# Transportation

The road network was one of the primary components of Oglethorpe's original town plan for Savannah. The plan featured adherence to a strict grid pattern that was characterized by roadways featuring regular widths (37.5feet, 45feet, and

75feet, depending on street type) that were spaced at regular intervals. The streets formed the geographic boundaries between wards, and provided

a high level of connectivity throughout the city as a whole. The road network that was established at the colony's founding is still in place today. Transportation technology has been a driving force behind many of the changes to Savannah's spatial pattern that have occurred in the nearly three hundred years since its founding. The downtown core developed during an era of pedestrian and horse-drawn

transportation. This lack of mobility helped to keep the city very compact. The advent of streetcar technology in the 1800s and automotive

technology in the 1900s led to new eras of growth and expansion, with development patterns changing to accommodate these new modes of transportation.



#### 6.0 Introduction

Topics discussed in each of the individual chapters of the Comprehensive Plan are interconnected. As a result, transportation conditions in the future will be affected by policy recommendations located in other chapters of the Comprehensive Plan. Of these, the Land Use Chapter will have a particularly strong impact on transportation. Through its placement of commercial centers and residential areas, the Future Land Use Map will help determine the county's future spatial pattern, which in turn will affect things like road connectivity. Furthermore, the density of those developments will help determine the future viability of other modes of transportation, such as bus and rail.

The impact goes both ways. Transportation decisions can impact issues that are typically considered the realm of other planning sub-disciplines. Transportation policy decisions and transportation project designs can have a profound effect on things like mode choice, land uses, economic development, the natural environment, health, and general quality of life.

The process of suburbanization has proven that transportation decisions regarding street placement and design can be deterministic forces on land use in undeveloped areas. Dramatic changes to an area's transportation network can also have significant impacts on land use and quality of life in developed areas. For example, in the 1950s and 1960s the interstate highway system bisected numerous urban neighborhoods across the country. Many of the affected areas were low income, often vibrant, working class neighborhoods. In most instances, the reality of being bisected by an elevated limited access road contributed to decades of neighborhood decline, some of which continues today. Urban decline, in turn, helped fuel the exodus of residents from central cities across America. This example illustrates the strong impact that transportation projects can have on quality of life when they aren't designed with neighborhood concerns in mind.

This chapter draws information from the Coastal Region Metropolitan Planning Organization's (CORE MPO's) 2040 Total Mobility Plan, which is the long range Metropolitan Transportation Plan (MTP), for Chatham County<sup>1</sup>. Based on information from the MTP, issues and opportunities are identified along with quality growth objectives.

## **6.1 Transportation Conditions and Trends**

Savannah and Chatham County have long served as the regional center for Coastal Georgia and the adjacent Lowcountry of South Carolina for employment, shopping and recreation. In addition to serving as the regional center for residents, Savannah, with its designated Historic Landmark District, is host to over 12 million visitors each year and has become one of the top tourist destinations, both nationally and internationally. Chatham

<sup>1</sup> Transportation planning has its own regional planning process in the form of the **Coastal Region Metropolitan Planning Organization (CORE MPO)**. Unlike the Metropolitan Planning Commission, which has planning influence only in the City of Savannah and unincorporated Chatham County, the CORE MPO planning process is region-wide, and includes the eight incorporated municipalities in Chatham County: Bloomingdale, Garden City, Pooler, Port Wentworth, Savannah, Thunderbolt, Tybee Island, and Vernonburg. The MPO also includes a section of Effingham County and Bryan County including Richmond Hill.

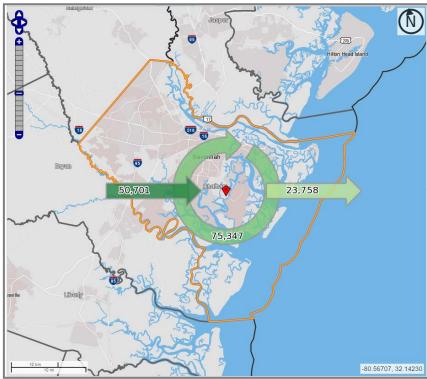
County is also home to the Port of Savannah, which is the second largest export facility in the nation, as well as the fourth busiest container port, moving more than 3.0 million twenty-foot container units in FY 2016. The port is a major economic engine for the region, as well as the State of Georgia.

The CORE MPO region is also home to a number of other regional employment centers, including medical, military and educational institutions, port-related industries and manufacturing centers. An efficient transportation system that effectively provides for the movement of people and goods is critical to the continued economic vitality of the region and the State.

## **6.1.1Commuting Patterns**

Commuting activity from adjacent counties is one of the principal regional transportation issues Chatham County today. Chatham County is the economic hub of the region, and as such, it attracts a large number of commuters from adjacent counties. As shown in Figure 6.1, about 50,000 residents outside of Chatham County commuted into the county for their primary job in  $2014.^{2}$ Because most workers in the region currently choose to drive to work (more on mode choice below), large numbers of commuters pose capacity challenges for the county's regional roadway system, including interstates, US highways, and other major roads.

Figure 6.1 Regional Commuting: Flows for primary work trips into, within, and out of Chatham County, 2014



#### Source: U.S. Census Bureau, "On the Map"

#### 6.1.2 Mode Share

The proportion of travelers using a given method of transportation is called the mode share or the mode split. Mode share is influenced by the types of facilities or services that have been emphasized in the past (i.e. provision of more and wider roadways and "free" parking, rather than transit service, bikeways, or sidewalks). Data that is available from the U.S. Census Bureau regarding the various ways that people choose to travel (e.g. driving, taking

<sup>&</sup>lt;sup>2</sup> Source: http://onthemap.ces.census.gov/

transit, walking, etc.) focuses on the trips to and from work, as this is one of the most predictable trip purposes. The picture of travel activity implied by this data is also limited by the fact that trips involving multiple modes are counted under whichever mode was used for most of the trip distance (e.g. a commute involving a short bicycle trip to and from the bus stop and longer ride on the bus is counted only as a transit commute).

As the data below show, most work trips in Chatham County are by automobile, as is the case for the state and country overall. Workers living within the City of Savannah are slightly more likely to use alternatives to driving alone, compared to the overall county and state. This is related to certain characteristics of the more urbanized area: higher densities, mixed uses, and jobs/housing balance means more workers have shorter trips; transit service is present and has more route coverage; and bicycle and pedestrian facilities are more consistently present.

It is important to note that today's observed travel behavior does not necessarily reflect the choices people would make if different transportation options were supported at a level to make them safe and feasible. Transportation policy, funding, and design decisions in support of automobile travel initially created great gains in mobility (for the middle and upper classes at least), but have also resulted in some unintended, negative consequences for individuals and society, such as pollution, contributions to the atmospheric greenhouse effect, contributions to obesity, damage to the natural environment and to community social fabric, as well as a high cost for individuals to enter fully into the normal activities of society (i.e. the need to buy a car to reliably get to a job). In other words, although most people in the region today choose to go everywhere by private automobile, there are good reasons to encourage any interest in other modes within the community.

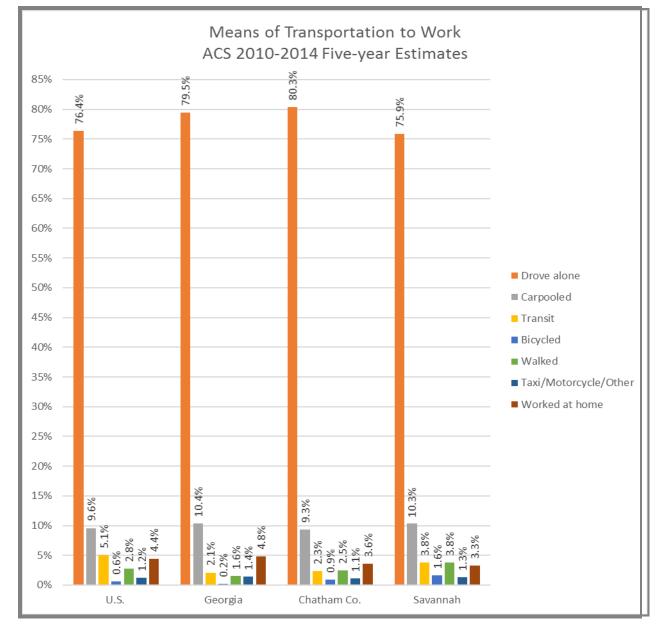


Figure 6.2: Mode Share for Work Trips, by Geography

#### 6.1.3 Road Network

As home to the Savannah urbanized area, Chatham County has the most significant urban road network in the region. Two major interstates, I-95 and I-16, intersect in Chatham County. I-95 runs from Miami, FL to the Canadian border at Houlton, ME, and is the primary north-south interstate on the East Coast. I-16 runs from Savannah to Macon, and is the primary interstate route for traffic from Coastal Georgia to the Atlanta Metropolitan Area. An auxiliary interstate, I-516, which serves as a spur to I-16, provides connectivity within Chatham County.

