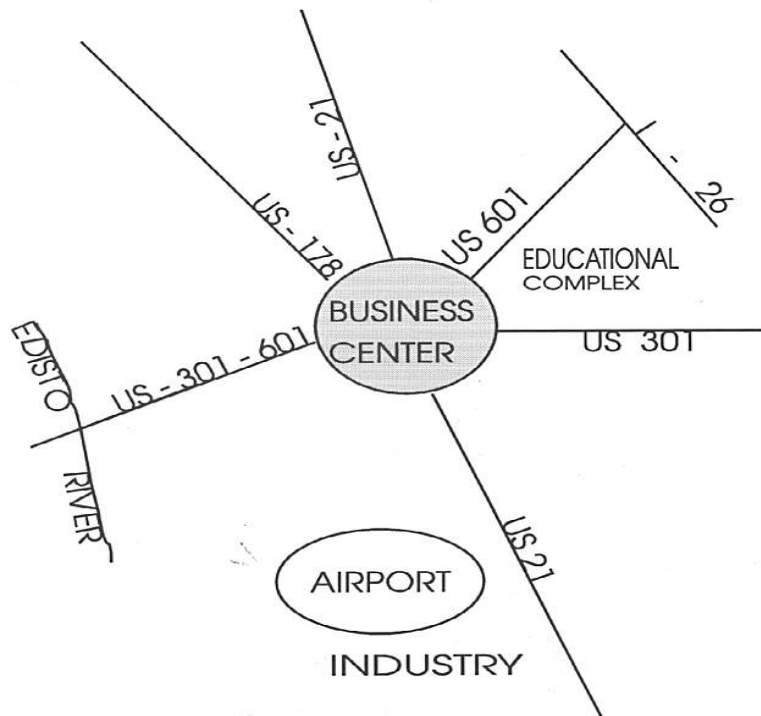


## CHAPTER 8 – TRANSPORTATION

The transportation chapter considers the existing network of transportation systems (roads, transit, rail, water, air, etc.), current plan and project recommendations for changes to those networks, to identify and offer suggested goals and policies for Orangeburg to accommodate, mitigate and improve transportation facilities in the city in the future. A generic map illustrating key transportation facilities in and around the City of Orangeburg is provided in Figure 8.1

**FIGURE 8.1: ORANGEBURG TRANSPORTATION NETWORKS**

### MAJOR PLANNING COMPONENTS



The City of Orangeburg is served by four federally designated US highways: US 21, US178, US301, and US601, and is located four miles to the west of the Interstate I-26 expressway. I-26 is the main transportation route between Charleston, 90 miles to the southeast, and Columbia, 28 miles to the north. Interstate I-95, the major interstate expressway connecting Florida and the US east coast, crosses Orangeburg County and I-26 only 10 miles south of the City.

Urban development, in general, and economic development in particular, are influenced perhaps more by transportation facilities than any other single element.

The primary means of transportation in Orangeburg is by automobile, dependent on a street and road network provided and maintained principally by the South Carolina Department of Transportation (DOT). Most cross-regional travel originates, terminates or passes through Orangeburg County, producing benefits (industry, retail, and housing demand) and problems (traffic congestion and pollution).

The capacity of roads to serve existing and projected development is critical to planning.

## 8.1 ROAD NETWORK

The road system provides the basic means for personal transportation and the movement of packages and goods throughout the United States. At the highest level are the limited-access Federal Interstate highways, including Interstate 26 which terminates in Charleston to the southeast and provides access to Columbia and “Upstate” South Carolina to the north. I-26 is the primary roadway providing access to Orangeburg County and the City. Although no interstate exits are located within the city limits, three highway exits for I-26 provide access to the interstate system within \_\_\_ miles of the City. South of the City, Interstate 95 provides access to Florida and coastal Georgia to the south and to the large urban centers of the East Coast to the north.

The Community’s major roads primarily include the state and federal highway routes to and through the City. These include the roadways experiencing the most significant traffic volumes such as segments of the Bypass, US 601 (between St. Matthews Road and I-26), Columbia Road (between Ridgewood and the Bypass), North Road, and St. Matthews Road (between Chestnut and US 601). Traffic has increased threefold since 1980 on these corridors. Most inner-city streets have not experienced similar increases due to the relative stability in land uses and intensity of development on these streets.

