, and improve quality of life;
- (E) enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight;
- (F) promote efficient system management and operation; and
- (G) emphasize the preservation of the existing transportation system.

Each COG, in partnership with SCDOT, is responsible for implementing a transportation planning process that fully complies with the federal planning requirements established by SAFETEA-LU. Through this process, each COG establishes regional goals and objectives, identifies the current condition of the transportation system, provides research and data analysis, identifies and prioritizes transportation needs for input to the Statewide Multi-modal Transportation Plan and STIP. The rural planning process is based on the development and maintenance of regional long range transportation plans, which is the foundation for this document.

The rural transportation planning role of regional planning entities is far more extensive than in many other states, since the United States Department of Transportation (USDOT) largely leaves it up to the discretion of state DOT's regarding how much local and regional officials are involved in the rural transportation planning partnership. However, with the passage of the Safe, Accountable, Flexible, Efficient Transportation Equity Act- a Legacy for Users (SAFETEA-LU), local consultation is required for transportation planning in the rural areas. It is the hope of the partnership in this state that more local involvement will result in a plan that better and more efficiently address the transportation needs of the residents and travelers in our rural areas.

Technical Advisory Committee

Each COG maintains a regional transportation advisory committee with representatives from local government, transportation providers, and special interest groups. The Lower Savannah maintains a rural transportation Technical Advisory Committee (TAC), which is made up of county administrators, county engineers, transportation providers, public works managers, SCDOT, special interest groups, and planners. The TAC plays an important role in identifying,

analyzing and prioritizing transportation needs and goals for the region. As a result of the Lower Savannah TAC and COG board, local governments are directly consulted and given an opportunity to identify transportation needs on the state system.

The Transportation Advisory Committee meets bi-annually or as needed to review project status, evaluate proposed modifications to the STIP, update long-range plan and funding priorities, comment on rural functional classification changes, receive input on the rural work programs, and coordinate special studies.

Public Involvement

An extensive public outreach process was established as part of the LSCOG Long Range Transportation Plan. As transportation projects progress, public involvement is critical. Public involvement helps generate useful ideas and forecasts problems that could arise in the future. Lower Savannah works to integrate the public through a Transportation Policy Committee (Board of Directors), a Technical Advisory Committee, review periods, information dissemination, public meetings, the LSCOG web site, quarterly newsletters and presentations to different groups and organizations. As part of the long range planning process, a Rural Transportation Newsletter was developed and distributed throughout the region. The planning department will continue to develop the newsletter and disseminate transportation information and updates when necessary.

The LSCOG also produces a transportation primer that provides information on the transportation network of the rural areas in the Lower Savannah region. This primer is published on the LSCOG web site and will continue to be made available to local governments and the public. Initially produced for the Transportation Advisory Committee, the primer is also useful to SCDOT, local governments, and the public for information on the details of the rural planning process.

The LSCOG also hosted and will continue ongoing efforts to host public involvement “open house” style public input meetings involving the public, transportation and transit providers, local governments, bicycle and pedestrian organizations, service agencies and community leaders. These input meetings provided valuable local input on transportation needs in the Lower Savannah region.

State Transportation Improvement Program (STIP)

SCDOT publishes and maintains a 5-year STIP detailing program funding levels, projects, and funding schedules. The STIP is updated every two years. Through the rural planning process, the COGs provide SCDOT with updated project priorities for inclusion in the STIP. Projects must be included in the regional long range plans prior to being eligible for the STIP. Each COG endorses its regional priorities for consideration by the SCDOT Commission.

Each COG is responsible for advertising and documenting public comment for any amendment to the STIP within their region (see STIP process for definition of amendment/adjustment). The COG has discretion of advertising by legal ad or press release and chooses the appropriate media distribution based on the program change. STIP amendments require a 30-day comment period and all comments are forwarded to the SCDOT Executive Director prior to SCDOT Commission

action. Copies of the STIP are made available for public review at the COG office and appropriate SCDOT Engineering District Office(s).

SCDOT is responsible for advertising and distributing copies of the draft STIP to each COG and District Office when an amendment involves a change of statewide significance and for the two year update of the STIP. Table 1.1 lists the project priorities that are included in the current 2005-2007 STIP and from the previous 2001-2005 STIP.

Table 1.1: LSCOG System Upgrade Program (Guideshare Projects)			
Project	County	Description	Length (Miles)
US 601	Orangeburg	Multi-laning from I-26 to US 176	6.13
US 321	Orangeburg	Widen to 4 lanes from S-1864 in Neeses to US 178 in Town of North	5.51
US 78	Aiken	Widen to 4 lanes from S-507 (ARTS Boundary) to S-54 in Town of Windsor	8.28
US 601	Calhoun	Widen to 3 lanes from US 176 to SC 6 in St. Matthews	1.83
US 278	Barnwell	Selected improvements from SC 64 to SC 70	0.26
S-94 (St Matthews Rd)	Orangeburg	US 21 By-Pass to US 601	2.49
US 601	Calhoun	Orangeburg Co. Line to US 176	2.96
Intersection Improvements*	Regional	Miscellaneous intersection improvements	
US 301	Bamberg	Upgrade in downtown Bamberg	0.40
Briggs-Delaine-Pearson Connector	Calhoun Clarendon Sumter	Construct new causeway	9.00

*Specific intersection improvements listed below

**Earmark project that is unfunded for construction

The intersections identified for improvement in 2003 include:

- Allendale County- US 278 and US 301
- Bamberg County- US 321 and S-264, US 78 and US 321
- Barnwell County- SC 64 and S-224, US 278 and S 37
- Orangeburg County- US 301 and S-211, US 21 and S-94, US 21 and US 601, US 178 and US 178, US 21 and S-106, US 301 and S-49, US 301 and SC 33

Regional Conditions

The LSCOG rural study area contains 64% of the population of the six-county region, around 240,109 people as of the 2000 Census. The remaining 36%, or 60,557 people, is within the ARTS study area. The rural study area of the Lower Savannah region grew at a pace between 1990 and 2000 roughly around 12%.

The rural study area contains all six counties, and includes 42 out of the 45 municipalities. In Aiken County, the City of Aiken, Town of Burnetown, and City of North Augusta are

considered to be a part of the ARTS Boundary and are not included in the rural study area. The Lower Savannah region is predominantly rural, with the exception of the City of Orangeburg, which has a population of 12,786. Figure 1.1 shows the location of the rural study area in the Lower Savannah region.

Growth in much of the Lower Savannah region has been relatively slow; however, the potential to accelerate this trend can be predicted. With the anticipation of growth and development, serious thought needs to be given to the transportation impacts resulting from growth, as well as system improvements that would be needed, and how these improvements would be funded. Yet, not all rural areas are directly in the path of growth, and not all transportation needs are fueled by growth.

The rate of growth and development can in large part be determined by studying the changes in land use in the region. Growth management can better be accomplished by identifying the current land uses and projecting future uses based on a number of factors, including population estimates and projections, commercial, residential and industrial development, and existing land use conflicts.

There are many needs for system improvements even in the most remote areas, including the safety hazards of narrow, winding roads, deteriorating bridges, and poor pavement conditions. Furthermore, non-automobile options in rural areas, including bicycle/pedestrian facilities and mass transit, are often extremely limited or nonexistent. Lack of a comprehensive, well maintained multi-modal transportation system has a negative impact on quality of life, as well as limiting economic opportunity in terms of access to jobs for residents, and attracting new jobs to the area.

Vision

This plan envisions a future region that provides accessibility and mobility for people and goods by developing and maintaining an adequate, safe, and balanced transportation system. The goals of this study are outlined below:

- Develop a compatible plan- consider future land use and adjacent jurisdiction plans
- Create a plan- accommodate community growth and related traffic increases
- Improve roadway safety
- Recognize specific mobility needs- consider regional tourism and economic development (business and industry)
- Recognize access and limited mobility- address disabled persons, seniors, and other similar needs
- Create a system of interconnected streets- improve mobility and distribute traffic efficiently based on purpose and function
- Provide for convenient, efficient connections- connect various surface and air transportation modes and facilities
- Enhance the efficiency of the existing transportation system- implement low cost improvements and incorporate innovative techniques
- Enhance the quality of life- minimize adverse impacts and/or positively affect the natural and social environments

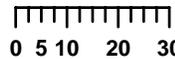
Study Area



Legend

- Study Area
- ARTS Boundary
- Savannah River Site
- Atlantic Ocean

Distance in Miles



Lower Savannah COG GIS
 Date: March 24, 2006
 Sources: LRTP, SCIP, TIGER



General Disclaimer

This information has been provided from general sources and is to be used only as a guide. The LSCOG assumes no liability for its accuracy or any decisions which the user may make based on these documents.

- Support “mixed-use” development- encourage bicyclists and pedestrians by promoting context-sensitive roadway design
- Promote a pedestrian-friendly environment- fill in gaps and improve interconnection within the sidewalk system
- Support additional bike lanes and trails to parks and community activity centers
- Evaluate the need for passenger/commuter rail service between regional activity centers
- Create interconnected bicycle and pedestrian networks
- Provide and plan for future transit service expansions
- Protect and reserve rights-of-way (ROW)- encourage local jurisdictions within the Lower Savannah Region to plan for ROW needs as future development occurs
- Build consensus and locate funding sources- determine acceptable local sources and implement innovative techniques to supplement federal and state revenues

In order to prioritize projects, the TAC voted on transportation improvement goals and came up with the following list of goals for future project prioritizations, ranked from most important to least important:

1. Safety Improvements
2. Functional Improvements
3. Pavement Resurfacing
4. Capacity Improvements (road widening) 0-5 mi
5. Bridge Replacement
6. Road paving (Sec Rds)
7. Capacity Improvements (road widening) >5 mi
8. Bicycle/Pedestrian Facilities/Sidewalks

Overview of Plan

The vision of a safe, multi-modal, and interconnected transportation system for the Lower Savannah Region can become a reality. This plan is intended to serve as a tool and guide for the future success in the implementation of the Region’s transportation system (2030 is the planning horizon for the transportation plan). The LSCOG rural Long Range Transportation Plan includes the following chapters:

- Background and Vision
- Highways and System Upgrade
- Intersections and Safety
- Bridge Replacement
- Maintenance and Resurfacing
- Signalization
- Mass Transit
- Bicycle and Pedestrian Facilities
- Environmental Screening
- Financial Plan
- Unfunded Projects

Chapter Two:
Highways and System Upgrade

Existing Conditions

The rural Lower Savannah region is crossed by a network of major and minor highways. Table 2.1 contains a list of all the interstates and primary highways in the area, as well as the average annual daily traffic (AADT) volume for 2004. The counts are taken from the stations with the highest volume for the given road. Figure 2.1 shows the location of these roads on a map.

Table 2.1: 2004 Traffic Counts on Rural Highways				
Station	County	Highway	Location	AADT
2165	Orangeburg	I-26	US 601 to SC 33	43000
2383	Orangeburg	I-95	US 178 to I-26	39300
104	Orangeburg	US 15	S-202 to SC 267	3300
108	Orangeburg	US 15	US 301 to SC 6	5300
147	Orangeburg	US 21	US 601 to S-94	25000
149	Orangeburg	US 21	S-94 to US 178/178 CON	24900
151	Orangeburg	US 178	US 178 Bus. To US 21/178	24400
157	Orangeburg	US 78	S-63 to US 21/S-179	4000
173	Orangeburg	US 176	S-120 to S-147	6800
177	Orangeburg	US 176	S-119 to SC 453/S-103	7100
197	Orangeburg	US 178	S-61 to US 178 BUS	30000
205	Orangeburg	US 178 BUS	S-1061 to SC 33	11100
229	Orangeburg	US 301	S-49 to SC 4	29200
263	Orangeburg	US 321	SC 4 to S-161	7800
283	Orangeburg	US 601	S-94 to I-26	23500
300	Orangeburg	SC 3 BUS	SC 4/S-86 to SC 4/S-1216	3500
295	Orangeburg	SC 3	S-259 to Lexington Co.Line	3200
355	Orangeburg	SC 39	Barnwell Co. Line to SC 4	2100
315	Orangeburg	SC 4	S-686 to US 301	10700
330	Orangeburg	SC 6	US 15/301/SC 6 Con To I-95	14300
347	Orangeburg	SC 33	US 21 & 178 to US 21	11300
445	Orangeburg	SC 453	S-230 to US 176	5600
116	Orangeburg	SC 453	SC 453 to S-222	6400
405	Orangeburg	SC 314	US 15 to US 176	1300
399	Orangeburg	SC 310	S-1640 to S-1376	3600
383	Orangeburg	SC 210	US 178 to I-26	1900
391	Orangeburg	SC 267	US 15 to US 301	2300
367	Orangeburg	SC 47	S-35 to S-232	3600
375	Orangeburg	SC 70	S-1343 to US 301	3400
377	Orangeburg	SC 172	US 178 to Calhoun Co. Line	1250
457	Orangeburg	SC 692	S-397 to SC 172	900
435	Orangeburg	SC 394	S-279 to US 178	1350
427	Orangeburg	SC 389	S-160 to US 321	3700
411	Orangeburg	SC 332	S-89 to SC 321/400	1950
441	Orangeburg	SC 400	S-74 to SC 4	2000
2155	Calhoun	I-26	US 21 to S-31	54000
111	Calhoun	US 21	US 176 to S-86	4700

121	Calhoun	US 176	S-317 to SC 6	4900
146	Calhoun	US 601	S-46 to SC 6	6300
169	Calhoun	SC 6	S-155 to S-24	6500
171	Calhoun	SC 6	S-24 to S-46	6500
185	Calhoun	SC 33	Orangeburg Co. Line to S-76	2300
201	Calhoun	SC 172	S-29 to SC 6	950
205	Calhoun	SC 267	S-203 to S-130	1650
219	Calhoun	SC 419	S-73 to US 601	275
103	Barnwell	US 78	S-217 to SC 39	7400
120	Barnwell	US 278	SC 64 to SC 70/S-11/S-235	20800
141	Barnwell	SC 3	US 78 to S-16	5800
146	Barnwell	SC 37	US 278 to S-118	4000
155	Barnwell	SC 39	US 78 to S-13	3800
163	Barnwell	SC 64	S-20 to US 278	8100
173	Barnwell	SC 70	US 278/SC 64/S-235 to S-11	6300
187	Barnwell	SC 304	S-253 to US 78/SC 3 CON	1900
303	Barnwell	SC 125	Aiken Co. to Allendale Co.	2300
183	Barnwell	SC 300	US 278 to Allendale Co. Line	475
109	Bamberg	US 78	S-50 to US 301/601	7900
116	Bamberg	US 21	Colleton Co. to Orangeburg Co.	1750
125	Bamberg	US 301	US 78 to S-166	11100
143	Bamberg	US 321	S-12/S-26 to US 78	6500
163	Bamberg	US 601	S-59 to US 301	3600
153	Bamberg	SC 362	S-189 to US 78	1000
154	Bamberg	SC 217	Colleton Co. To Colleton Co.	500
156	Bamberg	SC 641	Allendale Co. to Colleton Co.	700
165	Bamberg	SC 61	US 78 to Colleton Co.	1100
175	Bamberg	SC 64	US 601 to S-197 & S-466	1600
181	Bamberg	SC 70	S-127 to US 301/S-283	3700
109	Allendale	US 278	US 301 to US 301	8000
135	Allendale	US 301	S-22 to US 278/SC 125	5700
149	Allendale	US 321	S-76 to US 278	3900
163	Allendale	SC 3	Hampton Co. Line to S-41	1050
181	Allendale	SC 125	S-22 to US 278/301	3200
183	Allendale	SC 300	Barnwell Co. to US 301	550
185	Allendale	SC 641	US 301 to S-331	1100
2013	Aiken	I-20	S-49 to SC 39	27900
177	Aiken	SC39	S-75 to I-20	2900
181	Aiken	SC 113	SC 39 to Lexington Co.	1200
199	Aiken	SC 125	2.03 mi of S-62 to Barnwell Co.	3000
221	Aiken	SC 302	SC 113 to Lexington Co.	1750

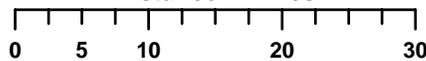
Major Roads



Legend

- Interstates
- US Highways
- SC Highways
- Railroads
- Study Area
- ARTS Boundary
- Cities
- County Boundaries
- Savannah River Site

Distance in Miles



Lower Savannah COG GIS
 Date: March 21, 2006
 Sources: LRTP, SCIP, TIGER



General Disclaimer

This information has been provided from general sources and is to be used only as a guide. The LSCOG assumes no liability for its accuracy or any decisions which the user may make based on these documents.