There are a total of 1,280 miles of roadway within Chatham County. These roadways are state and county roads and city streets. These roadways are categorized by their use and the amount of traffic that is carried. The mileage in each category, as well as the definition per the Federal Highway Administration (FHWA) are shown below:

#### • Interstate/Freeway: 46.62 miles

Roads that are fully access-controlled and are designed to carry large amount of traffic longer distances at a high rate of speed; examples include roadways such as I-16 and I-95.

#### • Arterials: 107.26 miles

Roads that are designed to carry large amounts of traffic at a relatively high speed, often over longer distances. Often some degree of access management is incorporated; examples of arterials include Bay Street, Islands Expressway, SR 204 and US 80.

#### • Collectors: 11.19 miles

Roads that are designed to carry less traffic at lower levels of speed for shorter distances. These roadways typically "collect" traffic from the local roadways and provide the access to arterials. Examples of collectors include Habersham Street, LaRoche Avenue, and Old Louisville Road.

#### • Local Roadways: 887.54 miles

Local roadways are those not otherwise classified and tend to serve short, local trips or connect with the collectors to access the broader roadway network.

Figure 6.3 depicts the functional classification of the roadway network. Functional Classifications definitions of roadways are associated with the types of funding available from federal, state, and local sources. Further information on planned road improvements and thoroughfare plans can be found on the MPC's Transportation page: <a href="http://www.thempc.org/Dept/Tran">http://www.thempc.org/Dept/Tran</a>.

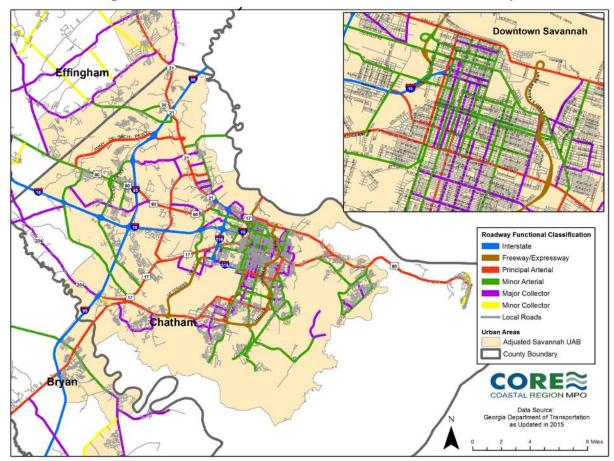


Figure 6.3: FHWA Functional Classification of Area Roadways

#### a. Thoroughfare Plan

To achieve the goals of the Total Mobility Plan, as well as those of the updated Comprehensive Plan, the CORE MPO, together with local jurisdictions, developed a Thoroughfare Plan for the region. This Thoroughfare Plan is intended to:

- Ensure/increase accessibility, mobility, and connectivity for people and freight.
- Promote safe and efficient travel for all users and create a framework for common sense tradeoffs between automobile capacity and multimodal design elements.
- Support community development and land use goals and promote a sense of place and support activities with on-street parking, bike travel, land access, and pedestrian friendly intersections. (The Thoroughfare Plan classifications are referenced in the zoning ordinance.)
- Establish transparent expectations for transportation infrastructure and create consistency in code references to the road network, which provides predictable and consistent information to development community. Thoroughfare types are defined by their function in the road network as well as the character of the area they serve.

Thoroughfare planning is promoted as part of a larger movement called context sensitive design or context sensitive solutions. The Institute of Transportation Engineers (ITE) defines context sensitive solutions (CSS) as follows: CSS is a different way to approach the

planning and design of transportation projects. It is a process of balancing the competing needs of many stakeholders starting in the earliest stages of project development. It is also flexibility in the application of design controls, guidelines and standards to design a facility that is safe for all users regardless of the mode of travel they choose.

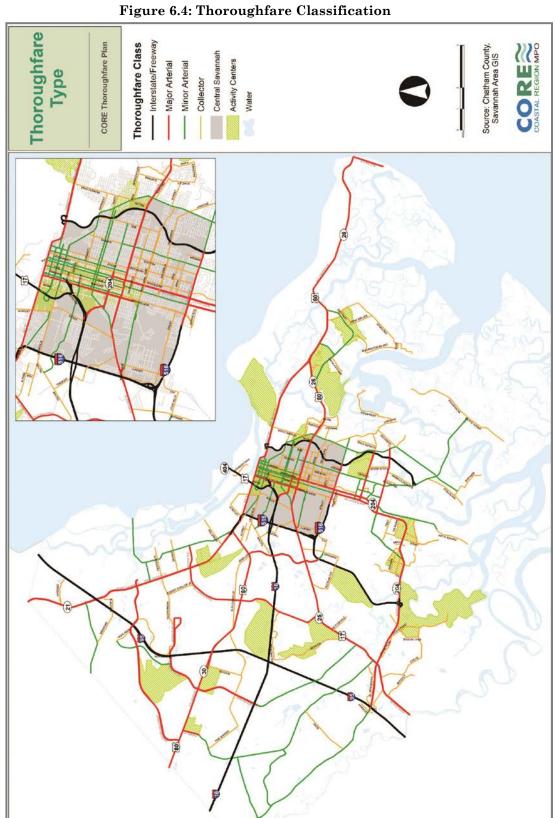
The Thoroughfare Plan also establishes a consistent and transparent set of expectations for transportation infrastructure for developers; with this information, developers are aware from the onset of a project what infrastructure requirements are in place.

In this planning effort, the CORE MPO worked closely with its local planning partners to identify the appropriate context sensitive parameters for each roadway classification and developed typical sections that incorporated these treatments. The typical sections identified include Major Arterials, Minor Arterials and Collectors. Each of these classifications is then further categorized as Urban or Suburban and the typical sections include the design elements that appropriately serve the transportation need, as well as the adjacent land uses and community character. The descriptions of thoroughfare types, the drawings of cross-sections, and the map of thoroughfare classifications are available in the Thoroughfare Plan document at: <a href="http://www.thempc.org/Dept/Plans">http://www.thempc.org/Dept/Plans</a>. The map is also shown in Figure 6.10 below.

Each of the identified projects in the MTP has been correlated with the Thoroughfare Plan to incorporate the appropriate design elements based on the roadway typology.

Chatham County faces several specific transportation challenges that will need to be addressed in the future. Major challenges facing Chatham County's road network include:

- Connectivity. Without efficient north-south and east-west routes through or around Savannah, congestion will continue to worsen along several local corridors that already have congestion problems.
  - o East-West Connector— Improving east-west traffic in and around Savannah is one of the most pressing transportation needs in Chatham County. Adding a high capacity east-west route through or around the city should help alleviate other transportation issues, such as freight traffic on Bay Street and congestion on DeRenne Avenue.
  - o Suburban Growth— Population projections predict extensive growth in suburban areas, especially in western Chatham County. Roadway infrastructure will need to be added to accommodate the growth.
- Congestion Management. Traffic congestion relief is a commonly-cited goal of road construction projects, especially road widening. However, major construction projects should be viewed as a congestion management tool of last resort. When possible, traffic control techniques should be used (such as retiming traffic signals) to manage congestion. When used effectively, these tools can help minimize congestion and even avoid the need to widen roads or construct new facilities.



#### b. <u>Congestion</u>

The CORE MPO periodically studies existing congestion through the Congestion Management Process (CMP). A comprehensive study of travel time runs on all arterial and major collector roadways was conducted in 2003. Subsequent CMP updates evaluated specific corridors and congestion hotspots in finer detail. Another comprehensive CMP update is scheduled for 2016-2017. In preparation for the update, the CORE MPO reviewed the current traffic conditions on the prior top 20 most congested segments and prepared a CMP Report Card to assess the CORE MPO's success in addressing congestion since 2003.

One of the measures of congestion in the CMP was "level of service" (LOS), which is a standard measure reflecting the quality of the traffic flow. There are six levels, with A being free flow and F being a creeping traffic jam. The 20 most congested segments in 2004 all had LOS D, E, or F. Based on the 2016 CMP Report Card, about 90% of the segments have seen improvement in level of service. The CMP update in 2016 and 2017 may reveal other locations of congestion that were not in the top 20 list in 2004.

# 6.2 The Framework for Transportation Investment Decision-making

## 6.2.1 The CORE MPO and the Total Mobility Plan

Because transportation projects are typically funded with a combination of federal, state and local dollars, there are specific requirements for transportation planning set forth in the federal transportation legislation known as Fixing America's Surface Transportation (FAST) Act. The Coastal Region Metropolitan Planning Organization, or CORE MPO, is the federally designated organization responsible for cooperatively planning for transportation in the region. Comprised of the local governments in the metropolitan area, the MPO plans for the expenditure of federal transportation funds through a coordinated, cooperative and continuing process.