Most of the anticipated street improvements within the City are expected to be located at the points where additional development occurs and the use of land intensifies. The City should continually monitor land use changes that create a significant number of origin or destination trips or change the intensity of the land use; thus, creating the need for street improvements. These needs may be anticipated through the local land use planning process.

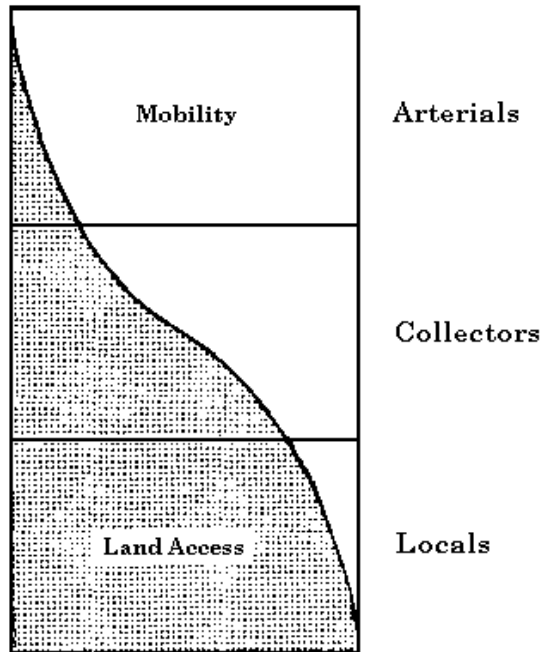
Currently, there are no specific plans to make significant improvements to the City’s internal street and highway system. Projects involving federal and state funding dollars must be included in the Lower Savannah COG Long Range Transportation Plan. The Plan should include new signals at major turning locations and four-way stops that are needed on some secondary streets. In addition, some projects outside the city are expected to impact local development, especially at the gateways into and exiting the City.

## 8.2 FUNCTIONAL CLASSIFICATION

National and State Departments of Transportation categorize roadway systems into a hierarchy of “functional classification.” This system allows for evaluation and analysis of specific road segments within the overall functioning of the road network. Functional classification systems organize roadways based on accessibility and mobility. There is an inverse relationship between accessibility and mobility in transportation planning (see Figure 8.2). At the top of the spectrum, Expressways and Arterials provide the highest level of mobility due to their high travel speeds. However, higher travel speeds require measures to restrict or control the number of access points. At the other end of the spectrum, local access roads provide the highest level of access to adjacent land, may require numerous curb cuts and driveways. In turn, local roads must necessarily limit speed and mobility as a result of increased access.

Roadway systems are also classified in terms of urban and rural networks for the purpose of design. Urban and rural areas have fundamentally different characteristics regarding density and preferred land use types, density of street and highway intersections, nature of travel patterns, and the way in which all these elements are related in the definitions of highway function. As the intensity of land uses and travel volumes in urban areas increase, it is more difficult to pinpoint specific travel origin and generation centers. The roadway network throughout Orangeburg is classified as an urban network.

**Figure 8.2 – Functional Classification by Mobility and Accessibility**



Source: Federal Highway Administration

**INTERSTATE HIGHWAYS**

Interstate highways accommodate travel between states and metropolitan areas, and provide the greatest level of mobility. Access points are limited to highway interchanges to avoid cross directional conflicts. Interstate highways are the highest level of principal arterial roadway, and I-26 is the primary north-south interstate running near Orangeburg and serving the Cities of Columbia and Charleston. I-95 runs north south across the southeastern edge of the County between Savannah and Florence and serving the east coast of the United States.

**PRINCIPAL ARTERIALS**

An arterial is a road that has the primary function of carrying through traffic over relatively long distances accommodating travel between towns or major areas of a county. The principal arterial system serves major activity centers, the highest traffic volume corridors, and the longest trips. For principal arterials, the concept of service to abutting land is subordinate to the provision of travel service to major traffic movements.

### **MINOR ARTERIALS**

The minor arterial street system interconnects with and augments the urban principal arterial system. The minor arterial system provides service trips of moderate length (generally from one end of a town or city to another end), and distributes travel to geographic areas smaller than those identified with the principal arterial system. The minor arterial system also provides more emphasis on land access with a somewhat lower level of traffic mobility.