Interstate 95 provides access to eastern South Carolina. This highway crosses the southern tip of Orangeburg County, with four interchanges in the region:

- SC 6-Santee
- US 176
- US 301-Santee
- I-26

Recently the Technical Advisory Committee endorsed plans for an upgrade of the interchange located at US 301/I-95 into a “cloverleaf” interchange due to the prospect of an inland port facility on schedule to locate in that area. However, currently no money has been earmarked for the project or related improvements. Also, the discussion of plans to construct infrastructure upgrades at the interchange of I-26 and I-95 in order to encourage new development and investment has been made.

Interstate 26 provides access through central and upstate South Carolina. The rural portion of I-26 in the region runs through the northern tip of Calhoun County and crosses the eastern portion of Orangeburg County. In Orangeburg County, there are six interchanges along I-26, and in Calhoun County there are three interchanges.

- SR 31
- SC 6
- SR 22
- US 601
- SC 33
- SC 210
- US 301
- US 21/SR-31
- I-95

Regional Multi-Lane Roadway Accessibility

Multi-lane accessibility in the region is served primarily by three interstates: I-20, I-26 and I-95. With the exception of the three interstates, there are few highways in the Lower Savannah region with multi-lane accessibility. Of the existing multi-lane highways in the region, all are US highways with the exception of portions of three state highways. Listed below are the sections of roadway that are currently either four-lanes or five-lanes:

- US 25 from Edgefield County to Georgia border
- US 78 from Georgia border to SC 302
- SC 230 from Edgefield County to US 78
- SC 19 from US 78 to US 278
- US 1 from US 78 to I-20
- US 301 from Georgia border to I-95
- US 601 from US 301 to I-26
- US 21 in the City of Orangeburg
- US 601 from I-26 to US 176

- US 278 from Allendale to Fairfax
- US 78 in Denmark
- US 78 in Bamberg (to be constructed)

In considering the access routes of the multi-lane roadways listed above it should be noted that there are several important access routes that are excluded from the multi-lane roadway list. An apparent exclusion is US Highway 78, which is a major connector in the Lower Savannah region that runs through Aiken, Barnwell, Bamberg and Orangeburg counties. The highway has long been a regional priority; however, there are considerable sections of that roadway that provide only two-lane access. The roadway is an important freight connector between the Port of Charleston and Augusta, Georgia, and intersects with the CSX railway midway between Charleston and Augusta in the Town of Denmark. The frequency of truck traffic on the two-lane sections of this route has intensified deterioration to the roadway as well as causing decelerated traffic flow, particularly in those areas frequented by logging trucks.

The same observation can be made for sections of US Highway 278, which connects Augusta, Georgia with I-95 just north of Savannah, Georgia through Aiken, Barnwell and Allendale counties in the Lower Savannah region. The highway is widely used to move freight, and similar to US Highway 78, sees a large volume of logging truck traffic. It should be noted that US 278 is multi-laned between the Town of Allendale and the Town of Fairfax.

Another important multi-lane route in the region is US Highway 321, which runs north-south and parallels the CSX railway line. This highway has currently undergone widening between the towns of North and Neeses in Orangeburg County under the SCDOT Guideshare program to accommodate the traffic volume. US Highway 321 provides access to Columbia to the north and Savannah to the south, which results in a large volume of traffic within the region.

Capacity

Currently in the rural LSCOG region, congestion does not present a significant problem for the transportation network. However, that does not mean that in the future this issue could arise. Maps showing the regional annual average daily traffic counts by county are included in Figure 2.2 through Figure 2.7. Listed below in Table 2.2 are selected locations that have the highest traffic volumes, yet have a Level of Service (LOS) of A. This indicates that the roads are capable of accommodating capacity and do not experience major congestion issues. Routes with a LOS of E or greater are reaching capacity and experiencing congestion, particularly during rush hours. As mentioned above, the rural LSCOG region does not experience major capacity concerns at the present, so there are no routes greater than a LOS of B.

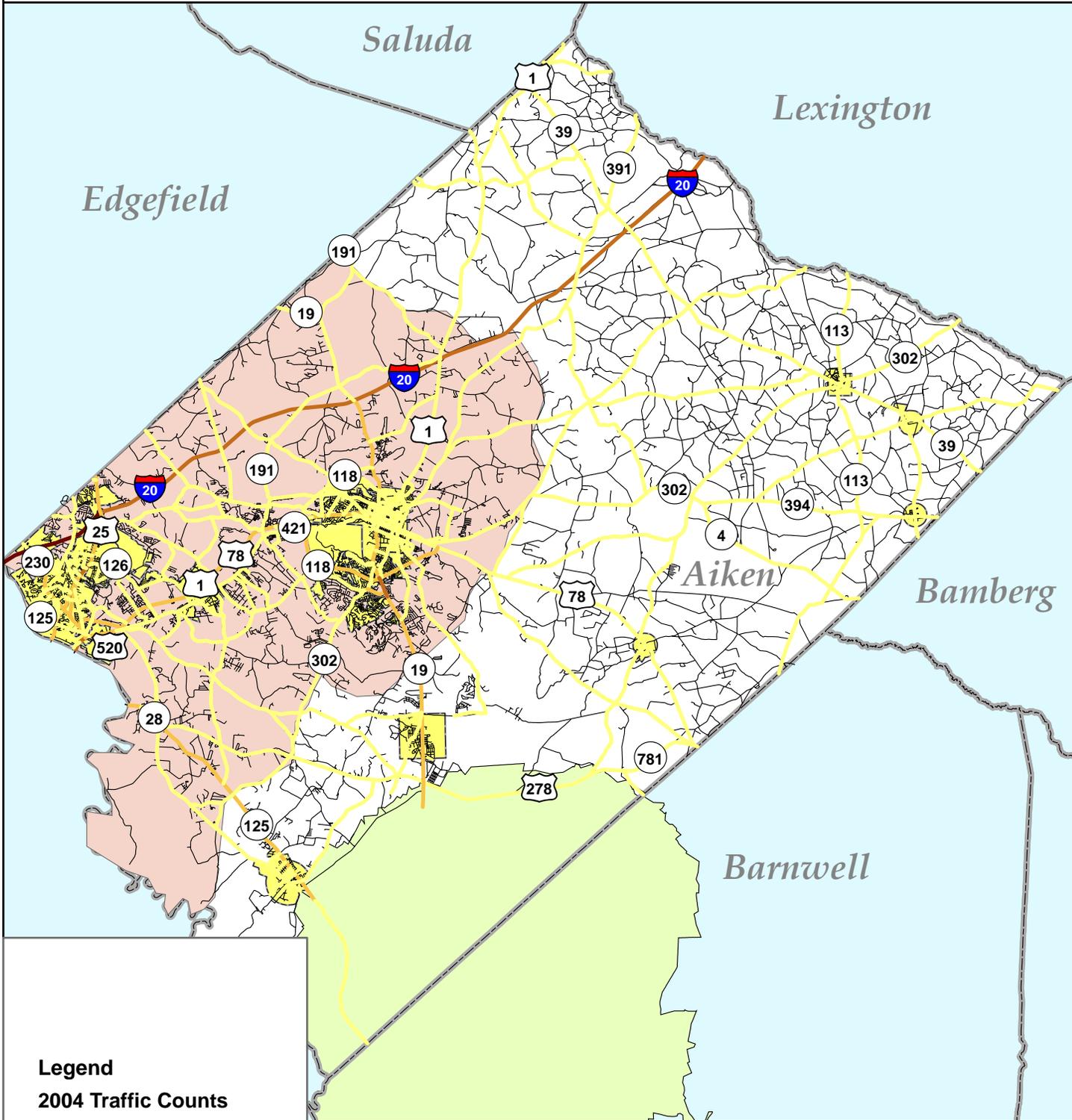
Road Name	County	Location	Volume	LOS
US 21	Orangeburg	US 178 to S-145	4500	A
US 21	Orangeburg	US 178 to US 301	10400	A
US 178	Orangeburg	US 178 BUS to US 21/178	24400	A
US 21	Orangeburg	US 301 to SC 33	19500	A
US 301	Orangeburg	US 178 BUS to US 21/178	18000	A

US 21	Orangeburg	US 601 to S-94	25000	A
US 601	Orangeburg	S-94 to I-26	23500	A
US 21	Orangeburg	S-94 to US 178/178 CON	24900	A
US 178 (BUS)	Orangeburg	US 178 BUS to S-811	9800	A
US 21	Orangeburg	SC 33 to S-106	19600	A
SC 33	Calhoun	SC 6 to S-72	550	A
US 176	Calhoun	SC 6 to S-22	1500	A
US 176	Calhoun	S-22 to US 601	1850	A
S-22	Calhoun	US 601 to I-26	45200	A
S-22	Calhoun	S-191 to S-29	3600	A
SC 267	Calhoun	S-177 to US 601/S-80	1300	A
US 278	Barnwell	SC 37 to SC 64	8100	A
SC 37	Barnwell	US 278 to S-118	4000	A
S-224	Barnwell	US 278 to SC 64	2200	A
S-61	Barnwell	S-87 to SC 3	1500	A
SC 70	Barnwell	S-170 to SC 304	3100	A
US 278	Barnwell	SC 3 to S-499	8400	A
SC 3	Barnwell	SC 70 to S-156	4400	A
SC 64	Barnwell	SC 3 to S-70	3200	A
US 78	Barnwell	SC 39 to S-65	4900	A
US 321	Bamberg	S-22 to S-47	2100	A
US 78	Bamberg	US 321 to S-140	6600	A
S-20	Bamberg	S-86 to S-42	550	A
S-111	Bamberg	US 301 to S-165	2600	A
US 321	Bamberg	SC 70 to Orangeburg Co.	3000	A
S-19	Allendale	US 301 to S-129	1250	A
S-22	Allendale	SC 3 to S-23	225	A

Vehicle Miles Traveled (VMT) is a measure of how much total traffic is present on the road network in an area. It is calculated annually by the SCDOT based on traffic count data and other road and traffic characteristics. VMT has shown an upward trend regionally that is slightly out of proportion to the amount of population growth. For instance, from 2000-2004, the population in the LSCOG region grew 1.2%, but total VMT grew 2.2%. Reasons behind this trend include increased vehicle ownership, increased participation in the workforce, and changes in land use patterns that result in people driving farther distances to reach their destinations.

Table 2.3 shows rural annual VMT by county. Consistent with the trends discussed above, the VMT increase has been at a slightly more rapid rate than population growth in rural areas. This is expected to continue, particularly since rural areas often have few options other than driving to destinations.

Aiken County Traffic Counts (2004)



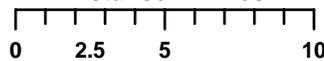
Legend

2004 Traffic Counts

- 25 - 12569
- 12700 - 25113
- 26400 - 37656
- 37900 - 50200

- Roads
- ARTS Boundary
- Savannah River Site
- City Limits
- County Boundaries

Distance in Miles



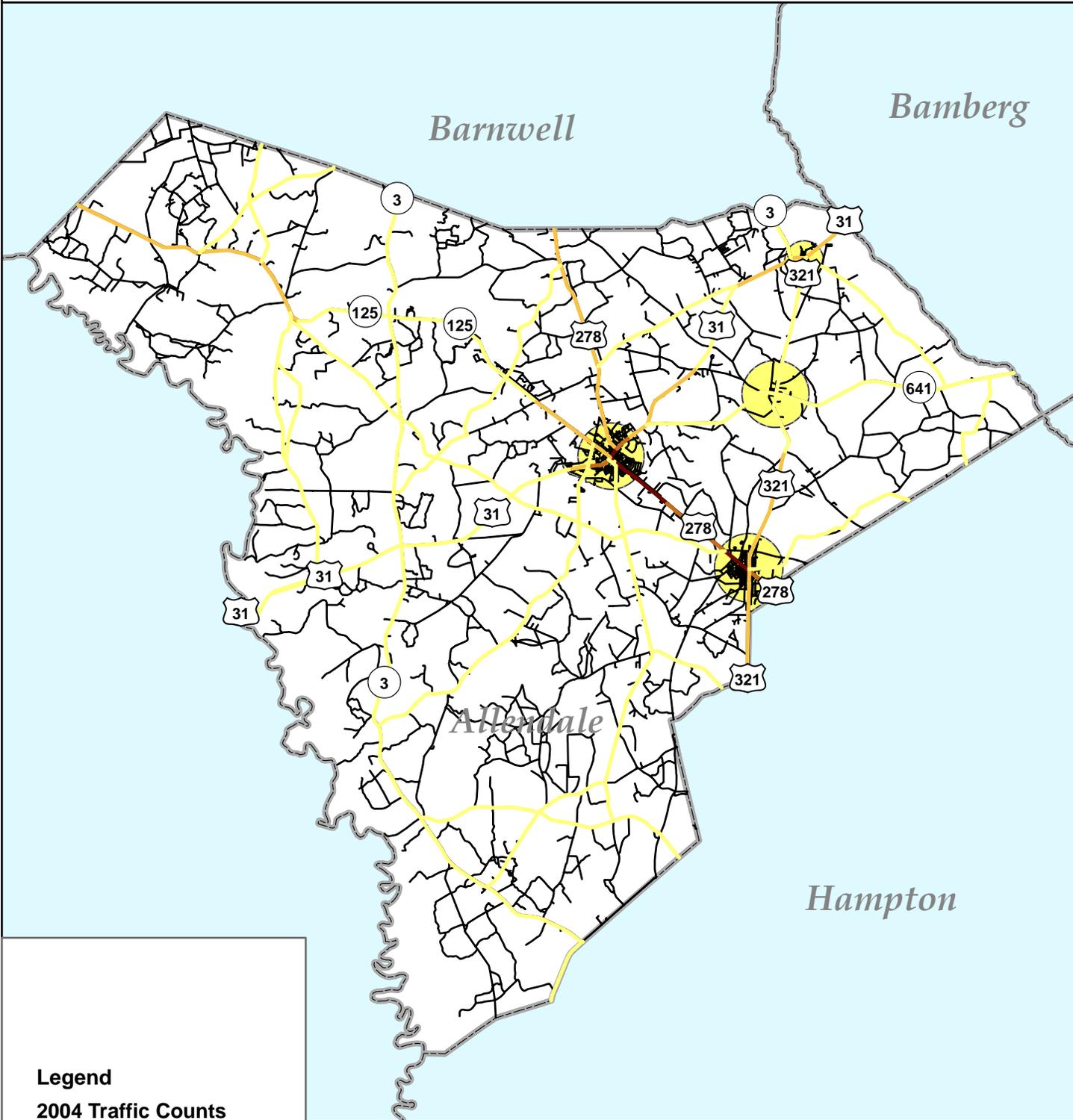
Lower Savannah COG GIS
 Date: March 24, 2006
 Sources: LRTP, SCIP, TIGER



General Disclaimer

This information has been provided from general sources and is to be used only as a guide. The LSCOG assumes no liability for its accuracy or any decisions which the user may make based on these documents.

