

**TABLE 2 (Continued)**

**Persons Working in Orangeburg County  
and Their Location of Residence**

<u>County in South Carolina</u>	<u>State</u>	<u>No. of Workers</u>
Orangeburg	South Carolina	27,628
Bamberg	South Carolina	668
Barnwell	South Carolina	116
Berkeley	South Carolina	173
Calhoun	South Carolina	1,513
Charleston	South Carolina	161
Clarendon	South Carolina	262
Colleton	South Carolina	179
Dorchester	South Carolina	536
Lexington	South Carolina	435
Richland	South Carolina	227
Others with Less than 100 Each	South Carolina	501
	Alabama	5
	Alaska	1
	California	18
	D.C.	4
	Florida	2
	Georgia	69
	Indiana	9
	Iowa	12
	Kentucky	3
	Missouri	5
	New Hampshire	2
	New Jersey	4
	North Carolina	44
	Pennsylvania	2
	Tennessee	8
	Virginia	6

Total: 32,591

The statewide average was \$22,473. The net taxable sales during that year were \$7,369 per person compared to a state average of \$10,856

All of this information indicates that Orangeburg County is growing economically, however, at a slower pace than other areas within the state. This slow relative growth rate could make Orangeburg County less attractive for nationally known retail establishments. However, there have been some rather obvious increases in retail and economic development in recent years in portions of the county.

A considerable amount of new development can be observed in the areas around the towns in the county and especially in the growth areas outside the City of Orangeburg and in the areas around Santee and along Lake Marion towards Eutawville. In these areas there has been rather obvious growth and development which has occurred just within the last 3 to 5 years. Growth near other towns in the county does not appear to be as significant.

Most of the recent growth and expansion has occurred in areas around the town of Orangeburg, and to a lesser degree around the towns of Santee and Holly Hill. This is not to be unexpected because these areas contain the largest concentrations of population and more direct means of access to surrounding market areas. As an example of some recent developments since 1994, the Chamber of Commerce, with the County Development Commission, listed in their Outlook brochure some retail establishments and commercial enterprises beginning operations during that time. Those and some others follow.

## Representative Retail Listing

### 1994

Jiffy Lube, Schlotzky's Deli, Shoney's/Santee, Fisheagle Tours, Comfort Inn/Santee, Wal-Mart, Angler's Cypress Shore Marina, and Rex Audio/Video.

### 1995

Applebee's Neighborhood Bar & Grill, April's Gymnastics, Urgent Care Family Health Center, Jameson Inn, Hardee's (Hwy. 301 & 21 bypass), Hampton Inn, Post Net, Ryan's Steakhouse, Mail Boxes, Etc., Orangeburg Fun Park, Moovies, The Village Square (19 offices and 8 retail stores), Orangeburg Chrysler/Plymouth/Dodge/Nissan, Exotica, TRMC Health Plex, Sears Catalog Store, and El San Jose Mexican Restaurant.

### 1996

Howard Johnson, Movie Gallery, Fairy Chevrolet, Smile Convenience Station, Southern Lodge, The Methodist Oaks Clinic, Orangeburg Family YMCA, Bojangle's, Horizon/Subway Market (Exxon), Wal-Mart Super Center, and Winn-Dixie Marketplace.

### 1997

Cracker Barrel Restaurant/Santee Monroe Muffler Brake, Tractor Supply Company, Rita's Food & Spirits, The Sea Texaco/Burger King, Comfort Inn Expansion, and Hibbett Sports.

1998 - Antley's Restaurant - Bath & Body Works - Fatz Café - Flowers Bakery Thrift -  
Big D's Citgo/Church's Fried Chicken - Gibbs Auto Dealership - Goody's - Fairfield Inn -  
Morningside - Sonic - The Dollar Tree - Sears

1999-2000 First National Bank-Branch - Goody's - Lowe's Super Store - Sleep Inn -  
Village Restaurant - Dollar General/Santee - Hampton Inn/Santee - Piggly Wiggly/Santee  
- Office Max - Pizza Hut/Santee - Cracker Barrel, Spice market, Popeyes, Village Place,  
Zaxby's

## ECONOMIC SUMMARY

### Needs and Goals, Implementation and Time Frames

Orangeburg stated in 1998 that “economic development is the county’s number one priority”. The county government has supported the development of industrial parks within the county. The Orangeburg County Development Commission is actively involved in recruiting industrial development to Orangeburg County.

There is a need for additional manufacturing and service-oriented jobs in the County.

There is also a need in nearly all of the communities, outside of the greater Orangeburg and Santee areas for new businesses, industry and manufacturing growth.

A goal for economic development in the County should be a renewed effort on the part of all appointed officials within Orangeburg County to recruit new industrial development, expand existing industries, and in particular to help the smaller communities in the County to grow and prosper.

Industrial parks are now located near the City of Orangeburg. This is a population center and there is direct access to the interstate system and railroads. Because Orangeburg County is so large, many of the smaller communities also have convenient access to interstates including I-26, I-20 and I-95. Many towns also have rail access. There are any number of industries that might find locations in these small communities attractive.

Depending on the desires of the local population, potential industrial sites could be identified in these communities. Incentives could be provided such as tax free sites, and others, to promote these areas.

As for implementation and time frames groups of reliable project leaders could be selected from each community to work closely with the County Development Commission and County Council in these efforts. Leaders should be selected and sites and communities should be prioritized by December 31, 2001. Again, consideration should also be given to the creation of financial incentives to attract industry and manufacturing companies to these smaller communities.

**NATURAL  
RESOURCES**

# NATURAL RESOURCES

## Existing Conditions

Orangeburg County is the second largest county in land area in the State of South Carolina. The area comprises over 1,100 square miles. Great natural resources exist within the 224 mile boundary of Orangeburg County. The county is witnessing increasing development. Most of this development is occurring in the suburban areas near the towns and has not yet spoiled the natural beauty of the rural areas of the county. It is in these rural areas that the natural resources are most evident.

Orangeburg County citizens and local government officials have long known the benefits and value of natural resources within the county. Government officials, and specifically the Chamber of Commerce, have promoted these natural resources over the years and the results of some of their work and publications were used as reference material in this analysis.

## Edisto River Basin

A very large and detailed study was done of the Edisto River Basin consuming several years of work by interested and involved citizens and state and local government officials. The results of the Edisto River Basin Project, and the reports coming from that effort are by reference made a part of this planning document. A copy of this study is available with this report.

A particularly thorough and detailed assessment was made of biological diversity with emphasis on natural areas, bird species, wildlife species and endangered and threatened species as part of the Edisto River Basin studies.



While the Edisto River Basin does encompass the majority of Orangeburg County, much of the data and information in that report was not broken down by county so that it could be specifically applied to the County of Orangeburg. Nevertheless, that information should be useful in understanding the wetlands and plant & animal habitats within the county.

The Edisto River Basin Study also identified Protected Areas within the Basin which are lands protected by law or deed restrictions. There are some extensive areas within the Basin particularly at its southern end which includes the ACE Basin. However, there are no protected areas within the Edisto River Basin that lie within Orangeburg County. Just outside of the Edisto River Basin there is Santee State Park on the shores of Lake Marion which is a natural wildlife refuge.

Much of the Four Holes Swamp area contains an abundance of wildlife and ecologically sensitive plant material, some of which could be given consideration for some protected status. Planning for the future of Orangeburg County should give consideration to establishing protected natural areas for the enjoyment of future generations.

### **Prime Agricultural and Forest Land**

Agricultural and Forest Lands are the predominate land use/land cover in Orangeburg County. Figure 1 shows the Agriculture and Upland Forest areas. Most of the land under cultivation, or row crop agricultural areas are in the central-eastern, south-eastern, and eastern portions of the county bounded by the cities of Orangeburg, Bowman, Holly Hill, Eutawville and Santee. These areas tend to be level to gently sloping in character.

FIGURE 1  
AGRICULTURE AND  
UPLAND FOREST

Agriculture in the western sections of the county is characterized more by pasture lands. The low flat more poorly drained areas are where most of the timberlands appear, even though forest lands, row crop lands and pasture lands are found throughout the county in all areas.

Agriculture land is the largest single use of land in the county. There are approximately 260,193 acres shown as agricultural soil found throughout Orangeburg County. This has historically made agriculture a key segment of the economy. However, as mentioned earlier, the economic base of the County is changing so that the predominate economic base is now shifting toward manufacturing. Farmland ownership is also changing with many of small farms being consolidated into larger agricultural operations. Agriculture is still a major economic force and will remain a significant part of the economy well into the future.

Except for the urban and developed areas, the agriculture areas, forestlands and the network of wetlands and streams could all together be characterized as the very fabric of Orangeburg County. These are the predominate visual uses throughout the county. They vary in size and form from one portion of the county to another. The areas in the northwestern section of the county, from Orangeburg to Neeses and Livingston and westward toward Springfield and from Norway on the south Woodford on the north, are characterized by rolling hills, smaller tracts of forest land and predominately pasture land with some row crops. These uses resulted from the topography, drainage and soil conditions of this area of the county. The South Fork of the Edisto River borders the area to the southeast and the North Fork of the Edisto passes through the area from the town of North to Orangeburg. These are very scenic sections of the county and largely unspoiled by haphazard development.

As can be seen in Figure 1, large areas of forestland characterized the areas north of the City of Orangeburg and south of the city and east of the Edisto River down to Branchville and the area between Branchville and Bowman. Many of these large forestlands are owned by those involved in the forest and timber industry. The eastern sections of this area of the county from the eastern side of Orangeburg to the north and southward around Bowman and to the county line are mixed with large row crop and cultivated agricultural areas and expanses of forestland. This pattern continues in the eastern parts of the county east of the Four Holes Swamp areas from Santee to the north to Holly Hill and Eutawville in the eastern areas. These practical level areas are prime agricultural land but also mixed with large areas of forest land particularly in the southeastern section of the county below and to the east of Holly Hill.

### **Plant and Animal Habits**

Plant and animal habits include the entire county from the urban developed area to the agricultural and forestlands to the wetlands and actual water areas. Wildlife and plant materials are found in all of these environments. For the purpose of this analysis, however, it is considered that plant materials and wildlife would include those occurring in the natural environment. Wildlife habitat is found throughout the agricultural and forest areas. Habitats are created on the fringes of agricultural areas and within the forests, and sensitive natural plant materials are found in the wetland areas along the streams and rivers within the county.

### **Wetlands**

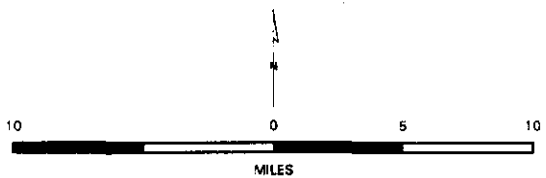
Figure 2 shows the extent of the wetland areas within the county. The most significant wetland areas are those associated with North and South Forks of the Edisto River and the Four Holes Swamp areas. In between these two areas there are significant lowland and wetland areas which also provide for extensive plant and wildlife habitats.

FIGURE 2  
RIVERS, WETLANDS & FLOODPLAINS



GIS/MAPPING DEPT

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**COUNTY OF ORANGEBURG, SOUTH CAROLINA  
COMPREHENSIVE PLAN  
RIVERS & WETLANDS**

**FIG.2**

The wetland areas within the county provide for a great diversity of wildlife and plant habitat, provide flood control and renourish the water supply, and efforts should be made to protect these sensitive areas from the negative impact of development activities. Much of the Four Holes Swamp area contains an abundance of wildlife and ecologically sensitive plant material. Planning for the future of Orangeburg County should give consideration to establishing protected areas for the enjoyment of others.

### **Soil Types**

Figure 3 depicts the various major soil types in Orangeburg County.

### **Parks and Recreation Areas**

Outdoor activities are a way of life for many in Orangeburg County. Some of the activities that appeal to many include boating, canoeing, camping, hiking, golfing, hunting, and fishing.

The Santee Cooper Lakes area has developed into a major attraction for the sportsmen and tourists as well as local residents of the county. Lake Marion borders the county on the eastern edge with twelve boat landings and campgrounds, eleven marinas, and the very large Santee State Park. According to the Chamber of Commerce, over one million visitors arrive at Santee State Park each year. The State Park facility includes thirty lake front cabins, 150 campsites and a restaurant as well as nature trails, picnic areas, and wildlife programs. The Santee Cooper Lake System is known nationwide for its sportfishing activities.

**FIGURE 3**  
**GENERAL SOIL MAP**

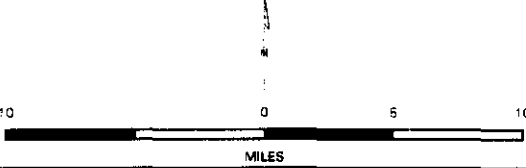




- |   |                 |   |                  |
|---|-----------------|---|------------------|
| ■ | ALLUVIAL        | ■ | LOAMY            |
| □ | BORROW PIT      | ■ | LOAMY FINE SAND  |
| ■ | COMPLEX         | ■ | LOAMY SAND       |
| ■ | FINE SAND       | ■ | MUCKY LOAM       |
| ■ | FINE SANDY LOAM | ■ | SAND             |
| ■ | LOAM            | □ | SANDY AND CLAYEY |



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COUNTY OF ORANGEBURG, SOUTH CAROLINA  
COMPREHENSIVE PLAN

SOILS

FIG.3

The Edisto River is well known for boating and fishing among local residents. There is a seven-mile canoe trail which begins above Orangeburg at Shillings Bridge Road and ends at the Edisto Memorial Gardens in Orangeburg. Another trail begins at the Edisto Gardens and flows down river to Highway 39 which leads into the town of Rowesville.

The Edisto River swiftly winds through many miles of dense swamps consisting of cypress, gum, poplar and many other varieties of trees and shrubs. The North and South forks of the river are mostly undeveloped which offers the outdoorsman an opportunity to experience nature in its purest form. Fishermen can expect to find Largemouth Bass, Striped Bass, Jackfish, Pike, Warmouth and several species of Catfish and Bream as well as a local favorite, Redbreast.

Unfortunately, the Redbreast population has dropped dramatically in recent years. Some believe this has resulted from the unplanned introduction of the Flathead Catfish into the river. Others attribute the decline in population to pollution and poaching with traps. This problem should be addressed by the state and county officials in order to save and protect the Redbreast species for the enjoyment of present and future sportsmen.

Some citizens have observed that there is an absence of public parks and playgrounds, particularly in the growth areas near, but outside, many of the town limits. Some residents expressed a desire for parks and playgrounds for younger children and parents. These playgrounds, preferably within easy walking, or a short driving distance. This would provide local recreation opportunities for younger families outside their own backyards.

Many families with children have difficulty finding convenient play areas and sports opportunities. These concerns should also be addressed. A county-wide study of recreation needs relative to new growth areas could be considered.

Many of the public parks, and more site specific recreation areas (attractions) existing in the county are located within corporate city limits where they serve larger concentrations of the population. While the incorporated areas in the county are not included in this study, mention of some of those sites are included because they do serve the county-wide population as well as visitors to Orangeburg County. These other parks and recreation areas are described in more detail in the next section on Cultural Resources.

## **Summary-Natural Resources**

### **Goals, Objectives, Implementation and Time Frames**

Goals and objectives for this element should include the protection of plant and wildlife species and the maintenance and improvement of wetlands and natural resource areas. Educational programs and other opportunities should be developed to make citizens and visitors more aware of the importance of natural resources and to increase the appreciation of these resources within the county.

The entire landscape of Orangeburg County is characterized by prime agricultural and forestlands, wetlands and extensive plant and animal habitat. This desirable character of land should be preserved as much as possible while allowing for well planned development to occur.

Guidelines should be established to help minimize infrastructure-related sources of pollution, particularly storm water run-off and sedimentation due to development activities and construction. These could include standards for controlling non-point source pollution and Best Management Practices for forestry, agriculture and construction activities.

The establishment of buffer areas to provide both cover and food for many species of wildlife and the establishment of protected areas should be carefully considered in future planning. The wetlands and river areas within the county are important in providing plant and wildlife habitat as well as recreational opportunities.

The management and protection of flood plains and wetland areas has a direct impact on water quality, wildlife and recreational opportunities. Orangeburg County should comply with state and federal regulations as they relate to these issues.

Orangeburg County should comply with state and federal regulations as they relate to these issues. Orangeburg should study the need for small parks and playgrounds within growing population areas of the county to better serve local residents and those with small children.

Care should be taken throughout the county to provide riparian buffers (wooded natural areas along creeks, streams and rivers) which provide for filtering and removing sediment and pollutants from run-off before it enters the water body. Development activities should be closely monitored so that there is minimal clearing and land disturbance within 100 year floodplains or any other wetland areas.

The conclusions and recommendation of the Edisto River Basin Study should be strongly considered by Orangeburg County in evaluating future development activities. This study was in a large part written by Orangeburg County citizens who participated in the Edisto River Basin Task Force.

Consideration should be given to developing and adopting a tree ordinance to encourage protection of trees, especially rare trees, on developing lands. The Appendix provides more information on planning policy related to forest stewardship and tree ordinance recommendations for rural areas.

The timing for these objectives should begin now and continue as all future planning and development activities are undertaken within the county. Someone from Orangeburg County should be assigned to coordinate, and to keep current on, the status of the Redbreast fish population in Orangeburg County. A person with a general scientific background and genuine interest in the problem would be ideal. This selection should be made before December 2002.

**CULTURAL  
RESOURCES**

## **CULTURAL RESOURCES**

The cultural resources of the county are a reflection of the history and people in the community. A goal of the Comprehensive Plan should be to recognize existing Cultural Resources and to promote the protection, support and enhancement of those resources.

Cultural resources include objects such as historic buildings and sites, places such as unique commercial, residential and scenic areas, as well as events and celebrations.

### **Existing Conditions**

The cultural resources in Orangeburg County take many forms. History is extremely important to citizens of the county. The Alex Salley Archives Building is located on the corner of Middleton and Bull streets in Orangeburg. This archives building contains irreplaceable historical records, papers and other items related to Orangeburg County's past. A number of historical societies and organizations play an important role in promoting and preserving the history of the county.

Several commercial and residential districts have been designated as historically significant as shown in Table 1. These and the many natural and scenic resources available are also enjoyed by county citizens. Other cultural resources include festivals and events, some held annually and others occurring spontaneously or for special purposes.

Many of these places and events occur within the towns in Orangeburg County because this is where there are concentrations of activities and population. This Comprehensive

Plan Report is concerned with the unincorporated areas of the county. However, since all cultural resources in the county are available to all the citizens of the county, those resources within the towns as well as in the county, will be included in this element.

Several organizations maintain lists of specific types of resources. However, over the years there has been no coordinated effort to list and describe all of the varied cultural resources in the county. An attempt is made here to include some of the more recognized resources.

### **Historic Buildings and Structures**

Many old homes and churches in Orangeburg County have survived time and are steeped in the history of the area. The following are some of the more historically significant:

**Middlepen Plantation, or the Donald Bruce House**, the oldest home in the county, was built in 1735. The house and grounds can be seen from Highway 301 about two miles north of the Orangeburg city limits.

The **Alexander Samuel Salley Home** is located on Belleville Road, about sixty-five yards from the corner of King's Road in Orangeburg. Salley, the original owner, devoted fifty years to the collection, preservation and publication of historical state records as state historian and was secretary of both the South Carolina Historical Society and the South Carolina Historical Commission.

**Judge Glover's Home** on Whitman Street in Orangeburg was used as headquarters by General William T. Sherman on February 12, 1865. Built in 1846 by Thomas Worth



Glover (1798-1884), teacher, lawyer, legislator, circuit judge and signer of the Ordinance of Secession, the house originally fronted on Russell Street, but has been remodeled several times over the years.

**Trinity United Methodist Church** was founded in January 1866, as Trinity Methodist Episcopal Church and was built where the Orangeburg County Courthouse now stands. The present structure on Boulevard was begun in 1928 and completed in 1944.

**Walnut Grove Baptist Church**, a branch of Four Holes Baptist Church in present Orangeburg County from 1820 to 1869, was admitted to the Charleston Association in 1869 and joined the Orangeburg Association in 1913. Located on Ebenezer Road, four miles south of Highway 301, the present structure was built in 1883.

**White House Church** is located on U.S. Highway 301 ten miles north of Orangeburg. The deed by which a four acre tract of land on which White House Church stood, along with an earlier structure known as the "White Meeting House," is the earliest documented record of Methodism in Orangeburg County. The church and property were given to the Methodist Episcopal Church on October 1, 1790.

**Zion Church**, five miles south of Orangeburg on U.S. Highway 301, is believed to be one of the earliest Methodist churches in the area. The original building was built before the Civil War and replaced in the 1880's. In about 1843, appointed ministers replaced circuit riders. Early in the 1930's, Zion was abandoned as a full-time church when its members moved to nearby Cope and Orangeburg.

**The Pioneer Graveyard** on Bull Street in Orangeburg was the burial site for many early inhabitants from the first settlement of Orangeburg Township in 1735 until the founding of various denominational cemeteries. This first church in the Orangeburg area was erected soon after settlement began by the Swiss and German Settlers of the Reverend John Giessendanner's congregation.

The **Grave of Major John Majoribanks** was located where the British army encamped at Wantoot Plantation, home of Daniel Ravenel, after the Battle of Eutaw Springs. Now under Lake Moultrie, it was about 25 miles southeast of St. John's Parish and five miles west of Bonneau, formerly in Orangeburg County. Major Majoribanks died and was buried there on October 22, 1781. The grave was moved to The Eutaw Springs Battleground site in 1941.

**Miller Cemetery**, located on Factory Road, one-half mile east of Jameson, is the burial site of the Miller family from the early 1800's. The genealogical connections of this family with many of Orangeburg District's oldest families make it historically significant to this area. The three remaining gravestones were erected in 1836 to John Miller (1750-1824; his wife, Margaret Ott Miller; and their son, John Miller, Jr.).

Some of the above sites and a number of others are listed on the National Register of Historic Places in South Carolina. Table 1 is a listing of these sites. Figure 1 also depicts some of the known historical sites in Orangeburg County as furnished by the South Carolina Department of Archives and History.

**TABLE 1****THE NATIONAL REGISTER OF HISTORIC PLACES**National Register Name in **BOLD**; Alternate names in Parentheses after National Register Name

NHL: National Historic Landmark  
 MPS: Multiple Property Submission  
 MRA: Multiple Resource Area  
 TR: Thematic Resources

**ORANGEBURG COUNTY****DATE LISTED**

1. <b>Eutaw Springs Battleground Park</b> , S.C. Hwys. 6 & 45, Eutawville vicinity	06/05/70
2. <b>Southern Railway Passenger Depot</b> (Branchville Depot), 110 N. Main St., Branchville	04/23/73
3. <b>Orangeburg County Jail</b> (The Pink Palace), 44 St. John St., Orangeburg	10/02/73
4. <b>White House United Methodist Church</b> (White Meeting House; White Church), U.S. Hwy. 301, Orangeburg vicinity	05/13/74
5. <b>Donald Bruce House</b> (Middlepen Plantation), U.S. Hwy. 301, Orangeburg vicinity	12/01/78
6. <b>St. Julien Plantation</b> , S.C. Hwy. 6, Eutawville vicinity	11/28/80
7. <b>Numertia Plantation</b> , off S.C. Sec. Rd. 138, Eutawville vicinity	03/19/82
8. <b>Cattle Creek Campground</b> (Cattle Creek United Methodist Church and Campground), S.C. Sec. Rd. 80, Rowesville vicinity	05/19/83
9. <b>Tingley Memorial Hall</b> , Claflin College, College Ave., Orangeburg (Orangeburg MRA)	08/04/83
10. <b>Amelia Street Historic District</b> , Orangeburg (Orangeburg MRA)	09/20/85
11. <b>F.H.W. Briggman House</b> , 156 Amelia St., Orangeburg (Orangeburg MRA)	09/20/85
12. <b>Claflin College Historic District</b> , Orangeburg (Orangeburg MRA)	09/20/85
13. <b>Dixie Library Building</b> , Bull St., Orangeburg (Orangeburg MRA)	09/20/85
14. <b>Dukes Gymnasium</b> , South Carolina State University, Orangeburg (Orangeburg MRA)	09/20/85
15. <b>East Russell Street Area Historic District</b> , Orangeburg (Orangeburg MRA)	09/20/85
16. <b>Ellis Avenue Historic District</b> , Orangeburg (Orangeburg MRA)	09/20/85
17. <b>Enterprise Cotton Mills Building</b> (Zeus Industrial Products), U.S. Hwy. 21, Orangeburg (Orangeburg MRA)	09/20/85
18. <b>Maj. John Hammond Fordham House</b> , 415 Boulevard, Orangeburg (Orangeburg MRA)	09/20/85
19. <b>Hodge Hall</b> , South Carolina State University, Orangeburg (Orangeburg MRA)	09/20/85
20. <b>Hotel Eutaw</b> (East Russell Street Inn), Russell & Centre Sts., Orangeburg (Orangeburg MRA)	09/20/85
21. <b>Lowman Hall</b> , South Carolina State College, Orangeburg (Orangeburg MRA)	09/20/85
22. <b>Mt. Pisgah Baptist Church</b> , 310 Green, Orangeburg (Orangeburg MRA)	09/20/85
23. <b>Orangeburg County Fair Main Exhibit Building</b> , U.S. Hwy. 21, Orangeburg (Orangeburg MRA)	09/20/85
24. <b>Orangeburg Downtown Historic District</b> , Orangeburg (Orangeburg MRA)	09/20/85
25. <b>Treadwell Street Historic District</b> , Orangeburg (Orangeburg MRA)	09/20/85
26. <b>Whitman Street Area Historic District</b> , Orangeburg (Orangeburg MRA)	09/20/85
27. <b>Williams Chapel A.M.E. Church</b> , 1908 Glover St., Orangeburg (Orangeburg MRA)	09/20/85
28. <b>Alan Mack Site</b> , 38OR67, North vicinity ( <b>ADDRESS RESTRICTED</b> )	01/06/86
29. <b>Gilmore House</b> (Shuler-Gilmore House), State St. & Eutaw Rd., Holly Hill	09/19/88
30. <b>Trinity Methodist Episcopal Church</b> , 185 Boulevard, N.E., Orangeburg	08/26/94
31. <b>William P. Stroman House</b> , 1017 N. Boulevard, Orangeburg	08/01/96
32. <b>All Star Bowling Lane</b> , 559 E. Russell St., Orangeburg (Civil Rights Movement in Orangeburg County MPS)	08/07/96
33. <b>Orangeburg City Cemetery</b> , jct. of Bull and Windsor Sts., Orangeburg	09/27/96
34. <b>South Carolina State College Historic District</b> , (South Carolina State University Historic District), 300 College St., Orangeburg (Orangeburg MRA; Civil Rights Movement in Orangeburg County MPS)	06/17/97

**The Rocks Plantation**, Eutawville vicinity  
 Listed 07/13/76; Burned 4/92  
 Source: SC Department of Archives & History

The sites mentioned in this report are not all of the buildings and sites which have historical significance in Orangeburg County. They are the ones that were most readily available and it is intended that others will be added to these in future updates of this report.

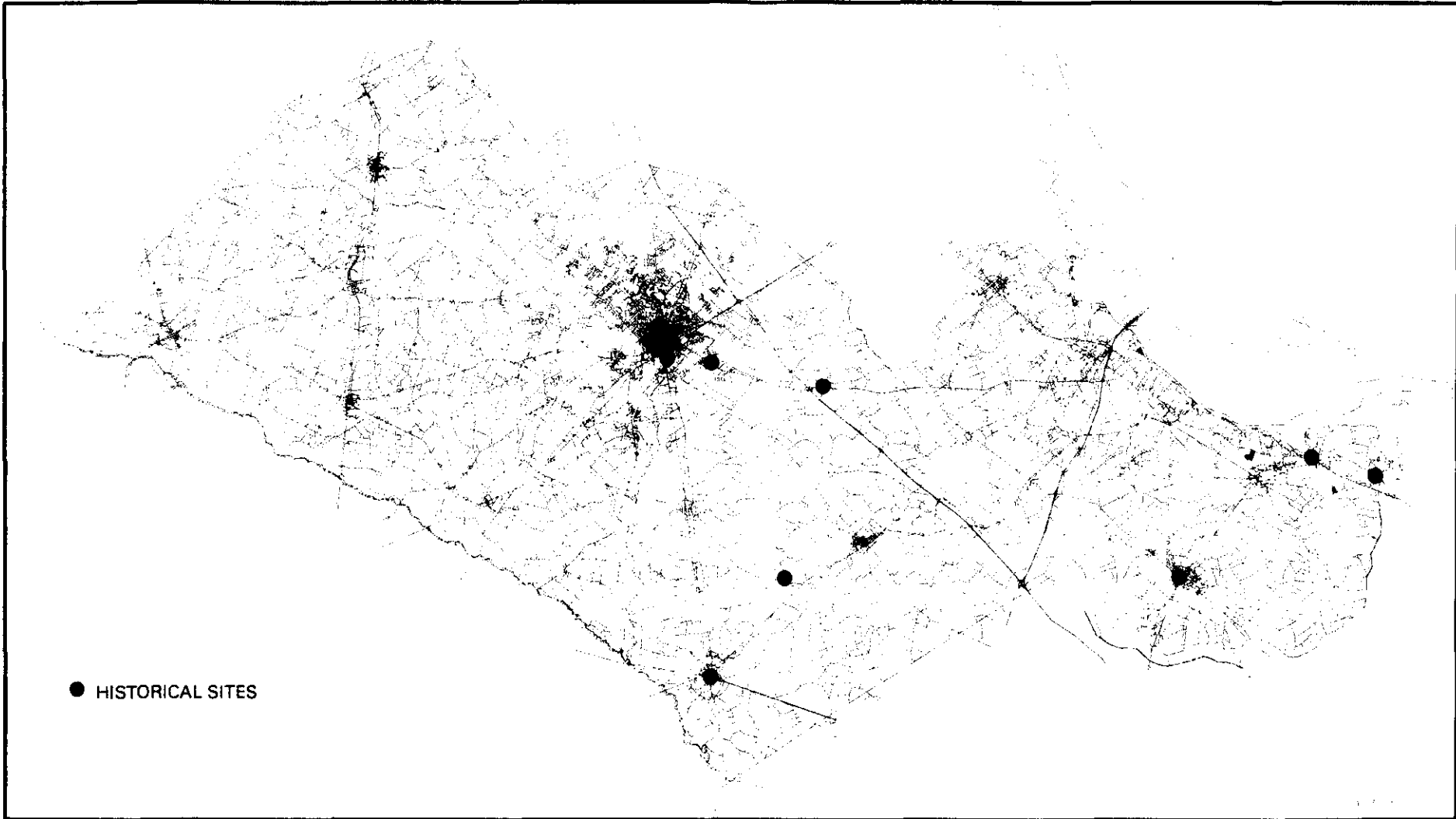
### **Archeological Sites**

There are a number of archeological sites in Orangeburg County. Little information concerning the location of these sites is made available to the general public. A list of these sites is maintained by the South Carolina Department of Archives and History in Columbia. Their locations are not published to help protect them from vandalism and unauthorized digging by untrained relic collectors.

### **Commercial and Residential Districts**

Some of the notable historical commercial and residential districts in the county were listed in Table 1. These included the Amelia Street Historic District in Orangeburg, the Claflin College Historic District, the East Russell Street Area Historic District, Orangeburg Downtown Historic District, Whitman Street Area Historic District and the South Carolina State College Historic District. All of the towns in Orangeburg County (discussed in the Orangeburg County Overview section of this report) have their own unique commercial areas. Many of the towns have recently taken steps to restore and enhance their downtown areas. These efforts improve the quality of life in these towns and for all residents of the county.

**FIGURE 1**

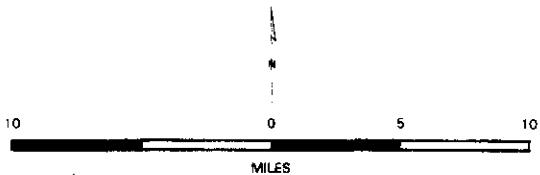


● HISTORICAL SITES



GIS/MAPPING DEPT.

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**COUNTY OF ORANGEBURG, SOUTH CAROLINA  
COMPREHENSIVE PLAN  
HISTORICAL SITES**

FIG.1

### **Unique Natural and Scenic Resources**

There are great natural scenic resources in the county. The most outstanding of those include the north and south forks of the Edisto River, the Four Holes Swamp area and Lake Marion which borders the northeastern end of the county.

Santee State Park, located near the town of Santee, is a major nature oriented park, which attracts many residents and visitors. In addition to camping and boating the park offers a number of riding and walking trails. There are views of the lake and a number of unique natural land forms.

### **Other Cultural Resources**

There are a great number of other cultural resources in Orangeburg County. Some are oriented to history and recreation while others are oriented towards education and the arts. A partial listing of some of those resources follows:

**Branchville Railroad Shrine and Museum** – Home of the oldest railroad junction in the world, the museum is located beside the railroad tracks on Highway 21. From early spring until September the museum is open Sunday afternoons and by appointment at other times.

**Edisto Memorial Gardens** – Located on U.S. 301 in Orangeburg where a marker relates the story of less than six hundred confederate soldiers defending the Edisto River Bridge in 1865. Occupying rifle pits located where the gardens are now, these soldiers temporarily halted the advance of the Union Army. On February 12, 1865, outflanked by

a much larger force, these defenders were compelled to withdraw for Columbia. Early in the 1920's, the first azaleas were planted on a five-acre plot of cleared land near the river. A city playground was built nearby in 1922. A greenhouse and nursery facility was added in 1947, and to extend the season of beauty, a rose garden was planted in 1951. The Edisto Memorial Gardens now cover 110 acres of azaleas, camellias, roses, and other flowering trees and plants among giant oak, centuries-old cypress, and many other varieties of native trees.

**The Fountain** – In 1950, a fountain was moved from the “Square” and placed at the main entrance to the gardens in memory of soldiers who died in wars. At that time, the name was changed from Edisto Gardens to Edisto Memorial Gardens.

**The Horne Wetlands Park** – This major addition to the gardens is an integral part of the City of Orangeburg's ten-year development plan for the Edisto Memorial Gardens. The wetlands park boardwalk is located between the rose garden and the river. When all phases are completed, the park will feature 2,500 feet of boardwalk, observation decks, a boat dock, and an interpretive shelter. From the boardwalk trail, both wildlife and plant life can be viewed in their native settings.

**Eutaw Springs Battlefield** – A monument on Highway 6 in Eutaw Springs designates this historical site as one of the bloodiest battles of the American Revolution. It was the last major Revolutionary Battle in South Carolina (September 8, 1781.).



**Neeses Farm Museum** – The museum contains historic artifacts, clothing, an old-fashioned kitchen, hand-made plow, grain cradles, saws and other items of farm history. The museum is located on Highway 321 near Highway 4 in Neeses, and is open by appointment.

**Former Site of Hawthorne School of Aeronautics** – Located 3 miles south of Orangeburg on Highway 21 is the former site of Hawthorne School of Aeronautics. A retirement community known as the Methodist Oaks now stands where the Air Force's former primary flight school trained 5,924 American and French pilots from 1941 to 1945.

**Orangeburg County Fine Arts Center** – The Arts Council of Orangeburg County is housed in the old river Pavilion, and is now known as the Orangeburg County Fine Arts Center. A terrace garden was added in 1996, which overlooks the Edisto River. The center offers performances and classes in the visual, performing, literary and media arts. Exhibits, handled by the Orangeburg County League of Arts, change monthly in the Lusty Gallery, located on the second floor. Pottery, needlework, miniatures, school and other mediums are frequently exhibited.

**Orangeburg National Fish Hatchery** – The U.S. Fish and Wildlife Service operates the hatchery which produces a number of species, including striped bass, red drum, blue catfish, channel catfish and redbreast sunfish. The Hatchery also produces Atlantic and shortnose sturgeon for stocking lakes and streams throughout the southeast. Visitors are

welcome and special group tours may be arranged. Located south of Orangeburg, the hatchery is open weekdays from 8:00 a.m. until 3:30 p.m.

**I.P. Stanback Museum/Planetarium** – The museum and planetarium occupy a 16,000 square foot structure on the South Carolina State University campus in Orangeburg. The main gallery houses all types of art and a 40-foot high dome planetarium for star-gazers.

### **Festivals and Events**

Annual Festivals and Events are also a form of culture and there are many in Orangeburg County. A partial listing of some of those events is included below:

**Grand American Coon Hunt** – Early January – Coon hunting enthusiasts from all over the U.S. attend this event which is held at the Orangeburg County Fairgrounds.

**Henderson-Davis Players Presentation** – January – June – For more information on scheduled events, call (803) 534-7123.

**Orangeburg Part-Time Players Presentation** – Early March – The Bluebird Theater – Orangeburg.

**Elloree Trials** – Elloree Training Center – Late March – Thoroughbred and quarter horse races.

**Governor's Frog Jump and Egg Striking** – Early April – Springfield, SC.

**Catfish Tournament** – Late April – Rocks Pond Campground and Marina, Eutawville.

**S.C. Philharmonic Orchestra/S.C. State University Choir Concert** – Mid-April – Martin Luther King Auditorium.

**S.C. Festival of Roses in Orangeburg** – Late April – A weekend of family fun and entertainment including music, sports, races, arts and crafts, and much more.

**Senior's Day at the Rose Festival** – Late April – Tour of Roses, entertainment and refreshments for senior citizens.

**Orangeburg Part-Time Players Presentation** – Late June – the Bluebird Theater.

**Eutaw Village Festival** – Early July – Eutawville.

**Santee Fun Festival** – September – Town of Santee.

**S.C. Queen of Roses Pageant** – Late September – Stevenson Auditorium.

**Raylrode Daze Festivul** – Late September – Branchville.

**Orangeburg County Fair** – Late September.

**Holiday Arts & Crafts** – Mid-October – First Baptist Family Life Center – Orangeburg.

**Children's Garden Christmas** – Late November through December – Lighted displays of Christmas in Edisto Memorial Gardens, Orangeburg.

**The Regional Medical Center Christmas Tree Lighting Program** – Late November or early December.

**S.C. State University Choir Concert – Early December.**

**Clafin College Choir Concert – Early December.**

## Summary – Cultural Resources

### Needs & Goals, Implementation and Time Frames

There is a need for a more up-to-date record, or catalog, of cultural resources within the County. Until the passage of the State Planning Act, few if any jurisdictions, listed and described all of the various cultural resources in one document. This probably resulted because cultural resources are so varied, including music and the performing arts, historic sites and buildings, festivals and events, and even scenic natural areas. As more of the various activities are cataloged and described, a truer picture of the cultural wealth of the county can be drawn.

A coalition of representatives from the various areas of interest described in this section could come together to address in more detail the needs related to the County's Cultural Resources with an eye towards expanding, strengthening and preserving the rich and diverse culture in the county.

A goal of the comprehensive plan is to recognize all existing cultural resources and to promote the protection, support and enhancement of those resources. Implementation of this goal should include specific designation of these resources by elected offices and the creation of tax and/or financial incentives. A written public consensus of priorities for preserving the County's character, and historic and cultural resources should be developed by the year 2001.

The "Heritage Corridor" is planned to include parts of Orangeburg County. The Heritage Corridor is a two hundred and forty (240) mile route that passes through the counties

along the western edge of South Carolina. The primary objective of the Heritage Corridor is to promote the cultural, historical, recreational, and educational resources in these counties as a means of attracting tourism. The County should participate in, and support, this project as it will appear across Orangeburg County. This project should enhance tourism activity in the County.

The Palmetto Trail Project is also planned to impact the County. The Palmetto Trail is a state sponsored hiking and walking trail that connects the upstate region of South Carolina to its coastal region. The County could help establish access points, parking areas, camp sites, safe drinking water and sanitary facilities in order to promote this project.

**COMMUNITY  
FACILITIES**

## COMMUNITY FACILITIES

Community facilities include all of many systems managed by a number of agencies which allow the County to function and provide the varied services required and enjoyed by residents and visitors, in the county. They consist of those physical things that are readily apparent like roads and highways, government buildings, fire stations and schools as well as services provided such as sewer systems, fire protection, emergency medical services, and police protection. The community facilities provided by the County are, for the most part, funded by taxes and they require the biggest expenditures by county government. Community facilities are provided not only in response to the needs of the existing citizenry but often in anticipation of future needs or to promote future development. Because of the huge cost and long time periods required to provide community facilities they must be planned for in advance. Hence, one of the most basic purposes of the comprehensive plan.

### Existing Conditions

This element of the comprehensive plan first attempts to describe the present state of community facilities within the county. With a better understanding of what exists and the relationship between existing and anticipated future needs, development plans can begin to be formulated for adding to the basic infrastructure and services provided by the county. The community facilities element of the comprehensive plan serves as the basis for the future land use plan.

Transportation – The primary means of transportation in the county is the motor vehicle which for the general public, require roads and highways.

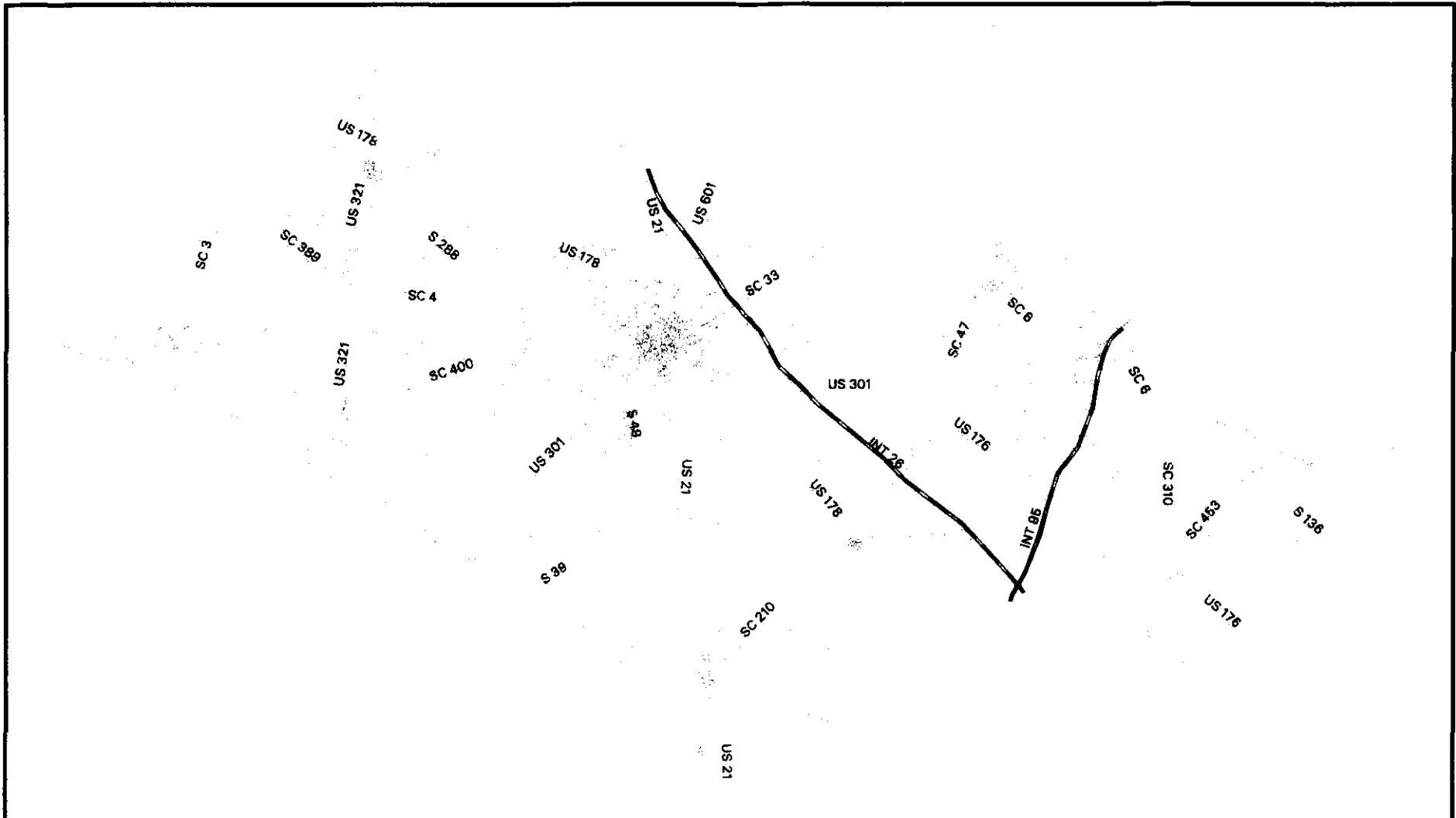


The County enjoys an extensive network of county, state and federal roads. The two interstates passing through the County include I-26 (East-West) and I-95 (North-South) which intersect approximately fifteen miles southeast of the city of Orangeburg. There are seven major U.S. highways serving the County and 18 state highways shown in Figure 1.

Figure 2 shows traffic volumes on some of the major roads in Orangeburg County. Traffic volumes are used to measure just how busy or how much traffic a particular section of road carries. The traffic volumes in this illustration are measured in A.D.T.s (Average Daily Trips). The width of the band along a segment of road indicates the traffic volume on that segment. The wider the band the heavier the traffic. Traffic volumes are useful in determining where development and growth is occurring and where it is likely to occur in the future. These numbers are also useful to developers, particularly in the retail sector, in determining future retail locations where minimal amounts of traffic are required to support specific retail uses.

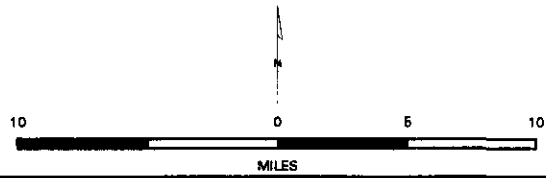
Traffic volumes along with a number of other factors, including future land use patterns, are used by highway planners to analyze and determine the need for new roads and improvements to existing roads. One factor used is the Level-of-Service (LOS) which can range from LOS-A to LOS-F. LOS-A for a particular road indicates that traffic on that road can move freely and uninterrupted at the posted speed limits. LOS-F means that traffic comes to a halt and moves in a stop and go fashion because more vehicles are using that road than the road can comfortably carry. This is often the case with some freeways in densely developed urban areas. LOS-E usually means that a road is operating at maximum capacity and that traffic moves at about 30 mph, with long delays if a mishap occurs.