### **URBAN COLLECTORS**

The collector street system provides land access service and traffic circulation within residential neighborhoods, commercial and industrial areas. It differs from the arterial system in that facilities on the collector system may penetrate residential neighborhoods, distributing trips from the arterials through the area to the ultimate destination. Conversely, the collector street also collects traffic from local streets in residential neighborhoods and channels it into the arterial system.

### **LOCAL STREETS**

Local streets feed the collector system from low volume residential and commercial areas.

## **8.3 ROADWAY OPERATIONAL CHARACTERISTICS**

The operational characteristics of a roadway include structural characteristics such as the number of through lanes, number of turn lanes, right of way, and paving material. These structural characteristics determine the amount of traffic that a roadway can safely handle before it becomes congested. In addition to the physical infrastructure, traffic regulating devices such as signalization and posted speed limit also have a strong effect on the operation of roadways. The number of lanes, the posted speed, and the number of access points are all factored into the theoretical capacity calculated for each roadway. This theoretical capacity is compared with the actual traffic volume in assessing the roadway level of service.

### **TRAFFIC COUNTS**

The South Carolina Department of Transportation (SCDOT) maintains annual average daily traffic (AADT) count information for all counties throughout the state. Count stations are set up along major roadways in order to directly measure the existing volume of traffic traveling in both directions. Traffic sample data are then adjusted to reflect the average daily traffic across an entire year.

Following the hierarchy of roadway functional classification, the interstates passing through Orangeburg accommodate the greatest volume of traffic, with traffic counts ranging between 75,000 and 141,000 trips per day on I-26 and traffic counts between 70,000 to 84,000 trips per day on I-526.

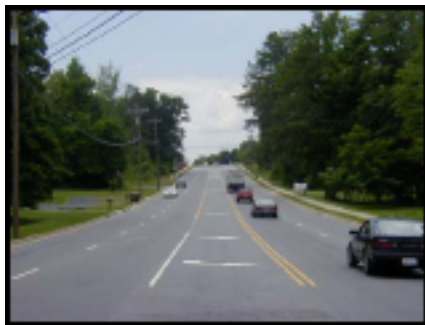
**LEVEL OF SERVICE (LOS)**

The Lower Savannah Council of Governments (LSCOG) uses a travel demand model to determine future capacity needs for the region to support the LSCOG Regional Long Range Transportation Plan. The model included analysis of the existing and projected future Levels of Service (LOS) for major roads in the region. The letter-coded system for Level of Service (LOS) provides a handy reference scale to identify traffic congestion levels, and is usually expressed by a grade between “A” for excellent and “F” for failing. LOS codes are based on comparisons of volume to capacity (V/C ratios). A description of the roadway conditions under each LOS is provided in the guidelines table below:

**Table 8.1: Congestion and Level of Service**

LOS	Volume-to-Capacity Ratio	Conditions
A,B,C	Less than 0.7	Traffic can move relatively freely.
D	0.70 to 1.00	Vehicle speeds beginning to decline slightly due to increasing flows. Speed and freedom of movement are severely restricted.
E	1.0 to 1.25	Traffic volumes are at or close to capacity, resulting in serious delays.
F	Over 1.25	Breakdown in vehicular flow. Flow rate exceeds roadway capacity. Describes traffic downstream from the bottleneck of breakdown.

Comparison of Roadway Level of Service



**Level of Service A**



**Level of Service C**



**Level of Service F**

All roadways are categorized on the basis of LOS to define the road service characteristics. An “A” level of service roadway has free flow conditions with relatively low volumes and little or no delays. The other end of the spectrum is an “F” LOS with stop and go operation and average signal delays greater than one minute.

All roadways in Orangeburg are designed to provide not less than a “C” level of service. Where traffic exceeds this designed service level, improvements are generally scheduled by the State. Typically, streets with an LOS of D, E or F are given top priority for improvements.