Allendale County Traffic Counts (2004)



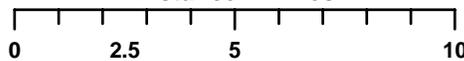
Legend

2004 Traffic Counts

- 25 - 2019
- 2020 - 4013
- 4014 - 6006
- 6007 - 8000

- Roads
- City Limits
- County Boundaries

Distance in Miles



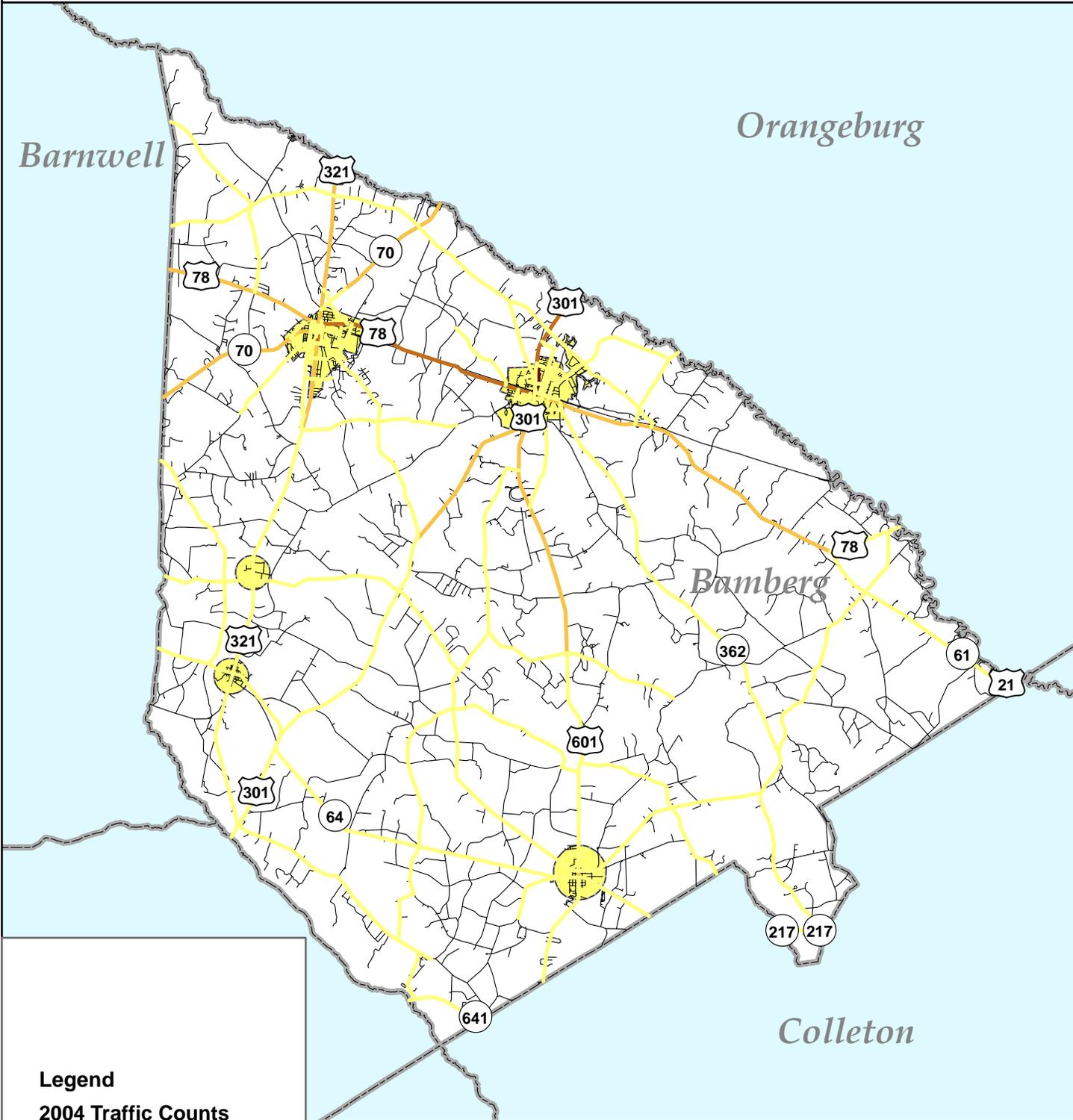
Lower Savannah COG GIS
 Date: March 24, 2006
 Sources: LRTP, SCIP, TIGER



General Disclaimer

This information has been provided from general sources and is to be used only as a guide. The LSCOG assumes no liability for its accuracy or any decisions which the user may make based on these documents.

Bamberg County Traffic Counts (2004)



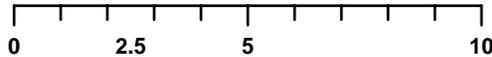
Legend

2004 Traffic Counts

- 75 - 2831
- 2900 - 5588
- 5700 - 8344
- 8400 - 11100

- Roads
- City Limits
- County Boundaries

Distance in Miles



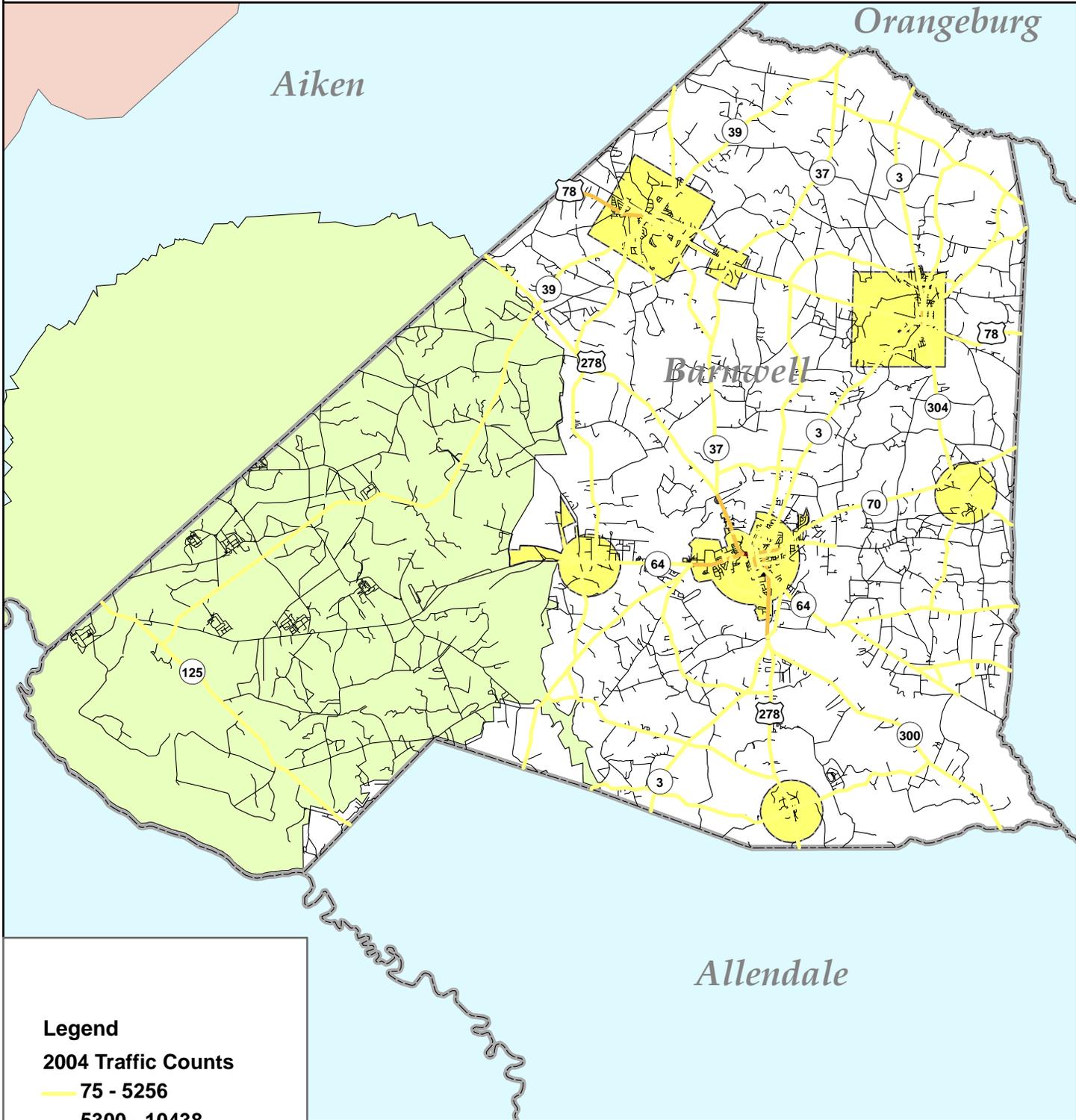
Lower Savannah COG GIS
 Date: March 24, 2006
 Sources: LRTP, SCIP, TIGER



General Disclaimer

This information has been provided from general sources and is to be used only as a guide. The LSCOG assumes no liability for its accuracy or any decisions which the user may make based on these documents.

Barnwell County Traffic Counts (2004)

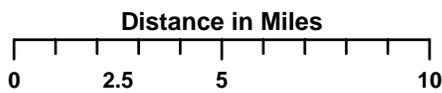


Legend

2004 Traffic Counts

- 75 - 5256
- 5300 - 10438
- 15619
- 20800
- Roads

- ARTS Boundary
- Savannah River Site
- City Limits
- County Boundaries



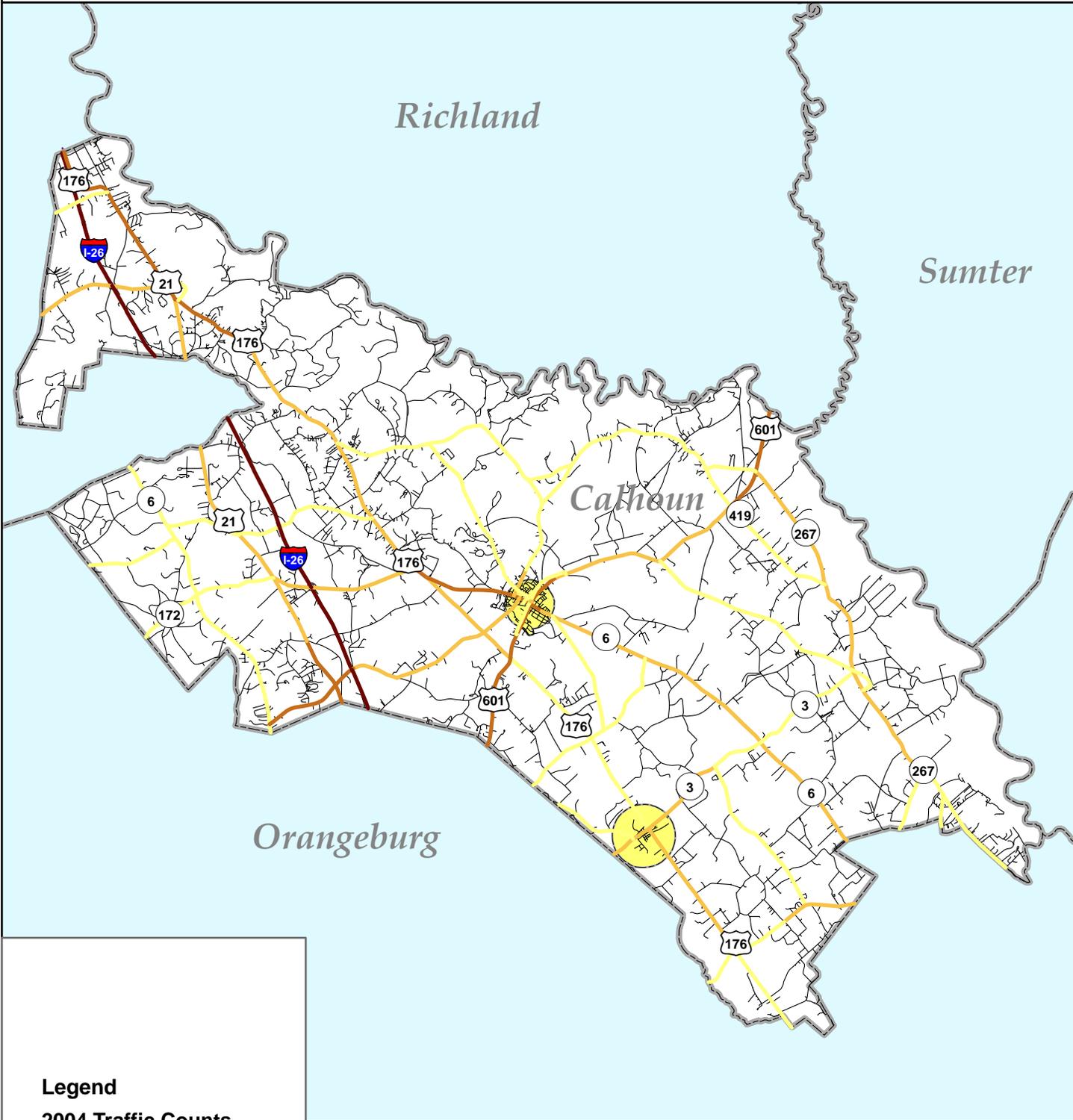
Lower Savannah COG GIS
 Date: March 24, 2006
 Sources: LRTP, SCIP, TIGER



General Disclaimer

This information has been provided from general sources and is to be used only as a guide. The LSCOG assumes no liability for its accuracy or any decisions which the user may make based on these documents.

Calhoun County Traffic Counts (2004)

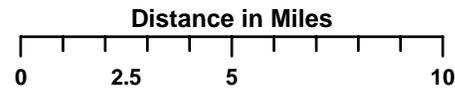


Legend

2004 Traffic Counts

- 25 - 1200
- 1250 - 2900
- 3400 - 6500
- 45200 - 54000

- Roads
- City Limits
- County Boundaries



Lower Savannah COG GIS
 Date: March 24, 2006
 Sources: LRTP, SCIP, TIGER



General Disclaimer

This information has been provided from general sources and is to be used only as a guide. The LSCOG assumes no liability for its accuracy or any decisions which the user may make based on these documents.

Orangeburg County Traffic Counts (2004)



Legend

2004 Traffic Counts

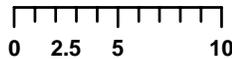
- 25 - 4800
- 4900 - 15800
- 16300 - 33300
- 37900 - 54000

— Roads

City Limits

County Boundaries

Distance in Miles



Lower Savannah COG GIS
 Date: March 24, 2006
 Sources: LRTP, SCIP, TIGER



General Disclaimer

This information has been provided from general sources and is to be used only as a guide. The LSCOG assumes no liability for its accuracy or any decisions which the user may make based on these documents.

Table 2.3: Rural Annual VMT by County						
County	State Maintained			All Roads		
	2003	2004	% Change	2003	2004	% Change
Aiken	784,183,739.00	797,583,217.50	1.70%	905,745,711.50	922,992,874.00	1.90%
Allendale	92,249,516.00	88,198,344.50	-4.40%	120,489,858.00	116,642,685.00	-3.20%
Bamberg	137,973,175.50	141,843,927.50	2.80%	185,013,061.50	189,544,974.50	2.40%
Barnwell	140,486,127.50	136,873,868.50	-2.60%	195,805,710.00	192,487,093.50	-1.70%
Calhoun	430,776,467.50	445,808,335.50	3.50%	457,534,179.50	472,406,250.50	3.30%
Orangeburg	1,230,114,203.50	1,273,417,694.00	3.50%	1,375,638,389.50	1,418,352,770.00	3.10%
Total:	2,815,783,229.00	2,883,725,387.50	2.40%	3,240,226,910.00	3,312,426,647.50	2.20%

Table 2.4 shows rural annual VMT by functional class. Traffic on all types of roads has grown, but particularly on interstates and local roads. Interstates, not surprisingly, bear a disproportionate share of the burden – in 2004 they had only 1.3% of the total lane miles of public roads but 37% of the traffic in rural areas. Local roads increased due to more traffic on existing roads.

Table 2.4: Rural Annual VMT by Functional Class			
	2003	2004	% Change
Interstate	1,162,604,570.00	1,210,632,365.00	4.10%
Arterial	975,556,670.00	991,018,763.50	1.60%
Collector	677,621,989.00	682,074,259.00	1.00%
Local	424,443,681.00	428,701,260.00	1.00%
Total:	3,240,226,910.00	3,312,426,647.50	2.20%

Identified Needs

Since there is growth forecasted for the rural LSCOG region within the next 25 years, land development should take into consideration travel demand and commuting patterns for the area. The availability of large tracts of land, a favorable market, and limits within already developed areas have resulted in proposals for a number of new developments, which have significant traffic impacts.

Table 2.5 summarizes the demographic projections for the regional area. By 2030, the number of housing units is expected to grow by 19%, the household population by 20%, and the employment base by 24%.

Table 2.5: Rural LSCOG Region Projections		
	Number	% Change
Housing Units		
2000	130,044	n/a
2005	133,506	3%
2010	138,043	3%
2015	142,184	3%
2020	146,449	3%
2025	150,842	3%
2030	155,367	3%
change '00-'30	25,323	19%
Household Population		
2000	114,681	n/a
2005	117,790	3%
2010	121,835	3%
2015	125,490	3%
2020	129,254	3%
2025	133,131	3%
2030	137,125	3%
change '00-'30	22,444	20%
Employment		
2000	125,833	n/a
2005	130,807	4%
2010	136,039	4%
2015	141,480	4%
2020	147,139	4%
2025	153,025	4%
2030	159,146	4%
change '00-'30	30,313	24%

Projected high growth areas in the rural Lower Savannah region include:

- Western Aiken County, west of the City of North Augusta area, bordering Edgefield County
- Central Aiken County, south of the City of Aiken, between SC Highway 302 and SC Highway 19
- Central Aiken County, southwest and southeast of the City of Aiken
- Northwestern Calhoun County, the “Horse’s Neck” region, along I-26
- Southern Barnwell County, east of SRS along Allendale County border

Some identifiable characteristics common to these high growth areas are convenient access to interstate or multi-lane roadways, greater population density, and progressive economic development activity. These three commonalities seem to be essential for population growth and constructive development. Since many of these areas are served primarily by rural two-lane roads, there are several areas that have the potential for congestion in the future.