FIGURE 1  
(MAP - ROADS & HIGHWAYS)



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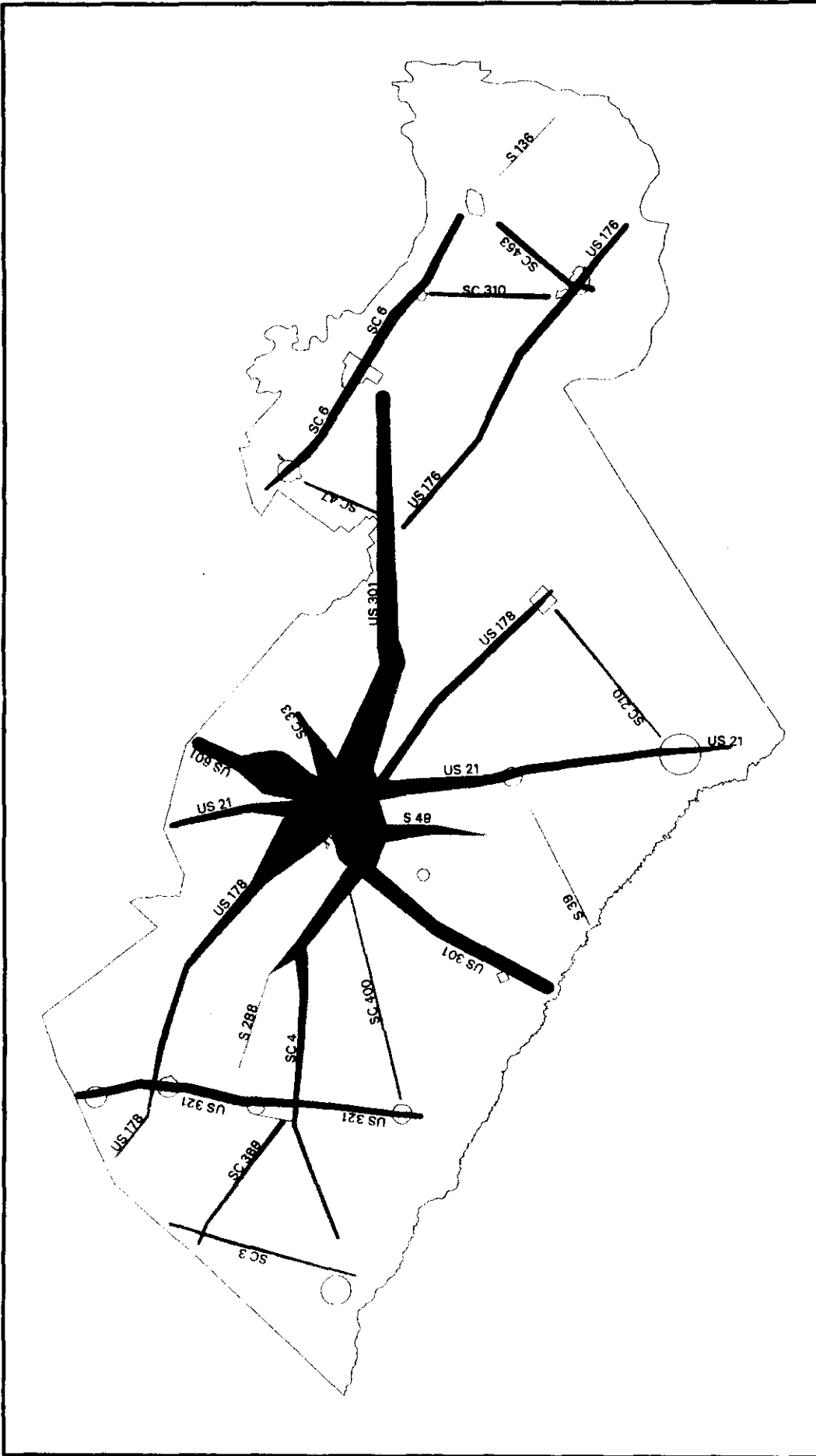
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**COUNTY OF ORANGEBURG, SOUTH CAROLINA  
COMPREHENSIVE PLAN  
MAJOR ROADS & HIGHWAYS**

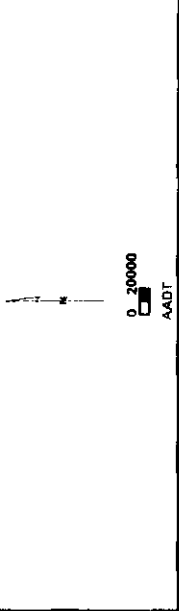
FIG. 1

FIGURE 2  
(TRAFFIC VOLUMES)



**COUNTY OF ORANGEBURG, SOUTH CAROLINA  
COMPREHENSIVE PLAN  
TRAFFIC VOLUMES**

**FIG. 2**



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GIS MAPPING DEPT.

When this condition occurs there are a number of alternatives: widen the road to carry more traffic; build other new roads to better distribute traffic in the area; discourage increasing per capita automobile travel while encouraging the use of transit or carpooling (historically not feasible or successful in rural areas); a combination of the above; or accept increasingly congested traffic.

Typically expanding urban areas usually begin with residential development and are followed by commercial and other supporting uses. The initial residential areas become traffic generators which increase traffic on the roads. This increased traffic becomes attractive to commercial uses which develop and expand until they become traffic generators in themselves. This pattern of development is occurring in various areas of Orangeburg County now.

It is apparent in the county that transportation and land development go hand in hand, and changes in one are often related to problems with the other. Future detailed planning efforts for transportation and land use should be conducted simultaneously with traffic planners working in concert with land planners to analyze existing problems and anticipate and plan for any potential future problems.

As stated, Orangeburg County has a good network of roads and highways. Traffic congestion generally has not been a major problem within the county with the exception of a few specific circumstances. Traffic problems are practically non-existent when compared to some of the major urban areas in the country. Peak hour, or rush hour, traffic (significant increases in traffic usually in the morning when people are going to work or in the afternoon when people are coming home from work) is also not a major problem except for a few road segments in the county.

Examples of some traffic congestion problem areas in the county include sections of the North Road, the Old St. Matthews/602 Highway near Orangeburg City and sections of Highway 6 near Santee and the I-95 interchange.

These are all very good examples of the relationship of growth, land development and roadways. To illustrate this concept further, the North Road is currently undergoing a widening project from just outside the city limits of Orangeburg to Lake Edisto Road. Until recent times the North Road was primarily a rural road connecting the city of Orangeburg and the town of North. Increased residential development began to occur along the North Road corridor because of easy access to Orangeburg City and the highly developable land in the area. As population slowly expanded northward retail support uses such as the Prince of Orange Mall and other establishments began to develop. A school was constructed. Wal-Mart decided to locate in the area, and new residential development continued. Increasing traffic then attracted convenience stores, restaurants, service stations, and other retail uses. With all of this development traffic conditions increased to the point that it became a problem and the State Highway Department decided to undertake the widening project.

Once the widening project is completed then traffic conditions will certainly improve. However, in anticipation of better traffic conditions, and certainly increasing traffic volumes, others have started additional retail developments. All of this retail activity together will create a major traffic generation area. Traffic will continue to increase and even more commercial development is likely to occur.

This pattern of growth is occurring in other areas as well without any planning activities. This lack of planning will allow continued problems with providing infrastructure.

New residential development and higher density commercial development certainly contribute to the economic base of any area. These types of development provide for additional housing opportunities and increased availability of retail goods and services as well as other opportunities all of which improves the standard of living in the community. Unfortunately, however, uncoordinated planning and development, with little consideration for adjacent properties, often lead to conflicts between dissimilar and incompatible uses. Also, without proper planning, it is often difficult for local governments to anticipate, and keep up with, the demand for required community facilities such as fire and police protection, solid waste collection, emergency services, schools and other systems. In this regard, one of the goals of the Community Facilities element should be the coordinated planning of future of transportation improvements and land development activities.

**Air Travel-** Major commercial air transportation service is available near Columbia, approximately 40 miles to the northwest or Charleston, approximately 70 miles to the southeast. The two municipal airports serving the County are located in Orangeburg and Holly Hill. The Orangeburg Municipal Airport (OGB), which is undergoing an expansion program, currently features two runways, one 4,500 feet long and a smaller one of 2,800 feet long. A new 5,400 foot runway is being added. The airport is owned by the city of Orangeburg and is located approximately 2 miles southeast of the center of the city. There is an approach lighting system (ODALS), an airport beacon, medium intensity lightning, and a capacity for VOR and NDB non-precision instrument approach. The airport is attended and open daily from 8 am until dark. The Holly Hill airport (5J5) is located approximately 2 miles from Holly Hill and is owned by that town. It has paved runway, low-intensity runway lights and a tie-down storage area.



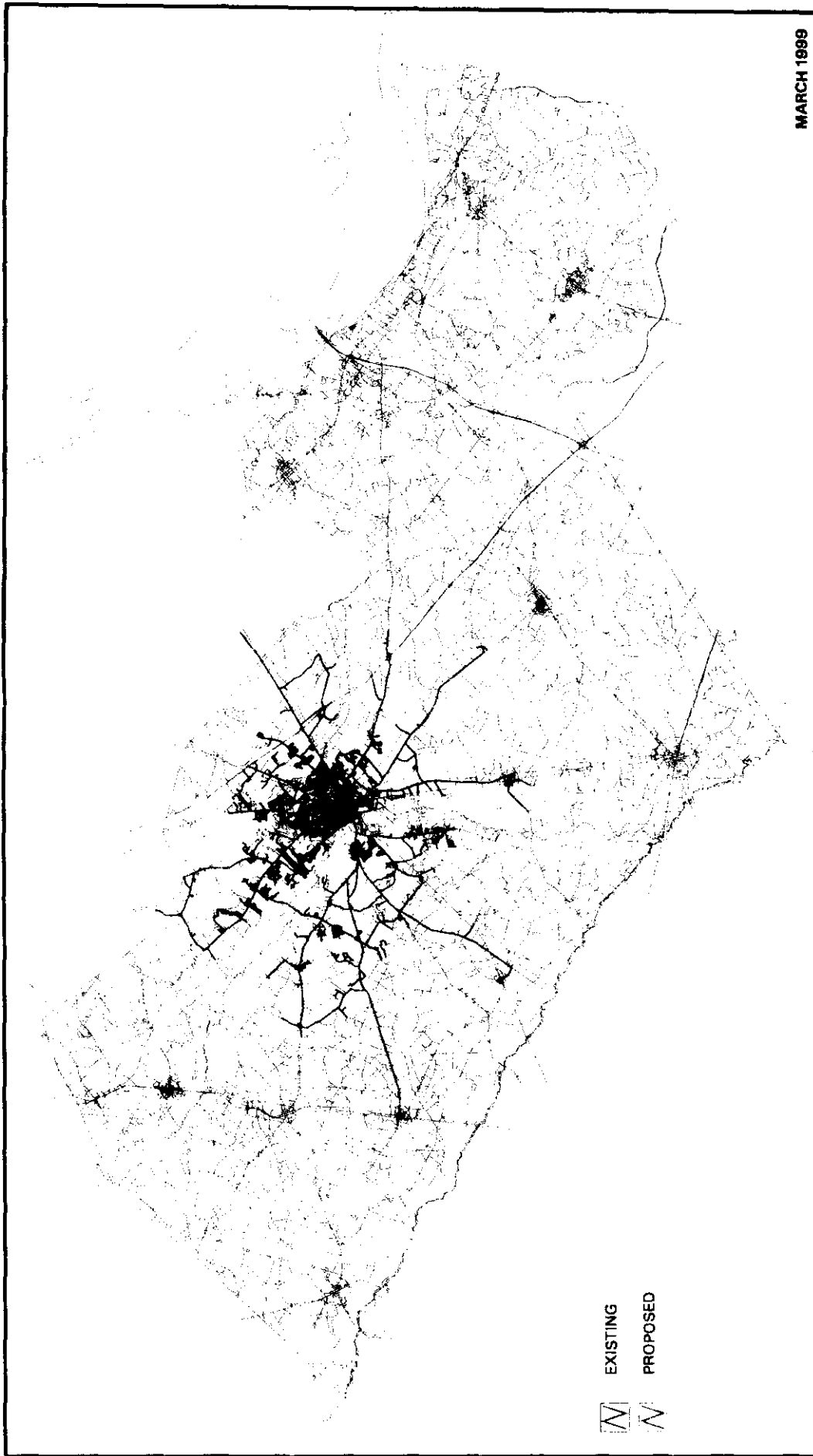
Except for some private and agriculture oriented landing areas, there are no other air strips in the County. Additional landing areas for aircraft should be considered, especially for economic development and emergency purposes. The U.S. Air Force has a large air base near the town of North which could be available for emergency use.

**Water Supply & Distribution** – The incorporated towns in Orangeburg County have their own water supply systems. The systems vary in size and distribution areas. Figure 3 shows the areas in Orangeburg County which are served by public water systems. In addition to the systems in the towns there is a regional water system near North, known as the Bull Swamp Water District. The Orangeburg Department of Public Utilities (DPU) supplies public water to areas in and around the city of Orangeburg. The Santee Water District supplies water around Santee and to some of the developing areas along Lake Marion.

There has been considerable discussion and a movement underway, to establish a regional water authority to serve the southeastern portions of Orangeburg County.

Water and sewer services have a profound effect on urban and suburban development. The timing and growth of new development areas are often dictated by the availability of these services. In most areas of the County, residential development can and does occur without public water and sewer systems. But because of the need for wells and septic systems, this development must be low in density and it requires larger areas of land. When water service only is provided residential development is encouraged but lot sizes are often dictated by septic tank requirements.

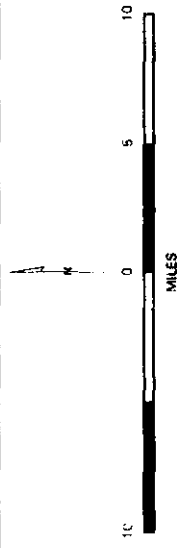
FIGURE 3  
(WATER SERVICE AREAS)



MARCH 1989

**COUNTY OF ORANGEBURG, SOUTH CAROLINA  
COMPREHENSIVE PLAN  
WATER**

**FIG.3**



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EXISTING  
PROPOSED



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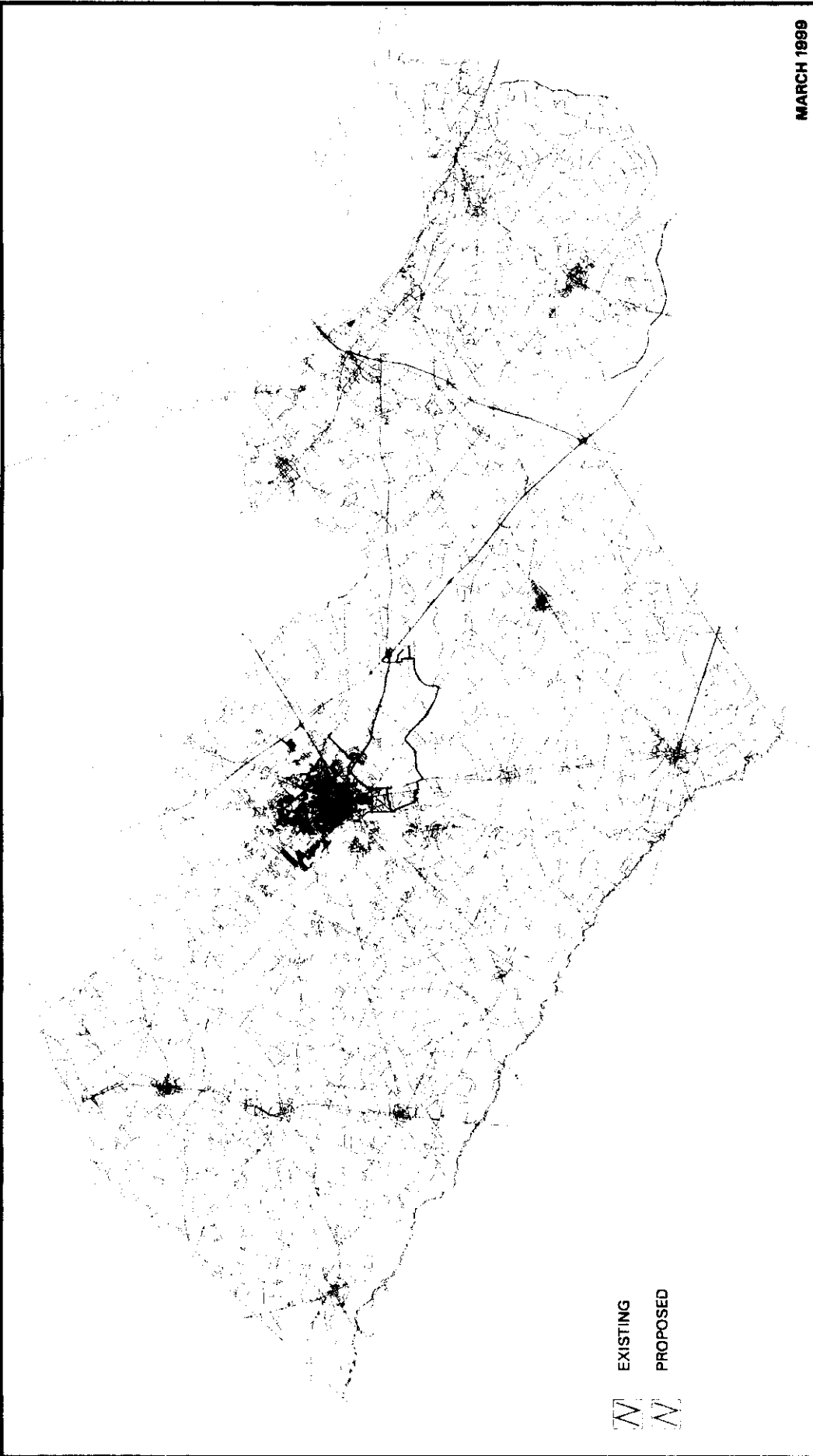
When water and sewer services are provided, then higher density development can occur including most commercial, industrial and other high intensity uses.

Government action to provide, or not provide, water and/or sewer service does certainly affect the direction and timing of growth and encourage or discourage development in specific areas. Water and sewer services are a determinate in projecting future land uses, and the impact of these services should be carefully considered when they are being planned.

**Sewer Systems and Waste Water Treatment** – The largest sewage collection and treatment system in the County is provided by DPU, and it serves the area in and around the city of Orangeburg. The sewage is treated and effluent is discharged into the North Fork of the Edisto River below the city. Another sewer system serves the Santee area and all of that treated effluent is disposed of on local golf courses. Figure 4 illustrates the sewer service areas around Orangeburg and other areas in the County. The city of Orangeburg and Orangeburg County recently agreed to develop a new industrial park near the intersection of I-26 and U.S. 301. As a part of that agreement, city (DPU) water and sewer service to that park is being provided along U.S. 301 from the city to the I-26 interchange. Access to these water and sewer lines will most likely encourage other development along the U.S. 301 corridor.

**Solid Waste Collection and Disposal** – Orangeburg County provides solid waste collection at a number of manned recycling and solid waste convenience centers throughout the County. Figure 5 shows the location of those convenience centers currently in operation. The County does plan to add more collection and disposal centers in the future.

FIGURE 4  
SEWER SERVICE AREAS

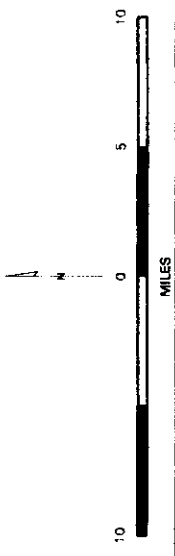



  
 EXISTING
   
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MARCH 1989

**COUNTY OF ORANGEBURG, SOUTH CAROLINA**  
**COMPREHENSIVE PLAN**  
**SEWER**

FIG. 4

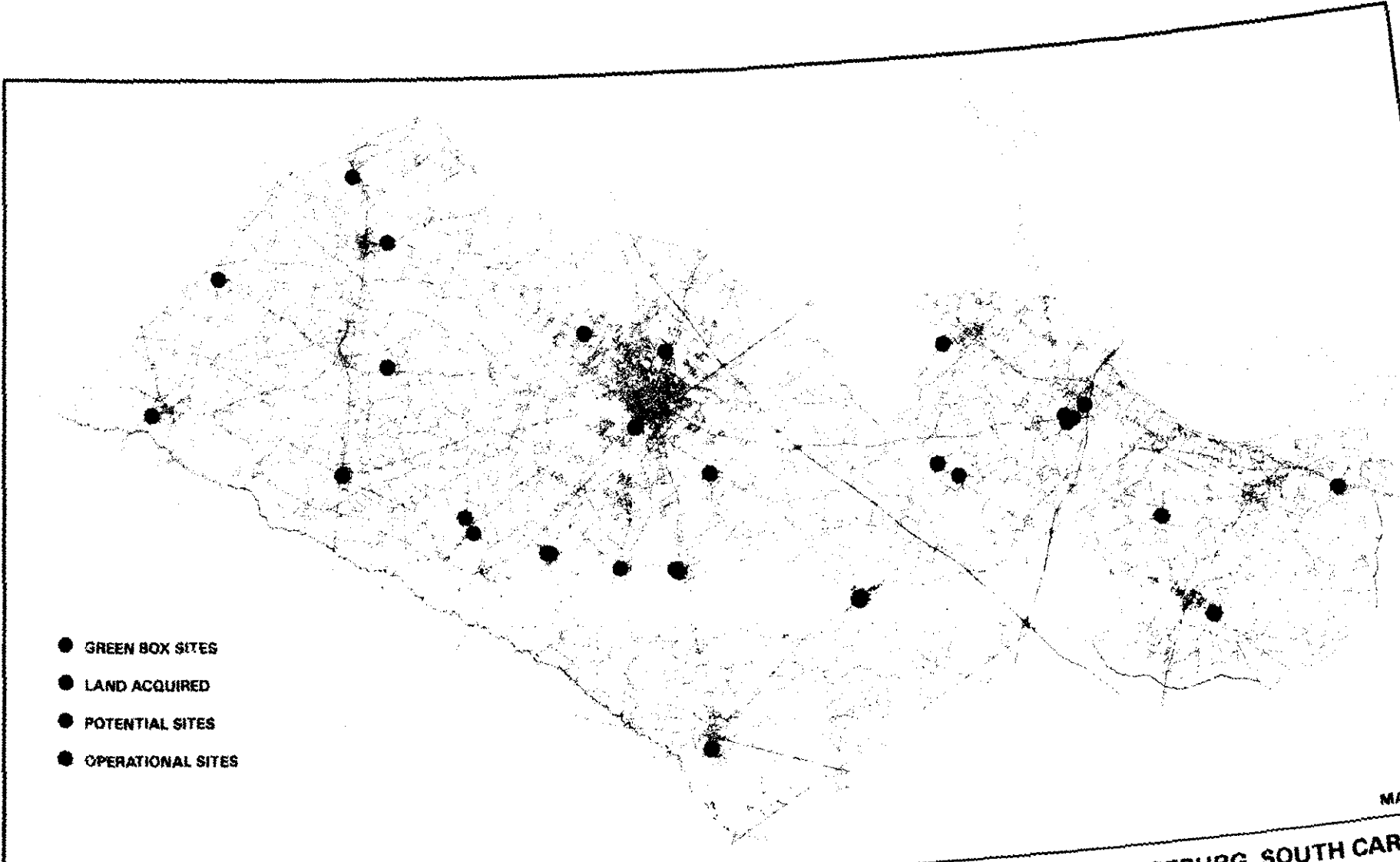


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FIGURE 5  
SOLID WASTE COLLECTION SITES



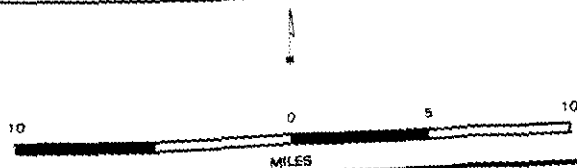
- GREEN BOX SITES
- LAND ACQUIRED
- POTENTIAL SITES
- OPERATIONAL SITES

MARCH 1999



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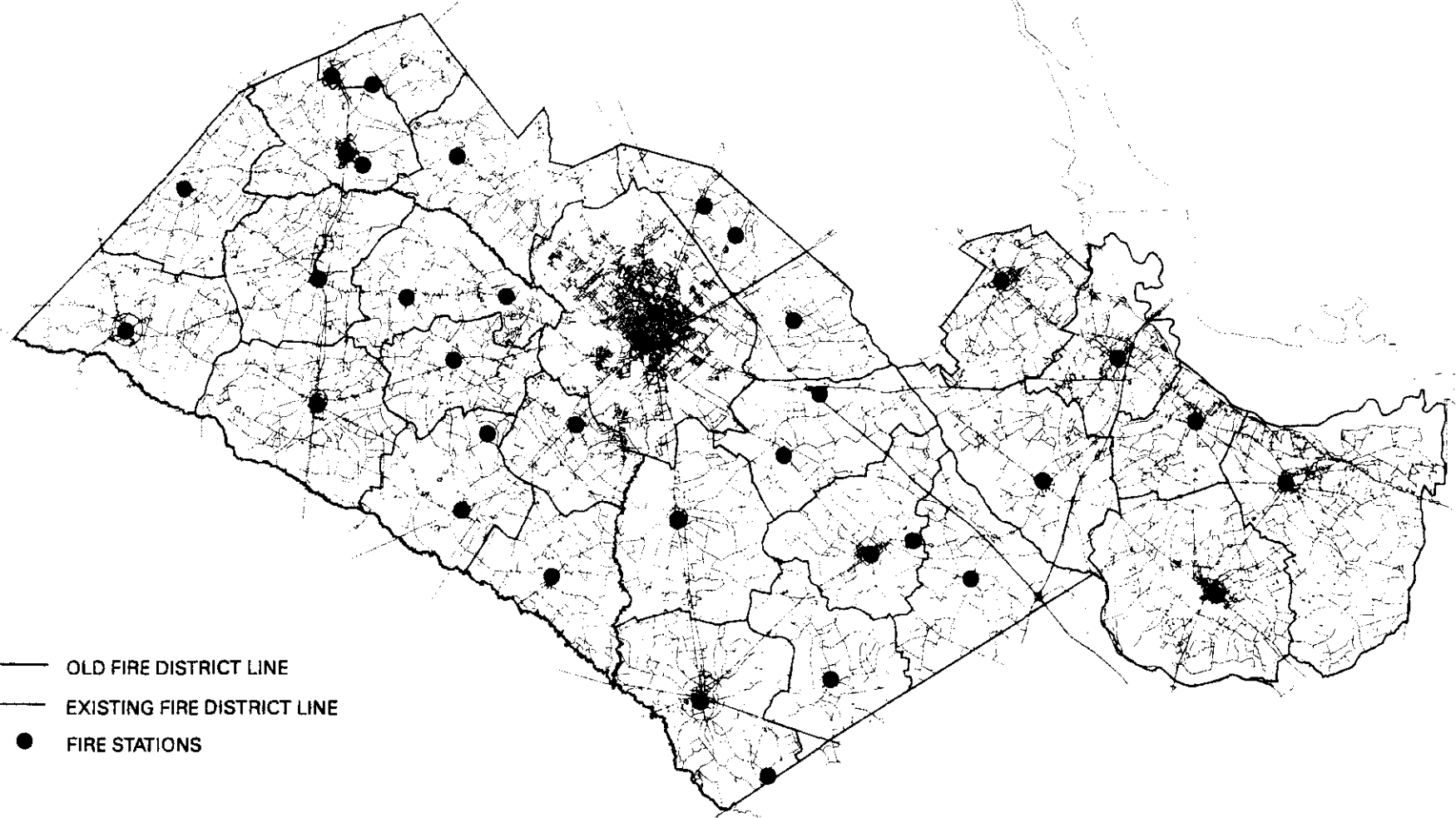


COUNTY OF ORANGEBURG, SOUTH CAROLINA  
 COMPREHENSIVE PLAN  
 SOLID WASTE COLLECTION SITES  
 FIG. 5



FIGURE 6

FIRE



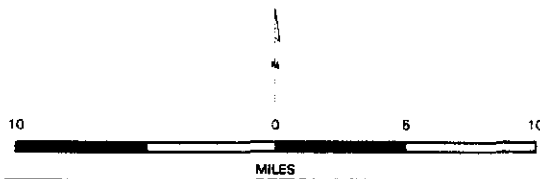
- OLD FIRE DISTRICT LINE
- - - EXISTING FIRE DISTRICT LINE
- FIRE STATIONS

MARCH 1999



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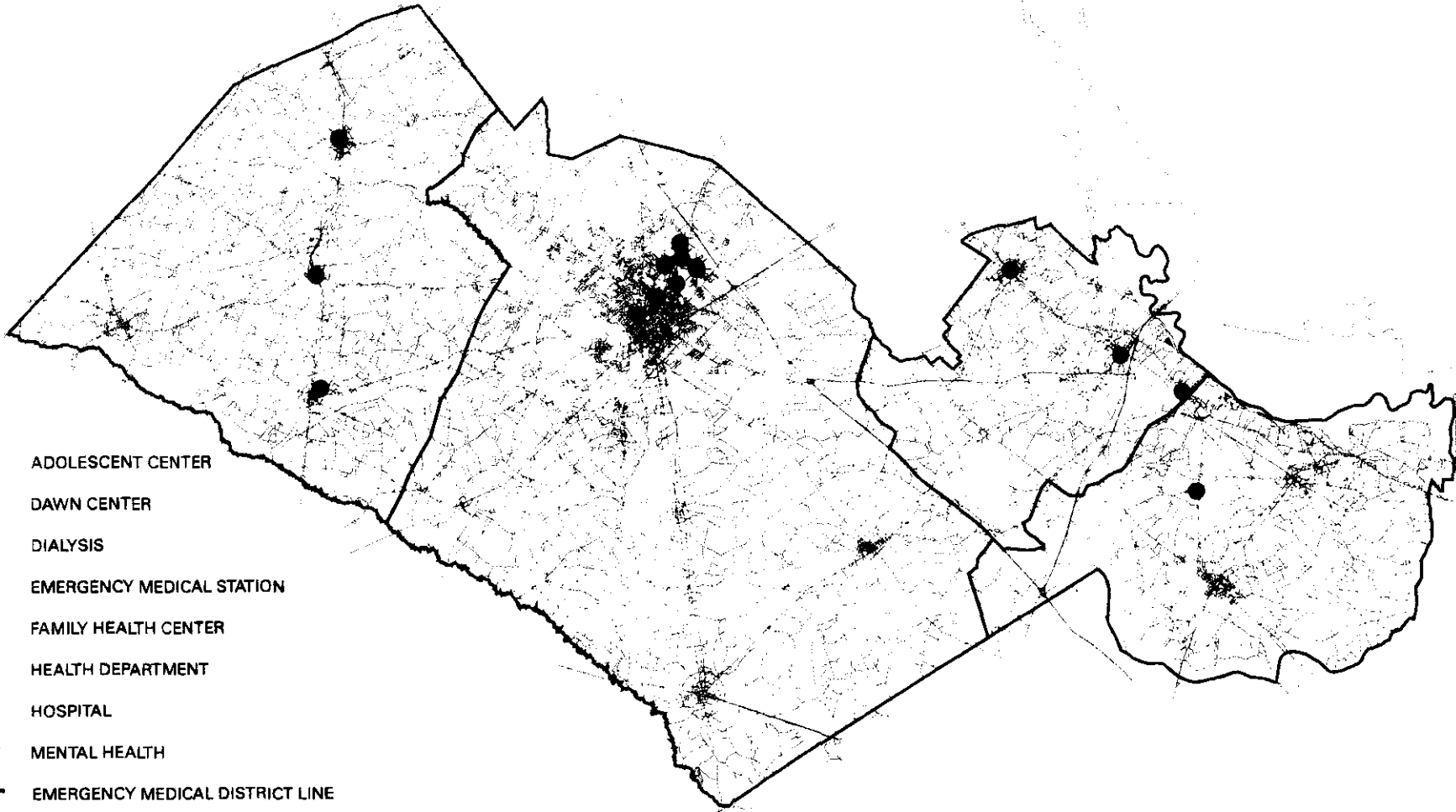
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**COUNTY OF ORANGEBURG, SOUTH CAROLINA  
COMPREHENSIVE PLAN  
FIRE STATIONS**

FIG.6

FIGURE 7  
MEDICAL FACILITIES



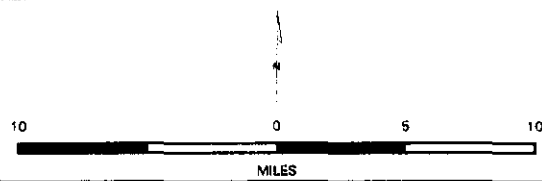
- ADOLESCENT CENTER
- ☼ DAWN CENTER
- DIALYSIS
- EMERGENCY MEDICAL STATION
- FAMILY HEALTH CENTER
- HEALTH DEPARTMENT
- HOSPITAL
- ☼ MENTAL HEALTH
- EMERGENCY MEDICAL DISTRICT LINE
- EMERGENCY MEDICAL SERVICE LINE

MARCH 1999



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**COUNTY OF ORANGEBURG, SOUTH CAROLINA  
COMPREHENSIVE PLAN  
MEDICAL FACILITIES**

FIG. 7

**Fire Protection** – Fire protection services are provided throughout the County through a variety of means, including a mixture of both paid and volunteer fire departments. Four municipalities provide fire services within their designated service areas. The municipalities include a paid Department of Public Safety with the City of Orangeburg and volunteer fire departments in the towns of Elloree, North, and Santee.

Fire protection services are provided in the remainder of the County by the Orangeburg County Fire District which is composed of twenty-two volunteer fire departments. The Orangeburg County Fire District was created by ordinance by the Orangeburg County Council on July 28, 1997. The volunteer fire departments within the Orangeburg County Fire District are funded by a special tax millage. The revenues generated by the special tax provide for the operational and capital needs of the volunteer fire departments. The dedicated service of the volunteer firemen and the stability of the source of funding through the special tax district are producing enhanced fire fighting capability and reduced fire insurance premiums. The location of Fire Stations and Fire Districts are shown in Figure 6.

**EMS** – Emergency medical service is provided by the Orangeburg County EMS. Vehicles and staff are based at the main headquarters in Orangeburg. Five ALS (Advanced Life Support) certified ambulances operate twenty-four hours a day in Orangeburg County. Two units are located in the Orangeburg area with additional units located at substations near the towns of Holly Hill, Neeses, and Santee. EMS service lines and other medical facilities are shown in Figure 7.

### **Law Enforcement**

The Orangeburg County Sheriff provides uniformed patrol throughout the County on a daily basis. The Sheriff's Office is headquartered in the City-County Law Enforcement Complex on Ellis Avenue in the County Seat of Orangeburg County. Sheriff's Office substations are located in other areas in the County.

### **Government Facilities**

The center of County Government is located in the City of Orangeburg. Most of the County Government functions are headquartered in the County Office Building on Amelia Street and in the County Courthouse building nearby. Other Government facilities and buildings maintained by the County are shown in Table 1 which follows.

### **Schools/Education**

Public Schools in Orangeburg County consist of three school districts (Consolidated Districts 3, 4 and 5) and four colleges (South Carolina State University, Claflin University, Orangeburg-Calhoun Technical College, and Southern Methodist College), as well as several special purpose schools.

Orangeburg County Schools in 1990 had an enrollment of 17,830 students. There are also a number of private, and religious oriented, self-supported schools within the County offering a number of programs for K-12 students.

The three public school districts resulted from the recent consolidation of the County's eight (8) school districts in an effort to promote equalization of funding and expand educational opportunities for students throughout the County.

**TABLE 1**

**BUILDINGS MAINTAINED BY ORANGEBURG COUNTY**

Orangeburg Health Services Center	Vehicle Maintenance Shop
Elloree Health Services Center	Radio Towers
Holly Hill Health Services Center	Nurses Dorm
North Health Services Center	Neeses EMS Substation
Administration Building	Santee EMS Substation
Courthouse	Holly Hill EMS Substation
Old Administration Building	Indian Bluff
Development Commission	Ruf Road Convenience Site
Agricultural Building	Glover Street Convenience Site
Library	Neeses Street Convenience Site
Holly Hill Library	Holly Hill Convenience Site
Elloree Library	Norway Convenience Site
North Library	Branchville Convenience Site
Law Enforcement Complex	Springfield Convenience Site
Detention Center	North Convenience Site
Central Traffic Court Trailer	Bowman Convenience Site
Animal Shelter	North Road Convenience Site
Orangeburg Road Maintenance Shop	Elloree Convenience Site
Neeses Road Maintenance Shop	Holly Hill Convenience Site
Vance Road Maintenance Shop	Eutawville Convenience Site
Bowman Road Maintenance Ship	Sawyerdale Convenience Site
Orangeburg Area Development Center	Bozard Road Convenience Site
Landfill Scalehouse	Providence Convenience Site
DSS	

School District Three has administrative offices in Holly Hill and has four elementary schools, one middle school and two high schools. District Four is located in Cordova and contains four elementary/primary schools, one middle school, three high schools and one vocational school.

District Five, which is located in Orangeburg, has eight elementary schools, three middle schools, three high schools, and one consolidated technology center. Each school district has plans and programs for additional educational facilities. Those desiring more detailed information should contact each district.

The consolidation, which took place in 1997, created the three new school districts and an elected County Board. The concept is that the County Board will levy taxes across the County and distribute them back to the three school districts. All of the debt by the districts would be consolidated and paid throughout the one County Board. The intent was also to establish uniform salary schedules for certified teachers and provide a broader distribution of County funds and provide more equal opportunities for students. This consolidation embraced the idea that all of the school districts could benefit equally from economic development which might occur in all parts of the County. Figure 8 shows the areas covered by the three public school districts.

The Orangeburg County Board of Education was established according to Act No. 526 of 1996. That Act provided specific powers, duties and functions to the Board. Some, taken from the Act are as follows: "The primary role of the Board is to equalize funding among the three consolidated districts; the Board shall serve as a fiscal agent to distribute the County

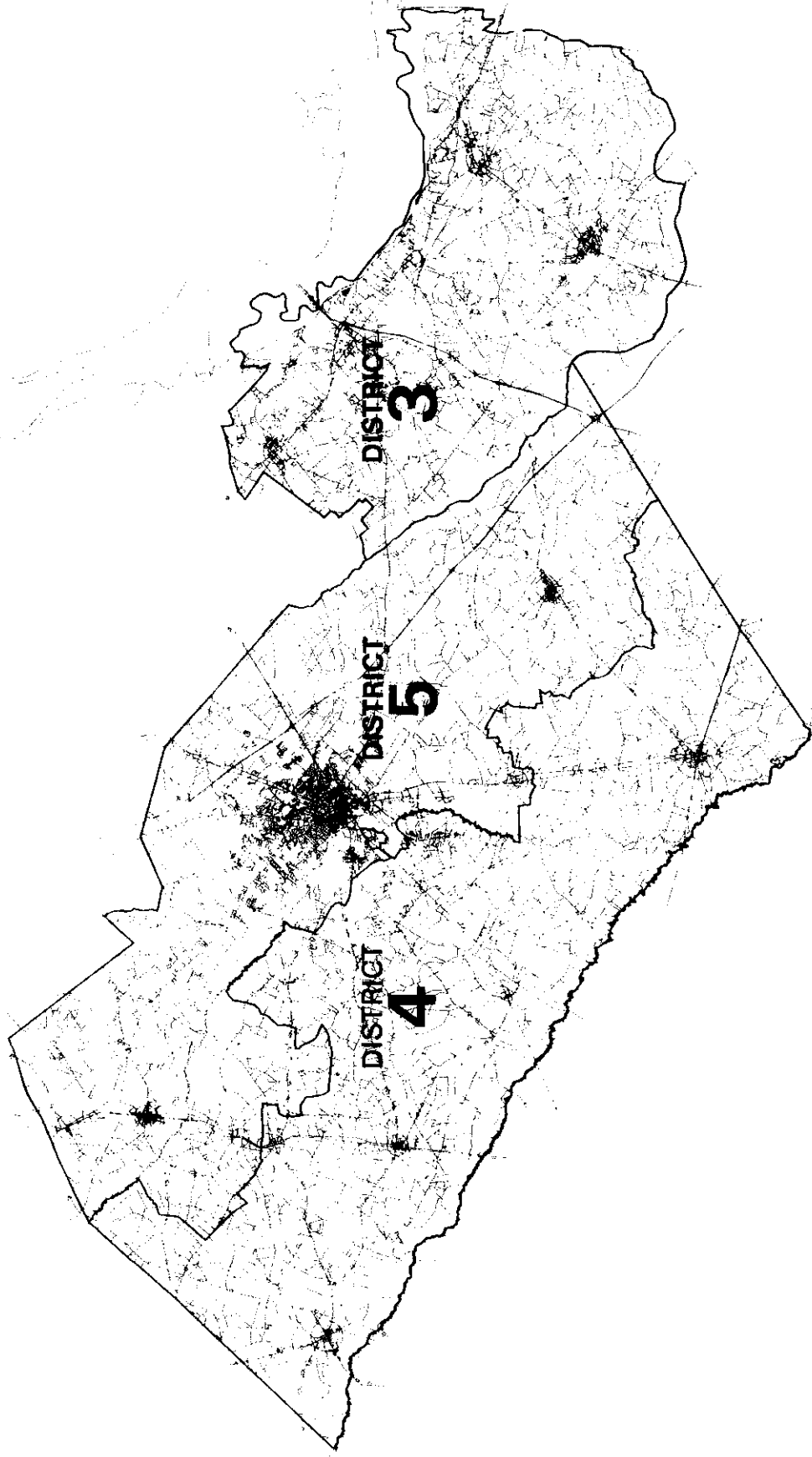


FIGURE 8  
CONSOLIDATED SCHOOL DISTRICTS

MARCH 1989

# COUNTY OF ORANGEBURG, SOUTH CAROLINA COMPREHENSIVE PLAN SCHOOL DISTRICTS

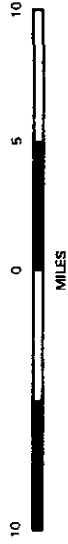
FIG. 8



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GISMAK/PLNG DEPT.



wide school millage levy for operating and debt services to the three consolidated school districts; serve as arbitrator in disputes concerning school district lines; and, prescribe a uniform salary schedule for all certified teachers.”

### **South Carolina State University**

The largest college in the County is South Carolina State University (SCSU) with a student population of over 5,000. This campus consists of 160 acres located in the city of Orangeburg. The University offers majors in Engineering Technology, Agribusiness, Health Sciences, and the Arts & Sciences. Masters Degrees are offered in Teaching and Agriculture and Doctoral Degrees are offered in Educational Administration.

SCSU provides excellence in over 60-degree programs, from the bachelor to the doctorate level. Other major fields of study include programs in speech/audiology, nutritional sciences, rehabilitation counseling, criminal justice, social work, educational administration, engineering, agribusiness and others.

### **Clafin College**

Located adjacent to South Carolina State University is Clafin College, a private, four-year, co-educational, career-oriented liberal arts college. The college is accredited by the Commission of Colleges of the Southern Association of Colleges and Schools. Clafin is the oldest, historically Black college in South Carolina and is affiliated with the United Methodist Church. The college campus consists of 32 acres and has several buildings listed on the National Historic Register. Clafin offers a variety of bachelor degrees and its faculty includes 59 full-time instructors with a student-faculty ratio of 15:1.

### **Southern Methodist College**

Southern Methodist College is a church affiliated institution. This college, also located in the city of Orangeburg, is currently embarking upon an expansion program to increase its student population and expand the physical facilities on its fifty-acre campus. Southern Methodist offers students quality post-secondary education in a Christian setting.

### **Orangeburg-Calhoun Technical College (OCTC)**

OCTC operates closely with the Economic Development Division of the State Board for Technical and Comprehensive Education in administering Special Schools Training for a wide variety of Orangeburg County industries. OCTC trains area students for future employers. OCTC is a public two-year college that offers 18 associate degrees, 4 diplomas and 23 certificates. Major field offerings include business and computer technology, health science and nursing, industry technology, university transfer and public service as well as specialty courses to meet the needs of local industry.

### **Technology Center**

The mission of the Orangeburg Consolidated District 5 Technology Center, a safe and nurturing environment, is to equip a diverse student population with marketable occupational skills through challenging and comprehensive instruction.

**Library Services** – The Orangeburg County Library main branch is located in the city of Orangeburg. The library has a bookmobile service and also maintains library branches in Branchville, Holly Hill, North, Elloree and at the Methodist Oaks Retirement Community. Other libraries include the Miller F. Whittaker Library at S.C. State College, Orangeburg-Calhoun Technical College Library, and the Hubert H. Manning Library at Claflin College.

**Medical Facilities** – The Regional Medical Center of Orangeburg and Calhoun Counties, a non-profit hospital owned by Orangeburg and Calhoun Counties, has over 280 beds in all private rooms and is equipped with state-of-the-art technology. Services offered include Intensive and Coronary Care, Same-Day Surgery, Emergency Room, and an Acute Care Psychiatric Department. A full range of therapeutic and diagnostic services are available.

The Regional Medical Center (TRMC) is governed by a seventeen member Board of Trustees representing the two Counties. More than ninety Physicians representing most specialties are members of the active medical staff. TRMC includes a free standing comprehensive cancer treatment center. The H. Filmore Mabry Center for Cancer Care offers chemotherapy, radiation oncology, psychological counseling and patient support services. Other health facilities include Orangeburg Health Department, Orangeburg Area Mental Health Clinic, Tri-County Alcohol and Drug Abuse Center, a number of assisted living facilities, and the medical center at the Methodist Oaks Retirement Community.

**On-Going County Projects**

Orangeburg County is continuously making improvements to county facilities and infrastructures. Included in the Appendix to this report is the list of projects recently approved by the County as a result of Capital Projects Sales Tax which was recently implemented.

## COMMUNITY FACILITIES SUMMARY

### Needs, Goals, Implementation and Time Frames

The needs for community facilities in Orangeburg County are continually changing and vary considerably from one part of the County to another. As long as growth and development continue to expand there will be the ever increasing need for community facilities to provide services required to meet the needs of the County.

The County Government is responsible for providing certain services to its citizens, but not all of the needed community services and facilities fall under the jurisdiction of the County. Transportation improvements are often the responsibility of the State. Water supply and sewer service are provided by other agencies. Schools and medical facilities are often governed by their own boards or commissions. A role the County can play is one of coordination.

In terms of managing growth and development in the future, a goal for the County should be continuous cooperation and coordination between the County and all of the various agencies providing community services. An objective should be to coordinate and promote the provision of efficient and cost effective systems of transportation, water supply and sewage treatment, solid waste collection, fire protection, medical services, public safety, education, library facilities and the implementation of other capital improvements.

More specifically, there should be close coordination between the County planning activities, future infrastructure and transportation improvements, and future land development activities.

The impact of providing transportation improvements as well as water and sewer services should be carefully considered in terms of potential future growth and development.

Those areas where growth and development is desired and mostly likely to occur should be targeted for the provision of those services. The provision of these services, or lack thereof, will be a prime determinate in the location and extent of future growth and land development activity. The Future Land Use Plan Map should serve as the guide in decisions regarding future infrastructure improvements.

The provision of adequate fire protection, emergency services, public safety and medical services will be an ongoing and continuing priority for County government officials. The programs and systems established for the implementation of all of these community facilities and services are already in place and should continue with additional emphasis placed on the need for coordination and cooperation among all agencies.

The same applies to the time frame for providing community facilities and services. The process is ongoing and should continue to be refined and coordinated. Priorities for providing certain services in specific areas of the County should be established and implementation should proceed as soon as possible.

## HOUSING



# HOUSING

Providing adequate housing for all of the citizens in Orangeburg County is a primary concern of the Planning Commission and the Orangeburg County Council. Orangeburg County, like all of the counties in the State, has its share of substandard housing. One of the goals of the County is to reduce the number of county households living in substandard, overcrowded, and/or unaffordable housing conditions. The housing needs of the county should be addressed through aggressive programs which should emphasize code enforcement and rehabilitation for owners of rental property which may be substandard. Efforts should be explored to stimulate the production of new housing with an emphasis on adequate housing for low income families and persons.

## Inventory of Existing Conditions

This information does provide some insight to housing trends and comparisons of housing characteristics with other counties in the State. Much of the information contained in this element of the report has been supplemented by the results of the year 2000 census .

From a national perspective, the decade since 1990 has experienced a homeownership boom. Some national reports indicate that the number of homeowners in the last three years has increased by 3.4 million (5.5%), increasing the national homeownership rate to a near-peak level of 65.4%. Solid employment gains in the last several years, modest home price inflation, and low interest rates have allowed many moderate and low income renters to buy their first homes. A growing share of these new homeowners have been minority households as a large part of the first-time buyer market. The aging population has also created a stronger tradeup demand and expanded the market for good quality housing units. However, these favorable home-buying trends tend to undermine rental markets. As more households manage to buy homes, rental housing is increasingly left to low income households. As housing assistance programs are restructured this segment of the population is most at risk.

In this regard, there should be an awareness of the need for adequate housing for low income segments of the population while increasing efforts to reduce the number of persons needing assisted housing by promoting self-sufficiency.

### Housing Characteristics

The term “housing unit” refers to a single dwelling that is occupied by one or more persons. A housing unit can be a single-family house, an apartment, a condominium, or a manufactured mobile home (mobile home). A housing unit can be rented or owned by the occupant and housing units can be occupied or vacant. The following text and table attempt to explain some of the characteristics of housing units within Orangeburg County.