The LSCOG travel demand model projected estimated daily traffic volumes for roadway corridors throughout the region including in Orangeburg. Transportation improvement projects that have existing or committed funding for construction were included as well. The volume to capacity (V/C) ratios based on the projections provided predicted future LOS and capacity needs in the region. A V/C of less than 1 predicts that the road will remain at capacity, even with increased traffic volume in the future year. A V/C ratio of 1 indicates that the road is at capacity, and if the A V/C ratio is greater than 1, the road’s volume exceeds its capacity to handle the amount of traffic, and the corridor has an unacceptable LOS.

## **8.4 PUBLIC TRANSPORTATION FACILITIES**

### **CROSS COUNTY CONNECTION**

A pilot bus system was established in 1992 to augment the automotive system, but failed to secure the needed rider ship to sustain operations and subsequently closed, leaving the Community without a bus system. The Orangeburg Cross County Connection (CCC) was created to provide public transportation in Orangeburg and Calhoun Counties. Services include three transit service routes:

- Campus Circulator Loop (serving Claflin and South Carolina State Universities);
- Orangeburg Downtown Circulator Purple Route;
- Orangeburg Downtown Circulator Green Route; and
- Connector Service between Orangeburg and St. Matthews and downtown Orangeburg.

The OCC also provides para-transit services throughout Orangeburg County.

A two-story, 8,300SF multi-modal transit facility serves as the operations center for the Cross County Connector public transit system. The Orangeburg County Transit Facility includes a passenger wait area, ticket sales, retail and office space, a lounge for drivers, and storage space.

At the current time, public transit is an emergency alternative for many travelers. However, public transit and taxis may be the only realistic alternatives for older persons, youth, the poor, and persons who are physically unable to operate a car. As Orangeburg grows larger and important destinations become scattered over a larger geographic area, transit becomes more important as an alternative to personal cars and more expensive as transit routes must expand to meet the destinations desired. In addition, public transit may offer an alternative to congestion during peak travel hours to reduce traffic congestion and expedite travel on heavily used corridors.

Public transit must focus efforts to attract commuters and provide coordination of bus service and park-and-ride facilities to support commuting between pleasant lifestyle centers like Orangeburg and major regional employment centers in Columbia. The recent

improvements of I-26 may consider High-Occupancy Vehicle (HOV) lanes to enhance the travel time incentives to ride express transit service or carpool when compared to the alternative one-person-per-car in a much more congested lane.

The Cross County Connection provides a Downtown Circulator service in the City of Orangeburg, a Campus Loop serving a two campus area, a St. Matthews Connector serving downtown St. Matthews and connecting with the Downtown Circulator in the City of Orangeburg, and a Paratransit Service throughout Orangeburg County:

The **Cross County Connection Downtown Circulator** bus operates two color-coded, fixed routes in the City of Orangeburg. This service offers easy access to government offices and agencies, schools, colleges and universities, the regional medical center and healthcare providers along with many of the most popular places to work and shop.

The **Cross County Connection Campus Loop** serves a three campus area located in the City of Orangeburg. Students and faculty of South Carolina State University, Claflin University, and Orangeburg-Calhoun Technical College can now ride free by showing your Student or Faculty ID badge.

The **Cross County Connection St. Matthews Connector** serves the transportation needs of residents in the town of St. Matthews with a community route and a route to and from the City of Orangeburg to the Orangeburg Transportation Center. This service operates on Thursday of each week. The fare for this service is \$1.00 each way.

#### **INTER-CITY BUS TRANSPORTATION**

Inter-city bus services are available at Henry's Travel Center located at 1935 Old Edisto Drive (Telephone numbers (803) 534-2590 for passengers and (803) 534-2590 for package express. Normal station hours are 8:00 am to 11:00pm. Bus services provide national inter-city bus transportation via connections to Charleston and Summerville, SC; Asheville, Fayetteville, and Raleigh, NC; and Athens, Atlanta, Augusta, , Conyers, Norcross, and Savannah, GA.

### **8.5 BIKE AND PEDESTRIAN FACILITIES**

Bicycle and pedestrian trail are complementary elements of the local transportation system, providing individual and societal benefits for short-distance trips, recreation, and personal health. Walking and pedestrian facilities are likely to be less expensive than costs incurred by other transportation modes and would reduce vehicle miles traveled by personal automobiles, parking requirements, potential conflicts at intersections, traffic congestion, and the need to widen roads. Additionally, the reduction of vehicle miles traveled creates less pollution.