Chapter Three:
Intersections and Safety

Existing Conditions

A safe and efficient transportation system is critical to the livelihood of a community. The transportation network facilitates the internal day-to-day functioning of the community and provides access to and from the outside world whereby goods and services are exported and imported. Safety concerns are a major issue on roads in rural areas. Low traffic volumes encourage speeding along some routes and narrow, two-lane roads without paved shoulders can leave little room for error. Furthermore, many rural roads are simply paved dirt roads, and the resulting intersections are often angled in ways that are dangerous due to limited visibility of oncoming traffic.

Figure 3.1 shows the location of traffic collisions throughout the Lower Savannah region. Unlike the high accident interchanges, which are clustered in urbanized areas, intersection accidents that occur in rural areas are spread out in a seemingly random pattern. During the years 2000-2004, the Lower Savannah region had 33,361 collisions, of which 421 were fatal collisions. Because many rural roads have substantially lower volumes of traffic than urban roads, the random pattern of fatal accidents on these rural roads is disproportionate to urban roads.

The leading causes of traffic fatalities in the Lower Savannah region are shown in Table 3.1 below. Driver error is a contributing factor in a majority of these accidents, although road safety improvements may help create a more accommodating environment for driver behavior.

Cause	Fatalities	% of Total
Too fast for conditions	129	31%
Driver under the influence	63	15%
Driver failed to yield right of way	41	10%
Ran off road	44	10%
Wrong side or wrong way	32	8%

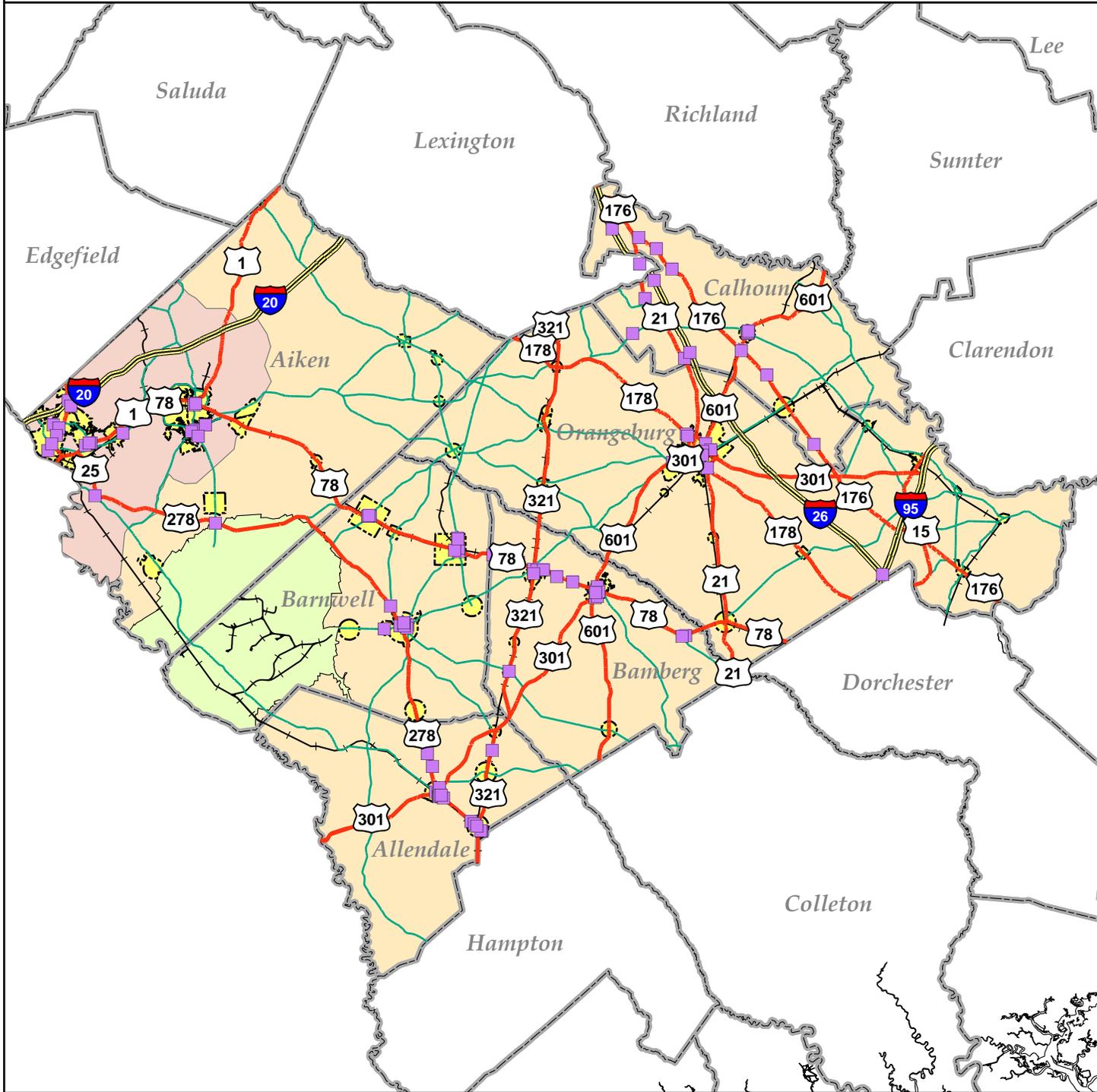
* Does not add up to 100% of accidents

The need for safety and intersection improvements in rural areas is so widespread, that it is not practical to attempt to address all shortcomings at once. Instead, careful review and prioritization of projects is needed to ensure that resources are used most effectively.

When there is a need to widen a road in a rural area, the new design can often be adjusted to upgrade the safety of the road and its intersections at the same time. However, many rural roads have safety concerns but do not need widening or are not conducive to widening. There are a number of options for addressing safety concerns on rural roads. These include:

- *Widening and paving shoulders.* Many rural roads are narrow and have very narrow or no paved shoulders, and frequently grassed shoulders slope steeply down into drainage ditches. This means that drivers veering even slightly out of a lane can lose control of their vehicles. Stabilizing and paving shoulders can provide a needed buffer for travelers on the road. As an added benefit, these facilities can be designed to accommodate pedestrians and bicyclists. Rural accidents involving non-motorists have very high

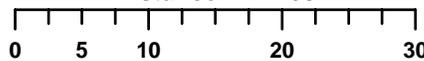
High Accident Locations



Legend

- High Accident Locations
- Interstates
- US Highways
- SC Highways
- Railroads
- Study Area
- ARTS Boundary
- Cities
- County Boundaries
- Savannah River Site

Distance in Miles



Lower Savannah COG GIS
 Date: March 24, 2006
 Sources: LRTP, SCIP, TIGER



General Disclaimer

This information has been provided from general sources and is to be used only as a guide. The LSCOG assumes no liability for its accuracy or any decisions which the user may make based on these documents.

fatality rates due to high speeds and limited visibility. Providing them facilities out of the travel lanes can be very beneficial in helping prevent these accidents.

- *Realigning intersections and curves.* Rural roads are frequently winding and feature dangerous intersections. This can lead to drivers losing control of their vehicle, or failing to yield to oncoming traffic. Redesigning and straightening curves, as well as realigning intersections, can address problem locations.
- *Traffic calming.* Traffic calming can be defined as a combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users. The SCDOT outlines a range of options for traffic calming in their “Traffic Calming Guidelines” publication, including speed humps, raised crosswalks, traffic circles, raised landscaped medians, road closures and physically reducing lane widths. These are generally applied to low volume streets without a substantial amount of through traffic.
- *Other intersection improvements.* Review of the situation at key intersections can result in other suggested improvements, based on the problems experienced there. This can frequently overlap with other types of improvements, as described in the other chapters about signalization and maintenance.
- *Lowering speed limits.* This low-cost measure can help reduce speeding, and therefore reduce the number of severe accidents on a road. However, enforcement is key in ensuring speed limits are obeyed.
- *Median barriers.* Most prominently, this is shown in the SCDOT’s interstate cable barriers initiative. In general, the purpose of this is to prevent head-on collisions resulting from vehicles crossing over a median.
- *Lane and road restrictions.* Also primarily used on interstates, truck lane restrictions can result in fewer fatal accidents involving heavy trucks. A similar concept is designating certain roads as truck routes, and limiting truck access to other roads.
- *Traffic law enforcement.* Since driver error is a substantial contributing factor to rural accidents, law enforcement can be an important partner in addressing safety concerns in certain target areas. Additionally, law enforcement personnel can be very effective in identifying trouble spots that need to be addressed in some manner.

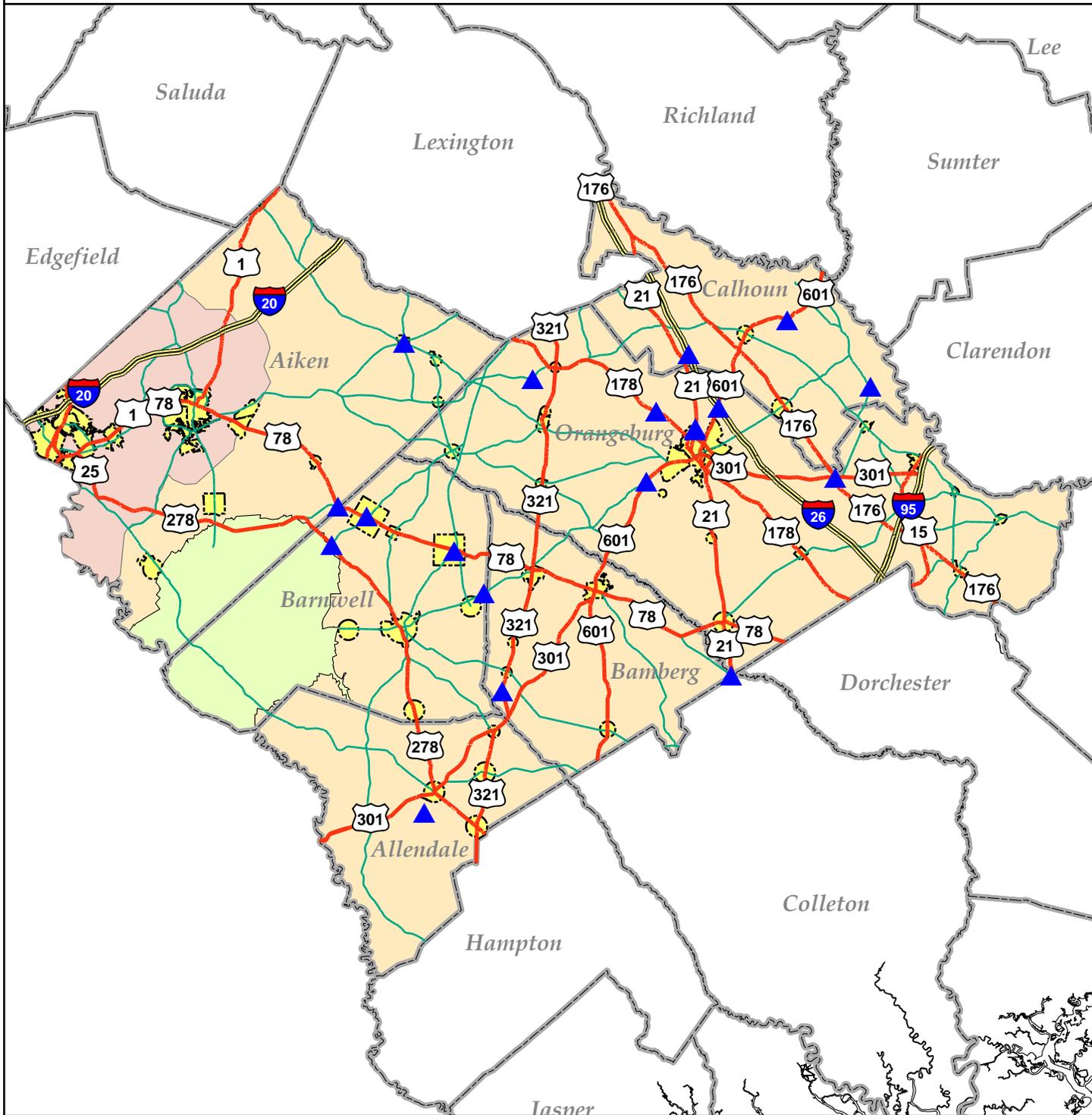
Identified Needs

The SCDOT, through their safety program, already evaluates and prioritizes safety projects statewide. In the LSCOG rural area, they have ranked three projects as their highest priorities for our region, as shown in Table 3.2 below. Two of the projects are located in Orangeburg County and one in Bamberg County. Also, identified functional improvements (intersection upgrades) are listed in Table 3.3 below. Figure 3.2 shows functional improvements as listed in Table 3.3.

County	From	To	Recommended Improvement	Estimated Cost
Bamberg	US 21	SC 61	Add Turn Lanes	\$600,000
Orangeburg	US 301	SC 70	Redesign Intersection	\$750,000
Orangeburg	US 176	US 301	Redesign Intersection	\$750,000

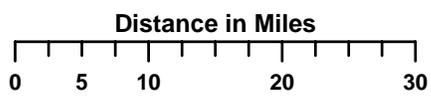
Table 3.3: Functional Improvements				
County	Location		Recommended Improvement	Estimated Cost
Aiken	US 78	SC 781	Redesign intersection	\$750,000
Aiken	SC 113	SC 302		\$750,000
Allendale	S-22	S-47	Left Turn Lanes	\$750,000
Bamberg	US 321	S-40	Left Turn Lanes and improve vertical alignment	\$750,000
Barnwell	US 78	SC 39	Redesign intersection	\$750,000
Barnwell	SC 37	S-113		\$750,000
Barnwell	US 278	SC 63 / S-50	Realign / Relocate	\$750,000
Barnwell	US 278	SC 39	Turn lanes	\$750,000
Barnwell	US 78	S-10 / S-76	Realign / Relocate	\$750,000
Barnwell	SC 70	S-193	Reconstruct to standard 90 degree "T"	\$750,000
Calhoun	I-26 Frontage Road	S-22	Relocate	\$750,000
Calhoun	US 601	S-11	Realign to 90 degrees and add right turn island	\$750,000
Calhoun	SC 267	S-203	Realign to 90 degrees and add left turn lanes	\$750,000
Orangeburg	US 178	S-74	Left turn lanes	\$750,000
Orangeburg	SC 394	S-279	Realign to 90 degrees	\$750,000
Orangeburg	US 21	S-1703 / S-1758	Left turn lanes	\$750,000
Orangeburg	US 601	S-1603 / 2032	Raised medians and S/W	\$750,000

Functional Improvements



Legend

-  **Functional Improvements**
-  **Interstates**
-  **US Highways**
-  **SC Highways**
-  **Study Area**
-  **ARTS Boundary**
-  **Cities**
-  **County Boundaries**
-  **Savannah River Site**



Lower Savannah COG GIS
 Date: March 21, 2006
 Sources: LRTP, SCIP, TIGER



General Disclaimer

This information has been provided from general sources and is to be used only as a guide. The LSCOG assumes no liability for its accuracy or any decisions which the user may make based on these documents.

Chapter Four:

Bridges

Existing Conditions

In the Lower Savannah region, the terrain is gently rolling with specific localized areas having wetlands, flatlands, and steep hills. In the region there are also many streams, rivers, creeks, and other bodies of water. As a result, there are many bridges on area roads.

There are two main categories of bridges which are considered substandard and eligible for rehabilitation or replacement. *Structurally deficient* bridges are either restricted to light vehicles only, closed, or require immediate rehabilitation to remain open. *Functionally obsolete* bridges, on the other hand, are not necessarily structurally unsound. However, a functionally obsolete bridge had deck geometry, load carrying capacity, clearance, or approach roadway alignment that no longer meets the usual criteria for the system of which it is a part. The Lower Savannah region does not have any identified structurally deficient bridges. Figure 4.1 shows the recommended bridge replacement projects for the Lower Savannah region.

Currently, bridge replacement and rehabilitation projects are prioritized at the state level by SCDOT. Similar to the pavement management system used to prioritize road maintenance projects, SCDOT uses a Bridge Management System (BMS) to prioritize bridges. The development, implementation, and data collection of the BMS began in the early 1990's, with full-scale operations starting in 1998. The system provides detailed analyses of South Carolina's bridge needs and priority recommendations. Although replacement projects have been the primary focus, improvements such as widening and raisings, maintenance repairs and rehabilitations are now being considered.