### Number of Housing Units

The total number of housing units in Orangeburg County in 1970 was 20,857. This number increased to 32,340 by 1990 or 35.5%. From 1990 to 1999 this number increased to, 37,639 or 16.4%. This reflects the housing boom of the 1970’s which took place throughout most of the country. It is expected that the decade from 2000 to 2010 may be an even larger percentage increase.

Table 1 demonstrates the number of housing units in the counties in the State during these periods. The number of housing units are roughly equivalent to the numbers related to population. For example, population increases during the 1990's were greater in Calhoun County than in Orangeburg County. The same is true for the increase in housing units during this period. From the opposite side of the county, Bamberg increased at a much less percentage during this period than did Orangeburg County, which was also the case with population figures.

The total housing units of 37,639 in 1999 consisted of 34,118 households (or occupied units) 5,186 vacant units. As stated, households can contain one or more persons. For example, a single person living in an apartment would constitute one household. Three students living in a house or other dwelling would also constitute one household. A family of two or more persons living in one unit would also be a household.

The average number of persons per household in 2000 was 2.5. Families consist of at least two people and usually contain a number of children or other family members, so the persons per family is generally higher. The average persons per family in 2000 was 3.11. These numbers of persons per household and persons per family are fairly comparable for all counties as indicated in Table 2.

#### Owner and Renter Occupancy

Table 3 illustrates the number of occupied housing units for counties in the State and breaks those down into owner-occupied units, renter-occupied units and the median values of homes owned and monthly rent for rental units. The Table also shows the vacancy rate for owner and renter units, according to 2000 census. In comparing counties, Orangeburg fits into the general pattern in that the more urban and developing counties have

TABLE 1

NUMBER OF HOUSING UNITS AND HOUSEHOLDS: 1990 AND 1999

COUNTY	1990		1999		Percent	
	Housing Units	Households	Housing Units	Households*	Housing Units	1990- 1999
Bamberg	6,408	5,587	7,279	5,500	13.6	-1.6
Barnwell	7,845	7,100	9,025	8,000	15	12.7
Beaufort	45,981	30,712	62,682	40,900	36.3	33.2
Berkeley	45,697	42,386	54,895	50,200	20.1	18.4
Calhoun	5,225	4,487	6,776	5,000	29.7	11.4
Charleston	123,569	107,070	144,176	119,500	16.7	11.6
Lexington	67,556	61,633	85,554	76,700	26.6	24.4
<b>Orangeburg</b>	<b>32,340</b>	<b>28,909</b>	<b>37,639</b>	<b>31,800</b>	<b>16.4</b>	<b>10</b>
Richland	109,555	101,583	129,804	111,400	18.5	9.7
Saluda	6,792	5,824	7,789	6,300	14.7	8.2
<b>SOUTH CAROLINA</b>	<b>1,423,771</b>	<b>1,257,642</b>	<b>1,714,327</b>	<b>1,447,600</b>	<b>20.4</b>	<b>15.1</b>

\*: Projections

Source: U.S.  
Bureau of the  
Census

**Table 2**

**Average Household Size, Family Size, and Average Household Size for Owner and Renter Occupied Housing Units For Selected Counties**

Area Name	Fips Code	2000	1990	2000	1990	2000	1990	2000	1990
		Average Household Size	Average Household Size	Average Family Size	Average Family Size	Ave Household Size Owner-Occupied	Ave Household Size Owner-Occupied	Ave Household Size Renter-Occupied Housing	Ave Household Size Renter-Occupied Housing
<b>South Carolina</b>		<b>2.53</b>	<b>2.68</b>	<b>3.02</b>	<b>3.16</b>	<b>2.59</b>	<b>2.75</b>	<b>2.37</b>	<b>2.52</b>
Aiken County	3	2.53	2.66	3.03	3.13	2.59	2.72	2.34	2.47
Allendale County	5	2.56	2.81	3.21	3.43	2.59	2.85	2.50	2.72
Bamberg County	9	2.55	2.84	3.10	3.41	2.61	2.85	2.36	2.84
Barnwell County	11	2.57	2.82	3.08	3.31	2.61	2.85	2.45	2.73
Berkeley County	15	2.75	3.01	3.15	3.38	2.77	3.04	2.69	2.95
Calhoun County	17	2.54	2.82	3.03	3.34	2.57	2.81	2.37	2.83
Lexington County	63	2.56	2.70	3.01	3.10	2.63	2.77	2.33	2.46
Orangeburg County	75	2.58	2.81	3.11	3.33	2.63	2.83	2.43	2.74
Pickens County	77	2.50	2.58	2.95	3.02	2.57	2.66	2.32	2.38
Richland County	79	2.44	2.56	3.05	3.15	2.57	2.73	2.23	2.31
Saluda County	81	2.65	2.76	3.07	3.20	2.58	2.78	2.97	2.64

**Source: U.S. Bureau of the Census**

**Table 3**  
**Owner and Renter Occupied Housing Units in 2000**  
**For selected Counties**

Area Name	Fips Code	2000	1990	1990-2000	2000	1990	1990-2000	2000	1990	1990-2000	2000	1990	1990-2000
		Total Housing Units	Total Housing Units	Percent Change	Occupied Housing Units	Occupied Housing Units	Percent Change	Owner Occupied Housing Units	Owner Occupied Housing Units	Percent Change	Renter Occupied Housing Units	Renter Occupied Housing Units	Percent Change
<b>South Carolina</b>		<b>1,753,670</b>	<b>1,424,155</b>	<b>23.1%</b>	<b>1,533,854</b>	<b>1,258,044</b>	<b>21.9%</b>	<b>1,107,617</b>	<b>878,704</b>	<b>26.1%</b>	<b>426,237</b>	<b>379,340</b>	<b>12.4%</b>
Abbeville County	1	11,656	9,846	18.4%	10,131	8,780	15.4%	8,156	7,035	15.9%	1,975	1,745	13.2%
Aiken County	3	61,987	49,266	25.8%	55,587	44,883	23.8%	42,036	33,491	25.5%	13,551	11,392	19.0%
Allendale County	5	4,568	4,242	7.7%	3,915	3,791	3.3%	2,846	2,584	10.1%	1,069	1,207	-11.4%
Anderson County	7	73,213	60,745	20.5%	65,649	55,481	18.3%	50,068	41,697	20.1%	15,581	13,784	13.0%
Bamberg County	9	7,130	6,408	11.3%	6,123	5,587	9.6%	4,571	4,052	12.8%	1,552	1,535	1.1%
Barnwell County	11	10,191	7,854	29.8%	9,021	7,100	27.1%	6,810	5,194	31.1%	2,211	1,906	16.0%
Beaufort County	13	60,509	45,981	31.6%	45,532	30,712	48.3%	33,338	19,941	67.2%	12,194	10,771	13.2%
Berkeley County	15	54,717	45,697	19.7%	49,922	42,386	17.8%	37,052	29,533	25.5%	12,870	12,853	0.1%
Clarendon County	27	15,303	12,101	26.5%	11,812	9,544	23.8%	9,348	7,386	26.6%	2,464	2,158	14.2%
Lexington County	63	90,978	67,556	34.7%	83,240	61,633	35.1%	64,265	46,900	37.0%	18,975	14,733	28.8%
Orangeburg County	75	39,304	32,340	21.5%	34,118	28,909	18.0%	25,801	21,165	21.9%	8,317	7,744	7.4%
Pickens County	77	46,000	35,865	28.3%	41,306	33,422	23.6%	30,350	24,461	24.1%	10,956	8,961	22.3%
Richland County	79	129,793	109,564	18.5%	120,101	101,590	18.2%	73,757	60,157	22.6%	46,344	41,433	11.9%
Saluda County	81	8,543	6,792	25.8%	7,127	5,824	22.4%	5,745	4,752	20.9%	1,382	1,072	28.9%

**Source: U.S.  
Bureau of  
the Census**

higher home values and rental prices while the more rural and less developing counties have generally lower home values and rental rates.

A more detailed analysis of housing types and vacancy rates for owner and renter-occupied units is illustrated by table 4. This table indicated the number of "units in structure by occupancy status." This means the number of housing units in a building. For example "1, Detached" means a one unit, or single-family, house which stands alone and is not attached to any other housing unit. This is commonly known as the single-family house on a single lot. The other numbers in the table indicated the number of housing units in a particular building. This table also provides the number of mobile homes counted in the 1990 census. Again, these numbers have probably changed significantly since the 1990 census because of the relatively high increases in housing starts and mobile home purchases during the last ten years.

Of some significance is the fact that approximately 10% of the total number of housing units (housing stock) are vacant. The reasons for these vacancies is not readily apparent. It is obvious that the single-family detached unit has a vacancy rate of less than 10% while the attached units (commonly called multi-family units) have a vacancy rate greater than 10%. Mobile homes also have a higher vacancy rate. Conceptually, it is conceivable that the number of vacant units might somehow present an opportunity for increasing the availability of housing since they already exist.

All of this discussion regarding characteristics of housing in the county and the various statistics related to housing available from the census data offer very little true insights into the real life status of housing in Orangeburg County. Even when some insight can be gleaned from these figures, it too becomes irrelevant because the figures are nearly ten years old. It should also be noted that there was no mention of the need for, or problems with, the housing supply during any of the public meetings held during the preparation of this document.

**TABLE 4****UNITS IN STRUCTURE BY OCCUPANCY STATUS**

	Total Housing Units		Vacant Housing Units		Occupied Housing Units		Owner-Occupied Housing Units		Renter-Occupied Housing Units	
Total	32,340	100.0%	3,431	100.0%	28,909	100.0%	21,165	100.0%	7,744	100.0%
1, Detached	21,405	66.2	1,923	56.0	19,482	67.4	15,391	72.7	4,091	52.8
1, Attached	368	1.1	41	1.2	327	1.1	187	0.9	140	1.8
2	817	2.5	101	2.9	716	2.5	50	0.2	666	8.6
3 or 4	794	2.5	90	2.6	704	2.4	13	0.1	691	8.9
5 to 9	510	1.6	64	1.9	446	1.5	55	0.3	391	5.0
10 to 19	205	0.6	23	0.7	182	0.6	2	0.0	180	2.3
20 to 49	80	0.2	0	0.0	80	0.3	0	0.0	80	1.0
Mobile Home	7,803	24.1	1,134	33.1	6,669	23.1	5,281	25.0	1,388	17.9
Other	358	1.1	55	1.6	303	1.0	186	0.9	117	1.5

Source: SC Division of Research & Statistical Services. (1990 Census)



In this regard, it is suggested that consideration be given to the need for preparing a more detailed study of housing in Orangeburg County. The purpose of this study could be to identify any new housing initiatives, support services and specific housing concerns. This separate housing study could address all levels of the housing spectrum from the homeless and those in substandard housing to market rate homes for sale. This could include the possibilities for rehabilitation of rental and owner-occupied units, transitional housing, affordable homeownership opportunities, the construction of new units, and the essential service components required. Improvements in the areas of housing could also result in other improvements in the community as well, because the overall quality of housing dramatically impacts crime and other social ills.

#### Housing Density

Some of the housing characteristics which might be considered in the study recommended above would include housing density in substandard housing. Table 5 provides some insight into the changes in housing density from 1990 to 2000 in Orangeburg County.

**TABLE 6****PLUMBING FACILITIES BY OCCUPANCY STATUS, RACE AND AGE****Plumbing Facilities by Occupancy Status for Housing Units:**

	Total Housing Units		Vacant Housing Units		Occupied Housing Units	
Total	32,340	100.0%	3,431	100.0%	28,909	100.0%
Complete Plumbing	31,359	97.0	3,298	96.1	28,061	97.1
Incomplete Plumbing	981	3.0	133	3.9	848	2.9

**Plumbing Facilities by Age of Householder for Occupied Housing Units:**

	Householder 15-64 Yrs		Householder 65 Yrs & Over	
Total	21,595	100.0%	7,314	100.0%
Complete Plumbing	20,957	97.0	7,104	97.1
Incomplete Plumbing	638	3.0	210	2.9

**Plumbing Facilities by Race of Householder for Occupied Housing Units:**

	White		Black		American Indian Eskimo, Aleut		Asian or Pacific Isl.		Other Races	
Total	13,786	100.0%	14,903	100.0%	94	100.0%	113	100.0%	13	100.0%
Complete Plumbing	13,677	99.2	14,164	95.0	94	100.0	113	100.0	13	100.0
Incomplete Plumbing	109	0.8	739	5.0	0	0.0	0	0.0	0	0.0

Source: SC Division of Research &amp; Statistical Services. (1990 Census)

### Substandard Housing Conditions

Table 6 gives some indication of possible substandard housing. A lack of plumbing is often an indicator of substandard housing, even though housing can be substandard even with adequate plumbing. Table 6 indicates plumbing facilities by occupancy status, race and age of occupants.

Table 6 indicates that almost 3% of all occupied housing units in 1990 contained less than complete plumbing. Here again, a more detailed study of these statistics would provide more information on specifically where the substandard housing exists and provide more information on improvements or other changes which occurred during the last ten (10) years that are not reflected in these 1990 tables.

### Single Family and Mobile Home Permits

During the last several years there has been a noticeable increase in the number of manufactured homes, or mobile homes, being placed in the county. Orangeburg County is not alone in this trend. Increases have been noticed more in the rural counties and those counties with lower income levels. Table 7 provides some insight into single-family and mobile home trends from 1992 through 2000. This Table indicates the number of permits provided in Orangeburg County for these housing types.

It should be noted that the permits for single-family homes are primarily for the construction of on-site constructed, or stick-built, houses. The permits for mobile homes include permits for new, or recently purchased, mobile homes to be located on specific sites. The figure for mobile homes also includes permits for those mobile homes which are relocated from one site within the county to another. In this regard this is not a true

**Table 7**

**BUILDING PERMITS**

**Single Family Homes and Mobile Homes**

<b>Year</b>	<b><u>Number of Permits Issued</u></b>	
	<b>Single Family Homes</b>	<b>Mobile Homes</b>
1992	244	798
1993	222	906
1994	204	987
1995	135	1,098
1996	147	1,317
1997	173	1,305
1998	174	1,264
1999	150	1,104
2000	154	892

- Notes -
- Single Family Homes include “stick-built” houses and “modular” houses
  - Mobile Homes include “single wides” with, or without, wheels, “Double-wides and “manufactured” homes.
  - Mobile homes include new units and relocation of existing units.

number of new mobile home residencies as compared to new single-family homes, but by and large, the permits related to mobile home residencies are much greater in number than those issued for single-family homes.

The tremendous growth in the number of mobile homes in recent years can be attributed to several factors. Land prices and home building prices have increased to levels higher than many people can afford. Also, in some counties there is a certain amount of "heirs" property which lacks clear title. For instance, an older member of a family dies and leaves a tract of land to be divided equally among a number of children. These children take possession of their particular tract, and in some cases also pass it on to their children in a similar manner, resulting in this lack of clear title. Mobile homes offer a solution to these problems because they are often less expensive per square foot than stick-built homes. They often come furnished, which can be included in financing arrangements, which becomes more attractive to young families, and by their very nature they are "mobile" and are not permanently attached to the property so they can be moved easily as title problems arise.

Orangeburg County has just recently established a new computerized system for tracking the types of building permits issued by the county. This new system breaks down building permits more specifically related to the type of building being constructed or placed on a property. Under the previous system, buildings such as retail outlets, office buildings, churches and other uses were all grouped as commercial permits. Likewise, mobile home permits included new homes as well as relocations. Under the new system

these will be broken down to identify new stick-built, single-family homes, new mobile home placements, mobile home relocations, retail stores, churches, schools and other specific uses. This new system will allow for a much better analysis in identifying trends in housing developments in the county.

# HOUSING SUMMARY

## NEEDS AND GOALS

### IMPLEMENTATION AND TIME FRAMES

A *goal* of the County is to reduce the number of county households living in substandard, over-crowded and/or unaffordable housing conditions.

It is difficult to document the real current *needs* concerning housing at this time because of the lack of current information. Many individuals are living in sub-standard housing that are unknown to county officials. In this regard it is suggested that this issue be revisited constantly. This could be done as part of ongoing updating of this Comprehensive Plan, or as suggested, as part of a separate study of housing needs in the County.

**LAND USE**



## LAND USE

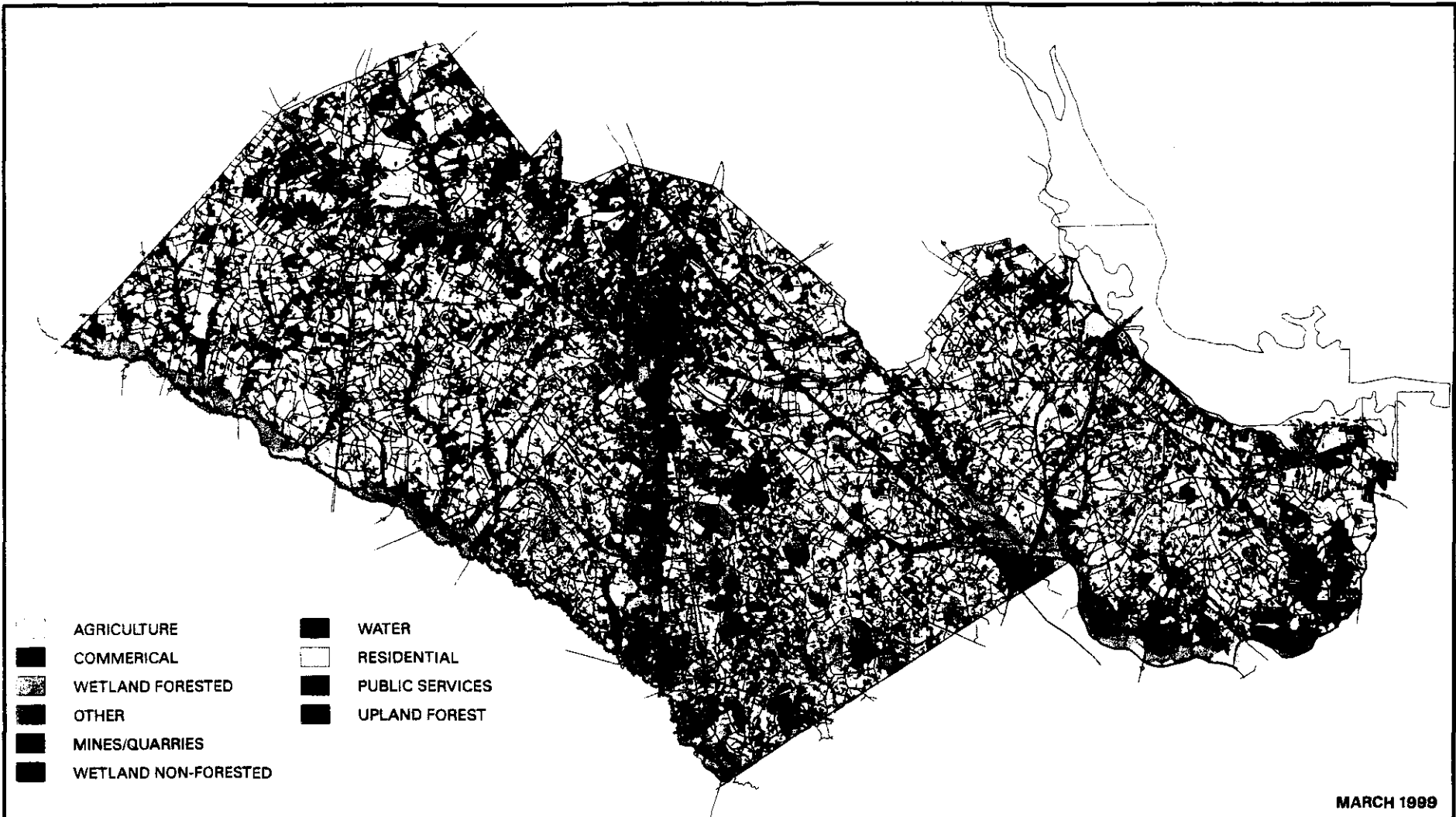
This element of the Orangeburg County Comprehensive Plan examines existing land uses and projected future land uses in the County. The first part of this element will deal with existing land uses, and future land uses will follow. An understanding of past and present development patterns is important in forecasting future development patterns. A projection of future land uses and development patterns will be helpful to citizens and community leaders in preparing for the provision of the necessary community facilities to accommodate additional growth and development.

It is important to understand the term "Land Use". Land use means the actual way in which the land is being used. Existing land use would be that use which is currently occurring on the land. Future land use is an indication of how the land is likely to be used in the future, or a projection of the future use of the land.

It is also important to emphasize that land use is not zoning. Zoning prescribes the uses which are allowed on a particular tract of land, or actual requirements for development of the land. Although zoning does not exist in the unincorporated areas of Orangeburg County, regulations pertaining to the subdivision of land have existed since 1988.

Future land use, on the other hand, does not dictate how land can, or cannot, be used in the future. It merely describes the general pattern of development that is likely to occur, or is desirable to occur, in a given general area.

**FIGURE 1**  
**EXISTING LAND USE**



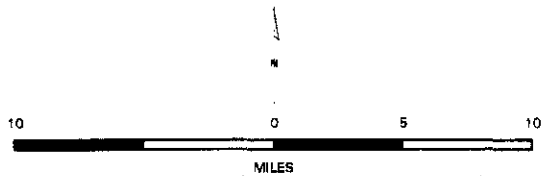
- |  |                      |  |                 |
|--|----------------------|--|-----------------|
|  | AGRICULTURE          |  | WATER           |
|  | COMMERICAL           |  | RESIDENTIAL     |
|  | WETLAND FORESTED     |  | PUBLIC SERVICES |
|  | OTHER                |  | UPLAND FOREST   |
|  | MINES/QUARRIES       |  |                 |
|  | WETLAND NON-FORESTED |  |                 |

MARCH 1999



GIS MAPPING DEPT.

Disclaimer - The County of Orangeburg, SC makes no representation or warranties, implied or expressed, concerning the accuracy, completeness, reliability, or suitability for any particular purpose of the information and data contained on this map.



**COUNTY OF ORANGEBURG, SOUTH CAROLINA  
COMPREHENSIVE PLAN  
EXISTING LAND USE**

FIG. 1

## EXISTING LAND USE

Existing land uses in the County are illustrated in Figure 1. This map gives a good indication of the general pattern of development at the present time in the County. The colors on the map indicate various land use classifications. Those classifications, or categories of land use, include Agriculture, Upland Forest, Wetland Forest, Residential, Commercial, Other, Mines/Quarries, Public Services, Wetlands-Non Forested and Water.

These classifications were obtained from the Orangeburg County Tax Assessor's 1998 tax roll per parcel. Each parcel of land in the County is assigned a tax assessment code which indicates the rate at which that land is taxed. Parcels of land in the County were classified by the categories shown on the map in order to gain a graphic representation of how the land is currently being used. For example, those areas shown in dark green consist of parcels which were classified as Forest Land for tax purposes, those shown in yellow were classified as Residential for tax purposes, and so on.

The more rural uses of land shown include the large areas of agricultural and forest lands, and the areas of urban development consist primarily of residential, commercial and other uses. The general pattern of development in the County can be recognized.

This method of illustrating existing land use based on tax classifications present some minor limitations. The classification "Other" includes lands which may not be taxed. These include governmental properties, churches, and in some instances, industrial tracts which may not be taxed for certain periods of time. Likewise, some industrial tracts are shown as commercial uses and some open space areas like private golf courses are shown

as commercial because they are taxed accordingly. Also some large areas shown as residential might include large tracts of land that are not fully developed. For example, a family might have one house on a ten-acre tract of land. The next update of this Comprehensive Plan should include visual surveys and other methods to determine more precise existing land uses.

The overall pattern of development in the County is quite discernable. By analyzing the existing land uses and the land uses in the past, it is possible to identify development trends and direction of growth occurring in specific areas of the County.

### **Land Use Classifications**

The following is a description of the land use classifications on the existing land use map. These classifications and their approximate total acreages are shown in Table 1.

**Agriculture** – This category consists primarily of open lands used for farming purposes. These include tilled row crops and land used for grazing. Most of these areas are active farm lands, but some may lie idle.

**Upland Forest** – Forest land includes deciduous, evergreen, and mixed forest lands. This category also includes tree farms and large forest areas used for timber and pulp industries. Together agricultural and forest lands comprise by far the largest land area/land use in the County.

**Wetland Forest** – Trees in these areas are mainly deciduous trees found in wet bottom

**TABLE 1**  
**EXISTING LAND USE**  
**ORANGEBURG COUNTY**

<u>Land Use Classification</u>	<u>Approximate Acreage</u>	<u>Percent of Total Land Area</u>
Agriculture	260,193	36
Upland Forest	201,245	28
Wetland Forest	101,057	14
Wetlands-Non Forested	12,470	.02
Residential	59,097	.09
Commercial	5,266	.008
Other	10,282	.014
Mines/Quarries	143	---
Public Services	3	---
 Total	 649,756	

Note: All Acreages and Percentages do not include land inside Municipalities, the Air Force Base, the State Park, the Wildlife Management Area, Road R.s O.W. and open water.

Sources: County of Orangeburg – GIS/Mapping Department taken from Tax Assessors 1998 Tax Roll.

land or other wetland environments. These lands are usually seasonally flooded bottom lands, wooded swamps, and wooded Carolina Bays.

**Wetland-Non Forested** – Wetlands is a rather broad classification. Wetlands primarily consists of those lands which are flooded for a significant part of the year. They are also areas where the water table is at or near the surface of the land. Most of the wetlands in Orangeburg County occur, in the largest concentrations, along the North and South forks of the Edisto River and in the Four Holes Swamp areas. They also occur along most of the smaller streams and tributaries feeding into the large rivers. They are easily recognized because they are usually covered with water or very wet.

Some areas classified as wetlands, however, are not so easily identified. These are usually low areas that can flood during certain parts of the year. They can also include natural or man-made drainage ways. In recent years Federal and State agencies have established very strict regulations regarding development in wetland areas. Essentially, it is prohibited except under certain circumstances. Developers have learned to exercise great caution in low-lying areas because wetlands are sometimes not so easily identified.

The majority of wetland areas are environmentally sensitive areas and should be protected. They are an indispensable part of the natural ecosystem. They provide significant habitats for plants and animals and many contain endangered species of both. In addition, they provide a great natural scenic resource for the County. Many residents of the County are unaware of the natural beauty that exists within the wetlands.

## **Residential**

Residential development is the largest “developed” use of land in the County. Developed means land that has on it man-made improvements including, but not limited to, buildings for human occupancy, paved areas, streets and driveways, water and sewer service, drainage ways and similar improvements.

The residential uses shown on the existing land use map include all types of residential development. Most residential development is single-family in nature, but there is a limited amount of multi-family housing primarily in or near the towns. Single-family means a single house for one family on one residential lot. Multi-Family can include two family dwellings (duplexes) or other types of group housing such as apartments or condominium complexes.

Residential development also includes mobile homes or manufactured homes. According to the 1990 Census, there were well over 7,000 mobile home units in the County compared to approximately 21, 000 single-family units, or nearly one fourth of all housing units in the County. As described in the housing element, permits for mobile homes in recent years have been much greater than permits for single-family houses. The Year 2002 Census indicates a much higher percentage of mobile home housing.

## **Commercial**

Commercial uses in the County take many forms. There are large specialized commercial activities such as major shopping centers, large super stores and car dealerships, all of which generally locate outside of municipal boundaries on major roadways where public exposure is greatest and large tracts of land are available. There are convenience commercial activities such as grocery, drug and other stores which



locate near expanding residential areas. There are also service-oriented uses such as service stations, motels and restaurants as well as convenience stores and other small businesses which generally locate along major roadways.

**Other** – The category shown on the existing land use map as “Other” contains a number of uses. One of these is industrial. Industrial uses generally require large tracts of land and usually locate in areas with good access to major highways and/or railroads. They also require a dependable supply of water and sewer service. Just as agriculture has always been an important part of the economy of Orangeburg County, so it is that industrial uses and manufacturing industries are now becoming increasingly important because of the large number of jobs they generate.

Sometimes these two major economic forces compete for the same lands. Prime, level, well-drained agricultural land is also attractive to large industries, especially when that land is located near major highways and railroads. In recent years, most environmentally clean industries are even more interested in highway locations than sites with rail access.

Industries also compete for choice development sites with residential development, especially when water or sewer service is available. Like agriculture, some people in residential areas are concerned about the potential intrusion of manufacturing uses. On the other hand, industrial prospects are also concerned about existing and future neighbors. Industries are often the first major uses to locate in developing areas. They make considerable investments in sites and buildings, and they are concerned about those interests. Industries, like agriculture, are often subject to abuse when incompatible uses

locate next to them. It was made clear during the preparation of this plan that industries usually look for very tight land development controls, such as zoning, when they are considering a new location. Zoning controls provide industries with assurance of the kinds of development that may occur around them.

The “other” designations on the land use map also include non-profit, tax-free uses such as land owned by retirement homes, churches and governmental agencies.

**Mines/Quarries** – There are a relatively small number of these uses located in the County. These uses are much like industrial operations. Some produce considerable dust and noise, but they also provide jobs and contribute to the economy. During this study process no public complaints were received regarding any negative aspects of quarries and mining operations in the County.

**Public Services** – This category includes a collection of uses which appeared in the analysis of existing land uses. They are relatively small and do not require large land areas. They could include governmental uses such as water and sewer plants, electrical substations and other similar uses essential to providing public services within the County.

### **LAND USE/GROWTH ISSUES AND CONCERNS**

Growth and development in Orangeburg County appear to be a certainty for the future. It is also certain that this will be a continuing and ongoing process with changes in development patterns and densities occurring over time. As the population increases, the

economy naturally expands, local employment and other opportunities improve, and as infrastructure improvements are made, more growth and development will occur. Large urban areas of the nation continue to expand with no end in sight. Rural areas and smaller urban communities like the towns in Orangeburg County, theoretically, will continue to develop until they reach a plateau at some point in the future. When development tends to stabilize, there will be a relative balance between the need for residential and urban developed land and the need for agricultural areas for crops and food supply.

Until that distant time, the current growth trend will continue and, as with anything in a constant state of change, there will be some problems. With proper foresight, the problems can be reduced. By understanding the past and current development patterns and trends, projections can be made of likely future development patterns. By understanding the most likely type and location of future land uses Orangeburg County can prepare and plan for future development in order to reduce future problems.

Likewise, landowners and citizens as well as newcomers to the County can make plans accordingly in anticipation of future development trends.

Development issues and concerns occur throughout the County in all areas. The nature and extent of concerns are not the same in all areas. The concerns in the traditional rural and agricultural areas of the County are different from those in the developing areas near the towns of Orangeburg and Santee.

Other sections of this report will deal with more specifics regarding concerns expressed during the public participation meetings of this study and from the results of the surveys. Many of those concerns have to do with economic and societal issues. The issues and concerns discussed in this section will deal primarily with land use.

**Rural Concerns** - As stated, the agricultural areas have their own set of concerns. Often times these concerns appeared to be in conflict. During this study a very large contingent of the agricultural community expressed the need to preserve and strengthen the integrity of agricultural uses and farm lands. There exists much concern regarding the encroachment of development on farm lands including industrial and residential uses. Many in the agricultural community also expressed a concern that encroaching development of these uses leads to increased property values which often, because of higher taxes, practically force the sale of agricultural lands for development uses.

Others mentioned a problem which often occurs after new residential subdivisions are developed in agricultural areas. The new residents complain about some of the normal, but to them unexpected, negative impacts of farming operations on residential uses. These include odors, the use of chemicals, dust and noise.

In turn the farmers complain about increased traffic, noise, lights and trespassing. Many of the farmers, in expressing their concerns, also mentioned the need for some regulations or controls on development. On the other hand, many of the same groups were adamant that they retain the right to develop their own land if they so desire in the future.

**Urban Concerns** - In the more developing areas near the towns there was concern regarding conflicting and incompatible adjacent land uses, a problem over which there is little control. Here again, many of those expressing those concerns also expressed the desire to maintain the right to use their property as they see fit. In other instances there were a number of people expressing the need for some type of development control in order to reduce unexpected and incompatible land uses.

Haphazard development was a concern of many. Incompatible and mixed land uses where residential, commercial, industrial and other uses are interwoven can lead to inconsistent and substandard development. This type of development can adversely affect surrounding properties. Land values and investments made by individual property owners are often affected.

It is emphasized here that the issue of land use control by any means is beyond the scope of this Comprehensive Plan. The intent of this plan is to examine current development trends giving due consideration for existing and proposed infrastructure improvements such as road widening projects and water and sewer services, traffic volumes, existing development patterns and proposed land uses, all in an attempt to project the future land use development pattern that is most likely to occur.

**Strip Development** – It has been observed that strip development along major roadways can lead to many problems, but it is an activity so common that many do not recognize it for what it is. It is the easiest form of development for the landowner, but it leads to

other problems for the public. For residential development it is cheaper to build houses facing existing roads because there are no requirements for new roads into subdivisions. For commercial developers, individual stores on individual lots are easier to develop than coordinating with other businesses in a well planned retail and commercial center.

Unfortunately, strip development requires frequent curb cuts for residential and commercial driveways which present many problems. It creates many conflict points for vehicles, creating a safety hazard. It reduces the flow of vehicles and the overall carrying capacity of the roadway. Water and sewer services are more expensive to provide in a long linear fashion. More strip development is encouraged resulting in commercial uses far removed from the main urban area. It also produces a vast array of conflicting and confusing signage, the removal of trees and conflicting architectural forms. All of these generally produce an unsafe and unpleasing neighborhood environment.

An alternate to this common type of development would be better planned residential subdivisions and commercial areas off of the major roads, closer to the urban communities. Better coordinated and planned development areas with consideration for trees and signage often result in more pleasant surroundings and increased property values.

**Critical Growth Areas** – The Comprehensive Plan for Orangeburg County concerns the entire County. There are, however, some specific areas in the county that will be facing more intense development pressures than others in the future.

**Interstate Interchanges** – Some of the interchanges with the interstates in Orangeburg County have spurred more development than others have. Some have seen very little development, particularly those lacking water and sewer services.

The interchange at I-95 and S.C. 6, in Santee has led to considerable local development in that area. The large volume of north-south traffic on I-95 and the proximity to Lake Marion have contributed to this development activity. Intense commercial development along Hwy 6 at this location has greatly increased traffic volumes, and highway improvements are likely to be required as growth continues.

Other interchanges in the county are developing but not yet as fully. The interchange area at Hwy 601 and I-26 north of Orangeburg has seen considerable development within the last 10 to 15 years. Most of this development has been commercial and highway service oriented. Recently, additional development has been occurring at this interchange including an office park and expanding motel growth. The South Carolina Department of Transportation intends to widen Hwy 601 from this interchange northward towards St. Matthews. Additional growth can be expected in this area.

The interchange at I-26 and U.S. 301 will likely also see increased development activity. The County/City Industrial Park is located at this interchange. Additional industrial and commercial uses can be expected to development in this area. Likewise, additional mixed use development including commercial, residential and other uses is likely to occur along Hwy 301 from the interchange to the City of Orangeburg.

There has been some industrial oriented development near the interchange of I-26 and S.C. 33. This road connects Orangeburg and Cameron. Other industrial development has long occurred along S.C. 33 between Orangeburg and this interchange. This development has been interspersed with even older well-established agricultural uses. This area has considerable prime agricultural land. As other interchanges along I-26 and the County begin to develop to their full potential, it is likely that additional development will occur at the I-26 and S.C. 33 interchange.

Other interchanges in the lower part of the County, specifically I-26 and S.C. 210 and I-95 and U.S. 176 have experienced limited development due to the lack of water and sewer service. Additionally, these are very low lying areas with a limited amount of high developable land.

The four-leaf clover interchange at the intersection of I-26 and I-95 has not experienced any development. Traditionally the intersection of two interstates provides good visual exposure to the surrounding land, but the surrounding land has no convenient direct access to the interstate highways. Because of traffic blending patterns it is necessary to locate interchanges with the interstates a considerable distance from the actual crossing of the two interstates. Access roads then provide access to the properties in the four quadrants of the interstate interchange.

There has been some discussion of promoting development at the I-26 – I-95 interchange by constructing interchanges with access to the interstates and providing water and sewer



service to this area. Should this occur this would be a prime location for many industrial prospects seeking high visibility as well as access to both interstates. It should be noted, however, that this is a relatively low area and there are considerable wetlands which should be taken into account in the development of this interchange.

**Old St. Matthews Road/U.S. 601** – This is a relatively fast growing corridor between the town of Orangeburg and I-26. Because of increasing development just outside the city limits of Orangeburg along the Old St. Matthews Road this area has experienced serious traffic problems in recent years. To help alleviate these problems the S.C. Department of Transportation is undertaking a widening project of the Old St. Matthews Road. This project will include a new intersection of the Old St. Matthews Road with Hwy 601.

Because of a lack of any controls, or management of development, this critical area has experienced a variety of mixed, and sometimes incompatible, land uses. This area is also a prime example of strip commercial development with many access points, which has led to some of the traffic problems. It is anticipated that without some form of coordinated planning and management of development in this corridor, these problems will continue.

**Santee Area** – There has been considerable growth recently in the Santee area as mentioned in the discussion regarding interchanges. Santee has become a convenient stop over point for tourists traveling on I-95, and it is the center of retirement and sports recreation activities in that part of the county. There has been considerable development

of new residential areas, golf courses and other uses. The unplanned mix of some of these uses has also led to conflicts between incompatible land uses, and with more growth this problem is likely to continue.

**Mobile Homes** – As stated in the housing section of this report, mobile homes are becoming increasingly popular to meet the housing needs of many families. National trends indicate that the mobile home industry has stepped in to provide relatively low cost housing primarily because of dramatic increases in the cost of traditional stick built housing and land.

The expanded role of mobile homes in Orangeburg County has been obvious in recent years. Mobile homes have been scattered throughout the county on small and large tracts of land. Many have developed along existing roadways. There has also been a proliferation of mobile home parks and mobile home subdivisions in recent years. As stated elsewhere in this report, approximately 25% of the homes in the county are mobile homes and manufactured homes. This is a large share of the market, and of course these housing units must be accommodated. There are concerns among many in the county as to their location, the density of mobile home parks and subdivisions, and the siting of these units. These concerns, and others concerning mobile homes, should be addressed as mobile home development continues to expand.

The disadvantages of strip development, or continuous development of any kind along existing roads, were discussed previously. This is true with mobile homes. Communities in other parts of the country have found it advantageous to locate mobile homes in well

planned subdivisions rather than along existing roads. These well planned communities can be quite attractive with amenities like paved streets and sidewalks, solid waste collection, landscaping and proper drainage and utilities. These types of subdivisions increase the desirability of mobile home living and the resale value of the units. They are also easier to provide with county services.

The density in mobile home parks and mobile home subdivisions should be carefully considered including the size of parks (minimum and maximum), minimum lot sizes, and minimum and maximum densities. A dense subdivision gives the, sometimes undesirable, feel of a “trailer park”. A very low density subdivision requires considerably more county investment in road and drainage maintenance, but with reduced tax revenue.

## **EXISTING DEVELOPMENT TRENDS**

### Leading to the Future Land Use Plan

There are a number of factors which help project where future development is most likely to occur. These factors have been discussed at various locations within this report. Some of the factors include the following: existing and proposed highway and transportation improvements; existing and proposed water and sewer lines; suitable soil conditions; availability of developable land; community needs; state and local development regulations.

Even with these considerations the most determining factor is past and present development patterns. A pattern of development in a given area will often self replicate. As more growth and development occurs in an area then more roads and utility services are required. As these improvements are provided more development occurs.

Outside of the towns, the vast majority of Orangeburg County is rural in nature and largely undeveloped except for scattered home sites and small supporting commercial uses. This is true for most of the county except for the smaller towns and the concentrations of development around the City of Orangeburg and in the vicinity of the towns of Santee, Vance and Eutawville along Lake Marion. In these areas, strong development patterns have materialized and it is most likely that these development patterns will continue. Understanding the various development patterns in the county is important to understanding the pattern of future land uses.

Much of this discussion will refer to Figure 1, the Existing Land Use Map. Growth patterns for the various communities in the county can be observed on this map. This discussion will start in the northeastern section of the county around the town of Elloree and move around the county in a clockwise fashion as an overview of past and existing development patterns.

**Elloree** – Elloree, like most of the smaller towns in the county, has seen most of its growth and development occur within the corporate limits. The town of Elloree has undertaken an ambitious downtown revitalization program and as these plans come to fruition they could encourage additional development near the town of Elloree along Hwy 6. This is likely to be mixed development with a small amount of service commercial uses.

Some manufacturing/distribution uses are located in the southern quadrant of the town. Any manufacturing or industrial development in the town is likely to occur in that area and continue southward along Hwy 47 which leads to U.S. 301, I-26 and the town of Orangeburg.

The town of **Santee** has a plan for that area. Increased growth in tourism, retirement, and recreation activities in that area are likely to continue the expansion of growth and development in and around the town of Santee. Residential development and some commercial activity are likely to continue northward along Hwy 6. Additional residential and some service commercial is also projected to continue southward along Hwy 301,

particularly as the interaction between the Santee area and the town of Orangeburg increases. Development is also likely to continue, and intensify, south along US 6 serving the areas along Lake Marion.

This area would include the town of Vance which is at a crossroads between the towns of Santee, Eutawville and Holly Hill. As growth continues in the corridor along Lake Marion there will be expanded development, mainly a mix of residential and service commercial, around the town of Eutawville. This development is also likely to continue eastward of Eutawville as it has in recent years.

There has been a marked increase in development between 1990 and 2002 in the entire corridor from Ellore to Eutawville and beyond along the shores of Lake Marion. Again, most of this can be attributed to increases in tourism and sports activity, and particularly the retirement population, which is likely to continue.

For the most part the town of Holly Hill is fairly well established within its corporate boundaries. There has been some increased residential development to the southeast of that town as well as some commercial and residential development on the roads radiating from Holly Hill. There have been increases in industrial development south of Holly Hill along Hwy 453. This development is likely to encourage additional residential and service commercial development.

As discussed earlier there is likely to be increased development around the interchanges of I-95 and I-26 and at I-26 and SC 210, particularly as additional utilities

are provided in these areas. As the interchange at Hwy 210 is improved, it is likely that additional development will occur along Hwy 210 between the interchange and the town of **Bowman**. There has been some residential development along this road in recent years. There has also been some additional development outside the corporate limits of Bowman along Hwy 210 as well as along U.S. 178 in both directions. It is very likely that this pattern of development will continue as a mix of residential and commercial uses. Some higher intensity development has been occurring north of Bowman along U.S. 178 towards Orangeburg and it is likely that this growth will also continue.

In the very southern tip of the county, **Branchville** is a thriving community, but here again most of the development in that area is contained within the corporate limits of the town. It is anticipated that development will expand beyond the town limits in the future, particularly northward along U.S. 21 towards Orangeburg and to the east along U.S. 78.

The U.S. 21 corridor is likely to develop as a mix of service commercial and residential, however, there could be some manufacturing or industrial uses in that area. It is probable that more manufacturing and industrial growth will occur to the east along U.S. 78 because of the proximity of the railroad and highway in that corridor.

Development has been expanding along the entire corridor from Branchville to Orangeburg. Most of this development has been residential in nature and it is quite likely that this trend will continue as well. The town of **Rowesville** is a small community midway between Branchville and Orangeburg. Many of the people in Rowesville work in Orangeburg or other areas. It is not anticipated that the areas outside of the town of

Rowesville will expand dramatically, but as in other areas of the county there will be some development primarily residential in nature.

Hwy 39 leaves Rowesville and crosses the North Fork of the Edisto River and eventually connects to the rural areas around the town of **Cope**. The town of Cope has not experienced a great deal of new development in recent years. A large electric power generating plant has been built in that area. This plant is fairly self-contained and does not have a large number of employees. In this regard it is likely that this plant alone will not spur significant additional development in that area. As with all of the rural areas in the county, there will be some continued scattered residential development around the town.

The town of **Norway** is located in the southwestern section of the county and is bisected by U.S. 321 which parallels the railroad line in that area. Again, most of the development in Norway has been contained within the town limits and is the responsibility of that town, as it is in all of the other incorporated towns in Orangeburg County. It is anticipated that there will be some continued development outside the corporate limits in that area, but it is likely that it will be primarily residential in nature. There is a possibility that manufacturing, or industrial development could occur in the Norway area. Hwy 21 and the railroad provide access desired by some industries. Hwy 321 also provides a direct route to I-95 to the south.

To the west is the town of **Springfield**. This town occupies the western most corner of the county. Its corporate limits are sufficiently large to accommodate most of the recent



growth that has occurred in that area. There has been some recent residential development outside of Springfield to the west towards Aiken and Salley. The influences of the Aiken area may encourage additional residential development in that area. Hwy 4 connects Springfield with developing areas around Orangeburg and it is expected that additional residential development will occur in that area.

The towns of **Neeses** and **Livingston** are also bisected by Hwy 321 and the parallel railway. These towns also have fairly direct access to the Orangeburg area along U.S. 4 and to the Aiken area in the opposite direction. There are opportunities for specialized manufacturing and industrial uses that might want to locate in this community with the availability of Hwy 321 and the railroad. Additional residential development and some service commercial should also be anticipated to the east and west of the towns of Neeses and Livingston. Development along Hwy 321 northward towards the town of North has been occurring in recent years and it is likely that this trend will also continue.

The town of **North** has experienced some development outside of its city limits. This development has occurred along Hwy 321, but it is most recently beginning to expand along Hwy 178 towards Orangeburg. The natural expansion of the Orangeburg area northwestward along Hwy 178 has encouraged some development along Hwy 178 near North. It is most likely that development will continue to expand in this area.

It is also recognized that the U.S. Air Force utilizes the airbase near North for its training activities. Except for periodic increases in noise levels, the Air Force has been a good neighbor to the town of North. It is anticipated that the Air Force will continue to use

this facility. There are plans to make additional improvements to the base. The planned improvements will cost more than eight million dollars. Should the military decide to expand its presence even further in this community, then it would definitely have an impact on this portion of the county.

The airbase is considered an asset to the community around North. It should be understood that this airbase does impose some restrictions on the community. The Air Force has established some well defined zones beyond the confines of the base which are dictated by flight patterns of the aircraft entering and leaving the facility. These zones have differing degrees of restrictions on development which can occur within them. These are not overly restrictive for most types of development, but they should be considered by anyone planning development in these areas.

There are also opportunities for industrial and manufacturing expansion in the North area. North has good access to Columbia and fairly direct access to I-20 west of the town. Direct access to I-26 is within 13 miles. These factors along with the railroad could provide opportunities for certain industries. Should these activities develop, it is likely that they would occur along the Hwy 321 corridor north and south of the town.

The northern most town in the county is **Woodford**, just a few miles north of the town of North on Hwy 321. Development in Woodford has been contained within the town limits. However it has been observed that residential development in the community around this town has been increasing in recent years. Part of this development could be the influence of the expansion of the Columbia metropolitan area. There are a number of

people who enjoy living in the North/Woodford area and working in the Columbia area. It is quite likely that this trend will continue as more people opt to reside in more rural oriented communities.

Highway 178 leads to the City of **Orangeburg**. As it always has been, Orangeburg, the County seat, is the center of most of the largest concentrations of urban development in the County. The population within the town limits of Orangeburg has not increased in recent years. In fact the population has decreased slightly. As described in previous sections of this report most growth and development in the Orangeburg area is occurring outside of the corporate limits on lands under county jurisdiction.

A great deal of the development around Orangeburg has occurred just within the last ten years. The development trends have been quite obvious to those familiar with the community, and these development patterns can be seen in the existing land use map, Figure 1. These development patterns will be discussed here beginning with the North Road (Hwy 178) corridor and radiating clockwise around the city.