Pedestrian and bike activity also help support pedestrian-oriented mixed-use districts and neighborhood commercial establishments, leading to a more vibrant community and increased quality of life. For some residents, biking and walking provide primary personal transportation, whether out of desire or necessity. For others, the presence of facilities for walking, biking, or both adds a quality of life factor that may determine where a person chooses to live and work. A network of accessible and well-maintained sidewalks and biking facilities has been shown to help a city attract new residents and visitors.

Safety for pedestrians and cyclists represents a key challenge, given the high volume of traffic that pass along the City's street network. A lack of sidewalks, trails or bike lanes force pedestrians and cyclists to try to share roads with automobile traffic, which can be dangerous. Safe

routes to schools may provide an alternate to traffic jams at drop-off and pick-up points. Sidewalks, crosswalks, and dedicated bicycle lanes are primary means to ensure safety, and provide a means to separate bicycles and pedestrians from motor vehicle traffic. Multi-use paths are typically designed for 10-feet in width with a 5-foot planted strip between the path and roadway.

### **EXISTING BICYCLE AND PEDESTRIAN FACILITIES**

Bicycle and pedestrian facilities serve as an alternative means of transportation that must be accommodated within the roadway environment. Cycling and walking may be the primary mode of transportation for groups such as children, tourists, the elderly, and those without access to an automobile.

### **POTENTIAL FUNDING SOURCES**

A variety of financing resources are potentially available for constructing sidewalks, bike paths, and multi-use trails in Orangeburg. These include funding from federal, state, county, and city resources. Orangeburg should continue to identify, review, and pursue opportunities through these funding sources as appropriate.

#### SCDOT TRANSPORTATION ENHANCEMENT PROGRAM

Beginning in 1992, the South Carolina Department of Transportation (SCDOT) allocated a portion of funding towards non-traditional transportation activities and projects via the Transportation Enhancement Program. These non-traditional activities and projects include: streetscapes, scenic and landscaping programs, historic preservation, environmental mitigation, and bicycle and pedestrian facilities. SCDOT allocates the funds set aside for these projects in accordance with current federal funding and authorization under continuing resolutions of the US Congress and as programmed by the US Department of Transportation. In 2015, new transportation funding and authorization is being debated by Congress.

MAP-21 (the current federal funding act as extended by continuing resolutions) reduced funding and consolidated funding for bicycle and pedestrian transportation into the "Transportation Alternatives" program including allocation of these funds to the "Safe Routes to School Program" and the "Recreational Trails Program." Funding was split with 50% to metropolitan planning organizations and 50% going to the states.

Federal transportation funds for bike and pedestrian projects are reimbursable and are eligible for Transportation Alternatives funding providing for:

- ❑ Construction of new sidewalks, separate walking trails/paths, bike paths.
- ❑ Adding and/or modifying bike lanes on existing roadways, and related striping.
- ❑ Adding and/or modifying road shoulders to accommodate bicyclists.
- ❑ Installation of items at intermodal points and vehicular parking facilities such as: bike lockers and racks and facilities for bikes on buses and trains.



### RECREATIONAL TRAILS PROGRAM

The Recreational Trails Program (RTP) is a federal-aid assistance program administered by the Federal Highway Administration (FHWA) to build or improve trails for off-road motorcycles, ATV's, mountain bikes, bicyclists, hikers, equestrians, and water craft. Applications for funding are administered through the South Carolina Department of Parks, Recreation and Tourism. Local governments are eligible, and funds are allocated on a two-year grant cycle. A 'Letter of Intent' is required in early November in odd numbered years and requires a 20% local match.

### TAX-INCREMENT FINANCING

Tax Increment Financing districts (TIFs) are potential resources for areas of the city: City Center, and Edisto Gardens. TIF funds are limited to use only within the designated districts, so they are specific resources for local sidewalks and small neighborhood trails within the TIF districts. They cannot be used to fund citywide trails outside the districts unless identified in their authorizing plans.

### COMMUNITY DEVELOPMENT BLOCK GRANTS (CDBG)

Community Development Block Grants are funded through the U.S. Department of Housing and Urban Development and are primarily used to assist local governments in providing services to low to moderate income households. The CDBG program also funds community facilities and community infrastructure, including sidewalks.