Statewide bridge inspection continues to be a critical component of the highway safety and the eligibility for federal-aid Bridge Program Funds. SCDOT inspects approximately 6,500 bridges per year. Data collected from inspection and maintenance activities are an integral part of the BMS.

Throughout the state, the number of substandard bridges continues to increase. The current bridge funding level is far below that required to make significant improvements. Some of the primary factors that affect this trend are the overall construction history and age of the bridge infrastructure, historical lack of emphasis on bridge maintenance, and inadequate funding levels. Even though SCDOT uses a BMS, it is difficult to overcome the lack of proper funding. This overall trend of an increase in substandard bridges is expected to continue because of a lack of funding and the growing transportation needs of the state.

Due to the BMS system, SCDOT has already compiled a list of priority bridge replacement projects in the region. These bridges are functionally obsolete. Table 4.1 lists these projects.

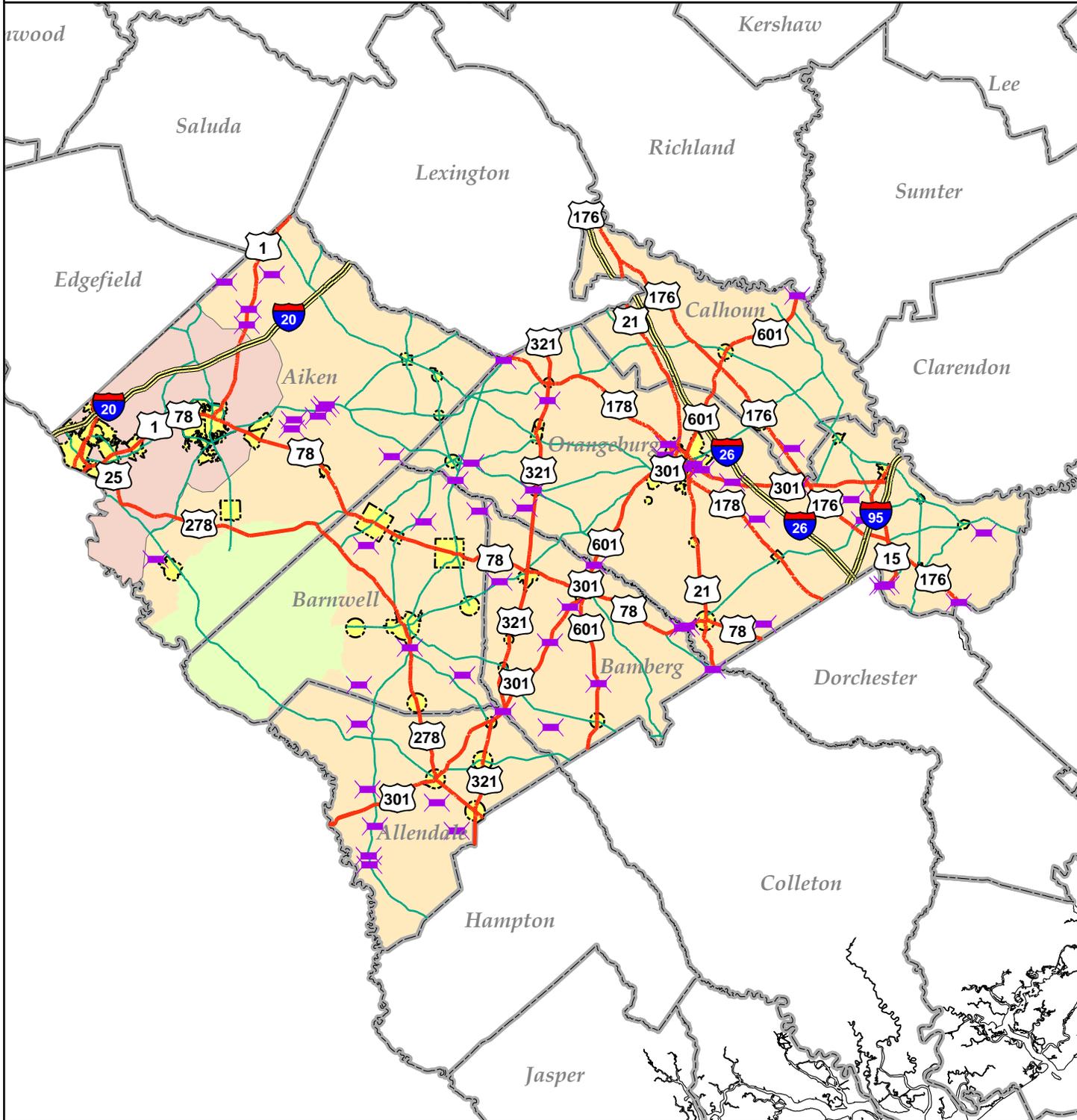
County	Route		Crossing Feature	Est. Cost
Aiken	S-	5	HOLLOW CREEK	N/A
Allendale	S-	21	COOSAWHATCHIE RIVER	N/A
Allendale	US	301	SALKEHATCHIE RIVER	N/A
Bamberg	US	601	LITTLE SALKEHATCHIE	N/A
Bamberg	US	301	LITTLE SALKEHATCHIE	N/A

Bamberg	US	301	LEMON SWAMP	N/A
Bamberg	SC	70	LITTLE SALKEHATCHIE RIVER	N/A
Bamberg	US	78	EDISTO RIVER OVERFLOW	N/A
Bamberg	US	78	EDISTO RIVER	N/A
Orangeburg	US	78	EDISTO RIVER SWAMP	N/A
Orangeburg	US	21	S.C.L. RAILROAD	N/A
Aiken	US	1	BRIDGE CREEK	N/A
Aiken	US	1	SOUTH EDISTO RIVER	N/A
Aiken	SC	4/302	S. EDISTO RIVER	N/A
Orangeburg	US	321	NORTH EDISTO RIVER	N/A
Calhoun	S-	167	SPRING CREEK	\$ 132,452
Orangeburg	S-	932	MIDDLE PEN CREEK	\$ 179,275
Orangeburg	SC	4	GOODLAND CREEK	\$ 195,919
Barnwell	S-	164	ROSEMARY CREEK	\$ 198,693
Orangeburg	S-	200	CANTY BRANCH	\$ 198,693
Allendale	S-	107	GAUL BRANCH	\$ 212,895
Allendale	S-	53	STONEY CREEK	\$ 212,895
Barnwell	S-	121	TRIB TO LOWER THREE RUNS	\$ 212,895
Barnwell	S-	189	WHALEY BRANCH	\$ 212,895
Bamberg	S-	439	CANAL TO SOUTH EDISTO RIVER	\$ 212,895
Orangeburg	S-	197	COW CASTLE CREEK	\$ 212,895
Bamberg	S-	19	THREE MILE CREEK	\$ 264,919
Orangeburg	SC	332	WILLOW SWAMP	\$ 283,839
Allendale	SC	3	KING CREEK	\$ 283,859
Aiken	S-	1304	SCOTT MILL POND	\$ 283,859
Orangeburg	S-	1148	CAW CAW SWAMP	\$ 283,859
Orangeburg	S-	1002	MIDDLE PEN CREEK	\$ 283,859
Aiken	S-	25	MCTIER CREEK	\$ 283,859
Aiken	SC	4/302	CEDAR CREEK	\$ 305,808
Allendale	S-	47	COOSAWHATCHIE RIVER	\$ 331,145
Barnwell	S-	38	SHEEPFORDD BRANCH	\$ 333,330
Allendale	SC	3	GAUL CREEK	\$ 354,824
Barnwell	S-	57	SALKEHATCHIE RIVER SWAMP	\$ 354,824
Orangeburg	US	176	DEAN SWAMP	\$ 417,563
Orangeburg	S-	50	MIDDLE PEN BRANCH	\$ 422,024
Orangeburg	S-	162	WILLOW SWAMP	\$ 425,758
Allendale	S-	66	THREE RUNS CREEK	\$ 463,597
Orangeburg	S-	164	CATTLE CREEK	\$ 463,597
Aiken	S-	208	EDISTO RIVER	\$ 496,754
Aiken	S-	576	SHAWS CREEK	\$ 567,678
Orangeburg	S-	1148	CAW CAW SWAMP	\$ 567,719
Orangeburg	SC	10	PROVIDENCE SWAMP	\$ 591,331
Aiken	S-	22	SOUTH EDISTO RIVER #1	\$ 662,291
Aiken	S-	1304	SHAWS CREEK	\$ 709,649
Orangeburg	US	15	FOUR HOLE SWAMP	\$ 715,872
Orangeburg	SC	3	SOUTH EDISTO RIVER SWAMP	\$ 942,460
Orangeburg	US	15	FOUR HOLE SWAMP	\$ 954,496
Barnwell	US	278	SALKEHATCHIE RIVER	\$1,002,221
Orangeburg	US	178	CAW CAW SWAMP	\$1,156,135

Orangeburg	US	301	FOUR HOLE SWAMP	\$1,212,434
Orangeburg	SC	3	NORTH EDISTO RIVER	\$1,570,756
Bamberg	US	21	EDISTO RIVER	\$3,453,078
Orangeburg	SC	45	DIVERSION CANAL	\$3,524,451
Calhoun	US	601	CONGAREE RIVER	\$8,906,871

Currently, SCDOT is working on a few of the recommended bridge replacements from the list above. On US 15 over Four Hole Swamp in Orangeburg County, SCDOT has plans to replace four existing bridges, approximately four miles southwest of Holly Hill. Replacement is necessary due to the structural condition of the bridges. Along US 601 over the Congaree River in Calhoun County, SCDOT plans to replace an existing bridge that is 10 miles northeast of St. Matthews. Also, SCDOT has plans to replace an existing bridge on US 321 over the N. Edisto River in Orangeburg County. This bridge replacement is part of a multi-lane project along US 321 between the towns of North and Neeses.

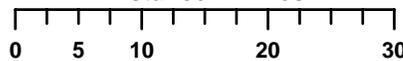
Recommended Bridge Improvements



Legend

- Recommended Bridges
- Interstates
- US Highways
- SC Highways
- Study Area
- ARTS Boundary
- Cities
- County Boundaries
- Savannah River Site

Distance in Miles



Lower Savannah COG GIS
 Date: March 21, 2006
 Sources: LRTP, SCIP, TIGER



General Disclaimer

This information has been provided from general sources and is to be used only as a guide. The LSCOG assumes no liability for its accuracy or any decisions which the user may make based on these documents.

Chapter Five:
Maintenance and Resurfacing

Existing Conditions

Maintenance is an essential part of any transportation network. Proper maintenance keeps a system functioning properly and safely. Improper or deferred maintenance can create hazards, as well as requiring a much larger expense for rebuilding of facilities at a later date. Regular maintenance activities include repaving and resurfacing, chip seal, shoulder and slope maintenance, pavement marking, mowing, drainage system improvements, maintenance of rest areas and other roadside facilities, and related activities. Bridge replacement falls under the category of system maintenance, but is separated here into another chapter since it falls under a separate funding program at SCDOT.

The condition of the state maintained route system is assessed by the SCDOT Pavement Management Office. One third of the state system is assessed annually to determine the surface conditions of the driving lanes. The condition of the pavement is expressed in terms of the Pavement Quality Index (PQI) and is based on pavement surface distress and roughness. The condition categories range from Very Poor to Very Good. The PQI scale ranges from 0 to 5, with Very Poor ranging from 0 to 1.90 and Very Good ranging from 4.01 to 5. This information is used to prioritize maintenance projects.

Table 5.1 lists federal aid eligible roads in the rural LSCOG region with PQI scores less than 2.6 (Very Poor-Poor). The road segments are categorized by milepost, the system used by the SCDOT. In addition to road condition, annualized average daily traffic (AADT) volume should be taken into account in prioritizing improvements, so that a higher number of users will be benefited by improvements.

County	Route	BMP	EMP	Length	PQI	AADT
Bamberg	US 321	12.70	13.10	0.40	Very Poor	2,050
Barnwell	SC 64	6.90	7.50	0.60	Very Poor	1,520
Calhoun	US 21	0.00	4.40	4.40	Very Poor	1,104
Bamberg	S-99	0.00	0.69	0.69	Very Poor	1,700
Bamberg	S-283	0.10	0.27	0.17	Very Poor	1,574
Barnwell	S-11	0.00	1.00	1.00	Very Poor	4,000
Barnwell	S-61	4.00	6.06	2.06	Very Poor	2,400
Barnwell	S-46	0.00	0.12	0.12	Very Poor	1,560
Orangeburg	S-25	0.70	1.20	0.50	Very Poor	7,948
Orangeburg	S-25	1.20	1.57	0.37	Very Poor	6,100
Orangeburg	S-507	1.00	1.50	0.50	Very Poor	4,200
Orangeburg	S-49	2.00	6.10	4.10	Very Poor	3,833
Orangeburg	S-1633	2.70	2.90	0.20	Very Poor	3,000
Orangeburg	S-1148	0.00	0.90	0.90	Very Poor	2,869
Orangeburg	S-33	4.80	6.33	1.53	Very Poor	2,300
Orangeburg	S-915	0.00	0.15	0.15	Very Poor	1,930
Orangeburg	S-51	0.30	0.60	0.30	Very Poor	1,883

Orangeburg	S-49	6.10	8.50	2.40	Very Poor	1,850
Orangeburg	S-1032	2.00	2.58	0.58	Very Poor	1,850
Orangeburg	S-686	1.50	1.83	0.33	Very Poor	1,550
Orangeburg	S-22	0.30	1.25	0.95	Very Poor	1,526
Orangeburg	S-51	0.60	1.63	1.03	Very Poor	1,500
Orangeburg	S-1023	0.46	0.67	0.21	Very Poor	1,380
Orangeburg	S-90	4.20	6.80	2.60	Very Poor	1,269
Orangeburg	S-1034	0.50	1.70	1.20	Very Poor	1,150
Orangeburg	S-1034	0.00	0.50	0.50	Very Poor	1,150
Orangeburg	S-36	6.70	11.20	4.50	Very Poor	1,086
Orangeburg	S-1606	0.40	1.63	1.23	Very Poor	1,040
Orangeburg	SC 302	15.40	15.52	0.12	Poor	7,550
Allendale	US 278	9.35	10.75	1.40	Poor	3,071
Allendale	US 321	0.90	2.40	1.50	Poor	1,112
Bamberg	US 301	14.90	14.98	0.08	Poor	18,000
Bamberg	US 301	9.80	19.12	9.32	Poor	2,417
Bamberg	US 78	2.20	4.80	2.60	Poor	2,010
Bamberg	US 78	0.00	1.30	1.30	Poor	2,000
Bamberg	SC 70	0.00	5.12	5.12	Poor	1,383
Bamberg	US 78	11.90	23.62	11.72	Poor	1,178
Bamberg	SC 70	5.80	9.50	3.70	Poor	1,148
Bamberg	US 321	7.90	12.70	4.80	Poor	1,106
Barnwell	SC 39	1.30	1.42	0.12	Poor	3,725
Barnwell	SC 39	0.00	1.30	1.30	Poor	3,725
Barnwell	US 78	1.80	8.20	6.40	Poor	2,535
Barnwell	SC 70	0.60	9.42	8.82	Poor	1,655
Barnwell	SC 64	0.00	4.60	4.60	Poor	1,274
Barnwell	SC 37	0.00	7.90	7.90	Poor	1,021
Calhoun	US 601	4.60	14.40	9.80	Poor	1,330
Calhoun	SC 6	11.62	24.10	12.48	Poor	1,192
Orangeburg	SC 33	0.00	4.20	4.20	Poor	4,395
Orangeburg	US 301	16.10	17.10	1.00	Poor	6,448
Orangeburg	SC 4	30.56	31.80	1.24	Poor	3,143
Orangeburg	US 301	0.80	11.50	10.70	Poor	3,001
Orangeburg	SC 33	4.20	5.70	1.50	Poor	2,562
Orangeburg	US 301	1.10	11.84	10.74	Poor	2,532
Orangeburg	US 301	0.00	0.80	0.80	Poor	2,450
Orangeburg	US 15	0.00	2.14	2.14	Poor	2,150
Orangeburg	SC 6	0.40	9.00	8.60	Poor	1,978
Orangeburg	SC 6	9.00	20.00	11.00	Poor	1,938
Orangeburg	SC 6	20.00	25.80	5.80	Poor	1,674
Aiken	S-298	0.00	0.19	0.19	Poor	26,000