The Total Mobility Plan is the federally required Metropolitan Transportation Plan (MTP), is the 20-year plan that identifies the vision, goals and objectives, strategies and projects that promote mobility within and through the region for both people and goods. This long range plan, which is required to be updated every five years, is focused on addressing the changing conditions and transportation needs and currently has a planning horizon year of 2040.

## **6.2.2 Focus Areas for Mobility**

#### Safety and Security

The goals adopted for the plan include a focus on ensuring and increasing the safety and security of the transportation system for all users, including motorized vehicles, bicyclists and pedestrians.

The traffic crashes in Chatham County over the last five year reporting period (2008-2012) available from the Governor's Office of Highway Safety, have fluctuated slightly, but

have remained relatively constant over the period. The number of crashes, the number of injury crashes and the number of fatal crashes for the CORE MPO area (Chatham County) are shown below. The injury crashes have declined over the five-year period and the fatal crashes dropped significantly in 2011 and remained at that level in 2012.

The goal is to coordinate the safety measures with planning efforts. In addition to the county- wide crashes, the top crash locations for vehicles, pedestrians and bicyclists in the MPO area have been identified. The information also includes the crashes with fatalities, injuries and property dam- age only. These locations have been identified by GDOT and are shown in the table and map below.

In addition to the safety of the roadway network, the CORE MPO also strives to coordinate with local jurisdictions to ensure the safety of all modes, including the bicycle and pedestrian users. Safety for these modal users is of critical importance, and the CORE MPO has developed a non-motorized plan to address the provision of a safe, connected network.

To meet the goal of ensuring and enhancing the security of the transportation system and users, the CORE MPO, although not the lead agency, coordinates closely with, and supports the local and state agencies that are responsible. Through this coordination and the incorporation of the agencies in the planning process, the CORE MPO can address the overall security goal.

These local and state agencies that are responsible for the emergency management, disaster preparation, and homeland security include the Chatham Emergency Management Agency (CEMA), the Georgia Emergency Management Agency (GEMA), the Georgia Office of Homeland Security, the area's fire department, and the area's police departments. These agencies are responsible for the preparation of the disaster preparedness plans, the coordination for emergency responses, and working to educate the public on their responses to emergency situations.

With the CORE MPO's coastal location and potential for hurricane evacuation, in addition to the local agencies, GDOT also has a role in evacuation planning. The east-west interstate, I-16 from Chatham County is equipped to utilize all four lanes for evacuation purposes when needed. Drop gate barriers at exit and entrance ramps along the interstate prevent vehicles from traveling in the wrong direction during the evacuation process. Various state routes along the coast, such as US 80 leading from Tybee Island, may also be utilized as one-way routes towards inland areas of Georgia.

#### System Maintenance and Preservation

Over the last decade, state and local transportation agencies have faced tremendous funding short- falls. Agencies have struggled to keep up with their expanding transportation needs with continually shrinking budget. In 2012, each region in Georgia identified a list of projects within their region and a vote was taken to implement a one-cent sales tax on the region to fund the identified projects. Three regions in Georgia passed the authorization; how- ever, the Coastal Region was not one of the three.

In addition to the transportation funding shortfalls, many major transportation improvement projects such as additional capacity or new facilities are met with strong opposition from members of the general public, as well as from interest groups focused on elements such as the environment. Within this context, it is critical for the MPO to preserve and maintain the existing system and infrastructure and to maximize the benefits of any transportation investments.

#### Economic Vitality

One of the goals identified for the Total Mobility Plan is the support of the economic vitality of the region and enabling local, regional and global competitiveness, productivity and efficiency. As discussed, there are a number of critical economic drivers in the region, including the Port of Savannah and the tourism industry, primarily focused in the Historic District and Tybee Island. The transportation network supporting these drivers is a key component in their sustainability and success.

As noted above, good access to the port facilities is key in continuing its growth in the future. The Savannah Hilton Head Airport is another of the modal economic engines for the region. The CORE MPO, in recognition of their impacts on both the transportation system and mobility, as well as the economic vitality of the region, coordinates closely with both entities to ensure that their needs are incorporated into the short and long term transportation assessments.

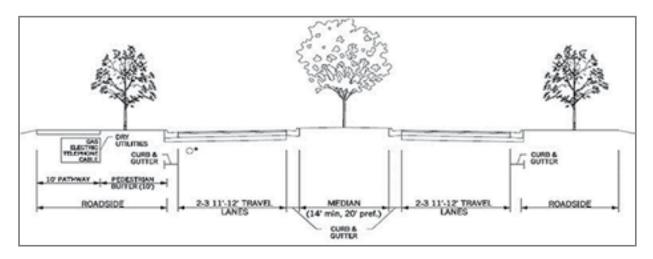
A number of projects in the cost constrained plans over the years have been targeted at addressing accessibility and connectivity issues for these economic engines. The freight plan that the CORE MPO has underway will incorporate these, and other, freight intensive generators to ensure the efficient movement of freight. The freight planning effort will also be coordinated with the Hinesville Area MPO freight plan. Freight movement does not recognize political jurisdictions and this coordinated effort will ensure a regional approach.

#### Mobility and Sustainability

The goals of the Total Mobility Plan also include a focus on the preservation and enhancement of the environment and quality of life and the pro- vision of an accessible, connected transportation system that provides viable multimodal choices for mobility. The CORE MPO has had a long standing commitment to the provision of safe, connected bicycle and pedestrian facilities. The CORE MPO has developed a non-motorized plan specifically for identifying and prioritizing the pedestrian and bicycle needs. In addition, in the previous plan, a substantial amount of funding was set-aside for the completion of these types of projects. This set aside of funding is continued and incorporated into this financially feasible plan.

#### 6.2.3 The Thoroughfare Plan

To achieve the goals of the Total Mobility Plan, as well as those of the updated Comprehensive Plan, the CORE MPO, together with local jurisdictions, developed a Thoroughfare Plan for the region.



This Thoroughfare Plan, coordinated with the Non-Motorized Plan, is intended to:

- Ensure/increase accessibility, mobility, and connectivity for people and freight.
- Promote safe and efficient travel for all users and create a framework for common sense trade-offs between automobile capacity and multimodal design elements.
- Support community development and land use goals and promote a sense of place and support activities with on-street parking, bike travel, land access, and pedestrian friendly intersections.
- Establish transparent expectations for transportation infrastructure and create consistency in code references to the road network, which provides predictable and consistent information to development community.

Thoroughfare types are defined by their function in the road network as well as the character of the area they serve. The duality of transportation function and the relationship with the character, or context, of each facility informs each thoroughfare type's recommended design parameters. Thoroughfare planning is promoted as part of a larger movement called context sensitive design or context sensitive solutions. The Institute of Transportation Engineers (ITE) defines context sensitive solutions (CSS) as follows:

CSS is a different way to approach the planning and design of transportation projects. It is a process of balancing the competing needs of many stakeholders starting in the earliest stages of project development. It is also flexibility in the application of design controls, guidelines and standards to design a facility that is safe for all users regardless of the mode of travel they choose.

In this planning effort, the CORE MPO worked closely with its local planning partners to identify the appropriate context sensitive parameters for each roadway classification and developed typical sections that incorporated these treatments. These desired typical sections provide the framework for identifying deficiencies in the existing network and a guideline for future infrastructure. In addition, the Thoroughfare Plan established a consistent and transparent set of expectations for transportation infrastructure for the development community; with this information, developers are aware from the onset of a project what infrastructure requirements are in place.

The typical sections identified include Major Arterials, Minor Arterials and Collectors. Each of these classifications is then further categorized as Ur- ban or Suburban and the typical sections include the design elements that appropriately serve the transportation need, as well as the adjacent land uses and community character.

Each of the identified projects in the Total Mobility Plan has been correlated with the Thoroughfare Plan to incorporate the appropriate design elements based on the roadway typology. In addition, the Vision Plan, or unfunded projects, includes the complete list of projects identified through the Thoroughfare Plan. The Thoroughfare Plan was also coordinated with the Non-Motorized Plan to ensure consistency throughout the planning efforts.