The North Road corridor has been one of the most dramatic areas of new development in the County within the last ten (10) years. Development in this area was discussed in some detail in the section on community facilities of this report. Reasons for this development were also discussed in that section. Some of these reasons include easy and direct access to downtown Orangeburg, and to the bypass around the city, which in turn provides

access to all of the other roads radiating from this area. The area along the North Road also contains land well suited for residential development. As residential development has increased in this corridor, traffic volumes have increased on the road and additional development has occurred. It is very likely that this trend will continue and even more intense development will occur in this corridor. It is anticipated that this development will be a mix of intense commercial and service commercial uses as well as additional residential development.

Hwy 21 connects the city of Orangeburg with the capital city of Columbia to the north. Traditionally this corridor has been an area of residential development which has occurred mostly in single family subdivisions off of Hwy 21 (Columbia Road). During the last ten years, residential development has continued northward along the Columbia Road. It is also quite likely that this residential development will continue in this pattern.

The Columbia Road is considered by many to be the most attractive entrance into the County and the town of Orangeburg. Continued well planned residential development in this corridor should uphold that image of the area. In recent years there has been a small scattering of commercial development along the Columbia Road. With no controls or regulations on development it is likely that additional commercial uses will occur in this area. It would be to the benefit of the community, and to any new uses in this area, if they are carefully planned and designed to contribute to the present image of this entrance into the county.

The Old St. Matthews Road/Hwy 601 corridor has also been discussed earlier in this section of the report. Considerable new development is anticipated in this corridor as the Old St. Matthews Road is widened to four lanes and Hwy 601 is widened northward towards St. Matthews. It is anticipated that most of the development along these roads will be commercial in nature. It is likely that residential development will occur off of the areas along Hwy 601. It is quite possible, because of transportation improvements and the potential for increased growth in this corridor, that this area will become an even more intense commercial area than the corridor along the North Road. It is also likely that these uses will extend past the interchange with I-26, but will be less intense in nature as the distance increases.

S.C. Hwy 33 connects Orangeburg with the town of Cameron to the northeast. Twenty or thirty years ago, this highway was a two-lane road that led from Orangeburg to the farm communities east of Orangeburg. These were, and still are, quite fertile and productive agricultural areas.

Over the years there have been other developments occurring along this road. Industrial and manufacturing uses have occurred along S.C. Hwy 33 (Cameron Road). In fact one of the largest manufacturing employers in the county is located approximately midway between the city of Orangeburg and the I-26 interchange. There has been some other industrial development past the I-26 interchange as well.

During the public meetings held as a part of this planning study there was considerable public comment concerning the desire that this corridor remain agricultural in nature. It

has historically been agricultural and there are many who wish to see it remain that way. On the other hand, others have recognized the industrial potential of this area and desire that portions of this highway become industrial. It is very likely that this corridor will continue as it has most recently, and that is as a mix of agriculture, residential and employment uses. Because of the easy access to the interstate, and the adjacent active railroad line, it is anticipated that eventually additional industrial development will occur along Hwy 33. This is not to say that existing residential and agriculture uses cannot remain and coexist with other types of development.

It should be understood that any plan for future land uses in the county should accommodate a variety and mix of uses in all areas. Through proper planning and siting of new uses with appropriate buffers and set backs, it is entirely possible that industrial, residential and agricultural uses can coexist in the same areas.

The next major corridor radiating from the city of Orangeburg will be the Hwy 301 North highway connecting the city with I-26 and eventually with the town of Santee. The new County/City industrial park will be located at the interchange of I-26 and Hwy 301. It is likely that additional related uses will occur in this corridor. Again this will be a mix of commercial and residential uses with light industrial uses as well. It is also anticipated that additional more intense development will occur around the Hwy 301 and I-26 interchange.

It is expected that additional development will continue along Hwy 301 towards Santee. The fact that this is a four-lane highway, and that it does provide easy access to the

communities of Orangeburg and Santee, as well as both interstate systems, will lead this to be a long linear development corridor. It should be possible for this highway to accommodate a mix of residential, commercial, and some industrial, uses if they are properly planned.

Highway 178 extends southward from Orangeburg to the town of Bowman and onward towards Charleston. This road is often referred to as the Old Charleston Highway. While development has not been as intense along this road as it has in other corridors, there has been some increase in residential development between the towns of Orangeburg and Bowman. This is primarily an agricultural community, but as the population increases it is anticipated that there will be some increases of residential development in this area, but probably not to the degree that will be experienced in some of the other corridors.

Hwy 21 extends directly southward from Orangeburg through Rowesville and Branchville. A major railroad line roughly parallels this road through those communities. The area south of the city of Orangeburg along this corridor has been developed for industrial related uses. Immediately south of the city is the Orangeburg Municipal Airport. South of that area is a County industrial park. This industrial park is nearing capacity. There are other areas along this corridor that can be developed for industrial uses and it is possible that some industrial uses will continue in this direction. A considerable amount of land south of the existing industrial park is owned by the Methodist Oaks Retirement Community. That retirement community has prepared plans

for their expansion, primarily west of the railroad line. With ample room for sufficient buffers it is anticipated that this community will continue to thrive as a very desirable retirement area even with industrial neighbors.

South of the Methodist Oaks property there are other industrial properties. With proper planning this area will also be a good example of the ability of various uses to exist in one area. The uses in this area are likely to include industrial, light commercial, residential and agricultural activities. It is anticipated that some residential development will continue to occur along Hwy 21 southward towards Branchville.

Turning westward and across the North Fork of the Edisto River, there are the predominately residential areas around Cordova and westward of the Edisto Drive community. **Cordova** has experienced some residential development outside of its town limits. In fact the entire area from the Cannon Bridge Road community just west of the Edisto River, around Cordova westward along Hwy 301 and to the northwest from Edisto Drive and westward on S.C. 400 and S.C. 4 has shown a considerable amount of residential growth in the last ten years.

This region west of the Edisto River has seen much, but not widely recognized, growth in recent years. This very large land area has significant potential for future development. There is ample land of good quality for development. There are already large areas of residential development, even though relatively low in density. The provision of additional water and sewer services in this area will certainly promote additional



development and improve the quality of life in this community, if this additional growth and development is properly planned.

Again it is anticipated that the area west of the Edisto River will develop as a mixed use of residential and commercial uses with some light manufacturing and employment areas.

The predominate use will be residential in nature with service commercial as required.

## FUTURE LAND USE PLAN

### Continued Expansion of Current Trends and Patterns






From previous discussions the future land use plan for Orangeburg County has now evolved. **It is intended** that this plan will be very general in nature. **It is not intended** that this plan should be site specific and nor that this plan should designate the precise uses that should occur on any given property in the county. The plan is a combination of the extension of current development patterns and the most probable uses for those areas that are presently less developed.

**The primary reason for preparing a Comprehensive Plan is to allow citizens and community leaders to anticipate future development patterns and to provide for orderly growth and the timely provision of public services. The anticipated development patterns are not final in any way, and as changes in economic conditions and development demands occur, it is likely that anticipated development patterns may also change. The projected future land use plan is a start in the comprehensive planning process. As the plan is updated and refined in future years it will become even more of a useful tool for the proper management of growth and development to the benefit of all citizens of the county.**

**Future Land Use Designations** – The future land use plan illustration follows as Figure 2. This map is the generalized future land use plan for the county. Just as the areas designated in the plan are general so are the uses that can occur within those areas.

**FIGURE 2**  
**LAND USE PLAN**



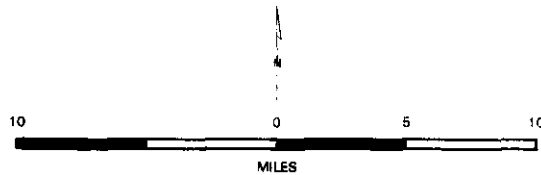
-  AGRICULTURE/FOREST LAND
-  COMMERCIAL/MIXED USE
-  ENVIRONMENTAL/SENSITIVE AREA
-  INDUSTRIAL/MIXED USE
-  RESIDENTIAL/MIXED USE

MARCH 1999



GIS/MAPPING DEPT.

Disclaimer: The County of Orangeburg, SC makes no Representation or warranties, Implied or expressed, concerning the accuracy, completeness, reliability, or suitability for any particular purpose of the information and data contained on this map.



**COUNTY OF ORANGEBURG, SOUTH CAROLINA**  
**COMPREHENSIVE PLAN**  
**FUTURE LAND USE**

FIG. 2

There are five future land use categories as shown in the illustration. A description of those uses follows:

**Agriculture/Forest Lands** – This category encompasses the largest land area in the plan. The predominate use in all of these areas will be agriculture and forest lands. Essentially these areas will continue as they are and have been for many years. It is recognized that development will occur within these areas. It is anticipated that most of this development will be residential in nature with some service commercial as will be dictated by market demands. While the designation for these areas is Agricultural and Forest Lands, it is not meant that the uses in these areas will be restricted only to agricultural and forest uses. The other uses mentioned here should occur as they naturally will.

**Residential/Mixed Uses** – This is the next largest land area anticipated for the future land use plan. Just as the title of this category states, the predominate use in these areas will be residential. It is also understood that there will be other mixed uses within these areas. These mixed uses can include any or all other uses such as agricultural, commercial uses, light manufacturing, and other legal uses of the land. It is simply anticipated that these areas will consist primarily of residential uses with other support uses as appropriate.

**Commercial/Mixed Uses** – This land use classification is intended to designate those areas that will most likely be commercial in nature, but they will also have other mixed uses. Some of the areas around the town of Santee, the major development corridors

along the North Road, U.S. 601 near Orangeburg, and other smaller areas are anticipated to be dominated by this use. These commercial areas within the county, just as the designation states, will also contain mixed uses. These as in all other classifications of land use areas, will include all other uses such as residential, light manufacturing, agricultural in some instances, and other uses. It is simply anticipated that these will be corridors which are primarily commercial in character.

**Industrial/Mixed Uses** – The anticipated future locations for industrial uses has also been discussed above. These are the most likely areas for industrial development and manufacturing uses. These areas will be considered high employment concentrations. They are designated as primarily industrial and manufacturing areas so that future plans by the county government and citizens can understand that these areas are likely to develop as more intense manufacturing centers. Here again, the terms “mixed uses” are added to this designation to indicate that these areas will not be entirely industrial in nature. Other mixed uses are likely to include support commercial uses. With proper planning even residential and agricultural uses could coexist within these manufacturing and mixed use areas.

**Environmentally Sensitive Areas** – This last classification is reserved for those areas of the county which should not be developed. The majority of the environmentally sensitive areas are located within the wetlands along the North and South fork of the Edisto River, the Four Holes Swamp area and areas near Lake Marion. There are also scattered wetlands in other low areas in the county and along some of the streams. These areas

should be protected. This does not mean that these areas cannot be enjoyed. They should be available for sporting activities and the enjoyment of the community. These are some of the prime natural resources of the county.

The Future Land Use Map (Figure 2) illustrates the approximate location and extent of the land use classifications.

## LAND USE SUMMARY

### Problems, Needs, Goals, Implementation and Time Frames

This section of the Comprehensive Plan examined existing land use in the County and present growth and development trends. These trends, or patterns, vary throughout the County.

The future Land Use Plan presented in this document is predicated on the time proven concept that future land development will continue to follow existing patterns of development with timing based on market need unless that pattern is altered through changes in economic or natural conditions, public infrastructure, or regulations. The Plan considers the apparent dichotomies in public expression. Those being the need for planned development with regulations for some protection from undesirable and incompatible adjacent land uses, and the desire to retain the right to develop property free from regulatory control.

The Plan proposes patterns of development for areas where predominant, yet mixed, types of uses are likely to occur, but with the strong recommendation for cooperative coordination among government officials and private enterprise in order to concentrate development where it can be served with manageable and cost efficient infrastructure. The goal is to limit unmanaged haphazard urban sprawl while allowing a mix of uses which can coexist with proper planning.



Nearly all of the new growth in the County in recent years has occurred outside the existing corporate limits of the towns in the County. New growth and development in recent years has left county officials with the task of providing services to growth areas, but without the tools to resolve problems of conflicting land uses which has resulted from this new growth.

Many residents concerned with private property rights have expressed concern relative to any land use planning and potential land use regulations. Other citizens have expressed a desire for some form of development regulations to better manage new growth and development. The majority of property owners actually desire some measure of protection from ruinous adjacent land uses, but the people want this protection with the least amount of regulatory control possible.

Residents have recognized the problems and realize the need for some solution. The goal would be to devise a regulatory land use method by which the freedom of mixed land use is applied to the growing sections (areas) of Orangeburg County where the most development pressure is expected to occur. This mixed, multiple land use designation system could be a clear alternative to geographically separating and zoning specific areas for a specific use such as industrial, commercial, agricultural and residential.

Initially, some regulatory control could be implemented by creating mixed use (limited restrictions) districts for those geographic areas where development problems are most evident. These districts could require some protective controls such as setback and

sideline restrictions, buffer zones, required natural or wooded areas, sound barriers, tree ordinances and architectural design guidelines.

This concept would allow a variety and mix of land uses in most areas. With proper planning and siting of new uses with appropriate buffers and setbacks different land uses can coexist in the same general area without negative impacts on neighbors. This concept of management of critical areas of growth with potential development problems can also contribute to the need of reducing the increasing amount of urban sprawl in the County, while maximizing property values.

One of the goals for Orangeburg County is to improve economic development through the creation of additional jobs. Many of these jobs will be industrial and manufacturing related. The creation of manufacturing jobs is desirable for the County, but it can present problems if all manufacturing jobs are concentrated in the immediate Orangeburg City area. A need would be to promote the more equitable distribution of this type of employment throughout the County. A method of implementation would be to provide incentives and infrastructure to potential sites and conduct surveys of available workers in those areas.

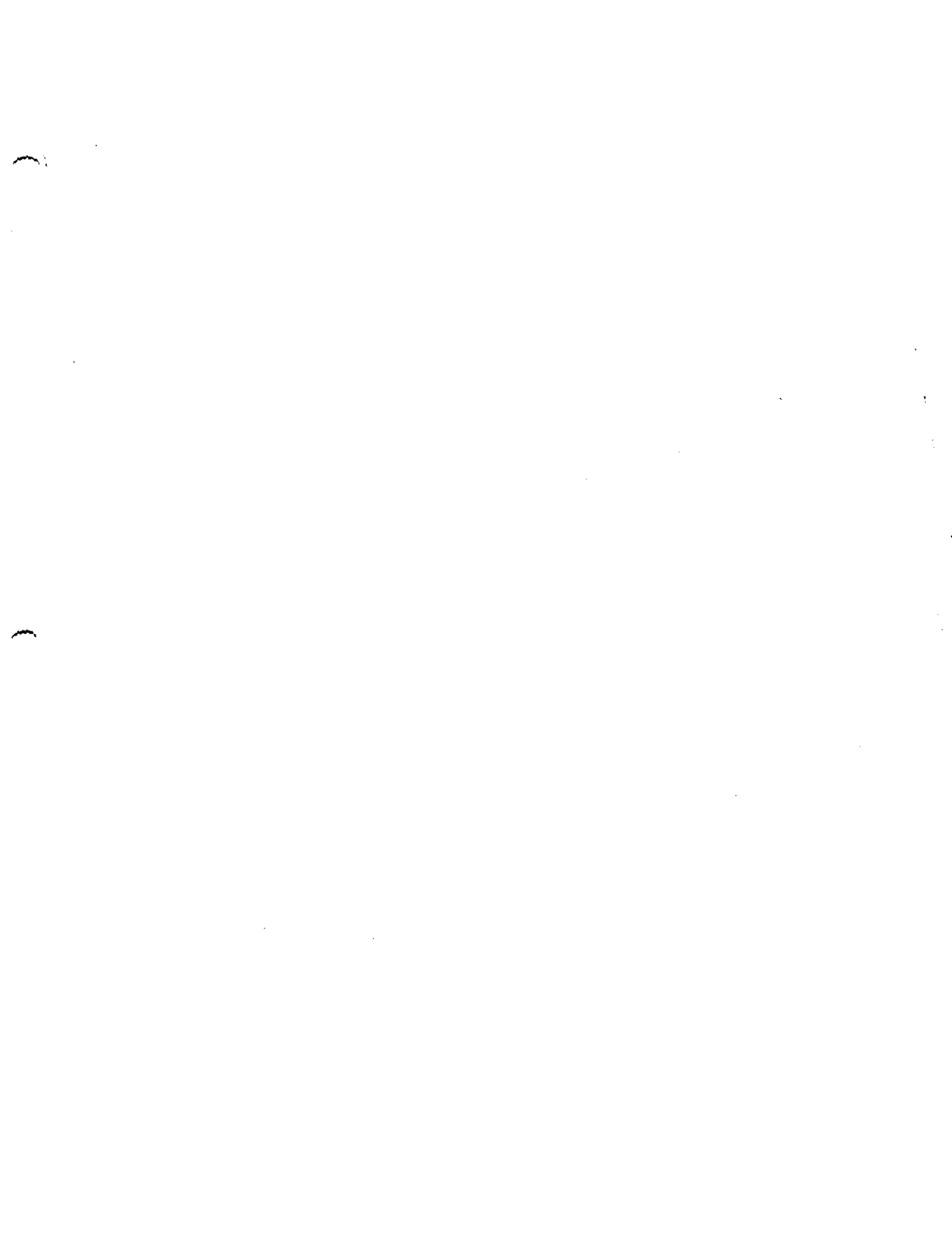
Mobile homes constitute a large and expanding segment of the housing supply in the County. This is certainly a viable housing alternative. However, many citizens expressed concern about the proliferation of mobile homes and mobile home parks.

Some are considered unsightly and while mobile homes and mobile homes parks require the same in community facilities and public services as other housing types they usually

contribute less to the tax base of the County. The many concerns related to mobile homes should be addressed as soon as possible by county officials, perhaps together with private enterprise.

The visual impression and the physical characteristics of development areas in the County are also problems and concerns which should be addressed. Commercial signs, off-site signs, illegal signs such as signs in rights of way all contribute to visual contamination. Some consideration should be given to sign ordinances possibly with sign design guidelines. Roadside litter is increasingly becoming a major issue and litter certainly detracts from the visual image of any area. The problem of litter, particularly in developing areas also needs to be addressed.

Finally, the Land Use Plan is based on current conditions and trends and present expectations as to future conditions. As conditions in the County change in the future, it will be necessary to update the plan. Therefore, the plan should be seen as a dynamic rather than a static document. It must be periodically re-evaluated and assessed in light of future changing conditions. Most immediately, the existing Land Use Plan should be updated to obtain more accurate designations of precise existing land uses in the County.



**APPENDIX**



# South Carolina Community Profiles



<a href="#">Home</a>	<a href="#">County Profiles</a>	<a href="#">SC Data</a>	<a href="#">Links</a>	<a href="#">Contacts</a>	<a href="#">Site Map</a>
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- [Age and Sex](#)
- [Race](#)
- [Households](#)
- [Housing Units](#)
- [Marital Status](#)
- [Income](#)
- [Education Levels](#)

[County Profiles](#) > [Orangeburg County Overview](#)

## Orangeburg County Overview

Orangeburg County is located in the mid-state area of South Carolina. In County's population was 91,582, ranking 16th among the 46 South Carol regard to land mass, Orangeburg County is one of the largest counties in 2nd in size.



  
[Click for more Age and Sex Data](#)

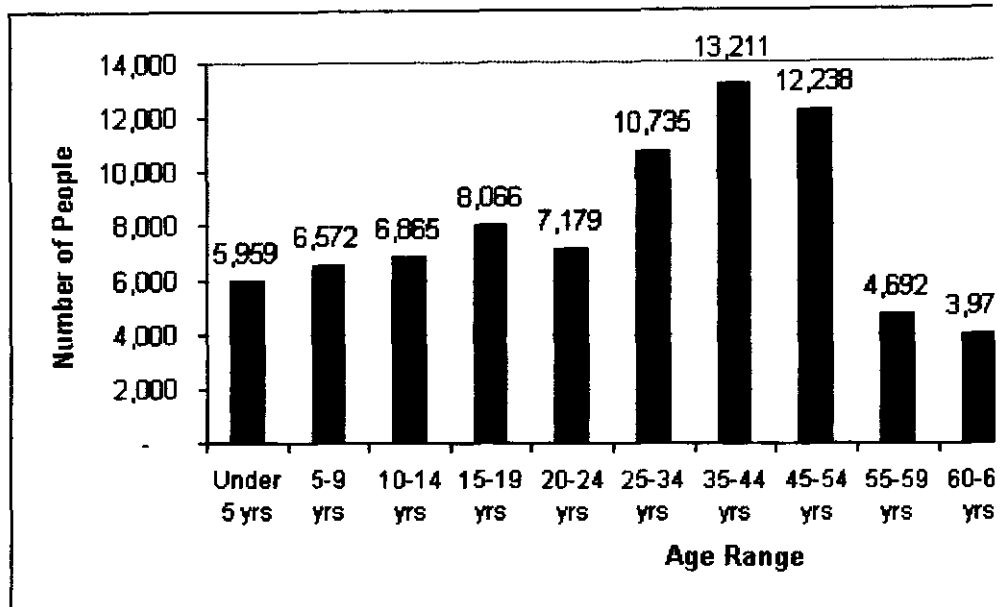
Children  
 Median Age  
 Mature Adults  
 Census 2000 Tables

### Age and Sex

Orangeburg County has a population of 91,582 people (2000).

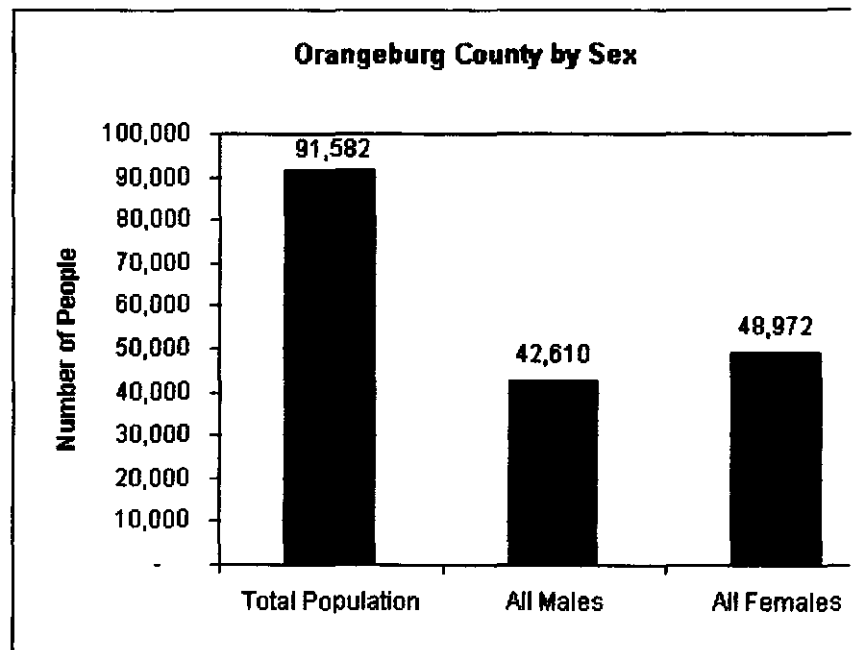
#### Population by Age Group

The 17 and under age group comprises 25.95 percent of the population; group comprises 11.87 percent; the 25 to 44 group comprises 26.15 per 64 group comprises 22.83 percent; and the 65 and older group comprise percent.



**Population by Sex**

46.53 percent of the population is male; 53.47 percent is female.



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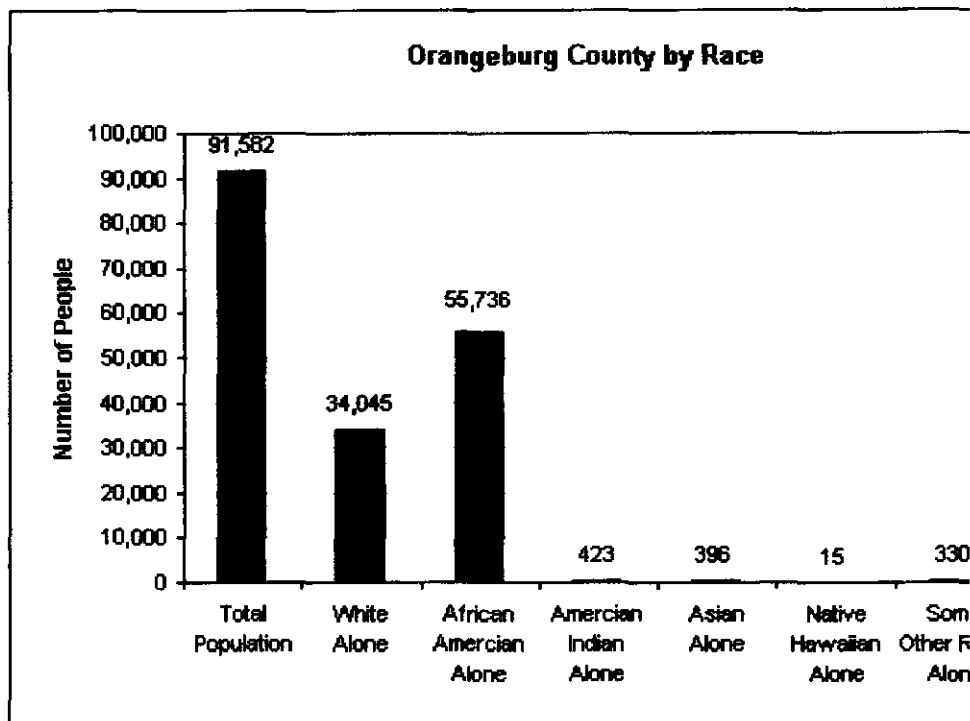
Single Race  
Multiple Race

**Race**

37.17 percent of the population of Orangeburg County is White. This figure is lower than the state percentage of 67.20 percent white. The African-American population is 60.86 percent. On the state level, the percentage of African-American is 29.50. The remaining ethnic groups in Orangeburg County have low representation: Hispanic (0.96 percent); Asian (0.43 percent); American Indian (0.46 percent).

Race Definitions  
 Census 2000 Tables

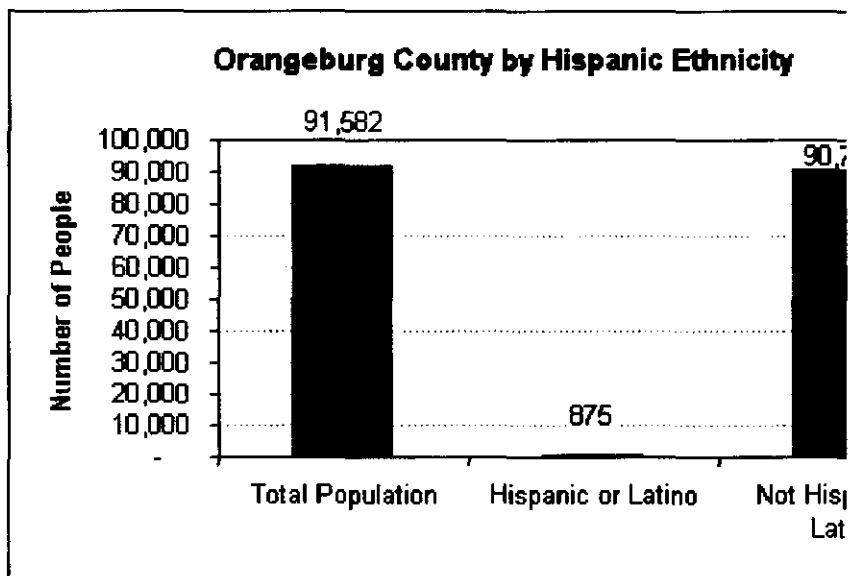
Native Hawaiian/Pacific Islander (0.02 percent). Statewide, 2.40 percent population is Hispanic, 0.90 percent is Asian, 0.30 percent is American Indian, and 0.02 percent is Native Hawaiian/Pacific Islander.



Hispanics by Race  
 Hispanics by Age  
 Census 2000 Definitions  
 Census 2000 Tables

### Hispanic Population

A person of Hispanic or Latino origin is defined as a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race. In Orangeburg County, 0.96 percent of the total population was Hispanic, and 99.04 percent were non-Hispanic. On the state level, the percentage of Hispanics is 2.40 percent and non-Hispanics is 97.60 percent.





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[Click for more Household Data](#)

Census 2000 Tables

## Household Structure

In Orangeburg County in 2000, there were a total of 34,118 households. 69.98 percent (23,876) were family households and 30.02 percent were nonfamily households.

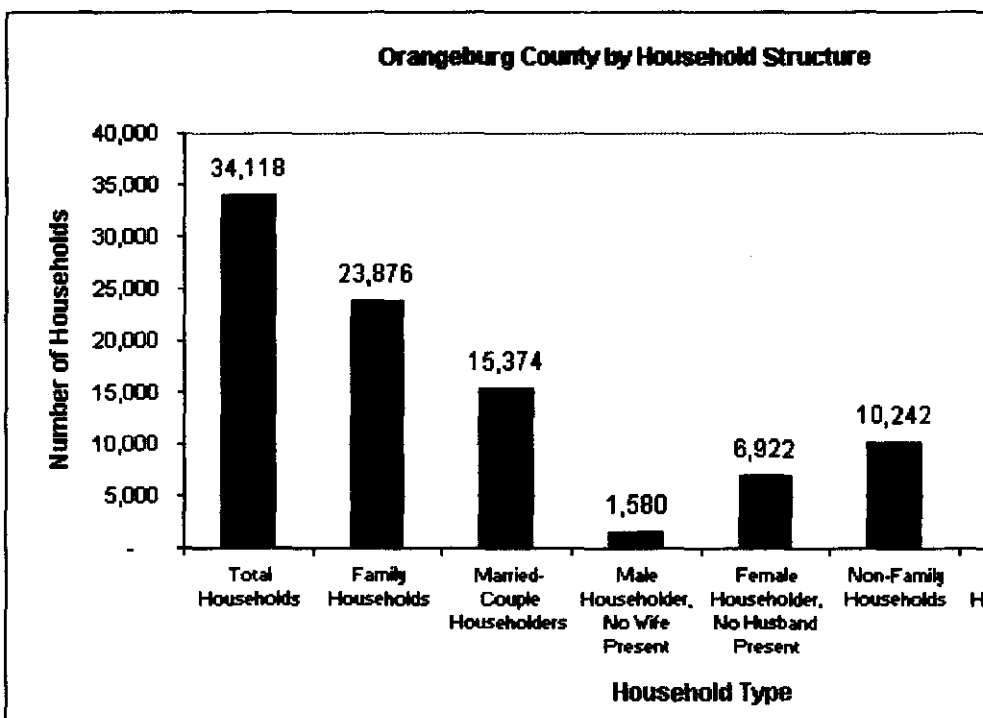
Looking just at the family households, 64.39 percent were married couple. The remaining households were either male householder, no wife present or female-householder, no husband present (28.99 percent).

Looking at non-family households, 56.11 percent had a male householder and 43.89 percent had a female householder.



[Flowchart: Household Classifications](#)

Flowcharts showing how Census 2000 categorizes households and group quarters. (PDF)



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[Click for more Housing Unit Data](#)

Homeownership Definitions  
Census 2000 Tables

## Housing Units

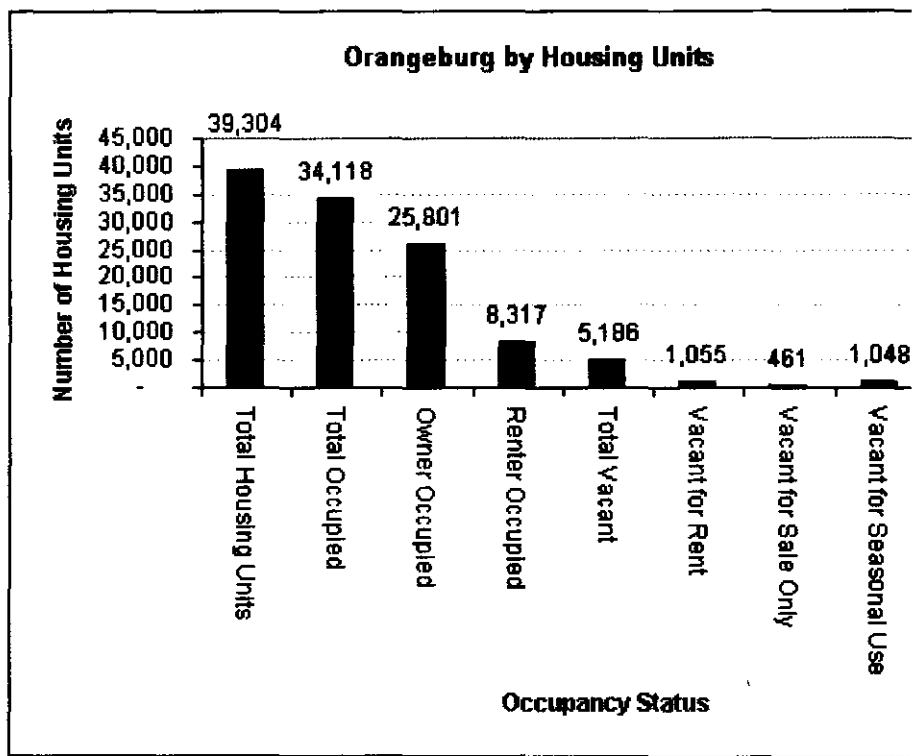
In the 2000 Census, South Carolina was reported as having 1,753,670 housing units. Orangeburg County, with 34,118 housing units, comprised 2.22 percent of the total number of housing units.

In Orangeburg County in 2000, approximately 34,118 housing units were owned by 25,801 owners and 8,317 renters. Of the 5,186 vacant housing units, 1,055 were for seasonal use, 1,055 of the year-round vacant units were for rent, 461 only, and the remaining 2,622 units were vacant for a variety of reasons.



**Flowchart: Housing Unit Classifications**

Flowchart showing how Census 2000 categorizes housing units. (PDF)

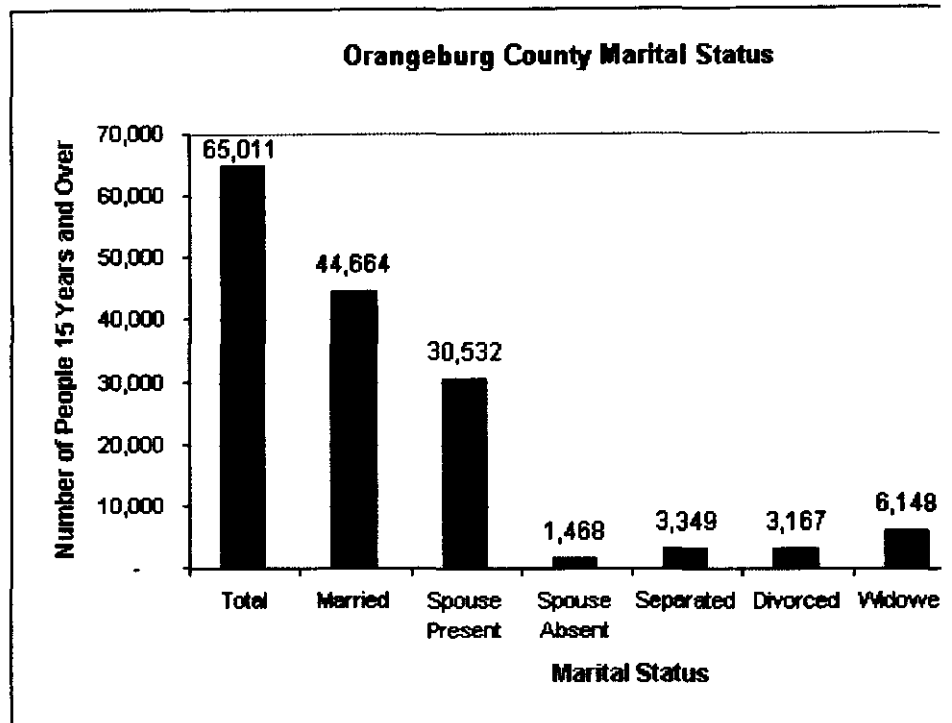


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**Marital Status**

In Orangeburg County, 45.06 percent of the adult population (age 15 and over) is married, 4.87 percent are divorced, 9.46 percent are widowed, and 31.30 percent are never married.

Of the total adult population, 46.96 percent are married with spouse present, 1.15 percent are married with spouse absent, 5.15 percent are separated from spouse, and 46.74 percent are never married.



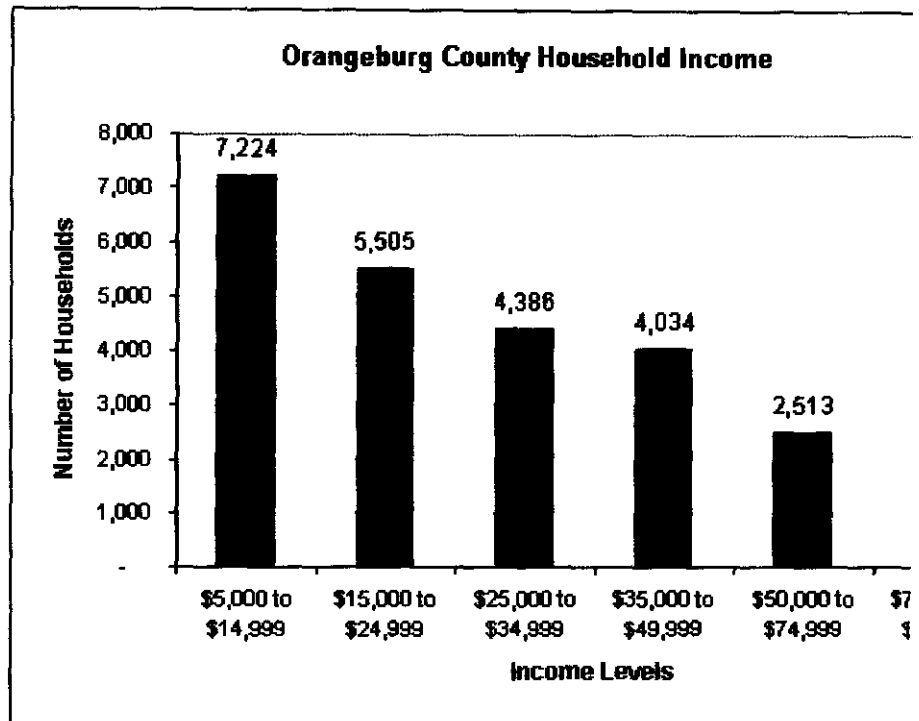
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### Income

Looking at households in Orangeburg County, the median income is \$20,190. For families, the median income is \$24,473. The median income for households is \$ 8,633.

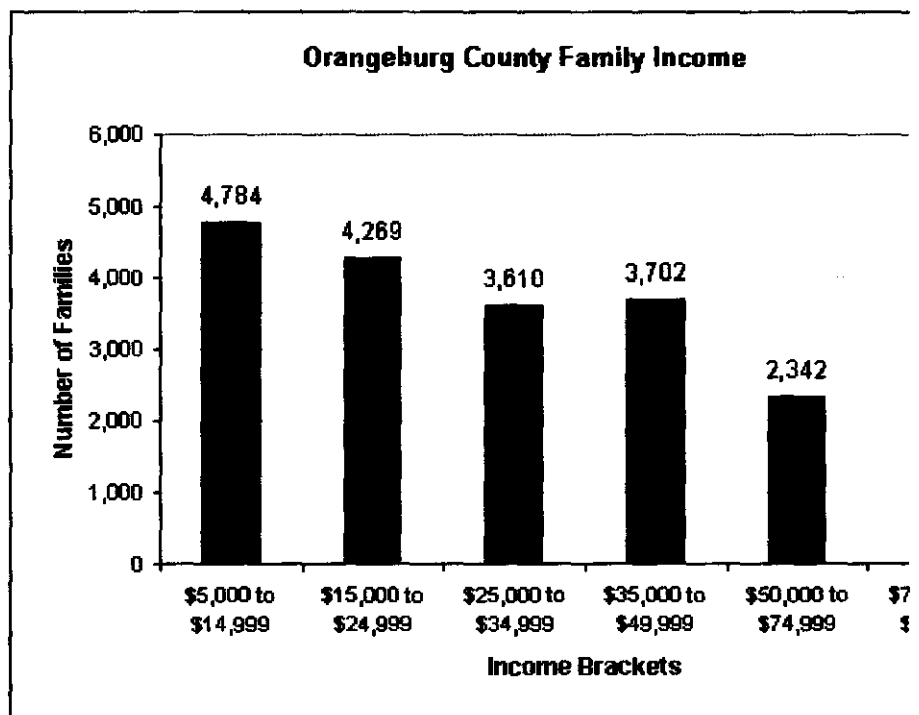
### Household Income

14.35 percent of Orangeburg County's households have an income less than \$10,000 per year. On the other end of the spectrum, just 1.50 percent have an income of \$50,000 or more per year.



#### Family Income

8.98 percent of Orangeburg County's families have an income of less than \$5,000 per year. On the other end of the spectrum, just 1.84 percent have an income of \$75,000 or more per year.



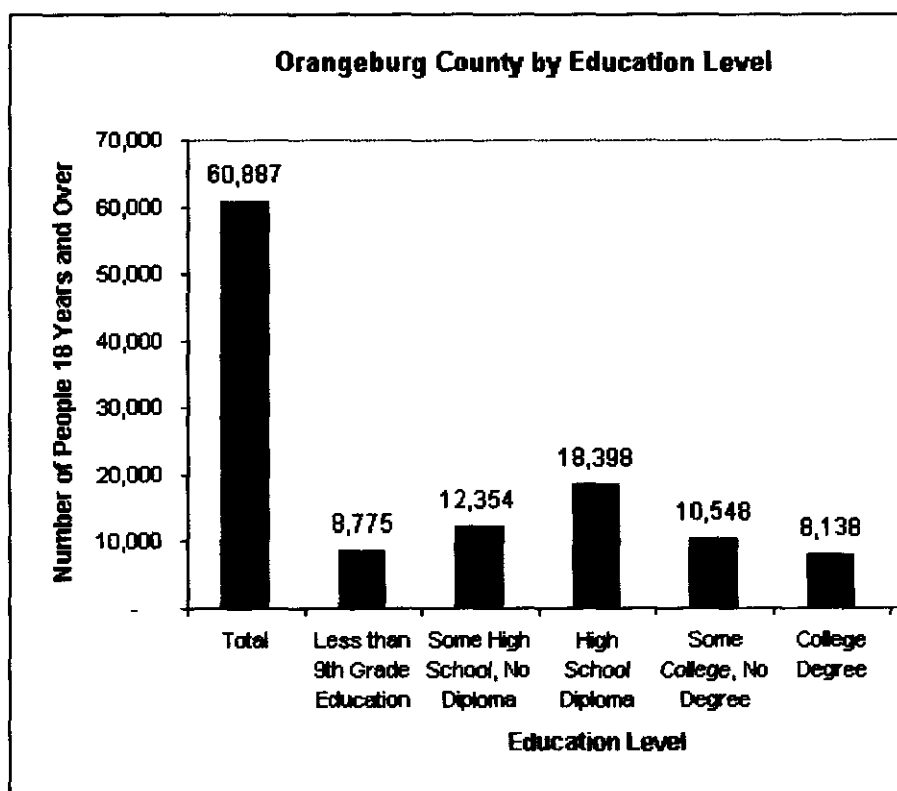
#### Non-Family Household Income

31.80 percent of Orangeburg County's non-family households have an income of less than \$5,000 per year. On the other end of the spectrum, just 0.30 percent of households have an income of \$100,000 or more per year.

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### Education Levels

14.41 percent of the Orangeburg County adult population (18 years and over) has less than a ninth grade education. Individuals who attended high school, but did not receive a diploma, comprise 20.29 percent of the county's population. About one-third of the county population (30.22 percent) has a high school diploma. Individuals who attended college (without receiving a degree) comprise 17.32 percent of the population. A smaller percentage (13.37 percent) obtained a college degree. A much smaller percentage of the population, 4.39 percent went on to pursue and obtain a graduate degree.



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**Glossary**

Click for a glossary of terms used on this page.

SELECTED DEMOGRAPHIC DATA FOR SOUTH CAROLINA  
1990 FROM CENSUS TAPE STF3A  
BY COUNTY

SC FOR: ORANGEBURG

TOTAL PERSONS BY AGE, RACE & SEX:

	TOTAL		MALE		FEMALE	
	NO.	PCT.	NO.	PCT.	NO.	PCT.
TOTAL	84,803	100.0	39,577	100.0	45,226	100.0
UNDER 5	6,156	7.3	2,928	7.4	3,228	7.1
5 - 17	17,760	20.9	9,243	23.4	8,517	18.8
18 - 64	50,346	59.4	23,423	59.2	26,923	59.5
60 YRS & OVER	14,074	16.6	5,492	13.9	8,582	19.0
65 YRS & OVER	10,541	12.4	3,983	10.1	6,558	14.5
18 YRS & OVER	60,887	71.8	27,406	69.2	33,481	74.0
WHITE	34,878	100.0	16,711	100.0	18,167	100.0
UNDER 5	2,087	6.0	933	5.6	1,154	6.4
5 - 17	5,868	16.8	3,177	19.0	2,691	14.8
18 - 64	20,998	60.2	10,283	61.5	10,715	59.0
60 YRS. & OVER	7,999	22.9	3,240	19.4	4,759	26.2
65 YRS & OVER	5,925	17.0	2,316	13.9	3,609	19.9
18 YRS & OVER	26,923	77.2	12,599	75.4	14,324	78.8
BLACK	49,300	100.0	22,559	100.0	26,741	100.0
UNDER 5	4,039	8.2	1,980	8.8	2,059	7.7
5 - 17	11,783	23.9	6,027	26.7	5,756	21.5
18 - 64	28,877	58.6	12,895	57.2	15,982	59.8
60 YRS & OVER	6,053	12.3	2,239	9.9	3,814	14.3
65 YRS & OVER	4,601	9.3	1,657	7.3	2,944	11.0
18 YRS & OVER	33,478	67.9	14,552	64.5	18,926	70.8
OTHER	625	100.0	307	100.0	318	100.0
UNDER 5	30	4.8	15	4.9	15	4.7
5 - 17	109	17.4	37	12.1	72	22.6
18 - 64	471	75.4	245	79.8	226	71.1
60 YRS & OVER	22	3.5	13	4.2	9	2.8
65 YRS & OVER	15	2.4	10	3.3	5	1.6
18 YRS & OVER	486	77.8	255	83.1	231	72.6

	FAMILIES	HOUSEHOLDS
	21,636	28,852
PERSONS/FAMILIES	3.4	PERSONS/HOUSEHOLDS
		2.8
PERSONS OF HISPANIC ORIGIN	227	
PERSONS IN GROUP QUARTERS	3,628	
URBAN & RURAL	84,803	100.0
URBAN:	25,287	29.8
INSIDE URBAN AREAS	0	0.0
OUTSIDE URBAN AREAS	25,287	29.8
RURAL:	59,516	70.2
FARM	2,274	2.7
NONFARM	57,242	67.5

15 YRS + BY SEX, BY MARITAL STATUS:

	MALE	FEMALE
NEVER MARRIED	10,097	10,250
MARRIED:		
MARRIED SPOUSE PRESENT	15,257	15,275
MARRIED SPOUSE ABSENT	1,931	2,886
SEPARATED	1,160	2,189
OTHER	771	697
WIDOWED	997	5,151
DIVORCED	1,312	1,855

PLACE OF WORK BY RESIDENCE FOR WORKERS 16 YRS+:

	NO.	PCT.
TOTAL	34,473	100.0
IN STATE OF RESIDENCE	34,200	99.2
IN COUNTY OF RESIDENCE	27,628	80.1
OUTSIDE COUNTY OF RESIDENCE	6,572	19.1
OUTSIDE STATE OF RESIDENCE:	273	0.8

RACE OF HOUSEHOLDER BY HOUSEHOLD TYPE & PRESENCE OF OWN CHILDREN:

	TOTAL		WHITE		BLACK		OTHER	
	NO.	PCT.	NO.	PCT.	NO.	PCT.	NO.	PCT.
TOTAL	28,852	100.0	13,545	100.0	15,098	100.0	209	100.0
FAMILY	21,636	75.0	10,120	74.7	11,326	75.0	190	90.9
MARRIED COUPLE	15,127	52.4	8,707	64.3	6,247	41.4	173	82.8
W/CHILDREN	7,230	25.1	3,622	26.7	3,518	23.3	90	43.1
W/O CHILDREN	7,897	27.4	5,085	37.5	2,729	18.1	83	39.7
SINGLE-HEADED	6,509	22.6	1,413	10.4	5,079	33.6	17	8.1
W/CHILDREN	3,264	11.3	585	4.3	2,671	17.7	8	3.8
W/O CHILDREN	3,245	11.2	828	6.1	2,408	15.9	9	4.3
MALE, NO WIFE	1,053	3.6	353	2.6	700	4.6	0	0.0
W/CHILDREN	425	1.5	151	1.1	274	1.8	0	0.0
W/O CHILDREN	628	2.2	202	1.5	426	2.8	0	0.0
FEMALE, NO HUSB	5,456	18.9	1,060	7.8	4,379	29.0	17	8.1
W/CHILDREN	2,839	9.8	434	3.2	2,397	15.9	8	3.8
W/O CHILDREN	2,617	9.1	626	4.6	1,982	13.1	9	4.3
NON-FAMILY	7,216	25.0	3,425	25.3	3,772	25.0	19	9.1

	NO.	PCT.
TRAVEL TIME TO WORK:		
LESS THAN 15 MINS.	12,534	36.4
15 TO 39 MINS.	16,264	47.2
40 TO 89 MINS	4,741	13.8
90+ MINS	410	1.2
WORKED AT HOME	524	1.5
RESIDENCE FOR PERSONS 5 YRS & OVER:		
SAME HOUSE IN 1985	49,454	62.9
DIFF. HOUSE IN US (1985)	29,009	36.9
SAME COUNTY	18,540	23.6
DIFF. COUNTY	10,469	13.3
SAME STATE	5,576	7.1
DIFF. STATE	4,893	6.2
NORTHEAST	1,836	2.3
MIDWEST	534	0.7
SOUTH	2,263	2.9
WEST	260	0.3
ABROAD IN 1985	184	0.2

\*OTHER IS A TOTAL OF AMERICAN INDIANS, ESKIMO & ALEUT, ASIAN & PACIFIC ISLANDERS, AND ALL OTHER RACES.  
SOURCE: DIVISION OF RESEARCH & STATISTICAL SERVICES.