Aiken	S-129	0.60	0.98	0.38	Poor	3,914
Aiken	S-48	0.00	0.52	0.52	Poor	3,500
Aiken	S-1551	0.00	0.10	0.10	Poor	3,500
Aiken	S-436	0.00	0.13	0.13	Poor	2,730
Aiken	S-284	0.00	0.44	0.44	Poor	2,380
Aiken	S-448	0.00	0.20	0.20	Poor	1,800
Aiken	S-169	1.47	1.67	0.20	Poor	1,688
Aiken	S-1427	0.30	0.48	0.18	Poor	1,440
Aiken	S-879	0.00	1.18	1.18	Poor	1,120
Aiken	S-754	0.00	0.94	0.94	Poor	1,060
Aiken	S-180	0.70	1.01	0.31	Poor	1,040
Aiken	S-955	0.00	0.85	0.85	Poor	1,032
Allendale	S-8	0.00	0.56	0.56	Poor	2,210
Bamberg	S-168	0.00	0.30	0.30	Poor	3,400
Bamberg	S-12	6.00	6.68	0.68	Poor	2,600
Bamberg	S-60	0.30	1.36	1.06	Poor	2,300
Bamberg	S-165	0.00	0.90	0.90	Poor	1,500
Bamberg	S-139	0.00	0.25	0.25	Poor	1,440
Bamberg	S-166	0.10	0.20	0.10	Poor	1,350
Bamberg	S-271	0.00	0.80	0.80	Poor	1,150
Bamberg	S-168	0.30	0.55	0.25	Poor	1,088
Barnwell	S-1	0.00	0.27	0.27	Poor	4,300
Barnwell	S-11	1.00	1.12	0.12	Poor	2,133
Barnwell	S-224	1.50	1.92	0.42	Poor	1,950
Barnwell	S-235	0.00	0.85	0.85	Poor	1,694
Barnwell	S-237	0.00	0.60	0.60	Poor	1,250
Barnwell	S-157	0.00	1.40	1.40	Poor	1,118
Calhoun	S-368	0.00	0.17	0.17	Poor	26,000
Calhoun	S-85	0.00	0.10	0.10	Poor	26,000
Calhoun	S-109	0.00	0.14	0.14	Poor	26,000
Calhoun	S-22	0.00	1.60	1.60	Poor	1,370
Calhoun	S-55	0.00	0.15	0.15	Poor	1,350
Orangeburg	S-507	0.70	1.00	0.30	Poor	8,280
Orangeburg	S-982	0.00	0.25	0.25	Poor	6,750
Orangeburg	S-90	10.00	10.10	0.10	Poor	5,000
Orangeburg	S-470	1.08	2.00	0.92	Poor	4,900
Orangeburg	S-224	0.30	2.24	1.94	Poor	4,561
Orangeburg	S-244	0.00	0.35	0.35	Poor	3,600
Orangeburg	S-1	0.00	0.94	0.94	Poor	2,919
Orangeburg	S-1832	0.00	0.31	0.31	Poor	2,512
Orangeburg	S-702	0.00	0.62	0.62	Poor	2,361
Orangeburg	S-801	0.00	0.40	0.40	Poor	2,000

Orangeburg	S-801	0.40	0.62	0.22	Poor	2,000
Orangeburg	S-22	0.00	0.30	0.30	Poor	2,000
Orangeburg	S-52	0.30	0.74	0.44	Poor	1,900
Orangeburg	S-131	0.00	0.73	0.73	Poor	1,886
Orangeburg	S-49	8.50	9.11	0.61	Poor	1,850
Orangeburg	S-924	0.00	0.42	0.42	Poor	1,815
Orangeburg	S-793	0.40	1.43	1.03	Poor	1,750
Orangeburg	S-892	0.00	0.43	0.43	Poor	1,750
Orangeburg	S-78	0.00	1.27	1.27	Poor	1,552
Orangeburg	S-686	0.90	1.50	0.60	Poor	1,550
Orangeburg	S-153	0.00	0.28	0.28	Poor	1,450
Orangeburg	S-230	0.00	0.83	0.83	Poor	1,380
Orangeburg	S-1177	0.00	0.37	0.37	Poor	1,380
Orangeburg	S-1324	0.30	0.50	0.20	Poor	1,350
Orangeburg	S-1017	0.00	0.61	0.61	Poor	1,208
Orangeburg	S-95	0.30	0.60	0.30	Poor	1,150
Orangeburg	S-929	0.00	0.05	0.05	Poor	1,150
Orangeburg	S-36	6.20	6.70	0.50	Poor	1,135
Orangeburg	S-104	0.00	2.90	2.90	Poor	1,061
Orangeburg	S-39	5.40	9.22	3.82	Poor	1,050
Orangeburg	S-174	0.00	5.30	5.30	Poor	1,012

* Only includes roads with annual average daily traffic (AADT) greater than 1,000; BMP and EMP refer to mileposts

Chapter Six:

Signalization

Existing Conditions

Signalization is an important part of a transportation system. Properly used, it can ensure the safe and orderly progression of traffic. If not installed and maintained correctly, however, it can result in unnecessary delays in traffic flows.

In the LSCOG region, traffic signal systems in the rural area are maintained by the SCDOT. Repair and replacement of traffic signals is a regular function of SCDOT's maintenance staff. The SCDOT frequently conducts traffic studies at intersections to see whether new signals are needed. The factors considered in determining whether a signal is warranted include the number of vehicles approaching the intersection, frequency and type of accidents, physical layout of the intersection, average speed, and future road construction plans.

In order to assure that signals are efficiently handling traffic, the timing of the light cycles for signals are periodically revisited by the maintaining authority. When there are a series of signals along a road, they are frequently connected in a system, which simplifies the process of coordinated signal timing along the road. This can help travelers avoid repeatedly hitting red lights, and can actually improve overall traffic flow on a road.

Traffic signals in the rural LSCOG region tend to be located at major intersections along primary routes in the region. Typically, a cluster of lights are found in the town limits throughout the region. The remainder are generally isolated from one another, located mainly at the intersection of primary and secondary highways and other significant crossroads.

At-grade railroad crossings are another location where signalization is important. SCDOT staff also perform the function of inspecting and maintaining these crossings, and a pool of funding is available to upgrade these crossings as need is determined. However, these funds are extremely limited, which means that only a few crossings are able to be completed on a yearly basis statewide. Projects are prioritized based on similar criteria to other safety projects.

Intelligent Transportation System (ITS) strategies are increasingly used to manage traffic flow. ITS can be defined as electronics, communications, and information processing that are integrated to improve the efficiency or safety of surface transportation. SCDOT has developed and deployed ITS across the state. These systems include the latest transportation technologies, such as closed circuit television cameras, highway advisory radios, changeable message signs, local Traffic Control Centers (TCC) and a central Traffic Management Center (TMC). A key application for ITS in rural areas is notification of non-routine traffic events, such as major delays due to accidents or construction or route changes in the case of an evacuation.

Identified Needs

Currently SCDOT has not recommended any signalization needs for the LSCOG region. However, in the near future, the need for installing new signals where there are none, upgrading equipment, and improving signal timing to increase traffic flow efficiency can be foreseen.

Chapter Seven:

Mass Transit

Existing Conditions

Public transportation is an important element in rural transportation planning for the Lower Savannah region. Emphasis at both the national and state levels on integrating public transportation planning with construction and engineering planning is a positive step to acknowledging the inter-relations between the two areas. Rural public transportation presents a special challenge. Public transportation offers mobility, safety and independence to senior citizens, people with disabilities, those without vehicles, and people with lower incomes. Transportation options also allow people in rural areas to access health care, employment and other necessary destinations, contributing to the opportunity to live fully and independently. Providing transportation in rural areas, in some respects, is more challenging than in more densely populated areas, as fixed route service often does not work well in rural areas, and providing demand-responsive transportation can be both costly and challenging, though in many cases better suited to meeting consumer needs.

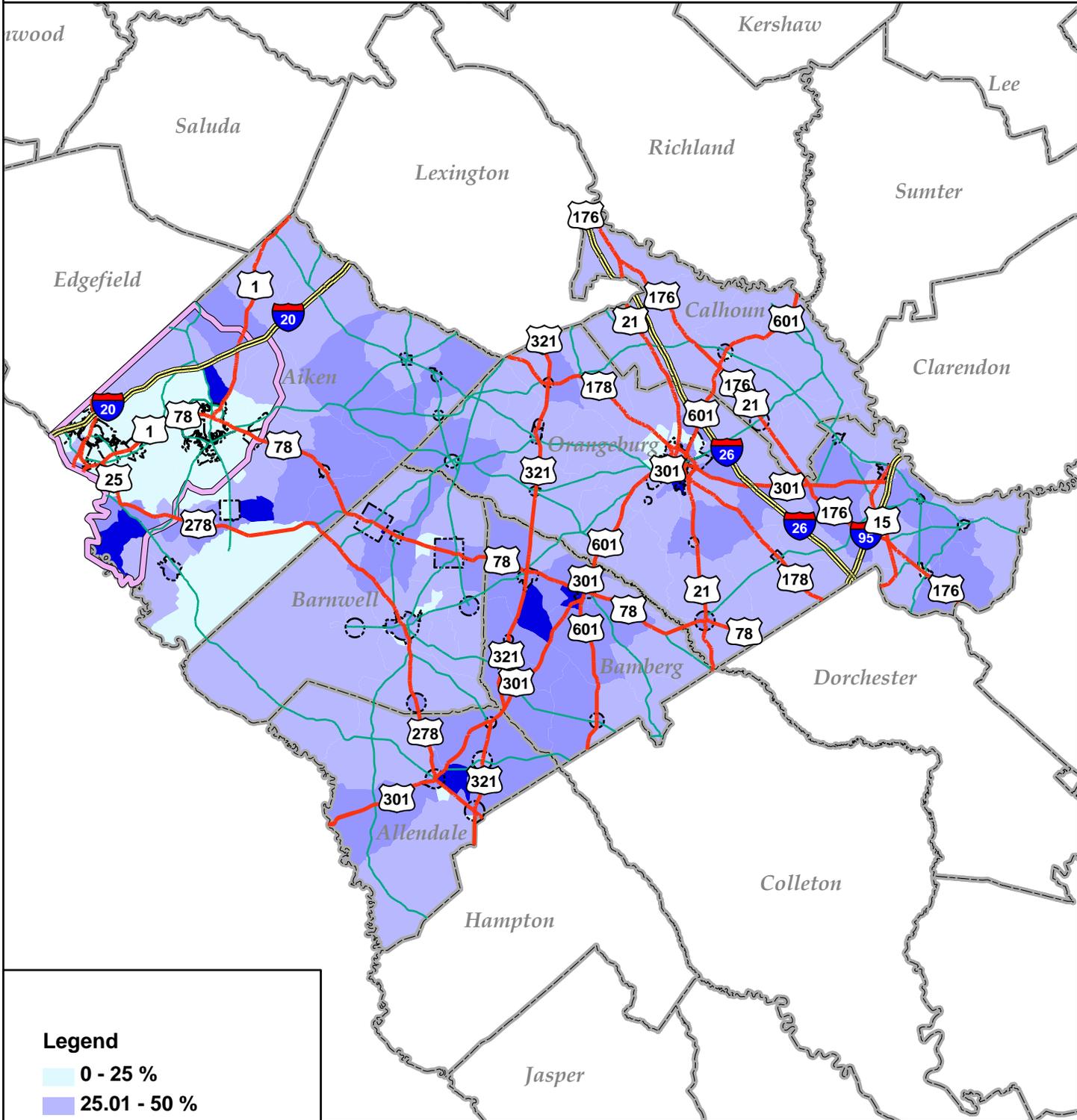
Demographics and Needs

The Lower Savannah region, as a whole, has experienced a significant growth of older adults over the past few decades. The baby boom has begun to have a dramatic impact which will continue over the next twenty years. In the region, the number of people over the age of 60 is projected to increase from just over 51,679 in 2000 to over 108,000 by 2025. All of the counties in the Lower Savannah Region rank 8th or above in in-migration of people 65 or older, according to the SC Office of Research and Statistics. At a Best Geriatrics Practices Conference sponsored by the Sage Institute in 2003, a speaker stated that during the last ten years of life, 1 in 2 women and 1 in 4 men will not be able to drive. In four of the Lower Savannah's six counties, more than 30% of people over age 65 reported living alone in the 2000 census. Whether or not the transportation needs of this growing group in our population are met will affect their well-being and level of independence – factors that could have a potentially significant impact on the state's economy.

Income level is another indicator of the need for transportation. Some of the counties in the region are among the state's poorest. Figure 7.1 shows the percentage of each county's population with incomes below the poverty level.

There are hundreds of vehicles in the Lower Savannah Region now being used for transporting local citizens to human services, medical care, employment, etc. Many of these vehicles are only used to transport a small number of specific clients to services and many sit idle for substantial portions of each day. A study funded by the Clyburn Transportation Center at S. C. State University is in process to update numbers and usage of many of these vehicles. Making more efficient use of the resources we have will be a key to making more transportation services available to people who are currently not having their mobility needs met.

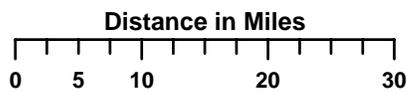
LSCOG Regional LMI



Legend

- 0 - 25 %
- 25.01 - 50 %
- 50.01 - 75 %
- 75.01 - 100 %

- Interstates
- US Highways
- SC Highways
- Cities
- County Boundaries
- Savannah River Site
- ARTS Boundary



Lower Savannah COG GIS
 Date: March 21, 2006
 Sources: LRTP, SCIP, TIGER



General Disclaimer

This information has been provided from general sources and is to be used only as a guide. The LSCOG assumes no liability for its accuracy or any decisions which the user may make based on these documents.

The Lower Savannah RTMA

In 1998, SCDOT funded a study to explore options for coordinating and making better use of federal, state, and local resources devoted to transporting people in the six-county Lower Savannah Region of South Carolina. In 2000, SCDOT began implementation of those recommendations by funding Lower Savannah COG to carry out the state's first regional coordination demonstration project.

For the past six years, Lower Savannah COG has worked steadily to increase the coordination of transportation resources among the autonomous health, human services, and public transit systems serving the region through its Regional Transportation Management Association (RTMA), organized in 2001. The RTMA structure includes one elected official from each member county to serve on a policy committee and an RTMA Partners Group – providers of transportation who provide coordinated/integrated service and/or are most likely to be able to begin doing so.

The RTMA Partners Group includes various types of transportation providing organizations, including the following:

- single county providers of coordinated, public transit services,
- two out of region Regional Transit Authorities providing some service in parts of the region,
- local aging, disability, health and human services offices, and
- is open to any agencies who want to participate.

The list of partners continues to grow. Funding streams from the Federal Transit Administration, the Administration on Aging, Medicaid, Disabilities and Special Needs, Vocational Rehabilitation, Workforce Investment Act, Job Access Reverse Commute Program, Department of Social Services, health centers, private contracts, and local support are all involved in the project.

Outcomes of the work of the LSCOG Regional Coordination program and the RTMA include the following:

- development of positive working relationships among partner agencies and organizations which were not involved with each other to a significant degree
- cost savings
- greater efficiency in operations
- more training opportunities for personnel of partner agencies
- better service for riders
- better-equipped operators of service who provide better-managed and safer service to passengers
- expansion of transportation service to previously un-served riders, and
- development of a network of federal, state and local stakeholders who have an interest in helping us to achieve our vision.

The vision of LSCOG is to develop a model coordinated transit and mobility information system for the region. In words from the RTMA Partners strategic plan, the vision is as follows:

“In Lower Savannah RTMA, our transit system allows riders to travel seamlessly throughout our region, across our state and to neighboring states. Our infrastructure of compatible equipment, short client wait times, AVL systems, employer participation and regional computerized scheduling provides for designated transfer stations throughout the region and ties into rail and air travel. Information is accessible at a touch in transportation centers as well as related web sites. RTMA provides oversight and assists in securing sufficient funding for our operations. Our legislators understand and support our goal. We are the model for South Carolina.”

RTMA Partners, 2003

Since this vision was established in 2003, LSCOG’s RTMA has taken the steps identified by the partners toward goals that will help to achieve this vision. LSCOG has the potential to be the first region in the state to develop a regionally coordinated transportation system, with the goal of providing seamless transportation around the region and connecting to out-of-region services to help passengers reach their desired destination as efficiently, safely, and conveniently as possible. Accomplishing this vision will require both the full cooperation of partner agencies and organizations that provide transportation services and/or funding at the state and local levels, and the acquisition of the technology that can link transportation systems.