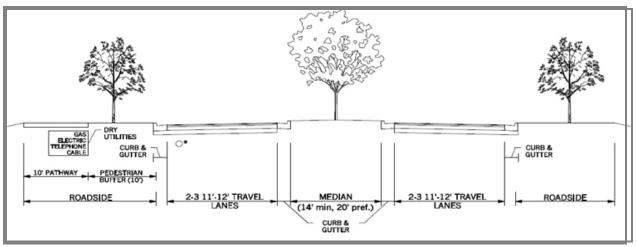


Figure 6.6 Thoroughfare Plan Cross Section: Major Arterial Suburban

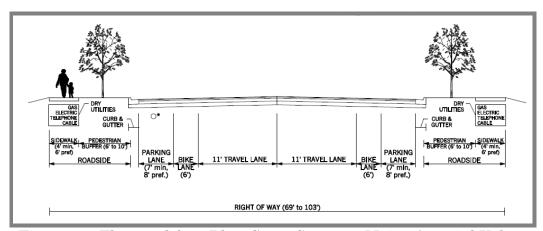


Figure 6.7 Thoroughfare Plan Cross Section: Major Arterial Urban

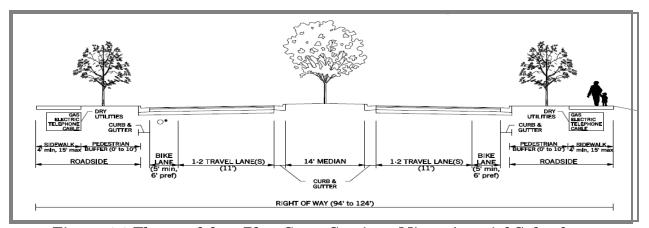


Figure 6.8 Thoroughfare Plan Cross Section: Minor Arterial Suburban

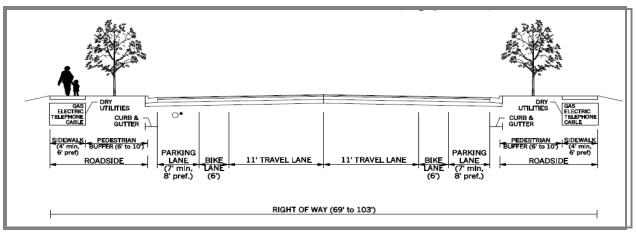


Figure 6.9 Thoroughfare Plan Cross Section: Collector Suburban

## 6.2.4 CORE MPO Goals, Objectives and Performance Measures

The goals and objectives identified for the CORE MPO's Total Mobility Plan are aligned with federally specified planning factors and provide the framework for the development of the plan. Stakeholders and citizens worked together during meetings to identify these goals and objectives, which provide the framework for the provision of a safe, secure, efficient, multimodal transportation network that meets the mobility needs of both people and freight.

The chart below shows objectives and performance measures that have been identified for each goal, during the cooperative and comprehensive plan development process.

<b>Economic Activity:</b> Support the economic vitality of the region, matching the commun especially by enabling local, regional and global competitiveness, productivity and ef				, , , , , , , , , , , , , , , , , , , ,
		Objectives:		Performance Measures:
⊣	0	Minimize work trip congestion	0	Project cost/vehicle miles of travel (VMT)
	0	Promote projects which provide the maximum	0	Reductions in VMT
GOAL		travel benefit per cost	0	Work trip vehicle hours of travel (VHT)
			0	Sustained or increased funding status
			0	Increased Sustainable development
				incorporating mixed-use, pedestrian-oriented
				design
שׁ	S	Safety: Ensure and increase the safety of the trans	spo	rtation system for all users, including motorized
00		vehicles, bicyclists and pedestrians.		

	0	Objectives: Eliminate at-grade railroad crossings Minimize frequency and severity of vehicular	0	Performance Measures: Total accidents per million miles traveled, involving all user types		
	U	accidents		Injury accidents per million miles traveled,		
	_	Minimize conflicts and increase safety for non-	O	involving all user types		
	O	motorized users		Fatal accidents per million miles traveled,		
		motorized daera		involving all user types		
			0	Implementation of transit and other safety		
				projects		
			0	Number of increased bike and pedestrian		
				facilities		
			0	Number of at-grade crossings reduced		
		Security: Ensure and increase the security of the				
		motorized vehicles, bio	ycli	•		
		Objectives:		Performance Measures:		
	0	Promote projects which aid in hurricane		Hurricane evacuation route status		
		evacuation	0	Improved emergency responses (e.g.,		
GOAL 3	0	Adequately prepare for coordinated responses		ambulance travel times to hospitals)		
0		to incidents	0	Maximize transportation system mobility		
U	0	Monitor vulnerable infrastructure through		during disruptive events (such as reductions in		
		visual and other inspection methods		time to clear major crashes from through		
			0	lanes) Reduction in vulnerability of the transportation		
				system (such as implementation of monitoring		
				infrastructure for major transportation system)		
		Accessibility, Mobility and Connectivity: Ens				
		connectivity options available to people and freight, and ensure the integration of modes, where appropriate.				
		аррго	hiic	ate.		
		Objectives:		Performance Measures:		
	0	Minimize congestion delays	0	Base year vs. future year volume/capacity		
4	0	Maximize regional population and		ratios for various modes		
GOAL 4		employment accessibility	0	Percent of population within ½ mile of transit		
99		Provide efficient and reliable freight corridors		route or facility connecting to regional activity		
	0	, ,		center(s)		
	0	Encourage use of transit and non-motorized		Daily freight truck use/lane		
		modes, focusing on areas with low rates of	0	Operational performance of transit system		
		automobile ownership or high population of	_	(buses arriving/departing on schedule)		
		elderly and/or disabled populations	0	Percent of population within ½ mile of bicycle		
	0	Expand transit service area and increase	_	facility connecting to regional activity center(s)		
		service frequency	0	Transit ridership		

**Environment and Quality of Life:** Protect, enhance and sustain the environment and quality of life, promote energy conservation and address climate change.

	Objectives:	Performance Measures:			
	<ul> <li>Protect wetlands, historic resources,</li> </ul>	o Impacts to natural environment (such as rate			
	neighborhoods, recreational facilities and	of development of greenspace compared to			
	other important resources	the rate of greenspace preservation).			
	<ul> <li>Support infill development</li> </ul>	o Impacts to historic and cultural resources (such			
	<ul> <li>Implement green infrastructure to reduce</li> </ul>	as the strengthening of regulations to protect			
	region's impact on stormwater pollution and	historic and cultural resources)			
	address potential impacts from a changing	<ul> <li>Strengthening of regulations promoting infill</li> </ul>			
	climate.	and brownfield development			
		Project utilization of green infrastructure			
		o Vehicle miles of travel			
		<ul> <li>Energy consumption trends</li> </ul>			
		o Air quality trends			
	System Management and Maintenance: Assess the transportation system to determine what				
		ll, and potential improvement options.			
	Objectives:	Performance Measures:			
	<ul> <li>Maximize efficiency of signalized intersections</li> </ul>	Average Daily Traffic (ADT) per lane			
9	<ul> <li>Expand use of Intelligent Transportation</li> </ul>	Congestion Index (CI)			
GOAL 6	Systems (ITS)	o Level of Service (LOS)			
9	<ul> <li>Continue existing levels of maintenance for</li> </ul>	o ITS coverage of region			
	highways and bridges	Roadway pavement ratings and bridge			
		sufficiency ratings			
		Bicycle and pedestrian facility surface			
		conditions			
		Transit user satisfaction (such as reliability)			
		ordination in the transportation planning process			
		ers, including both state and local agencies.			
7	Objectives:	Performance Measures:			
GOAL 7	o Enhance coordination between CORE MPO,	CORE MPO represented at all project			
) E	Georgia Department of Transportation, County	development meetings			
	departments and with other City governments	Establishment of coordination policies to			
	departments and with other City governments	<ul> <li>Establishment of coordination policies to promote communications between various agencies</li> </ul>			

## 6.2.5 Project Prioritization

The CORE MPO developed the prioritization process within the framework of the identified goals and the eight planning factors. The process also follows the Federal Highway Administration's guidance using the "SMART" principle which focuses on using existing data and avoids placing an unrealistic burden on staff.