SELECTED DEMOGRAPHIC DATA FOR SOUTH CAROLINA  
 1990 FROM CENSUS TAPE STF3A  
 BY COUNTY

SC FOR: ORANGEBURG

RACE BY YRS OF SCHOOL COMPLETED FOR PERSONS 25 YRS & OVER:

	TOTAL		WHITE		BLACK		OTHER		*PLACE OF BIRTH:	NO.	PCT.
	NO.	PCT.	NO.	PCT.	NO.	PCT.	NO.	PCT.			
LESS THAN 9TH GRADE	8,608	17.1	2,515	10.4	6,049	23.6	44	12.1	* TOTAL PERSONS	84,803	100.0
HIGH SCHOOL:									* NATIVE BORN	84,160	99.2
NO DIPLOMA	10,289	20.5	4,584	18.9	5,656	22.1	49	13.5	* BORN IN STATE OF RES.	70,301	82.9
GRADUATE	14,876	29.6	7,585	31.3	7,179	28.1	112	30.9	* BORN IN ANOTHER STATE	13,588	16.0
COLLEGE:									* NE	4,565	5.4
NO DEGREE	6,308	12.6	3,622	14.9	2,664	10.4	22	6.1	* MIDWEST	1,551	1.8
DEGREE	10,131	20.2	5,961	24.6	4,034	15.8	136	37.5	* SOUTH	6,945	8.2
									* WEST	527	0.6
									* BORN OUT OF US	271	0.3
									* FOREIGN BORN	643	0.8

LABOR FORCE STATUS & UNEMPLOYMENT RATE BY RACE & BY SEX FOR PERSONS 16 YRS & OVER:

	TOTAL		TOTAL		WHITE	WHITE	BLACK	BLACK	BLACK	
	MALE	PCT.	MALE	PCT.						MALE
PERSONS 16 YRS +	28,881	100.0	34,824	100.0	27,957	13,160	14,797	35,236	15,458	19,778
IN LABOR FORCE	20,011	69.3	18,528	53.2	17,175	9,516	7,659	21,019	10,281	10,738
ARMED FORCES	114	0.4	19	0.1	63	45	18	70	69	1
CIVILIAN	19,897	68.9	18,509	53.2	17,112	9,471	7,641	20,949	10,212	10,737
EMPLOYED	18,510	64.1	16,602	47.7	16,384	9,118	7,266	18,408	9,193	9,215
UNEMPLOYED	1,387	4.8	1,907	5.5	728	353	375	2,541	1,019	1,522
NOT IN LABOR FORCE	8,870	30.7	16,296	46.8	10,782	3,644	7,138	14,217	5,177	9,040
UNEMPLOYMENT RATE	7.0		10.3		4.3	3.7	4.9	12.1	10.0	14.2

INDUSTRY OF EMPLOYED PERSONS 16+:

	NO.	PCT.		NO.	PCT.	* CIVILIAN VETERANS 16+:	
TOTAL EMPLOYED PERSONS 16+	35,112	100.0	FINANCE, INSURANCE, & REAL ESTATE	1,201	3.4	* MALE, 16-64	5,040
AGRICULTURE, FORESTRY, FISHING	1,356	3.9	BUSINESS, REPAIR SERVICES	921	2.6	* FEMALE, 16-64	221
MINING	26	0.1	PERSONAL SERVICES	1,402	4.0	* MALE, 65+	1,938
CONSTRUCTION	2,786	7.9	ENTERTAINMENT & RECREATION SERVICES	256	0.7	* FEMALE, 65+	85
MANUFACTURING	9,316	26.5	PROFESSIONAL & RELATED SERVICES:	7,176	20.4		
TRANSPORTATION	965	2.7	HEALTH SERVICES	2,204	6.3		
COMM. & OTHER PUBLIC UTILITIES	877	2.5	EDUCATIONAL SERVICES	3,853	11.0	* DISABILITY BY TYPE:	
WHOLESALE TRADE	1,582	4.5	OTHER PROFESSIONAL SERVICES	1,119	3.2	* WORK	9,357
RETAIL TRADE	6,040	17.2	PUBLIC ADMINISTRATION	1,208	3.4	* MOBILITY	3,569

OCCUPATION OF EMPLOYED PERSONS 16 YRS & OVER:

	NO.	PCT.	* INCOME IN 1989:	HOUSEHOLDS	PCT.	FAMILIES	PCT.
TOTAL EMPLOYED PERSONS 16+	35,112	100.0	LESS THAN \$5,000	4,139	14.3	1,943	9.0
MANAGERIAL & PROFESSIONAL SPECIALTY	6,383	18.2	\$5,000 TO \$9,999	3,787	13.1	2,276	10.5
TECHNICAL, SALES & ADMIN. SUPPORT	8,781	25.0	\$10,000 TO \$14,999	3,437	11.9	2,508	11.6
SERVICE	4,796	13.7	\$15,000 TO \$19,999	2,929	10.2	2,292	10.6
FARMING, FISHING, FORESTRY	1,366	3.9	\$20,000 TO \$24,999	2,576	8.9	1,977	9.1
PRECISION PROD. CRAFT REPAIR	4,811	13.7	\$25,000 TO \$29,999	2,255	7.8	1,846	8.5
OPERATORS, FABRICATORS, LABORERS	8,975	25.6	\$30,000 TO \$34,999	2,131	7.4	1,764	8.2
			\$35,000 TO \$39,999	1,599	5.5	1,433	6.6
			\$40,000 TO \$44,999	1,270	4.4	1,209	5.6
			\$45,000 TO \$49,999	1,165	4.0	1,060	4.9
PER CAPITA INCOME	\$9,004		\$50,000 TO \$59,999	1,437	5.0	1,359	6.3
WHITE	\$13,273		\$60,000 TO \$74,999	1,076	3.7	983	4.5
BLACK	\$5,965		\$75,000 TO \$99,999	619	2.1	587	2.7
MEDIAN HOUSEHOLD INCOME	\$20,216		\$100,000 TO \$124,999	221	0.8	206	1.0
MEDIAN FAMILY INCOME	\$24,473		\$125,000 TO \$149,999	98	0.3	86	0.4
			\$150,000 OR MORE	113	0.4	107	0.5

\*OTHER IS A TOTAL OF AMERICAN INDIANS, ESKIMO & ALEUT, ASIAN & PACIFIC ISLANDERS, AND ALL OTHER RACES.  
 SOURCE: DIVISION OF RESEARCH & STATISTICAL SERVICES.

SELECTED DEMOGRAPHIC DATA FOR SOUTH CAROLINA  
1990 FROM CE TAPE STF3A  
BY COUNTY

SC FOR: ORANGEBURG

POVERTY STATUS IN 1989 BY RACE/AGE & BY FAMILIES WITH OR WITHOUT RELATED CHILDREN:

	TOTAL			WHITE			BLACK			OTHER		
	ABOVE POVERTY	BELOW POVERTY	PCT. BELOW	ABOVE POVERTY	BELOW POVERTY	PCT. BELOW	ABOVE POVERTY	BELOW POVERTY	PCT. BELOW	ABOVE POVERTY	BELOW POVERTY	PCT. BELOW
TOTAL PERSONS	60,730	20,171	24.9	30,717	3,404	10.0	29,505	16,652	36.1	508	115	18.5
UNDER 5	4,065	1,955	32.5	1,846	197	9.6	2,196	1,753	44.4	23	5	17.9
5 - 17	11,842	5,698	32.5	5,118	677	11.7	6,636	5,000	43.0	88	21	19.3
18 - 64	38,130	9,304	19.6	19,308	1,618	7.7	18,437	7,600	29.2	385	86	18.3
65 AND OVER	6,693	3,214	32.4	4,445	912	17.0	2,236	2,299	50.7	12	3	20.0
MARRIED COUPLE:	13,452	1,675	11.1	8,263	444	5.1	5,041	1,206	19.3	148	25	14.5
W/CHILDREN 0-17	6,838	954	12.2	3,488	218	5.9	3,275	721	18.0	75	15	16.7
W/O CHILDREN	6,614	721	9.8	4,775	226	4.5	1,766	485	21.5	73	10	12.0
SINGLE HEADED:	3,705	2,804	43.1	1,151	262	18.5	2,545	2,534	49.8	9	8	47.1
W/CHILDREN 0-17	1,969	2,320	54.1	511	203	28.4	1,450	2,110	59.3	8	7	46.7
W/O CHILDREN	1,736	484	21.8	640	59	8.4	1,095	424	27.9	1	1	50.0
FEMALE HHOLDER, NO HUSB. PRESENT:	2,853	2,603	47.7	815	245	23.1	2,029	2,350	53.7	9	8	47.1
W/CHILDREN	1,588	2,200	58.1	356	199	35.9	1,224	1,994	62.0	8	7	46.7
W/O CHILDREN	1,265	403	24.2	459	46	9.1	805	356	30.7	1	1	50.0

RACE OF HOUSEHOLDER BY PLUMBING FACILITIES & VEHICLES AVAILABLE FOR OCCUPIED HOUSING UNITS:

	TOTAL		WHITE		BLACK		OTHER		* OCCUPIED CONDOMINIUM HU	* OWNER-OCCUPIED	25
	NO.	PCT.	NO.	PCT.	NO.	PCT.	NO.	PCT.			
W/INCOMPLETE PLUMBING	848	2.9	109	0.8	739	5.0	0	0.0	* MOBILE HOMES		
W/O VEHICLE AVAILABLE	4,381	15.2	824	6.0	3,548	23.8	9	4.1	* VACANT		1,134
									* OCCUPIED		6,669

HOUSE HEATING FUEL (OCCUPIED HOUSING UNITS):

	NO.	PCT.		NO.	PCT.			
TOTAL	28,909	100.0						
UTILITY GAS	7,587	26.2						
BOTTLED TANK OR LP GAS	8,381	29.0						
ELECTRICITY	9,245	32.0						
FUEL OIL, KEROSENE, ETC.	1,381	4.8						
COAL OR COKE	0	0.0						
WOOD	2,232	7.7						
SOLAR ENERGY	0	0.0						
OTHER FUEL	20	0.1						
NO FUEL USED	63	0.2						

OCCUPANCY STATUS & TENURE BY RACE OF HOUSEHOLDER:

	NO.	PCT.		NO.	PCT.			
TOTAL HOUSING UNITS	32,340	100.0						
VACANT	3,431	10.6						
OCCUPIED	28,909	89.4						
OWNER								
WHITE	11,274	34.9						
BLACK	9,740	30.1						
OTHER	151	0.5					\$269	\$50,400
RENTER								
WHITE	2,512	7.8						
BLACK	5,163	16.0						
OTHER	69	0.2						

TENURE BY TELEPHONE IN HOUSING UNITS:

	NO.	PCT.
TOTAL OCCUPIED HOUSING UNITS	28,909	100.0
OWNER OCCUPIED:		
WITH PHONE	19,271	66.7
NO PHONE	1,894	6.6
RENTER OCCUPIED		
WITH PHONE	5,324	18.4
NO PHONE	2,420	8.4

\*OTHER IS A TOTAL OF AMERICAN INDIANS, ESKIMO & ALEUT, ASIAN & PACIFIC ISLANDERS, AND ALL OTHER RACES.  
SOURCE: DIVISION OF RESEARCH & STATISTICAL SERVICES.



FOR: ORANGEBURG

TOTAL PERSONS 1980			1990			PCT. CHANGE			* SELECTED POPULATION CHARACTERISTICS:			
BY AREA:	NO.	PCT.	NO.	PCT.	PCT. CHANGE	1980	HISPANICS	PERSONS IN HOUSEHOLDS	PERSONS IN GQ	PERSONS PER HOUSEHOLD	PERSONS PER FAMILY	
TOTAL	82,276	100.0	84,803	100.0	3.1	1980	1,120	79,064	3,212	3.1	3.6	
URBAN	27,823	33.8	25,287	29.8	-9.1	1990	227	81,175	3,628	2.8	3.4	
RURAL	54,453	66.2	59,516	70.2	9.3	PCT CHANGE	-79.7	2.7	13.0	-9.7	-5.6	

RACE BY AGE AND SEX:		1 9 8 0				1 9 9 0				%CHANGE 1980-1990					
ALL PERSONS		M A L E S		F E M A L E S		ALL PERSONS		M A L E S		F E M A L E S		ALL	FE-		
	NO.	PCT.	NO.	PCT.	NO.	PCT.	NO.	PCT.	NO.	PCT.	NO.	PCT.	PEOPLE	MALES	MALES
TOTAL	82,276	100.0	38,583	100.0	43,693	100.0	84,803	100.0	39,577	100.0	45,221	100.0	3.1	2.6	3.5
< 5	6,364	7.7	3,349	8.7	3,015	6.9	6,156	7.3	2,928	7.4	3,228	7.1	-3.3	-12.6	7.1
5-14	14,273	17.3	7,187	18.6	7,086	16.2	13,636	16.1	7,055	17.8	6,581	14.6	-4.5	-1.8	-7.1
15-59	49,889	60.6	23,174	60.1	26,715	61.1	50,937	60.1	22,727	57.4	28,210	62.4	2.1	-1.9	5.6
60-64	3,411	4.1	1,665	4.3	1,746	4.0	3,533	4.2	1,509	3.8	2,024	4.5	3.6	-9.4	15.9
65+	8,339	10.1	3,208	8.3	5,131	11.7	10,541	12.4	3,983	10.1	6,558	14.5	26.4	24.2	27.8
WHITE	35,733	100.0	17,226	100.0	18,507	100.0	34,878	100.0	16,711	100.0	18,167	100.0	-2.4	-3.0	-1.8
< 5	2,320	6.5	1,217	7.1	1,103	6.0	2,087	6.0	933	5.6	1,154	6.4	-10.0	-23.3	4.6
5-14	5,388	15.1	2,789	16.2	2,599	14.0	4,414	12.7	2,366	14.2	2,048	11.3	-18.1	-15.2	-21.2
15-59	21,600	60.4	10,610	61.6	10,990	59.4	20,378	58.4	10,172	60.9	10,206	56.2	-5.7	-4.1	-7.1
60-64	1,828	5.1	880	5.1	948	5.1	2,074	5.9	924	5.5	1,150	6.3	13.5	5.0	21.3
65+	4,597	12.9	1,730	10.0	2,867	15.5	5,925	17.0	2,316	13.9	3,609	19.9	28.9	33.9	25.9
BLACK	46,060	100.0	21,116	100.0	24,944	100.0	49,300	100.0	22,559	100.0	26,741	100.0	7.0	6.8	7.2
< 5	3,987	8.7	2,095	9.9	1,892	7.6	4,039	8.2	1,980	8.8	2,059	7.7	1.3	-5.5	8.8
5-14	8,788	19.1	4,363	20.7	4,425	17.7	9,157	18.6	4,660	20.7	4,497	16.8	4.2	6.8	1.6
15-59	27,992	60.8	12,419	58.8	15,573	62.4	30,051	61.0	13,680	60.6	16,371	61.2	7.4	10.2	5.1
60-64	1,583	3.4	785	3.7	798	3.2	1,452	2.9	582	2.6	870	3.3	-8.3	-25.9	9.0
65+	3,710	8.1	1,454	6.9	2,256	9.0	4,601	9.3	1,657	7.3	2,944	11.0	24.0	14.0	30.5
OTHER*	483	100.0	241	100.0	242	100.0	625	100.0	307	100.0	313	100.0	29.4	27.4	29.3
< 5	57	11.8	37	15.4	20	8.3	30	4.8	15	4.9	15	4.8	-47.4	-59.5	-25.0
5-14	97	20.1	35	14.5	62	25.6	65	10.4	29	9.4	36	11.5	-33.0	-17.1	-41.9
15-59	297	61.5	145	60.2	152	62.8	508	81.3	-1,125	-366	1,633	521.7	71.0	-876	974.3
60-64	0	0.0	0	0.0	0	0.0	7	1.1	3	1.0	4	1.3	.	.	.
65+	32	6.6	24	10.0	8	3.3	15	2.4	10	3.3	5	1.6	-53.1	-58.3	-37.5

RACE OF HOUSEHOLDER BY HOUSEHOLD TYPE & PRESENCE OF OWN CHILDREN:

	T O T A L			W H I T E			B L A C K			O T H E R		
	1980	1990	%CHANGE	1980	1990	%CHANGE	1980	1990	%CHANGE	1980	1990	%CHANGE
TOTAL	25,781	28,852	11.9	13,142	13,545	3.1	12,484	15,098	20.9	155	209	34.8
FAMILY	20,400	21,636	6.1	10,230	10,120	-1.1	10,043	11,326	12.8	127	190	49.6
MARRIED COUPLE	15,415	15,127	-1.9	9,064	8,707	-3.9	6,238	6,247	0.1	113	173	53.1
W/CHILDREN	8,422	7,230	-14.2	4,491	3,622	-19.3	3,850	3,518	-8.6	81	90	11.1
W/O CHILDREN	6,993	7,897	12.9	4,573	5,085	11.2	2,388	2,729	14.3	32	83	159.4
SINGLE HEADED	4,985	6,509	30.6	1,166	1,413	21.2	3,805	5,079	33.5	14	17	21.4
W/CHILDREN	2,614	3,264	24.9	576	585	1.6	2,031	2,671	31.5	7	8	14.3
W/O CHILDREN	2,371	3,245	36.9	590	828	40.3	1,774	2,408	35.7	7	9	28.6
MALES, NO WIFE	794	1,053	32.6	266	353	32.7	528	700	32.6	0	0	.
W/ CHILDREN	260	425	63.5	88	151	71.6	172	274	59.3	0	0	.
W/O CHILDREN	534	628	17.6	178	202	13.5	356	426	19.7	0	0	.
FEMALE, NO HUSB.	4,191	5,456	30.2	900	1,060	17.8	3,277	4,379	33.6	14	17	21.4
W/ CHILDREN	2,354	2,839	20.6	488	434	-11.1	1,859	2,397	28.9	7	8	14.3
W/O CHILDREN	1,837	2,617	42.5	412	626	51.9	1,418	1,982	39.8	7	9	28.6
NON-FAMILY	5,381	7,216	34.1	2,912	3,425	17.6	2,441	3,772	54.5	28	19	-32.1

\*OTHER IS A TOTAL OF AMERICAN INDIANS, ESKIMO & ALEUT, ASIAN & PACIFIC ISLANDERS, AND ALL OTHER RACES.

SOURCE: STATE DATA CENTER, DIVISION OF RESEARCH & STATISTICAL SERVICES.

FOR: ORANGEBURG

RESIDENCE FOR PERSONS 5 YRS & OVER:				* PLACE OF WORK BY RESIDENCE			
	IN	IN	PCT.	* FOR WORKERS 16 YRS & OVER:			
	1975	1985	CHANGE		1980	1990	PCT.
SAME HOUSE	49,617	49,454	-0.3	* WORKED:	27,075	34,473	27.3
DIFFERENT HOUSE IN US:				* INSIDE STATE	26,865	34,200	27.3
SAME COUNTY	15,832	18,540	17.1	* IN COUNTY	22,703	27,628	21.7
DIFFERENT COUNTY:				* OUTSIDE COUNTY	4,162	6,572	57.9
SAME STATE	6,009	5,576	-7.2	* OUTSIDE STATE	210	273	30.0
DIFFERENT STATE	4,131	4,893	18.4				
NORTHEAST	1,424	1,836	28.9				
NORTH CENTRAL	560	534	-4.6	* NATIVITY & PLACE OF BIRTH	1980	1990	PCT.
SOUTH	2,090	2,263	8.3	* BORN IN STATE OF RESIDENCE	68,698	70,301	2.3
WEST	57	260	356.1	* BORN IN DIFFERENT STATE/AT SEA	12,425	13,859	11.5
ABROAD	322	184	-42.9	* FOREIGN BORN	1,153	643	-44.2

RACE BY YEARS OF SCHOOL COMPLETED FOR PERSONS 25 YRS & OVER:

	TOTAL, ALL RACE/SEX			W H I T E			B L A C K			O T H E R		
	1980	1990	PCT. CHANGE	1980	1990	PCT. CHANGE	1980	1990	PCT. CHANGE	1980	1990	PCT. CHANGE
<9TH GRADE	12,909	8,608	-33.3	4,051	2,515	-37.9	8,791	6,049	-31.2	67	44	-34.3
HIGH SCHOOL:	20,131	25,165	25.0	11,709	12,169	3.9	8,315	12,835	54.4	107	161	50.5
NO DIPLOMA	9,351	10,289	10.0	5,514	4,584	-16.9	3,806	5,656	48.6	31	49	58.1
GRADUATE	10,780	14,876	38.0	6,195	7,585	22.4	4,509	7,179	59.2	76	112	47.4
COLLEGE:	10,863	16,439	51.3	6,686	9,583	43.3	4,079	6,698	64.2	98	158	61.2
1-3 YRS	5,290	9,578	81.1	3,475	5,662	62.9	1,775	3,868	117.9	40	48	20.0
4+	5,573	6,861	23.1	3,211	3,921	22.1	2,304	2,830	22.8	58	110	89.7

RACE BY LABOR FORCE STATUS AND UNEMPLOYMENT RATE BY RACE & SEX FOR PERSONS 16 YRS & OVER:

	TOTAL, ALL RACE/SEX			W H I T E			B L A C K			O T H E R		
	1980	1990	PCT.	1980	1990	PCT.	1980	1990	PCT.	1980	1990	PCT.
IN LABOR FORCE	34,457	38,539	11.8	9,725	9,159	-5.8	17,045	21,019	23.3	7,687	8,361	8.8
ARMED FORCES	108	133	23.1	21	.	.	87	70	-19.5	0	63	.
CIVILIAN:	34,349	38,406	11.8	17,175	17,112	-0.4	16,958	20,949	23.5	216	345	59.7
EMPLOYED	31,932	35,112	10.0	16,533	16,384	-0.9	15,205	18,408	21.1	194	320	64.9
UNEMPLOYED	2,417	3,294	36.3	642	728	13.4	1,753	2,541	45.0	22	25	13.6
NOT IN LABOR FORCE	25,360	25,166	-0.8	10,211	10,782	5.6	15,036	14,217	-5.4	113	167	47.8
UNEMPLOYMENT RATE:	7.0	8.6		3.7	4.3		10.3	12.1		10.2	7.2	
MALE	2.8	3.6		2.0	2.1		3.7	4.9		0.0	4.3	
FEMALE	4.2	5.0		1.8	2.2		6.7	7.3		10.2	2.9	

INDUSTRY OF EMPLOYED PERSONS 16 YRS & OVER:

	PCT.			PCT.			
	1980	1990	CHANGE	1980	1990	CHANGE	
AGRIC/FORESTRY/FISH./MINING	1,787	1,382	-22.7	FINANCE/INSURANCE/REAL ESTATE	945	1,201	27.1
CONSTRUCTION	2,369	2,786	17.6	BUSINESS & REPAIR SERVICES	660	921	39.5
MANUFACTURING, NONDURABLE	4,528	3,523	-22.2	PERSONAL/ENTRTNMNT/REC. SERVICES	1,487	1,658	11.5
MANUFACTURING, DURABLE	5,033	5,793	15.1	PROFESSIONAL &	6,487	7,176	10.6
TRANSPORTATION	702	965	37.5	HEALTH SERVICES	1,344	2,204	64.0
COMM. & OTHER PUBLIC UTILITIES	882	877	-0.6	EDUCATIONAL SERVICES	4,048	3,853	-4.8
WHOLESALE TRADE	1,295	1,582	22.2	OTHER	1,095	1,119	2.2
RETAIL TRADE	4,635	6,040	30.3	PUBLIC ADMINISTRATION	1,122	1,208	7.7

\*OTHER IS A TOTAL OF AMERICAN INDIANS, ESKIMO & ALEUT, ASIAN & PACIFIC ISLANDERS, AND ALL OTHER RACES.  
SOURCE: STATE DATA CENTER, DIVISION OF RESEARCH & STATISTICAL SERVICES.

FOR: ORANGEBURG

OCCUPATION OF EMPLOYED WORKERS 16 YRS & OVER:

	1980	1990	PCT. CHANGE	*	PER CAPITA INCOME	INCOME IN 1979	INCOME IN 1989	PCT. CHANGE
MANAGERIAL/PROFESSIONAL SPECIALTY	6,005	6,383	6.3	*		\$4,713	\$9,004	91.0
TECHNICAL/SALES/ADMIN. SUPPORT SERVICE	7,176	8,781	22.4	*				
FARMING/FORESTRY/FISHING	4,089	4,796	17.3	*	FEMALES, 16 YEARS+	1980	1990	PCT. CHANGE
PRECISION PRODUCTION/CRAFT/REPAIR OPERATORS/FABRICATORS/LABORERS	1,626	1,366	-16.0	*	WITH CHILDREN(0-5):			
	4,348	4,811	10.6	*	IN LABOR FORCE	3,063	1,747	-43.0
	8,688	8,975	3.3	*	NOT IN LABOR FORCE	1,999	793	-60.3

POVERTY STATUS & PERCENT BELOW POVERTY FOR PERSONS FOR WHOM POVERTY STATUS IS DETERMINED:

	INCOME 1979			INCOME 1989			1979-1989 PERCENT CHANGE		* RELATED CHILDREN (0-17 YRS) LIVING BELOW POVERTY:	PCT. CHANGE		
	ABOVE POVERTY	BELOW POVERTY	PCT. BELOW	ABOVE POVERTY	BELOW POVERTY	PCT. BELOW	ABOVE POVERTY	BELOW POVERTY				
BY RACE:									* NUMBER	1980	1990	
TOTAL	57,929	21,110	26.7	60,730	20,171	24.9	4.8	-4.4	* PERCENT	8,908	7,608	-14.6
WHITE	31,256	3,905	11.1	30,717	3,404	10.0	-1.7	-12.8		34.3	32.4	
BLACK	26,278	17,117	39.4	29,505	16,652	36.1	12.3	-2.7				
OTHER	395	88	18.2	508	115	18.5	28.6	30.7	* RATIO OF INCOME TO POVERTY LEVEL:			
BY AGE:										1980	1990	PCT. CHANGE
UNDER 55	46,774	16,823	26.5	48,489	15,577	24.3	3.7	-7.4	* LT 75%			
55-59	3,149	965	23.5	2,718	684	20.1	-13.7	-29.1	* BETWEEN	14,962	14,635	-2.2
60-64	2,547	844	24.9	2,830	696	19.7	11.1	-17.5	* 75-124%	12,290	11,679	-5.0
65+	5,459	2,478	31.2	6,693	3,214	32.4	22.6	29.7	* BETWEEN			
FOR FAMILIES:									* 125-149%	5,771	5,132	-11.1
TOTAL	15,770	4,630	22.7	17,157	4,479	20.7	8.8	-3.3	* BETWEEN			
W/CHILDREN	8,947	3,557	28.4	8,807	3,274	27.1	-1.6	-8.0	* 150-199%	9,532	10,382	8.9
NO CHILDREN	6,823	1,073	13.6	8,350	12	12.6	22.4	12.3	* 200%+	36,484	39,073	7.1

RACE OF HOUSEHOLDER BY AVAILABILITY OF PLUMBING FACILITIES AND VEHICLES AVAILABLE FOR OCCUPIED HOUSING UNITS:

	1 9 8 0				1 9 9 0				PERCENT CHANGE 1980-1990	
	WITH INCOMPLETE PLUMBING		WITH NO VEHICLE AVAILABLE		WITH INCOMPLETE PLUMBING		WITH NO VEHICLE AVAILABLE		INCOMPLETE PLUMBING	NO VEHICLE
	NO.	PCT.	NO.	PCT.	NO.	PCT.	NO.	PCT.		
TOTAL	2,279	8.9	4,092	16.0	981	3.4	4,381	15.2	-57.0	7.1
WHITE	186	0.7	731	2.9	109	0.4	824	2.9	-41.4	12.7
BLACK	2,077	8.1	3,354	13.1	739	2.6	3,548	12.3	-64.4	5.8
OTHER	16	0.1	7	0.0	0	0.0	9	0.0	-100	28.6

OCCUPIED HOUSING UNITS BY RACE:

	PCT. CHANGE			SELECTED HOUSING CHARACTERISTICS:			
	1986	1990		VACANT HOUSING UNITS	OCCUPIED MOBILE HOMES	OWNER-OCCUPIED HOUSING UNITS	RENTER-OCCUPIED HOUSING UNITS
TOTAL	25,643	28,909	12.7	1980 3,035	2,960	18,224	7,419
WHITE	12,980	13,786	6.2	1990 3,431	6,669	21,165	7,744
BLACK	12,508	14,903	19.1	PERCENT CHANGE	13.0	125.3	16.1
OTHER	155	220	41.9				4.4

\*OTHER IS A TOTAL OF AMERICAN INDIANS, ESKIMO & ALEUT, ASIAN & PACIFIC ISLANDERS, AND ALL OTHER RACES.  
SOURCE: STATE DATA CENTER, DIVISION OF RESEARCH & STATISTICAL SERVICES.

## **SAMPLE COMPREHENSIVE PLANNING POLICY FOR PROMOTING FOREST STEWARDSHIP**

Forest stewardship is the active management of forests and related resources to keep land in a healthy condition for present and future generations and increase the economic and environmental benefits of those lands.

Responsible forest management offers economic, environmental, and visual benefits to the landowner and all citizens of the County. Recognizing that forest land is a desired land use which enhances water quality and scenic beauty, the County is committed to promoting forest stewardship and preventing the abuse of forest land.

Forest land provides many benefits like clean air and water, scenic beauty, wildlife habitat, recreational opportunities, and rural character that all add immensely to our quality of life. The County recognizes that, in addition to providing innumerable environmental and social benefits, timber is the most valued agricultural crop in South Carolina and supports the third largest manufacturing segment in the state. Forest resources are an important component of our state and local economies.

Occasional timber harvest is necessary for many landowners to make forest ownership economically feasible, and to continue providing the benefits of forested land to the County. The County recognizes the rights of private landowners to manage and utilize renewable natural resources, and the responsibilities of all citizens to protect and maintain public resources.

South Carolina Best Management Practices (BMPs) for forestry provide a highly effective non-regulatory approach to protecting water quality. Research has shown properly applied Best Management Practices successfully control sedimentation during forest operations. Statewide compliance with BMPs is 92%. South Carolina's BMP program combines inspection of logging sites, monitoring, and research with intensive education and promotion.

Scenic beauty and rural character are important contributions of forest land. Considering that timber harvesting occurs once every 20 to 60 years on a given site, that soil disturbance and environmental impact are among the least of any land use, and that harvesting can be applied to improve forest health, diversity, and quality; the County recognizes that actions restricting timber harvesting will discourage forest stewardship and result in declining forest quality. Therefore, the County will enact policies which are conducive to the practice of forestry while restricting abuse of forest land.

As a strategy to enhance water quality and scenic beauty, and promote the stewardship of forest resources, the following actions are recommended:

**1. Provide incentives to maintain land in forest use.**

Promote the Agricultural Use Value Assessment for forestry as a tax incentive to maintain

land in forest use. Forest land requires minimal government services, and even with Agricultural Use assessment provides a net gain in tax revenue. Development permits, with erosion and sediment control plans, should be required for all land clearing done for the purpose of converting forested land to non-agricultural uses. Conversion to non-agricultural uses may not take place within a certain time after timber harvesting unless proper notification is made.

**2. Offer forestry, water quality, and aesthetic conservation easements.**

Conservation easements are an excellent tool for reducing the direct costs of owning land that provides notable public benefits. Forestry easements should require a forest management plan and allow all normal silvicultural activities while prohibiting more intensive land use. Forestry easements are especially useful in areas where family farms and forest lands are under increasing pressure to be developed. Water quality and aesthetic easements can help landowners maintain stream, wetland, and roadside buffers in sensitive areas. Taxes should be significantly reduced for property under easement.

**3. Target unique sites and sensitive areas for acquisition.**

Identify and acquire privately owned lands that contain unique ecological, geological, or historic resources that deserve public protection. Sites that provide critical public resources, scenic beauty, and recreational opportunities should also be considered.

**4. Encourage voluntary compliance with S.C. Best Management Practices for forestry.**

Research has shown that properly applied S.C. forestry BMPs are an effective means to protect water quality. Endorse and support state and federal agencies in education, promotion, monitoring and evaluation of BMPs.

**5. Use publicly available expert assistance to resolve forestry issues.**

The County will rely on technical experts to provide scientifically based guidance to resolve politically and emotionally sensitive natural resource issues. Technical expertise on forestry issues is available through Clemson University School of Forest Resources and Cooperative Extension Service, S.C. Forestry Commission, S.C. Forestry Association, Natural Resources Conservation Service, Farm Service Agency, Department of Natural Resources, and the Department of Health and Environmental Control, among others.

**6. Encourage prompt reforestation.**

The visual impact of timber harvesting can best be limited by prompt establishment of a new forest stand. Harvested areas can be healthy young forests of 8-10' tall trees in just a few years. Prompt reforestation also contributes to long-term forest productivity and conservation of forest resources.

## WHY WOOD?

More than 5,000 wood and paper products make our lives better each day. Chances are you ate some wood today, wore it, and brushed your teeth with it. We believe wood is the best resource available, and here are some reasons why:

### Renewable

Unlike aluminum, steel, concrete, or plastic, wood is a renewable natural resource. As long as we take care of our forest land, we will never run out of wood.

### Recyclable

Wood can be re-used, recovered, and recycled. There are limits to the number of times a product can be recycled, but we are learning more all the time about how to extend the life of wood fiber.

### Biodegradable

Wood is an "all natural" product that can be safely disposed of once it has outlived its usefulness. Wood can be readily returned to the natural cycle of decay and decomposition.

### Energy Efficient

It takes less energy to manufacture, and less energy to use wood than products made from steel, aluminum, concrete, or plastic.

### Environmentally Friendly

Manufacturing processes for wood products release fewer toxins into the air, water, and soil than manufacturing processes for any alternative resources we have available.

### Versatile

Here are some of the many items we use that contain forest products:

Coffee filters	Cologne	Rayon clothing
Tissues	Solvents	Adhesives
Disposable diapers	Baby food	Floor tiles
Building insulation	Imitation bacon	Toothpaste
Furniture	Cereals	Helmets and hardhats
Charcoal	Vegetarian foods	Plastic twines
Cork	Baked goods	Sandwich bags
Shoe polish	Beverages	Cleaning compounds
Cosmetics	Sanding sealers	Ceramics
Luggage	Food additives	Hair spray
Garden mulch	Food thickeners	Oil-spill control agents
Grouting	Vanilla flavoring	Fungicides and insecticides
Stain remover	Filters	

Continual advances in technology have brought us engineered wood products like oriented strand board and glue-lam lumber, plus medicines for Parkinson's Disease, hypertension, and cancer -- all in addition to the traditional paper, building, and fuel products from wood that people have used for centuries.

# **Forestry in South Carolina**

## ***A RECORD OF SUCCESS***

### **Help for Landowners**

A variety of technical assistance, education, and cost-sharing programs are available for landowners to learn about managing their forest resources and get help implementing responsible forestry practices. The Forest Stewardship Program, Tree Farm Program, forest industry, and a number of state and federal government agencies provide experts in forest and wildlife management, environmental protection, soil science, insects and disease, and many other fields who will visit a landowner's property and make specific recommendations to meet that landowners natural resource objectives. Landowner objectives vary greatly, but might include timber income, wildlife habitat, recreational opportunities, soil conservation, and scenic beauty.

### **Loggers Care**

Log-a-Load for Kids is a national campaign that started right here in South Carolina for loggers to raise money for area Children's Hospitals. Last year, Log-a-Load for Kids raised over 1 million dollars, 100% of which goes to help children.

### **The Sustainable Forestry Initiative**

The American Forest & Paper Association's Sustainable Forestry Initiative is a pledge to manage our forest to meet present needs without compromising future generation's ability to use the forest for essential products while protecting and enhancing other resource values. Over 90% of the industrial forest land in the United States now falls under SFI's strict performance standards that exceed all state and federal laws.

### **Professional Training**

South Carolina was one of the first states in the Southeast to offer training that advances the logging profession to an even higher standard. The Timber Operations Professional (TOP) Program has had over 900 graduates in the past two years, and continues to help loggers improve safety, efficiency, environmental protection, and professionalism. Foresters are required to meet certain educational requirements, pass a comprehensive exam, and maintain their skills through continuing education in order to be Registered Foresters and practice forestry in South Carolina.

### **Best Management Practices**

S.C. Best Management Practices for forestry (BMPs) are scientifically developed practices to minimize the environmental impact of forestry operations. BMPs address streamside management zones, stream crossings, road construction, timber harvesting, site preparation, reforestation, prescribed burning, pesticides, fertilization, minor drainage, endangered species, and wildlife management. South Carolina has a non-regulatory BMP program that includes inspection of logging operations, water quality monitoring, and intensive educational programs and promotion. Overall compliance with BMPs in S.C. is 92%, comparable to compliance rates for more expensive regulatory programs in other states.

### **Resources for the Future**

In spite of extensive economic and population growth, the amount of forestland in South Carolina is actually increasing. South Carolina is the sixth largest tree planting state in the United States. With proper management and care our forests will continue to provide vital resources, environmental quality, and recreation for generations to come.

## **Local Tree Ordinance Recommendations For Rural Areas**

Trees are an essential part of our world. In addition to providing thousands of useful products, trees help improve air and water quality, save energy, reduce noise pollution, improve personal health, increase economic stability, provide wildlife habitat, and add scenic beauty.

Trees are also our most valued agricultural crop and support the third largest manufacturing industry in our State. As a natural resource, wood is renewable, reusable, recyclable, and biodegradable.

Tree ordinances have long been used to protect trees in cities and towns. Now, through Comprehensive Planning, many local governments are considering applying similar ordinances to rural areas. Trees protection in rural areas is very different than in urban settings and a local tree ordinance, if deemed necessary, should reflect that difference. The South Carolina Forestry Association has prepared these recommendations for local governments considering tree protection ordinances in rural areas.

A local tree ordinance can be crafted to:

- Identify and maintain special trees for public appreciation and scenic beauty.
- Provide incentives to keep land in forest use.
- Promote preservation and care of existing trees.
- Encourage planting of additional trees during land development.

### **General Considerations**

- Infrastructure planning has a greater impact on forestlands than tree ordinances.
- The best way to promote a healthy, diverse, and productive forest base is to encourage responsible forest management and accessible markets for forest products.
- A local Tree Ordinance should acknowledge the many environmental, economic, and social benefits provided by privately owned forestland.
- Recognize that managed forest lands are one of the most environmentally friendly of land uses and are desired and encouraged.
- Landowners have a vested right to carry out normal silvicultural practices and harvest timber in a responsible manner.
- Forestry Best Management Practices (BMPs) should be encouraged, and all regulations should be consistent with state and federal guidelines.
- If a tree ordinance is desired, it should be one component of a comprehensive plan that includes zoning, land use regulations, development standards, and open space acquisition.
- Focus on voluntary programs, incentives, and education to achieve objectives.
- Tree ordinances should vary restrictions as appropriate for different land use zones.
- The County should seek to protect unique and special sites with outstanding public benefit through voluntary agreements, conservation easements, acquisition, and other means.
- Consult experts for science based information to resolve conflicts about biology, wildlife benefits, suitability of land use, and other issues.



- Provide incentives or services to match demands on property owners, especially regarding aesthetics.
- For an ordinance to be fairly and effectively administered, qualified staff or consultants must be available to review plans and make recommendations on enforcement.
- Consider applying a tree preservation ordinance to a setback or yard area only.
- Consider including tree preservation regulations in existing development standards.
- Tree cover, basal area, and other measures besides tree diameter may form the basis of an effective local tree ordinance.

### Specific Elements

#### State-wide Programs

- Acknowledge the authority of SC Forestry Commission and DHEC over forestry and water quality issues in SC.
- Recognize existing state level programs to protect and promote sustainable management of natural resources.

#### Commercial Timber Operations

- Commercial timber operations should be exempt from any permitting requirements. Commercial timber operations are defined as activities occurring on tracts 5 acres or larger devoted to the production of marketable forest products through generally accepted silvicultural practices including, but not limited to, harvesting, site preparation, and regeneration.
- Commercial timber operations should be distinguished from land clearing for development.
- On tracts where timber harvesting activities have been conducted under the forestry exemption, permits for development should be denied if requested within 3 years of the subject harvesting.

#### Public Safety and Tree Health

- Include exemptions for diseased, damaged, and unsafe trees, and if saving a tree is not practical or feasible.
- Exempt individual trees if certain tree density criteria are met (i.e. allow removal of some trees in a grove or grouping containing many large trees).
- Focus on younger trees and groups of trees, as larger trees are often in declining health.

#### Roads

- It is the responsibility of any commercial user to bear the cost of repairs to county property, e.g. roads and rights-of-way, if such damages exceed that which can be repaired by normal maintenance, e.g. grading dirt roads.
- All commercial operations adjacent to county roads should be conducted to allow safe passage of normal vehicular traffic.
- Heavy equipment (loaders, skidders, etc.) should not be set up along county road rights-of-way without permission of the county.
- It is understood that normal operations may occasionally result in dirt, rock, or other surfacing material being inadvertently deposited on county roads. Anyone conducting activities having this effect should periodically remove subject material from the roadways as need dictates to maintain safe passage for normal traffic.