Existing Transportation Resources

Aiken County:

Aiken Area Council on Aging operates a fixed route system in the urbanized portion of the county and a rural fixed route service to the town of New Ellenton. It currently provides coordinated (mixed load/shared seat) demand response service for ADA para-transit service, Medicaid medical transportation, Older Americans Act transportation, Vocational Rehabilitation, and other contracts for service.

Allendale County:

Allendale County has a new public transit service – the Allendale Scooter. It was formed under the coordination of the Lower Savannah COG transportation coordination program and involves selling available seats to the general public on existing human service vans. A locally stationed mobility manager, provided by the Lowcountry Regional Transit Authority, coordinates trips using vans from the local aging office, which is also the county’s Medicaid non-emergency transportation provider, the disability board and the local health center. The mobility management concept has worked exceptionally well in this setting and enabled people in the county who had no feasible means of transportation to access health care, employment and other necessary destinations for daily living. Allendale County is also served in a small area by fixed route commuter service to Hilton Head, operated by the Lowcountry RTA, a trip of approximately two hours each way.

Bamberg County:

The Bamberg County Office on Aging operates coordinated service for older adults, Medicaid patients traveling to medical treatment and dialysis patients. In the spring of 2006, the county will adopt a public transportation system in a sister service to the Allendale Scooter, coordinated in the same way by the Scooter Mobility Manager and involving a team of local human service

agencies. The Lower Savannah COG again provided the leadership in Bamberg County to help community leaders plan and find funding for the new public system.

Barnwell County:

Generations Unlimited, which is also the county's office on aging, operates "Local Motion" a coordinated rural, public, demand response taking specialized passengers and members of the public to medical treatment, work and to other desired destinations. This service is funded by both public transit and human service contract funds, including Medicaid Non Emergency Transportation funding, and is a good example of an integrated transportation service, providing mobility for local citizens.

Calhoun and Orangeburg Counties:

There is no public transportation in either county.

In Calhoun County, the Santee Wateree RTA provides Medicaid Non-emergency Transportation. The local ambulance service also provides non-emergency medical transportation. People scheduling transportation in advance with the ambulance service are charged a hefty fee, making this option unaffordable for many residents.

The Santee-Wateree RTA has established a local office in Orangeburg and provides demand-response Medicaid, contract and private pay transportation for the public in the county. Santee-Wateree RTA is a very active and helpful partner in the Lower Savannah RTMA and has the potential to be a productive partner in finding a public transportation solution for Orangeburg County. There is no fixed route bus transportation and taxis are scarce. Many residents (60%) rely on family members or neighbors to drive them to medical appointments and doctor's offices.

Another resource in the region is the James E. Clyburn Transportation Center at S. C. State University. Programs of the Clyburn Center include a Masters Degree program in Transportation, a summer institute for students interested in careers in transportation and the Southern Rural Transportation Center, which is a new University Transportation Center focusing on rural transportation and transit research and technology transfer in the South. The Center has broken ground on a state-of-the-art training and transportation building, which will provide the facilities to advance transportation research and development and will be an especially valuable resource in the Lower Savannah Region. South Carolina State University has experimented with a student shuttle service serving several institutions of higher learning, with the hope of expanding it to become open to the public, but that is a future plan, at this time.

Lack of transportation is one of the top barriers to adequate health care. Rural residents are 26 percent more likely to be hospitalized for possibly preventable health problems than urban residents according to the South Carolina Budget and Control Board. Rural communities have a difficult time attracting and keeping doctors and patients who need treatment for serious illness may be an hour or more away from major medical centers.

Future Plans and Opportunities

Coordination

The Lower Savannah COG has emerged as a leader in developing new practices for coordinating public, private and human service transportation. SCDOT has cited LSCOG as the state model

for its progress in improving efficiency and the availability of transportation options for local citizens. LSCOG and SCDOT share a common goal of development of a more seamless, regional, coordinated transportation system over the next five years. Coordination of transportation in South Carolina is not a new topic – efforts have been on-going to change the system of relative fragmentation among the state’s human service agencies since the ‘80’s. One difference that has emerged in this decade is the greater availability of technology that is more affordable and that can be applied in a rural setting.

Technology

LSCOG has assisted its RTMA partner agencies in acquiring scheduling and dispatching software, digital 800 MHz radio equipment, which for the first time enables them to communicate within and among systems and with emergency management and law enforcement. GPS units are being tested in several LSCOG counties to aid operators in better management of vehicle routing and driver time.

Mobility Information, Assistance and Management Center

Another development in the Lower Savannah Region is the LSCOG’s partnership with the Lieutenant Governor’s Office on Aging in a five-year grant starting in the fall of 2005, to improve access to supportive services and resources for older adults and people with disabilities. A major component of this project entitled “Links to Community Living,” will be the design, implementation and evaluation of a regional Mobility Information, Assistance and Management Center serving all six LSCOG counties.

It is the Lower Savannah RTMA’s goal to develop a center which will serve as a sort of hybrid between case manager and travel agent to help people who seek transportation in and around the region to get where they need to go. The center will also incorporate technology to streamline operation by participating partner agencies so that transportation options can increase by making better use of what is currently available. Possible models for the center involve using technology and new systems to track vehicles and to schedule and manage vehicle use more effectively. The RTMA is optimistic that this center can be coordinated with the Medicaid Non-emergency Transportation brokerage system proposed by the SC Department of Health and Human Services.

Grant funding from the Centers for Medicare and Medicaid Services (CMS) are providing the initial funds for planning, a part of the development and implementation, and evaluation of the project. Grant funding is being sought from other sources, including United We Ride (\$75,000 to help with planning and staffing), SCDOT One-Time Technology Funding (\$249,000 for technology system needed for development of the center) and other sources anticipated in the near future. Resources requested include helping to meet needs of participating coordinated transportation providers in the region and of the center itself, all of which will contribute to reaching the goal of creating a more seamless transportation system in the region. The model developed in this region will serve as a model for other areas.

Future Needs

While making better use of existing equipment and resources can go a long way in enhancing transportation for the people of the region, it is also a fact that equipment wears out and becomes obsolete and that a replacement plan should be in effect. LSCOG requested input from partner

agencies as to their long-range funding needs and generated the following financial summary in Table 7.1.

Table 10.2: Lower Savannah Estimated Mass Transit Funding Through 2030					
SERVICE PROVIDERS					
Funding	Bamberg County*	Allendale County*	Aiken Area*	Generations Unlimited	RTMA/Mobility Center
Federal:					
5310	2,293,349	2,509,686	2,293,349	2,310,624	5,754,744
5311	1,442,248	1,442,248	2,419,746	7,847,936	2,884,496
State	1,100,000	1,100,000	1,542,914	2,738,968	1,153,799
Local	216,337	2,408,554	11,317,177	825,514	2,451,822
Other	144,225	144,225	215,501	1,788,388	721,124
TOTAL:	\$5,196,159	\$7,604,713	\$17,788,687	\$15,511,430	\$12,965,985

*Office on Aging/Council on Aging

Chapter Eight:

Bicycle and Pedestrian Facilities

Existing Conditions

The Lower Savannah rural study area has numerous recreation trails. Below is a listing of South Carolina trails in the Lower Savannah region as designated by the SC Department of Parks, Recreation, and Tourism, and the Palmetto Conservation Foundation. These multi-use trails provide a range of recreational activities and promote a high quality of life.

Aiken County: Existing trails

HIKING:

Virginia Acres — 1 mi. — Aiken Recreation Department
Redcliffe — 1.7 mi. — Redcliffe Plantation State Historic Site
Jungle Nature — 3 mi. — Aiken State Natural Area
Sparkleberry — 1.5 mi. — Bishop Gravatt Center
Span-Hammond Park — 0.7 mi. — Aiken County Recreation Department
Savannah River Bluffs — 2 mi. — SC DNR
Henderson — 1.7 mi. — SC DNR
North Augusta Dedicated Sidewalks — 3 mi. — N. Augusta Parks and Recreation

EQUESTRIAN:

Hitchcock Woods — 20 mi. — Aiken Chamber of Commerce

CANOE:

Aiken Natural Area Canoe — 1.7 mi. — Aiken State Natural Area

INTERPRETIVE:

Hopeland Gardens — 0.3 mi. — Aiken Recreation Dept.

HIKING/BIKING:

North Augusta Greenway — 6.2 mi. — North Augusta Parks and Recreation
North Augusta Greenway Ext. — 0.5 mi. — North Augusta Parks and Recreation

MULTI-USE:

Aiken multi-use path along SC 118 loop

Allendale County: Existing trails

EQUESTRIAN:

Cedar Knoll Equestrian — 100 mi. — Lakeview Plantation

Bamberg County: Existing trails

HIKING:

Lupine Nature — 0.5 mi. — Rivers Bridge State Historic Site

HIKING/BIKING:

Bamberg Rail Trail — 1 mi. — Bamberg County

Barnwell County: Existing trails

HIKING:

Lake Edgar Brown — 1 mi. — SC DNR

INTERPRETIVE:

Barnwell Lake — 1.5 mi. — Barnwell State Park

Calhoun County: Existing trails

(none)

Orangeburg County: Existing trails

HIKING:

Oak Pinolly Nature — 1 mi. — Santee State Park

Limestone Nature — 1 mi. — Santee State Park

MOUNTAIN BIKING:

Santee State Park Mtn. Bike — 7.5 mi. — Santee State Park

CANOE:

Edisto North Fork Blueway — 33.5 mi. — Adventure Carolina

INTERPRETIVE:

Sinkhole Pond Nature — 0.5 mi. — Santee State Park

Santee Cooper WMA Nature — 1.4 mi. — SC DNR

Edisto Gardens — 1.5 mi. — Orangeburg Recreation Dept.

HIKING/MOUNTAIN BIKING:

Eutaw Springs Passage — 19.2 mi. — Palmetto Conservation Foundation

Santee Passage — 11 mi. — Palmetto Conservation Foundation

Palmetto Trail Spur — 6.1 mi. — Palmetto Conservation Foundation

These facilities give residents and visitors an opportunity to experience the natural beauty of the area. However, there are few bicycle/pedestrian facilities in the rural area designated primarily for transportation purposes. Some of the small towns in the area do have a limited sidewalk network, but much of the bicycle and pedestrian traffic takes place on rural roads without any specific accommodation for this sort of traffic.

In 2002, South Carolina had 2.3 pedestrian deaths per 100,000 population, ranking South Carolina sixth worst in the nation. In 2001, SC was fourth worst in the nation, so some progress was made. Also in 2002, there were 2.92 bicyclist fatalities per million population, a total of 12 deaths in the state. The focus on pedestrian/bicyclist safety is a crucial step in the long term improvement of the transportation network.

A commitment to meeting the on-going challenge of providing better and safer accommodations for people who choose to walk or cycle needs to be made. This effort could be made between the LSCOG and SCDOT, who coordinates a Pedestrian and Bicycle Program.

Every day, many people choose biking or walking, instead of using motor vehicles. Many reasons for this exist. For some, their destination is close by. Some choose biking or walking for healthy exercise. Others are committed to reducing air pollution and saving natural resources. Some are either too young or too old to drive, or they don't have access to a motor vehicle. Whatever the reason is for their choices, walkers and cyclists deserve to have the safest and most inviting facilities possible. Non-motorized transportation infrastructure should be interconnected, accessible to persons with disabilities, and integrated into the rest of the state's transportation network.

In the Lower Savannah region, the majority of the rural counties do not have defined bicycle or pedestrian routes that specifically serve to safely accommodate those citizens who choose to use this method of transportation. A bikeway can be defined as any road, path, or way which in some manner is specifically designated as being open to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.

Types of Bikeways

There are three primary types of bikeways:

BICYCLE PATH (BIKE PATH) - A bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right of way or within an independent right of way.

BICYCLE LANE (BIKE LANE) - A portion of a roadway which has been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists.

SHARED ROADWAY - Any roadway upon which a bicycle lane is not designated and which may be legally used by bicycles regardless of whether such facility is specifically designated as a bikeway.

Which type of bikeway is appropriate for a particular segment of the bikeway network will depend primarily on the volume, speed, and make-up of the motor-vehicle traffic on the segment. Recommendations for specific bikeway facilities can be made based on the following:

For roads with an urban section (curb and gutter), the recommended treatment is a bike lane when the average motor vehicle speed is 30 mph or higher. For roads with lower average speeds, the recommended treatment is a bike lane if the traffic volume exceeds 10,000 AADT, and a wide (14 ft.) curb lane otherwise. For roads with a rural section (i.e., without curb and gutter), the recommended treatment is a paved shoulder at least 4 feet wide. Roads with higher traffic volumes and average motor vehicle operating speeds, especially if there is substantial truck or bus traffic, call for wider shoulders.

Many bicyclists and potential bicyclists who lack significant experience riding on urban streets express a preference for separated bike paths over on-street bike lanes. However, while the physical separation of bicycles and motor vehicles surely reduces the likelihood of rear-end and same-direction sideswipe accidents, these types of collisions constitute a rather small fraction of bicycle-motor vehicle accidents. Nevertheless, when motor vehicle speeds are too high, the speed differential between motor vehicles and bicycles traveling in the same direction offers little time for reaction on the part of the motorist, and in such cases separated bike paths may be

warranted. In general, bike paths should be considered for urban streets where average motor vehicle speeds exceed 40 mph.

Similarly, very high motor-vehicle traffic volumes place extra demands on the concentration of motorists. In such cases, it may be preferable to accommodate bicyclists in separated paths, but care should be taken to ensure that the access of bicyclists to destinations along these segments is not unduly compromised. Particular attention should be paid to the ability of bicyclists to negotiate left turns across the motor-vehicle traffic, for example by providing a bicycles-only phase in traffic signal cycles or by providing actuated street-crossing signals for bicyclists as well as pedestrians. As a general rule, motor vehicle traffic volumes in excess of 18,000 AADT warrant consideration of separated bike paths. When motor-vehicle speeds and volumes are not excessive, on-street bike lanes are generally to be preferred over separated bike paths because of their much lower cost and their minimal restrictions on bicyclists' turning movements and route choices.

Placement of Network Bikeways

The primary consideration in identifying segments of the proposed bikeway network is the extent to which the bikeways contribute to meeting the objective of providing safe and convenient access for bicyclists and pedestrians to all traffic destinations in the counties. Since most retail destinations and many employment and residential destinations are located on arterial and collector streets and roads, this is where the network bikeways should be placed in order for them to provide convenient access. Arterial and collector streets also generally provide the safest routes for bicyclists, since they tend to minimize the number of street crossings at uncontrolled intersections.

In some cases, it may be possible to place a bikeway on a separate street parallel to a segment of an arterial street, but this is acceptable only if the parallel route does not require crossings of through streets at unsignalized intersections and if bicycle access to traffic destinations on the bypassed section of the arterial street is not unduly compromised.

Rural Bikeways: Rails-to-Trails Conversions

Bicycles are most useful as transportation vehicles in urban and suburban areas, where trip distances are often rather short. Nevertheless, the objective of making all destinations accessible by bicycle applies to rural destinations, as well, and for many rural roads, specifically in the Lower Savannah region, special treatments for bicycles are necessary. In most cases a paved shoulder at least 4 ft. wide is the preferred treatment. Narrowing vehicle lanes by two feet, if accompanied by the provision of a 4-foot stabilized shoulder where no shoulder existed before, should decrease the motor-vehicle accident rate on the road.

In addition to bikeways adjacent to rural roads, as described above, opportunities exist in several counties for rural biking/walking trails that would make use of railroad right-of-ways, either abandoned or active. These trails would serve as both transportation and recreation facilities.

Pedestrian Facilities

While it would be reasonable to conclude from the situation at present that roads were invented to accommodate automobiles, roads actually pre-date the invention of the automobile by several millennia. Roads were invented by and for pedestrians, and for centuries pedestrians were virtually the only road users. Today, motorists are the primary users of roads, and pedestrians are often accommodated on separate, parallel facilities (i.e. sidewalks). In planning for local transportation, it should always be assumed that every street and road will be used, at least occasionally, by pedestrians. Therefore, whenever a new road is built or an existing road reconstructed, consideration should be given to how best to accommodate pedestrians. It is also important to ensure that pedestrian facilities include accommodations for disabled persons.

Sidewalks

Sidewalks should be provided on any street adjacent to residential development, as well as on streets leading to schools and libraries. Streets and roads which give access to commercial destinations should also be fronted by sidewalks whenever adjacent destinations are expected to be separated by less than 1/4 mile.