 $\underline{\mathbf{S}}$ pecific

Measurable

Agreed Upon

Realistic

**Timebound** 

## 6.2.6 Transportation Investment Plan

#### Thoroughfare Plan Coordination

Each of the projects included in the Cost Feasible Plan were correlated with the Thoroughfare Plan to identify the roadway typology and to incorporate the corresponding design elements. The Cost Feasible Plan projects are shown below with the design elements identified in the Thoroughfare Plan. The phases identified, as well as the cost bands, are also included. Project phases include the following:

- Preliminary Engineering (PE)
- Right of Way (ROW)
- Construction (CST)

The cost bands where the project phase is anticipated is also shown. The cost bands are:

Cost Band One: 2015 – 2020 (1)
Cost Band Two: 2021 – 2030 (2)
Cost Band Three: 2031 – 2040 (3)

Major Arterial - Suburban				
Jimmy DeLoach Parkway	CST 1	SR 26/Ogeechee Road Widening	CST 1	
Extension				
<b>Montgomery Crossroads</b>	CST 2	East and West DeRenne Avenue	ROW 1	
Bridge Replacement		Improvements	CST 2	
I-516 Terminus	ROW 1	SR 26/US 80 Bridges at Bull	PE 1	
Interchange at DeRenne	CST 2	River and Lazaretto Creek	CST 2	
(DeRenne Blvd. Option)				
Effingham Parkway	PE 1	President Street/Truman	CST 3	
	ROW 1	Parkway Interchange		
	CST 2-3	Reconstruction		

Major Arterial - Urban			
SR 25/West Bay Street	CST 1	US 80/Victory Drive	CST 3
Widening		Improvements	

Minor Arterial - Suburban	
Gwinnett Street Widening	PE 1
	ROW 1
	CST 2

Collector - Suburban	
Grange Road Reconstruction	CST 1
Crossgate Road Reconstruction	CST 1
Brampton Road Connector	CST 2

No Thoroughfare Plan Cross Section Applicable			
I-516 Widening	CST 1, 3	Interstate	
I-95/SR 21 Interchange	CST 1	Interstate/Interchange	
Reconstruction		(SR 21 – Major Arterial	
		Suburban)	
Jimmy DeLoach Parkway	CST 1	Interchange	
Interchange		(Major Arterial Suburban)	
Traffic Control Center	CST 1	Non-Roadway	
Study and Construction			
SR 21 and SR 25	CST 1	Culvert Replacement at	
		Pipemakers Canal	
I-95/I-16 Interchange	PE 1	Interstate/Interchange	
Reconstruction	ROW 2		
I-16 Exit Ramp Removal	PE 1	Interstate/Interchange	
_		_	

There are a number of projects that are not classified by thoroughfare type. These projects include interstate and interchange projects, as well as culvert replacements. It is important to note that the cross sections of the facilities that cross interstates have been identified and will be incorporated into the projects.

#### Vision Plan

In addition to the cost constrained plan, the Total Mobility Plan also includes the other identified projects not included as financially feasible. These unfunded project needs are incorporated in the priority Vision Plan and Needs Plan.

Note: The Transportation Investment Plan is updated continuously in response to ongoing implementation efforts by GDOT, Chatham County and others. The plan information reflected here reflects the Total Mobility Plan at the time of adoption. For the most up to date information, visit <a href="http://corempo.org">http://corempo.org</a>.

## 6.3 Public Transportation

The Chatham Area Transit Authority (CAT) is the agency responsible for the provision of transit services to the Savannah area, including fixed route and paratransit as well as ferry services. The agency is governed by a Board of Directors consisting of three members of the Chatham County Board of Commissioners, one resident from unincorporated Chatham County, one resident with a disability, one resident at-large, one member of the City of Savannah Board of Aldermen, one resident of the City of Savannah, and one resident of a municipality in the County outside of Savannah.

A Transit Development Plan (TDP), required by federal and state agencies, provides a 5-year capital and operating program and a longer term 10-year guide and planning tool for the transit agency to provide consumers with the most effective and efficient transit service. The TDP process includes a major update accomplished every five years, as well as annual updates to address changing conditions. The components of a TDP update include public involvement, coordination with other state and local transportation plans, an assessment of the existing and future conditions, agency goals and objectives, the development and evaluation of alternative strategies and action steps, a financial analysis, a 5-year operating plan and a 10-year implementation plan for the identified longer term strategies.

#### a. <u>Ridership</u>

In order to better understand the ridership, trips, rider behavior and satisfaction, an onboard survey was conducted. The results were categorized into trip characteristics, demographics, rider behavior and customer satisfaction. According to the TDP, major findings from the survey respondents indicated that the majority of CAT riders walk three blocks or less to the bus stop and to their destination; the trip is primarily for work or shopping; more than half of the trips require a transfer; trips typically end either at home or at work. The majority of the riders are male and fall between the ages of 18 and 54 and almost 80% of the ridership is African American. Over 90% of the riders' income is less than \$30,000 per year. Almost 70% of the riders use transit 5-7 days per week.

A survey was also conducted for the users of the CAT Teleride service. Almost 25% of the riders use the service on a daily basis and over 45% use the service 2 to 4 times per week. The majority of the riders use Teleride for medical appointments. Over 65% of riders were between the ages of 55 and 84 and are primarily African American.

The following are ridership statistics of the CAT transit services.

#### **Mode: Fixed Route Bus**

Average Daily Ridership: 9,923Annual Ridership: 3,592,183

#### Mode: Demand Response Paratransit (Teleride)

Average Daily Ridership: 237Annual Ridership: 86,077

#### **Mode: Ferryboat**

Average Daily Ridership: 2,015Annual Ridership: 729,674

#### b. Routes and Facilities

CAT currently operates 17 routes, which includes two express routes. These express routes provide service from the Savannah / Hilton Head International Airport to the transit center in downtown Savannah and along Abercorn Street to the transit center from the GDOT-owned Gateway Park and Ride facility located at SR 204 and I-95. In addition, a downtown circulator shuttle is also operated. Another GDOT park and ride lot is located at I-95 and SR 21, although it is not served by public transit.

The Joe Murray Rivers, Jr. Intermodal Transit Center, a new downtown intermodal facility, was completed in 2013 and accommodates both CAT and Greyhound buses. It also provides one of the bike share stations within the bike share system operated by CAT.

Figure 6.4 below displays the current CAT routes. Schedules and a map of the routes can also be found at: <a href="http://www.catchacat.org/maps-and-schedules/bus-maps-schedules/">http://www.catchacat.org/maps-and-schedules/</a>

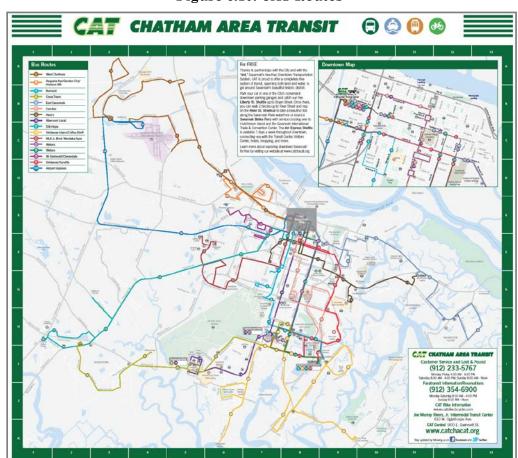


Figure 6.10: CAT Routes

#### c. Planned Transit Improvements

According to the recently adopted TDP, CAT has identified a "Family of Services" designed to enhance the ridership, appeal to additional markets and improve the existing services. This quality of service improvement approach includes:

- Improve service hours of operation and frequency of service, particularly on weekends
- Improve on-time performance
- Add additional routes to improve east-west connectivity and travel options utilizing 37th Street, Victory Drive, 59th Street/Columbus and DeLesseps Avenue
- Add zonal services utilizing smaller vehicles that connect to the fixed route service, including Montgomery/Victory Southwest, Midtown, Savannah State East, and Southside areas
- Implement regional commuter express service from neighboring counties
- Enhance commuter services (carpools and ride matching, employer vanpools)

According to the TDP, the five year prioritized program of improvements is shown in the figure below.

 Saturday Span of Service Year One Sunday Span of Surface Airport Express / Airport West Zonal Service Saturday Frequency **Year Two**  New Service: 37<sup>th</sup> Street Zonal Service 3 - Midtown Weekday Frequency Year Three •New Route: Victory Drive Zonal Service 2 - Victory/Montgomery Weekday Frequency Year Four New Route: 59th Zonal Service 4 - Savannah State East •Effingham / Bryan Service Year Five Zonal Service 5 - Southside SSU to Oglethorpe Mall

Figure 6.11: CAT's Prioritized 5-year Program

## 6.4 Walking and Bicycling

Travel by foot and by bicycle plays an important role at the local level, for short trips or even for longer trips, and sometimes in conjunction with motorized modes. CORE MPO adopted the Non-motorized Transportation Plan in 2014. It served to update the 2000 Bikeway Plan and also incorporated pedestrian projects, as reflected in the new document name. The non-motorized projects from the plan are reflected in the Metropolitan Transportation Plan (MTP) "vision plan" (unfunded section), if not in the MTP's "cost-feasible plan."

CORE MPO has used some of its federal urban transportation funds on bicycle and pedestrian projects in the Transportation Improvement Program (TIP) for several years. That funding was in addition to the Transportation Alternatives Program (TAP) funding that CORE MPO began awarding in 2014, after federal transportation legislation in 2012 gave the larger MPOs, like CORE MPO, a defined role in project selection. Delesseps Avenue Sidewalk and Road Improvements, Truman Linear Park Trail (Phase 2), and expansion of CAT's Bike Share program are some of the pedestrian and bicycle projects advanced with federal funds. Local jurisdictions have also used local funds to make some improvements, such as Savannah's Price Street bike lane, or Chatham County's Whitemarsh Preserve Trail.