### GENERAL FUNDS & TAXES

Although grant programs are available, basic funding for sidewalks and other pedestrian facilities needs to come from the city's general fund, and the city should set aside a portion of its annual budget each year towards funding the design and construction of bike trails and sidewalk transportation alternative improvements. More importantly, the city should identify and designate a specific portion of this local funding towards providing the "front-end" local matches for reimbursable state and national grant programs.

### RAILS TO TRAILS

The Rails to Trails non-profit organization is not a funding program, but is a national advocate to provide technical assistance, public information, and local activism for converting abandoned railroad lines into usable trails if the opportunity arises.

### **FUTURE SIDEWALK PLANNING**

Priorities for the location of sidewalks or trails should be identified to accommodate to community needs.

#### PRIORITIES FOR SIDEWALKS:

- ❑ **Sidewalks to schools:** Not every school-aged child rides a bus to school. Many school-age children live near their school and their parents may prefer the option for their children to walk (or bicycle) to school if they have a safe place to travel. Areas within ¼ mile of schools should be the highest priority for sidewalk improvements (¼ mile is generally estimated as a five-minute walk, a distance that people will usually choose to walk).

The SCDOT “Transportation Alternatives” program specifically supports the “Safe Routes to School” (SRTS) program to improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools while promoting healthy lifestyles for children and their parents. Selected schools are required to design a comprehensive SRTS Plan specific to the school that incorporates the “Five E’s: **Engineering, Education, Encouragement, Enforcement, and Evaluation.**”

- ❑ **Transit Stations and Bus Stops:** Although some train and bus patrons are riders by choice, many riders use public transit as their primary means of transportation, and need adequate sidewalks for mobility to and from stops. For those who do not own cars or choose to use public transportation, sidewalks leading to bus stops or transit stations may be necessary for safe pedestrian travel. In addition, retail shopping centers are primarily auto-oriented in Orangeburg. As above, a ¼ mile distance is an appropriate distance for priority with ½ mile being a desirable distance for pedestrian accessibility along collectors and thoroughfares.
- ❑ **Sidewalks to Parks:** People are likely to walk to parks if they are located within a five-minute walk.
- ❑ **Commercial Corridors:** Those who do not own cars may walk to commercial areas for their service needs. Others may enjoy walking from their home to retail, entertainment venues or restaurants. However, the number of curb cuts, driveways, and intersections are likely to increase the number of pedestrian and vehicle conflicts. Commercial corridors with a lot of foot traffic and inadequate pedestrian walkways are recommended to be a high priority for sidewalk investment to mitigate conflicts and enhance safety.
- ❑ **Residential Areas:** Developers are required to construct sidewalks for new development projects, and many residential streets require slower speeds and may be safe enough to walk along or adjacent to the roadway without sidewalks. Residential areas are not a high priority, but the city should identify and target residential streets that pose safety issues, such as long straight-away streets and heavy volume corridors, for sidewalk improvements.

In summation, parks, schools, transit stops, retail centers, and job centers are the most likely generators of pedestrian activity. Therefore bus stops are an additional priority for schools and parks when assessing sidewalk needs. Students that live within a ¼ mile or farther from their school are more likely to walk to school than taking a bus, and safe sidewalks are needed. Parks are used for recreation and outdoor enjoyment and patrons often choose to walk or jog to a park, rather than drive there.

As stated above, a comfortable walking distance measure typically used in transportation planning is a five-minute walk for a one-way trip. For the average person, this is approximately ¼ mile, and this measure is commonly referred to as a pedestrian shed. Future sidewalk projects along arterial and collector road corridors are recommended where major roads have missing or disconnected sidewalks. Sidewalks along major roads should take priority over neighborhood streets because they are more heavily traveled by pedestrians and vehicles, and higher speed limits produce greater needs to improve pedestrian safety.

## **8.6 RAILROADS, AIRPORTS, AND WATERWAYS**

### **RAILROADS**

Orangeburg has access to two rail carriers, Norfolk Southern and CSX. The Norfolk Southern lines run from Charleston to Branchville, turns north to pass through Orangeburg, Saint Matthews and Fort Motte, and then on to Columbia. The CSX system extends north from Denmark through Orangeburg, Cameron and Creston to Sumter, and then west to Columbia.