Many communities require that new residential developments within their boundaries be constructed with sidewalks fronting residential streets. This requirement may be adopted for all residential development within the region. As an option to sidewalks on low-volume residential streets, developers should be allowed the option of building radically traffic-calmed streets, i.e. streets which are intended primarily for pedestrians and bicyclists and which by their geometric design passively limit motor vehicle speeds to bicycle/pedestrian speeds. Steps should be taken to ensure that pedestrians and bicycle traffic are provided safe access to these areas.

While residential areas are generally well-equipped with sidewalks, those commercial areas which have developed in recent decades are generally not conveniently accessible to pedestrians. These types of developments make it virtually impossible for a pedestrian to cross a road, and the absence of sidewalks makes it difficult to travel by foot even to nearby properties on the same side of the road.

Street Crossings

Sidewalks by themselves provide pedestrian access only to destinations on a single block. Full access for pedestrians requires provision for safe street crossings, as well. Provision of sidewalks in commercial areas would therefore effectively ensure that pedestrians would be able to cross busy streets in these areas at least at those intersections already signalized for purposes of motor vehicle traffic control. In many cases this will provide sufficient opportunities for safe street crossings. However, when signalized intersections are separated by more than 1/4 mile on sections of a street with high-traffic destinations on both sides, full access for pedestrians may require alternate methods of traffic control, such as pedestrian-actuated crossing signals at minor intersections or at mid-block where a need is demonstrated.

On streets with low or moderate motor vehicle traffic volumes, and on any local street, regardless of traffic volume, pedestrians can be expected to cross the street at other than

controlled intersections. For such streets the roadway should be kept narrow enough to be crossed safely by all categories of pedestrian, including the very young and the elderly. Because streets with a pavement width greater than 40 ft. are not easily crossed by pedestrians, alternate methods of providing safe pedestrian access (such as median refuge islands) can be provided in order to not inhibit pedestrian access from one side to the other.

It should be noted in this context that pedestrians' and bicyclists' needs may sometimes come into conflict over the issue of roadway width. When bike lanes are provided on new or reconstructed roads by adding width to the roadway, pedestrians are adversely affected by crossing width. On streets fronted primarily by commercial properties the extra width for bike lanes is generally warranted, and pedestrian needs could be met by providing crossing signals at reasonable intervals. On streets fronted by residential land uses, pedestrian needs could generally be given extra weight, and the streets should be kept no wider than 40 ft. This could be accomplished by requiring that bicycle traffic mix with automobile traffic, but a better option would be to provide the bike lanes and limit the width available to motor vehicles to 30 ft. This may limit the motor vehicle carrying capacity of the street, but one should remember that residential streets are not good choices for high-volume roads anyway.

Lower Savannah Regional Pedestrian and Bicycle Statistics

In the Lower Savannah region, between the years 2000 and 2004, there have been a total of 372 pedestrian/bicycle crashes, and of those crashes, 52 have been fatal. The time of day when the majority of crashes took place was between the hours of 3:01 PM and 9:00 PM. Secondary routes had the highest amount of reported crashes, with 168, followed by US Primary routes, with 103 crashes. Pedestrians and bicyclists between the ages of 40 and 49 accounted for 29% of fatalities in the Lower Savannah region between 2000 and 2004. Of the 52 fatalities in the region, 83% were male.

Chapter Nine:

Environmental Screening

In an effort to streamline the project development process, the SCDOT, in partnership with the COG's statewide, are doing early environmental screening by clearly defining the project, purpose and need, design expectations, public concerns, and potential environmental, cultural, and social impacts. The SCDOT process now requires that all new projects in the STIP, as well as high priority long-range plan projects have Advance Planning Project Reports (APPR).

The contents of the APPR will include several elements. An introduction will define the purpose of the document and the project sponsor (SCDOT, COG, Other). A description of the existing facility will illustrate the roadway characteristics and existing features such as utilities, railroad crossings, mass transit, bridges, etc. The purpose and need section will give background information with project goals, current roadway deficiencies, traffic data, socioeconomic projections, level of service, accident data, and funding priority. The proposed facility element defines what the requirements are to meet the need of the project, such as design criteria, potential cross sections, bicycle and pedestrian facilities, mass transit accommodations, design techniques, and projected project cost.

A summary of public involvement is included in the APPR, highlighting public meetings, comments, and public involvement activities. Also in the report is a corridor assessment of social, economic, and environmental concerns. This section discusses the environmental screenings and site information, potential cultural resources, public parks and recreational areas, wetlands and water bodies, endangered species, potential displacements, hazardous materials, and community impacts of the project. The final section of the APPR contains recommendations and preliminary plans for the project.

Elements of an Advanced Project Planning Report can include existing and proposed typical cross section information that can be represented using "before" and "after" computer-generated visualizations for select locations throughout the length of the project. Projected traffic volumes are generated using the travel demand model and provide projected average daily traffic volumes for the proposed facility and the no-build scenario. Social, cultural, natural resources, and environmental concerns are identified using GIS database information for the environmental screening process. The total number of crashes at particular locations is summarized by providing statistics on accidents involving fatalities, injuries, and property damage. Cost estimates are also provided for one or more typical cross sections and may prove to be a key variable in the decision making process.

Advanced Project Planning Reports are conducted in close coordination between SCDOT, MPO's, and COG's for projects identified in the STIP and constrained projects included in long range plans. Planning reports typically involve transportation improvement projects, such as a widening and new location alignment(s).

Chapter Ten:

Financial Plan

An underlying principle in the development of the Lower Savannah Long Range Transportation Plan is to review the status of transportation funding before finalizing the plan so that the plan is developed with the full knowledge of financial resources. The LRTP must be financially constrained. The LRTP must show in a financial plan that anticipated revenues to fund transportation projects are adequate to fund all the projects contained in the plan. Transportation projects for which funding cannot be identified are listed in the plan as “unfunded projects” and should not be considered as part of the financially constrained plan.

Principal Funding Source

Guideshare funding is the primary dedicated funding source for LRTP projects. Other funds may pass through on a project basis, but the only constant, reliable funding source is the Guideshare funding. In 1998, the Lower Savannah COG issued bonds for the Guideshare program under the “27 in 7” SCDOT accelerated construction initiative which utilized 27 years of funding for projects over a period of seven years. The primary goal of the program was to capitalize on low interest rates and avoid inflation of construction costs that would occur if the funding was spread out over 27 years. Because of this innovative financing program, approximately half of the COG’s Guideshare funds are committed to bond repayment until the year 2022, when the bonds will be paid back.

Another source of funding for transportation in the region are the C-funds that go directly to the counties. The counties have transportation committees that select the projects, typically road paving and maintenance. The formula for distribution of C-funds that accrue from state user fees (e.g. fuel tax, licenses, registration fees) has not changed since 1946 and is based one-third on population, one-third on rural road miles, and one-third on physical size of the communities. The funds must be used for transportation purposes and 25% must be used on state highways.

Other non-dedicated sources of transportation funding include federal funds that are allocated to specific programs (e.g. road maintenance, safety, bridge replacement, the State Infrastructure Bank, and interstate programs). These are prioritized at the state level by SCDOT with limited involvement from the COGs. However, in some instances these funds are combined with Guideshare funds to complete projects that otherwise would not have enough funding.

Future Guideshare Funding

The legislation reauthorizing TEA-21 was signed by the President on August 10, 2005. The new transportation legislation is named SAFETEA-LU – a Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users. As of this writing, the Guideshare allocation between the COGs and the MPOs is still undecided at the state level. The method used for estimating the Lower Savannah COG’s Guideshare allocation for the LRTP is a 50% Population/50% Vehicle Miles Traveled (VMT) formula, which the COGs and MPOs voted to recommend to the SCDOT Commission over a 75% Population/25% VMT formula. Actual annual allocations may change if a different scenario is approved by the Commission. The annual Guideshare allocations may also fluctuate depending on the federal budget and the state allocations. It is assumed that the annual amount will increase over time due to inflation and an increase in population and vehicle miles traveled, therefore, a 1% increase was added each year of the financial outlook starting in 2010.

Transit Funding

As discussed in Chapter 7 – Mass Transit, federal, state, local and farebox revenues are available to fund transit. The Federal Transit Administration (FTA) is the primary source of funding to transit agencies through Section 5310 and Section 5311 for rural areas. The financial outlook for transit funding was based on current funding estimations for each program with a 2% increase added for inflation for each future funding year.

Funding for Pedestrian and Bicycle Improvements

While eligible for funding through the Guideshare program, rural funding for pedestrian and bicycle improvements is primarily received through a competitive process under the Transportation Enhancement program managed by the state. Unlike the MPOs, who receive the 10% set aside from their allocations and prioritize projects through their own rating and ranking procedures, the rural areas outside of MPO boundaries must submit enhancement applications to the state Transportation Enhancement program at SCDOT. The Lower Savannah COG frequently assists local governments in the region with these applications. Since the applications are granted on a competitive basis statewide, it is impossible to determine future funding for this program.

Road improvements in the past have not typically included provisions for pedestrians and bicycles. However, the new transportation legislation includes set aside funds for these facilities, and SCDOT has created a new position to facilitate the planning for pedestrians and bicycle programs. Additionally, SCDOT is dedicated to making provisions for these modes of transportation in new roadway projects.

Table 10.1 gives the estimated funding available for transportation projects in the Lower Savannah region through the year 2030. Table 10.2 gives the financially constrained project list for transit and RTMA projects in the Lower Savannah region. Table 10.3 gives the financially constrained project list for transportation projects in the Lower Savannah region.

Table 10.1: LOWER SAVANNAH ESTIMATED FUNDING THROUGH 2030	
LSCOG Current Guideshare (thru 2006)	6,291,580
Future Estimated Funding (2007-2030)	184,603,625
Debt Service (thru 2022)	33,743,243
Current Projects Obligation (thru 2007)	73,491,000
Total Available Funds for Projects	\$83,660,962

Table 10.2: Lower Savannah Estimated Mass Transit Funding Through 2030					
SERVICE PROVIDERS					
Funding	Bamberg County*	Allendale County*	Aiken Area*	Generations Unlimited	RTMA/Mobility Center
Federal:					
5310	2,293,349	2,509,686	2,293,349	2,310,624	5,754,744
5311	1,442,248	1,442,248	2,419,746	7,847,936	2,884,496
State	1,100,000	1,100,000	1,542,914	2,738,968	1,153,799
Local	216,337	2,408,554	11,317,177	825,514	2,451,822
Other	144,225	144,225	215,501	1,788,388	721,124
TOTAL:	\$5,196,159	\$7,604,713	\$17,788,687	\$15,511,430	\$12,965,985

*Office on Aging/Council on Aging

Table 10.3: LSCOG Financially Constrained Projects			
Safety Projects			
County	Location		Estimated Cost
Bamberg	US 21	SC 61	\$600,000
Orangeburg	US 301	SC 70	\$750,000
Orangeburg	US 176	US 301	\$750,000
Functional Improvements			
County	Location		Estimated Cost
Aiken	US 78	SC 781	\$750,000
Aiken	SC 113	SC 302	\$750,000
Allendale	S-22	S-47	\$750,000
Bamberg	US 78	US 301	\$3,700,000
Bamberg	US 321	S-40	\$750,000
Barnwell	US 78	SC 39	\$750,000
Barnwell	SC 37	S-113	\$750,000
Barnwell	US 278	SC 63 / S-50	\$750,000
Barnwell	US 278	SC 39	\$750,000
Barnwell	US 78	S-10 / S-76	\$750,000
Barnwell	SC 70	S-193	\$750,000
Calhoun	I-26 Frontage Road	S-22	\$750,000
Calhoun	US 601	S-11	\$750,000
Calhoun	SC 267	S-203	\$750,000
Orangeburg	US 178	S-74	\$750,000
Orangeburg	SC 394	S-279	\$750,000
Orangeburg	US 21	S-1703 / S-1758	\$750,000
Orangeburg	US 601	S-1603 / 2032	\$750,000
Bridge Replacement Projects			
County	Location		Estimated Cost
Aiken	S-5		\$500,000
Allendale	S-21		\$500,000
Allendale	US 301		\$500,000
Bamberg	US 601		\$500,000
Bamberg	US 301		\$500,000
Bamberg	US 301		\$500,000
Bamberg	SC 70		\$500,000
Bamberg	US 78		\$500,000

Bamberg	US 78	\$500,000
Orangeburg	US 78	\$500,000
Orangeburg	US 21	\$500,000
Aiken	US 1	\$500,000
Aiken	US 1	\$500,000
Aiken	SC 4/302	\$500,000
Calhoun	S-167	\$132,452
Orangeburg	S-932	\$179,275
Orangeburg	SC 4	\$195,919
Barnwell	S-164	\$198,693
Orangeburg	S-200	\$198,693
Allendale	S-107	\$212,895
Allendale	S-53	\$212,895
Barnwell	S-121	\$212,895
Barnwell	S-189	\$212,895
Bamberg	S-439	\$212,895
Orangeburg	S-197	\$212,895
Bamberg	S-19	\$264,919
Orangeburg	SC 332	\$283,839
Allendale	SC 3	\$283,859
Aiken	S-1304	\$283,859
Orangeburg	S-1148	\$283,859
Orangeburg	S-1002	\$283,859
Aiken	S-25	\$283,859
Aiken	SC 4/302	\$305,808
Allendale	S-47	\$331,145
Barnwell	S-38	\$333,330
Allendale	SC 3	\$354,824
Barnwell	S-57	\$354,824
Orangeburg	US 176	\$417,563
Orangeburg	S-50	\$422,024
Orangeburg	S-162	\$425,758
Allendale	S-66	\$463,597
Orangeburg	S-164	\$463,597
Aiken	S-208	\$496,754
Aiken	S-576	\$567,678
Orangeburg	S-1148	\$567,719
Orangeburg	SC 10	\$591,331
Aiken	S-22	\$662,291
Orangeburg	SC 3	\$942,460

Barnwell	US 278		\$1,002,221
Orangeburg	US 178		\$1,156,135
Orangeburg	US 301		\$1,212,434
Orangeburg	SC 3		\$1,570,756
Pavement Resurfacing (Maintenance)			
County	Total Miles	AADT	Estimated Cost
Aiken	5.62	3,938	\$981,708
Allendale	3.46	2,131	\$613,567
Bamberg	44.51	2,744	\$7,771,855
Barnwell	36.31	2,780	\$6,340,197
Calhoun	28.84	10,543	\$5,031,253
Orangeburg	115	2,580	\$20,084,109
Total Estimated Project Cost:			\$83,165,393

Chapter Eleven:

Unfunded Projects

The LRTP must be financially constrained to show that all anticipated revenues for funding transportation projects are adequate to fund all the projects contained in the plan. Projects that are added to the STIP in future years must have complete funding identified through the Guideshare program or other sources. However, there are several potential transportation projects for which funding cannot be identified. These projects are listed in this chapter as “unfunded projects” and should not be considered as part of the financially constrained plan – but could be considered if funding becomes available.

In Aiken County, along US 78 from S-507 (Old Tory Trail) to S-54 (Mount Beulah Road) in the Town of Windsor, the need for road widening to 4 lanes has been identified. The length of the project is 8.28 miles. Currently, preliminary engineering and right of way acquisition are complete. At present, no funds have been identified for construction of this project.

In Bamberg County, the need for widening along US 78 between the towns of Denmark and Bamberg has been identified. The projected cost for this project is \$17M and could possibly be funded in the near future if the TAC chooses to prioritize it in the STIP.

Additionally, the widening of US 78 throughout the entire region, which includes Aiken, Barnwell, Bamberg, and Orangeburg counties, has long been an unfunded priority. The corridor is significant on a statewide basis for tourism, economic development, and freight transportation.

In Calhoun County, a new interchange along I-26 at S-86 overpass (approximate mile post 122), would involve constructing a full access interchange. In addition, the adjacent frontage roads would also be improved for safer and more efficient traffic flow at the interchange. This upgrade would improve both access and economic development potential for both the immediate vicinity and the surrounding region. The estimated cost for this project is \$15.0 to \$20.0 million. Currently, this project is not included in the STIP.

In Orangeburg County, the need for a full “cloverleaf” interchange at I-95 and US Highway 301, near the Town of Santee, has been identified in the interest of a proposed \$250M investment for an inland port intermodal facility. The rapid growth and development in Orangeburg County and aggressive economic development strategies have brought significant industrial development and related infrastructure to the county. The development of an inland port to alleviate rapidly increasing port congestion would complement existing manufacturing facilities in Orangeburg County as well as improve the efficiency of intermodal freight movement in South Carolina. The TAC unanimously supports the inland port concept and endorsed inclusion of the interchange proposal at I-95 and US 301 in the LRTP.