CORE MPO's Non-Motorized Transportation Plan contains extensive lists of recommended pedestrian and bicycle projects, which may be implemented with or without federal funds. That plan was developed with several methods of public participation: public mapping exercises, public online survey, and periodic presentations of draft networks and lists. The maps in the figures below, from that MPO-adopted plan, show existing and recommended improvements throughout the MPO's planning area (which is more extensive than the area covered by the MPC's Comprehensive Plan).

Figure 6.12: Pedestrian Needs for Sidewalks and Paths

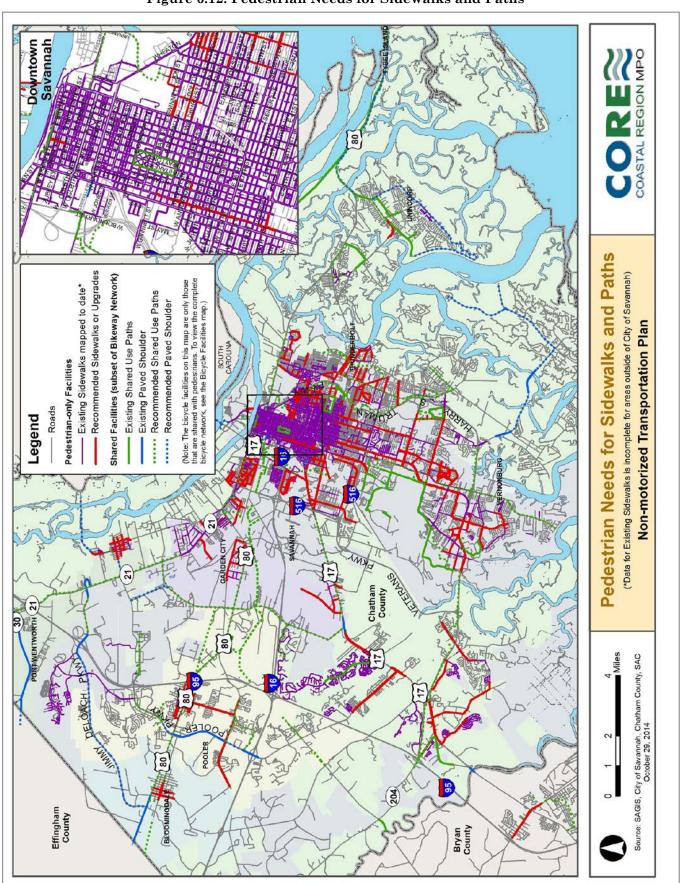
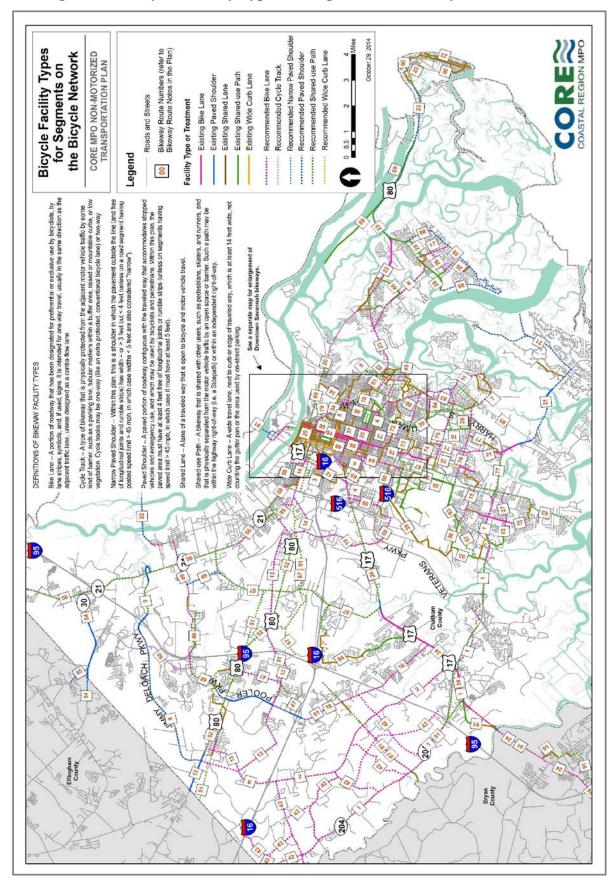


Figure 6.13: Bicycle Facility Types for Segments on the Bicycle Network



## 6.5 Intermodal Transportation

The term "intermodal" is used to describe the mass transportation of freight or human passengers, usually over long distances, and via more than one mode of transportation. Three types of intermodal facilities are discussed in this section: ports, railroads, and airports. More detail on freight planning can be found in CORE MPO's Freight Transportation Plan, at: <a href="http://www.thempc.org/Dept/Freight">http://www.thempc.org/Dept/Freight</a>.

#### a. Port Facilities

Chatham County has two modern, deepwater terminals on the Savannah River that are collectively known as the Port of Savannah: Garden City Terminal and Ocean Terminal. Both facilities are run by the Georgia Ports Authority (GPA), which is a state-level quasi-governmental organization. Garden City Terminal is the fourth-busiest container handling facility in the United States, encompassing more than 1,200 acres and moving millions of tons of containerized cargo annually. Ocean Terminal, Savannah's dedicated breakbulk and Roll-on / Roll-off facility, covers 200.4 acres and handles forest and solid wood products,

steel, automobiles, farm equipment, and heavy-lift cargoes.<sup>3</sup>

The Georgia Ports Authority, which also operates port facilities in Brunswick, has a huge impact on economics and trade in Georgia. As one of the state's largest public employers, the GPA directly almost 1,000 employs trained logistics professionals. The GPA, however, is responsible for generating far more employment throughout the state. GPA operations, together with private sector, port-related operations, account for more than 352,146 jobs statewide, \$66.9 billion of dollars in revenue, and income exceeding \$18.5 billion annually.

The Port of Savannah, in particular, has experienced rapid growth. For fiscal year 2016, the Port of Savannah has moved 3.6 million TEUs, with imports up by 3.5%.



Photo: Georgia Ports Authority/Stephen Morton

As port operations grow and intensify, the surrounding transportation infrastructure will need to support that growth. The 2040 Total Mobility Transportation Plan includes numerous projects that will help support port operations. It should be MPO policy to include these projects, as needed, in the annual Transportation Improvement Program (TIP) process to ensure that they receive adequate funding.

<sup>&</sup>lt;sup>3</sup> http://www.gaports.com/PortofSavannah.aspx

#### b. Railroads

Amtrak provides passenger rail service at its Savannah station. Savannah is served by the Palmetto, Silver Star, and Silver Meteor trains of Amtrak's Silver Service line, which runs from New York City to Miami, and stops at nearly 50 cities in between. The station served 71,658 passengers in 2013, or 37 percent of all Amtrak passengers in Georgia<sup>4</sup>.

In addition to passenger rail service, Chatham County is also served by approximately 221 miles of rail freight facilities, of which CSX Transportation and Norfolk Southern, both Class I railroads, provide the major intermodal services. Other rail freight service providers include Georgia Central, Golden Isles and the Savannah Port. Almost all of these railroads and railroad yards are located in the western part of Chatham County and around the Port of Savannah.

Much of Chatham County's extensive rail infrastructure provides freight-oriented service to the Port of Savannah. Overnight rail service is available from the port to Atlanta, while two-to-four-day service is available for other regional freight distribution cities, such as Dallas and Chicago<sup>5</sup>. The integration of the port with rail freight providers allows for a highly streamlined process of intermodal freight movement, all of which is a strong economic generator for the local and regional economies.