Norfolk Southern operates a 2-day delivery rail service between Charleston and Charlotte, NC using dedicated intermodal trains with a switch in Spartanburg. This freight service provides an advantage for industries in the Global Logistics Triangle between I-26, US 301 and I-95.

### **RAIL PASSENGER SERVICE**

Inter-city passenger rail access is provided by Amtrak rail stations in Denmark, Columbia, and Orangeburg, South Carolina. Four trains provide services through South Carolina between the southern states and the northeastern US and three serve Orangeburg:

- The Silver Star passenger train provides daily services between Miami/ Tampa and New York with stops at Denmark and Columbia;
- The Silver Meteor runs between Miami and New York with a stop at Orangeburg; and
- The Palmetto runs between Savannah and New York with a stop at Orangeburg.

### **COMMUTER RAIL**

There have been preliminary discussions regarding a possible link between Columbia and Charleston. However, there is no substantive push to make commuter rail a reality due to the anticipated high costs to construct a dedicated route, and the low volume of passenger traffic anticipated. If a commuter rail system is discussed in the future, Orangeburg could be an important stop between Columbia and Summerville.

### **AVIATION FACILITIES**

Commercial aviation services are provided by the Columbia Metropolitan Airport (CAE) located 40 miles to the north, and Charleston International Airport 70 miles to the south. The Columbia Metropolitan Airport accommodates more than 1.2 million passengers per year and 168,000 tons of cargo annually. Passenger flights are provided by Delta, American Eagle, and United Express. In March 2017, the three airlines landed 875 aircraft and enplaned more than 46,000 passengers from CAE. The CAE airport was established in the early 1940s and became the primary air carrier airport for Columbia shortly after World War II. The airport is governed by the Richland-Lexington Airport Commission, a political sub-division of the state of South Carolina. The most recent update to the CAE Airport Master Plan was completed in 2012, and recommends runway extensions, safety area improvements, and property acquisitions to reduce land use and safety conflicts.

The City of Orangeburg owns and operates the Orangeburg Municipal Airport (OGB), located two miles south of the City's downtown central business district. The 300-acre Orangeburg Airport serves general aviation private and corporate aircraft, and meets local needs for industrial related air traffic. Located off the US 21 Highway, the airport has a listed elevation of 195 feet (59 M) above mean sea level, and provides two asphalt paved runways to serve both piston and jet aircraft:

- Runway 17/35 is 5,399 (1,646 m) long by 100 (30 m) feet wide.
- Runway 5/23 is 4,508 feet wide (1,374 m) long by 100 feet (30 m) wide.

The airport is home to a number of corporate and private aircraft, and a report dated August 2011 identified 22 based aircraft and 22,420 annual aircraft operations at the airport, an average of 61 per day: 99% general aviation, one percent air taxi, and less than one percent military operations. The mix of aircraft at that time was 73% single-engine and 27% multi-engine. The City of Orangeburg also operates an FBO (fixed base operator) at the airport, and other resources include an ODALS approach lighting system, an airport beacon, medium intensity lighting and capacity for a VOR and NDB non-precision approach. Both Jet-A and 100LL fuel are available at all times. Satellite weather, wireless internet and use of a courtesy car are available to pilots at no cost.

*The Orangeburg Airport Master Plan was prepared to meet local needs for general aviation. New hangers and expansion of the ramp are planned, positioning the airport to take advantage of future opportunities. **The Aviation Memorial and Pilot's Walk** is a unique feature located at the entrance to the airport terminal. The Walk was designed, constructed and paid for by local pilots of the Orangeburg Pilots Association to communicate historic events in aviation history and honor those associated with aviation.*

The location of the airport in the City makes it accessible, but raises questions of compatibility. FAA rules and regulations impose certain development constraints around airports to ensure the safety of aircraft. And these constraints often are at odds with development objectives. The airport is expected to continue operating safely at its present location. Therefore, continued care to ensure land use compatibility through the use of the Comprehensive Plan Zoning ordinance and maps is a consistent objective of this plan.