**CAPITAL PROJECT SALES TAX  
COMMISSION**

**County of Orangeburg**

**Master Project List Report and Recommendations**

## Highways, Roads, Streets, and Bridges

- Construction of downtown improvements (Branchville) - \$300,000
- Street improvements (Cope) - \$4,500
- Sidewalk construction (Cordova) - \$38,840
  - a. across from Edisto Primary School
  - b. on side of Ebenezer Baptist Church adj. To Cordova Road
  - c. from Riley Road to town limit sign
  - d. from Post Office to town limit sign
  - e. Mack Road to town limit sign
- Improvements to existing sidewalks (Cordova) - \$17,774
- Pave First Street to the end of the fire department (Cordova) - \$22,045
- Holman Park Parking Lot Project - 120 spaces (Elloree) - \$420,000
- Pave Epiphany Road - 2/10 mile (Eutawville) - \$80,000
- Improvements to down town (Holly Hill) - \$150,000
- Pave Main Street from Driftwood to Ivy Street (North) - \$65,379
- Pave Edgefield Road from Salley Road to Hwy. 178 (North) - \$32,955
- Pave Airport Runway/Taxiway (City of Orangeburg) - \$1,300,000
- Pave Sheard Drive w/sidewalks from Bonner to US 301 (Santee) - \$400,000
- Construct sidewalks from Bonner Avenue west from Bass Drive (Santee) - \$50,000
- Road Improvements (County Council District 1) - \$2,543,000  
Olin Road (1.0 mile). Fourwind Road (1.2 miles). Moncks Corner Road (1.3 miles),  
Cresthaven Road (.2 mile). Redglobe Court (.1 mile). Gum Street (.2 mile),  
Whitesands Road (1 mile). Chateau Road. Broughton Lane (.8 mile). Thornburg  
Street (.2 mile). Rodeo Lane (.4 mile)
- Road Improvements (County Council District 2) - \$2,251,830  
Indian Town Lane (.7 mile). November Road (.5 mile). Intracostal Lane (1.5 miles).  
Railroad Avenue (.1 mile) . Moore Drive (.2 mile). Linwood Street (.2 mile), Laval  
Road (.2 mile). Veronica Drive (.3 mile). Doberman Lane (.3 mile). Berrywood  
Lane (1.3 miles). Mozel Road (.3 mile). Arant Drive (.2 mile), Project Road (1.0  
mile). Country Road (2.4 miles). Hope Lane (2.8 miles). Jernigan Drive (.5 mile),  
Weeping Willow Lane (1.5 miles). Haynes Street (.5 mile). Chinaberry Street (.1  
mile). Park Street (.7 mile). Oak Street (.2 mile). Canal Street (.2 mile). Rail  
Street (.1 mile). Tupelo Street (.1 mile). Bowman Avenue (.3 mile). Toronto Lane (.2  
mile). Elm Street (.1 mile)
- Road Improvements (County Council District 3) - \$600,000  
Sixty Six Road. Hickory Hill Subdivision (all)
- Road Improvements (County Council District 4) - \$3,728,000  
Willie Road (1.5 miles). Kips Lane (1.35 miles). Gospel Hill (1.0 mile), Peach  
Orchard Drive (1.4 miles). Playboy Club Drive (1.8 miles). Reed Road (.1 mile),  
Eugene Street (1.2 miles). Water Tank Road (3.15 miles), Silversprings  
Road (.75 mile), Winchester Road (.5 mile), Hunter Street (.1 mile). Denmark  
Street (.1 mile), River Rest Road (.4 mile). Waterferry Road (3.9 miles), Kendall

- Road (1.2 miles). Preserver Road (1.2 miles). Baxter Circle (.5 mile). Tyler Road (1.3 miles). Block Road (2.0 miles). Striaht Drive (.2 mile). Coburg Lane (.7 mile). Mays Road (.3 mile). Lower Cherokee Road (.4 mile). Sturkie Street (2.0 miles). Gramercy Lane (1.1 miles). Comos Road (1.9 miles)
- Road Improvements (County Council District 5) - \$100,000  
Shillings Bridge Road area
  - Road Improvements (County Council District 6) - \$2,000,000  
Douglas McArthur Street (.3 mile). Sharperson Street (.1 mile). Joseph Street (.1 mile). Lakeside Estates subdivision (1.95 miles). Frolic Meadow Lane (1.15 miles). Fawn Lane (.15 mile). Palm Harbor (.5 mile). Tall Pine (.2 mile). Dena Lane (.3 mile). Pampus Drive (.2 mile). Joseph Street (.1 mile). Owen Street (.1 mile). Squirrel Road (.3 mile). Spruce Drive (.1 mile). Rume Place Court (.1 mile)
  - Construct sidewalk on Myers Road (Orangeburg) - \$50,000

**TOTAL: \$14,154,323**

**Buildings: Courthouses, Administration Buildings, Fire Stations, Etc.**

- Construction of town hall and land acquisition (Bowman) - \$150,000
- Renovations to town Welcome Center (Branchville) - \$150,000
- Town hall/community buildings improvements (Cope) - \$56,000
- Renovations to town hall (Cordova) - \$5,000
- Construction of town administration building (Eutawville) - \$129,000
- Construction of municipal building (Holly Hill) - \$500,000
- Renovations to town administration building and parking area (Neeses) - \$140,000
- Construction of new fire station (North) - \$200,000
- Addition to town hall and police department 30' x 40' (North) - \$102,000
- Construct town administration building and police station (Norway) - \$90,000
- Construct Dept. of Public Safety Complex (City of Orangeburg) - \$1,300,000
- Construct Fire substation #1 (City of Orangeburg) - \$350,000
- Construct Fire substation #2 (City of Orangeburg) - \$300,000
- Renovations to town hall/handicap accessibility (Springfield) - \$25,000
- Renovations to storage buildings (Springfield) - \$15,000
- Construct town hall building (Vance) - \$110,000
- Renovations/improvements to town building (Woodford) - \$45,489
- Acquire facility for Community Policing substation in Edisto Drive area - \$100,000
- Renovation to Riverside School property for community outreach facility - \$100,000

**TOTAL: \$3,867,489**

### Cultural, Recreational, and Historic Facilities

- ✓ Construction of athletic park (Bowman) - \$52,874
- ✓ Resurface tennis court(s) (Bowman) - \$12,000
- ✓ Downtown beautification project (Bowman) - \$13,000
- Improvements to playground (Cope) - \$17,000
- Lafayette Park Project (Ellore) - \$60,000
- Recreation improvements: Folk Park and Gilmore House & Park (Holly Hill) - \$295,000
- Community Sports Complex (Livingston) - \$104,574
- Improvements/expansion to recreation facilities (Neeses) - \$121,437
- Construct public restrooms at ball field (North) - \$30,665
- Construct Recreational Complex (City of Orangeburg) - \$4,946,000
- Gymnasium Grant Match (City of Orangeburg) - \$250,000
- Golf Cart Storage Building (City of Orangeburg) - \$170,000
- Purchase of railroad property (Springfield) - \$3,000
- Beautification/improvements to railroad property (Springfield) - \$15,000
- Construct recreation/park facility (Vance) - \$20,718
- Improvements to recreation area (Springfield) - \$40,000
- Construct Regional Recreation Center - Hwy. 210 - \$2,000,000
- Improvements to community parks: Holly Hill, Eutawville, & Vance - \$210,000
- Improvements to Gilliard Rural Development Center (Eutawville) - \$75,000
- Construct two community recreation centers (greater Orangeburg area) - \$240,000
- Site preparation for RV Park (Orangeburg) - \$250,000
- Stevenson Auditorium renovations (Orangeburg) - \$200,000
- Construct wading fountain (Orangeburg) - \$118,028
- Construct community recreation center (greater Orangeburg area) - \$160,625

**TOTAL: \$9,404,921**

## Water, Sewer, or Water and Sewer Projects

- ✓ Town water tank improvements (Bowman) - \$150,000
- ✓ Sewer line extension: approx. ¼ mile from Bowman Avenue to Bowman-Branchville Road (Bowman) - \$175,000
- Extend water line approx. 3 miles from Cleveland Street in Ellore to Santee State Park (Ellore) - \$142,874
- Replace 6" water main on Hwy. 178 from town limit to town limit (North) - \$60,000
- Extend 6" gravity sewer line from town limit to Toshiba Court (North) - \$31,875
- Sewer service connections - Williamson subdivision (Norway) - \$37,600
- Sewer service extension - Savannah Hwy. (Norway) - \$38,360
- Water service extension - Bonneville subdivision - 332 west (Norway) - \$43,350
- Water /sewer and fire hydrant installation (Norway) - \$52,000
- Provide sewer service to town (Rowesville) - \$209,149
- Water/sewer extension west on Hwy. 6 approx. 4/10 mile (Santee) - \$250,000
- Refurbish lift station (Santee) - \$70,000
- Improvements/capital equipment for wastewater plant (Santee) - \$70,000
- Replacement of sewer lines (Springfield) - \$248,688
- Fire hydrant project (Springfield) - \$44,375
- Valve Project - Sewage pond (Springfield) - \$21,110
- Infrastructure improvements (Springfield) - \$145,000
- Infrastructure/Economic Development - Interstate Corridors - \$4,000,000
- Water/sewer extension to Bowman Park (Bowman) (District 2) - \$161,170
- Water System Project (Branchville/Rowesville/Cattle Creek community) (District 3) - \$2,700,000
- Water System Project (Cannon Bridge Road area) (District 3) - \$1,128,000
- Sewer Project - Sprinkle Avenue (Orangeburg) (District 3) - \$400,000
- Water Project (Sawyerdale) (District 4) - \$500,000
- Silver Springs Water Project Extension (Calvary community) (District 4) - \$600,000
- Sewer Project - Bonneville Subdivision east (Orangeburg) (District 5) - \$304,817
- Sewer Project - Bonneville Subdivision west (Orangeburg) (District 5) - \$223,688
- Sewer Project - Spring Valley area (Orangeburg) (District 5) - \$109,218
- Sewer Project - Moss Hills/Landing/Turkey Hill area (Orangeburg) (District 5) - \$984,625
- Sewer Project - Country Club area (Orangeburg) (District 5) - \$975,500
- Sewer Project - Dove Point (Orangeburg) (District 5) - \$361,750
- Sewer Project - St. Matthews Road extension to DSS (Orangeburg) (District 5) - \$260,000
- Sewer Project - Palmetto Gardens/Wrenn Village S/D(Orangeburg) (District 5) - \$501,428
- Sewer Project - Hunter Hill area (Orangeburg) (District 5) - \$390,125
- Sewer Project - Rosewood Drive area (Orangeburg) (District 5) - \$129,474

- Sewer Project - Decatur Street/Glen Gloria area (Orangeburg) (District 5) - \$172,375
- Sewer Project - area west of Edisto River (Orangeburg) (District 6) - \$1,126,350
- Water Projects - (greater Orangeburg) (District 6) - \$683,622  
 Cut Off Road (5.625 ft). Zion Church Road (14.875 ft). Lariot Road (4.000 ft).  
 Bamberg Road (8.125 ft). Cherry Hill Road (6.200 ft). Frolic Meadows  
 Lane (6.000 ft). North Trail (3.500 ft). Fawn Lane (1.125 ft). Riley Road  
 (6.000 ft). Mixon Mill Road (2.625 ft). Huson Circle (1.625 ft). Adicks Road  
 (750 ft). Waters Edge (3.750 ft). Rivers Turn Road (2.000 ft). Lake Shore  
 Drive off #4 (1.125 ft). Funston Court (1.000). Valerie Drive (1,000 ft).  
 Bair Road (75 ft). Dinkie Lee Lane (2,300 ft). Mookie Lane (2,300 ft).  
 Saturn Way (2.300 ft)
- Sewer Project - Whitaker Parkway area (Orangeburg) (District 7) - \$2,032,125
- Sewer Project - Brookdale subdivision (Orangeburg) (District 7) - \$465,000
- Sewer Project - Parlerdale subdivision (Orangeburg) (District 7) - \$664,850
- Sewer Project - Woodberry subdivision (Orangeburg) (District 7) - \$441,000
- Sewer Project - Hwy. 33 to Frederick Gardens (Orangeburg) (District 7) - \$31,750
- Sewer Project - Hwy. 33 to Gramling Road (Orangeburg) (District 7) - \$128,900
- Sewer Project - Brentwood area (Orangeburg) (District 7) - \$124,750
- Water Project - Williams subdivision (Orangeburg) (District 7) - \$18,943
- Sewer Project - Eastwood Acres subdivision (District 7) - \$402,875

**TOTAL: \$21,811,716**



<b>TOTAL REVENUE PROJECTED:</b>	<b>\$53,287,457</b>
<b>Less 1% S.C. Dept. of Revenue Admin. Fee:</b>	<b>(583,257)</b>
<b>Less Project Management/Engineering Services:</b>	<b>(968,569)</b>
<b>TOTAL/ALL PROJECTS:</b>	<b>\$51,735,631</b>

# **Appendix I**

# **JAFZA LOGISTICS AND DISTRIBUTION PARK Design Traffic Technical Report**

*Prepared for:*

**South Carolina Department of Transportation**

*Paid for by:*

**Jafza South Carolina, LLC**

*Prepared By:*

**HDR**

**June 25, 2009**

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## EXECUTIVE SUMMARY

Jafza South Carolina, LLC (JSC) proposes to construct a logistics and distribution hub for the Global Logistics Triangle (GLT) near the interchange of I-95 and US 301 in Orangeburg County, South Carolina. The site is located approximately 60 miles northwest of Charleston, South Carolina, strategically located with respect to the Port of Charleston and the Interstate System.

The primary purpose of this report is to generate Design Year 2030 Traffic Volumes for the surrounding roadway network. The land uses, traffic volumes and buildout years provided here will replace the findings of a similar report completed in December 2008 for this project. The updated projections in this report reflect the changes arising out of the current economic climate which results in greatly scaled back development program for year 2030. The daily external volumes generated from the buildout of Phase 3 of the project by the year 2030 as documented in this report is 10,347 while the previously completed report had a significantly higher projection of 53,430 daily external project trips by the year 2030. This reduction in volumes is due to the extension of the complete project buildout date from year 2030 to year 2050 with only Phase 3 of the project expected to be built out by the year 2030.

The traffic volumes in this revised report will support the design of new roadways and improvements to existing roadways where needed to accommodate the anticipated future year 2030 traffic volumes. Roadway improvements planned by South Carolina Department of Transportation (SCDOT) include the extension of US 301 to connect with SC 6 and a new interchange at I-95 and US 301. In addition, this report shows that the project phases 1A, 1B and 1C will be accommodated satisfactorily by the existing roadway network.

For the proposed land uses within the JSC Site, the Institute of Transportation Engineers (ITE) Trip Generation (8th Edition) was used to generate anticipated daily (weekday) and PM peak hour trips. The trip generation rates for the Intermodal Yard Development were based on a study of an existing Intermodal Operations Center west of Orlando International Airport in Taft, Florida.

Given the nature of the JSC site plan and land uses combined with the size and rural location of the development, a significant portion of the trips generated by the Intermodal Yard Development will actually be internal to the site, meaning a vehicle will simply drive from the Intermodal Yard Development to one of the JSC facilities (Warehouse Development) on the site. For this reason the trips generated from the Intermodal Yard Development and the adjacent Warehouse Development were reduced accordingly before applying them to the external roadway network.

In order to more accurately distribute the traffic on the surrounding external roadway network, the trips generated from the site were split between truck and non-truck traffic. The truck and non-truck traffic distributions were combined with the background traffic projections (calculated using trend growth rates developed from historical traffic count data) to calculate the future traffic projections. Truck traffic into and out of the site is oriented toward the Interstate highways with origins and destinations similar to the Port of Charleston. Passenger vehicles are primarily employees and are distributed on the entire network based on existing and planned residential areas. It should be noted that this study has not taken into consideration the possibility of reduction in Design Year volumes due to any future rail developments.

Based on preliminary capacity analysis, the year 2030 roadway network will satisfactorily accommodate the traffic volumes projected for the design year 2030 with the development induced traffic.

## INTRODUCTION

JSC proposes to construct a logistics and distribution park near the interchange of I-95 and US 301 in Orangeburg County, South Carolina. Figure 1 shows the location of the proposed 1,300 acre development. The site is located approximately 60 miles northwest of Charleston, South Carolina and strategically located with respect to the Port of Charleston and the Interstate System.

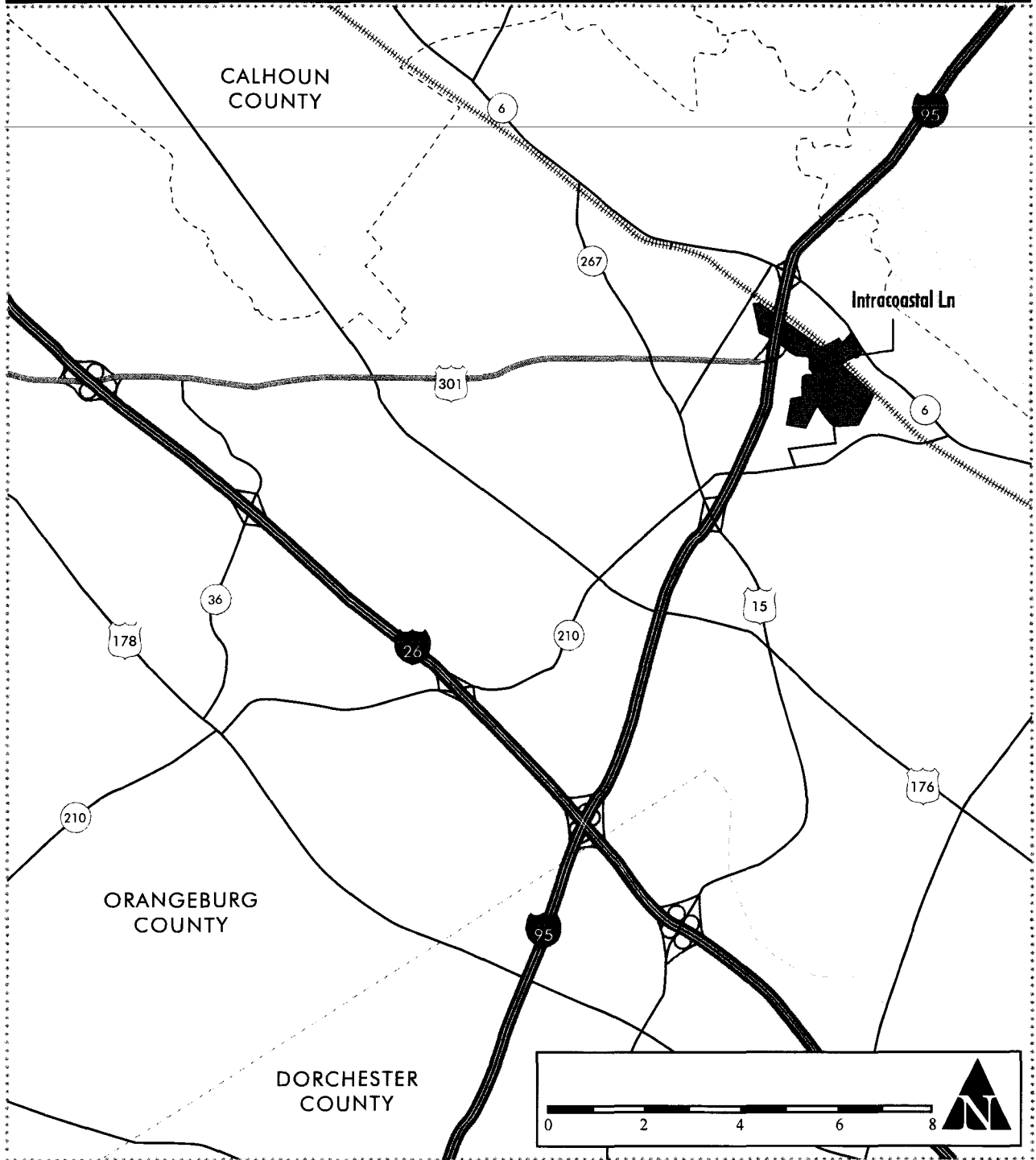
The JSC project site land uses consist of an Intermodal Rail Yard, Warehouse related development and Office/Manufacturing space to facilitate the storage and logistics of the operations. Additionally, Jafza proposes to reserve a portion of the site for future market driven developments. These developments can range from more warehouse related development to commercial development. The analysis in this report is based on the latest site plan proposed by JSC as shown in Figure 2 with development anticipated through year 2030. Table 1 shows the projected land uses included in the traffic projections by phase through the year 2030. Table 1 also shows the land uses that are projected to occur beyond year 2030. The overall site plan is based on market analysis and geographical location of the site.

The analysis in this report provides projections for traffic generated by the site in addition to traffic distribution to the surrounding roadway network and resulting peak hour operations. This data will be used as a planning tool for transportation improvements to the surrounding roadway network.



# Jafza Logistics and Distribution Park

Fig 1- Location Map

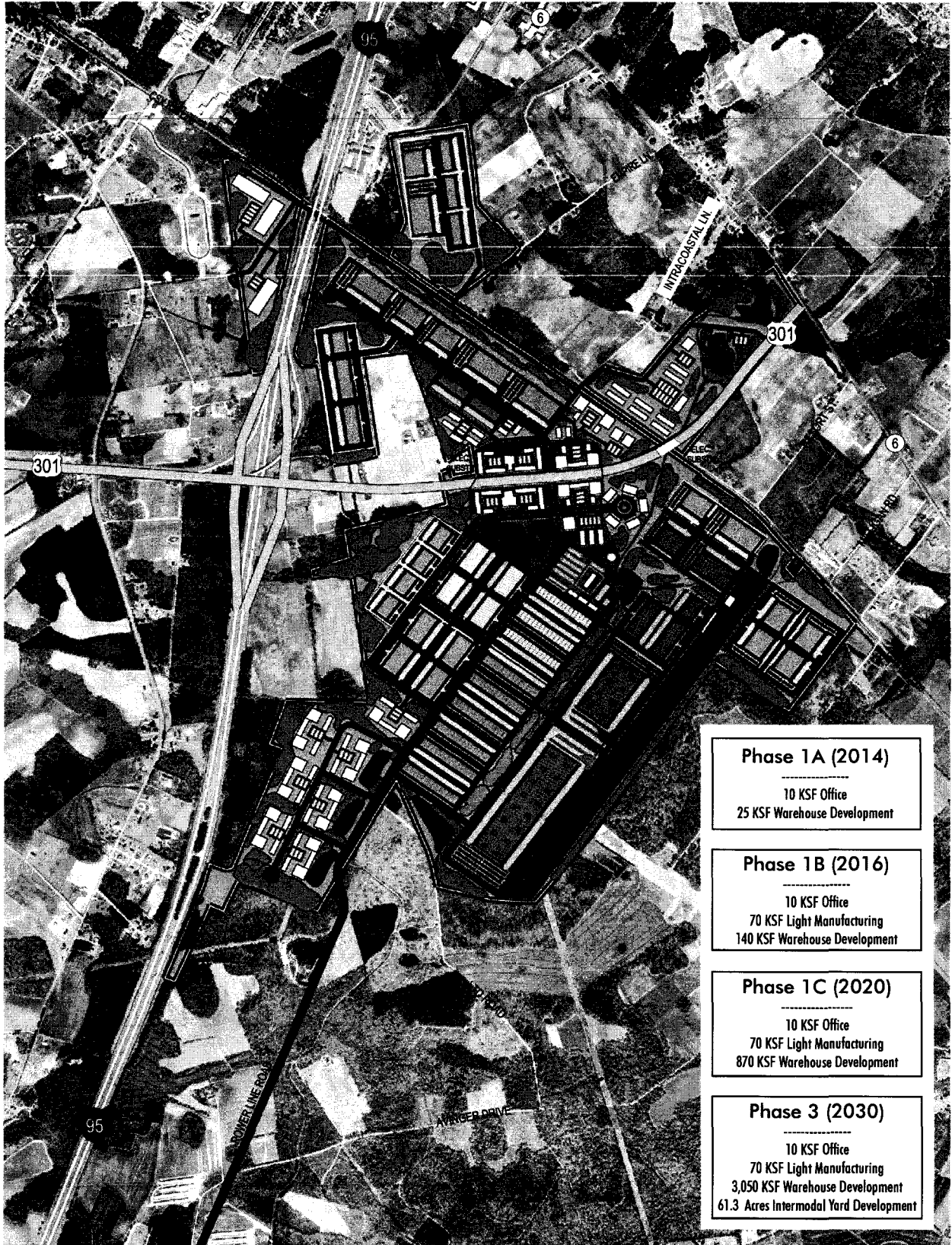


LEGEND:



# Jafza Logistics and Distribution Park

Fig 2 - Site Plan & Cumulative Phasing Program until Year 2030



**Table 1  
Jafza Logistics and Distribution Park - Land Use Program**

<b>Buildout Phase &amp; Year</b>	<b>Land Use Program</b>
<b>Phase 1A (2014)</b>	10 KSF General Office 25 KSF Warehouse
<b>Phase 1B (2016) Cumulative</b>	10 KSF General Office 70 KSF Light Manufacturing 140 KSF Warehouse
<b>Phase 1C (2020) Cumulative</b>	10 KSF General Office 70 KSF Light Manufacturing 870 KSF Warehouse
<b>Phase 3 (2030) Cumulative</b>	10 KSF General Office 70 KSF Light Manufacturing 3,050 KSF Warehouse 61.3 acres Intermodal Rail yard
<b>Phase 5 (2040) Cumulative</b>	10 KSF General Office 70 KSF Light Manufacturing 7,125 KSF Warehouse 61.3 acres Intermodal Rail yard
<b>Market Driven Development only (2040 - 2050)</b>	7,205 KSF Warehouse 500 KSF Office Park 360 Room Hotel 200 KSF Specialty Retail 100 KSF R&D Center

## TRAFFIC GENERATION

This section discusses the calculation of trip generation for the project.

### Trip Generation Methodology

For each proposed land use, the latest Institute of Transportation Engineers (ITE) Trip Generation (8th Edition) was used to generate anticipated daily (weekday) and PM peak hour trips. A trip is considered a vehicle entering or exiting the facility (i.e. a vehicle coming to and from a store is considered two trips). ITE Trip Generation is a collection of traffic studies covering numerous different land uses. For each land use, the vehicle trips were counted and correlated to a number of the facility's characteristics (independent variables) such as number of employees, square footage of the facility, or acreage of the facility's property.

Given the nature of the JSC site plan and land uses combined with the size and rural location of the development, a significant portion of the trips generated by the Intermodal Yard Development will actually be internal to the site, meaning a vehicle will simply drive from the Intermodal Yard Development to one of the JSC facilities (Warehouse Development) on the site. For this reason the trips generated from Intermodal Yard Development and the adjacent Warehouse Development were reduced accordingly before applying them to the surrounding external roadway network.

### Warehouse Development

ITE's Land Use Code 150, Warehouse category most closely resembles this land use. The trip generation estimate used was based on the independent variable of square footage. The total trips for Phase 3 (2030) were reduced to account for internal interaction between this land use and the Intermodal Rail Yard.

### Intermodal Rail Yard

The land area of the Intermodal Rail Yard Land Use is expected to be 61.3 acres and will employ 100 employees according to the preliminary concept plan. Since limited ITE trip generation data is available for intermodal (rail terminal) operations, it is proposed to utilize trip rates from a previously completed HDR study of an existing Intermodal Operations Center west of Orlando International Airport in Taft, Florida. The HDR study was completed utilizing existing automotive receiving and distribution operations in Taft and Tampa along with the Intermodal operation in Taft. For the purpose of this study, the data from only the Intermodal Operations at Taft was used. Based on the traffic counts, gate reports and surveys at the Taft Intermodal site from the HDR study, a daily truck trip rate of 17.75 per acre, a p.m. peak hour truck trip rate of 0.65 per acre, an employee daily trip rate of 3.33 and an employee p.m. peak hour trip rate of 0.83 was used in this study. The HDR trip

generation study at the Taft and Tampa Sites can be provided upon request. The total trips for Phase 3 (2030) were reduced to account for internal interaction between the Intermodal Rail Yard and the onsite Warehouse Development.

**Site Traffic Generation**

Based on the methodology above, the trip generation is shown in Tables 2, 3, 4 and 5 for Phases 1A (2014), 1B (2016), 1C (2020) and 3 (2030), respectively. Documentation from the previous HDR trip generation study of the Orlando-Taft Intermodal Operations Center is provided in Appendix A.

**Truck Traffic Percentage**

In order to more accurately distribute the traffic to the surrounding roadway network, the ADT's generated from the site needed to be split between truck and non-truck traffic. Trip Generation Tables 2, 3, 4 and 5 show the projected percentage of truck and non-truck traffic generated from the site.

**Table 2  
Jafza Site Traffic Generation for Phase 1A (2014)**

Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends				
				Total	In		Out	
					%	Trips	%	Trips
General Office	710	10 KSF	227	90	17%	15	83%	75
Warehouse	150	25 KSF	150	25	25%	6	75%	19
<i>Truck Trips (20%)</i>			30	5	25%	1	75%	4
<i>Non-Truck Trips (80%)</i>			120	20	25%	5	75%	15
<b>Total</b>			<b>377</b>	<b>115</b>	<b>18%</b>	<b>21</b>	<b>82%</b>	<b>94</b>

**Table 3  
Jafza Site Traffic Generation for Cumulative Phase 1B (2016)**

Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends				
				Total	In		Out	
					%	Trips	%	Trips
General Office	710	10 KSF	227	90	17%	15	83%	75
Light Manufacturing	140	70 KSF	251	39	36%	14	64%	25
<i>Truck Trips (20%)</i>			50	8	36%	3	64%	5
<i>Non-Truck Trips (80%)</i>			201	31	36%	11	64%	20
Warehouse	150	140 KSF	658	74	25%	19	75%	55
<i>Truck Trips (20%)</i>			132	15	25%	4	75%	11
<i>Non-Truck Trips (80%)</i>			526	59	25%	15	75%	44
<b>Total</b>			<b>1,136</b>	<b>203</b>	<b>24%</b>	<b>48</b>	<b>76%</b>	<b>155</b>

**Table 4**  
**Jafza Site Traffic Generation for Cumulative Phase 1C (2020)**

Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends				
				Total	In		Out	
					%	Trips	%	Trips
General Office	710	10 KSF	227	90	17%	15	83%	75
Light Manufacturing	140	70 KSF	251	39	36%	14	64%	25
Truck Trips (20%)			50	8	36%	3	64%	5
Non-Truck Trips (80%)			201	31	36%	11	64%	20
Warehouse	150	870 KSF	3,168	238	25%	60	75%	178
Truck Trips (20%)			634	48	25%	12	75%	36
Non-Truck Trips (80%)			2,534	190	25%	48	75%	142
<b>Total</b>			<b>3,646</b>	<b>367</b>	<b>24%</b>	<b>89</b>	<b>76%</b>	<b>278</b>

**Table 5**  
**Jafza Site Traffic Generation for Cumulative Phase 3 (2030)**

Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends				
				Total	In		Out	
					%	Trips	%	Trips
General Office	710	10 KSF	227	90	17%	15	83%	75
Light Manufacturing	140	70 KSF	251	39	36%	14	64%	25
Truck Trips (20%)			50	8	36%	3	64%	5
Non-Truck Trips (80%)			201	31	36%	11	64%	20
Warehouse	150	3,050 KSF	9,318	531	25%	133	75%	398
Truck Trips (20%)			1,864	106	25%	27	75%	80
Non-Truck Trips (80%)			7,454	425	25%	106	75%	318
Intermodal Rail Yard	Study	61.3 Acres	1,421	123	29%	36	71%	87
Truck Trips			1,088	40	57%	28	43%	12
Non-Truck Trips		100 Emp	333	83	10%	8	90%	75
<b>Total</b>								
Truck Trips			3,002	154	38%	58	62%	97
Non-Truck Trips			8,215	629	22%	140	78%	488
<b>Internal Capture</b>								
Truck Trips	see Note (1)		870	32	57%	22	43%	10
Non-Truck Trips			0	0	0%	0	0%	0
<b>Net External Trips</b>								
Truck Trips			2,132	122	30%	36	70%	87
Non-Truck Trips			8,215	629	22%	140	78%	488
<b>Total</b>			<b>10,347</b>	<b>751</b>	<b>23%</b>	<b>176</b>	<b>77%</b>	<b>575</b>

Notes:

(1) 40% of Intermodal Rail Yard truck trips and an equivalent portion of Warehouse Development truck trips were assumed to be internally captured as the origin and destination of these trips will be within the project site.

## **TRAFFIC DISTRIBUTION**

### **Truck Traffic Distribution**

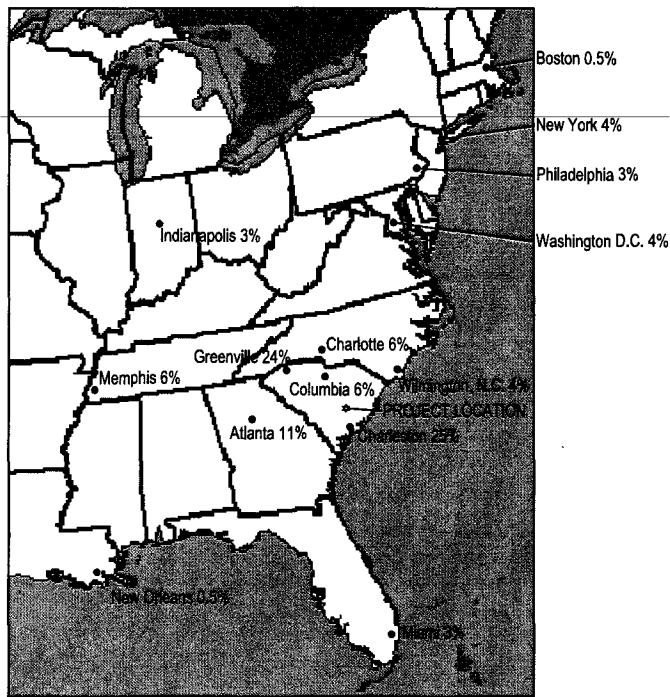
The truck traffic distribution to the surrounding roadway network is determined by the origin/destination of the imports/exports into the site. For this report, the percentages of traffic by city was chosen to model that of the Port of Charleston based on a market study by Transystems, Inc. dated November 2008. Figure 3 represents the percentages of trips to each surrounding regional city by import and export. Based on the percentages in Figure 3, the truck trips were assigned to each roadway on the surrounding roadway network. These distribution percentages can be seen in Figures 4 and 5 for Phases 1A (2014), 1B (2016) and 1C (2020) and in Figures 7 and 8 for Phase 3 (2030).

### **Non-Truck Traffic Distribution**

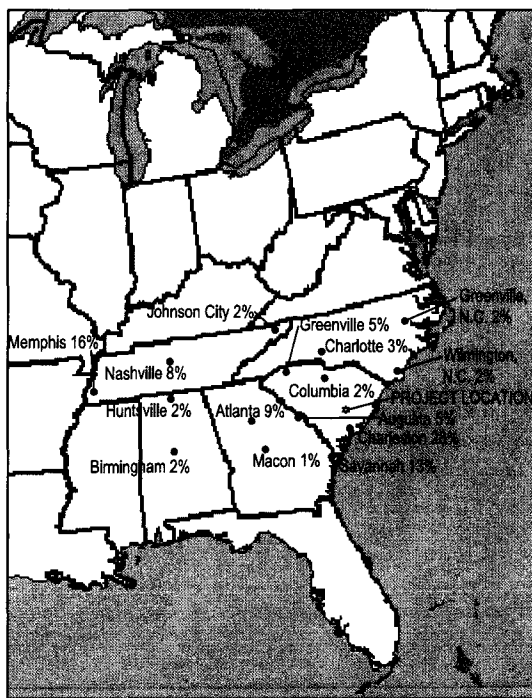
The non-truck traffic is mostly comprised of employee traffic. The distribution of these vehicles was chosen based on proximity of residential communities in the region. The distribution of these trips can be seen in Figure 6 for Phases 1A (2014), 1B (2016) and 1C (2020) and in Figure 9 for Phase 3 (2030).

# Jafza Logistics and Distribution Park

Fig 3 - Destination of Imports & Origin of Exports



DESTINATION OF IMPORTS

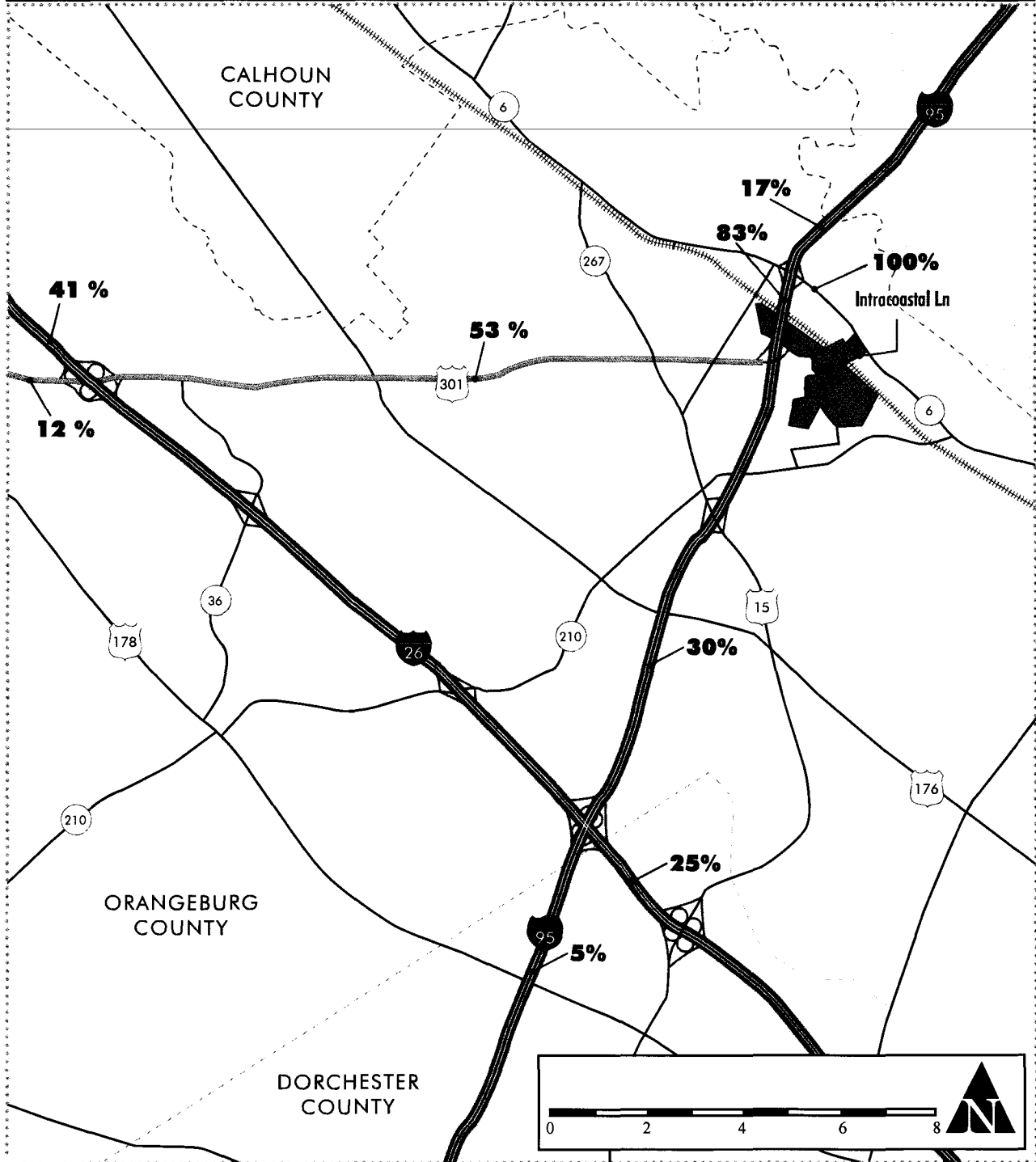


ORIGIN OF EXPORTS



# Jafza Logistics and Distribution Park

Fig 4 - Inbound Truck Distribution - Phases 1A, 1B & 1C



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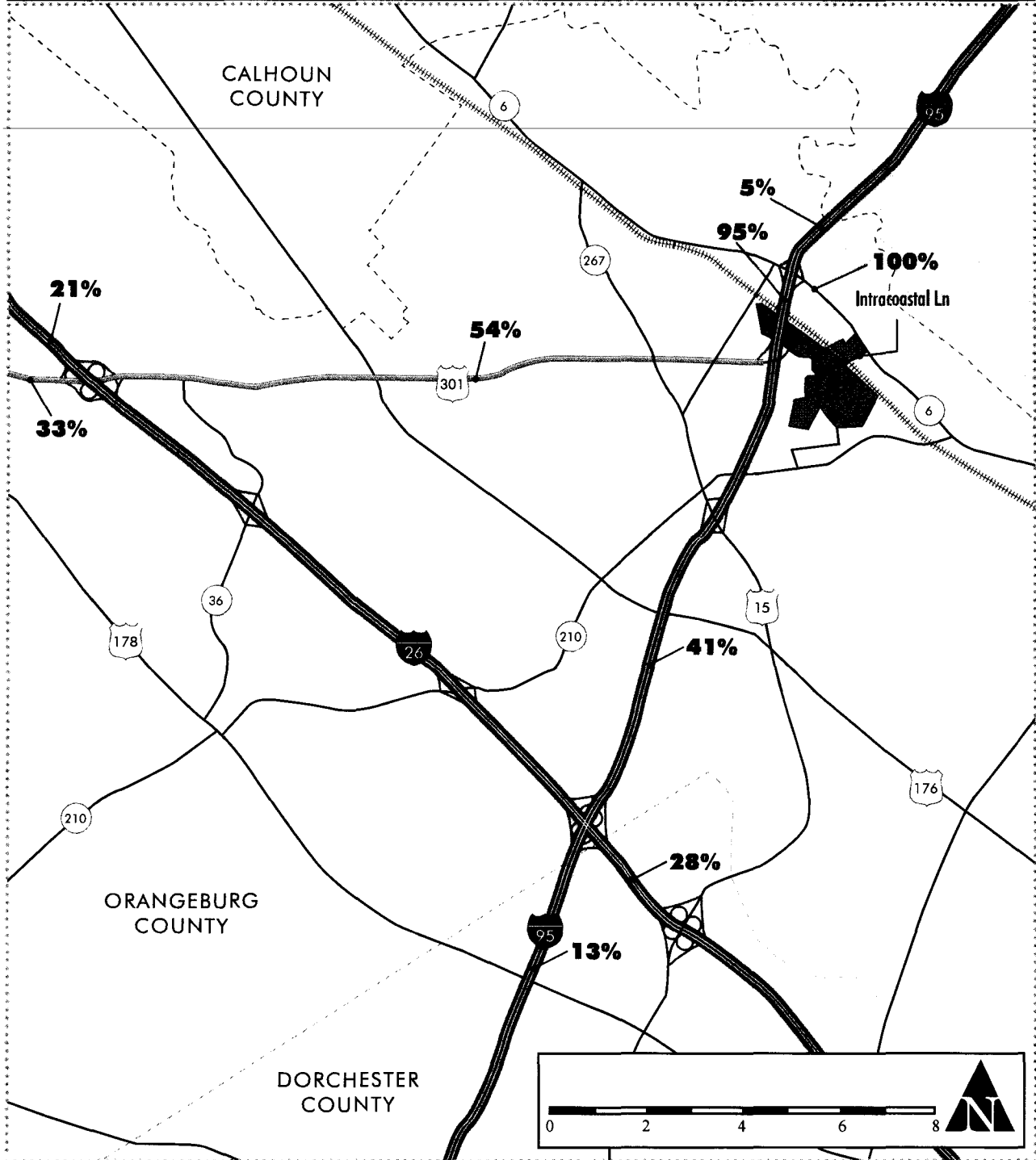
Project Site

XXX% Project Distribution



# Jafza Logistics and Distribution Park

Fig 5 - Outbound Truck Distribution - Phases 1A, 1B & 1C

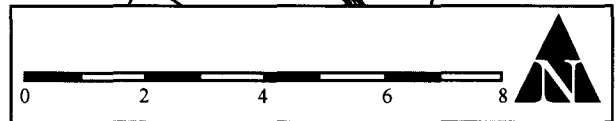


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Project Site

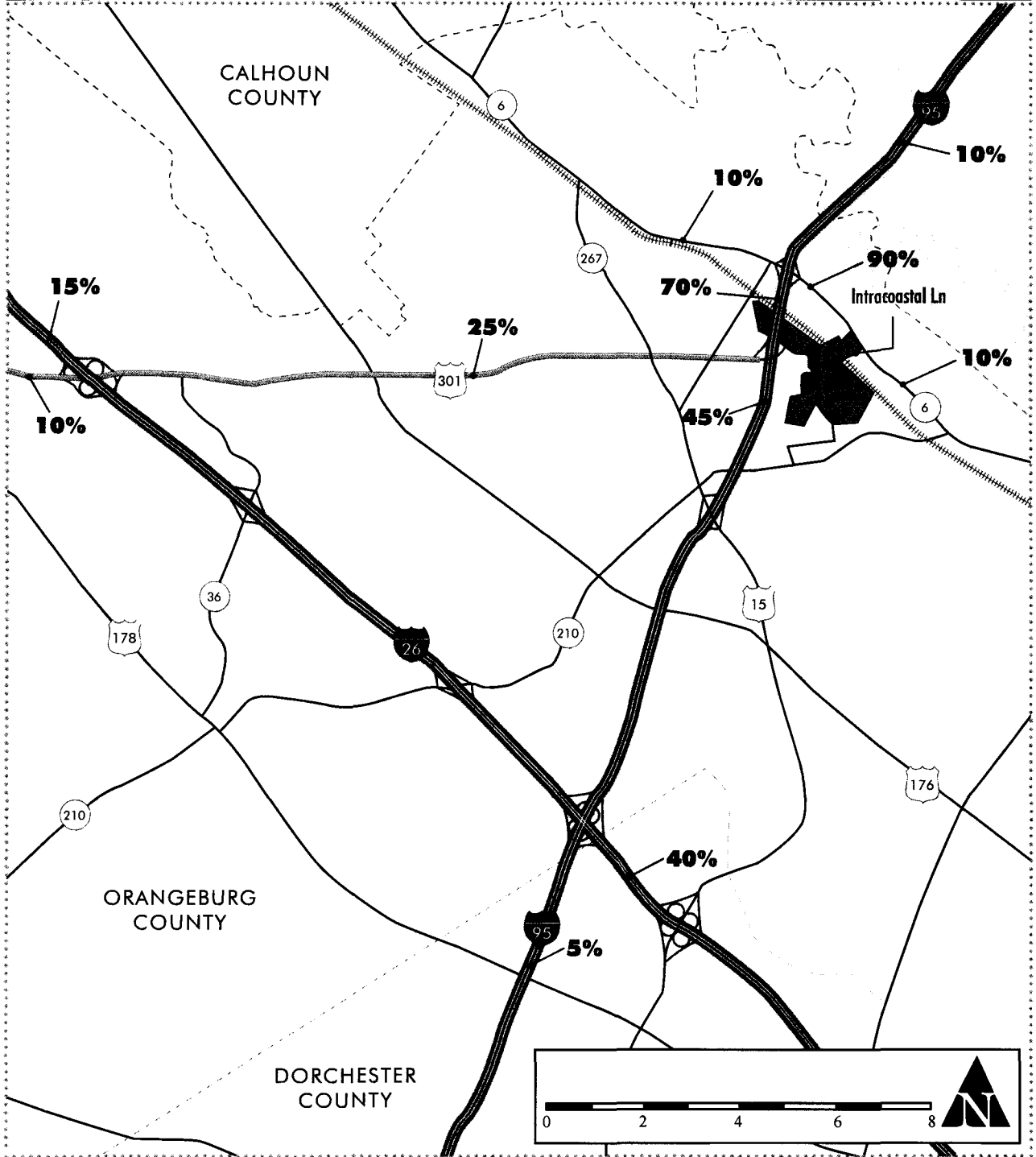
XX% Project Distribution



HDR  
JUNE 2009

# Jafza Logistics and Distribution Park

Fig 6 - Non-Truck Distribution - Phases 1A, 1B & 1C



LEGEND:



Project Site

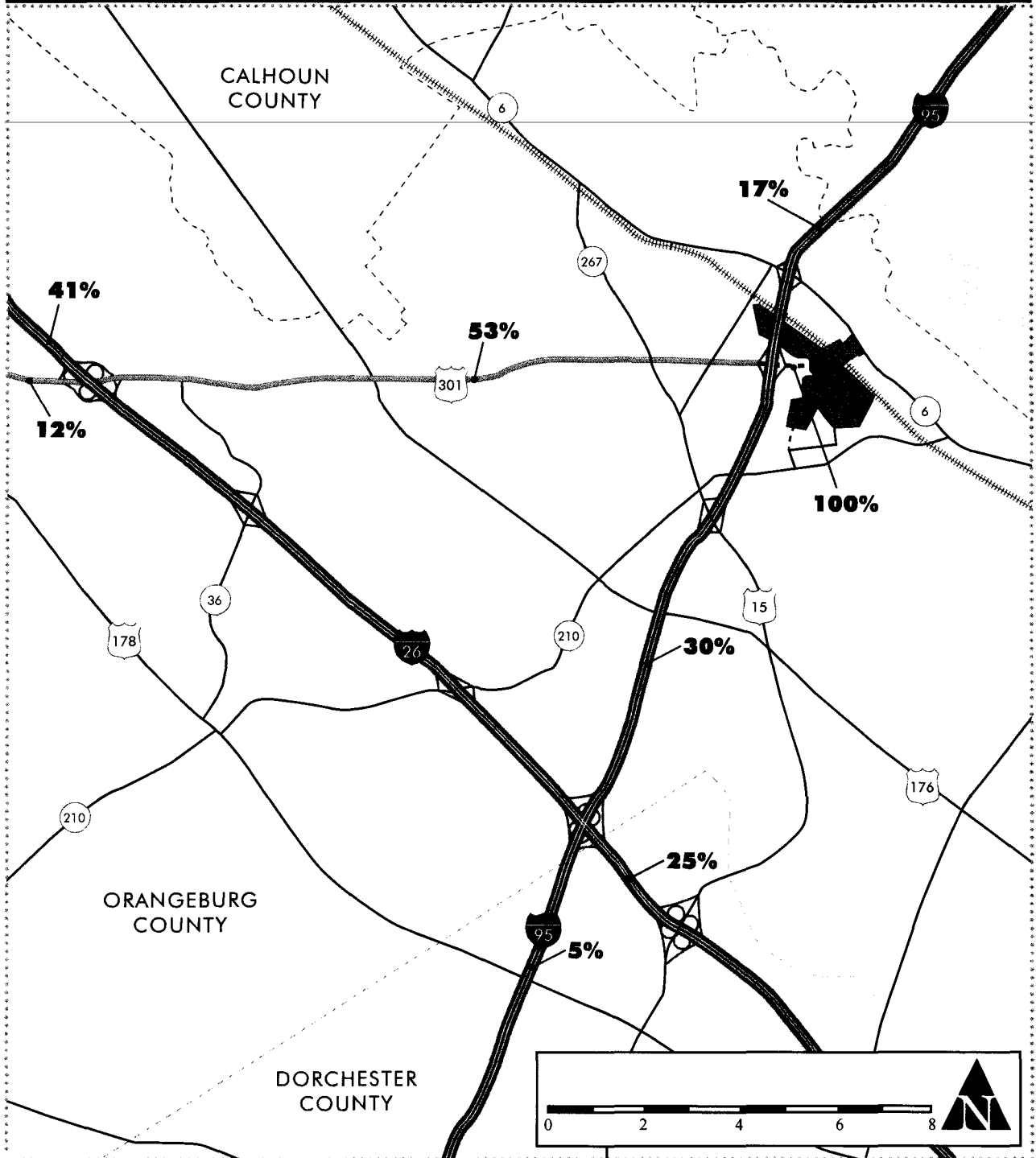
XX%

Project Distribution

HDR  
JUNE 2009

# Jafza Logistics and Distribution Park

Fig 7 - Inbound Truck Distribution - Phase 3 (2030)



LEGEND:



Project Site

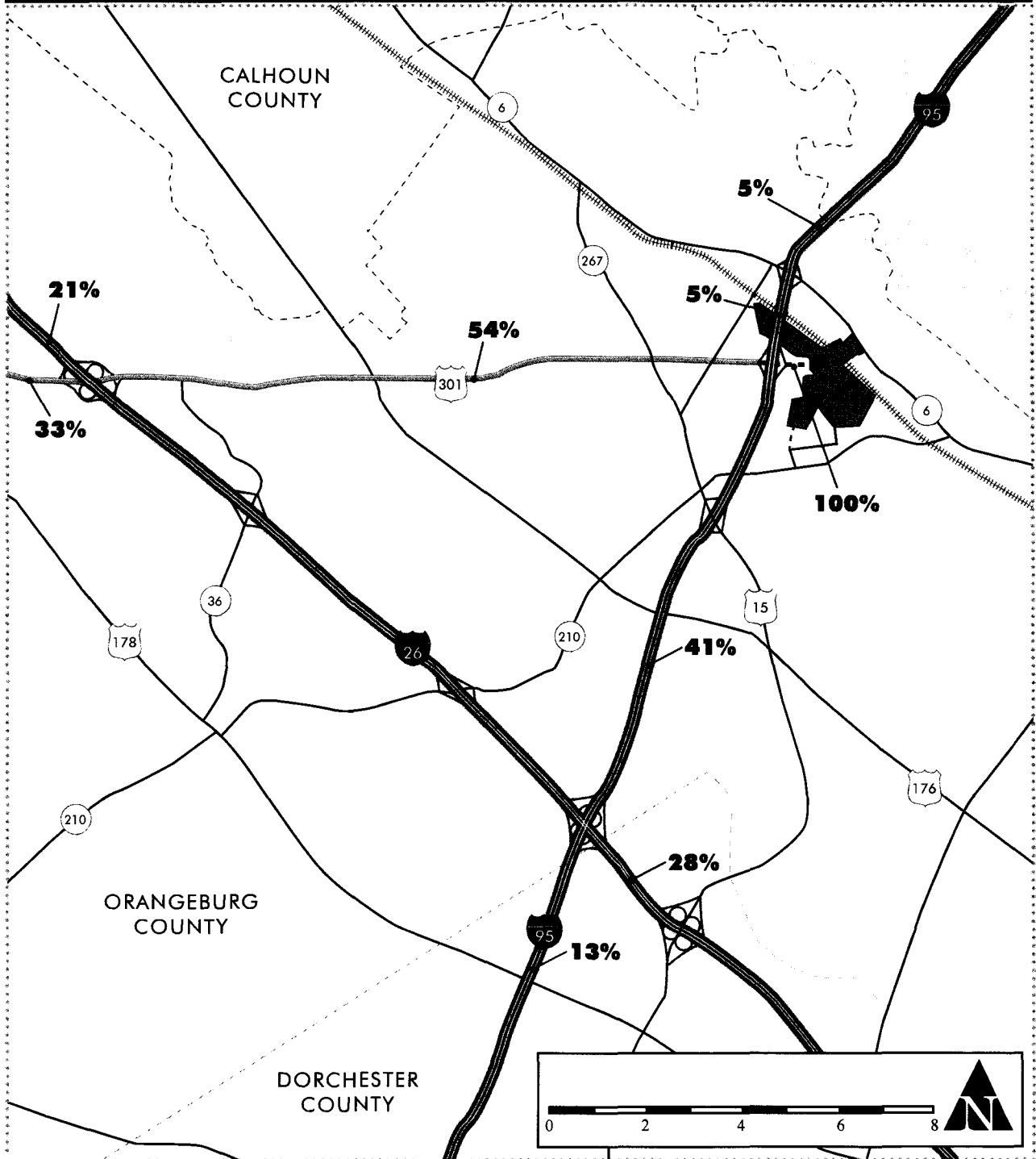
**XX%** Project Distribution



**HDR**  
JUNE 2009

# Jafza Logistics and Distribution Park

Fig 8 - Outbound Truck Distribution - Phase 3 (2030)

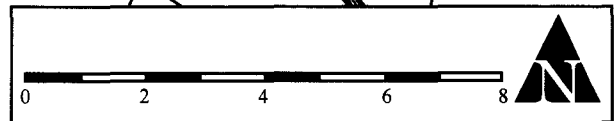


LEGEND:



Project Site

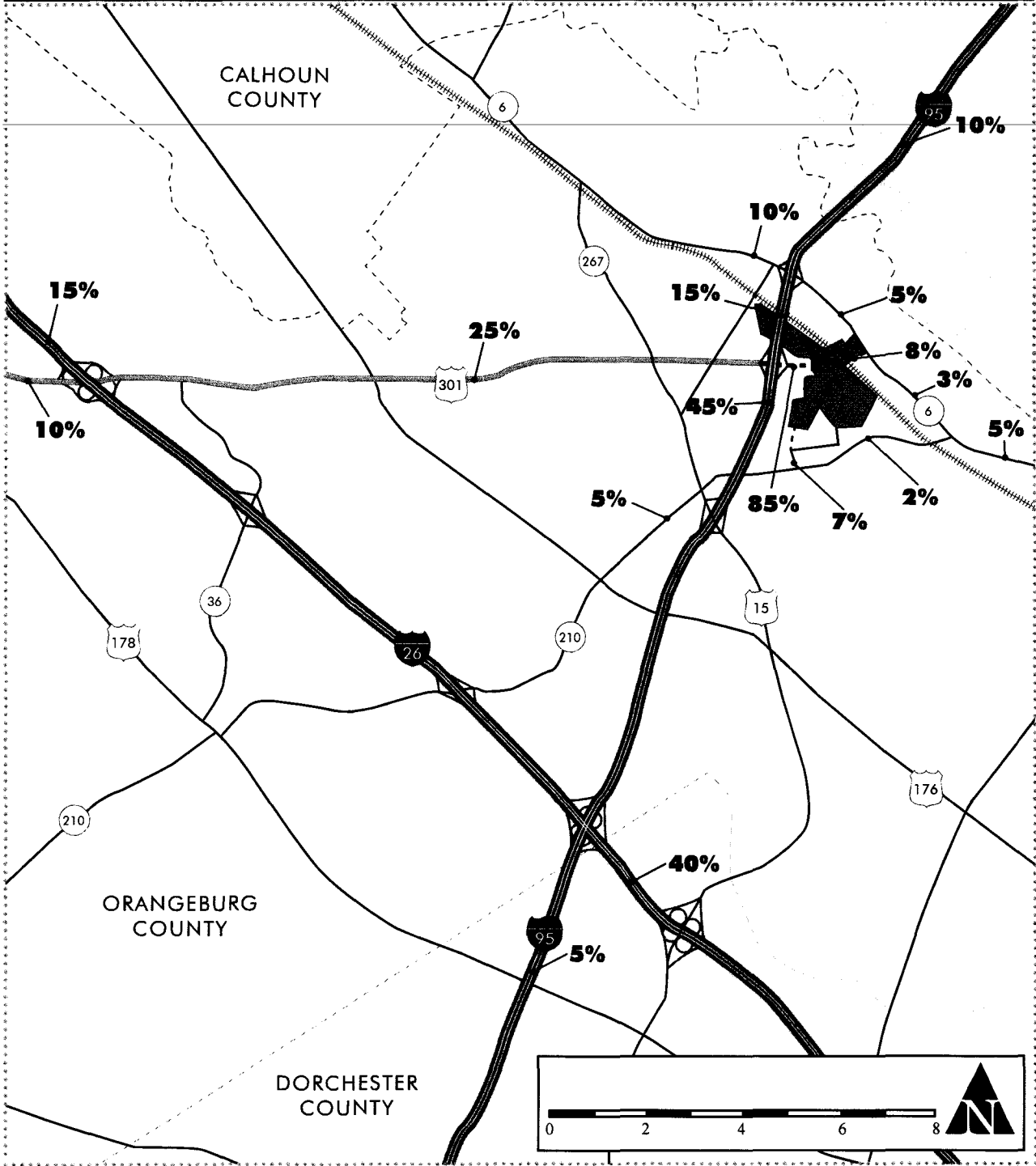
XXX% Project Distribution



**HDR**  
JUNE 2009

# Jafza Logistics and Distribution Park

Fig 9 - Non-Truck Distribution - Phase 3 (2030)

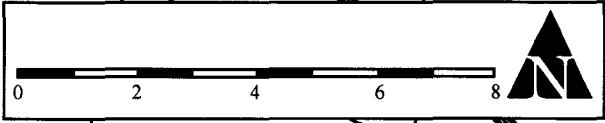


LEGEND:



Project Site

XX% Project Distribution



## **TRAFFIC ASSIGNMENT**

### **Background Traffic**

The background traffic projections were estimated by applying a linear growth rate to the 2008 ADT's obtained from the South Carolina Department of Transportation (SCDOT) website. Appropriate growth rates were determined after reviewing trend growth rates calculated using historic traffic volumes from SCDOT. Table 6 shows the trend growth rates calculated and the growth rates used for each of the study area segments. The growth rates selected for use in the study generally represent conservative values that are greater than the trends projected using historic traffic counts. The effect of the proposed US 301 extension from I-95 to SC 6 along with the US 301 and I-95 diamond interchange on background traffic volumes on the vicinity area roadways in the year 2030 has been estimated using sound engineering judgment based on the current traffic patterns and volumes and the anticipated shift in traffic with the proposed area roadway improvements.

### **Planned Improvements**

The analysis for the year 2030 assumes that the SCDOT will complete the extension of US 301 from I-95 to connect with SC 6 along with the construction of a new interchange at I-95 and US 301. However, the analysis for the years 2014, 2016 and 2020 do not assume these improvements will be in place.

### **Future Phase 1A, 1B and 1C Build-out Trip Distribution Volumes**

The truck and non-truck traffic distributions were combined with the background traffic projections to create the future traffic projections for Phases 1A, 1B and 1C. The resulting daily and peak hour peak direction traffic volumes for Phases 1A, 1B and 1C can be seen in Figures 10, 11, 12, 13, 14 and 15. For analysis purposes, default planning analysis hour factors (K) and directional distribution factors (D) were used for roadway segments based on area type and facility type when actual count information was not available. For roadway segments on Interstate 26 and Interstate 95, weekday daily count information was obtained from SCDOT and average weekday peak to daily ratio and directional distribution were calculated based on those counts for use in the analysis. Table 7 provides a summary of projected volumes associated with Phases 1A, 1B and 1C.

### **Future Phase 3 (2030) Build-out Trip Distribution Volumes**

The truck and non-truck traffic distributions were combined with the year 2030 background traffic projections to create the future traffic projections for Phase 3 (2030). The resulting daily and peak hour peak direction traffic volumes for Phase 3 (2030) are shown in Figures 16, 17, 18 and 19. As can be seen in Figures 16, 17, 18 and 19, the interchange of US 301 and I-95 will become heavily utilized with the construction of the JSC Logistics and Distribution Park

and there will be need for US 301 extension to provide for direct access to the project site. The interchange at SC-6 and I-95 will also experience an increase in traffic volumes. Table 7 provides a summary of the projected volumes for Phase 3 (2030) buildout of the project.

**Table 6  
Background Traffic Growth Rates**

Roadway/ Segment	Annual Growth Rate	
	Trend Growth Rate	Used in Study
<b>I-95</b>		
North of SC 6	0.25%	1.5%
SC 6 to US 301	0.69%	1.5%
US 301 to I-26	0.95%	1.5%
South of I-26	1.07%	1.5%
<b>US 301/ US 301 Extension</b>		
West of I-26	1.77%	1.5%
I-26 to US 15	0.00%	1.5%
US 15 to I-95	0.38%	1.5%
<b>I-26</b>		
West of US 301	2.83%	2.5%
East of I-95	2.62%	2.5%
<b>SC 6</b>		
West of US 15/301/SC 6 Con	0.84%	1.5%
US 15/301/SC 6 Con to I-95	0.84%	1.5%
I-95 to US 301 Extension	0.96%	1.5%
US 301 Extension to SC 210	1.06%	1.5%
East of SC 210	1.06%	1.5%
<b>SC 210</b>		
West of Project Driveway	-1.89%	1.5%
Project Driveway to SC 6	0.51%	1.5%



**Table 7  
Summary Table**

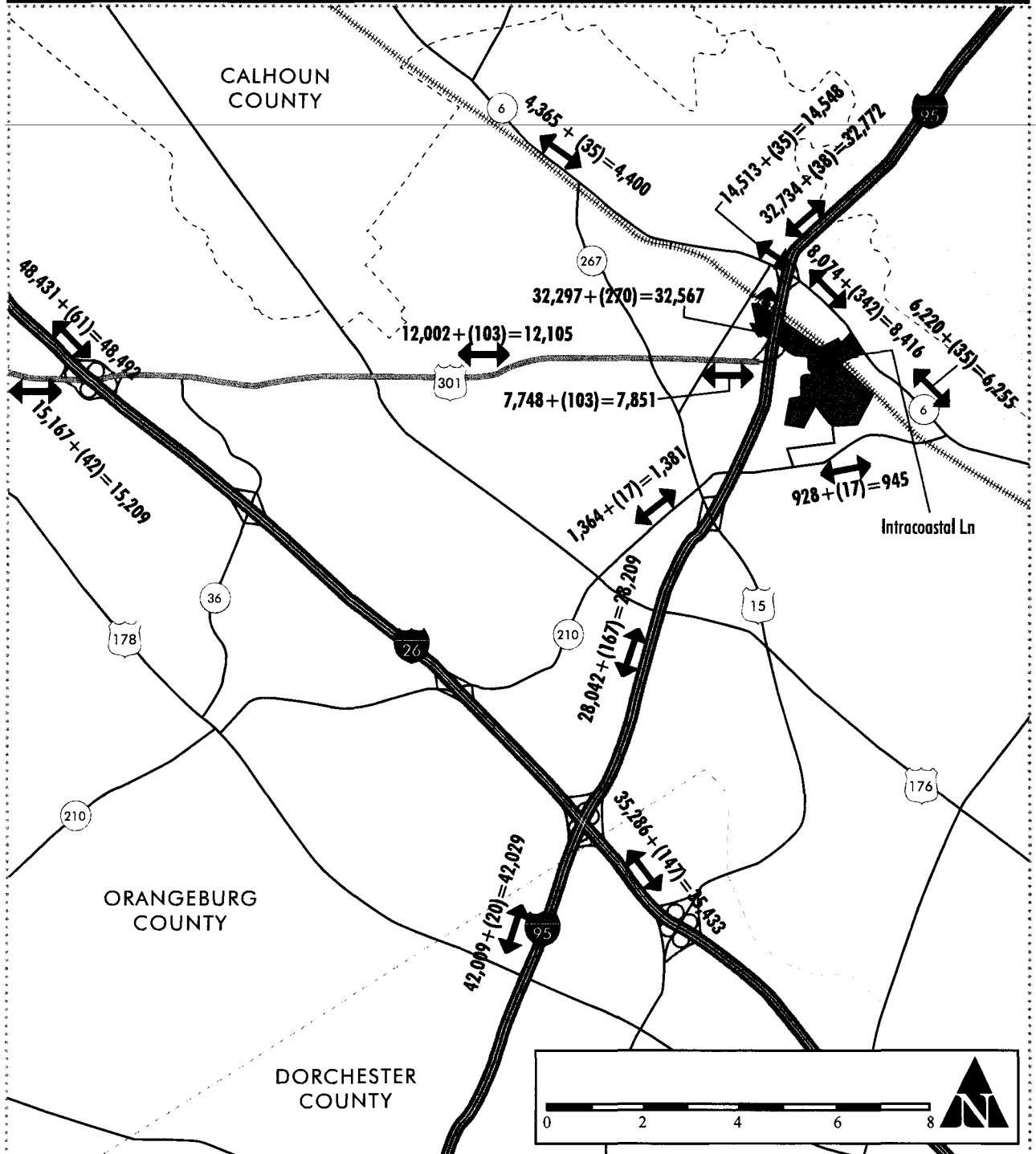
Roadway/Segment	2008 AADT	Annual Growth Rate Used	K Factor (1)	D Factor (2)	Phase 1A (2014) Volumes						Phase 1B (2016) Cumulative Volumes						Phase 1C (2020) Cumulative Volumes						Phase 3 (2030) Cumulative Volumes						
					Daily			Peak Hour Peak Direction			Daily			Peak Hour Peak Direction			Daily			Peak Hour Peak Direction			Daily			Peak Hour Peak Direction			
					Bcgd.	Project Trips	Total w/ project	Bcgd.	Project Trips	Total w/ project	Bcgd.	Project Trips	Total w/ project	Bcgd.	Project Trips	Total w/ project	Bcgd.	Project Trips	Total w/ project	Bcgd.	Project Trips	Total w/ project	Bcgd.	Project Trips	Total w/ project	Bcgd.	Project Trips	Total w/ project	
I-95																													
North of SC 6	30,000	1.5%	0.076	0.555	32,734	38	32,772	1,381	9	1,390	33,647	115	33,762	1,419	15	1,434	35,474	371	35,845	1,496	26	1,522	40,042	1,057	41,099	1,689	53	1,742	
SC 6 to US 301	29,600	1.5%	0.076	0.572	32,297	270	32,567	1,404	15	1,419	33,199	830	34,029	1,443	35	1,478	35,001	2,682	37,683	1,522	64	1,586	39,508	1,467	40,975	1,717	77	1,794	
US 301 to I-26	25,700	1.5%	0.076	0.572	28,042	167	28,209	1,219	9	1,228	28,825	494	29,319	1,253	20	1,273	30,390	1,576	31,966	1,321	38	1,359	34,303	4,454	38,757	1,491	74	1,565	
South of I-26	38,500	1.5%	0.075	0.576	42,009	20	42,029	1,815	1	1,816	43,181	64	43,245	1,865	2	1,867	45,526	210	45,736	1,967	5	1,972	51,388	603	51,991	2,220	9	2,229	
US 301/ US 301 Extension																													
West of I-26	13,900	1.5%	0.098	0.550	15,167	42	15,209	818	2	820	15,590	136	15,726	840	5	845	16,437	450	16,887	886	9	895	18,553	1,302	19,855	1,000	18	1,018	
I-26 to US 15	11,000	1.5%	0.098	0.550	12,002	103	12,105	647	25	672	12,337	336	12,673	665	44	709	13,007	1,107	14,114	701	81	782	14,682	3,195	17,877	791	169	960	
US 15 to I-95	7,100	1.5%	0.097	0.550	7,748	103	7,851	413	25	438	7,964	336	8,300	425	44	469	8,396	1,107	9,503	448	81	529	11,959	3,195	15,154	638	169	807	
I-95 to Project Driveway	N/A	N/A	0.097	0.550	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,654	9,115	10,769	88	502	590
Project Driveway to SC 6	N/A	N/A	0.097	0.550	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,654	657	2,311	72	39	111	
I-26																													
West of US 301	42,000	2.5%	0.075	0.537	48,431	61	48,492	1,951	15	1,966	50,584	199	50,783	2,037	24	2,061	54,889	656	55,545	2,211	45	2,256	65,651	1,893	67,544	2,644	91	2,735	
East of I-95	30,600	2.5%	0.075	0.518	35,286	147	35,433	1,371	8	1,379	36,854	430	37,284	1,432	18	1,450	39,990	1,366	41,356	1,554	34	1,588	47,832	3,851	51,683	1,858	65	1,923	
SC 6																													
West of US 15/301/SC 6 Con	4,000	1.5%	0.097	0.550	4,365	35	4,400	233	9	242	4,486	95	4,581	239	14	253	4,730	296	5,026	252	24	276	5,339	822	6,161	285	49	334	
US 15/301/SC 6 Con to I-95	13,300	1.5%	0.097	0.550	14,513	35	14,548	774	9	783	14,918	95	15,013	796	14	810	15,728	296	16,024	839	24	863	16,099	822	16,921	859	49	908	
I-95 to US 301 Extension	7,400	1.5%	0.097	0.550	8,074	342	8,416	431	19	450	8,300	1,041	9,341	443	44	487	8,750	3,350	12,100	467	82	549	8,223	411	8,634	439	7	446	
US 301 Extension to SC 210	5,700	1.5%	0.097	0.550	6,220	35	6,255	332	9	341	6,394	95	6,489	341	14	355	6,741	296	7,037	360	24	384	7,609	246	7,855	406	15	421	
East of SC 210	5,700	1.5%	0.097	0.550	6,220	17	6,237	332	5	337	6,394	48	6,442	341	7	348	6,741	148	6,889	360	12	372	7,609	411	8,020	406	24	430	
SC 210																													
West of Project Driveway	1,250	1.5%	0.097	0.550	1,364	17	1,381	73	5	78	1,402	48	1,450	75	7	82	1,478	148	1,626	79	12	91	1,669	411	2,080	89	24	113	
Project Driveway to SC 6	850	1.5%	0.097	0.550	928	17	945	50	5	55	954	48	1,002	51	7	58	1,005	148	1,153	54	12	66	1,135	164	1,299	61	3	64	

Notes:  
 (1) Planning analysis hour factors (K) was based on default values typically used for roadway segments based on the area type (rural/suburban/urban) and facility type (freeway/uninterrupted flow/signalized).  
 For segments on I-26 and I-95, where actual count information was available from SCDOT, the weekday daily count information was obtained and average weekday peak to daily ratios were calculated for use in the analysis.  
 (2) Directional distribution factor (D) was also based on default values typically used for roadway segments based on their area type (rural/suburban/urban) and facility type (freeway/uninterrupted flow/signalized).  
 For segments on I-26 and I-95, where actual count information was available from SCDOT, the weekday daily count information was obtained and average weekday directional factors were calculated for use in the analysis.

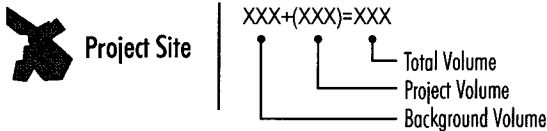
Exhibit 1.1  
23 of 34

# Jafza Logistics and Distribution Park

Fig 10 - Projected Daily Volumes - Phase 1A (2014)



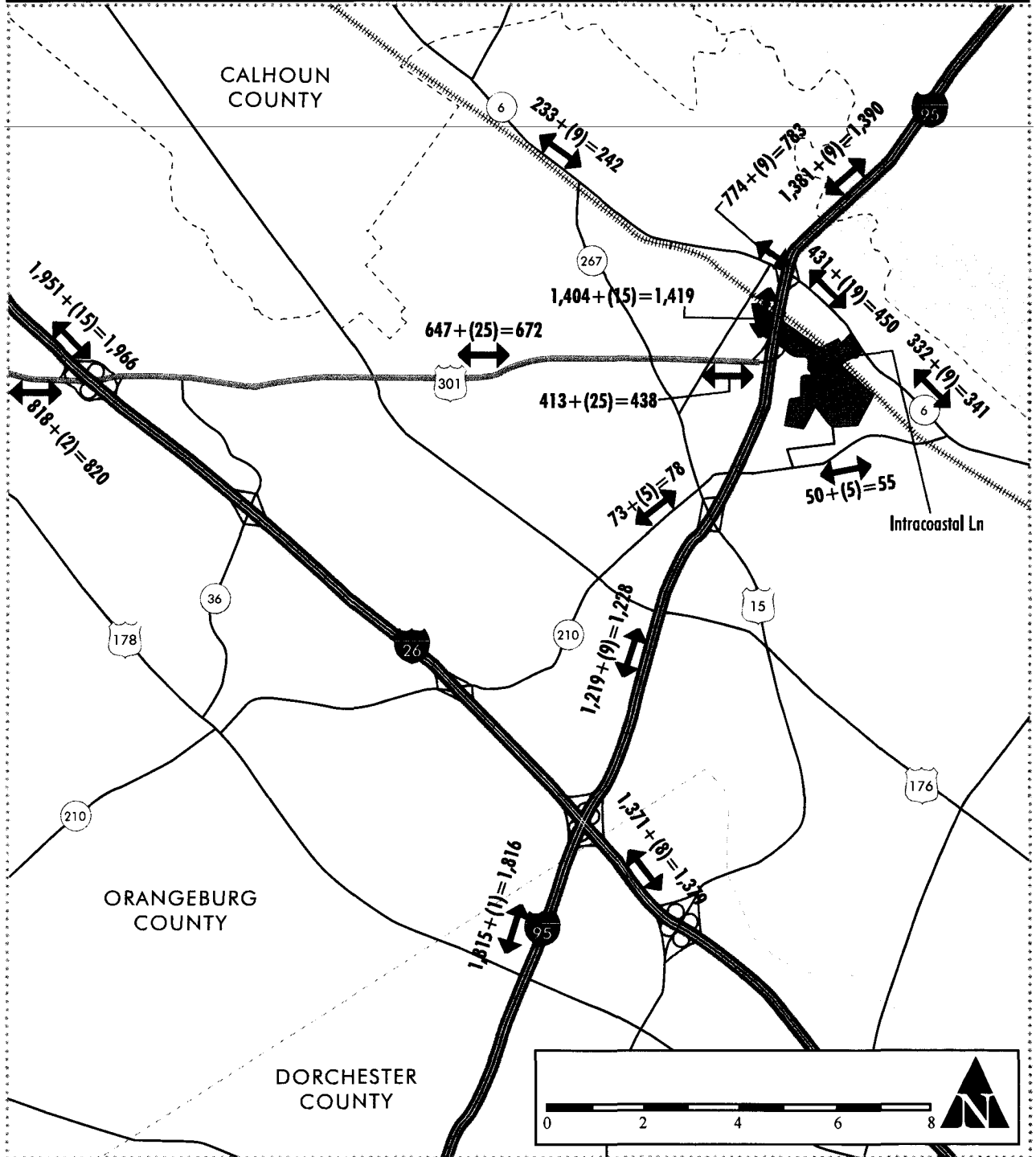
**LEGEND:**



**HDR**  
JUNE 2009

# Jafza Logistics and Distribution Park

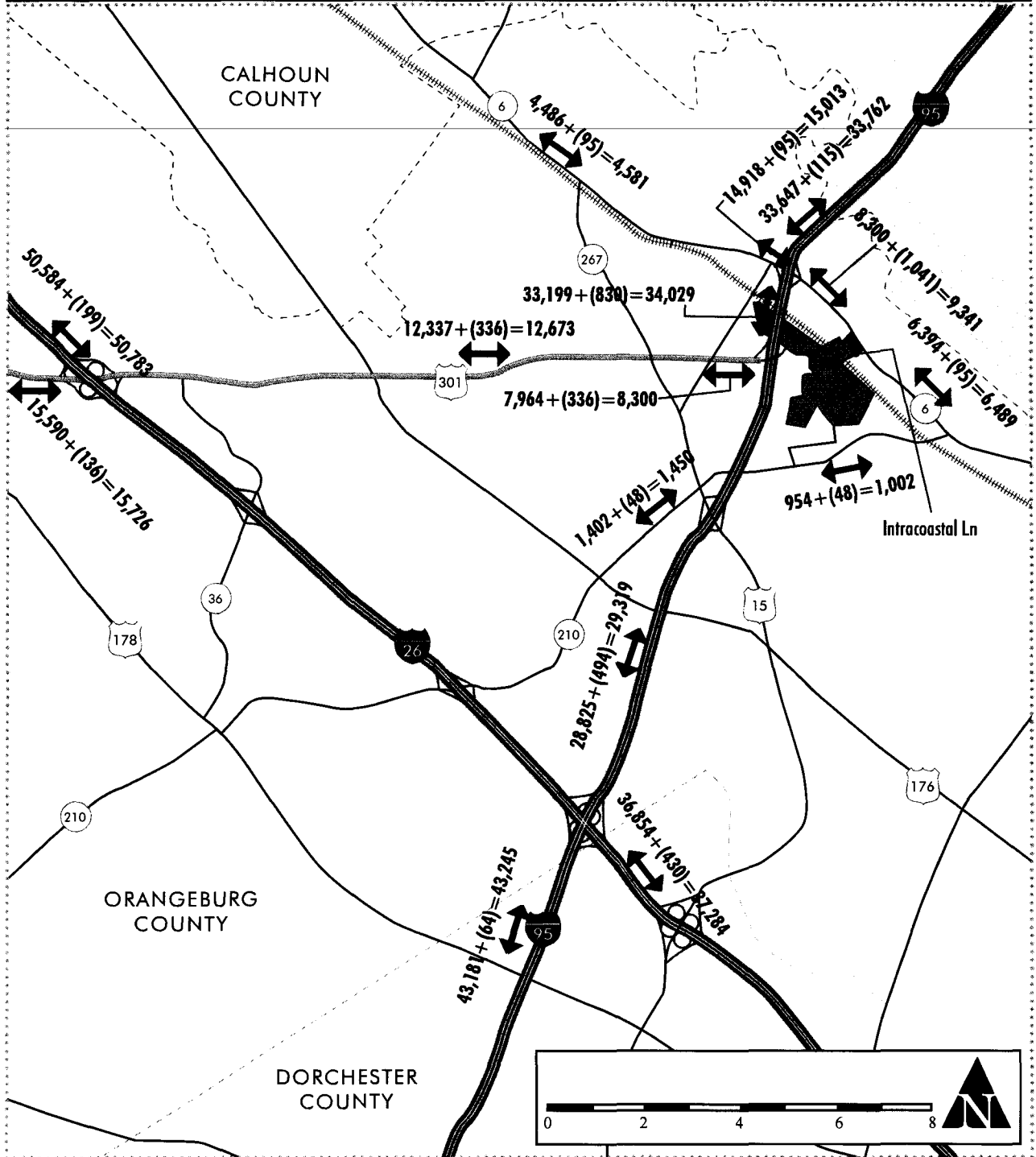
Fig 11 - Projected Peak Hour Peak Direction Volumes - Phase 1A (2014)



**HDR**  
JUNE 2009

# Jafza Logistics and Distribution Park

Fig 12 - Projected Daily Volumes - Phase 1B (2016)



LEGEND:



Project Site

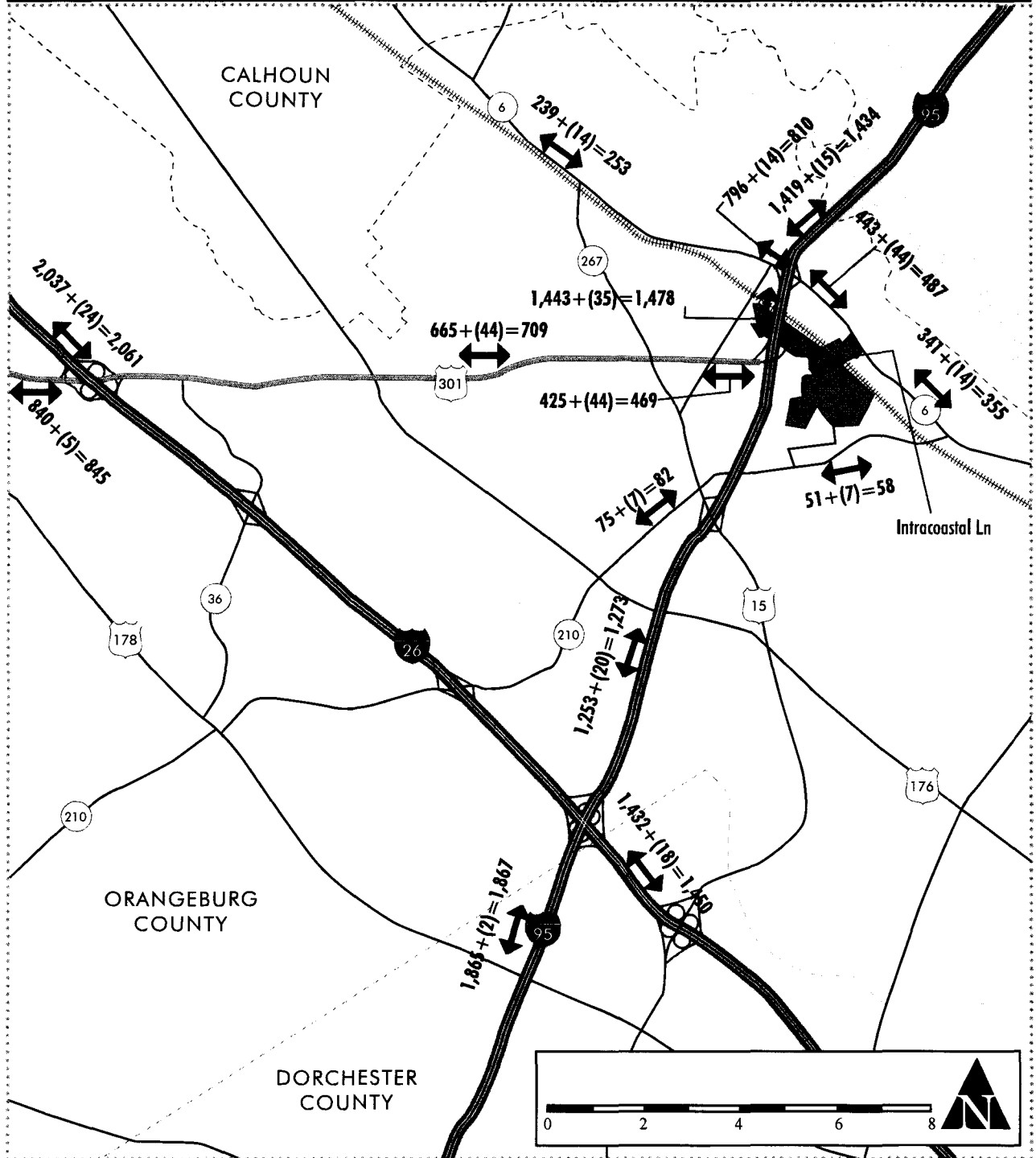
XXX+(XXX)=XXX

Total Volume  
 Project Volume  
 Background Volume

**HDR**  
JUNE 2009

# Jafza Logistics and Distribution Park

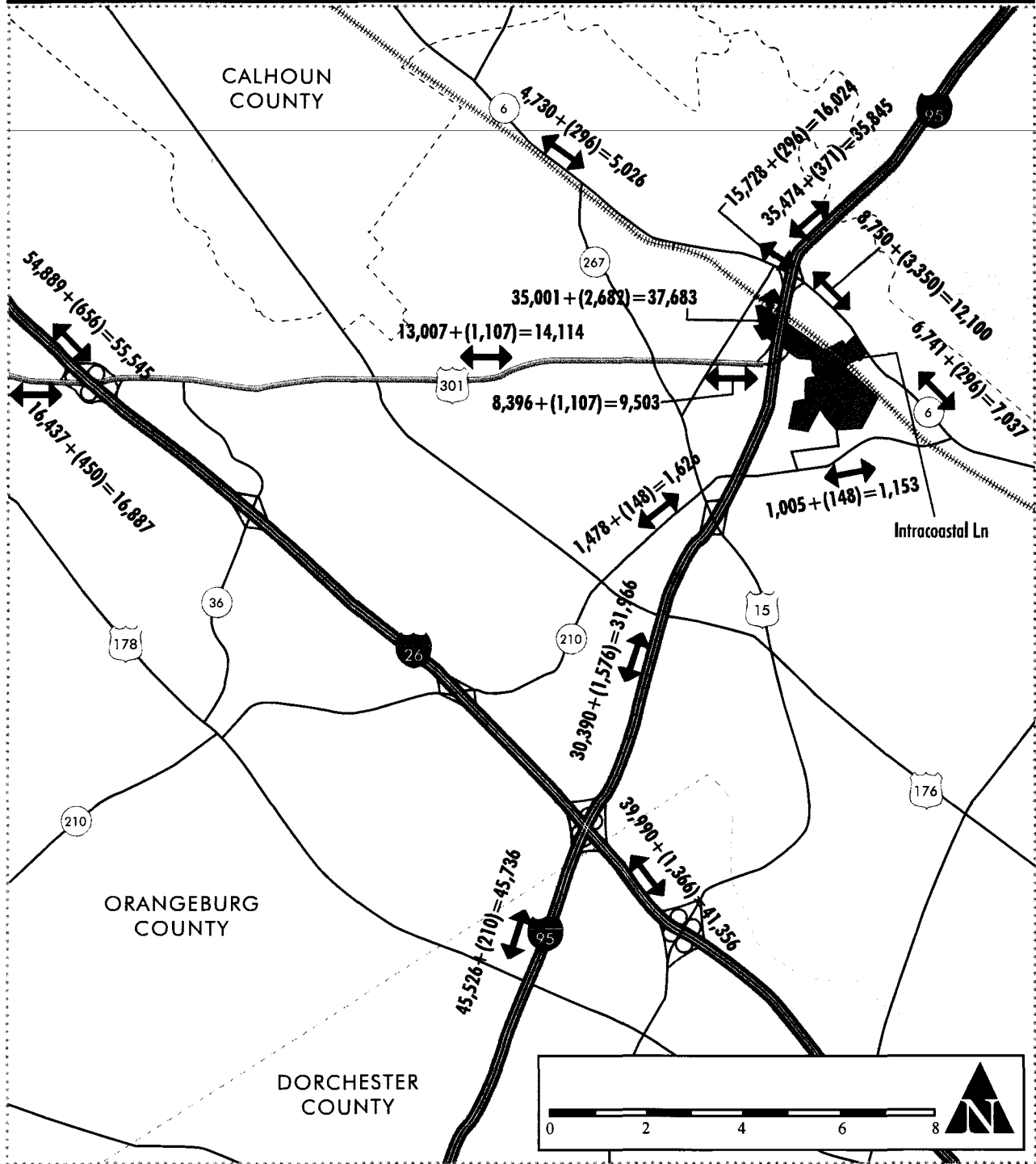
Fig 13 - Projected Peak Hour Peak Direction Volumes - Phase 1B (2016)



**HDR**  
JUNE 2009

# Jafza Logistics and Distribution Park

Fig 14 - Projected Daily Volumes - Phase 1C (2020)



LEGEND:



Project Site

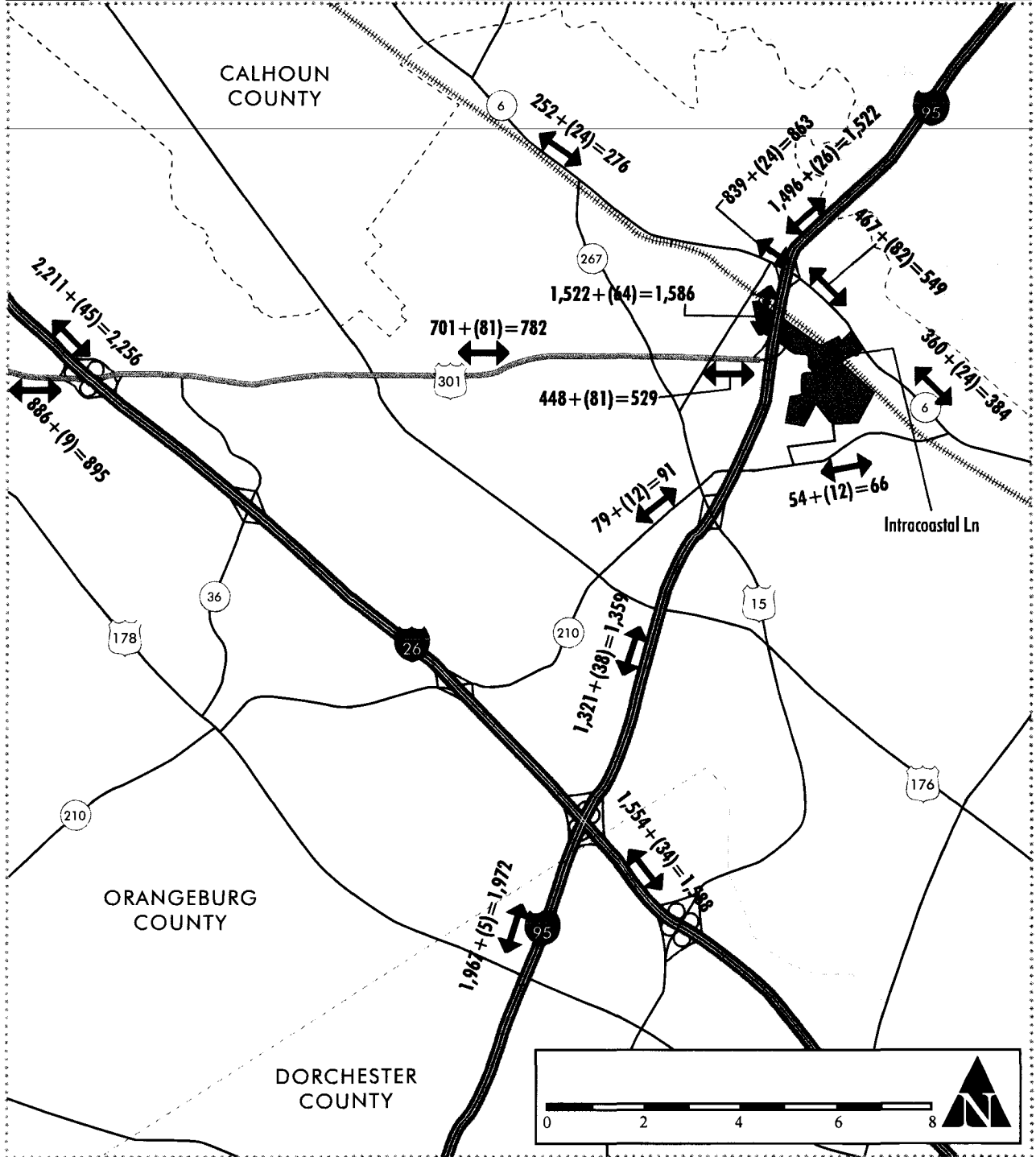
XXX+(XXX)=XXX

Total Volume  
Project Volume  
Background Volume

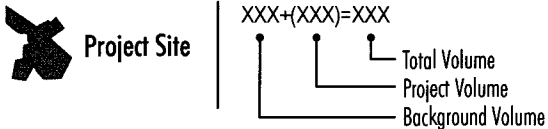
**HDR**  
JUNE 2009

# Jafza Logistics and Distribution Park

Fig 15 - Projected Peak Hour Peak Direction Volumes - Phase 1C (2020)



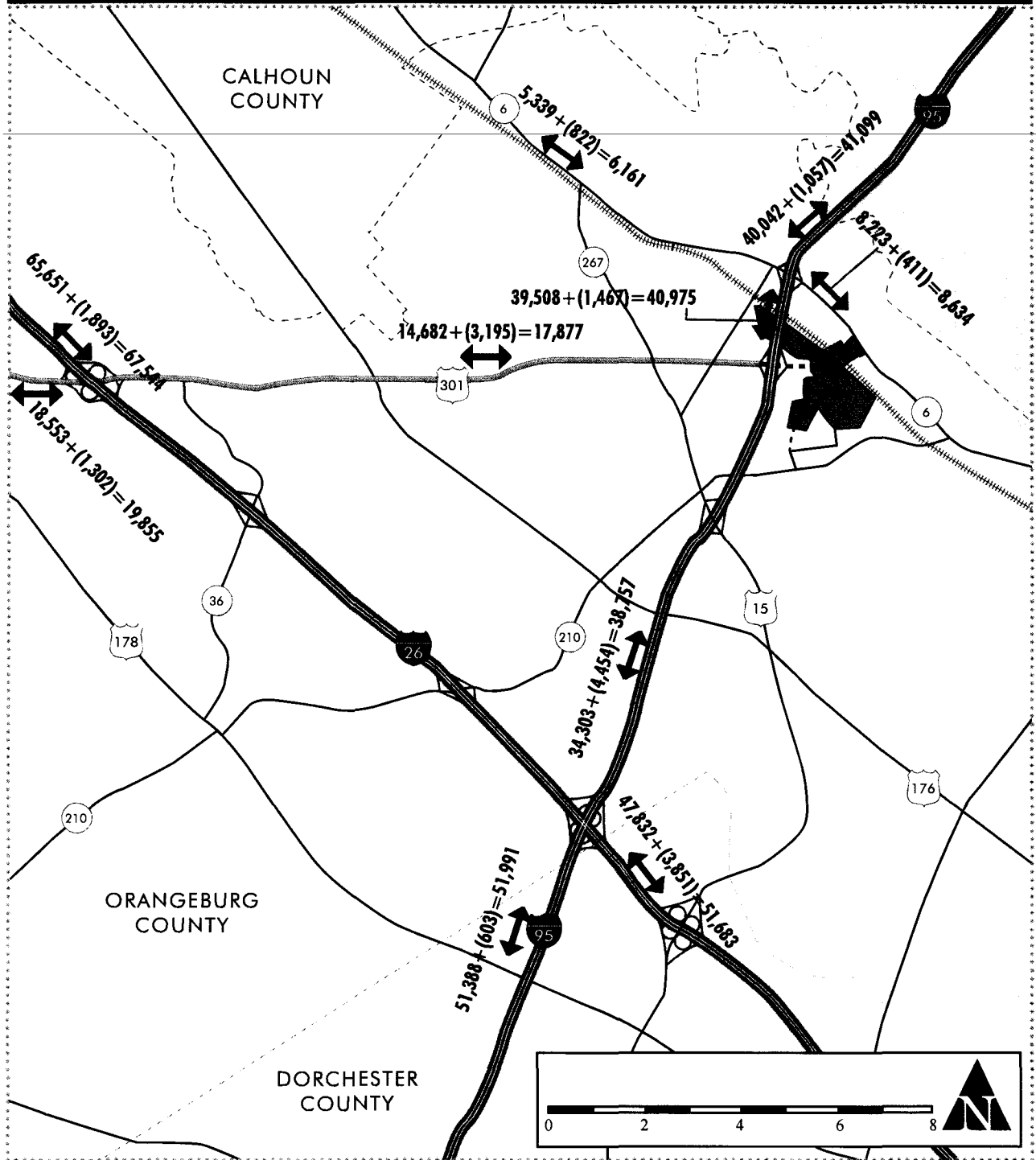
LEGEND:



HDR  
JUNE 2009

# Jafza Logistics and Distribution Park

Fig 16 - Projected Daily Volumes - Phase 3 (2030)

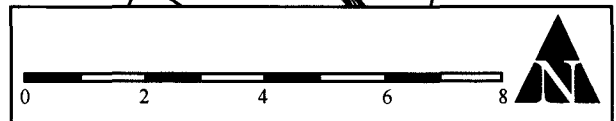
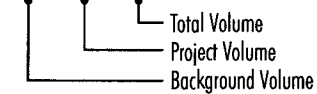


LEGEND:



Project Site

XXX+(XXX)=XXX

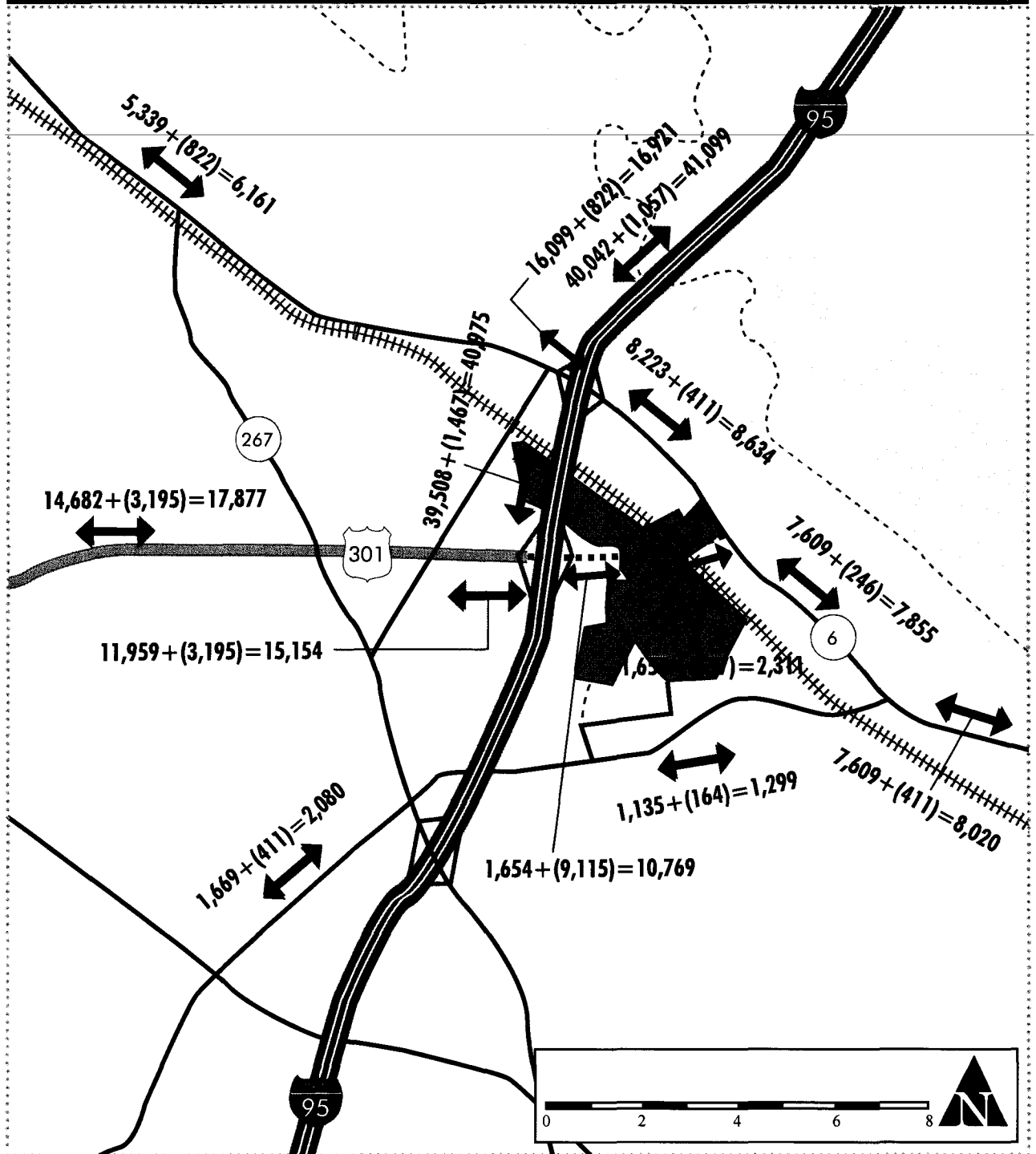


**HDR**  
JUNE 2009



# Jafza Logistics and Distribution Park

Fig 17 - Projected Daily Volumes Near Site - Phase 3 (2030)



**LEGEND:**



Project Site

XXX+(XXX)=XXX

Total Volume

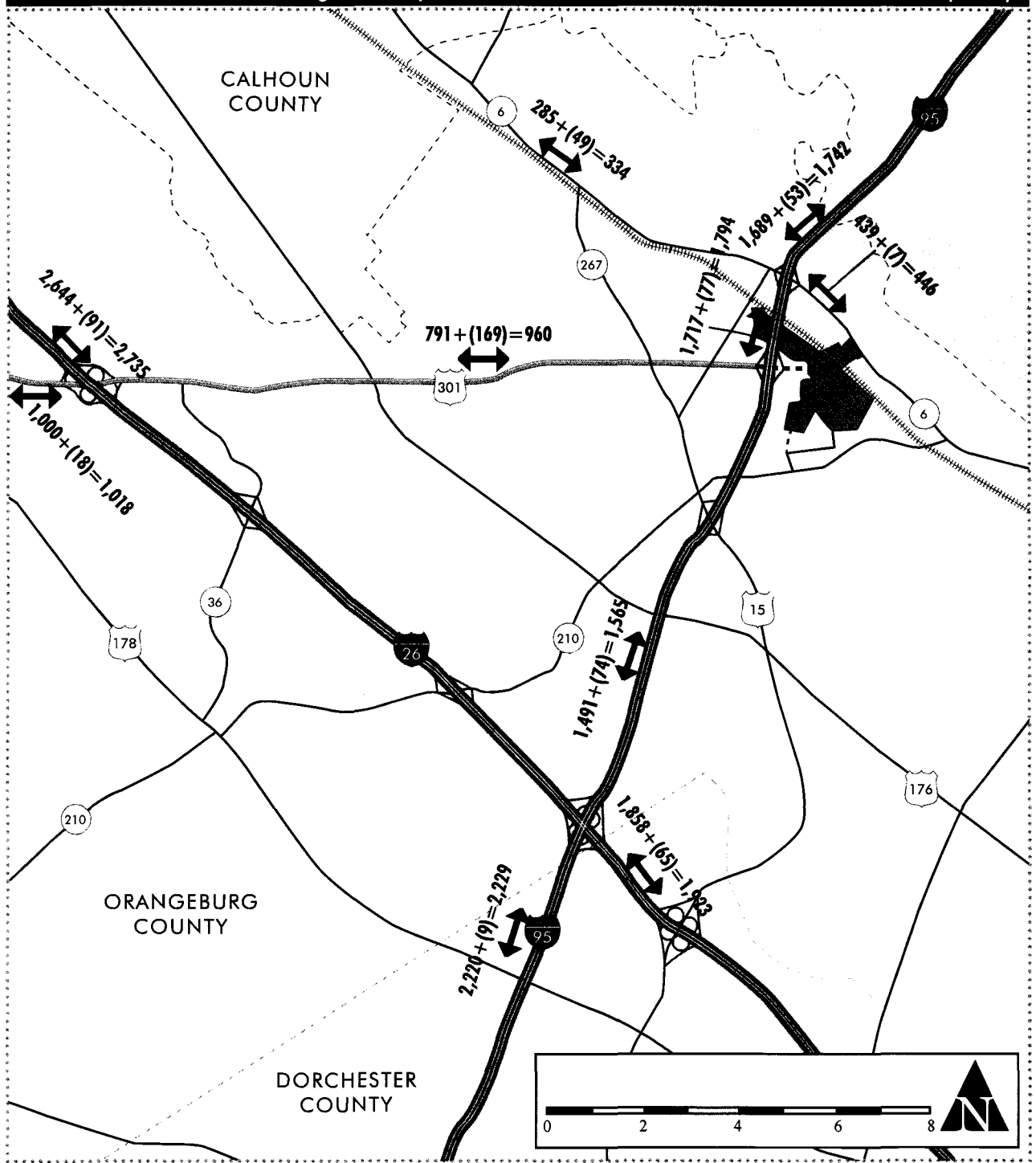
Project Volume

Background Volume





**HDR**  
JUNE 2009

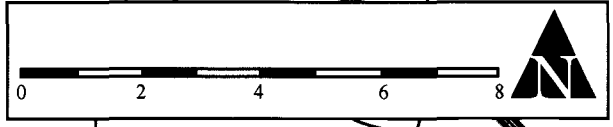
# Jafza Logistics and Distribution Park

Fig 18 - Projected Peak Hour Peak Direction Volumes - Phase 3 (2030)



LEGEND:

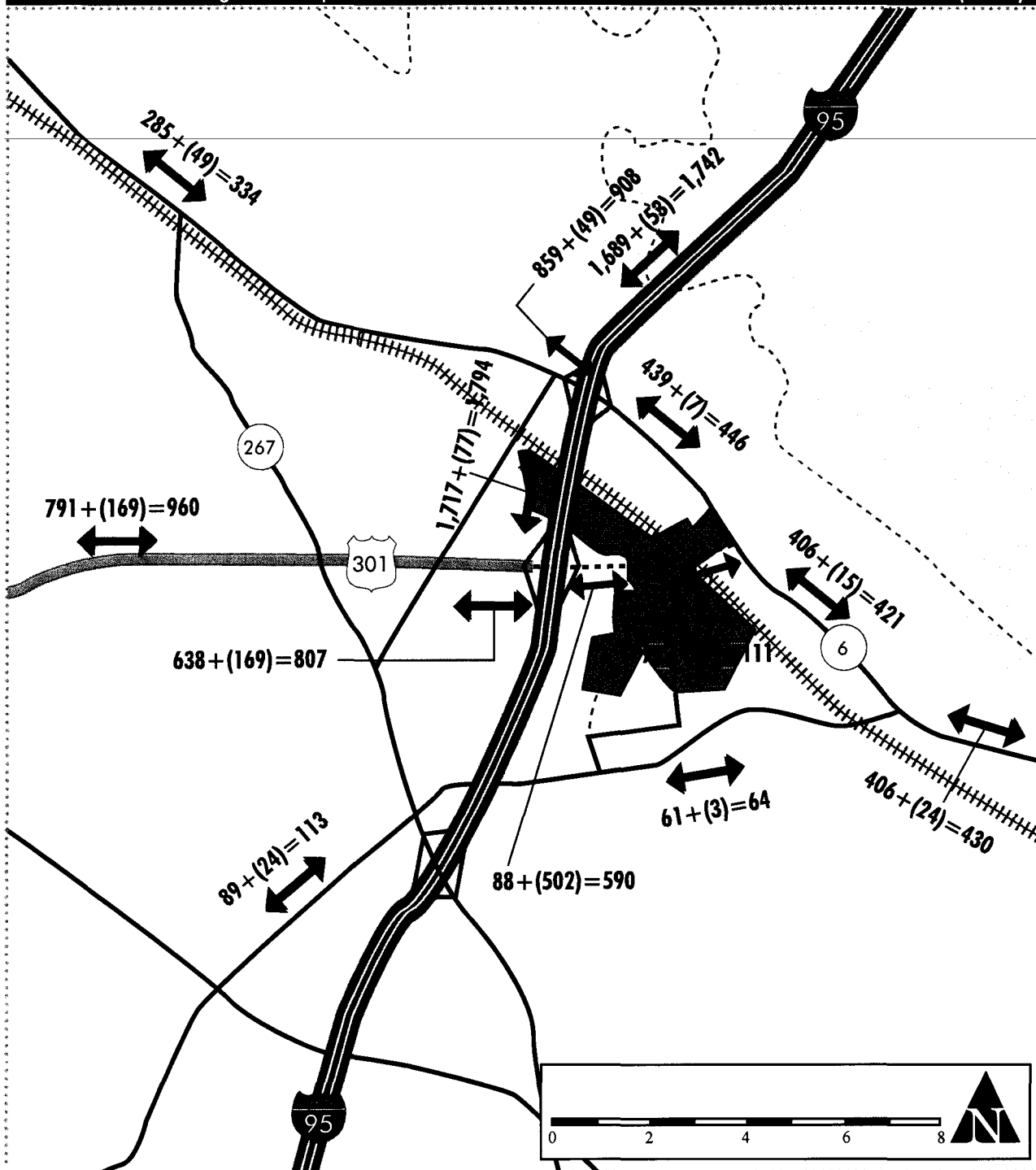
 Project Site
   
 $XXX+(XXX)=XXX$ 
  
 Total Volume
   
 Project Volume
   
 Background Volume



**HDR**  
JUNE 2009

# Jafza Logistics and Distribution Park

Fig 19 - Projected Peak Hour Peak Direction Volumes Near Site - Phase 3 (2030)



LEGEND:



Project Site

XXX+(XXX)=XXX

- Total Volume
- Project Volume
- Background Volume

HDR  
JUNE 2009

## **CONCLUSIONS**

The conclusions of the report are as follows:

- The JSC Logistics and Distribution Park will generate approximately 2,132 daily external truck trips and 8,215 daily external non-truck trips for a total of 10,347 external daily trips by the buildout of Phase 3 of the project in the year 2030.
- The current projected 2030 volumes with Phase 3 buildout of project are significantly lower than the previously projected 53,430 daily external project trips for the year 2030 due to the extension of the complete project buildout date from year 2030 to year 2050.
- Project phases 1A, 1B and 1C will be accommodated satisfactorily by the existing roadway network.
- Phase 3 of the Jafza project assumes completion of roadway improvements by SCDOT including the extension of US 301 to connect with SC 6 and interchange improvements at I-95/US 301.

# Appendix J



## **Response Memo in Regards to the Public Comment Period for the Finding of No Significant Impacts**

### **Exhibit J.1: South Carolina Department of Health and Environmental Control Bureau of Air Quality**

We appreciate the South Carolina Department of Health and Environmental Control Bureau of Air Quality's correspondence (e-mail dated March 9, 2011). As requested, the resources that were provided regarding emission reduction will be taken into consideration for incorporation into the permitted construction plans for the Goodby's Regional Wastewater Treatment Plant.

### **Exhibit J.2: South Carolina Audubon**

We appreciate the South Carolina Audubon Society's correspondence (letter dated March 14, 2011) and comments regarding the Environmental Assessment and Draft Finding of No Significant Impacts for Goodby's Regional Wastewater Treatment Plant.

It has been noted that the Rafinesque Big-Eared Bat may be encountered within the Four Holes Swamp area; however, this species was not observed to be potentially impacted at the proposed project location. If the Rafinesque Big-Eared Bat is encountered during this project, protection/mitigation will comply with *Section 4.4* of the Environmental Assessment, as stated within *Section 4.5*.

The Binding Covenants will be enforced to the areas that they apply in conjunction with Orangeburg County's Comprehensive Land Use Plan. Additionally, it is our understanding that future changes to the Comprehensive Land Use Plan related to zoning ordinances will not modify the proposed mitigation stated in the Environmental Assessment nor undermine the intent Binding Covenants. Please refer to Exhibit J.9 for the enforceability of the Binding Covenants.

In regards to the tap restriction, please review *Sections 3.2.4.3* and *3.2.4.4* of the Environmental Assessment. Both Orangeburg County and the South Carolina Department of Health and Environmental Control preclude sprawl as stated within *Section 3.2.4.4* of the EA and as discussed with your office.

### **Exhibit J.3: United States Fish and Wildlife Service**

We appreciate the United States Fish and Wildlife Service's correspondence (letter dated March 14, 2011) and we understand they are in agreement with the Environmental Assessment and the Draft Finding of No Significant Impacts for



Goodby's Regional Wastewater Treatment Plant. It is understood that the United States Fish and Wildlife Service reserves the right to provide additional comments if the project is modified.

#### **Exhibits J.4 and J-5: South Carolina Historic Preservation Office**

We appreciate the South Carolina Historic Preservation Office's correspondence (letter dated March 31, 2011) and comments regarding the Environmental Assessment and the Draft Finding of No Significant Impacts for Goodby's Regional Wastewater Treatment Plant. In regards to archaeological site 38OR303, the construction of Goodby's Creek Wastewater Treatment Plant will occur on the northern most tip of the property. Therefore, archaeological site 38OR303 will not be impacted by the construction activities associated with Goodby's Creek WWTP. As for the wastewater collection/conveyance lines, construction activities will occur within the road Rights of Ways that have been previously disturbed. It should also be noted that a review of historic properties was conducted as detailed in *Section 3.9*. Additionally, the South Carolina Historic Preservation Office, along with the Tribal Historic Preservation Offices, will be notified in the unlikely event that archaeological materials are encountered.

We appreciate the South Carolina Historic Preservation Office's additional correspondence (e-mail dated May 16, 2011) and comments regarding the Environmental Assessment and the Draft Finding of No Significant Impacts for the Goodby's Regional Wastewater Treatment Plant. The South Carolina Historic Preservation Office has provided clarification that two (2) above ground properties listed on the National Register of historic Places (the Dantzler Plantation and Providence Methodist Church) are located within the vicinity of the proposed wastewater collection/conveyance lines and pump station of the proposed project. South Carolina Historic Preservation Office has clarified that the proposed project will not change the setting of the area around these historic sites. These findings concur with U.S. Department Agriculture's Office of Rural Development determination that the proposed project will have no adverse effect on these historical sites.

#### **Exhibit J.6: South Carolina Department of Natural Resources**

We appreciate the South Carolina Department of Natural Resources' correspondence (letter dated April 5, 2011) and we understand they are in agreement with the Environmental Assessment and the Draft Finding of No Significant Impacts for Goodby's Regional Wastewater Treatment Plant. The recommendations contained in DNR's August 12, 2008 letter will be incorporated into the construction plans.



## Exhibit J.7: United States Environmental Protection Agency

We appreciate United States Environmental Protection Agency's correspondence (letter dated April 4, 2011) and comments regarding the Environmental Assessment and the Draft Finding of No Significant Impacts for Goodby's Regional Wastewater Treatment Plant.

In regards to Comment # 1, concerning potential impacts to wetlands. Directional drilling will be utilized to avoid impacts to wetland during the construction of the collection and conveyance lines for Goodbys Regional Wastewater Treatment Plant. References to the Nationwide Permit 12 have been included within this report so that in the event that unforeseeable or cost prohibitive circumstances would not allow for the utilization of direction drilling for the wastewater collection and conveyance lines. At the present time, only the crossing of White Cane Branch Swamp is expected to be performed under NWP 12.

Comment # 2 refers to utilizing directional drilling to avoid wetland impacts referring to *Section 3.5* have been addressed above within Comment #1.

We concur with Comment #3 referring to the United States Environmental Protection Agency's review and assessment of *Section 3.9* of the Environmental Assessment. As detailed within the Environmental Assessment, the South Carolina Historic Preservation Office, along with the Tribal Historic Preservation Offices, will be notified in the unlikely event that archaeological materials are encountered.

We concur with Comment #4 referring to the United States Environmental Protection Agency's review and assessment of *Section 3.1* of the Environmental Assessment. Coordination with the South Carolina Department of Health and Environmental Control will be on going throughout this project.

Comment #5 refers to meaningful engagement of the affected communities during the public notification process. Numerous public notification processes have occurred throughout the course of the Goodby's Regional Wastewater Treatment Plant process that included but are not limited to comment periods associated with the South Carolina Department of Health and Environmental Control Wastewater Construction Permit, Notice of Intent and No Discharge Permit process. Additionally, Orangeburg County has addressed public notification through several public forums, records of which maybe available through Orangeburg County. Additionally, publications of the Notice of Availability and draft Finding of No Significant Impacts were published within local newspaper in conjunction with the United States Department of Agriculture and United States Army Corps of Engineers review process.

In reference to Comment #6, regarding the signed binding covenants for the Town of Vance, Town of Bowman, Calhoun County, and Orangeburg County, please refer to Exhibit J.9.





We concur with Comment #7 referring to the United States Environmental Protection Agency's review and assessment of *Section 3.6* of the Environmental Assessment. Coordination with South Carolina Department of Health and Environmental Control will be on going throughout this project.

We concur with Comments #8 and #9 referring to the United States Environmental Protection Agency's review and support of the South Carolina Department of Health and Environmental Control's recommendations for construction of stormwater controls and the required South Carolina Department of Health and Environmental Control permits for this project. Coordination with South Carolina Department of Health and Environmental Control will be on going throughout this project.

In reference to Comment #10 concerning the South Carolina Department of Health and Environmental Control's concurrence that the Goodbys Region Wastewater Treatment systems impacts on water quality. The permit to construct the facility has been received from the South Carolina Department of Health and Environmental Control along with the No Discharge permit. The No Discharge Permit will utilize drip irrigation for effluent disposal from the tertiary wastewater treatment plant to minimize impacts to nearby water bodies.

#### **Exhibit J.8: Shawnee Tribal Historic Preservation Office**

We appreciate the Shawnee Tribe's Tribal Historic Preservation Department's correspondence (e-mail dated April 15, 2011) and we understand they are in agreement with the Finding of No Significant Impacts. As requested, the Shawnee Tribe's Tribal Historic Preservation Department will be notified in the unlikely event that archaeological materials are encountered.

## Shirey, Alan D SAC

---

**From:** L. Nelson Roberts [ROBERTLN@dhec.sc.gov]  
**Sent:** Wednesday, March 09, 2011 3:46 PM  
**To:** Shirey, Alan D SAC  
**Cc:** Brian Barnes; M. "Lisa" B. Clark  
**Subject:** Goodby's Regional Wastewater Treatment System Environmental Assessment  
**Attachments:** SPA-DHEC MOA 3-26-07 (Executed)\_1.pdf; Cleaner Diesels Low Cost Ways to Reduce Emissions from Construction Equipment 3-12-07.pdf; DOD Clean Construction Language ASP email 110216.rtf; Hartsfield Jackson Contract Language.pdf; NCDC Verified Retrofit Technologies EPA.doc; Northeast Diesel Collaborative Model Contract Spec 12-10.pdf; S\_C\_Code of Laws Title 56 Chapter 35 Idling Restrictions For Commercial Diesel Vehicles - www\_scstatehouse\_gov-LPITS.doc

Mr. Shirey,

Thanks for taking the time to talk with me this afternoon regarding measures that can be taken to reduce emissions that affect air quality during construction projects. The EA you sent references the April 21, 2009 letter we sent to you. In that letter, we mentioned some emissions reduction suggestions. In lieu of additional comments, we'd like to send you some resources that hopefully can be incorporated into your plans.

Brian Barnes ([barnesbk@dhec.sc.gov](mailto:barnesbk@dhec.sc.gov) or 803-898-7099) and Lisa Clark ([clarkmb@dhec.sc.gov](mailto:clarkmb@dhec.sc.gov) or 803-898-0717) can help provide wording for contracts, examples, and guidance on reducing emissions during construction.

I've attached a few resources to this email to get you started, and we're working to get them posted on our website at <http://www.scdhec.gov/environment/baq/ModelOrdinances/>.

Again, thanks for talking with me this afternoon. Please do not hesitate to give us a call if we can help in any way.

Nelson Roberts, Manager  
SCDHEC - BAQ  
Air Quality Standards and Assessment Section  
Phone (803)898-4122  
Fax (803)898-4487  
[robertln@dhec.sc.gov](mailto:robertln@dhec.sc.gov)



# Audubon SOUTH CAROLINA

Francis Beidler Forest  
Audubon Center & Sanctuary  
336 Sanctuary Road  
Harleyville, SC 29448  
Tel: 843-462-2150  
Fax: 843-462-2713  
www.sc.audubon.org

March 14, 2011

Mr. Alan Shirey  
Environmental Engineer  
USACOE  
69A Hagood Avenue  
Charleston, SC 29403

Dear Alan,

Thank you for sending me a copy of the EA and FONSI for the Goodby's Regional Wastewater Treatment Plant. I have given them a cursory review, focusing on the areas of greatest importance to Audubon.

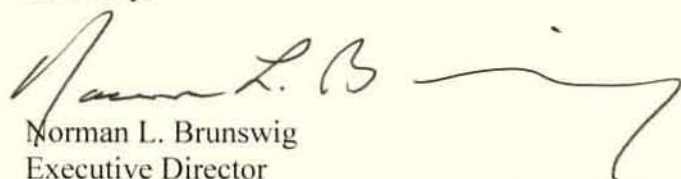
I have one piece of information possibly new to you that may be of interest. Rafinesque Big-eared Bat, considered endangered by South Carolina, can be found in much of Four Holes Swamp and I would assume in the lower reaches of its major tributaries.

There is a point I would like clarified regarding the proposed Orangeburg County Binding Covenants, which are being put in place to protect Important Farmlands from potential rural sprawl induced by the waste treatment system. The point I want clarified is the following. Please confirm that these covenants and the areas to which they will apply are the designated Farm and Agriculture uses as per the Orangeburg County Comprehensive Land Use Plan as it is now. Please further confirm that future changes in the comprehensive plan of the county's zoning ordinance will neither change the tap limit nor undermine the intent and purpose of the covenants.

I acknowledge that a six inch gravity service line can only handle a limited amount of waste, but I want to be as certain as I can be that new technologies that may become available will not undermine the sprawl control intent of the line size limitation, and tap-in limitations.

Thank you for taking the time to address my concerns.

Sincerely,

  
Norman L. Brunswig  
Executive Director



## United States Department of the Interior



### FISH AND WILDLIFE SERVICE

176 Croghan Spur Road, Suite 200  
Charleston, South Carolina 29407

March 14, 2011

Mr. Joseph A. Jones  
Chief, Planning Branch  
Department of the Army  
Charleston District, Corps of Engineers  
69A Hagood Avenue  
Charleston, SC 29403-5107

Attn: Alan Shirey

Re: Environmental Assessment, Goodby's Creek Regional Wastewater Treatment Plant,  
Orangeburg County, SC, FWS Log No. 42410-2011-CPA-0081

Dear Mr. Jones:

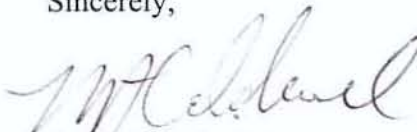
The U.S. Fish and Wildlife Service (Service) has received the Environmental Assessment (EA) for the proposed wastewater infrastructure project in the eastern portion of Orangeburg County, SC. The U.S. Army Corps of Engineers (Corps), working in cooperation with the Lake Marion Regional Water Agency, Santee Cooper and Orangeburg County, developed this EA to address potential environmental impacts that may result from this project. Preparation of this EA was pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended to review environmental consequences that may occur as a result of Federal projects.

Service personnel have coordinated with the Corps regarding this project over the past several years. The Service has provided informal consultation on impacts to protected species and reviewed the draft EA general in order to provide comments on potential impacts to resources found in the project corridor. All of the concerns raised by the Service during past consultation and reviews were appropriately addressed in the final EA. Therefore, and at this time, the Service offers no further comments on the project. However, if the project is modified to include impacts to resources or protected species not previously considered the Service reserves the right to provide additional comments at that time.



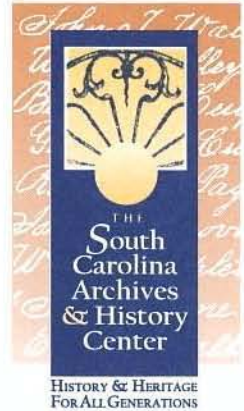
The Service appreciates the opportunity to comment on this project. If you have any questions on the Service's comments please contact the Service's project manager Mark Caldwell. He may be reached at the Service's Charleston field office, (843) 727-4707 ext. 215.

Sincerely,

  
for Jay B. Herrington  
Field Supervisor

JBH/MAC

March 31, 2011



Mr. Patrick E. O'Donnell  
Chief, Planning and Environmental Branch  
U.S. Army Corps of Engineers  
Charleston District  
69A Hagood Avenue  
Charleston, SC 29403

Re: Proposed Orangeburg County Wastewater System, draft Environmental Assessment and FONSI  
Orangeburg County, South Carolina  
SHPO No. 11CW0018

Dear Mr. O'Donnell:

Thank you for your letter of March 1, which we received on March 7, regarding the above-named project. We also received the draft Environmental Assessment and Finding of No Significant Impact for the Proposed Orangeburg County Wastewater System as supporting documentation for this undertaking. The State Historic Preservation Office is providing comments to U.S. Army Corps of Engineers pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR 800. Consultation with the SHPO is not a substitution for consultation with Tribal Historic Preservation Offices, other Native American tribes, local governments, or the public.

There are a number of archaeological sites within the Area of Potential Effect (APE) of the proposed project area. In addition, a number of previous cultural resource surveys have been conducted. Within the Matthews Industrial Park, four sites, 38OR311, 38OR312, 38OR313, 38OR314, are potentially eligible for the National Register of Historic Places (NRHP). For the Jafza Logistical Site, six archaeological sites, 38OR257, 38OR258, 38OR295, 38OR297, 38OR298, and 38OR299, are potentially eligible for the NRHP. Within the Goodby's Creek Waste Water Treatment Plant tract, the archaeological site, 38OR303, is identified as potentially eligible for the NRHP. Our office recommends additional archaeological work at these sites to determine if they are historic properties that are eligible for listing in the National Register. If this additional work is not able to be conducted, then all sites should be protected and avoided during construction and additional management activities.

For the waterlines, all activities should be conducted within the road Rights of Ways (ROWS) which have been previously disturbed by road construction. If staging areas or fill extraction areas are necessary for certain sections of the project that have not undergone previous survey for the identification of historic properties, the Corps of Engineers and its applicant should consult our office should be consulted. Carolina Bays and areas within 150 meters of wetlands, streams or swamps have a higher potential for significant archaeological sites; therefore, if any such area

is to be disturbed as part of this project, the SHPO recommends that the Corps of Engineers identify historic properties within these areas.

If you have any questions, please contact me at (803) 896-6181 or [jbarnes@scdah.state.sc.us](mailto:jbarnes@scdah.state.sc.us).

Sincerely,

A handwritten signature in cursive script, appearing to read "Jodi Barnes for".

Jodi Barnes, PhD  
Staff Archaeologist/GIS Coordinator  
State Historic Preservation Office

**Bob Freeman**

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**From:** Smith, George - Aiken, SC [George.Smith@sc.usda.gov]

**Sent:** Wednesday, July 13, 2011 8:07 AM

**To:** Ryan Slattery

**Subject:** FW: Goodbys Regional Wastewater System

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**From:** Wilson, Caroline D. [mailto:cwilson@scdah.state.sc.us]

**Sent:** Monday, May 16, 2011 1:49 PM

**To:** Smith, George - Aiken, SC

**Subject:** RE: Goodbys Regional Wastewater System

Mr. Smith:

Thank you for sending the maps regarding Goodby's Wastewater Treatment Plant and the accompanying sewer lines. As you know, for the Goodby's WWTP, we provided a letter stating that "no adverse effect" would occur provided that work remained away from the one potentially eligible archaeological site in the APE. Additionally, I have reviewed the route for the proposed sewer lines and pump stations and found two above ground property (the Dantzler Plantation and Providence Methodist Church, both listed on the National Register of Historic Places). Due to the fact that this project will not change the setting of the area around these sites, we concur with Rural Development's determination that there will be no adverse effect caused by this project.

Please let me know if you have any questions.

Best Regards,

**Caroline Dover Wilson**

*Review and Compliance Coordinator*

South Carolina Dept. of Archives and History

8301 Parklane Road

Columbia, SC 29223

(803) 896-6169

Fax: (803) 896-6167

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# South Carolina Department of Natural Resources

1000 Assembly Street  
PO Box 167  
Columbia, SC 29202  
803.734.3282 Office  
803.734.9809 Fax  
[mixong@dnr.sc.gov](mailto:mixong@dnr.sc.gov)



John E. Frampton  
Director  
Robert D. Perry  
Director, Office of  
Environmental Programs

April 5, 2011

Mr. Alan Shirey  
Department of the Army  
Charleston District, Corps of Engineers  
69A Hagood Avenue  
Charleston, SC 29403-5107

REF: Goodbys Creek Regional Wastewater Treatment Plant  
Orangeburg County

Dear Mr. Shirey:

Personnel with the South Carolina Department of Natural Resources (DNR) have reviewed the information provided for the proposed project and offer the following comments.

We believe that the proposed project can be accomplished with minimal impacts to natural resources and we do not offer any objections provided that the recommendations included in our August 12, 2008 letter (copy attached) are incorporated into project plans.

Sincerely,

A handwritten signature in blue ink, appearing to read "Greg Mixon", is written over a faint, larger version of the same signature.

Greg Mixon  
Inland Environmental Coordinator

Attachment

South Carolina Department of  
**Natural Resources**



Greg Mixon  
Inland Environmental Coordinator  
Office of Environmental Programs  
5 Geology Road  
Columbia, SC 29212  
Office: 803-896-7767  
Fax: 803-896-7695  
[mixon@g@dnr.sc.gov](mailto:mixon@g@dnr.sc.gov)

John E. Frampton  
Director  
Robert D. Perry  
Director, Office of  
Environmental Programs

August 12, 2008

Mr. Alan Shirey  
Department of the Army  
Charleston District, Corps of Engineers  
69A Hagood Avenue  
Charleston, SC 29403-5107

REF: Goodbys Creeks Regional Wastewater Treatment Plant  
Orangeburg County

Dear Mr. Shirey:

Personnel with the South Carolina Department of Natural Resources (DNR) have reviewed the proposed project, evaluated its impact on natural resources and offer the following comments.

The proposed Goodbys Creek Regional Wastewater Treatment Plant consists of a 1.5 million gallon per day treatment plant to be constructed at the intersection of U.S. Highway 301 and U.S. Highway 176. The project also includes approximately 16 miles of wastewater collection and transmission lines that will follow existing highway corridors between the plant and the towns of Elloree and Santee. The plant will treat effluent to tertiary treatment standards, and the treated effluent will be discharged onto nearby spray fields. The facility will serve the wastewater needs of the adjacent Matthews Industrial Park and the proposed Jafza International logistics/distribution center near Santee and some of the wastewater needs of the towns of Elloree and Santee.

We believe that the proposed work can be accomplished with minimal impacts to natural resources and we do not offer any objections provided that the following recommendations are incorporated into project plans.

- 1) Pipeline construction must be accomplished in existing disturbance corridors as proposed. Upon completion, pre-construction contours must be restored along pipelines and all disturbed areas must be permanently stabilized with vegetative cover and/or riprap, as appropriate.
- 2) Construction activities must avoid to the greatest extent practicable, encroachment into any wetland areas outside the pipeline alignment. Wetlands that are unavoidably impacted must be

appropriately mitigated. Where practicable, sidecast spoil material from trench excavation should be placed on the side of the trench opposite streams and wetlands. This same material should also be used as back fill with the A-horizon placed back in its original position. Excess spoil material must be removed to an approved upland disposal site.

- 3) Prior to beginning any land disturbing activity, appropriate erosion control measures, such as silt fences, silt barriers or other devices, must be placed between the disturbed area and the affected waterway or wetland; and maintained in a functioning capacity until the area is permanently stabilized.
- 4) All necessary measures must be taken to prevent oil, tar, trash and other pollutants from entering the adjacent offsite areas.
- 5) Once the project is initiated, it must be carried to completion in an expeditious manner in order to minimize the period of disturbance to the environment.
- 6) The project must be in compliance with any applicable local floodplain, erosion and sediment control and/or storm water ordinances.
- 7) The proposed project, including any necessary conditions and restrictions, must not result in degradation of existing water quality as determined by the South Carolina Department of Health and Environmental Control.

Sincerely,



Greg Nixon

Inland Environmental Coordinator



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

April 4, 2011

Patrick E. O'Donnell  
Chief, Planning and Environmental Branch  
U.S. Army Corps of Engineers  
Charleston District  
69A Hagood Ave.  
Charleston, SC 29403-5107

**Subject: EPA Comments for Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the Goodbys Regional Wastewater Treatment Plant**

Dear Mr. O'Donnell:

Consistent with Section 102(2)(c) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) appreciates the opportunity to provide comments on the referenced project. It is our understanding that the above referenced draft Environmental Assessment (EA) was submitted for a project which involves the construction of a 1.5 million gallon per day (average daily flow) waste water treatment plant (WWTP) and 31 miles of wastewater transmission lines.

According to the Draft EA, the WWTP will be located in Orangeburg County, South Carolina at the corner of U.S. Hwy 301 and U.S. Hwy 176 and the wastewater lines will follow U.S. 301 paralleling the existing water pipelines, Woolbright Road from U.S. 301 to the WWTP, U.S. Hwy 176 from the proposed WWTP to Exit 90 on I-95, U.S. 176 to U.S. 15 across Providence Swamp to Exit 93 on I-95, and Tee Vee Road.

The proposed project "will serve the wastewater needs of the adjacent Matthews Industrial Park, the proposed Jafza International logistics distribution center near Santee, expected residential development in unincorporated areas of southern Calhoun County, expected commercial development at the intersections of Hwy 176/I-95 and Hwy15/I-95, and some of the wastewater needs of the Towns of Elloree and Santee.<sup>1</sup>" The proposed treatment plant facility "will use a membrane bioreactor treatment system to achieve tertiary treatment standards."<sup>2</sup>

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<sup>1</sup> P.2 Draft FONSI Document submitted with EA

<sup>2</sup> P.2 Draft FONSI Document submitted with EA

EPA provided comments on the above referenced project in a letter dated April 22, 2009. We concentrated our review of the current document on the U.S. Army Corps of Engineers' (COE) responses to our previous comment letter. EPA appreciates the Districts' responsiveness to our previous comments. We offer the following final comments on selected COE responses:

*COE response to EPA comment #1: Based on our review of information provided in Section 3.5 and a letter from the COE Charleston Regulatory District on March 23, 2010, it is unclear if and how wetlands would be impacted by this project. Based on the response from the COE, it appears that this project will not entail the placement of fill material in wetlands/water of the US. However, Section 3.5 describes multiple crossings in Goodby's Swamp for the construction of the force main. EPA notes that although the Draft EA indicates that directional drilling may be used for these crossing and that no impacts to wetlands will be realized, the authors also concede that "it is possible that some wetlands may require disturbance during crossing and a Nationwide Permit (NWP) 12 (Section 3.5.1) may be issued by the USACE.<sup>3</sup>" EPA recommends that the Final EA provide a clearer description of impacts to wetlands and indicate whether a NWP 12 will be necessary for this project.*

*COE response to EPA comment #2: Based on our review of information provided in Section 3.8 and a letter dated January 12, 2010 from the U.S. Fish and Wildlife Service, it appears that the proposed project is "not likely to adversely affect federally-protected species and/or designated or proposed critical habitat as long as recommendations listed in Section 4.4 for wetland protection are incorporated into the project design."<sup>4</sup> Section 3.8 also indicates that this project will have little to no impact on listed species due to the "mitigation of directional drilling under wetlands and re-vegetation of cleared sites in the non-wetlands portions of the floodplains."<sup>5</sup> Again, it is unclear if directional drilling will be used for this project to avoid impacts to wetlands. It is stated in Section 3.5 that "direction boring would be used under all wetland areas unless it is cost-prohibitive (emphasis added by EPA)."<sup>6</sup>*

*COE response to EPA comment #3: Based on our review of Section 3.9, it appears that no adverse impacts would be realized on any archaeological or historic resources from construction of this project. EPA appreciates the extensive analysis and coordination with the State Historic Preservation Office (SHPO) and the multiple tribes regarding the potential for this project to impact cultural and historic resources in the project area.*

*COE response to EPA comment #4: Based on our review of Section 3.1, it is our understanding that the applicant coordinated with the South Carolina Department of Health and Environmental Control (SCDHEC) Bureau of Air Quality on this project and that no further air quality analysis is required.<sup>7</sup> EPA supports SCDHEC's recommendations of minimizing ozone-forming emissions and particulate matter by using clean diesel or alternatively-fueled equipment and other best management practices.*

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<sup>3</sup> P. 73

<sup>4</sup> P. 100

<sup>5</sup> P. 100

<sup>6</sup> P. 73

<sup>7</sup> P. 116

COE response to EPA comment #5: Based on our review of Sections 1.3.1 and 3.10 it appears that the Environmental Justice (EJ) communities have been adequately identified. EPA would recommend that the Final EA provide a better discussion of how these affected communities were meaningfully engaged during the public notification process for this project.

COE response to EPA comment #6: Cumulative impact discussions are provided for each resource in Chapter 3. Potential induced development growth spurred by construction of the new collection system could cause or contribute to adverse cumulative impacts to water quality and wetlands in and around the project area. EPA understands that efforts to control development will include binding covenants consistent with Orangeburg County land use ordinances which will control the number, size of taps, and conditions under which taps can be approved for connection. Similar covenants will control connections to the wastewater system. EPA also understands that the Towns of Bowman, Vance, and Calhoun and Orangeburg County have all agreed to these binding covenants. Therefore, we recommend that these signed binding agreements be included in the Final EA and/or Finding of No Significant Impact..

COE response to EPA comment #7: Based on our review of Section 3.6 it is our understanding that the applicant has coordinated with the SCDHEC regarding the potential for this project to impact water quality. EPA supports SCDHEC's recommendations for construction stormwater controls and required SDHEC permits for this project.

COE response to EPA comment #8: EPA supports SCDHEC's recommendations for construction stormwater controls and required SDHEC permits for this project.

COE response to EPA comment #9: EPA supports SCDHEC's recommendations for construction stormwater controls and required SDHEC permits for this project.

COE response to EPA comment #10: It is EPA's understanding based on review of Section 3.6 that SCDHEC provided concurrence that the Goodby's Region wastewater system project would not adversely affect water quality. SCDHEC provided this concurrence in a letter date August 9, 2006. Since several TMDLs are still under development in the area of the project (TMDL target dates range from 2009-2017), EPA recommends that the Project Engineer revisit this issue with the SCDHEC TMDL staff to ensure that their concurrence still stands for this project.

We appreciate the opportunity to provide scoping comments on the proposed Draft EA. Should you have questions, feel free to coordinate with Dan Holliman, of my staff at 404-562-9531 or at [holliman.daniel@epa.gov](mailto:holliman.daniel@epa.gov).

Sincerely,

A handwritten signature in black ink that reads "For Ntale Kajumba". The signature is written in a cursive, flowing style.

Heinz J. Mueller, Chief  
NEPA Program Office  
Office of Policy and Management

## Shirey, Alan D SAC

---

**From:** Kim Jumper [kjumper\_shawneetribes@hotmail.com]  
**Sent:** Friday, April 15, 2011 4:01 PM  
**To:** Shirey, Alan D SAC  
**Subject:** Goodbys Regional Wastewater Treatment Plant

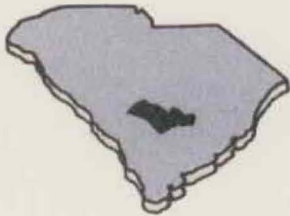
This letter is in response to the above referenced project.

The Shawnee Tribe's Tribal Historic Preservation Department concurs that no known historic properties will be negatively impacted by this project. We have no issues or concerns at this time, but in the event that archaeological materials are encountered during construction, use, or maintenance of this location, please re-notify us at that time as we would like to resume consultation under such a circumstance.

Thank you for giving us the opportunity to comment on this project.

Sincerely,  
Kim Jumper, THPO  
Shawnee Tribe





## COUNTY OF ORANGEBURG

2015 BROUGHTON STREET, ORANGEBURG, S.C. 29115

TELEPHONE 803/534-4487

FAX 803/534-2797

[dannehaydel@sc.rr.com](mailto:dannehaydel@sc.rr.com)

### COUNTY ATTORNEY

D'ANNE HAYDEL

### COUNCIL MEMBERS

JOHNNIE WRIGHT, SR., CHM.  
JANIE COOPER, VICE CHAIR  
CLYDE B. LIVINGSTON  
HEYWARD H. LIVINGSTON  
WILLIE B. OWENS  
JOHNNY RAVENELL  
HARRY WIMBERLY

February 10, 2011

J. William Clark, Administrator  
Orangeburg County  
1437 Amelia St.  
Orangeburg SC 29115

Re: Goodby's Regional Wastewater System Project (herein the "Project")  
Attorney Opinion Concerning Enforceability of Certain Proposed Covenants

Dear Mr. Clark:

In response to your request, I am writing this letter to set forth my legal opinions as the Orangeburg County Attorney regarding the enforceability of certain proposed covenants concerning the Project.

### Reliance on Representations

Orangeburg County (herein the "County") has represented to the undersigned that the following are governmental entities with separate legal entity status and the power to enter into a binding and enforceable contract with the County, and the undersigned has relied on the representations in reaching the legal opinions set forth in this letter:

1. The United States Department of Agriculture – Rural Development (the "USDA-RD");
2. The United States Army Corp of Engineers (the "USACE"); and
3. The Lake Marion Regional Water Agency (the "LMRWA").

The County has represented to the undersigned that the County, the USDA-RD, the USACE and the LMRWA have, to date, agreed in principal to the following language (herein the "Language") being included in the Project's Environmental Assessment, and the undersigned has relied on the representation in reaching the legal opinions set forth in this letter:

**Exhibit J.9 (1)**

In an effort to mitigate the indirect impacts on Important Farmlands in accordance with Farmland Protection Policy Act Final Rule, Orangeburg County will enter into a binding covenant that will limit potential customer service connection to a maximum of 6-inch gravity service line per lot or equivalent service of no more than 1,500 gallons per day per lot via a grinder pump and force main service connection in areas with a designated land use of Forest and Agriculture, per the Orangeburg County Comprehensive Land Use Plan. This mitigation will be enforced through a binding covenant at the time of execution of the loan agreement or the USACE PPA, not including future lot splits under the "Small Subdivision" provision in Section 36-83(j) of the Subdivision and Land Development Regulations. As five (5) residential uses are permitted per lot by the current Orangeburg County Zoning Ordinance, the proposed service connection limit size was derived to support continued agricultural uses that would support up to five (5) residential services per lot, and would not allow connections of multiple lots to one service later according to current South Carolina Department of Health and Environmental Control regulations for wastewater distribution lines. Furthermore, subdivisions within areas shown as Agricultural in the Comprehensive Land Use Plan that do not qualify as "Small Subdivision" in accordance with Section 36-83(j) of the Orangeburg County Subdivision and Land Development Regulations shall still be considered one lot with regard to this restriction and be limited to 6-inch gravity service line or equivalent grinder pump and force main connection for the entire proposed subdivision. Additionally, Orangeburg County will affirm and adhere to the Orangeburg County Comprehensive Land Use Plan as it pertains to the proposed wastewater improvements project and their respective corridors. It should be noted that Orangeburg County's Comprehensive Land Use Plan includes protection and preservation of farmlands as one of its goals in order to preserve the rural agricultural nature of Orangeburg County. Additionally, the customer tap restriction will be waived for all businesses that support agriculture practices and for all existing industrial sites considered as "prior converted farmlands" per the Farmland Protection Policy Act. The above wastewater service connection restriction shall not apply to Planned Development Uses (PUDs) identified in Orangeburg County's Comprehensive Plan Future Land Use Map. Additionally, the customer wastewater service restriction will be waived for all businesses that support agricultural practices, for existing subdivisions and structures that have obtained a building permit prior to execution of the restrictive covenant, and for all existing industrial sites considered as prior converted farmlands due to their planned land use. The customer wastewater service





restriction and compliance to the Orangeburg County Comprehensive Land Use Plan will be executed by Orangeburg County as a binding agreement and/or covenant which will be attached to either the USDA-RD Loan Resolution or the USACE Project Partnership Agreement. The customer service restriction will apply to Agriculture/Forest-designated lands shown on the Orangeburg County Comprehensive Plan Future Land Use Map along project corridors along US 176, US 15, and SC 210.

#### Definitions

For purposes of the legal opinions expressed below, the following capitalized words shall have the following meanings:

1. "Commission" shall mean the Orangeburg County Planning Commission, the membership of which is appointed by Orangeburg County Council.
2. "Council" shall mean the Orangeburg County Council, the governing body of the County, a political subdivision of the State of South Carolina.
3. "Development Agreement Act" shall mean the South Carolina Local Government Development Agreement Act, S.C. Code Ann. §6-31-10 et seq.
4. "LDRs" shall mean the Orangeburg County Subdivision and Land Development Regulations.
5. "Plan" shall mean the Orangeburg County Comprehensive Land Use Plan.
6. "Zoning Ordinance" shall mean the Orangeburg County Zoning Ordinance.

#### Legal Opinions

The legal opinions set forth in this document are as follows:

1. The County, through the Commission, has the power to recommend to Council amendments to the Plan, the LDRs, and the Zoning Ordinance to add the restrictions set forth in the Language.
2. The County, through the Council, has the power to accept and enact the Commission's recommendations to amend the Plan, the LDRs, and the Zoning Ordinance to add the restrictions set forth in the Language.
3. The County, through the Council, has the power to establish procedures and requirements pursuant to the Development Agreement Act to consider and enter into agreements with developers. The USDA-RD, the USACE, and the LMRWA




qualify under the Development Agreement Act as “persons” and, therefore, developers.

4. After completing step 3, above, the County, through the Council, has the power to enter into a development agreement pursuant to the Development Agreement Act with the USDA-RD, USACE, and/or the LMRWA wherein the County covenants for a limited term of years not to change specified restrictions then-currently in effect in the Plan, the LDRs, and/or the Zoning Ordinance in exchange for the County’s receipt of wastewater infrastructure in the area subject to the restrictions.
5. In the event that the representations listed in this letter are correct, that the relevant law in the State of South Carolina on the date of this letter is the same on the dates that all of the foregoing actions were to take place, and the foregoing actions occurred in accordance with the proper authorization process for each, then, under South Carolina law, the parties to the development agreement would be legally bound to one another to perform their respective duties as set forth in the development agreement.

Other Limitations

The undersigned expresses no opinions regarding the Project or law other than what is expressly set forth in this letter.

Sincerely,



D'Anne Haydel

Cc John McLauchlin, Orangeburg County, Engineer