#### c. Airports

The Savannah/Hilton Head International Airport is the largest airport in Coastal Georgia. The airport occupies a 3,500-acre site and has two operational runways. The current terminal was completed in 1994 and has since been expanded to have a total of 15 gates. The Savannah/Hilton Head International Airport is currently served with regular flights from the following airlines: American, Delta, Jet Blue, Allegiant and United. In 2015, the airport reported 1,017,065 passenger enplanements and 1,010,197 deplanements, as well as 7,654 tons of cargo. Operations (defined as either one takeoff or one landing) were at 88,961. <sup>6</sup>

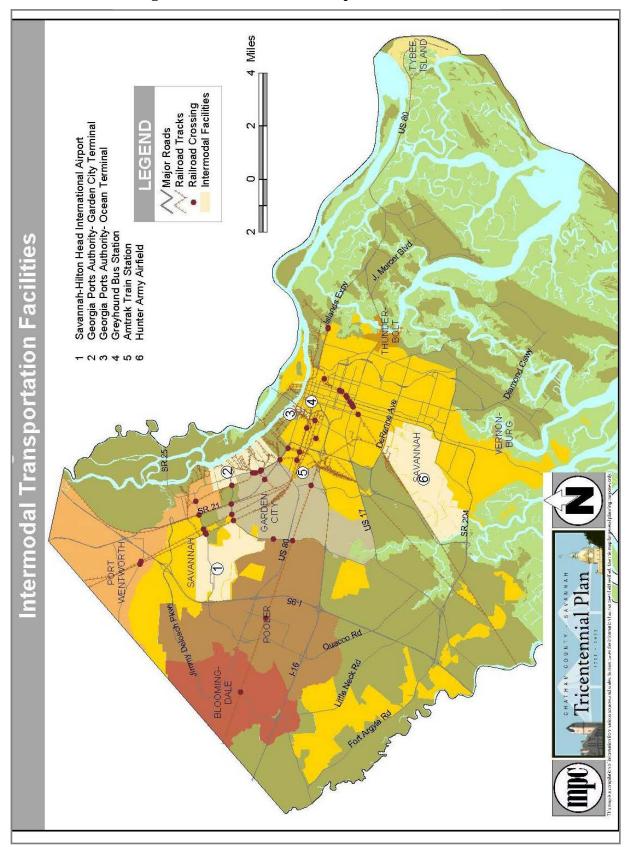
In 2014, the Commission undertook a Master Plan Update that addresses the airport's future needs in a comprehensive manner. The Master Plan provides airport management with a comprehensive assessment of the capital improvements needed to meet projected levels of passenger and aircraft operational activity during the next 20 years. The Master Plan continues the strategic vision established in previous plans while accounting for current needs and anticipating future trends. The Plan projects that enplanements will increase at an annual rate of 3.1 percent and that operations will increase at an annual rate of 0.9 percent. Recommendations of the Master Plan include widening of Airways Avenue and construction of an Emergency Operations Center, in addition to various field and terminal improvements.

<sup>&</sup>lt;sup>4</sup> Source: 2003 Georgia Transit Programs Fact Book, Page 50; GDOT Office of Intermodal Programs

<sup>&</sup>lt;sup>5</sup> Source: http://www.gaports.com/index2.html

<sup>&</sup>lt;sup>6</sup> Source: http://www.savannahairport.com

Figure 6.14: Intermodal Transportation Facilities



Hunter Army Airfield (HAAF) is Chatham County's other major air transportation facility. Hunter AAF is a sub-installation to nearby Fort Stewart, and provides operational support to the 3d Infantry Division as well as numerous other non-divisional and tenant units. It is estimated that Fort Stewart and Hunter AAF together generate more than \$1 billion annually for the regional economy, with more than 19,500 military personnel stationed at

the two bases and more than 3,700 civilian jobs<sup>7</sup>.

Diligent land use planning is one of the primary tools that local government can use to help ensure the continued operation of this important military installation. Land use conflicts adjacent to military bases can be an impetus for Base Realignment and Closure (BRAC). Preventing the introduction of incompatible uses adjacent to military bases can help prevent BRAC. Much of the land to the immediate east of Hunter is developed with commercial uses, most of which are compatible with nearby military operations. However, much of the land to the west of Hunter is currently undeveloped. Preventing incompatible development to the west of Hunter is a key objective of the land use plan for that area.

Joint Land Use Study In 2004 and 2005, personnel from Ft. Stewart and Hunter Army Airfield worked together with surrounding communities to conduct the Fort Stewart/Hunter Army Airfield Joint Land Use Study (JLUS). The study used a land use planning approach to address the issue of incompatible development near Fort Stewart and Hunter AAF. Many recommendations from the Joint Land Use Study have been incorporated into the Comprehensive Plan to help ensure that military operations and civilian life can continue to coexist harmoniously in Savannah and Chatham County.

## 6.6 Parking

Parking is a topic of great interest, especially for dense areas like downtown Savannah. Everyone wants to park very close to the door of their destination, but a city attempting to fully meet those desires for its most urbanized sections would obliterate the qualities that draw people to the popular destinations to begin with.

In 2015 and 2016, CORE MPO and the City of Savannah developed a "strategic plan for parking and mobility in Savannah", called Parking Matters. It looked not only at potential needs for capital investment (such as additional garages), but also at the ability of transit service revisions, and bicycle and pedestrian improvements, to encourage a "park once" behavior and generally reduce auto trips and parking demand within downtown.

The study found that existing parking capacity is greater than perceived by the public. Garages are often underutilized, partly because they are not priced competitively with onstreet parking. Competition for one-street parking is strong in the core of downtown at certain times of the day. More distant parts of the study area often have on-street spaces available. As an example of actual capacity, on the Saturday in April of 2015 that one of the two utilization analyses was performed, overall unitization levels of on-street and off-street parking combined in the entire study area were at a high of just over 50%, in the 5 p.m. to 9 p.m. time frame.

Some of the recommendations of the Parking Matters study were:

<sup>&</sup>lt;sup>7</sup> Source: Ft. Stewart-Hunter AAF Joint Land Use Committee Request for Proposals; March, 2004.

- Downtown should have a tiered structure of three parking zones, to simplify the variety of rates and time limits. The core would have a higher price and no time limit; a second zone would have a lower price and no time limit, and a third zone would have no price but time limits between two and four hours;
- Mobility and Parking Services should be able to manage the system more dynamically e.g. change rates in response to data about data, without needing to get approval from City Council every time.
- Revise and rebrand shuttle services to increase utilization of the parking capacity farther from the core.
- Improve assets to make walking and bicycling more inviting, in order to reduce desire to drive short distances between multiple downtown destinations.
- Revise zoning ordinances to reduce off-street parking requirements where appropriate, by allowing shared parking, remote parking, and on-street parking credit.
- Plan for new garages and other parking expansion as part of future development (e.g. at the edges of downtown), in coordination with land use planning.

### 6.7 Innovations

Technology continues to influence transportation conditions and trends. In recent years, ridesharing companies and mobile applications have become popular for some people who do not have a car on hand or who simply do not wish to drive themselves for a particular trip. By mid-2016 two companies were operating this type of service in the Savannah area – Uber and Lyft. This type of trip is more likely to be made by segments of the population who are comfortable with smart phones, new mobile applications, and who have credit cards. Thus it does not necessarily fill a gap for the traditionally underserved populations (low income, disabled, elderly). Smart phone applications are also changing the way parking is managed and used.

Other potential technological changes in the future include autonomous vehicle technology. The US DOT released a policy statement on such vehicles in 2013. The agency promotes research and has made recommendations on achieving safe operations during testing. In a more holistic measure, the US DOT held a "Smart City Challenge" in 2016 to award \$40 million to one city for advances in connected vehicles and smart sensors, in addition to autonomous vehicles. More and more technological advances come out every year.

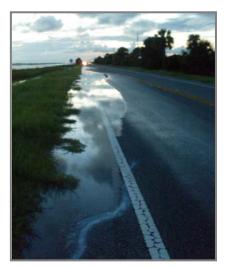
Predicting all impacts on transportation systems from these new technologies is difficult. The ridesharing companies and applications likely reduce parking demands, but may in fact increase trips at various times of day, because in practice the drivers are driving as full-time or part-time jobs and may be frequently circulating (similar to taxi operations) in hopes of grabbing a trip assignment via the mobile application. Uncertainties about autonomous vehicles include the question of whether most individuals will still wish to have their own vehicle, or prefer to use vehicles they don't own as an on-demand service. The automated nature and vehicle-to-vehicle communications could increase capacity of a given number of lanes by reducing average following distance between vehicles (currently needed for human reaction time), while still improving safety.

#### 6.8 Additional Considerations

## 6.8.1 Climate Change and Resilience Planning

A frequently-discussed topic on a national level is climate change and its effects, which include sea level rise. There has been an increased focus on the federal level, with the FHWA completing research and providing the findings on best practices for MPOs to develop policies and strategies to deal with the impacts from the changing climate.

With its coastal location, the CORE MPO recognized the need for understanding any potential impacts on the existing and future transportation infrastructure and developing an approach to address and/or mitigate these impacts. An example of the impacts is the higher than normal tides that are occurring more frequently; these tides impact access to the islands, particularly Tybee Island as US 80, the only facility connecting the islands to the mainland, floods and must be closed during these tide events.