## **WATERWAY TRANSPORTATION**

The Edisto River is not used for commercial shipping, but is used for recreational boating. Five boat ramps on the Edisto are located in or close to the city at the following locations:

- RM-36 -- Baughman Landing at Schillings Bridge (Road 74 bridge, west of Orangeburg)
- RM-28 -- Edisto Memorial Gardens Park in Orangeburg
- RM-27 -- Orangeburg Landing (in park below Hwy 301/601 bridge)
- RM-18 -- Livingston Landing (off Road 49, south of Orangeburg near fish hatchery)
- RM-15 -- Pou's Landing (off Road 49, south of Orangeburg beyond fish hatchery)

**THE PORT OF CHARLESTON IS THE NEAREST SEAPORT** to Orangeburg, located approximately 70 miles southeast of the City. Access to the port is provided by I-26 and by the Norfolk Southern or CSX railroad lines.

### 8.7 TRANSPORTATION GOALS AND POLICIES

GOAL	POLICY	ACTION	STATUS
<b>Goal 8.1: Continue coordinating transportation and land use planning</b>	Policy 8.1.1: Ensure that new development does not decrease the level of service (LOS) of roadways without a commitment for improvements		
	Policy 8.1.2: Provide for flexible, negotiated traffic mitigation measures for large new developments that facilitate pedestrian and transit access		
	Policy 8.1.3: Support context-sensitive roadway design in order to ensure that transportation facilities are compatible with surrounding neighborhoods and activity centers	Apply "Complete Streets" planning criteria to major transportation improvements in order to ensure that roadways accommodate all modes of travel and support surrounding business districts and neighborhoods.	
	Policy 8.1.4: Coordinate regional transportation planning with local corridor improvement studies		
<b>Goal 8.2: Provide a safe environment for pedestrian and bicycle use</b>	Policy 8.2.1: Expand the city's system of multi-use trails, bicycle routes, and bike lanes	Link trails within Orangeburg to other cities or regional systems to form a connective network	
		Provide annual budgeting to go towards trail development and local matches for regional, state and federal trail grants	
	Policy 8.2.2: Provide sidewalks throughout the city, especially in areas with high foot traffic	Provide additional sidewalks using city funds and local, state and federal transportation grants	
	Policy 8.2.3: Actively pursue Charleston County greenbelt funds through the half-cent sales tax program	Planning and Parks and Recreation departments should work together to pursue identify possible parks and greenbelts and apply for funding	

<b>Goal 8.3: Create an efficient network of roads</b>	Policy 8.3.1: Encourage street connectivity to create a more grid-like street pattern	Continue connecting streets in Planning Areas 3 & 4, as outlined in the city’s Transportation plan	
	Policy 8.3.2: Discourage cul-de-sac and dead-end roads in new developments where natural features do not prevent street connections	Require large new residential subdivisions to provide multiple entrances and exit points	
	Policy 8.3.3: Improve intersections and traffic light timing/signalization	Implement Intelligent Traffic Systems that utilize new technology to improve the flow of traffic	
	Policy 8.3.4: Improve traffic safety and flow through access management on major roads that are controlled by the City	Limit the number of curb cuts and driveways allowed for development along major roadways and at congested intersections	
		Encourage inter-parcel connectivity in order to allow internal circulation and compensate for reduced access points.	
	Policy 8.3.5: Prevent conflicts between freight and vehicular traffic	Enforce freight routes, and prohibit freight traffic on neighborhood roads that are controlled by the city	
<b>Goal 8.4: Reduce traffic problems along congested major corridors</b>	Policy 8.4.1: Work with railroad companies (CSX, Norfolk-Southern) to manage train schedules for at-grade road crossings, in order to prevent additional problems during rush hours		
<b>Goal 8.5: Develop a multi-modal transportation system in Orangeburg</b>	Policy 8.5.1: Continue supporting regional efforts that would provide commuter rail, bus rapid transit (BRT), or other forms of regional mass transit		
	Policy 8.5.2: Use Transfer of Development Rights to increase densities for transit corridors		
<b>Goal 8.6: Develop Travel Demand Management (TDM) programs to reduce traffic</b>	Policy 8.6.3: Encourage carpooling and high-occupancy vehicles to reduce vehicular traffic	Establish a city vanpool/rideshare program.	