Increasing public awareness of the issues and understanding the impacts on infrastructure and mobility is an important focus for the MPO. In this effort, the MPO held a specific workshop focused on climate change. Participants received information regarding impacts of climate change on an international and national level. Participants then identified potential impacts on the local level, as well as potential short and long term strategies to address/mitigate these impacts. Examples of the identified strategies, which incorporated environmental and infrastructure-related approaches, included:

Short Term Strategies	Long Term Strategies	
<ul> <li>Re-establishment of oyster beds</li> <li>Better stormwater retention during high tides</li> <li>Assessment of infrastructure and potential disinvestments</li> <li>Bridge footing retrofits</li> </ul>	<ul> <li>"Eco-armoring" or utilizing creative methods of protection such as berms with increased natural vegetation</li> <li>Elevation of infrastructure</li> <li>Transition to renewable energy</li> </ul>	

## 6.8.2 Transportation Planning and Health

Community and public health as it relates to transportation policy and infrastructure has come to the forefront of planning. Community health is impacted by transportation planning decisions in many ways: the density and design of transportation networks determines the feasibility and attractiveness of active transportation and the ability to economically reach sources of healthy foods; motor vehicle use and the provision of

impervious parking and driving surfaces pollutes drinking water sources through stormwater runoff; vehicle emissions affect air quality and contribute to stressful weather events; highway projects can affect mental health by destroying green space and or by dividing neighborhoods and disrupting social networks.

The CORE MPO recognizes and has implemented strategies to promote a healthier community and health equity. The development of the non-motorized and thoroughfare plans, the long standing commitment to complete streets and context sensitive design principles, and the focus on accessible transportation for all populations provides the policy framework for the promotion of health considerations in transportation planning.

The MTP must be financially constrained, meaning the expected federal, state, and local revenue is allocated to higher priority projects, creating the MTP's "constrained plan," while the remaining needs are listed in the MTP's unfunded "vision plan."

The planned projects are intended to meet the MTP's goals and objectives, and help make progress toward achieving the performance measures. Since CORE MPO amends the adopted MTP from time to time, the best source for the most up-to-date project lists is on CORE MPO's web pages (the Transportation section of the MPC web site), at <a href="http://www.thempc.org/Dept/Plans">http://www.thempc.org/Dept/Plans</a>. A subset of projects in the MTP, those that have one or more phases funded in near-term, four-year window, appear in the MPO's short-range document called the Transportation Improvement Program (TIP), which is also available for review on the MPO website at <a href="http://www.thempc.org/Dept/Tip">http://www.thempc.org/Dept/Tip</a>.

## 6.8.3 Transportation Amenities

In response to growing citizen concerns, CORE MPO developed, in 2003, a formal policy for tree preservation and restoration, landscaping, and the provision of pedestrian and other amenities within roadway projects. A resolution was adopted by Chatham County, City of Savannah, Town of Thunderbolt, and the CORE MPO Board. Two planning phases followed. The first step, during 2004, was the identification and mapping of Transportation Amenities, in categories of: Canopy Roadways and Replanting Areas; Palm-lined Causeways; Scenic Vistas; Historic Road Segments; Community Gateways; and Landscaping and Enhancement of New and Recently Completed Roadways. Figure ?? below shows the resulting map.

The second step was to develop guidelines for implementing road projects in a context sensitive manner that would result in the preservation or restoration of those amenities. The MPO's first effort, in 2007, was the development of a manual of Context Sensitive Design Guidelines through a process including two community workshops. Although the manual described a range of local context zones, each with specifications for urban design and roadway elements, achieving implementable standards for use by local government staffs required a closer look, in coordination with the local staffs, which resulted in the creation of the Thoroughfare Plan, as part of the MPO's 2040 Total Mobility Plan, which is the required Metropolitan Transportation Plan.

Each of the identified projects in the MTP has been correlated with the Thoroughfare Plan to incorporate the appropriate design elements based on the roadway typology.

## **6.8.4** Goal: Coordinate Transportation Planning and Land Use Planning

Transportation and land use are inextricably connected. This connection makes the joint coordination of land use planning and transportation planning all the more important.

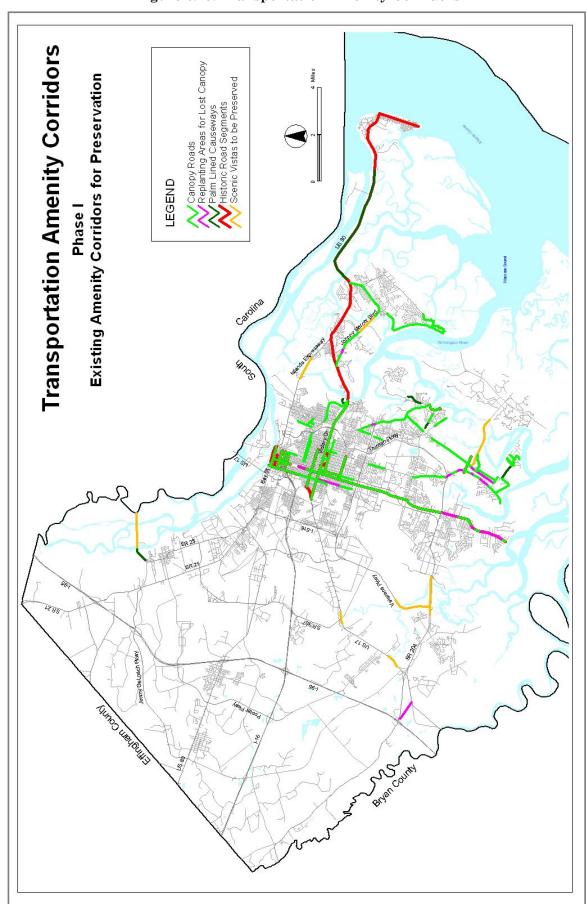
Compared to many other metropolitan areas, the coordination between transportation planning and land use planning in Chatham County is already quite good. CORE MPO, the Savannah area's Metropolitan Planning Organization (MPO) is housed in the MPC office. Transportation planning functions as a department within the MPC, and MPC management also supervises the MPO's activities. This arrangement helps ensure that the MPC's executive director, in particular, is kept fully in the loop on all land use planning and transportation activity, and can jointly coordinate the two. This helps to ensure that the policies of both the MPC and the MPO work in the best interest of the greater community. One of the primary limiting factors in this arrangement, however, is the fact that the MPC only has planning jurisdiction in the City of Savannah and unincorporated Chatham County. The other seven municipalities in Chatham County (Bloomingdale, Garden City, Pooler, Port Wentworth, Thunderbolt, Tybee Island, and Vernonburg) as well as a portion of Effingham county and Richmond Hill in Bryan County do not participate in the MPC, but are members of the MPO. Because of their participation in joint transportation planning, but not joint land use planning, these seven municipalities do not benefit from the MPC and MPO's planning arrangement to the same degree as the City of Savannah and unincorporated Chatham County.

## 6.8.5 Objective: Provide/Encourage Alternatives to the Private Automobile

Savannah is a historic city with an in-tact mixed use land use pattern, and as such, is often held up as a prime example of a walkable American city. This is especially true of most neighborhoods north of Victory Drive. These neighborhoods were developed in the 200+years of Savannah's history that predate the widespread use of automobiles. As such, most of these neighborhoods are both well-served by sidewalk facilities, and within walking distance of neighborhood-scale commercial uses. South of Victory Drive, and in East and West Chatham, development occurred in the automobile era, so development patters tend to be less dense, and mixed use development less common. Many neighborhoods in these areas have sidewalk facilities, but walking destinations such as commercial corridors, parks, schools, and neighborhood-scale shopping centers tend to be located farther away than in older parts of the city.

Bicycles are already a relatively popular mode of transportation in Savannah, especially in the downtown and the neighborhoods adjacent to it. The downtown's compact development pattern is well-suited to transportation via bicycle. In addition, the city's numerous squares serve as traffic-calming devices that help bicyclists and pedestrians alike feel more safe and comfortable on the street.

Figure 6.15: Transportation Amenity Corridors



Bicycles and the downtown are a natural fit, but increasing bicycle use outside of the downtown area will require more aggressive planning practices. There are currently some, but not many, dedicated bicycle lanes outside of the downtown core. Increasing both the prevalence and connectivity of bike lanes will help promote bicycle use outside of the downtown core. Figure 6.7, in sub-section 6.3 above, shows a map of proposed bikeways.

As discussed in Section 6.2, areas that are dense and walkable also tend to be better-suited to support public transit service, and this assertion is supported by the map of Public Transit Service Areas (see Figure 6.4). Public transit in areas with suburban densities and land use patterns is simply not as viable as it is in areas with more urban densities and land use patterns. One solution to this problem is to build denser suburbs, and the Amenity Community category on the Future Land Use Map will lead to new zoning that will allow denser development in new planned communities. But for suburban areas that are already built out at low densities, the primary solution to better transit service is to increase the use of park and ride lots. Park and ride facilities are able to overcome the limitations of low density development by providing a centralized facility from which to provide public transit service. As the county's population grows, and parking becomes more scarce and expensive downtown, park and ride lots will become an increasingly viable option in suburban areas. CORE MPO's report on the Park and Ride Lot Initiative recommends four new lot locations in addition to retention of three out of four existing lots. The full report is on the MPO's web pages at: <a href="http://www.thempc.org/Dept/ParkRide">http://www.thempc.org/Dept/ParkRide</a>.